GROSSMAN ADU CONVERSION

1115 HILL ST, SANTA MONICA, CA 90405

20ELD-3885
05/07/21

Gregory H Ginter
ARCHITECT
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Santa Monica, CA 90405
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PROPERTY INFORMATION	
Legal Information	
Address:	1115 Hill ST
PIN Number:	
Lot Area:	±6194.2607 SF
Assessor Parcel No.	4285-011-017
Lot:	52
Tract:	5217
Block:	
Thomas Brothers Grid:	
ARB:	
Parcel Map	
Jurisdictional Informaiton	
Community Plan Area:	
Area Planning Comm.	
Neighborhood Council	
Council District	
Census Tract	
LADBS District Off.	
FIRE DIV/BAT/DIST	
Zoning Information	
Special Notes	
Zoning:	R1
Zoning Information	
Plan Footnotes	
Specific Plan Area	
(E) Building Information	
(E) BLDG #1 AREA	1319 SF
UNITS	1
Stories	1
Occupancy	R3
Building Classification	TYPE VB - NO SPRINKLER
(E) BLDG #2 AREA	493 SF
UNITS	0
Stories	1
Occupancy	ACCESS TO R3
Building Classification	TYPE VB - NO SPRINKLER
(P) Building Information	
(P) BLDG #1 AREA	1319 SF NO CHANGE (1)
UNITS	1
Stories	1
Occupancy	R3
Building Classification	TYPE VB - NO SPRINKLER
(P) BLDG #2 AREA	493 SF NO CHANGE (1)
UNITS	1
Stories	1
Occupancy	R3
Building Classification	TYPE VB - NO SPRINKLER

DRAWING LIST	
ARCHITECTURAL	
A0.0	Plot Plan, Schedules., Notes & Dia.
A0.4	T24 Calculations
A0.5	T24 Calculations
A0.6	Green Building
A1.0	Site Plan
A2.1	Demo, Const, Electric Plan & RCP
A3.0	Exterior Elevations & Build Sections
A4.0	Interior Elevations
STRUCTURAL	
S-0.00	General Notes
S-0.10	Typical Concrete Details
S-0.20	Typical Wood Details
S-0.21	Typical Wood Details
S-2.00	Found, 1st Flr & Roof Framing Plans

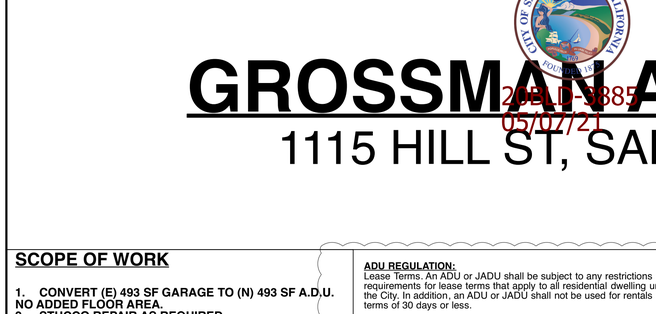
RESIDENTIAL FLOOR AREA ANALYSIS			
RFA	E	N	TOTAL
SFDU	1319	0	1319
ADU	493	0	493
TOTAL			1812

SCOPE OF WORK

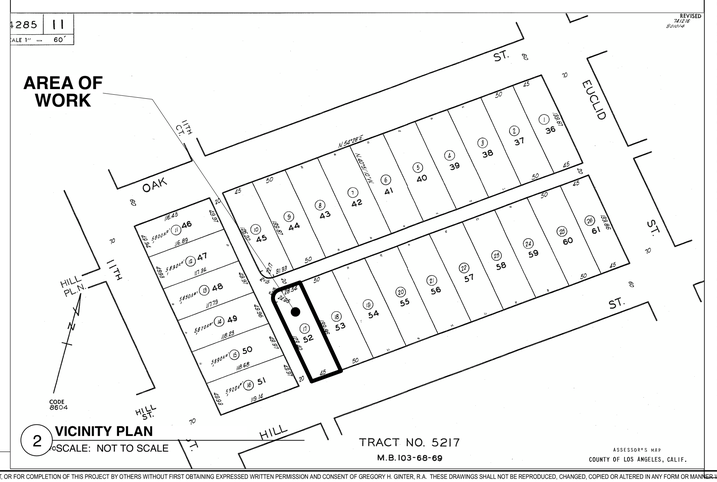
1. **CONVERT (E) 493 SF GARAGE TO (N) 493 SF A.D.U. NO ADDED FLOOR AREA.**
2. **STUCCO REPAIR AS REQUIRED.**
3. **(N) ELECTRICAL SUB-PANEL**
4. **(N) BATHROOM TO CONNECT TO (E) SEWER LINE.**
5. **(N) KITCHEN**
6. **(N) NON-LOAD BEARING PARTITIONS.**

ADU REGULATION:
Lease Terms. An ADU or JADU shall be subject to any restrictions or requirements for lease terms that apply to all residential dwelling units in the City. In addition, an ADU or JADU shall not be used for rentals of terms of 30 days or less.

Limitation on Separate Sale. No ADU or JADU may be sold separately from the parcel and the primary dwelling (in the case of a singel-unit dwelling) or from the parcel and all of the dwelling (in the case of of multiple unit dwelling). (1)



1 **INDEX MAP**
SCALE: NOT TO SCALE



2 **VICINITY PLAN**
SCALE: NOT TO SCALE

1. General Notes:
a. All work to be completed under the regulations of and shall comply with Title 24 and 2019 California Building Code (CBC), California Mechanical Code (CMC), California Plumbing Code (CPC), California Electrical Code (CEC), and California Energy Code (CEnC) and current editions of all local regulations including but not limited to:
City of Santa Monica Municipal Code
State of California Coastal Act.
b. All work to be completed by Contractors licensed by the State of California.

2. Demolition:
a. AQMD (Air Qulaity Management District) notification is required for projects involving demolition activity where asbestos containing material is present. Owner/General Contractor to contact AQMD at (909) 396-2336 or www.aqmd.gov and complete the required testing, forms and remove any asbestos containing material according to specified protocol.

3. **Smoke Detectors:** Provide hard-wired interconnected smoke detectors and carbon monoxide with battery backup & low battery signal. Smoke detectors are required in the following locations:
a. Each sleeping room
b. Centrally located in corridors giving access to each sleeping room
c. On each story of multistory dwelling and in basements.
d. In split-levels, detectors shall be installed on the upper level. If the lower level contains sleeping areas, then smoke detectors shall be installed on each level.
e. When sleeping areas are on the upper level, the detector shall be located in close proximity to the stairway.
Detectors shall sound an alarm audible in all sleeping areas of the dwelling.

4. **Mechanical Ventilation System:**
a. Provide a mechanical ventilation system in bathrooms containing a bathtub and/or shower, laundry rooms. Mechanical system must be capable of providing five air changes per hour and exhausting directly to the outside.
b. Duct Run Is Diagrametric Only.
c. Run All Ducts Hanging Structure And Between Joists.
d. Allow For Full Access Of Entire Basement.
e. Locate Air Handlers For Convenient Access To Filters.
f. Kitchen exhaust fan to be minimum of 100cfm and vented to outside per ASHRAE1 62.2 and table 7.1 [CEC 150(o)]
g. Provide whole-house mechanical ventilation system as per CMC. [R303.1 Except2]

5. **Exterior Doors, Windows & Exits:** Except for vehicular access doors, all exterior swinging doors of any residential building and attached garages, including the door leading from the garage area into the dwelling unit shall be equipped as follows:
a. All wood doors shall be of solid core construction with a minimum thickness of 1 3/4" or with panels not less than 9/16" thick. Swinging doors shall comply with Uniform Building Code Standard 10-5, Part I. Doors in pairs shall be tested in pairs.
b. A single or double door shall be equipped with a single cylinder deadbolt lock. This deadbolt lock must be actuated by a key from the exterior and a knob or thumb turn from the interior and when projected becomes locked against return by end pressure .The bolt shall have a minimum projection of 1" and be constructed so as to repel cutting tool attack. The deadbolt shall have an embedment of at least 3/4" into the strike receiving the projected bolt. The cylinder shall have a cylinder guard, a minimum of five pin tumblers and shall be connected to the inner portion of the lock by connecting screws of at least 1/4" in diameter. All installation shall be done so that the performance of the locking device will meet the intended anti-burglary requirements. A dual locking mechanism used so that both deadbolt and latch can be retracted by a single action of the inside door knob or lever may be substituted provided it meets all other specifications for locking devices.
c. The inactive leaf of double doors shall be equipped with metal flush bolts having a minimum embedment of 5/8" into the head and threshold of the doorframe.
d. Single-swinging doors and the active leaf of doors in pairs shall be equipped with an approved exterior key-operating deadbolt which has been tested in accordance with The Uniform Building Code Standard 10-5, part I. See chapter 10 of The California Building Code for requirements on door operation for exiting.
e. Glazing in exterior doors or within 40" of any locking mechanism shall be fully tempered glass or rated burglary-resistant glazing, except when double cylinder deadbolt locks with a key retaining feature are installed.
f. Except where clear vision panels are installed, all front exterior doors shall be equipped with a wide-angle (180 degrees) door viewer.
g. Thresholds at doorways shall not exceed 0.75 inch in height for sliding doors serving dwelling units or 0.5 inch for other doors. Raised thresholds and floor level changes greater than 0.25 inch at doorways shall be beveled with a slope not greater than one unit vertical in two units horizontal (50-percent slope). [1008.1.7].
h. At least one window in a sleeping area to comply with egress requirements. Maximum sill height of 44" AFF. Minimum width of 20" clear. Minimum height of 24" clear. Minimum opening of 5.7 sf clear. [310.9 CBC]
i. Locks as per SMMC 8.48.120 [1003.3.8 CBC]

6. **Street Numbers** and other identifying data shall be displayed as follows: All residential dwellings shall display a street number in a prominent location on both the street side of the residence and on the alley side of the property in such a position that the numbers are easily visible to approaching emergency vehicles. The numerals shall be no less than 4" in height and shall be of a contrasting color to the background to which they are attached.

7. Plumbing, Bathrooms & Water Conservation :
a. All hose bibs shall be fitted with non-removable back flow devices and shall be located 12" above the highest grade elevation.
b. Copper water lines if under the building shall be type "L", if above ground or below ground on the exterior of the building shall be type "M".
c. Showers and shower-tubs shall be provided with individual control valves of the pressure balance, thermostatic, or combination pressure balance/thermostatic mixing valve type that provide scald and thermal shock protection. [418 CPC}
d. Provide a permanently accessible 12" square bathtub trap access of note on plan that a non-slip-joint trap will be used. [404.2CPC}
e. Provide strapping for water heater Per DSA Guidelines. [510.5 CPC, SMMC 8.08.200].
f. Install a seismic gas shutoff valve as per [SMMC 8.32.070]
g. California licensed contractor to provide fire sprinklers throughout the house as per NFP-13R and [SMMC 8.44.050]:
h. Provide 72 inch high non-absorbent wall adjacent to shower and approved shatter-resistant materials for shower enclosure.
i. Install pressure balance and/or thermastatic mixing valves in all tubs and showers.
j. Maintain 30"wide clear space for water closet with 24" clear space in front of bowl.
k. Provide low flow toilets (1.6 gallon/flush) , showerheads (2.5 gpm) and faucets (2.5gpm) for all new construction.
l. Water heater shall be provided with temperature and pressure relief valves [505.6 CPC]. The relief valves shall be provided with a drain which extends from the valves to the outside of the building.
m. A removable panel for the whirlpool bathtub pump shall be located not more than 20' from the pump if through a crawl space. The panel shall be large enough to access and remove the pump. [414.1 CPC]
n. Tankless water heaters shall be nationally listed and be installed in accordance with the installation instructions that were approved as part of their listing. The gas piping serving this appliance must be sized in compliance with the water heater's listed installation instructions and the 2010 California Plumbing Code.

8. GUARDRAILS, STAIRS & HANDRAILS:
a. Handgrip portion of handrail is not to be less than 1 1/4" nor more than 2" in cross sectional and less than 3 1/2" of projection on each side. Trim, stringers and other projects not more than 1 1/2". [1003.3.6 & 1003.3.2 CBC]
b. Handrail projection space not less than 1 1/2" between the wall and the handrail. Handrail to have no sharp corners. [10003.3.6 CBC]
c. Openings located in handrails/guardrails shall not allow a 4" sphere to pass through the inner rails. [509.3 CBC]
d. The triangular opening formed by the risers and treads at the bottom rail of the guardrail and openings between treads on open risers shall not allow a 6" sphere to pass through. [509.3 CBC]
e. Treads must be a minimum of 9" and risers a minimum of 4" and a maximum 8".
f. The maximum variance for treads and risers over the entire run shall not exceed 3/8". [1003.3.3.3 CBC]
g. Headroom above stairs measured vertically from the plane parallel and tangent to the stair tread nosing to the soffit above at all points shall be 6'-8" for straight run stairs and 6'-6" for winders. [1003.3.3.4 CBC]
h. Handrail heights above the nosing of stairs shall be 34"-38". [1003.3.3.6 CBC]
i. Guardrail required for all floors that are greater than 30" height above the adjacent floor level. [106.2.7 & 509.1 CBC]
j. Guardrails in single family residences and individual units in multifamily residences shall be 36" AFF. All other guardrails shall be 42" AFF. [509.2 CBC]

9. INTERIOR ENVIRONMENT:
a. For all habitable rooms including basement, artificial light shall be provided that adequate to provide an average illumination of 10 (CRC 6) foot-candles over the area of the room at a height of 30 inches above the floor level.[1205.3, R303.1Except 2]

10. ELECTRICAL:
a. Listed arc-fault circuit interrupter combination type protection are required for all outlets (not just receptacles) for dwelling unit bedrooms, family rooms, dining rooms, living rooms, parlors, libraries, dens, sunrooms, recreation rooms, closets, hallways, or similar rooms or areas. [210.12 CEC]
b. Branch circuit overcurrent devices (fuses and breakers) shall not be located where they will be exposed to physical damage, in the vicinity of easily ignitable materials, such as in clothes closet, bath, or toilet room. [240.24 CEC]
c. A minimum of two 20 amp small appliance branch circuits shall be provided for all receptacle outlets in the kitchen, dining room, pantry, breakfast room or other similar areas [210.11(C)(1) CEC] [210.52(B)(1)(2)(3)]
d. At least one 20 amp branch circuit shall be provided to supply laundry receptacle outlets. Such circuits shall have no other outlets. [210.11(C)(2) CEC]
e. At least one 20 amp branch circuit shall be provided to supply bathroom receptacle outlets. Such circuits shall have no other outlets. [210.11(C)(3) CEC]
f. Provide electrical recepticles as per CEC [210.52]
g. All lighting measures to meet Mandatory Methods specified on Title 24 Calcs MF-1R.
h. Grounding method to be determined by CA Licensed Electrician as per CEC [250.24]

11. Energy Notes:

a. All pressure-sensitive tapes, mastics, aerosol sealants, or other closure systems used for installing field-fabricated duct systems shall meet the applicable requirements of UL181, UL181A or UL 181B" [124(b)(2) CEnC]
b. The supply heating and cooling energy to each space-conditioning zone or dwelling unit shall be controlled by an individual thermostatic control that responds to temperature within the zone. [122(a) CEnC]
c. Luminaries recessed into insulated ceilings shall be approved for zero clearance insulation contact (IC) by the Underwriters Laboratories or other recognized testing/rating laboratory and shall include a label certifying air tight to show air leakage less than 2.0 CFM at 75 Pascals(1.75 #/sf) when tested in accordance with ASTM E 283 and shall be sealed with a gasket or caulk between the housing and ceiling.[150(k)(12)
d. The first 5 feet of hot and cold water pipes from the storage tank for non-recirculating systems shall be thermally insulated with a minimum of 1" (.75") thick insulation for hot (cold) water pipes with a diameter less than or equal to 2 inches or 1.5" (1") for hot (cold) water pipes with a diameter greater than 2 inches. [150(j)2) CEnC]
e. For installation of fireplaces, decorative gas appliances and gas logs: If a masonry or factory built fireplace is installed, it shall have the following:
a) Closable metal or glass door covering the entire opening of the fire box;
b) A combustion air intake to draw air from the outside of the building directly into the firebox with a minimum 6 sq inch in area a tight fitting damper or combustion -air control device, for exception see 150(e)1B
c) A flue damper with a readily accessible control
f. Joints and other openings in the building envelope that are potential sources of air leakage shall be caulked, gasketed, weather-stripped or otherwise sealed to limit infiltration and exfiltration. [117 CEnC]

12. CALGreen Notes:
a. Seal joints and openings in the building envelope between conditioned and unconditioned spaces [4.406.1 CGBSC]
b. Develop an operation and maintenance manual to be supplied to owner at final inspection [4.410.1 CGBSC]
c. All fireplaces are direct vent sealed combustion gas [4.503.1 CGBSC]
d. Protection and covering of duct openings shall be provided during storage and construction [4.504.1 CGBSC] 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 [4.505.3 CGBSC]
e. Moisture content must be verified in compliance with all of the following: 1) Moisture content must be determined with either a probe-type or contact type moisture meter. 2) Moisture readings shall be taken at a point 2 to 4 feet from the grade stamped end to be verified; 3) At least three random moisture readings shall be performed on wall and floor framing with documentation to enclose the wall and floor framing
f. Bathroom exhaust fans must be ENERGY STAR and be ducted to terminate outside of building, and 50 CFM. Unless the fan is part of a whole house ventilation system, it must be controlled by a readily accessible humidistat which ranges from 50 to 80 percent relative humidity range [CMC T4-4, 4.506.1 CGBSC]
g. HVAC system must be sized and designed with ACCA manuals J, D, and S. [4.507.2 CGBSC]
h. Pipe insulation on all exposed and accessible hot water pipes connected to a new water heater per the California Energy Code. [SMMC 8.106.055, 8.106.180]
i. Low VOC adhesives, sealants, paints, coatings, carpet systems, low formaldehyde wood, low VOC resilient flooring [4.504.2 CGBSC] Save spec sheets readily available and subject to verification during field inspection; product specifications and containers must be available.
j. All new plumbing fixtures installed in new and existing buildings shall meet the 20% water use reduction. [SMMC 8.106.057, 8.106.190] If there are multiple showerheads in one shower, they must meet the single fixture flow rate [4.303.2] When single shower fixtures are served by more than one showerhead, the combined flow rate of all showerheads shall not exceed the max flow rates specified in Table 4.303.2 (20% reduction, 2.0 gpm avg)
a) Showerheads Maximum flow rate 2 gpm @ 80 psi
b) Lavatory faucets flow rate between of 1.5-0.8 gpm @ 60-20 psi
c) Water Closets 1.28 gallons/effective flush
k. Plumbing fittings and fixtures to meeet standards in CAL Green table 4.303.3 CBSC [4.303.3]

CONSULTANTS
STRUCTURAL ENGINEER
GENERAL CONTRACTOR
SOILS ENGINEER
LOW VOLTAGE
MEP ENGINEER
SURVEYOR
OWNER
Chris Druckman

DRAWING SYMBOLS			
SECTION		CENTER LINE	
DETAIL		CONST. ABOVE	
ELEVATION		CONST. BELOW	
ELEVATION		PROPERTY LINE	
INDICATOR		MATERIAL DIRECTION	
DOOR #		WATER LINE	H20
WIND. #		GAS LINE	G
CABINET		SANITARY WASTE	SW
ALIGNMENT	A	PERFORATED PIPE	PP
HOSE BIB	HB	STORM DRAIN	SD
HOSE BIB		UTILITY LINE	E/LV
W/HH SPRAY	HHS	ELECTRIC & DATA	
GAS			

SUPPLY DUCT	S
SUPPLY GRILL	S
RETURN DUCT	R
RETURN GRILL	R
AIR EXCHANGE DUCT	AE
AIR EXCHANGE GRILL	AE
WASTE STACK	WS
LEADER DRAIN	LD
FLR DRAIN	FD
VENT STACK	VS
SMOKE & CO DECTECTI	CLG Elev AFF

WALL TYPES	
	FOUNDATION WALL See Wall Sections & Details For Details
	EXTERIOR WALL 2X6 WD Studs @ 16" O/C W/ Thermal Insulation
	INTERIOR PARTITION 2x6 WD Studs @ 16" O/C W/5/8" GYP BD EA Side &Sound Attenuation Blkt
	1 HR FR WALL 2x6 WD Studs @ 16" O/C W/5/8" Type X GYP BD EA Side As Per Manf. Specs. &Sound Attenuation Blkt UL Listing #U344 See Dtl #2/A0.0
ROOM Flr Finish	Construction Plan
ROOM	Reflected CLG Plan

ABBREVIATIONS

ABV	Above	DWG	Drawing	HHS	Hand Held Shower	REF	Refrigerant, Refrigerator
AC	Air Conditioner	DWR	Drawer	HM	Hollow Metal	RNF	Reinforced
ASPH	Asphault	E	Electric	HP	Heat Pump	RQD	Required
ACT	Active	EA	Each	IM	Ice Maker	RM	Room
AD	Access Door	EL, ELEV	Elevation	INSL	Insulation	RO	Rough Opening
ADJ	Adjustable	EM	Electric Meter	JMB	Jamb	SK	Sink
AFF	Above Finish Floor	EP	Electric Panel	L, LAV	Lavatory	SC	Self-closing
AH	Air Handler	EQ	Equal	JS	Jamb Switch	SL	Self-latching
AP	Access Panel	EQUIP	Equipment	MAH	Mahogany	SD	Shower, Storm Drain
BALC	Balcony	EX, EXIST	Existing	MC	Medicine Cabinet	SIM	Similar
BD	Board	EXP	Exposed	MECH	Mechanical	SWR	Shower
BO	Bottom Of	EXT	Exterior	MIN	Minimum	SS	Stainless Steel
BRG	Bearing	FD	Floor Drain	MFD	Manifold	SW	Sanitary Waste
BRK	Brick	FAI	Fresh Air Intake	MO	Masonry Opening	T	Toilet
BDT	Bidet	FC	Fan Coil Unit	MTD	Mounted	TB	Towel Bar
BTM	Bottom	FF	Finish Floor	MTL	Metal	TC	Top of Curb
CAB	Cabinet	FIN	Finish	NAT	Natural	TEL	Telephone
CBU	Cement Backer Unit	FLR	Floor	NIC	Not In Contract	TO	Top Of
CL, CLOS	Closet	FL	Flow Line	O/C	On Center	TP	Toilet Paper Holder
CLG	Ceiling	FN	Fence	OFE	Owner Furnished Equipment	TR	Towel Ring
CMU	Concrete Masonry Unit	FO	Finished Opening	OF&IE	Owner Furnished & Installed Equipment	TRANS	Transparent
CTR	Counter	FPSC	Fire Proof Self-Closing			TYP	Typical
CL	Center Line	FTG	Footing	OPH	Opposite Hand	UON	Unless Otherwise Noted
CLR	Clear	FT	Feet	ORD	Overflow Roof Drain	V	Vent
Conc	Concrete	G	Gas	PLAM	Plastic Laminate	VCT	Vinyl Composition Tile
CT	Ceramic Tile	GM	Gas Meter	PLY	Plywood	VIF	Verify In Field
CTV	Cable Television	GALV	Galvanized	POP	Poplar	VS	Vent Stack
CU	Condensing Unit	GC	General Contractor	PP	Power Pole	W	Washer
D	Dryer	GR	Grade	PT	Pressure Treated	WC	Water Closet
DH	Double Hung	GS	Gas Supply (Riser)	PTD	Painted	WD	Wood
DIM	Dimension	GYP BD	Gypsum Wall Board	PVC	Polyvinyl Chloride	WDWK	Wood Work
DR HD	Door Head	GWB	Gypsum Wall Board	R&S	Rod & Shelf	WH	Window Head
DTL	Detail	H2O	Water	RAD	Radiator	WM	Water Meter
DW	Dishwasher	HD	Head	RBJ	Run Between Joists	WO	Wall Oven
		HB	Hose Bib	RD	Roof Drain	WS	Waste Stack

COMMENTS	DATE	ISSUED
For PERMIT	09-08-20	SM B&S
For PERMIT	01-20-21	SM B&S

GROSSMAN ADU CONVERSION
1115 HILL ST, SANTA MONICA, CA 90405

Drawing Title
DRAWING LIST/ NOTES
ZONING ANALYSIS & DIAGRAMS

Scale

LICENSED ARCHITECT GREGORY H. GINTER C-30596 11-30-2021 STATE OF CALIFORNIA

A0.0

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GENERAL INFORMATION					
01	**Project Name**	Residential Building			
02	**Run Title**	Title 24 Analysis			
03	**Project Location**	1115 Hill Street			
04	**City**	Santa Monica	05	**Standards Version**	2019
06	**Zip code**	90405	07	**Software Version**	EnergyPro 8.1
08	**Climate Zone**	6	09	**Front Orientation (deg/ Cardinal)**	135
10	**Building Type**	Single family	11	**Number of Dwelling Units**	1
12	**Project Scope**	AdditionOnly	13	**Number of Bedrooms**	4
14	**Addition Cond. Floor Area (ft^2)**	493	15	**Number of Stories**	1
16	**Existing Cond. Floor Area (ft^2)**	1319	17	**Fenestration Average U-factor**	0.54
18	**Total Cond. Floor Area (ft^2)**	1812	19	**Glazing Percentage (%)**	28.43%
20	**ADU Bedroom Count**	1	21	**ADU Conditioned Floor Area**	493
22	**Is Natural Gas Available?**	No			

Addition Alone Project Analysis Parameters

01	02	03	04	05	06
Existing Area (excl. new addition) (ft2)	**Addition Area (excl. existing) (ft2)**	**Total Area (ft2)**	**Existing Bedrooms**	**Addition Bedrooms**	**Total Bedrooms**
1319	493	1812	3	1	4

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

ENERGY USE SUMMARY

Energy Use (kTD/ft^2-yr)	Standard Design	Proposed Design	Compliance Margin	Percent Improvement
Space Heating	10.27	13.17	-2.9	-28.2
Space Cooling	11.96	23.22	-11.26	-94.1
IAQ Ventilation	3.58	3.58	0	0
Water Heating	82.02	65.83	16.19	19.7
Self Utilization Credit	n/a	0	0	n/a
Compliance Energy Total	**107.83**	**105.8**	**2.03**	**1.9**

REQUIRED SPECIAL FEATURES

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

- Northwest Energy Efficiency Alliance (NEEA) rated heat pump water heater; specific brand/model, or equivalent, must be installed

HERS FEATURE SUMMARY

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

Building-level Verifications:
- Indoor air quality ventilation
- Kitchen range hood

Cooling System Verifications:
- -- None --

Heating System Verifications:
- -- None --

HVAC Distribution System Verifications:
- -- None --

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

ZONE INFORMATION

01	02	03	04	05	06	07
Zone Name	**Zone Type**	**HVAC System Name**	**Zone Floor Area (ft^2)**	**Avg. Ceiling Height**	**Water Heating System 1**	**Water Heating System 2**
First Floor	Conditioned	HVAC System1	493	10.3	DHW Sys 1	N/A

OPAQUE SURFACES

01	02	03	04	05	06	07	08	09	10
Name	**Zone**	**Construction**	**Azimuth**	**Orientation**	**Gross Area (ft^2)**	**Window and Door Area (ft2)**	**Tilt (deg)**	**Wall Exceptions**	**Status**
Front Wall	First Floor	R-15 Wall	135	Front	210.3	87	90	Ex. w/ Siding	New
Left Wall	First Floor	R-15 Wall	225	Left	176	13.5	90	Ex. w/ Siding	New
Rear Wall	First Floor	R-15 Wall	315	Back	210.3	10.3	90	Ex. w/ Siding	New
Right Wall	First Floor	R-15 Wall	45	Right	176	19.1	90	Ex. w/ Siding	New

OPAQUE SURFACES - CATHEDRAL CEILINGS

01	02	03	04	05	06	07	08	09	10	11
Name	**Zone**	**Construction**	**Azimuth**	**Orientation**	**Area (ft^2)**	**Skylight Area (ft^2)**	**Roof Rise (x in 12)**	**Roof Reflectance**	**Roof Emittance**	**Cool Roof**
Roof	First Floor	R-30 Roof No Attic	180	Back	493	10.25	5	0.1	0.85	No

FENESTRATION / GLAZING

01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	**Type**	**Surface**	**Orientation**	**Azimuth**	**Width (ft)**	**Height (ft)**	**Mult.**	**Area (ft^2)**	**U-factor**	**U-factor Source**	**SHGC**	**SHGC Source**	**Exterior Shading**
Window	Window	Front Wall	Front	135			1	87	0.54	NFRC	0.45	NFRC	Bug Screen
Window 2	Window	Left Wall	Left	225			1	13.5	0.54	NFRC	0.45	NFRC	Bug Screen
Window 3	Window	Rear Wall	Back	315			1	10.3	0.54	NFRC	0.45	NFRC	Bug Screen
Window 4	Window	Right Wall	Right	45			1	19.1	0.54	NFRC	0.45	NFRC	Bug Screen
Skylight	Skylight	Roof	Back	315			1	10.25	0.48	NFRC	0.37	NFRC	None

SLAB FLOORS

01	02	03	04	05	06	07
Name	**Zone**	**Area (ft2)**	**Perimeter (ft)**	**Edge Insul. R-value and Depth**	**Carpeted Fraction**	**Heated**
Slab	First Floor	493	90	None	80%	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**
R-15 Wall	Exterior Walls	Wood Framed Wall	2x4 @ 16 in. O. C.	R-15	None / None	0.095	Inside Finish: Gypsum Board Cavity / Frame: R-15 / 2x4 Exterior Finish: 3 Coat Stucco
R-30 Roof No Attic	Cathedral Ceilings	Wood Framed Ceiling	2x6 @ 24 in. O. C.	R-30	None / None	0.038	Roofing: Light Roof (Asphalt Shingle) Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: R-30 / 2x6 Inside Finish: Gypsum Board

BUILDING ENVELOPE - HERS VERIFICATION

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

WATER HEATING SYSTEMS

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

WATER HEATERS

01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	**Heating Element Type**	**Tank Type**	**# Units**	**Tank Vol. (gal)**	**Energy Factor or Efficiency**	**Input Rating or Pilot**	**Tank Insulation R-value (Int/Ext)**	**Standby Loss or Recovery Eff.**	**1st Hr. Rating or Flow Rate**	**NEEA Heat Pump Brand or Model**	**Tank Location or Ambient Condition**	**Status**	**Verified Existing Condition**
DHW Heater 1	Heat Pump		1	50	-NEEA	<= 12 kW	n/a	n/a	80\	AOSmith\	Outside	New	n/a

WATER HEATING - HERS VERIFICATION

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

SPACE CONDITIONING SYSTEMS

01	02	03	04	05	06	07	08	09	10	11
Name	**System Type**	**Heating Unit Name**	**Cooling Unit Name**	**Fan Name**	**Distribution Name**	**Required Thermostat Type**	**Status**	**Verified Existing Condition**	**Heating Equipment Count**	**Cooling Equipment Count**
HVAC System1	Heat pump heating cooling	Heat Pump System 1	Heat Pump System 1			Setback	New	NA	1	1

HVAC - HEAT PUMPS

01	02	03	04	05	06	07	08	09	10	11
Name	**System Type**	**Number of Units**	**Heating**			**Cooling**		**Zonally Controlled**	**Compressor Type**	**HERS Verification**
			HSPF/COP	**Cap 47**	**Cap 17**	**SEER**	**EER**			
Heat Pump System 1	Ductless MiniSplit HP	1	8.5	9000	7200	14	11	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**	**Verified SEER**	**Verified Refrigerant Charge**	**Verified HSPF**	**Verified Heating Cap 47**	**Verified Heating Cap 17**
Heat Pump System 1-hers-htpump	Not Required	0	Not Required	Not Required	No	No	No	No

IAQ (INDOOR AIR QUALITY) FANS

01	02	03	04	05	06
Dwelling Unit	**IAQ CFM**	**IAQ Watts/CFM**	**IAQ Fan Type**	**IAQ Recovery Effectiveness (%)**	**IAQ Recovery Effectiveness - SREIAQ Recovery Effectiveness - SRE**
SFam ADU IAQVentRpt	30	0.25	Default	0	n/a

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

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

Documentation Author Name: Mario Bertacco	Documentation Author Signature: Mario Bertacco
Company: NRG Compliance LP	Signature Date: 09/30/2020
Address: PO Box 3777	CEA/ HERS Certification Identification (If applicable):
City/State/Zip: Santa Rosa, CA 95402	Phone: 707-237-6957

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: Gregory Ginter	Responsible Designer Signature: Gregory Ginter
Company: Gregory H Ginter Architect	Date Signed: 09/30/2020
Address: 1525 Pearl St	License:
City/State/Zip: Santa Monica, CA 90405	Phone: (310) 314-1984

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

CITY OF SANTA MONICA · CALIFORNIA · FOUNDED 1875
20BLD-3885
05/07/21

Gregory H Ginter
ARCHITECT
1525 Pearl Street
Santa Monica, CA 90405
(Tel) 310-314-1984
greg@ghginarch.com

PLAN NORTH

COMMENTS
For PERMIT

DATE
09-08-20

ISSUED
SM B&S

GROSSMAN ADU CONVERSION
1115 HILL ST, SANTA MONICA, CA 90405

Scale

Drawing Title
TITLE 24

LICENSED ARCHITECT GREGORY H GINTER C-30986 11-30-2021 Renewal Date STATE OF CALIFORNIA

A0.4

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RESIDENTIAL MEASURES SUMMARY — RMS-1

Project Name	Building Type		Date
Grossman, Ofer ADU	☑ Single Family ☐ Multi Family	☑ Addition Alone ☐ Existing+ Addition/Alteration	9/30/2020

Project Address	California Energy Climate Zone	Total Cond. Floor Area	Addition	# of Units
1115 Hill Street Santa Monica	CA Climate Zone 06	493	493	1

INSULATION

Construction	Type	Cavity	Area (ft^2)	Special Features	Status
Wall	Wood Framed	R 15	123		New
Wall	Wood Framed	R 15	163		New
Wall	Wood Framed	R 15	200		New
Wall	Wood Framed	R 15	157		New
Roof	Wood Framed Rafter	R 30	483		New
Slab	Unheated Slab-on-Grade	- no insulation	493	Perim = 90'	New

FENESTRATION

Total Area: 140 | Glazing Percentage: 28.4 % | New/Altered Average U-Factor: 0.54

Orientation	Area (ft^2)	U-Fac	SHGC	Overhang	Sidefins	Exterior Shades	Status
Front (SE)	87.0	0.540	0.45	none	none	N/A	New
Left (SW)	13.5	0.540	0.45	none	none	N/A	New
Rear (NW)	10.3	0.540	0.45	none	none	N/A	New
Right (NE)	19.1	0.540	0.45	none	none	N/A	New
Skylight	10.3	0.480	0.37	none	none	N/A	New

HVAC SYSTEMS

Qty.	Heating	Min. Eff	Cooling	Min. Eff	Thermostat	Status
1	Split Heat Pump	8.50 HSPF	Split Heat Pump	14.0 SEER	Setback	New

HVAC DISTRIBUTION

Location	Heating	Cooling	Duct Location	Duct R-Value	Status
HVAC System	Ductless / with Fan	Ductless	n/a	n/a	New

WATER HEATING

Qty.	Type	Gallons	Min. Eff	Distribution	Status
1	CECDHWType_LHP	50	2.90	Standard	New

2019 Low-Rise Residential Mandatory Measures Summary

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

2019 Low-Rise Residential Mandatory Measures Summary

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

2019 Low-Rise Residential Mandatory Measures Summary

§ 150.0(h)3A:	**Clearances.** Air conditioner and heat pump outdoor condensing units must have a clearance of at least five feet from the outlet of any dryer
§ 150.0(h)3B:	**Liquid Line Drier.** Air conditioners and heat pump systems must be equipped with liquid line filter driers if required, as specified by the manufacturer's instructions.
§ 150.0(j)1:	**Storage Tank Insulation.** Unfired hot water tanks, such as storage tanks and backup storage tanks for solar water-heating systems, must have a minimum of R-12 external insulation or R-16 internal insulation where the internal insulation R-value is indicated on the exterior of the tank.
§ 150.0(j)2A:	**Water Piping, Solar Water-heating System Piping, and Space Conditioning System Line Insulation.** All domestic hot water piping must be insulated as specified in Section 609.11 of the California Plumbing Code. In addition, the following piping conditions must have a minimum insulation wall thickness of one inch or a minimum insulation R-value of 7.7: the first five feet of cold water pipes from the storage tank; all hot water piping with a nominal diameter equal to or greater than 3/4 inch and less than one inch; all hot water piping with a nominal diameter less than 3/4 inch that is: associated with a domestic hot water recirculation system, from the heating source to storage tank or between tanks, buried below grade, and from the heating source to kitchen fixtures.*
§ 150.0(j)3:	**Insulation Protection.** Piping insulation must be protected from damage, including that due to sunlight, moisture, equipment maintenance, and wind as required by Section 120.3(b). Insulation exposed to weather must be water retardant and protected from UV light (no adhesive tapes). Insulation covering chilled water piping and refrigerant suction piping located outside the conditioned space must include, or be protected by, a Class I or Class II vapor retarder. Pipe insulation buried below grade must be installed in a waterproof and non-crushable casing or sleeve.
§ 150.0(n)1:	**Gas or Propane Water Heating Systems.** Systems using gas or propane water heaters to serve individual dwelling units must include all of the following: A dedicated 125 volt, 20 amp electrical receptacle connected to the electric panel with a 120/240 volt 3 conductor, 10 AWG copper branch circuit, within three feet of the water heater without obstruction. Both ends of the unused conductor must be labeled with the word "spare" and be electrically isolated. Have a reserved single pole circuit breaker space in the electrical panel adjacent to the circuit breaker for the branch circuit and labeled with the words "Future 240V Use"; a Category III or IV vent, or a Type B vent with straight pipe between the outside termination and the space where the water heater is installed; a condensate drain that is no more than two inches higher than the base of the water heater, and allows natural draining without pump assistance; and a gas supply line with a capacity of at least 200,000 Btu per hour.
§ 150.0(n)2:	**Recirculating Loops.** Recirculating loops serving multiple dwelling units must meet the requirements of § 110.3(c)5.
§ 150.0(n)3:	**Solar Water-heating Systems.** Solar water-heating systems and collectors must be certified and rated by the Solar Rating and Certification Corporation (SRCC), the International Association of Plumbing and Mechanical Officials, Research and Testing (IAPMO R&T), or by a listing agency that is approved by the Executive Director.
Ducts and Fans Measures:	
§ 110.8(d)3:	**Ducts.** Insulation installed on an existing space-conditioning duct must comply with § 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 the requirements of the CMC §§ 601.0, 602.0, 603.0, 604.0, 605.0 and ANSI/SMACNA-006-2006 HVAC Duct Construction Standards Metal and Flexible 3rd Edition. Portions of supply-air and return-air ducts and plenums must be insulated to a minimum installed level of R-6.0 or a minimum installed level of R-4.2 when ducts are entirely in conditioned space as confirmed through field verification and diagnostic testing (RA3.1.4.3.8). Portions of the duct system completely exposed and surrounded by directly conditioned space are not required to be insulated. Connections of metal ducts and inner core of flexible ducts must be mechanically fastened. Openings must be sealed with mastic, tape, or other duct-closure system that meets the applicable requirements of UL 181, UL 181A, or UL 181B or aerosol sealant that meets the requirements of UL 723. If mastic or tape is used to seal openings greater than ¼ inch, the combination of mastic and either mesh or tape must be used. Building cavities, support platforms for air handlers, and plenums designed or constructed with materials other than sealed sheet metal, duct board or flexible duct must not be used to convey conditioned air. Building cavities and support platforms may contain ducts. Ducts installed in cavities and support platforms must not be compressed to cause reductions in the cross-sectional area.'
§ 150.0(m)2:	**Factory-Fabricated Duct Systems.** Factory-fabricated duct systems must comply with applicable requirements for duct construction, connections, and closures; joints and seams of duct systems and their components must not be sealed with cloth back rubber adhesive duct tapes unless such tape is used in combination with mastic and draw bands.
§ 150.0(m)3:	**Field-Fabricated Duct Systems.** Field-fabricated duct systems must comply with applicable requirements for: pressure-sensitive tapes, mastics, sealants, and other requirements specified for duct construction.
§ 150.0(m)7:	**Backdraft Damper.** Fan systems that exchange air between the conditioned space and outdoors must have backdraft or automatic dampers.
§ 150.0(m)8:	**Gravity Ventilation Dampers.** Gravity ventilating systems serving conditioned space must have either automatic or readily accessible, manually operated dampers in all openings to the outside, except combustion inlet and outlet air openings and elevator shaft vents.
§ 150.0(m)9:	**Protection of Insulation.** Insulation must be protected from damage, sunlight, moisture, equipment maintenance, and wind. Insulation exposed to weather must be suitable for outdoor service. For example, protected by aluminum, sheet metal, painted canvas, or plastic cover. Cellular foam insulation must be protected as above or painted with a coating that is water retardant and provides shielding from solar radiation.
§ 150.0(m)10:	**Porous Inner Core Flex Duct.** Porous inner core flex ducts must have a non-porous layer between the inner core and outer vapor barrier.
§ 150.0(m)11:	**Duct System Sealing and Leakage Test.** When space conditioning systems use forced air duct systems to supply conditioned air to an occupiable space, the ducts must be sealed and duct leakage tested, as confirmed through field verification and diagnostic testing, in accordance with § 150.0(m)11 and Reference Residential Appendix RA3.
§ 150.0(m)12:	**Air Filtration.** Space conditioning systems with ducts exceeding 10 feet and the supply side of ventilation systems must have MERV 13 or equivalent filters. Filters for space conditioning systems must have a two inch depth or can be one inch if sized per Equation 150.0-A. Pressure drops and labeling must meet the requirements in §150.0(m)12. Filters must be accessible for regular service.*
§ 150.0(m)13:	**Space Conditioning System Airflow Rate and Fan Efficacy.** Space conditioning systems that use ducts to supply cooling must have a hole for the placement of a static pressure probe, or a permanently installed static pressure probe in the supply plenum. Airflow must be ≥ 350 CFM per ton of nominal cooling capacity, and an air-handling unit fan efficacy ≤ 0.45 watts per CFM for gas furnace air handlers and ≤ 0.58 watts per CFM for all others. Small duct high velocity systems must provide an airflow ≥ 250 CFM per ton of nominal cooling capacity, and an air-handling unit fan efficacy ≤ 0.62 watts per CFM. Field verification testing is required in accordance with Reference Residential Appendix RA3.3.*

HVAC SYSTEM HEATING AND COOLING LOADS SUMMARY

Project Name		Date
Grossman, Ofer ADU		9/30/2020
System Name		Floor Area
HVAC System		493

ENGINEERING CHECKS

Number of Systems	1
Heating System	
Output per System	9,000
Total Output (Btuh)	9,000
Output (Btuh/sqft)	18.3
Cooling System	
Output per System	9,000
Total Output (Btuh)	9,000
Total Output (Tons)	0.8
Total Output (Btuh/sqft)	18.3
Total Output (sqft/Ton)	657.3
Air System	
CFM per System	0
Airflow (cfm)	0
Airflow (cfm/sqft)	0.00
Airflow (cfm/Ton)	0.0
Outside Air (%)	0.0 %
Outside Air (cfm/sqft)	0.00

SYSTEM LOAD

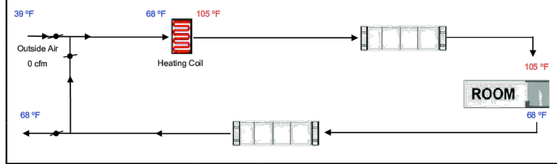
	COIL COOLING PEAK CFM	COIL COOLING PEAK Sensible	COIL COOLING PEAK Latent	COIL HTG. PEAK CFM	COIL HTG. PEAK Sensible
Total Room Loads	362	7,822	327	174	6,932
Return Vented Lighting		0			0
Return Air Ducts		0			0
Return Fan		0			0
Ventilation	0	0	0	0	0
Supply Fan		0			0
Supply Air Ducts		0			0
TOTAL SYSTEM LOAD		7,822	327		6,932

HVAC EQUIPMENT SELECTION

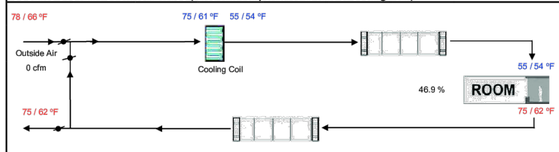
Ductless Mini Split Heat Pump	8,980	0		7,697
Total Adjusted System Output (Adjusted for Peak Design conditions)	8,980	0		7,697
TIME OF SYSTEM PEAK		Aug 3 PM		Jan 1 AM

Note: values above given at ARI conditions

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



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



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ISSUED	DATE
SM B&S	09-06-20

COMMENTS
For PERMIT

PLAN NORTH

Scale

GROSSMAN ADU CONVERSION
1115 HILL ST, SANTA MONICA, CA 90405

Drawing Title
TITLE 24

LICENSED ARCHITECT GREGORY H GINTER C-30986 11-30-2021 STATE OF CALIFORNIA

A0.5

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City of Santa Monica

Green Building Notes Residential Building 2019 Green Building Standards Code

Eff. 1-1-20

1. The mandatory provisions of Chapter 4 shall be applied to additions or alterations of existing residential buildings. The requirements shall apply only to and/or within the specific area of the addition or alteration. (SMMC 8.106.053)

2. New one- and two-family dwellings and town-houses with all types of parking facilities. If residential parking is available, for each dwelling unit for which a parking space is available, for all types of parking facilities, install a listed raceway to accommodate a dedicated 208/240-volt branch circuit. The raceway shall not be less than trade size 1 (nominal 1-inch inside diameter). The raceway shall originate at the main service or subpanel and shall terminate into a listed cabinet, box or other enclosure in close proximity to the proposed location of an EV charger. Raceways are required to be continuous at enclosed, inaccessible or concealed areas and spaces. The service panel and/or subpanel shall provide a 40-ampere minimum dedicated branch circuit and a branch circuit overcurrent protective device. SMMC 8.106.110 (4.106.4)

3. New multifamily dwellings. If residential parking is available, ten (10) percent of the total number of parking spaces on a building site, provided for all types of parking facilities, shall be electric vehicle charging spaces (EV spaces) equipped with EV chargers. Calculations for the required number of EV spaces equipped with EV chargers shall be rounded up to the nearest whole number. SMMC 8.103.110 (4.106.4.2) Notes: Construction documents are intended to demonstrate the project's capability and capacity for facilitating future EV charging.

4. The flow rates for all plumbing fixtures shall comply with the maximum flow rates in Section 4.303.1. (4.303.1)

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

6. Annular spaces around pipes, electric cables, conduits, or other openings in the sole/bottom plate at exterior walls shall be protected against the passage of rodents by closing such openings with cement mortar, concrete masonry, or metal plates. (4.406.1)

7. Compliance with the adopted Water-Efficient Landscape and Irrigation Standards will be required for new development projects (SMMC 8.108.100)

8. For all new equipment, an Operation and Maintenance Manual including, at a minimum, the items listed in Section 4.410.1, shall be completed, and placed in the building at the time of final inspection. (4.410.1)

9. All new gas fireplaces must be direct-vent, sealed combustion type. Wood burning fireplaces are prohibited per AQMD Rule 445. (4.503.1, AQMD Rule 445)

10. All duct and other related air distribution component openings shall be covered with tape, plastic, or sheet metal until the final startup of the heating, cooling and ventilating equipment. (4.504.1)

11. Only a City of Santa Monica certified hauler will be used for hauling of construction waste. (4.408.1, SMMC 8.108)

12. Architectural paints and coatings, adhesives, caulks and sealants shall comply with the Volatile Organic Compound (VOC) limits listed in Tables 4.504.1-4.504.3. The *VOC Content Verification Checklist* shall be completed and verified prior to final inspection approval. The manufacturer's specifications showing VOC content for all applicable products shall be readily available at the job site and be provided to the field inspector for verification. (4.504.2.1-4.504.2.4)

13. All new carpet installed in the building interior shall meet the testing and product requirements of one of the following:
a. Carpet and Rug Institute's Green Label Plus Program
b. California Department of Public Health's Specification 01350
c. Scientific Certifications Systems Indoor Advantage™ Gold
d. NSF/ANSI 140 at the Gold level (4.504.3)

14. All new carpet cushion installed in the building interior shall meet the requirements of the Carpet and Rug Institute Green Label program. (4.504.3.1)

15. 80% of the total area receiving resilient flooring shall comply with one or more of the following:
a. VOC emission limits defined in the CHPS High Performance Products Database
b. Products certified under UL GREENGUARD GOLD
c. Meet the California Department of Public Health's Specification 01350
d. Certification under the Resilient Floor Covering Institute (RFCI) FloorScore program (4.504.4)

16. New hardwood plywood, particle board, and medium density fiberboard composite wood products used in the building shall meet the formaldehyde limits listed in Table 4.504.5. The *Formaldehyde Emissions Verification Checklist* shall be completed prior to final inspection approval. The manufacturer's specifications showing formaldehyde content for all applicable wood products shall be readily available at the job site and be provided to the field inspector for verification. (4.504.5)

17. A 4-inch thick base of ½ inch or larger clean aggregate and a vapor barrier in direct contact with concrete shall be provided for proposed slab on grade construction. (4.505.2.1)

18. Building materials with visible signs of water damage shall not be installed. Wall and floor framing shall not be enclosed until it is inspected and found to be satisfactory. (4.505.3)

19. Newly installed bathroom exhaust fans shall be ENERGY STAR compliant and be ducted to terminate to the outside of the building. Provide the manufacturer's cut sheet for verification. (4.506.1)

20. Newly installed bathroom exhaust fans, not functioning as a component of a whole house ventilation system, must be controlled by a humidistat which shall be readily accessible. (4.506.1)

21. The heating and air-conditioning systems shall be sized and designed using ANSI/ACCA Manual J-2004, ANSI/ACCA 29-D-2009 or ASHRAE handbooks and have their equipment selected in accordance with ANSI/ACCA 36-S Manual S-2004. (4.507.2)

City of Santa Monica

Plumbing Fixture Flow Rates Residential Mandatory Measures 2019 California Green Building Standards Code

Eff. 1-01-20

FIXTURE FLOW RATES (SECT 4.303)

FIXTURE TYPE	MAX ALLOW. FLOW RATE
Showerheads	1.8 gpm @ 80 psi
Lavatory faucets	1.2 gpm @ 60 psi[1]
Lavatory faucets, common & Public Use	0.5 gpm @ 60 psi[1]
Metering faucets	.2 Gallons/cycle
Kitchen faucets	1.8 gpm @ 60 psi[2]
Water closets	1.28 gallons/flush[3]
Urinals	0.125 gallons/flush[4]

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

[1] Lavatory Faucets shall not have a flow rate less than 0.8 gpm @ 20psi.
[2] Kitchen faucets may temporarily increase flow above the max rate, but not above 2.2gpm @60psi and must default to a max flow rate of 1.8gpm @60psi.
[3] 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] Wall mounted. All others 0.5 gallons/flush

City of Santa Monica

Mandatory Requirements Checklist Residential Building 2019 Green Building Standards Code

Eff. 1-1-20

ITEM #	CODE SECTION	REQUIREMENT	REFERENCE SHEET	COMMENTS
		PLANNING AND DESIGN		
1	4.106.2	Storm water drainage and retention during construction	A0.6 A1.0	STM WTR POLL PM DPW STD NOTES
2	4.106.3	Grading and paving	N/A	NONE PROPOSED
3	SMMC 8.108.100	Water Efficient Landscape and Irrigation Standards	N/A	NONE PROPOSED
4	SMMC 8.106.110 4.106.4	Electric vehicle (EV) charging	N/A	NO PARKING AVAIL
5	4.106.4.2.3	Single EVCS required	N/A	NO PARKING AVAIL
6	4.106.4.2.4	Multiple EVCS required	N/A	NO PARKING AVAIL
		ENERGY EFFICIENCY		
7	SMMC 8.106.055 8.106.080	Solar requirements	N/A	MAJOR ADDITION NOT PROPOSED
		WATER EFFICIENCY & CONSERVATION		
8	4.303.1	Water conserving plumbing fixtures and fittings	A0.6	FIXT & FITT FLOW
9	4.303.1.3.2	Multiple showerheads serving one shower	A0.0	GEN NOTE 12.J
		MATERIAL CONSERVATION & RESOURCE EFFICIENCY		
10	4.406.1	Rodent proofing	A0.6	GRN BLD NOTE 6
11	SMMC 8.106.070	Flashing details	A6.2	DTLS 1-8 - WINDS & DRS OTHER LOCATIONS NOT PART OF PROJECT
12	SMMC 8.108.010	Construction waste Management plan	N/A	THRESHOLDS NOT MET
13	4.410.1	Operation and maintenance manual	A0.6	GRN BLDG NOTE#8

City of Santa Monica

Formaldehyde Emissions Verification Checklist 2019 California Green Building Standards Code

Eff. 1-01-20

** This form is required at final inspection. Attach product specification sheets and other supporting documents. Use additional sheets if necessary. Allowable Formaldehyde limits can be found in 2019 Cal Green Standards Code Tables 4.504.5, 5.504.4.5.

Item #	Product Category (e.g. particleboard, hardwood plywood, etc)	Location	Product Manufacturer	Product Specification	Formaldehyde Content (in parts per million)	Formaldehyde Limit (in parts per million)

CITY OF SANTA MONICA · CALIFORNIA
20BI-3885
05/07/21

		ENVIRONMENTAL QUALITY		
14	4.503.1	Fireplaces and woodstoves	N/A	NONE PROPOSED
15	4.504.1	Covering of duct openings and protection of mechanical equipment during construction	A0.6	GRN BLDG NOTE#10
16	4.504.2	Finish material pollutant control	A0.6	GRN BLDG NOTE#12
17	4.504.2.1	Adhesives, sealants and caulks	A0.6	GRN BLDG NOTE#12
18	4.504.2.2	Paints and coatings	A0.6	GRN BLDG NOTE#12
19	4.504.2.3	Aerosol paints and coatings	A0.6	GRN BLDG NOTE#12
20	4.504.2.4	Verification	A0.6	GRN BLDG NOTE#12 VERIFICATION FORMS
21	4.504.3	Carpet systems	N/A	NONE PROPOSED
22	4.504.3.1	Carpet cushion	N/A	NONE PROPOSED
23	4.504.4	Resilient flooring systems	N/A	NONE PROPOSED
24	4.504.5	Composite wood products	A0.6	GRN BLDG NOTE#16
25	4.505.2.1	Capillary break	N/A	NO (N) CONC SLAB
26	4.505.3	Moisture content of building materials	A0.6	GRN BLDG NOTE#18
27	4.506.1	Bathroom exhaust fans	A0.6	GRN BLDG NT#19/20
28	4.507.2	Heating and air-conditioning system design	A0.6	GRN BLDG NOTE#21

City of Santa Monica

VOC Content Verification Checklist 2019 California Green Building Standards Code

Eff. 1-01-20

** This form is required at final inspection. Attach product specification sheets and other supporting documents. Use additional sheets if necessary. Allowable VOC limits can be found in 2019 Cal Green Standards Code Tables 4.504.1, 4.504.2, 4.504.3, 5.504.4.1, 504.4.2 and 504.4.3.

Item #	Product Category (e.g. paint, carpet, adhesive)	Product Manuf.	Product Specs. (e.g. model #)	VOC Content (in grams/liters) or Test Cert	Allowable VOC Limits (in grams/liters)

City of Santa Monica

Storm Water Pollution Control Form 2019 California Green Building Standards Code

Eff. 1-01-20

STORM WATER POLLUTION CONTROL REQUIREMENTS FOR CONSTRUCTION ACTIVITIES MINIMUM WATER QUALITY PROTECTION REQUIREMENTS FOR ALL CONSTRUCTION PROJECTS

The following notes shall be incorporated in the approved set of construction documents and represents minimum standards of good housekeeping that must be implemented on all construction projects

Construction means constructing, clearing, grading or excavation that result in soil disturbance. Construction includes structure teardown (demolition). It does not include routine maintenance to maintain original line and grade, hydraulic capacity, or original purpose of facility; emergency construction activities required to immediately protect public health and safety; interior remodeling with no outside exposure of construction material or construction waste to storm water; mechanical permit work; or sign permit work.

1. Eroded sediments and pollutants shall be retained on site and shall not be transported from the site via sheet flow, area drains, natural drainage or wind.
2. Stockpiles of earth and other construction-related materials shall be covered and/or protected from being transported from the site by wind or water.
3. Fuels, oils, solvents and other toxic materials must be stored in accordance with their listing and shall not contaminate the soil or the surface waters. All approved toxic storage containers are to be protected from the weather. Spills must be cleaned up immediately and disposed of properly and shall not be washed into the drainage system.
4. Non-storm water runoff from equipment and vehicle washing and any other activity shall be contained on the project site.
5. Excess or waste concrete may not be washed into the public way or any other drainage system. Provisions shall be made to retain concrete waste on-site until it can be appropriately disposed of or recycled.
6. Trash and construction related solid wastes must be deposited into a covered receptacle to prevent contamination of storm water and dispersal by wind.
7. Sediments and other materials shall not be tracked from the site by vehicle traffic. The construction entrance roadways must be stabilized so as to inhibit sediments from being deposited into the street/public ways. Accidental depositions must be swept up immediately and may not be washed down by rain or by any other means.
8. Retention basins of sufficient size shall be provided to retain storm water runoff on-site and shall be properly located to collect all tributary site runoff.
9. Where retention of storm water runoff on-site is not feasible due to site constraints, runoff may be conveyed to the street and the storm drain system provided that an approved filtering system is installed and maintained on-site during the construction duration.

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PLAN NORTH TRUE

COMMENTS
For PERMIT

DATE
09-08-20

ISSUED
SM B&S

GROSSMAN ADU CONVERSION
1115 HILL ST, SANTA MONICA, CA 90405

Scale

Drawing Title
GREEN BUILDING NOTES

LICENSED ARCHITECT
GREGORY H GINTER
C-30586
11-30-2021
Renewal Date
STATE OF CALIFORNIA

A0.6

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Water-Efficient Landscape and Irrigation Standards
Plan Submittal Notes Requirements - July 2017

The following items will be required on the Cover Sheet of Landscape and Irrigation Plans submitted for building permits for all new development projects:

1. Parkway Declarations:
   a. "All existing sprinklers and spray heads shall be removed in the parkway."
   b. "The installation of new sprinkler irrigation systems are prohibited in the parkway."
   c. "The installation of any irrigation system in the parkway shall not damage the roots of the street tree."
   d. "No mulch shall be applied within six inches (6") of the base of a street tree."
   e. "No plant material shall be installed within twenty-four (24") inches of the base of a street tree."
   f. "The property owner adjacent to the parkway assumes liability for any improvements to the parkway area."

2. General Notations:
   a. "An open-trench inspection by City staff is required prior to covering below grade pipes, laterals, and mains. The designer of the landscape, or their designee, and general contractor, or their designee, performing the installation must be present at the open- trench inspection. For open-trench inspections, call the Office of Sustainability and the Environment at (310) 458-8405."
   b. "Prior to final Inspection installer shall test the irrigation system to verify that it meets the approved design and specifications."
   c. "Prior to final Inspection installer must program the irrigation controller."
   d. "A final inspection by City staff is required prior to Certificate of Occupancy to ensure that the system was built to approved plans and specifications. For final inspections, call the Office of Sustainability and the Environment

at (310) 458-8405. The following items will be required at final inspection prior to the issuance of a Certificate of Occupancy:
   i. Post-installation soil test results which must contain the percentage (%) of organic matter; may also include but is not limited to soil texture; infiltration rate or soil texture infiltration rate table; pH; total soluble salts; sodium; and recommendations determined by laboratory test. Exception: Landscapes contained entirely in planters or containers are exempt from this requirement.
   ii. A detailed irrigation controller map must be installed inside or near the irrigation controller with at minimum a description for each zone including: plant material, watering device, valve or station number, run time for peak demand month and precipitation rate.
   iii. Irrigation schedules including establishment period start and end dates, must be posted inside the irrigation controller housing unit by the installer."
   e. "Electronic submission of an As-Built set of plans to the City is required if requested by City inspector."
   f. "Prior to construction of landscaped area or irrigation, the contractor must obtain and review a copy of the Water-Efficient Landscape and Irrigation Standards."
   g. "All landscaping and irrigation systems must comply with all local, state, and federal laws and regulations."
   h. "The irrigation system must comply with all local, state, and federal laws and regulations."
   i. "The irrigation designer or landscape architect or landscape designer shall perform one or more site observations during system installation to check for adherence to the design, including that the proper installation of the backflow prevention assembly, main line, laterals, valves, sprinkler heads, drip irrigation equipment, control wire, controllers, and sensors meets the intent of the irrigation design plan as designed and approved."

3. Construction Notations:
   a. "Areas designated as mulch on approved landscape plans, including areas covered by wood chips, gravel, stone, decomposed granite, and areas designated as artificial turf on approved landscape plans cannot be replaced with turfgrass or high water use plants as defined in ANSI/ASABE S623.1, once mulch or artificial turf has been installed."
   b. For single-family homes only installing new landscaping, submitted construction plans must include the following declaration signed by the project applicant:

"I/We certify that the landscape for this property must be built to the approved landscape plans within this approved building plan set. Any revisions to approved plans will require re-submittal and approval and must still comply with the current water efficient Landscape and Irrigation Standards. Any areas of landscape not completed at time of the close of the building construction permit must be covered with a minimum 3 inch (3") layer of mulch. This includes all exposed soil surfaces of existing planting areas except in turf areas, over creeping or rooting groundcovers, or in direct seeding applications, where mulch is not appropriate. Future landscape installations for incomplete landscape installations must be to the approved landscape plans. I,_____, (project applicant) have read and understand the terms of this statement."

4. Landscape Notations:
   a. "Turfgrass, including existing plant material, is not allowed on slopes greater than twenty-five percent (25%) where the toe of the slope is adjacent to an impermeable hardscape and where twenty-five percent (25%) means one foot (1') of vertical elevation change for every four feet (4") of horizontal length (rise divided by run x 100 = slope %)."
   b. "Plant material categorized as 'High' in the current Invasive Plant Inventory for the southwest region by the California Invasive Plant Council or listed for the South Coast region by the PlantRight organization are prohibited, including existing plant material, except for known non-fruiting, non-invasive, sterile varieties, cultivars or selections. Plants listed as noxious weeds by the California Dept. of Food & Agriculture are prohibited."

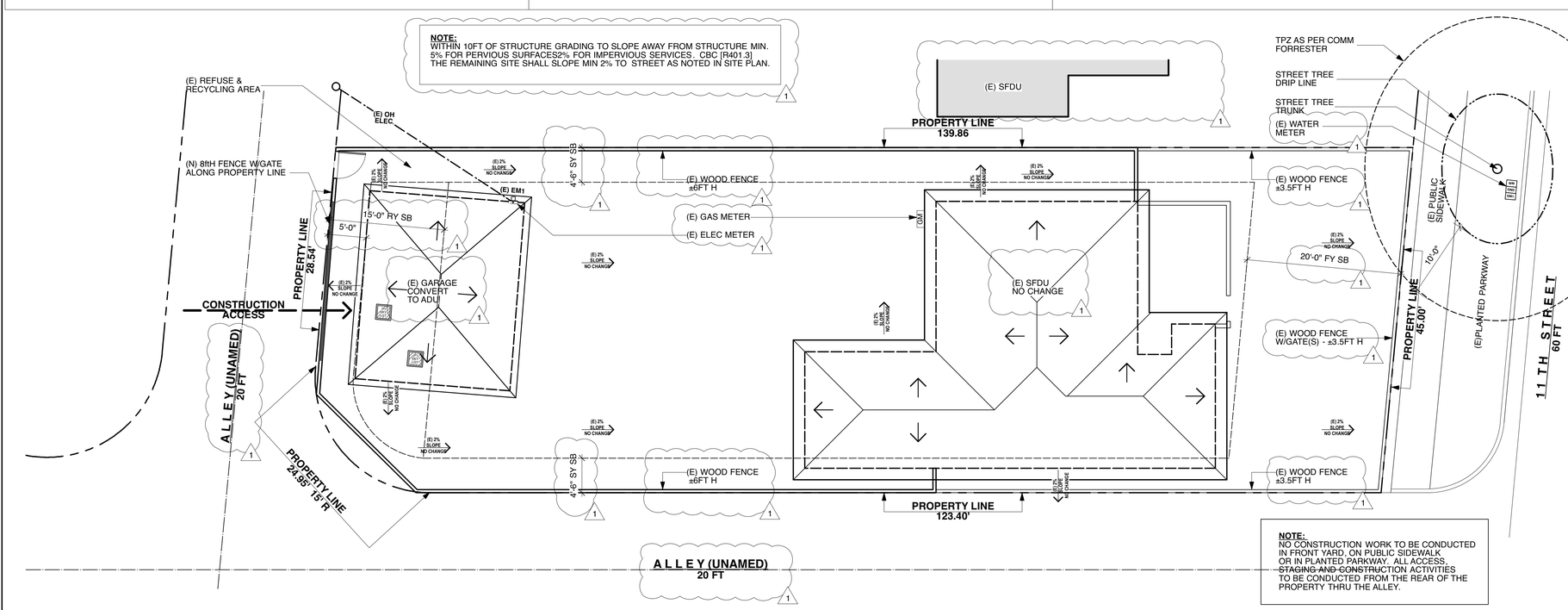
CITY OF SANTA MONICA - CALIFORNIA

20BLD3885
05/07/21

URBAN RUNOFF DRAINAGE

1. THRESHOLD SQUARE FOOTAGE IS LESS THAN 50% OF (E).
2. ADDITION SQUARE FOOTAGE IS LESS THAN 50% OF EXTERIOR WALLS REMOVED.
3. LESS THAN 50% OF EXTERIOR WALLS REMOVED.
4. LESS THAN 50% OF EXTERIOR FOOTPRINT ADDED OR REPLACED.
5. LESS THAN 2500SF OF (N) IMPERVIOUS SURFACE.

NOTE:
WITHIN 10FT OF STRUCTURE GRADING TO SLOPE AWAY FROM STRUCTURE MIN. 5% FOR PERVIOUS SURFACES2% FOR IMPERVIOUS SERVICES. CBC [R401.3] THE REMAINING SITE SHALL SLOPE MIN 2% TO STREET AS NOTED IN SITE PLAN.



NOTE:
NO CONSTRUCTION WORK TO BE CONDUCTED IN FRONT YARD, ON PUBLIC SIDEWALK OR IN PLANTED PARKWAY. ALL ACCESS, STAGING AND CONSTRUCTION ACTIVITIES TO BE CONDUCTED FROM THE REAR OF THE PROPERTY THRU THE ALLEY.

1 **SITE DEMOLITION PLAN**
SCALE: 1/8"=1'-0"

STANDARD NOTES

a. Owner is responsible for repair of all damage to offsite improvements caused by construction. Call Public Works Inspector at (310) 458-2240 for inspection of offsite improvements at substantial completion of onsite work.
b. All labor, equipment, and material required for offsite improvements are the responsibility of the Developer.
c. No work shall be done within the public right-of-way without prior approval and permit from the Public Works Department.
d. All offsite work shall be done in accordance with the Standard Specifications/Drawings for Public Works Construction, current edition as amended by the city of Santa Monica, and City of Santa Monica Standards.
e. All survey points shall be protected or reestablished if they are removed, damaged, or destroyed during construction.
f. No construction material will be stored in the public right-of way.
g. New proposed improvements shall not obstruct drainage or drain into neighboring private properties.
h. Water shall be drained away from the foundation and shall be mitigated from permeating into foundation wall and footing of the new proposed improvements.
i. Any sediment or other materials that are tracked off the parcel by vehicles and equipment shall be removed the same day as they are tracked off the parcel.
j. No washing of construction or other vehicles shall be allowed adjacent to a construction parcel.
k. In accordance with California Regional Water Quality Control Board MS4 permit:
l. For construction sites less than 1 acre, Developer shall implement an effective combination of erosion and sediment control BMPs from Table 12 to prevent erosion and sediment loss and the discharge of construction wastes.

Table 12. Applicable Set of BMPs for All Construction Sites
Erosion Controls
- Scheduling
- Preservation of Existing Vegetation

Sediment Controls
- Sand Bag Barrier
- Silt Fence & Plastic Sheet Coverings
- Stabilized Construction Site Entrance/Exit

Non-Storm Water Management
- Water Conservation Practices
- Dewatering Operations

Waste Management
- Material Delivery and Storage
- Stockpile Management
- Spill Prevention and Control
- Solid Waste Management
- Concrete Waste Management
- Sanitary/Septic Waste Management

2. For construction sites 1 acre or greater, Developer shall submit and, once approved, implement a stormwater pollution prevention plan (SWPPP).
3. Construction sites shall be inspected and evaluated based on the following factors: soil erosion potential, site slope, project size and type, pollution runoff potential, sensitivity and proximity of receiving water bodies, non-storm water discharges, past record of non-compliance, and any water quality issues relevant to the particular MS4 requirements.
4. City shall employ a Progressive Enforcement Policy to ensure that construction sites are brought into compliance with the erosion and sediment control requirements within a reasonable time period.
l. Paint removal and preparation will result in particles entering the air or landing on the ground and requires that BMP steps be implemented to prevent or minimize to the maximum extent practicable such particle releases into the environment. If exterior sandblasting is required, a separate permit will be required from Building and Safety.
m. All site utilities shall be constructed underground to the nearest offsite utility pole. Contractor/Developer has made arrangements with the utility companies to place all overhead utilities underground.
n. Prior to commencing underground utility work, obtain separate utility excavation permit from PW Department, City Hall Room 113.
o. Southern California Gas equipment including meters, and all Southern California Edison equipment and infrastructure, including transformers, poles, and vaults shall be shown on the plans, located entirely on private property, and designed per SCG/SCE requirements. No equipment or infrastructure serving this property will be permitted in the public right-of-way.
p. The City strongly urges the applicant to inspect the existing sewer connection. If the connection is damaged or over 30 years old, the City recommends that the applicant show on the plans the construction of a new sanitary sewer connection from property line to sanitary sewer main in accordance with City of Santa Monica Standards (Sewer Permit required).
q. Owner/contractor shall comply with Water Division cross-connection guidelines. Prior to issuance of Certificate of Occupancy, cross-connection control inspection must be completed. Contact the Water Division at (310) 458-8531.
r. Prior to installation of any cross-connection device, contact the Water Division at (310) 458-8531.
s. Prior to the installation of any grease interceptor or clarifier, contact Water Resources Protection Programs at (310) 458-8235.
t. Multi-family residential dwellings are required to install individual water meters or sub-meters for each unit.
u. If fire sprinklers are required to be installed or altered by Building & Safety and/or Fire Department, contractor shall install a double check detector assembly on site and above ground per city standards, the location of which shall be readily accessible to all city agencies. Protection from vehicular impact shall be provided on private property and not in the public right-of-way. The DCDA requires 3' x 8' clear space.
v. The site must comply with the SMMC Chapter 7.10.060 Urban Runoff Pollution ordinance for construction activities and temporary BMPs. Prior to beginning construction activities, contact the City Urban Runoff Coordinator at (310) 458-8223 for inspection.
w. Prior to backfilling any urban runoff mitigation features, contact the City Urban Runoff Coordinator at (310) 458-8223 for inspection.

TREE PROTECTION ZONE NOTES:
1. Trees within the public right-of-way may not be removed for any reason and are to be protected from injury or damage during construction. This tree is a significant tree in the City of Santa Monica. Pruning shall only be done by Community Forest Operations staff to provide clearance for construction activities. Questions regarding street trees may be directed to the Community Forester at (310) 458 - 8974.
2. The typical TPZ should encompass the canopy plus an additional radial width of ten feet (10'). However, since these conditions are unique, the application should be evaluated with the final limits of the TPZ being established by the Community Forester.
3. Mulch the entire area of the TPZ in an effort to improve the growing environment for the roots. During construction phase maintain a four to six inch layer of chip mulch over the soil surface to reduce soil compaction, improve aeration, enhance moisture retention and reduce temperature extremes. Mulch generally consists of shredded leaves or bark, pine straw, peat moss, wood chips or composted greenwaste.
4. Fence the TPZ with a six foot (6') high chain link fence to prevent wounds to the tree and soil compaction within the root zone. Post the fence with a sign stating: *"TREE PROTECTION ZONE – KEEP OUT"*
5. Should it be necessary to trench within the TPZ all trenches shall be hand dug. No roots larger than two inches (2") shall be cut unless no other alternative is feasible. All smaller roots that require cutting shall be cut with pruning saws. Cuts shall be made flush with the side of the trench. If at any time twenty-five percent (25%) of the area within the TPZ is being separated from the tree by a trench, then the line shall be either relocated or installed by boring.
6. Removal of hardscape and/or excavation within the TPZ shall be done manually.
7. The minimum distance between an open trench and any tree shall be between six inches (6") to one foot (1') for every inch of trunk diameter measured at four and a half feet (4 1/2') above existing grade, depending on the species of tree. Minimum clearance shall be ten feet (10') from the trunk of the tree.
8. In the event root pruning is required to accommodate grade changes or the installation of hardscape features the root pruning procedures shall be directed by Community Forest Operations staff.
9. At no time shall any equipment, materials, supplies or fill soil be allowed in the TPZ unless necessary.
10. Prune and fertilize the trees after the completion of all exterior work on the building and at the beginning of the landscape phase.
11. Prior to the commencement of your project contact the City's Planning Arborist at (310) 458-8974 to determine the precise requirements of the TPZ.

LANDSCAPING NOTES:
1. The existing open area including 100% of the front and side yards is completely landscaped with existing ground cover, plants, shrubs, hedges and trees. There is no existing open area that is not landscaped.
2. New and additional landscaping is not part of this scope of work. The General Contractor shall be responsible to replace in-kind any existing landscaping that is removed and/or damage as part of this project.
3. No new perimeter fences and/or walls are proposed as part of this project. 4. See existing survey for existing landscaping, fences and/or walls.

SITE PROTECTION NOTES:
1. The entire site shall be protected with a minimum 6ft high construction fence with lockable gates for construction access.
2. Fencing along adjacent properties shall have wind/dust screen.
3. Provide sasfeguarding features during construction such as protection of adjoining property and sanitary facilites as per CBC [3305, 3306]

UTILITIES
1. Prior to construction of underground utilities, separate utility excavation permit to be obtained from EPWM Department Administrative Services, City Hall Rm 113.
2. Prior to construction of new sewer lateral and connection to sewer a separate sewer permit to be obtained from EPWM Department Administrative Services, City Hall Rm 113.

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COMMENTS	DATE
For PERMIT	09-08-20
For PERMIT	01-20-21

ISSUED	
SM B&S	
SM B&S	

GROSSMAN ADU CONVERSION
1115 HILL ST, SANTA MONICA, CA 90405

Scale 1/8"=1'-0" U.O.N.

Drawing Title **SITE DEMOLITON PLAN**

LICENSED ARCHITECT GREGORY H. GINTER C-30686 11-30-2021 STATE OF CALIFORNIA

A1.0

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DOOR & WINDOW SCHEDULE

#	TYPE	HDWR	PNL #	W	H	Area SF	EGRESS	TEMPER	FINISH	REMARKS
DOOR										
1	SWING	5	1	32	80				PAINTED WOOD	
2	SWING	4	1	32	80				PAINTED WOOD	
3	SWING	5	1	32	80				PAINTED WOOD	
WINDOW/GLAZED DOORS										
1	AWNING	MANF	3	81	18	10.13			METAL DUAL GLAZED	
2	CSMT	MANF	1	27	48	9.00	X		METAL DUAL GLAZED	
3	AWNING	MANF	3	81	18	10.13			METAL DUAL GLAZED	
4	CSMT/FIX	MANF	3	81	48	27.00			METAL DUAL GLAZED	
5	SLIDING DR	1	3	108	80	60.03	X	X	METAL DUAL GLAZED	MAX THRESHOLD 0.5"
6	AWNING	MANF	3	81	18	10.13			METAL DUAL GLAZED	
7	AWNING	MANF	1	27	18	3.38			METAL DUAL GLAZED	
SKYLIGHT										
8	VELUX	FSM	1	24	24	4.00				ICC-ESR 4108
9	VELUX	FSM	1	30	30	6.25				ICC-ESR 4108

WINDOW & DOOR NOTES:

1. All voids to be filled with thermal insulation at all window and door assemblies. Insulation is not shown in details for clarity, typical.
2. a. All windows and exterior doors to be MilGard Dual Glazed Aluminum or approved equal. Confirm color with Owner.
   b. All interior doors to be solid core, flat slab, primed to be painted, pre-hung, with square butt hinges and 2 3/4" backset.
3. See schedule for safety glazing. GC to review with inspector prior to ordering glass.
4. HARDWARE:

MNF	By Manufacturer		
#1	Entry Set	#8	Swing Pair
#2	Pocket Passage Set	#9	Pivot/Entry Set
#3	Pocket Privacy Set	#10	Deadbolt
#4	Swing Passage Set	#11	Closet Set
#5	Swing Privacy Set	#12	Bi-Pass Set
#6	Bi-Fold Set	#13	Double Door
#7	Pivot Set		

5. All skylights to be Velux.
6. R308.4 Hazardous location
   a. Glazing in doors

Glazing in fixed and operable panels of swinging, sliding and bifold doors shall be considered to be a hazardous location. Exceptions: Glazed openings of a size through which a 3-inch-diameter (76 mm) sphere is unable to pass.
Decorative glazing.

   b. Glazing adjacent to doors

Glazing in an individual fixed or operable panel adjacent to a door shall be considered to be a hazardous location where the bottom exposed edge of the glazing is less than 60 inches (1524 mm) above the floor or walking surface and it meets either of the following conditions: Where the glazing is within 24 inches (610 mm) of either side of the door in the plane of the door in a closed position.
Where the glazing is on a wall perpendicular to the plane of the door in a closed position and within 24 inches (610 mm) of the hinge side of an in-swinging door. Exceptions: Decorative glazing. Where there is an intervening wall or other permanent barrier between the door and the glazing. Where access through the door is to a closet or storage area 3 feet (914 mm) or less in depth. Glazing in this application shall comply with Section R308.4.3.
Glazing that is adjacent to the fixed panel of patio doors.

   c. Glazing in windows

Glazing in an individual fixed or operable panel that meets all of the following conditions shall be considered to be a hazardous location: The exposed area of an individual pane is larger than 9 square feet (0.836 m2). The bottom edge of the glazing is less than 18 inches (457 mm) above the floor, The top edge of the glazing is more than 36 inches (914 mm) above the floor; and One or more walking surfaces are within 36 inches (914 mm), measured horizontally and in a straight line, of the glazing. Exceptions: Decorative glazing. Where a horizontal rail is installed on the accessible side(s) of the glazing 34 to 38 inches (864 to 965 mm) above the walking surface. The rail shall be capable of withstanding a horizontal load of 50 pounds per linear foot (730 N/m) without contacting the glass and have a cross-sectional height of not less than 11/2 inches (38 mm). Outboard panes in insulating glass units and other multiple glazed panels where the bottom edge of the glass is 25 feet (7620 mm) or more above grade, a roof, walking surfaces or other horizontal [within 45 degrees (0.79 rad) of horizontal] surface adjacent to the glass exterior.

   d. Glazing in guards and railings

Glazing in guards and railings, including structural baluster panels and nonstructural in-fill panels, regardless of area or height above a walking surface shall be considered to be a hazardous location.

   e. Glazing and wet surfaces

Glazing in walls, enclosures or fences containing or facing hot tubs, spas, whirlpools, saunas, steam rooms, bathtubs, showers and indoor or outdoor swimming pools where the bottom exposed edge of the glazing is less than 60 inches (1524 mm) measured vertically above any standing or walking surface shall be considered to be a hazardous location. This shall apply to single glazing and each pane in multiple glazing. Exception: Glazing that is more than 60 inches (1524 mm), measured horizontally and in a straight line, from the water's edge of a bathtub, hot tub, spa, whirlpool or swimming pool or from the edge of a shower, sauna or steam room.

   f. Glazing adjacent to stairs and ramps

Glazing where the bottom exposed edge of the glazing is less than 36 inches (914 mm) above the plane of the adjacent walking surface of stairways, landings between flights of stairs and ramps shall be considered to be a hazardous location. Exceptions: Where a rail is installed on the accessible side(s) of the glazing 34 to 38 inches (864 to 965 mm) above the walking surface. The rail shall be capable of withstanding a horizontal load of 50 pounds per linear foot (730 N/m) without contacting the glass and have a cross-sectional height of not less than 11/2 inches (38 mm).
Glazing 36 inches (914 mm) or more measured horizontally from the walking surface.

   g. Glazing adjacent to the bottom stair landing

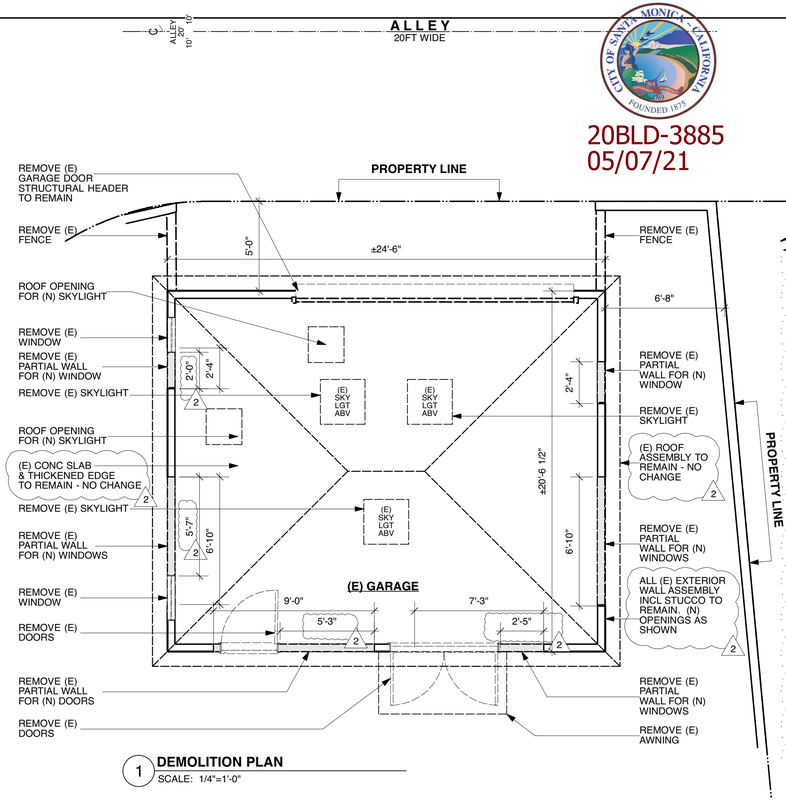
Glazing adjacent to the landing at the bottom of a stairway where the glazing is less than 36 inches (914 mm) above the landing and within a 60-inch (1524 mm) horizontal arc less than 180 degrees from the bottom tread nosing shall be considered to be a hazardous location. Exception: The glazing is protected by a guard complying with Section R312 and the plane of the glass is more than 18 inches (457 mm) from the guard.

SYMBOL KEY

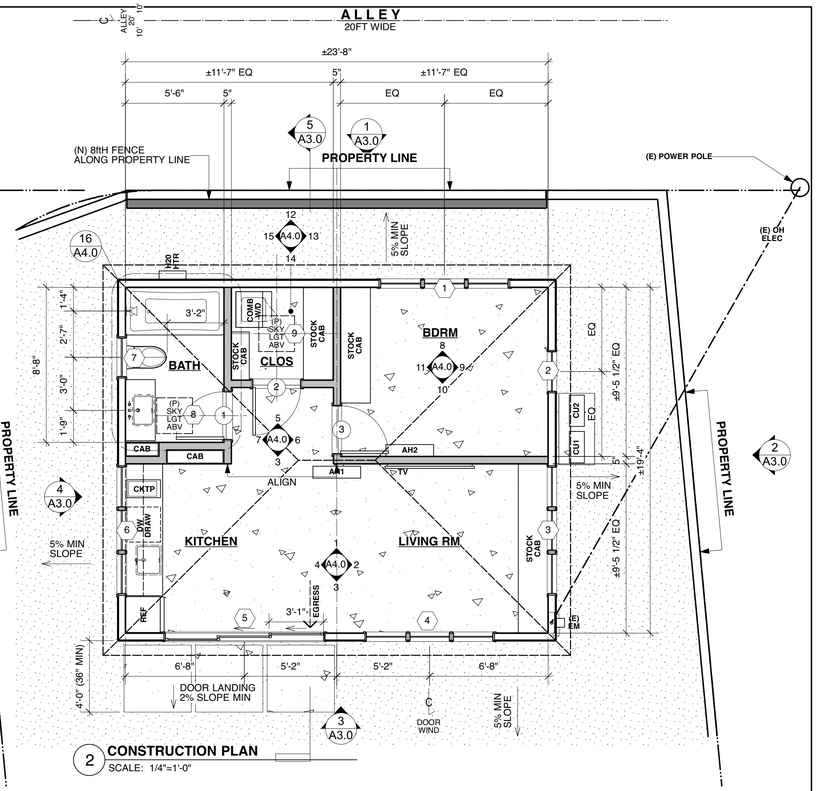
LINE VOLTAGE SYMBOLS		MISCELLANEOUS SYMBOLS & ABBREVIATIONS	
a(1)	SWITCHED OUTLET-Location (Outlet #)	WP	WATERPROOF
	DUPLEX OUTLET	D	DIMMER
	QUADRUPLEX OUTLET	3, 4	3 OR 4 WAY SWITCHING
GFI	GROUND FAULT INTERRUPT OUTLET	F	FAN
WP	EXTERIOR OUTLET	"A"	FIXTURE TYPE
	SMOKE/CARBON MONOXIDE DETECTOR	"a"	FIXTURE LOCATION
EQ	DEDICATED EQUIPMENT OUTLET		GAS CONNECTION
			SUPPLY GRILLE
LIGHTING SYMBOLS			RETURN/EXHAUST GRILLE
	SWITCH	MD	MOTION DECTOR ACTIVATED
3	3-WAY SWITCH	PE	PHOTO ELECTRONIC SENSOR ACTIVATED
JS	JAMB SWITCH		
	RECESSED CEILING FIXTURE	LOW VOLTAGE SYMBOLS	
	SURFACE MOUNTED CEILING FIXTURE	TV	TV OUTLET (1) RG6U (1) Cat6e
	WALL MOUNTED FIXTURE	D	DATA OUTLET (2)Cat6e
	PENDANT MOUNTED FIXTURE	AV	AUDIO/VIDEO OUTLET As per AV Specs
	TRACK LIGHTING W/FIXTURES	T	THERMOSTAT
	UNDER CABINET FIXTURE		
	CEILING MOUNTED FAN		
	STRING LIGHT		
	FLOURESCENT FIXTURE		
	LED STRIP LIGHT		

ELECTRICAL AND LIGHTING NOTES:

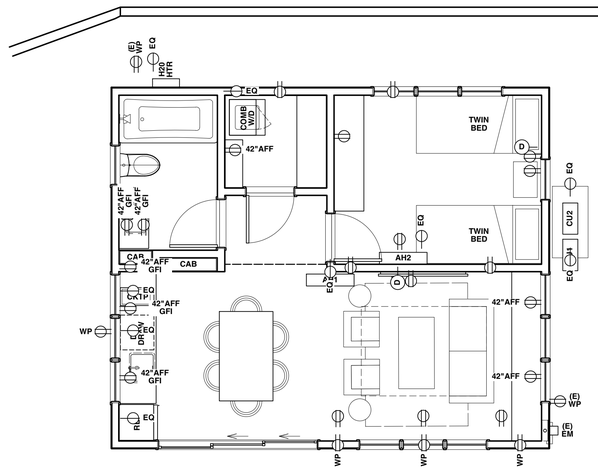
1. See Cabinet Details For Location Of Electrical And Low Voltage Devices In Cabinets.
2. All Receptacles To Be Mounted @ 1'-0" U.O.N. And Centered Below Windows, Switches Or Equally Spaced On Walls. See Interior, Exterior & Cabinet Elevations.
3. All Video Intercoms, Thermostats & Wall Phones To Be Mounted @ 5'-0" A.F.F. U.O.N. See Interior, Exterior & Cabinet Elevations.
4. All Switches & Keypads To Be Mounted @ 3'-6" A.F.F. U.O.N. See Interior, Exterior & Cabinet Elevations.
5. All Boxes To Be Tacked Into Place For Location Approval By Arch./Owner Prior To Wiring.
6. Locate All Wall Sconces, Switches And Control Devices As Per The Interior, Exterior & Cabinet Elevations.
7. Centerline Of First Switch @ Doors To Be Mounted 3" From Door Casing. Center Keypads And/Or Thermostats Over the Center Of The Entire Bank Of Switches. See Detail This Page.
8. Gang All Switches, Outlets, Phone Jacks, Data Outlets, CTV Outlets, Except Receptacles Not Shown As Quads.
9. Electrician to confirm that existing service is sufficient to serve loads.
10. Electrician to provide additional outlets, lights, etc. as required by code at no additional cost. Location to be approved by Architect prior to installation.
11. All type "A" & "K" fixtures to be purchased by GC and installed by Electrician.
12. All remaining lights are decorative to be provided by Owner and installed by Electrician.
13. Electrical requirements for equipment are shown diagramatically on this plan. Electrician to review specifications for all equipment and is responsible for providing service as per manufacturer's specifications.
14. Provide all required connections for new and relocated appliances and equipment.
15. Artificial light shall be provided that adequate to provide an average illumination of 10 foot-candles over the area of the room at a height of 30 inches above the floor level.[1205.3]
16. Listed arc-fault circuit interrupter combination type protection are required for all outlets (not just receptacles) for dwelling unit bedrooms, family rooms, dining rooms, living rooms, parlors, libraries, dens, sunrooms, recreation rooms, closets, hallways, or similar rooms or areas. [210.12 CEC]
17. Branch circuit overcurrent devices (fuses and breakers) shall not be located where they will be exposed to physical damage, in the vicinity of easily ignitable materials, such as in clothes closet, bath, or toilet room. [240.24 CEC]
18. A minimum of two 20 amp small appliance branch circuits shall be provided for all receptacle outlets in the kitchen, dining room, pantry, breakfast room or other similar areas [210.11(C)(1) CEC] [210.52(B)(1)(2)(3)]
19. At least one 20 amp branch circuit shall be provided to supply laundry receptacle outlets. Such circuits shall have no other outlets. [210.11(C)(2) CEC]
20. At least one 20 amp branch circuit shall be provided to supply bathroom receptacle outlets. Such circuits shall have no other outlets. [210.11(C)(3) CEC]
21. Provide electrical recepticles as per CEC [210.52]
22. All lighting measures to meet Mandatory Methods specified on Title 24 Calcs MF-1R.
23. Grounding method to be determined by CA Licensed Electrician as per CEC [250.24]
24. Replace all existing cloth wiring with (N) to meet code.
25. Electrician to confirm with owner which existing electrical devices can remain in lieu of or in addition to those shown on the plans. Confirm entire layout with owner prior to wiring



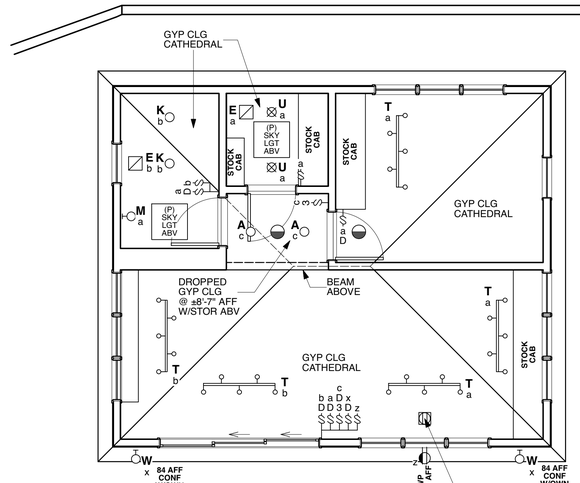
1 **DEMOLITION PLAN**
SCALE: 1/4"=1'-0"



2 **CONSTRUCTION PLAN**
SCALE: 1/4"=1'-0"



3 **ELECTRICAL PLAN**
SCALE: 1/4"=1'-0"



4 **REFLECTED CEILING PLAN**
SCALE: 1/4"=1'-0"

STRUCTURAL DEMOLITION CALCULATION

ELEMENT		L (FT)	W/H (FT)	(E) AREA (SF)	DEMO (SF)	DEMO % REMARKS
STRUCTURAL SLAB						
	EXISTING	24.50	20.50	502.25		
	DEMO	0.00	0.00		0.00	0.00%
NORTH WALL						
	EXISTING	24.50	8.50	208.25		
	DEMO	6.92	1.50		10.38	4.98% WIND #1 - FALLS WITHIN (E) GARAGE DOOR OPEN'G-NO IMPACT ON (E) STRUCT CAPACITY
EAST WALL						
	EXISTING	20.50	8.50	174.25		
	DEMO	9.00	6.67		60.03	34.45% WIND #2&3, 6'8"HEAD HGT -REDUCED STRUCT CAPACITY FOR WIDTH OF WINDOWS
SOUTH WALL						
	EXISTING	24.50	8.50	208.25		
	DEMO	7.58	6.67		50.56	24.28% WIND #4&5, 6'8"HEAD HGT -PARTIALLY WITHIN (E) DOORS. REDUCED STRUCT CAPACITY FOR WIDTH OF WINDOWS BEYOND (E) DOORS- SEE ELEV
EAST WALL						
	EXISTING	20.50	8.50	174.25		
	DEMO	9.00	6.67		60.03	34.45% WIND #6&7, 6'8"HEAD HGT -REDUCED STRUCT CAPACITY FOR WIDTH OF WINDOWS
ROOF						
	EXISTING	25.67	22.21	570.13		
	DEMO	2.00	2.00			
	DEMO	2.50	2.50		10.25	1.80% (2) SKYLIGHTS
TOTAL STRUCTURAL DEMO				1837.38	191.25	10.41%

NATURAL LIGHT & VENTILATION CALC

ROOM	L (FT)	W (FT)	AREA (SF)	PERCENT	REQ'D (SF)		PROP (SF)	WIND#
BDRM	11.58	9.50	110.01					1 & 2
LIGHT				8%	8.80	<	19.13	
VENTILATION				4%	4.40	<	19.13	
LR/KITCH	23.67	9.50	224.87					3, 4, 5 & 6
LIGHT				8%	17.99	<	97.16	
VENTILATION				4%	8.99	<	97.16	

EXHAUST FANS NOTE:
1. Fans shall be ENERGY STAR compliant and be ducted to terminate to the outside of the building.
2. Fans, not functioning as a component of a whole house ventilation system, must be controlled by a humidity control.
3. Provide a mechanical ventilation system in bathrooms containing a bathtub and/or shower, laundry rooms. Mechanical system must be capable of providing five air changes per hour and exhausting directly to the outside.

SMOKE & CO NOTE:
Provide hard-wired interconnected smoke detectors and carbon monoxide with battery backup & low battery signal. Smoke detectors are required in the following locations:
a. Each sleeping room
b. Centrally located in corridors giving access to each sleeping room
c. On each story of multistory dwelling and in basements.
d. In split-levels, detectors shall be installed on the upper level. If the lower level contains sleeping areas, then smoke detectors shall be installed on each level.
e. When sleeping areas are on the upper level, the detector shall be located in close proximity to the stairway. Detectors shall sound an alarm audible in all sleeping areas of the dwelling.

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COMMENTS
For PERMIT
For PERMIT
For PERMIT

ISSUED	DATE
SM B&S	09-08-20
SM B&S	01-21-21
SM B&S	03-21-21

GROSSMAN ADU CONVERSION
1115 HILL ST, SANTA MONICA, CA 90405

Scale 1/4"=1'-0"

Drawing Title **DEMOLITION, CONSTRUCTION, ELECTRICAL & REFLECTED CLG PLNAS**

LICENSED ARCHITECT GREGORY H GINTER C-30686 11-30-2021 RENEWAL DATE STATE OF CALIFORNIA

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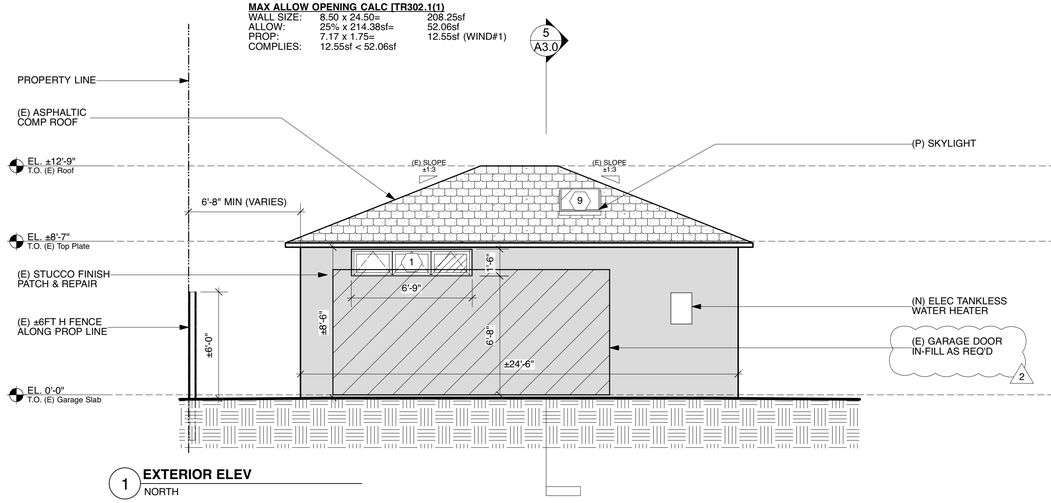
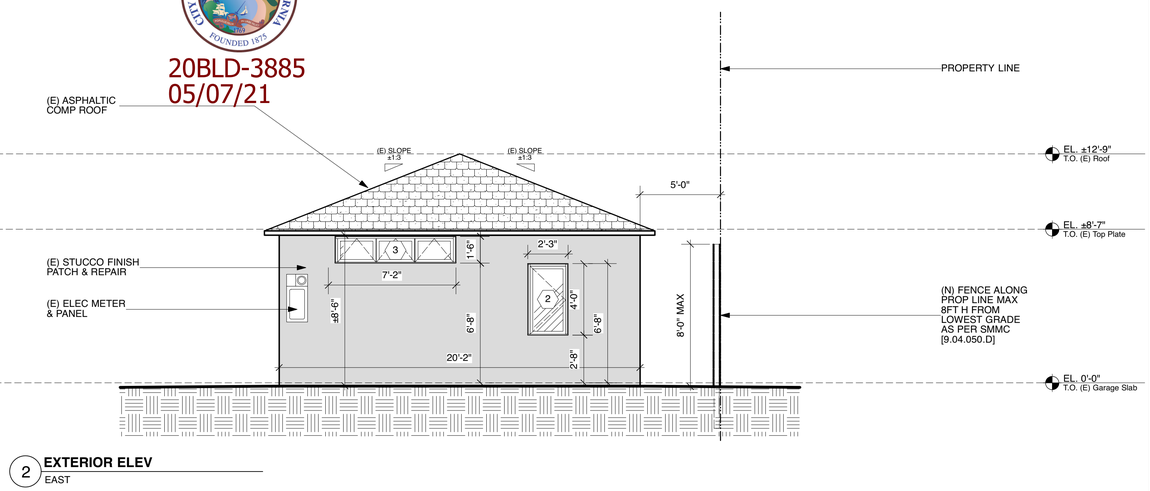
MAX ALLOW OPENING CALC [TR302.1(1)

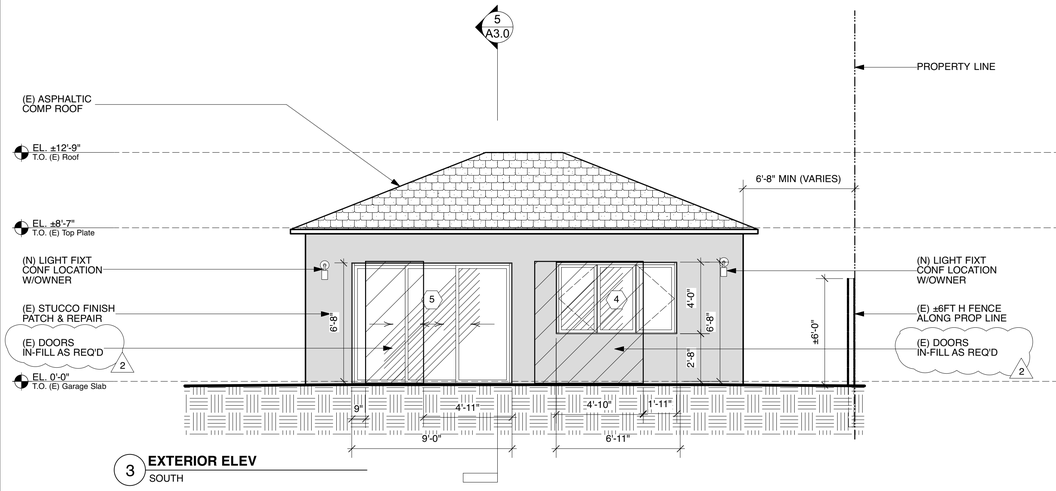
WALL SIZE:	8.50 x 24.50=	208.25sf
ALLOW:	25% x 214.38sf=	52.06sf
PROP:	7.17 x 1.75=	12.55sf (WIND#1)
COMPLIES:	12.55sf < 52.06sf	



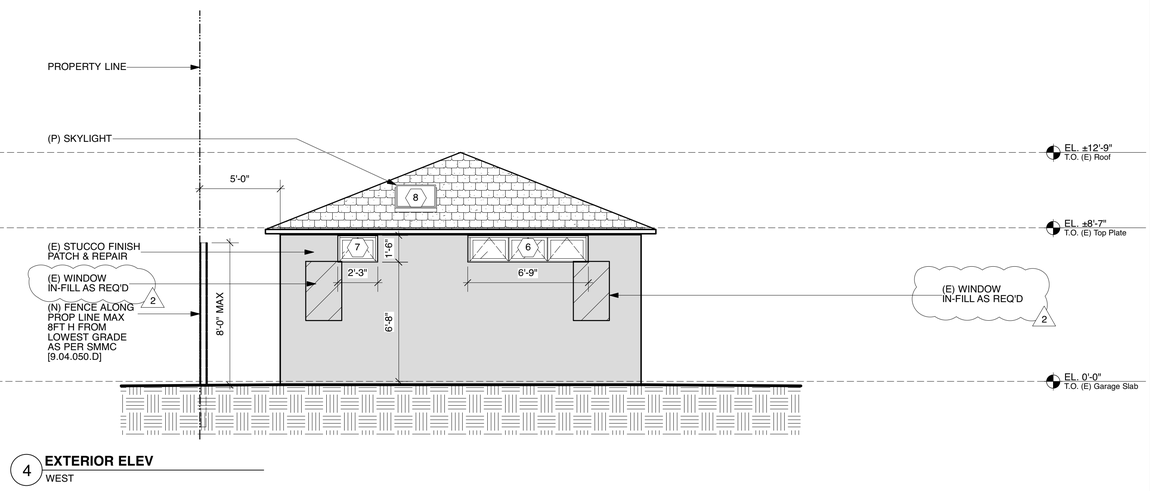
1 **EXTERIOR ELEV**
NORTH



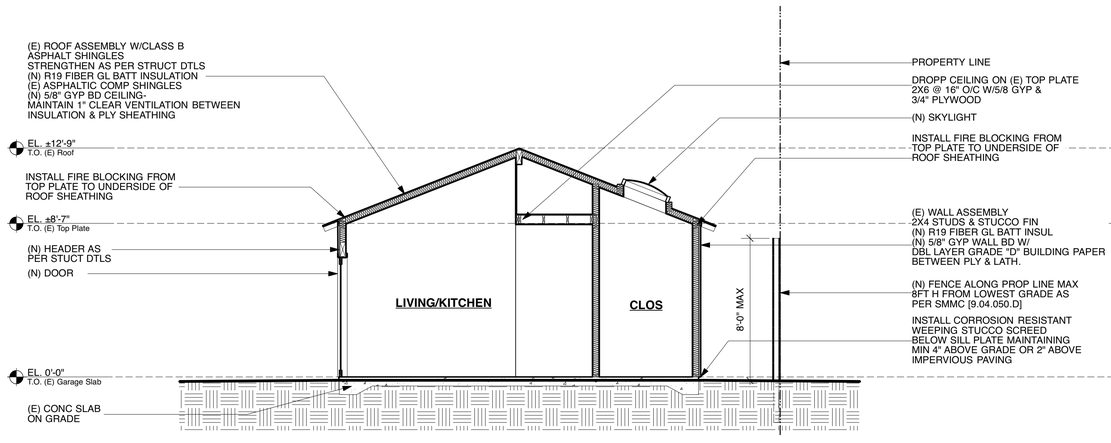
2 **EXTERIOR ELEV**
EAST



3 **EXTERIOR ELEV**
SOUTH



4 **EXTERIOR ELEV**
WEST



5 **BUILDING SECTION**
NORTH/SOUTH

FIREBLOCKING: CBC[R302.11]
In combustible construction, fireblocking shall be provided to cut off both vertical and horizontal concealed draft openings and to form an effective fire barrier between stories, and between a top story and the roof space.

Fireblocking shall be provided in wood-framed construction in the following locations:

1. In concealed spaces of stud walls and partitions, including furred spaces and parallel rows of studs or staggered studs, as follows:
   1.1 Vertically at the ceiling and floor levels.
   1.2 Horizontally at intervals not exceeding 10 feet (3048 mm).
2. At interconnections between concealed vertical and horizontal spaces such as occur at soffits, drop ceilings and cove ceilings.
3. In concealed spaces between stair stringers at the top and bottom of the run. Enclosed spaces under stairs shall comply with Section R302.7.
4. At openings around vents, pipes, ducts, cables and wires at ceiling and floor level, with an approved material to resist the free passage of flame and products of combustion. The material filling this annular space shall not be required to meet the ASTM E 136 requirements.
5. For the fireblocking of chimneys and fireplaces, see Section R1003.19.
6. Fireblocking of cornices of a two-family dwelling is required at the line of dwelling unit separation.

CITY OF SANTA MONICA · CALIFORNIA · FOUNDED 1875

20BLD-3885
05/07/21

Gregory H Ginter
ARCHITECT
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(Tel) 310-314-1994
greg@ghgarch.com

COMMENTS	DATE
For PERMIT	09-08-20
For PERMIT	01-21-21
For PERMIT	02-21-21

ISSUED	
SM B&S	1
SM B&S	2

GROSSMAN ADU CONVERSION
1115 HILL ST, SANTA MONICA, CA 90405

Drawing Title
EXTERIOR ELEVATIONS & BUILDING SECTIONS

Scale 1/4"=1'-0"

LICENSED ARCHITECT GREGORY H GINTER C-30586 11-30-2021 Renewal Date STATE OF CALIFORNIA

A3.0

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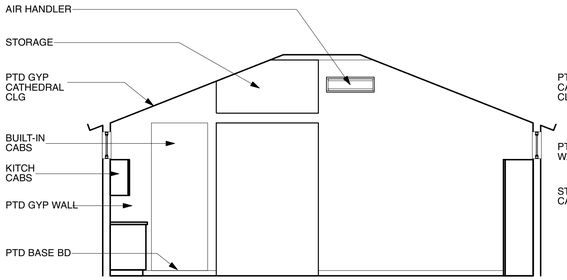
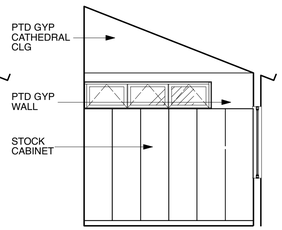
CITY OF SANTA MONICA · CALIFORNIA · FOUNDED 1875

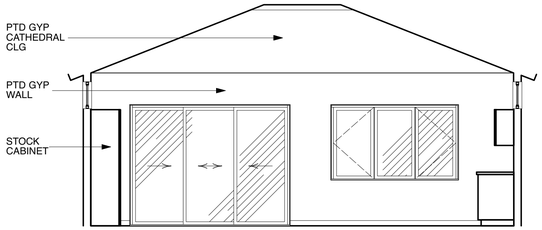
20BLD-3885
05/07/21



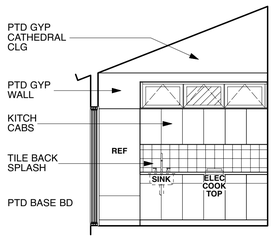
1 **INT ELEV - KITCH & LIVING**
NORTH



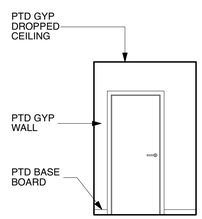
2 **INT ELEV - LIVING**
EAST



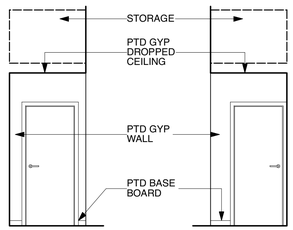
3 **INT ELEV - LIVING & KITCH**
SOUTH



4 **INT ELEV - KITCHEN**
WEST

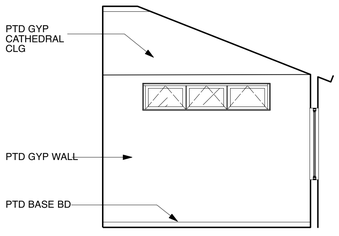


5 **INT ELEV - HALL**
NORTH

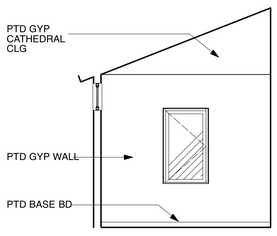


6 **INT ELEV - HALL**
EAST

7 **INT ELEV - HALL**
WEST



8 **INT ELEV - BDRM**
NORTH



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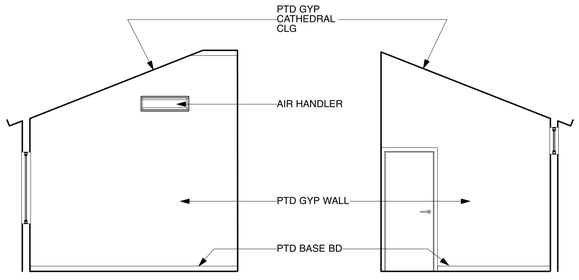
EAST



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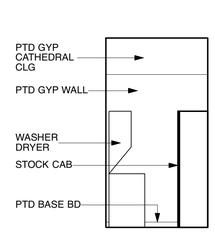
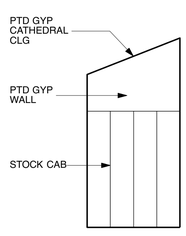
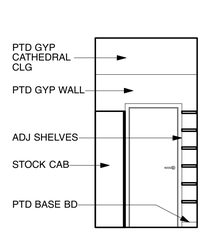
SOUTH



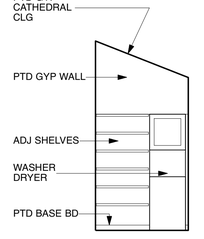
11 **INT ELEV - BDRM**
WEST



12 **INT ELEV - CLOS**
NORTH

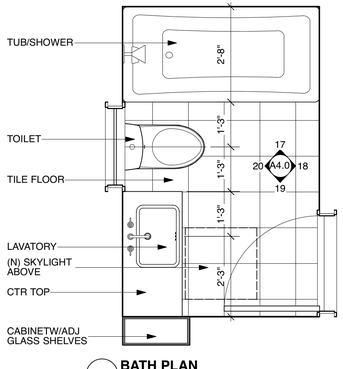


13 **INT ELEV - CLOS**
EAST

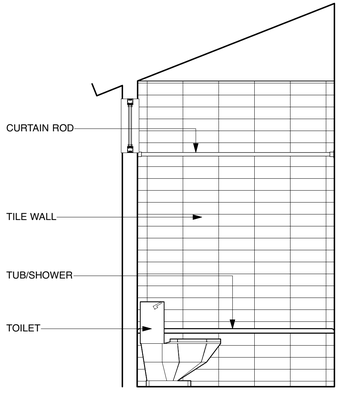


14 **INT ELEV - CLOS**
SOUTH

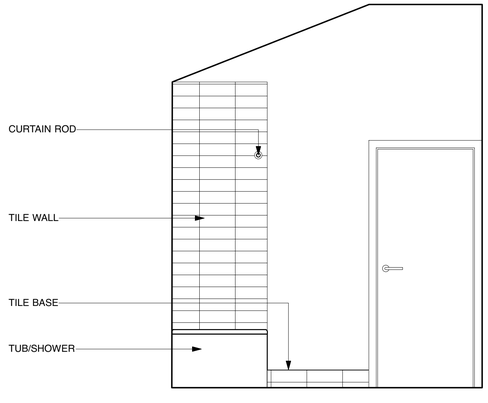
15 **INT ELEV - CLOS**
WEST



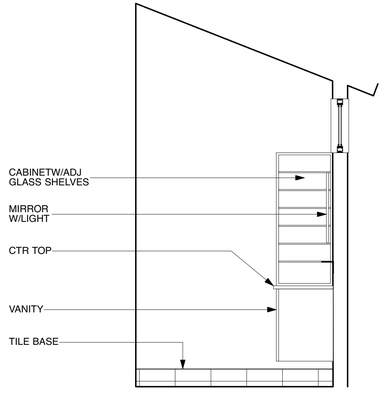
16 **BATH PLAN**
SCALE: 1/2"=1'-0"



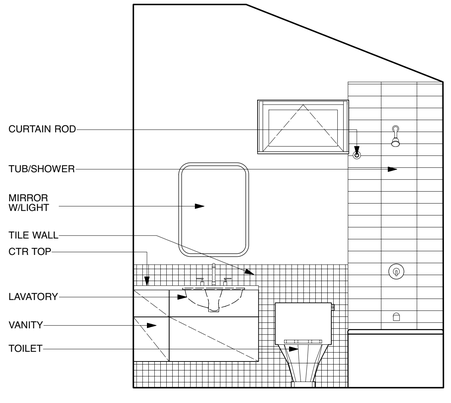
17 **BATH ELEVATION - NORTH**
SCALE: 1/2"=1'-0"



18 **BATH ELEVATION - EAST**
SCALE: 1/2"=1'-0"



19 **BATH ELEVATION - SOUTH**
SCALE: 1/2"=1'-0"



20 **BATH ELEVATION - WEST**
SCALE: 1/2"=1'-0"

Gregory H Ginter
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(Tel) 310-314-1984
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COMMENTS
For PERMIT

DATE
09-08-20

ISSUED
SM B&S

GROSSMAN ADU CONVERSION
1115 HILL ST, SANTA MONICA, CA 90405

Drawing Title
INTERIOR ELEVATIONS & BATH PLAN

Scale
1/4"=1'-0" U.O.N.

LICENSED ARCHITECT
GREGORY H GINTER
C-30586
11-30-2021
Renewal Date
STATE OF CALIFORNIA

A4.0

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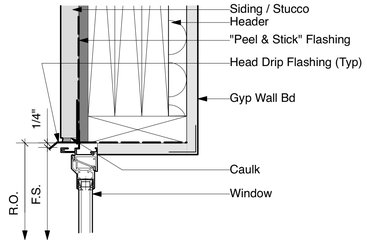
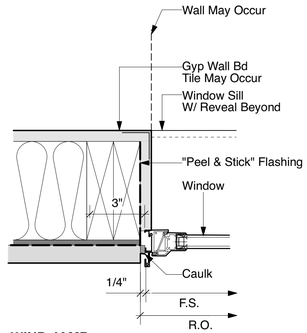
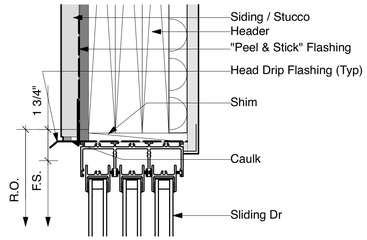


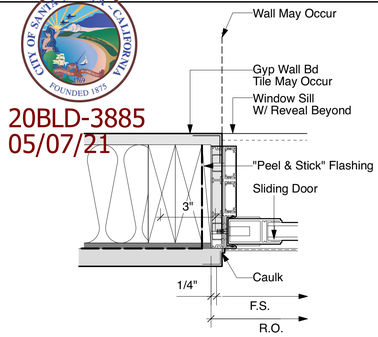
1 **DTL - WIND HEAD**
SCALE: 3"=1'-0"



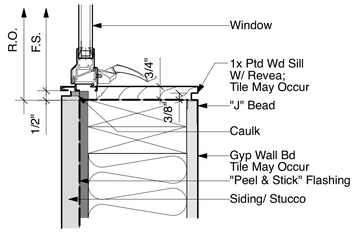
2 **DTL - WIND JAMB**
SCALE: 3"=1'-0"



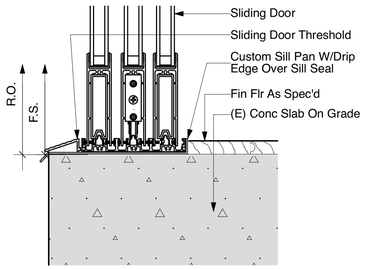
3 **DTL - DOOR HEAD**
SCALE: 3"=1'-0"



4 **DTL - DOOR JAMB**
SCALE: 3"=1'-0"



6 **DTL - WIND SILL**
SCALE: 3"=1'-0"



8 **DTL - DOOR SILL**
SCALE: 3"=1'-0"

CITY OF SANTA MONICA · CALIFORNIA
FOUNDED 1875

20BLD-3885
05/07/21

Gregory H Ginter
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PLAN NORTH TRUE

COMMENTS
For PERMIT

DATE
01-21-20

ISSUED
1 SM B&S

GROSSMAN ADU CONVERSION
1115 HILL ST, SANTA MONICA, CA 90405

Drawing Title
WINDOW & DOOR DETAILS

Scale
3"=1'-0" UON

REGISTERED LICENSED ARCHITECT
GREGORY H GINTER
C-30586
11-30-2021
Renewal Date
STATE OF CALIFORNIA

A6.2

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KARLIN RESIDENCE

654 HILL ST, SANTA MONICA, CA 90405

22BLD-0701
06/28/22

PROPERTY INFORMATION

Legal Information	
Address:	654 HILL ST
PIN Number:	
Lot Area:	5,067 SF
Assessor Parcel No.	4287-018-045
Lot:	PORTION 120
Tract:	MB 6-129
Block:	F
Thomas Brothers Grid:	
ARB:	
Map Sheet:	
Zoning Information	
Special Notes	
Zoning:	OP2
Zoning Information	
Coastal	YES
(E) Building Information	
(E) BLDG AREA	1728
Units	1
Stories	1
Occupancy	R3
Building Classification	TYPE VB - NO SPRINKLER
(E) Bedrooms	2
(E) ACCESSORY STRUCT	405 SF
USE	GARAGE
Occupancy	U
Building Classification	TYPE VB - NO SPRINKLER
PARCEL COVERAGE	2224sf - 44%
(P) Building Information	
(P) BLDG AREA	1728
Units	1
Stories	1
Occupancy	R3
Building Classification	TYPE VB - NO SPRINKLER
(P) Bedrooms	2
(P) ACCESSORY STRUCT	988 SF
USE	GARAGE & ADU
Occupancy	U/R3
Building Classification	TYPE VB - NO SPRINKLER
(P) PARCEL COVERAGE	2280sf - 45%

DRAWING LIST

ARCHITECTURAL		ARCHITECTURAL	
A0.0	Plot Plan, Schedules., Notes & Dia.		
A0.1	Zoning Diagrams		
A0.3	T24 Calcs		
A0.4	T24 Calcs	CIVIL	
A0.5	T24 Calcs	1 of 1	Survey
A0.6	Green Building Notes & Forms		
		LANDSCAPE	
		L1.0	Planting Plan
		L1.1	Planting Palette
		L2.0	Irrigation Plan
A1.0	Site Demo & Const Plan	L2.1	Irrigation Details
A1.2	Stormwater Managment Plan		
A2.0	Demolition Plan		
A2.1	1st Floor Construction Plan		
A2.2	2nd Floor Construction Plan		
A2.3	Roof Construction Plan		
A2.7	1st Floor Electrical Plan	STRUCTURAL	
A2.8	1st Floor RCP w/Lighting	S-000	General Notes
A2.9	2nd Floor Electrical Plan	S-010	Typ Concrete & Foundation Details
A2.10	2nd Floor RCP w/Lighting	S-020	Typ Wood Details
		S-021	Typ Wood Details
A3.0	Exterior Elevations	S-022	Typ Wood Details
A3.1	Building Sections	S-023	Typ Wood Details
		S-200	Ground Floor, 2nd Floor & Roof Framing Plan
A4.0	Bath & Kitch Plan & Interior Elevations	S-300	Simpson Strong Wall Details
		S-301	Simpson Strong Wall Details
		S-302	Simpson Strong Wall Details
A5.0	Wall Sections		
A5.1	Wall Sections		
A6.0	Window & Door Types & Schedules		
A7.0	Interior & Exterior Details		
A7.1	Stair Details		

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SOILS ENGINEER
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MECH/PLUMB ENGINEER
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LANDSCAPE DESIGNER
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Garden of Eva
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INTERIOR DESIGNER
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OWNER
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T (917) 363-5364
E benkarlin@yahoo.com

DRAWING SYMBOLS

SECTION
DETAIL
ELEVATION
ELEVATION INDICATOR
DOOR #
WIND. #
CABINET
ALIGNMENT
HOSE BIB
HOSE BIB W/HH SPRAY
GAS

CENTER LINE
CONST. ABOVE
CONST. BELOW
PROPERTY LINE
MATERIAL DIRECTION
WATER LINE — H20 —
GAS LINE — G —
SANITARY WASTE — SW —
PERFORATED PIPE — PP —
STORM DRAIN — SD —
UTILITY LINE — E/LV —
ELECTRIC & DATA

SUPPLY DUCT — S —
SUPPLY GRILL S
RETURN DUCT — R —
RETURN GRILL R
AIR EXCHANGE GRILL AE
WASTE STACK WS
LEADER DRAIN LD
FLR DRAIN FD
VENT STACK VS
SMOKE & CO DETECTOR

WALL TYPES

FOUNDATION WALL
See Struct Dwgs for Dtls

EXTERIOR WALL
2X6 WD Studs @ 16" O/C
W/ Thermal Insulation

INTERIOR PARTITION
2x6 WD Studs @ 16" O/C
W/5/8" GYP BD EA Side
&Sound Attenuation Blkt

1 HR FR WALL
2x6 WD Studs @ 16" O/C
W/5/8" Type X GYP BD EA
&Sound Attenuation Blkt
UL Listing #U344

2 HR FR WALL
2x6 WD Studs @ 16" O/C
W/(2) 5/8" Type X GYP BD
Ply Sheathing, Stucco Fin
& Thermal Batt Insulation
UL Listing #U263

ABBREVIATIONS

ABV	Above	DWG	Drawing	HHS	Hand Held Shower	REF	Refrigerant, Refrigerator
AC	Air Conditioner	DWR	Drawer	HM	Hollow Metal	RNF	Reinforced
ASPH	Asphault	E	Electric	HP	Heat Pump	RQD	Required
ACT	Active	EA	Each	IM	Ice Maker	RM	Room
AD	Access Door	EL, ELEV	Elevation	INSL	Insulation	RO	Rough Opening
ADJ	Adjustable	EM	Electric Meter	JMB	Jamb	SK	Sink
AFF	Above Finish Floor	EP	Electric Panel	L, LAV	Lavatory	SC	Self-closing
AH	Air Handler	EQ	Equal	JS	Jamb Switch	SL	Self-latching
AP	Access Panel	EQUIP	Equipment	MAH	Mahogany	SD	Shower, Storm Drain
BALC	Balcony	EX, EXIST	Existing	MC	Medicine Cabinet	SIM	Similar
BD	Board	EXP	Exposed	MECH	Mechanical	SWR	Shower
BO	Bottom Of	EXT	Exterior	MIN	Minimum	SS	Stainless Steel
BRG	Bearing	FD	Floor Drain	MFD	Manifold	SW	Sanitary Waste
BRK	Brick	FAI	Fresh Air Intake	MO	Masonry Opening	T	Toilet
BDT	Bidet	FC	Fan Coil Unit	MTD	Mounted	TB	Towel Bar
BTM	Bottom	FF	Finish Floor	MTL	Metal	TC	Top of Curb
CAB	Cabinet	FIN	Finish	NAT	Natural	TEL	Telephone
CBU	Cement Backer Unit	FLR	Floor	NIC	Not In Contract	TO	Top Of
CL, CLOS	Closet	FL	Flow Line	O/C	On Center	TP	Toilet Paper Holder
CLG	Ceiling	FN	Fence	OFE	Owner Furnished Equipment	TR	Towel Ring
CMU	Concrete Masonry Unit	FO	Finished Opening	OF&IE	Owner Furnished &	TRANS	Transparent
CTR	Counter	FPSC	Fire Proof Self-Closing		Installed Equipment	TYP	Typical
CL	Center Line	FTG	Footing	OHW	Opposite Hand	UON	Unless Otherwise Noted
CLR	Clear	FT	Feet	OPH	Opposite Hand	V	Vent
Conc	Concrete	G	Gas	ORD	Overflow Roof Drain	VCT	Vinyl Composition Tile
CT	Ceramic Tile	GM	Gas Meter	PLAM	Plastic Laminate	VIF	Verify In Field
CTV	Cable Television	GALV	Galvanized	PLY	Plywood	VS	Vent Stack
CU	Condensing Unit	GC	General Contractor	POP	Poplar	W	Washer
D	Dryer	GR	Grade	PP	Power Pole	WC	Water Closet
DH	Double Hung	GS	Gas Supply (Riser)	PT	Pressure Treated	WD	Wood
DIM	Dimension	GYP BD	Gypsum Wall Board	PTD	Painted	WDWK	Wood Work
DR HD	Door Head	GWB	Gypsum Wall Board	PVC	Polyvinyl Chloride	WH	Window Head
DTL	Detail	HZO	Water	R&S	Rod & Shelf	WM	Water Meter
DW	Dishwasher	HD	Head	RAD	Radiator	WO	Wall Oven
		HB	Hose Bib	RBJ	Run Between Joists	WS	Waste Stack
				RD	Roof Drain		

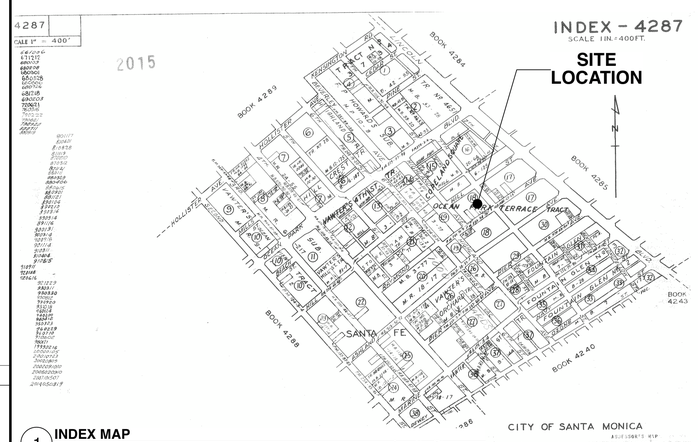
SCOPE OF WORK/ PERMITS REQ'D

1. **SMB&S COMBINATION RESIDENTIAL PERMIT**
   a. **ADDITION TO (E) DETACHED GARAGE AND CONVERSION TO ADU.**
   b. **ACCESSORY STRUCTURE**
   GROSS FLOOR AREA:
   1st FLR: (E) 405sf
   (N) 89sf
   2nd FLR: (N) 434sf
   TOTAL: (P) 928sf

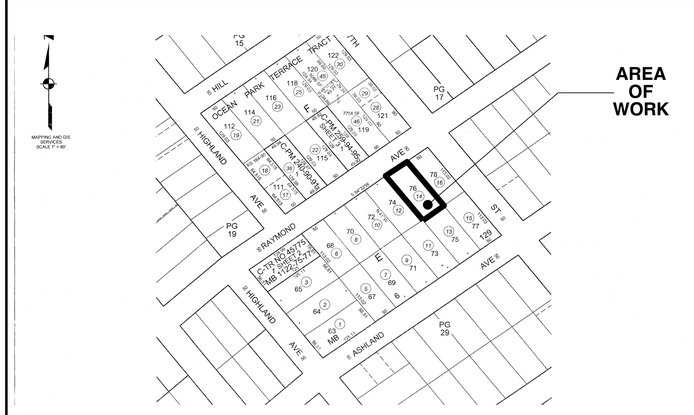
   NET FLOOR AREA
   GARAGE: (E) 372sf
   (N) 51sf
   TOTAL: (P) 423sf
   ADU:
   1st FLR: (N) 27sf
   2nd FLR: (N) 341sf
   TOTAL: (P) 368sf
   c. **BEDROOM COUNT:**
   SFDU (3) (E) NO CHANGE
   ADU (0)
   d. **(N) VOLUNTARY URBAN RUNOFF MITIGATION**
   e. **(N) 200A/1 PH/60HZ ELECTRIC SERVICE & (N) 2ND METER.**
   f. **LANDSCAPING**
   g. **(E) WATER SERVICE & WATER METER TO REMAIN.**
   h. **(N) SEWER LINE CONNECTED TO (E) SEWER LINE. (E) SEWER LATERAL TO REMAIN.**
   i. **(E) GAS METER TO REMAIN. NO CHANGE. IF GAS IS REQUIRED FOR (N) ADU, CONNECT TO (E) LINE.**
2. **COASTAL DEVELOPMENT PERMIT**

One-and-Two Family Dwelling Solar Photovoltaic Installations
a) All new one-and-two family dwellings are required to install a solar electric photovoltaic (PV) system. The required installation of the PV system shall be implemented using one of the following methods:
i. Install a solar PV system with a minimum total wattage 1.5 times the square footage of the dwelling (1.5 watts per square foot);
ii. Install a solar PV system or other renewable energy system that will offset 75%-100% of the Time Dependent Valuation (TDV) energy budget.
iii. Demonstrate that the Time Dependent Valuation (TDV) energy budget is reduced by the same wattage required by (a)(i).
b) The requirements of this Section shall be waived or reduced, by the minimum extent necessary, where production of electric energy from solar panels is technically infeasible due to lack of available and feasible unshaded areas.
c) The requirements of this Section shall take priority if there is a conflict between compliance with Section 4.201.3 and this section.

California State Division of Industrial Safety Permit is required for excavations five (5) or more feet in depth to bottom of excavation and for the demolition or construction of buildings over 3 stories in height.



1 **INDEX MAP**
SCALE: NOT TO SCALE



2 **VICINITY PLAN**
SCALE: NOT TO SCALE

1. General Notes:
a. All work to be completed under the regulations of and shall comply with Title 24 and 2019 California Building Code (CBC), California Mechanical Code (CMC), California Plumbing Code (CPC), California Electrical Code (CEC), and California Energy Code (CEnC) and current editions of all local regulations including but not limited to:
City of Santa Monica Municipal Code
State of California Coastal Act
b. All work to be completed by Contractors licensed by the State of California.

2. Demolition:
a. AQMD (Air Qulaity Management District) notification is required for projects involving demolition activity where asbestos containing material is present. Owner/General Contractor to contact AQMD at (909) 396-2336 or www.aqmd.gov and complete the required testing, forms and remove any asbestos containing material according to specified protocol.

3. **Smoke Detectors:** Provide hard-wired interconnected smoke detectors and carbon monoxide with battery backup & low battery signal. Smoke detectors are required in the following locations:
a. Each sleeping room
b. Centrally located in corridors giving access to each sleeping room
c. On each story of multistory dwelling and in basements.
d. In split-levels, detectors shall be installed on the upper level. If the lower level contains sleeping areas, then smoke detectors shall be installed on each level.
e. When sleeping areas are on the upper level, the detector shall be located in close proximity to the stairway.
Detectors shall sound an alarm audible in all sleeping areas of the dwelling.

4. **Mechanical Ventilation System:**
a. Provide a mechanical ventilation system in bathrooms containing a bathtub and/or shower, laundry rooms. Mechanical system must be capable of providing five air changes per hour and exhausting directly to the outside with humidity control.
b. Duct Run Is Diagrametric Only.
c. Run All Ducts Hunging Structure And Between Joists.
d. Allow For Full Access Of Entire Basement.
e. Locate Air Handlers For Convenient Access To Filters.
f. Kitchen exhaust fan to be minimum of 100cfm and vented to outside per ASHRAEI 62.2 and table 7.1 [CEC 150(o)]
g. Provide whole-house mechanical ventilation system as per CMC. [R303.1 Except2]

5. **Exterior Doors, Windows & Exits:** Except for vehicular access doors, all exterior swinging doors of any residential building and attached garages, including the door leading from the garage area into the dwelling unit shall be equipped as follows:
a. All wood doors shall be of solid core construction with a minimum thickness of 1 3/4" or with panels not less than 9/16" thick. Swinging doors shall comply with Uniform Building Code Standard 10-5, Part I. Doors in pairs shall be tested in pairs.
b. A single or double door shall be equipped with a single cylinder deadbolt lock. This deadbolt lock must be actuated by a key from the exterior and a knob or thumb turn from the interior and when projected becomes locked against return by emf pressure .The bolt shall have a minimum projection of 1" and be constructed so as to repel cutting tool attack. The deadbolt shall have an embedment of at least 3/4" into the strike receiving the projected bolt. The cylinder shall have a cylinder guard, a minimum of five pin tumblers and shall be connected to the inner portion of the lock by connecting screws of at least 1/4" in diameter. All installation shall be done so that the performance of the locking device will meet the intended anti-burglary requirements. A dual locking mechanism constructed so that both deadbolt and latch can be retracted by a single action of the inside door knob or lever may be substituted provided it meets all other specifications for locking devices.
c. The inactive leaf of double doors shall be equipped with metal flush bolts having a minimum embedment of 5/8" into the head and threshold of the doorframe.
d. Single-swinging doors and the active leaf of doors in pairs shall be equipped with an approved exterior key-operating deadbolt which has been tested in accordance with The Uniform Building Code Standard 10-5, part I. See chapter 10 of The California Building Code for requirements on door operation for exiting.
e. Glazing in exterior doors or within 40" of any locking mechanism shall be fully tempered glass or rated burglary-resistant glazing, except when double cylinder deadbolt locks with a key retaining feature are installed.
f. Except where clear vision panels are installed, all front exterior doors shall be equipped with a wide-angle (180 degrees) door viewer.
g. Thresholds at doorways shall not exceed 0.75 inch in height for sliding doors serving dwelling units or 0.5 inch for other doors. Raised thresholds and floor level changes greater than 0.25 inch at doorways shall be beveled with a slope not greater than one unit vertical in two units horizontal (50-percent slope). [1008.1.7].
h. At least one window in a sleeping area to comply with egress requirements. Maximum sill height of 44" AFF. Minimum width of 20" clear. Minimum height of 24" clear. Minimum opening of 5.7 sf clear. [310.9 CBC]
i. Locks as per SMMC 8.48.120 [1003.3.8 CBC]

6. **Street Numbers** and other identifying data shall be displayed as follows: All residential dwellings shall display a street number in a prominent location on both the street side of the residence and on the alley side of the property in such a position that the numbers are easily visible to approaching emergency vehicles. The numerals shall be no less than 4" in height and shall be of a contrasting color to the background to which they are attached.

7. Plumbing, Bathrooms & Water Conservation :
a. All hose bibs shall be fitted with non-removable back flow devices and shall be located 12" above the highest grade elevation.
b. Copper water lines if under the building shall be type "L", if above ground or below ground on the exterior of the building shall be type "M".
c. Showers and shower-tubs shall be provided with individual control valves of the pressure balance, thermostatic, or combination pressure balance/thermostatic mixing valve type that provide scald and thermal shock protection. [418 CPC)
d. Provide a permanently accessible 12" square bathtub trap access of note on plan that a non-slip-joint trap will be used. [404.2CPC]
e. Provide strapping for water heater Per DSA Guidelines. [510.5 CPC, SMMC 8.08.200].
f. Install a seismic gas shutoff valve as per [SMMC 8.32.070]
g. California licensed contractor to provide fire sprinklers throughout the house as per NFP-13R and [SMMC 8.44.050];
h. Provide 72 inch high non-absorbent wall adjacent to shower and approved shatter-resistant materials for shower enclosure.
i. Install pressure balance and/or thermastatic mixing valves in all tubs and showers.
j. Maintain 30"wide clear space for water closet with 24" clear space in front of bowl.
k. Provide low flow toilets (1.6 gallon/flush), showerheads (2.5 gpm) and faucets (2.5gpm) for all new construction.
l. Water heater shall be provided with temperature and pressure relief valves [505.6 CPC]. The relief valves shall be provided with a drain which extends from the valves to the outside of the building.
m. A removable panel for the whirlpool bathtub pump shall be located not more than 20' from the pump if through a crawl space. The panel shall be large enough to access and remove the pump. [414.1 CPC]
n. Tankless water heaters shall be nationally listed and be installed in accordance with the installation instructions that were approved as part of their listing. The gas piping serving this appliance must be sized in compliance with the water heater's listed installation instructions and the 2010 California Plumbing Code.

8. GUARDRAILS, STAIRS & HANDRAILS:
a. Handgrip portion of handrail is not to be less than 1 1/4" nor more than 2" in cross sectional and less than 3 1/2" of projection on each side. Trim, stringers and other projects not more than 1 1/2". [1003.3.6 & 1003.3.2 CBC]
b. Handrail projection space not less than 1 1/2" between the wall and the handrail. Handrail to have no sharp corners. [10003.3.6 CBC]
c. Openings located in handrails/guardrails shall not allow a 4" sphere to pass through the inner rails. [509.3 CBC]
d. The triangular opening formed by the risers and treads at the bottom rail of the guardrail and openings between treads on open risers shall not allow a 6" sphere to pass through. [509.3 CBC]
e. Treads must be a minimum of 9" and risers a minimum of 4" and a maximum 8".
f. The maximum variance for treads and risers over the entire run shall not exceed 3/8". [1003.3.3.3 CBC]
g. Headroom above stairs measured vertically from the plane parallel and tangent to the stair tread nosing to the soffit above at all points shall be 6'-8" for straight run stairs and 6'-6" for winders. [1003.3.3.4 CBC]
h. Handrail heights above the nosing of stairs shall be 34"-38". [1003.3.3.6 CBC]
i. Guardrail required for all floors that are greater than 30" height above the adjacent floor level. [106.2.7 & 509.1 CBC]
j. Guardrails in single family residences and individual units in multifamily residences shall be 36" AFF. All other guardrails shall be 42" AFF. [509.2 CBC]

9. INTERIOR ENVIRONMENT:
a. For all habitable rooms including basement, artificial light shall be provided that adequate to provide an average illumination of 10 (CRC 6) foot-candles over the area of the room at a height of 30 inches above the floor level.[1205.3, R303.1Except 2]

10. ELECTRICAL:
a. Listed arc-fault circuit interrupter combination type protection are required for all outlets (not just receptacles) for dwelling unit bedrooms, family rooms, dining rooms, living rooms, parlors, libraries, dens, sunrooms, recreation rooms, closets, hallways, or similar rooms or areas. [210.12 CEC]
b. Branch circuit overcurrent devices (fuses and breakers) shall not be located where they will be exposed to physical damage, in the vicinity of easily ignitable materials, such as in clothes closet, bath, or toilet room. [240.24 CEC]
c. A minimum of two 20 amp small appliance branch circuits shall be provided for all receptacle outlets in the kitchen, dining room, pantry, breakfast room or other similar areas [210.11(C)(1) CEC] [210.52(B)(1)(2)(3)]
d. At least one 20 amp branch circuit shall be provided to supply laundry receptacle outlets. Such circuits shall have no other outlets. [210.11(C)(2) CEC]
e. At least one 20 amp branch circuit shall be provided to supply bathroom receptacle outlets. Such circuits shall have no other outlets. [210.11(C)(3) CEC]
f. Provide electrical recepticles as per CEC [210.52]
g. All lighting measures to meet Mandatory Methods specified on Title 24 Calcs MF-1R.
h. Grounding method to be determined by CA Licensed Electrician as per CEC [250.24]

11. Energy Notes:

a. All pressure-sensitive tapes, mastics, aerosol sealants, or other closure systems used for installing field-fabricated duct systems shall meet the applicable requirements of UL181, UL181A or UL 181B" [124(b)(2) CEnC]
b. The supply heating and cooling energy to each space-conditioning zone or dwelling unit shall be controlled by an individual thermostatic control that responds to temperature within the zone. [122(a) CEnC]
c. Luminaries recessed into insulated ceilings shall be approved for zero clearance insulation contact (IC) by the Underwriters Laboratories or other recognized testing/rating laboratory and shall include a label certifying air tight to show air leakage less than 2.0 CFM at 75 Pascals(1.75 #/sf) when tested in accordance with ASTM E 283 and shall be sealed with a gasket or caulk between the housing and ceiling.[150(k)(12)
d. The first 5 feet of hot and cold water pipes from the storage tank for non-recirculating systems shall be thermally insulated with a minimum of 1" (.75") thick insulation for hot (cold) water pipes with a diameter less than or equal to 2 inches or 1.5" (1") for hot (cold) water pipes with a diameter greater than 2 inches. [150(j)(2) CEnC]
e. For installation of fireplaces, decorative gas appliances and gas logs: If a masonry or factory built fireplace is installed, it shall have the following:
a) Closable metal or glass door covering the entire opening of the fire box;
b) A combustion air intake to draw air from the outside of the building directly into the firebox with a minimum 6 sq inch in area a tight fitting damper or combustion –air control device, for exception see 150(e)1B
c) A flue damper with a readily accessible control
f. Joints and other openings in the building envelope that are potential sources of air leakage shall be caulked, gasketed, weather-stripped or otherwise sealed to limit infiltration and exfiltration. [117 CEnC]

12. CALGreen Notes:
a. Seal joints and openings in the building envelope between conditioned and unconditioned spaces [4.406.1 CGBSC]
b. Develop an operation and maintenance manual to be supplied to owner at final inspection [4.410.1 CGBSC]
c. All fireplaces are direct vent sealed combustion gas [4.503.1 CGBSC]
d. Protection and covering of duct openings shall be provided during storage and construction [4.504.1 CGBSC] 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 [4.505.3 CGBSC]
e. Moisture content must be verified in compliance with all of the following: 1) Moisture content must be determined with either a probe-type or contact type moisture meter; 2) Moisture readings shall be taken at a point 2 to 4 fees from the grade stamped end to be verified; 3) At least three random moisture readings shall be performed on wall and floor framing with documentation to enclose the wall and floor framing
f. Bathroom exhaust fans must be ENERGY STAR and be ducted to terminate outside of building, and 50 CFM. Unless the fan is part of a whole house ventilation system, it must be controlled by a readily accessible humidistat which ranges from 50 to 80 percent relative humidity range [CMC T4-4, 4.506.1 CGBSC]
g. HVAC system must be sized and designed with ACCA manuals J, D, and S. [4.507.2 CGBSC]
h. Pipe insulation on all exposed and accessible hot water pipes connected to a new water heater per the California Energy Code. [SMMC 8.106.055, 8.106.180]
i. Low VOC adhesives, sealants, paints, coatings, carpet systems, low formaldehyde wood, low VOC resilient flooring [4.504.2 CGBSC] Save spec sheets readily available and subject to verification during field inspection; product specifications and containers must be available.
j. All new plumbing fixtures installed in new and existing buildings shall meet the 20% water use reduction. [SMMC 8.106.057, 8.106.190] If there are multiple showerheads in one shower, they must meet the single fixture flow rate [4.303.2] When single shower fixtures are served by more than one showerhead, the combined flow rate of all showerheads shall not exceed the max flow rates specified in Table 4.303.2 (20% reduction, 2.0 gpm avg)
a) Showerheads Maximum flow rate 2 gpm @ 80 psi
b) Lavatory faucets flow rate between of 1.5-0.8 gpm @ 60-20 psi
c) Water Closets 1.28 gallons/effective flush
k. Plumbing fittings and fixtures to meeet standards in CAL Green table 4.303.3 CBSC [4.303.3]

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ISSUED	DATE	COMMENTS
SMB&S	02-06-22	For PERMIT
1 SMB&S	04-20-22	For PERMIT

KARLIN RESIDENCE
654 HILL ST, SANTA MONICA, CA 90405

Scale 1/8"=1'-0" UON

Drawing Title
DRAWING LIST / NOTES
ZONING ANALYSIS & DIAGRAMS

LICENSED ARCHITECT
GREGORY H GINTER
C-30695
11/30/23
Renewal Date
STATE OF CALIFORNIA

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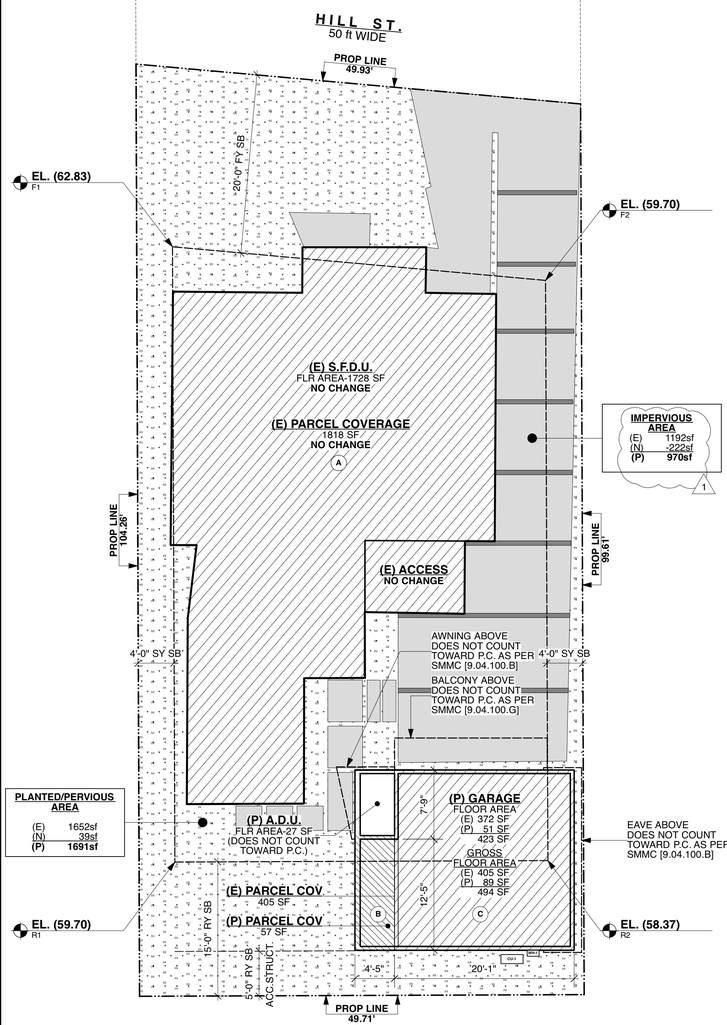
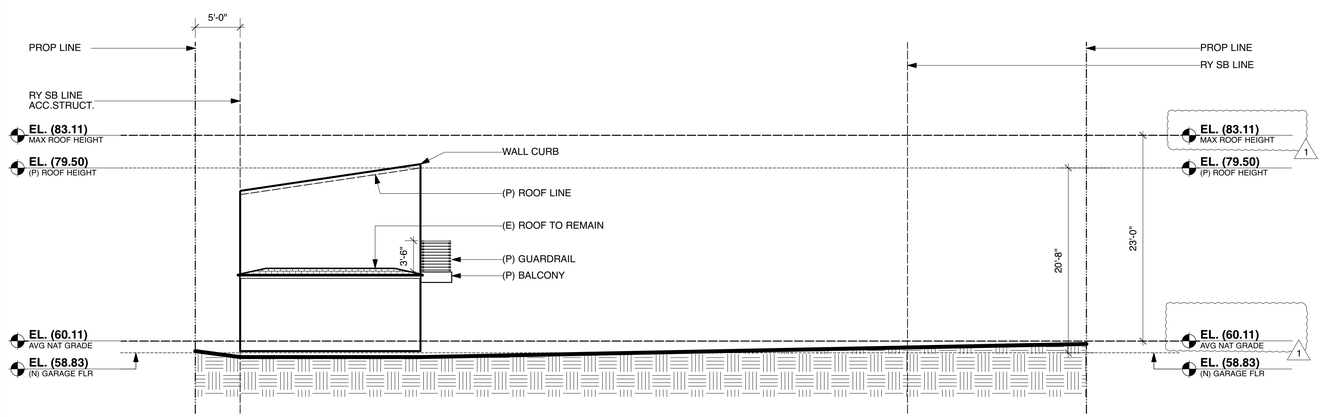


1 **ZONING DIA - 1ST FLR AREA, PARCEL COVERAGE & A.N.G.**
SCALE: 1/8"=1'-0"

2 **ZONING DIA- 2ND FLR AREA & PARCEL COVERAGE**
SCALE: 1/8"=1'-0"



3 **ZONING DIA - HEIGHT**
SCALE: 1/8"=1'-0"

CITY OF SANTA MONICA · CALIFORNIA · FOUNDED 1875

22BLD-0701
06/28/22

ZONING CALCULATIONS

PLN #	SMMC SECTION	DESCRIPTION					
1	9.04.050 A.	Building Height	Average Natural Grade as per 9.04.050.A.1 U			CALC MIDPT	
			F1 (N/W)			62.80	61.18
			F2 (N/E)			59.55	
			R1 (S/W)			59.70	59.05
			R2 (S/E)			58.40	
			A.N.G.			240.45	60.11
	9.51.020.A.1.c	Allowable Land Uses	OP2	Single Family Dwelling Unit with Accessory Dwelling Unit and Garage			1
	TBL 9.09.030	Property Development Standards	Property to be Developed Using Tier 1 Standards				
		Min. Parcel Dimensions	N/A	Existing Lot			
3		Max. Building Hgt	2 Storeis				
			23ft		Lot Depth (ft)	Lot Width (ft)	Lot Area (sf)
					140.26 (W) 99.61 (E)	49.93 (N) 49.71 (S)	5067.00 (As per Survey)
2		Max. Parcel Coverage (MPC)	Permitted %			Allow MPC	Proposed MPC
			50%		5067.00	2653.26	2280.00 45.00%
1&2		Front Yd Setback	20ft				
1&2		Rear Yd Setback	15ft				
1&2		Side Yd Setback	4ft				
2	9.09.030.B	Max Hgt Sloped Parcel OP2	Not Applicable	MDPT FY-MDPT RY		2.125 < 10ft	
	9.03.030 E	Roof Deck Handrail	3.5ft				
2	9.09.030 G.	Open Space & Landscaping	Min Open Space & Landscaping per Unit:				
		MIN Open Space				Not Applicable to SFDU	
		Min Planting Area	PLANTED AREA			Not Applicable to SFDU	EXCLUDES AREA COVERED BY GARAGE
			IMPERVIOUS-NON PLANTED AREA			Not Applicable to SFDU	
2	9.21.050.A	Fences, Walls & Hedges		3'6" Front Setback			
2				8'0" Side & Rear Setback		12ft - Hedge	
3		Height Projections					
	TBL 9.21.060	Mech Equip Max Roof Coverage		N/A			
1&2	9.21.110	Projections Into Req'd Setbacks	Front	Side		Rear	
		Eaves, Awnings & Belt Courses	2'6"	2'0"		4'0"	
		Flues, Chimneys & Gutters	1'6"	1'6"		1'6"	
		Patios No Roof-3ft H	6ft	No Limit		No Limit	
		Balconies, Porches Open (2) Sides	2'6"	Not Permitted		4'0"	
		2nd Flr Decks In OP2	2'6"	2'6"		4'0"	
		Air Cond, Mech Equip	Not Permitted	Not Permitted		No Limit	
		Water Heaters	Not Permitted	1'6"		No Limit	
		Gas. Water & Elec Meters	Not Permitted	1'6"		No Limit	
		Solar Energy Equipment	Not Permitted	≥2'0" PL		≥2'0" PL	
2	TBL 9.28.060	Required Parking	2 space/Unit	2 spaces Req'd			
	9.28.070.B	Location of Parking - Garage in Rear Half of Lot					
1&2	9.31.025.J.2	Max ADU Size		850 Detached, Studio, Lot size < 10000sf, Rear Half of Lot			
		1st Floor		27 Floor Area taken from inside face of walls as per SMMC 9.04.080			
		2nd Floor		341			
			Stair	NIC Stair area not included as per SMMC 9.04.080			
			TOTAL	368			

PARCEL COVERAGE CALCULATION

AREA	L (ft)	W (ft)	Area (sf)
(E) SFDU			
A			1818.00
			0.00
	SUBTOTAL		1818.00
GARAGE			
B	4.42	12.83	56.72
C	20.08	20.17	405.01
			0.00
			0.00
	SUBTOTAL		461.74
TOTAL			2279.74

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PLAN NORTH TRUE

ISSUED	DATE	COMMENTS
1 SMB&S	02-06-22	For PERMIT
SMB&S	04-20-22	For PERMIT
SMB&S	05-27-22	For PERMIT

KARLIN RESIDENCE
654 HILL ST, SANTA MONICA, CA 90405

Drawing Title
ZONING ANALYSIS & DIAGRAMS

Scale
AS NOTED

LICENSED ARCHITECT
GREGORY H GINTER
C-30698
11/30/23
Renewal Date
STATE OF CALIFORNIA

A0.1

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GENERAL INFORMATION					
01	**Project Name**	Residential Building			
02	**Run Title**	Title 24 Analysis			
03	**Project Location**	654 Hill Street			
04	**City**	Santa Monica	05	**Standards Version**	2019
06	**Zip code**	90405	07	**Software Version**	CBECC-Res 2019.2.0
08	**Climate Zone**	6	09	**Front Orientation (deg/ Cardinal)**	315
10	**Building Type**	Single family	11	**Number of Dwelling Units**	1
12	**Project Scope**	AdditionOnly	13	**Number of Bedrooms**	4
14	**Addition Cond. Floor Area (ft²)**	466	15	**Number of Stories**	2
16	**Existing Cond. Floor Area (ft²)**	1728	17	**Fenestration Average U-factor**	0.4
18	**Total Cond. Floor Area (ft²)**	2194	19	**Glazing Percentage (%)**	53.93%
20	**ADU Bedroom Count**	1	21	**ADU Conditioned Floor Area**	466
22	**Is Natural Gas Available?**	Yes			

Addition Alone Project Analysis Parameters

01	02	03	04	05	06
Existing Area (excl. new addition) (ft2)	**Addition Area (excl. existing) (ft2)**	**Total Area (ft2)**	**Existing Bedrooms**	**Addition Bedrooms**	**Total Bedrooms**
1728	466	2194	3	1	4

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 (kTD/ft²-yr)	Standard Design	Proposed Design	Compliance Margin	Percent Improvement
Space Heating	8.56	15.53	-6.97	-81.4
Space Cooling	22.75	20.29	2.47	10.8
IAQ Ventilation	5.16	5.16	0	0
Water Heating	36.99	32.16	4.83	13.1
Self Utilization/Flexibility Credit	n/a	0	0	n/a
Compliance Energy Total	**73.46**	**73.14**	**0.32**	**0.4**

REQUIRED SPECIAL FEATURES

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

- Variable capacity heat pump compliance option (verification details from VCHP Staff report, Appendix B, and RA3)

HERS FEATURE SUMMARY

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

Building-level Verifications:
- Quality insulation installation (QII)
- Indoor air quality ventilation
- Kitchen range hood

Cooling System Verifications:
- Verified Refrigerant Charge
- Airflow in habitable rooms (SC3.1.4.1.7)

Heating System Verifications:
- Verified HSPF
- Verified heat pump rated heating capacity
- Wall-mounted thermostat in zones greater than 150 ft2 (SC3.4.5)
- Ductless indoor units located entirely in conditioned space (SC3.1.4.1.8)

HVAC Distribution System Verifications:
- -- None --

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

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ZONE INFORMATION

01	02	03	04	05	06	07
Zone Name	**Zone Type**	**HVAC System Name**	**Zone Floor Area (ft²)**	**Avg. Ceiling Height**	**Water Heating System 1**	**Water Heating System 2**
ADU	Conditioned	HVAC System1	466	8	DHW Sys 1	N/A

OPAQUE SURFACES

01	02	03	04	05	06	07	08	09	10
Name	**Zone**	**Construction**	**Azimuth**	**Orientation**	**Gross Area (ft²)**	**Window and Door Area (ft2)**	**Tilt (deg)**	**Wall Exceptions**	**Status**
Southeast Wall	ADU	R-15 Wall	135	Back	38.6	0	90	none	New
Southwest Wall (2x6)	ADU	R-19	225	Right	161.3	19.7	90	none	New
Northwest Wall	ADU	R-15 Wall	315	Front	38.6	27.5	90	none	New
Northeast Wall	ADU	R-15 Wall	45	Left	221.7	0	90	none	New
Southeast Wall 2	ADU	R-15 Wall	135	Back	225.7	9.3	90	none	New
Southwest Wall (2x6) 2	ADU	R-19	225	Right	221.7	56.6	90	none	New
Northwest Wall 2	ADU	R-15 Wall	315	Front	225.7	138.2	90	none	New
Interior Surface Floor	ADU	R-0 Floor No Crawlspace	n/a	n/a	32	n/a	n/a		New
Interior Surface Floor 2	ADU	R-30 Floor No Crawlspace	n/a	n/a	404	n/a	n/a		New

OPAQUE SURFACES - CATHEDRAL CEILINGS

01	02	03	04	05	06	07	08	09	10	11
Name	**Zone**	**Construction**	**Azimuth**	**Orientation**	**Area (ft²)**	**Skylight Area (ft²)**	**Roof Rise (x in 12)**	**Roof Reflectance**	**Roof Emittance**	**Cool Roof**
Roof	ADU	R-30 Roof No Attic	315	Front	434	0	2	0.1	0.85	No

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FENESTRATION / GLAZING

01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	**Type**	**Surface**	**Orientation**	**Azimuth**	**Width (ft)**	**Height (ft)**	**Mult.**	**Area (ft²)**	**U-factor**	**U-factor Source**	**SHGC**	**SHGC Source**	**Exterior Shading**
Window	Window	Southwest Wall (2x6)	Right	225			1	19.7	0.4	NFRC	0.25	NFRC	Bug Screen
Window 2	Window	Northwest Wall	Front	315			1	27.5	0.4	NFRC	0.25	NFRC	Bug Screen
Window 3	Window	Southeast Wall 2	Back	135			1	9.3	0.4	NFRC	0.25	NFRC	Bug Screen
Window 4	Window	Southwest Wall (2x6) 2	Right	225			1	56.6	0.4	NFRC	0.25	NFRC	Bug Screen
Window 5	Window	Northwest Wall 2	Front	315			1	138.2	0.4	NFRC	0.25	NFRC	Bug Screen

SLAB FLOORS

01	02	03	04	05	06	07	08
Name	**Zone**	**Area (ft²)**	**Perimeter (ft)**	**Edge Insul. R-value and Depth**	**Edge Insul. R-value and Depth**	**Carpeted Fraction**	**Heated**
Slab	ADU	32	29.8	none	0	80%	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**
R-15 Wall	Exterior Walls	Wood Framed Wall	2x4 @ 16 in. O. C.	R-15	None / None	0.095	Inside Finish: Gypsum Board Cavity / Frame: R-15 / 2x4 Exterior Finish: 3 Coat Stucco
R-19	Exterior Walls	Wood Framed Wall	2x6 @ 16 in. O. C.	R-19	None / None	0.074	Inside Finish: Gypsum Board Cavity / Frame: R-19 in 5-1/2 in. (R-18) / 2x6 Exterior Finish: 3 Coat Stucco

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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-30 Roof No Attic	Cathedral Ceilings	Wood Framed Ceiling	2x10 @ 24 in. O. C.	R-30	None / None	0.035	Roofing: Light Roof (Asphalt Shingle) Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: R-30 / 2x10 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
R-30 Floor No Crawlspace	Interior Floors	Wood Framed Floor	2x10 @ 16 in. O. C.	R-30	None / None	0.033	Floor Surface: Carpeted Floor Deck: Wood Siding/sheathing/decking Cavity / Frame: R-30 / 2x10 Ceiling Below Finish: Gypsum Board

BUILDING ENVELOPE - HERS VERIFICATION

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

WATER HEATING SYSTEMS

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

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WATER HEATERS

01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	**Heating Element Type**	**Tank Type**	**# of Units**	**Tank Vol. (gal)**	**Energy Factor or Efficiency**	**Input Rating or Pilot**	**Tank Insulation R-value (Int/Ext)**	**Standby Loss or Recovery Eff**	**1st Hr. Rating or Flow Rate**	**NEEA Heat Pump Brand or Model**	**Tank Location or Ambient Condition**	**Status**	**Verified Existing Condition**
DHW Heater 1	Gas	Consumer Instantaneous	1	0	0.96-UEF	<= 200 kBtu/hr	0	n/a	n/a	n/a	n/a	New	n/a

WATER HEATING - HERS VERIFICATION

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

SPACE CONDITIONING SYSTEMS

01	02	03	04	05	06	07	08	09	10	11
Name	**System Type**	**Heating Unit Name**	**Cooling Unit Name**	**Fan Name**	**Distribution Name**	**Required Thermostat Type**	**Status**	**Verified Existing Condition**	**Heating Equipment Count**	**Cooling Equipment Count**
HVAC System1	Heat pump heating cooling	Heat Pump System 1	Heat Pump System 1	n/a	n/a	Setback	New	NA	1	1

HVAC - HEAT PUMPS

01	02	03	04	05	06	07	08	09	10	11
Name	**System Type**	**Number of Units**	**Heating**			**Cooling**		**Zonally Controlled**	**Compressor Type**	**HERS Verification**
			HSPF/COP	**Cap 47**	**Cap 17**	**SEER**	**EER/CEER**			
Heat Pump System 1	VCHP-ductless	1	8.5	12000	7400	14	11	Not Zonal	Single Speed	Heat Pump System 1-hers-htpump

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HVAC HEAT PUMPS - HERS VERIFICATION

01	02	03	04	05	06	07	08	09
Name	**Verified Airflow**	**Airflow Target**	**Verified EER**	**Verified SEER**	**Verified Refrigerant Charge**	**Verified HSPF**	**Verified Heating Cap 47**	**Verified Heating Cap 17**
Heat Pump System 1-hers-htpump	Not Required	0	Not Required	Not Required	Yes	Yes	Yes	Yes

VARIABLE CAPACITY HEAT PUMP COMPLIANCE OPTION - HERS VERIFICATION

01	02	03	04	05	06	07	08	09	10
Name	**Certified Low-Static VCHP System**	**Airflow to Habitable Rooms**	**Ductless Units in Conditioned Space**	**Wall Mount Thermostat**	**Air Filter Sizing & Pressure Drop Rating**	**Low Leakage Ducts in Conditioned Space**	**Minimum Airflow per RA3.3 and SC3.3.4.1**	**Certified non-continuous Fan**	**Indoor Fan not Running Continuously**
Heat Pump System 1	Not required	Required	Required	Required	Not required	Not required	Not required	Not required	Not required

IAQ (INDOOR AIR QUALITY) FANS

01	02	03	04	05	06	07
Dwelling Unit	**IAQ CFM**	**IAQ Watts/CFM**	**IAQ Fan Type**	**IAQ Recovery Effectiveness - SRE**	**IAQ Recovery Effectiveness - ASRE**	**HERS Verification**
SFam ADU IAQVentRpt	29	0.35	Exhaust	n/a	n/a	Yes

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DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

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

Documentation Author Name: Mario Bertacco	Documentation Author Signature: Mario Bertacco
Company: NRG Compliance LP	Signature Date: 02/03/2022
Address: PO Box 3777	CEA/ HERS Certification Identification (If applicable):
City/State/Zip: Santa Rosa, CA 95402	Phone: 707-237-6957

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: Gregory Ginter	Responsible Designer Signature: Gregory Ginter
Company: Gregory H Ginter Architect	Date Signed: 02/03/2022
Address: 1525 Pearl St	License:
City/State/Zip: Santa Monica, CA 90405	Phone: (310) 314-1984

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22BLD-0701
06/28/22

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COMMENTS
For PERMIT

DATE
02-06-22

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Scale

Drawing Title
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RESIDENTIAL MEASURES SUMMARY — RMS-1

Project Name	Building Type		Date
Karlin, Ben ADU	☑ Single Family ☐ Multi Family	☑ Addition Alone ☐ Existing+ Addition/Alteration	2/3/2022

Project Address	California Energy Climate Zone	Total Cond. Floor Area	Addition	# of Units
654 Hill Street Santa Monica	CA Climate Zone 06	466	466	1

INSULATION

Construction	Type	Cavity	Area (ft^2)	Special Features	Status
Wall	Wood Framed	R 15	575		New
Wall	Wood Framed	R 19	307		New
Slab	Unheated Slab-on-Grade	- no insulation	32	Perim = 30'	New
Roof	Wood Framed Rafter	R 30	434		New
Demising	Wood Framed w/o Crawl Space	- no insulation	32		New
Demising	Wood Framed w/o Crawl Space	R 30	404		New

FENESTRATION

Total Area: 251 | Glazing Percentage: 53.9 % | New/Altered Average U-Factor: 0.40

Orientation	Area(ft^2)	U-Fac	SHGC	Overhang	Sidefins	Exterior Shades	Status
Right (SW)	76.3	0.400	0.25	none	none	N/A	New
Front (NW)	165.7	0.400	0.25	none	none	N/A	New
Rear (SE)	9.3	0.400	0.25	none	none	N/A	New

HVAC SYSTEMS

Qty.	Heating	Min. Eff	Cooling	Min. Eff	Thermostat	Status
1	Split Heat Pump	8.50 HSPF	Split Heat Pump	14.0 SEER	Setback	New

HVAC DISTRIBUTION

Location	Heating	Cooling	Duct Location	Duct R-Value	Status
HVAC System	Ductless / with Fan	Ductless	n/a	n/a	New

WATER HEATING

Qty.	Type	Gallons	Min. Eff	Distribution	Status
1	Small Instantaneous Gas	0	0.96	Standard	New

2019 Low-Rise Residential Mandatory Measures Summary

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

2019 Low-Rise Residential Mandatory Measures Summary

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

2019 Low-Rise Residential Mandatory Measures Summary

§ 150.0(h)3A:	**Clearances.** Air conditioner and heat pump outdoor condensing units must have a clearance of at least five feet from the outlet of any dryer
§ 150.0(h)3B:	**Liquid Line Drier.** Air conditioners and heat pump systems must be equipped with liquid line filter driers if required, as specified by the manufacturer's instructions.
§ 150.0(j)1:	**Storage Tank Insulation.** Unfired hot water tanks, such as storage tanks and backup storage tanks for solar water-heating systems, must have a minimum of R-12 external insulation or R-16 internal insulation where the internal insulation R-value is indicated on the exterior of the tank.
§ 150.0(j)2A:	**Water Piping, Solar Water-heating System Piping, and Space Conditioning System Line Insulation.** All domestic hot water piping must be insulated as specified in Section 609.11 of the California Plumbing Code. In addition, the following piping conditions must have a minimum insulation wall thickness of one inch or a minimum insulation R-value of 7.7: the first five feet of cold water pipes from the storage tank; all hot water piping with a nominal diameter equal to or greater than 3/4 inch and less than one inch; all hot water piping with a nominal diameter less than 3/4 inch that is: associated with a domestic hot water recirculation system, from the heating source to storage tank or between tanks, buried below grade, and from the heating source to kitchen fixtures.*
§ 150.0(j)3:	**Insulation Protection.** Piping insulation must be protected from damage, including that due to sunlight, moisture, equipment maintenance, and wind as required by Section 120.3(b). Insulation exposed to weather must be water retardant and protected from UV light (no adhesive tapes). Insulation covering chilled water piping and refrigerant suction piping located outside the conditioned space must include, or be protected by, a Class I or Class II vapor retarder. Pipe insulation buried below grade must be installed in a waterproof and non-crushable casing or sleeve.
§ 150.0(n)1:	**Gas or Propane Water Heating Systems.** Systems using gas or propane water heaters to serve individual dwelling units must include all of the following: A dedicated 125 volt, 20 amp electrical receptacle connected to the electric panel with a 120/240 volt 3 conductor, 10 AWG copper branch circuit, within three feet of the water heater without obstruction. Both ends of the unused conductor must be labeled with the word "spare" and be electrically isolated. Have a reserved single pole circuit breaker space in the electrical panel adjacent to the circuit breaker for the branch circuit and labeled with the words "Future 240V Use"; a Category III or IV vent, or a Type B vent with straight pipe between the outside termination and the space where the water heater is installed; a condensate drain that is no more than two inches higher than the base of the water heater, and allows natural draining without pump assistance; and a gas supply line with a capacity of at least 200,000 Btu per hour.
§ 150.0(n)2:	**Recirculating Loops.** Recirculating loops serving multiple dwelling units must meet the requirements of § 110.3(c)5.
§ 150.0(n)3:	**Solar Water-heating Systems.** Solar water-heating systems and collectors must be certified and rated by the Solar Rating and Certification Corporation (SRCC), the International Association of Plumbing and Mechanical Officials, Research and Testing (IAPMO R&T), or by a listing agency that is approved by the Executive Director.
Ducts and Fans Measures:	
§ 110.8(d)3:	**Ducts.** Insulation installed on an existing space-conditioning duct must comply with § 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 the requirements of the CMC §§ 601.0, 602.0, 603.0, 604.0, 605.0 and ANSI/SMACNA-006-2006 HVAC Duct Construction Standards Metal and Flexible 3rd Edition. Portions of supply-air and return-air ducts and plenums must be insulated to a minimum installed level of R-6.0 or a minimum installed level of R-4.2 when ducts are entirely in conditioned space as confirmed through field verification and diagnostic testing (RA3.1.4.3.8). Portions of the duct system completely exposed and surrounded by directly conditioned space are not required to be insulated. Connections of metal ducts and inner core of flexible ducts must be mechanically fastened. Openings must be sealed with mastic, tape, or other duct-closure system that meets the applicable requirements of UL 181, UL 181A, or UL 181B or aerosol sealant that meets the requirements of UL 723. If mastic or tape is used to seal openings greater than ¼ inch, the combination of mastic and either mesh or tape must be used. Building cavities, support platforms for air handlers, and plenums designed or constructed with materials other than sealed sheet metal, duct board or flexible duct must not be used to convey conditioned air. Building cavities and support platforms may contain ducts. Ducts installed in cavities and support platforms must not be compressed to cause reductions in the cross-sectional area.'
§ 150.0(m)2:	**Factory-Fabricated Duct Systems.** Factory-fabricated duct systems must comply with applicable requirements for duct construction, connections, and closures; joints and seams of duct systems and their components must not be sealed with cloth back rubber adhesive duct tapes unless such tape is used in combination with mastic and draw bands.
§ 150.0(m)3:	**Field-Fabricated Duct Systems.** Field-fabricated duct systems must comply with applicable requirements for: pressure-sensitive tapes, mastics, sealants, and other requirements specified for duct construction.
§ 150.0(m)7:	**Backdraft Damper.** Fan systems that exchange air between the conditioned space and outdoors must have backdraft or automatic dampers.
§ 150.0(m)8:	**Gravity Ventilation Dampers.** Gravity ventilating systems serving conditioned space must have either automatic or readily accessible, manually operated dampers in all openings to the outside, except combustion inlet and outlet air openings and elevator shaft vents.
§ 150.0(m)9:	**Protection of Insulation.** Insulation must be protected from damage, sunlight, moisture, equipment maintenance, and wind. Insulation exposed to weather must be suitable for outdoor service. For example, protected by aluminum, sheet metal, painted canvas, or plastic cover. Cellular foam insulation must be protected as above or painted with a coating that is water retardant and provides shielding from solar radiation.
§ 150.0(m)10:	**Porous Inner Core Flex Duct.** Porous inner core flex ducts must have a non-porous layer between the inner core and outer vapor barrier.
§ 150.0(m)11:	**Duct System Sealing and Leakage Test.** When space conditioning systems use forced air duct systems to supply conditioned air to an occupiable space, the ducts must be sealed and duct leakage tested, as confirmed through field verification and diagnostic testing, in accordance with § 150.0(m)11 and Reference Residential Appendix RA3.
§ 150.0(m)12:	**Air Filtration.** Space conditioning systems with ducts exceeding 10 feet and the supply side of ventilation systems must have MERV 13 or equivalent filters. Filters for space conditioning systems must have a two inch depth or can be one inch if sized per Equation 150.0-A. Pressure drops and labeling must meet the requirements in §150.0(m)12. Filters must be accessible for regular service.*
§ 150.0(m)13:	**Space Conditioning System Airflow Rate and Fan Efficacy.** Space conditioning systems that use ducts to supply cooling must have a hole for the placement of a static pressure probe, or a permanently installed static pressure probe in the supply plenum. Airflow must be ≥ 350 CFM per ton of nominal cooling capacity, and an air-handling unit fan efficacy ≤ 0.45 watts per CFM for gas furnace air handlers and ≤ 0.58 watts per CFM for all others. Small duct high velocity systems must provide an airflow ≥ 250 CFM per ton of nominal cooling capacity, and an air-handling unit fan efficacy ≤ 0.62 watts per CFM. Field verification testing is required in accordance with Reference Residential Appendix RA3.3.*

HVAC SYSTEM HEATING AND COOLING LOADS SUMMARY

Project Name	Date
Karlin, Ben ADU	2/3/2022
System Name	Floor Area
HVAC System	466

ENGINEERING CHECKS

Number of Systems	1
Heating System	
Output per System	12,000
Total Output (Btuh)	12,000
Output (Btuh/sqft)	25.8
Cooling System	
Output per System	12,000
Total Output (Btuh)	12,000
Total Output (Tons)	1.0
Total Output (Btuh/sqft)	25.8
Total Output (sqft/Ton)	466.0
Air System	
CFM per System	0
Airflow (cfm)	0
Airflow (cfm/sqft)	0.00
Airflow (cfm/Ton)	0.0
Outside Air (%)	0.0 %
Outside Air (cfm/sqft)	0.00

SYSTEM LOAD

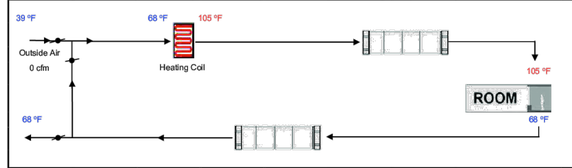
	COIL COOLING PEAK CFM	COIL COOLING PEAK Sensible	COIL COOLING PEAK Latent	COIL HTG. PEAK CFM	COIL HTG. PEAK Sensible
Total Room Loads	353	7,610	302	174	6,950
Return Vented Lighting		0			0
Return Air Ducts		0			0
Return Fan		0			0
Ventilation	0	0	0	0	0
Supply Fan		0			0
Supply Air Ducts		0			0
TOTAL SYSTEM LOAD		7,610	302		6,950

HVAC EQUIPMENT SELECTION

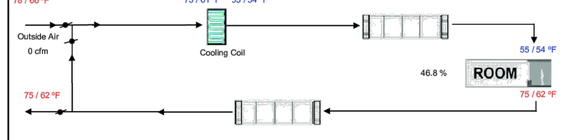
Ductless Mini Split Heat Pump	11,971	0		10,263
Total Adjusted System Output (Adjusted for Peak Design conditions)	11,971	0		10,263
TIME OF SYSTEM PEAK		Aug 3 PM		Jan 1 AM

Note: values above given at ARI conditions

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



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



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ISSUED	DATE
SMB&S	02-06-22

COMMENTS
For PERMIT

1

KARLIN RESIDENCE
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Scale NONE

Drawing Title
TITLE 24 CALCULATIONS

LICENSED ARCHITECT
GREGORY H GINTER
C-30558
11/30/23
Renewal Date
STATE OF CALIFORNIA

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2019 ENERGY CODE

Ace Resources | 2019 Title 24, Part 6 Note Blocks

Residential Quality Insulation Installation (QII)

Residential Newly Constructed Buildings and Additions >700 ft²
Prescriptive and Performance Approach

PROJECT QII CONSTRUCTION SCHEDULE:

Design: QII is included as energy feature in CF1R-ADD or CF1R-PRF and supported in drawings as a design feature. Kickoff meeting including Architect, Builder, HERS Rater, and all subs (insulation, framer, drywall, plumbing, HVAC. Etc. installers) so that the QII inspection schedule and process can be explained and supported before design drawings are complete is recommended.

Building Permit: CF1R registered through HERS provider and incorporated into submittal set. HERS Rater to confirm verification procedure (sampling procedures is applicable) with team.

Grading: HERS Rater should set up inspection schedule with all subs off site and coordinate with insulation installer verification requirements and provide tools and resources to support inspection process.

Framing: To be coordinated by HERS Rater:

- Framer incorporating continuous air barrier requirements
- All hard covers and draft stops to meet air barrier requirements
- Set up inspection schedule with all other subs on site and coordinate with insulation installer for inspections

Rough-In: To be inspected and verified by HERS Rater and documented with CF2R/3R-ENV-21:

- Pre-Insulation inspection to confirm continuous air barrier w/insulation installer including all penetrations by various subs have been caulked and sealed

Insulation: To be inspected and verified by HERS Rater and documented with CF2R/3R-ENV-22:

- Batt insulation inspections to confirm direct contact with air barrier

Drywall: To be inspected and verified by HERS Rater and documented with CF2R/3R-ENV-22:

- Loose-fill insulation inspections to confirm direct contact with air barrier and meets R- value per manufacturer's instructions
- All penetrations caulked and sealed of all provided to maintain continuous air barrier in addition to sealing of drywall

Finish: All CF2R/CF3R forms to be finished up and registered through HERS provider so that final inspection can be scheduled which can be verified with Project Status Report (PSR)

Final Inspection: All registered CF2R (provided by the Contractors) and CF3R (provided by the HERS Rater) forms are to be provided to the building occupant.

COMMON THERMAL SPECIFICATIONS (RA3.5):

Materials shall comply with, and be installed in accordance with all applicable building codes for building. California Building Code (including, but not limited to, California Electric Code Section 719) and installed to meet all applicable fire codes.

Materials shall meet California Quality Standards for Insulating Material, Title 24, Part 12, Chapter 4, Article 3, listed in the California Department of Consumer Affairs Consumer Guide and Directory of Certified Insulating Materials.

Materials shall comply with flame spread rating and smoke density requirements of Chapter 26 and Section 706 of the Title 24, Part 2: all installations with exposed facings must use fire retardant facings which have been tested and certified not to exceed a flame spread of 25 and a smoke development rating of 450. Insulation facings that do not touch a ceiling, wall, or floor surface, and faced batts on the undersides of roofs with an air space between the ceiling and facing are considered exposed applications.

Materials shall be installed according to manufacturer specifications and instructions.

Hard covers or draft stops shall be placed over all drop ceiling areas and interior wall cavities to keep insulation in place and stop air movement. If hard covers or draft stops are missing or incomplete, they shall be completed before insulation is installed.

Required eave ventilation shall not be obstructed - the net free-ventilation area of the eave vent shall be maintained.

Eave vent baffles shall be installed to prevent air movement under or into the batt.

Insulation shall cover all recessed lighting fixtures. If the fixtures are not rated for insulation cover (IC) and airtight, the fixtures shall be replaced. All recessed light fixtures that penetrate the ceiling shall be listed for zero clearance insulation contact (IC), have a label that certifies it as airtight with leakage less than 2.0 cfm @ 75 Pa when tested to ASTM E283, and shall be sealed with a gasket or caulk between the light's housing and the ceiling.

Insulation shall be installed so that they will be in contact with the air barrier.

Insulation shall fill the cavity. Sized to fit, no compression, fill voids etc.

R-VALUE MEASUREMENT (RA3.5.3.1):

The HERS rater shall verify the installed thickness of insulation in all assemblies and locations on walls, roof/ceilings, and floors, and to ensure that insulation levels and installation integrity meet the R-value specified on the Certificate of Compliance (CF1R), and all other required compliance documentation.

WALLS (RA3.5.3.2):

Bottom plates of framed and non-framed and other wall type assemblies shall be sealed to the ground subfloor or slab, and above ground subfloor.

Wall stud cavities shall be caulked or foamed to provide a substantially air-tight envelope to the outdoors, attic, garage and crawl space. All plumbing and wiring penetrations through the top and bottom plates and electrical boxes that penetrate the sheathing shall be sealed. All gaps in the air barrier shall be caulked, taped, or sealed with minimally expansive foam.

WINDOWS AND DOORS (RA3.5.3.2.1 AND RA3.5.3.2.9):

All gaps around windows and doors are sealed. The sealant used follows window manufacturer specifications. Coordinate between trades who is responsible.

All single-member window and door headers shall be insulated to a minimum of R-3 for a 2x4 framing, or equivalent width, and a minimum of R-5 for all other assemblies. Insulation is to be placed between the interior face of the header and inside surface of the interior wall finish. No header insulation is required for single-member headers that are the same width as the wall, provided that the entire wall has at least R-2 insulation.

RIM-JOISTS (RA 3.5.3.2.4):

All rim-joists shall be insulated to the same R-Value as the adjacent walls.

KNEEWALLS, SKYLIGHT SHAFTS, AND GABLE ENDS (RA3.5.3.2.5 AND RA3.5.3.2.10):

Framing for knee walls, skylight shafts and gable ends that separate conditioned from unconditioned space shall be insulated to meet or exceed the wall R-value specified on the Certificate of Compliance, and all other required compliance documentation.

The insulation shall be installed without gaps and with minimal compression.

For steel-framed knee walls, skylight shafts, and gable ends, external surfaces of steel studs shall be covered with insulation unless otherwise specified on the CF1R Certificate of Compliance.

The house side of the insulation shall be in contact with the drywall or other wall finish.

The insulation shall be supported so that it will not fall down by either friction fitting to the framing, inset or face stapling of flanges, or using other support such as netting.

Insulation for all knee wall and skylight shafts shall be completely enclosed by vertical and horizontal framing, including horizontal plates at top and bottom of the insulation.

In unvented attics, where insulation is applied directly to the underside of the roof deck, knee walls, skylight shafts, and gable ends shall be insulated to meet or exceed the wall R-value specified on the Certificate of Compliance, and all other required compliance documentation.

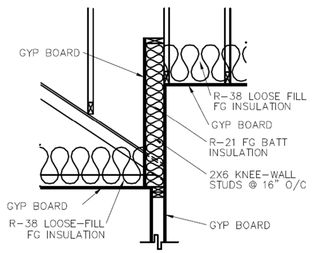
CF2R CERTIFICATE OF INSTALLATIONS FORMS:

The CF2R-ENV forms (Insulation Certificate of Installation) shall be signed by the SPF applicator stating that the installation is consistent with the plans and specifications for which the building permit was issued shall be provided. The certificate shall also state the installing company name, insulation manufacturer's name and material identification, and that the labeled installed nominal thickness, and installed R-value for SPF insulation meets those specified in Section 3, Thermal Specification. The SPF applicator shall also attach an R-value chart or an ICC ESR showing compliance with AC377 for each SPF insulation material used.

It is the installer's responsibility to ensure the products are installed properly, and it is the HERS rater's responsibility, as a Special Inspector to the Building Departments, to verify proper installation.

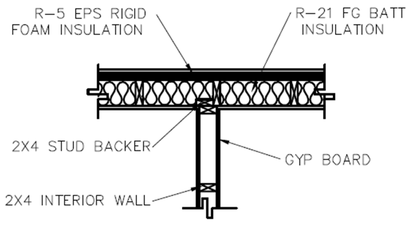
EXAMPLE DETAILS SUPPORTING QII:

Insulation shall be installed so that they will be in contact with the air barrier.



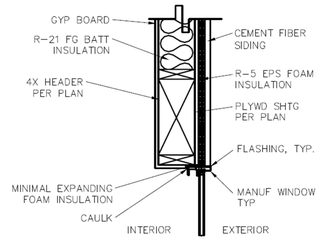
Attic Knee Wall

Insulation shall fill the cavity. Sized to fit, no compression, fill voids etc.



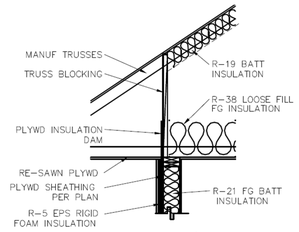
Interior Wall

All single-member window and door headers shall be insulated to a minimum of R-3 for a 2x4 framing, or equivalent width, and a minimum of R-5 for all other assemblies.



Window Header – Exterior insulation

Attic over conditioned and unconditioned space separated by an air barrier when unconditioned space not insulated (or insulate entire attic including attic over unconditioned spaces). (Blueprint Issue 121)



Air Barrier at Porch

SDGE Sempra Energy utility | SoCalGas Sempra Energy utility | EDISON Energy For What's Ahead | Pacific Gas and Electric Company

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COMMENTS
For PERMIT

ISSUED	DATE
SMB&S	02-06-22

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Drawing Title
TITLE 24 CALCULATIONS

Scale

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STATE OF CALIFORNIA

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City of Santa Monica

Green Building Notes Residential Building 2019 Green Building Standards Code

Eff. 1-1-20

1. The mandatory provisions of Chapter 4 shall be applied to additions or alterations of existing residential buildings. The requirements shall apply only to and/or within the specific area of the addition or alteration. (SMMC 8.106.053)

2. New one- and two-family dwellings and town-houses with all types of parking facilities. If residential parking is available, for each dwelling unit for which a parking space is available, for all types of parking facilities, install a listed raceway to accommodate a dedicated 208/240-volt branch circuit. The raceway shall not be less than trade size 1 (nominal 1-inch inside diameter). The raceway shall originate at the main service or subpanel and shall terminate into a listed cabinet, box or other enclosure in close proximity to the proposed location of an EV charger. Raceways are required to be continuous at enclosed, inaccessible or concealed areas and spaces. The service panel and/or subpanel shall provide a 40-ampere minimum dedicated branch circuit and a branch circuit overcurrent protective device. SMMC 8.106.110 (4.106.4)

3. New multifamily dwellings. If residential parking is available, ten (10) percent of the total number of parking spaces on a building site, provided for all types of parking facilities, shall be electric vehicle charging spaces (EV spaces) equipped with EV chargers. Calculations for the required number of EV spaces equipped with EV chargers shall be rounded up to the nearest whole number. SMMC 8.103.110 (4.106.4.2) Notes: Construction documents are intended to demonstrate the project's capability and capacity for facilitating future EV charging.

4. The flow rates for all plumbing fixtures shall comply with the maximum flow rates in Section 4.303.1. (4.303.1)

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

6. Annular spaces around pipes, electric cables, conduits, or other openings in the sole/bottom plate at exterior walls shall be protected against the passage of rodents by closing such openings with cement mortar, concrete masonry, or metal plates. (4.406.1)

7. Compliance with the adopted Water-Efficient Landscape and Irrigation Standards will be required for new development projects (SMMC 8.108.100)

8. For all new equipment, an Operation and Maintenance Manual including, at a minimum, the items listed in Section 4.410.1, shall be completed, and placed in the building at the time of final inspection. (4.410.1)

9. All new gas fireplaces must be direct-vent, sealed combustion type. Wood burning fireplaces are prohibited per AQMD Rule 445. (4.503.1, AQMD Rule 445)

10. All duct and other related air distribution component openings shall be covered with tape, plastic, or sheet metal until the final startup of the heating, cooling and ventilating equipment. (4.504.1)

11. Only a City of Santa Monica certified hauler will be used for hauling of construction waste. (4.408.1, SMMC 8.108)

12. Architectural paints and coatings, adhesives, caulks and sealants shall comply with the Volatile Organic Compound (VOC) limits listed in Tables 4.504.1-4.504.3. The *VOC Content Verification Checklist* shall be completed and verified prior to final inspection approval. The manufacturer's specifications showing VOC content for all applicable products shall be readily available at the job site and be provided to the field inspector for verification. (4.504.2.1-4.504.2.4)

13. All new carpet installed in the building interior shall meet the testing and product requirements of one of the following:
a. Carpet and Rug Institute's Green Label Plus Program
b. California Department of Public Health's Specification 01350
c. Scientific Certifications Systems Indoor Advantage™ Gold
d. NSF/ANSI 140 at the Gold level (4.504.3)

14. All new carpet cushion installed in the building interior shall meet the requirements of the Carpet and Rug Institute Green Label program. (4.504.3.1)

15. 80% of the total area receiving resilient flooring shall comply with one or more of the following:
a. VOC emission limits defined in the CHPS High Performance Products Database
b. Products certified under UL GREENGUARD GOLD
c. Meet the California Department of Public Health's Specification 01350
d. Certification under the Resilient Floor Covering Institute (RFCI) FloorScore program (4.504.4)

16. New hardwood plywood, particle board, and medium density fiberboard composite wood products used in the building shall meet the formaldehyde limits listed in Table 4.504.5. The *Formaldehyde Emissions Verification Checklist* shall be completed prior to final inspection approval. The manufacturer's specifications showing formaldehyde content for all applicable wood products shall be readily available at the job site and be provided to the field inspector for verification. (4.504.5)

17. A 4-inch thick base of ½ inch or larger clean aggregate and a vapor barrier in direct contact with concrete shall be provided for proposed slab on grade construction. (4.505.2.1)

18. Building materials with visible signs of water damage shall not be installed. Wall and floor framing shall not be enclosed until it is inspected and found to be satisfactory. (4.505.3)

19. Newly installed bathroom exhaust fans shall be ENERGY STAR compliant and be ducted to terminate to the outside of the building. Provide the manufacturer's cut sheet for verification. (4.506.1)

20. Newly installed bathroom exhaust fans, not functioning as a component of a whole house ventilation system, must be controlled by a humidistat which shall be readily accessible. (4.506.1)

21. The heating and air-conditioning systems shall be sized and designed using ANSI/ACCA Manual J-2004, ANSI/ACCA 29-D-2009 or ASHRAE handbooks and have their equipment selected in accordance with ANSI/ACCA 36-S Manual S-2004. (4.507.2)

City of Santa Monica

Plumbing Fixture Flow Rates Residential Mandatory Measures 2019 California Green Building Standards Code

Eff. 1-01-20

FIXTURE FLOW RATES (SECT 4.303)

FIXTURE TYPE	MAX ALLOW. FLOW RATE
Showerheads	1.8 gpm @ 80 psi
Lavatory faucets	1.2 gpm @ 60 psi[1]
Lavatory faucets, common & Public Use	0.5 gpm @ 60 psi[1]
Metering faucets	.2 Gallons/cycle
Kitchen faucets	1.8 gpm @ 60 psi[2]
Water closets	1.28 gallons/flush[3]
Urinals	0.125 gallons/flush[4]

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

[1] Lavatory Faucets shall not have a flow rate less than 0.8 gpm @ 20psi.
[2] Kitchen faucets may temporarily increase flow above the max rate, but not above 2.2gpm @60psi and must default to a max flow rate of 1.8gpm @60psi.
[3] 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] Wall mounted. All others 0.5 gallons/flush

City of Santa Monica

Mandatory Requirements Checklist Residential Building 2019 Green Building Standards Code

Eff. 1-1-20

ITEM #	CODE SECTION	REQUIREMENT	REFERENCE SHEET	COMMENTS
		PLANNING AND DESIGN		
1	4.106.2	Storm water drainage and retention during construction		
2	4.106.3	Grading and paving		
3	SMMC 8.108.100	Water Efficient Landscape and Irrigation Standards		
4	SMMC 8.106.110 4.106.4	Electric vehicle (EV) charging		
5	4.106.4.2.3	Single EVCS required		
6	4.106.4.2.4	Multiple EVCS required		
		ENERGY EFFICIENCY		
7	SMMC 8.106.055 8.106.080	Solar requirements		
		WATER EFFICIENCY & CONSERVATION		
8	4.303.1	Water conserving plumbing fixtures and fittings		
9	4.303.1.3.2	Multiple showerheads serving one shower		
		MATERIAL CONSERVATION & RESOURCE EFFICIENCY		
10	4.406.1	Rodent proofing		
11	SMMC 8.106.070	Flashing details		
12	SMMC 8.108.010	Construction waste Management plan		
13	4.410.1	Operation and maintenance manual		

Residential Construction Checklist — Page 1 of 2

		ENVIRONMENTAL QUALITY		
14	4.503.1	Fireplaces and woodstoves		
15	4.504.1	Covering of duct openings and protection of mechanical equipment during construction		
16	4.504.2	Finish material pollutant control		
17	4.504.2.1	Adhesives, sealants and caulks		
18	4.504.2.2	Paints and coatings		
19	4.504.2.3	Aerosol paints and coatings		
20	4.504.2.4	Verification		
21	4.504.3	Carpet systems		
22	4.504.3.1	Carpet cushion		
23	4.504.4	Resilient flooring systems		
24	4.504.5	Composite wood products		
25	4.505.2.1	Capillary break		
26	4.505.3	Moisture content of building materials		
27	4.506.1	Bathroom exhaust fans		
28	4.507.2	Heating and air-conditioning system design		

Residential Construction Checklist — Page 2 of 2

City of Santa Monica

Storm Water Pollution Control Form 2019 California Green Building Standards Code

Eff. 1-01-20

STORM WATER POLLUTION CONTROL REQUIREMENTS FOR CONSTRUCTION ACTIVITIES MINIMUM WATER QUALITY PROTECTION REQUIREMENTS FOR ALL CONSTRUCTION PROJECTS

The following notes shall be incorporated in the approved set of construction documents and represents minimum standards of good housekeeping that must be implemented on all construction projects

Construction means constructing, clearing, grading or excavation that result in soil disturbance. Construction includes structure teardown (demolition). It does not include routine maintenance to maintain original line and grade, hydraulic capacity, or original purpose of facility; emergency construction activities required to immediately protect public health and safety; interior remodeling with no outside exposure of construction material or construction waste to storm water; mechanical permit work; or sign permit work.

1. Eroded sediments and pollutants shall be retained on site and shall not be transported from the site via sheet flow, area drains, natural drainage or wind.
2. Stockpiles of earth and other construction-related materials shall be covered and/or protected from being transported from the site by wind or water.
3. Fuels, oils, solvents and other toxic materials must be stored in accordance with their listing and shall not contaminate the soil or the surface waters. All approved toxic storage containers are to be protected from the weather. Spills must be cleaned up immediately and disposed of properly and shall not be washed into the drainage system.
4. Non-storm water runoff from equipment and vehicle washing and any other activity shall be contained on the project site.
5. Excess or waste concrete may not be washed into the public way or any other drainage system. Provisions shall be made to retain concrete waste on-site until it can be appropriately disposed of or recycled.
6. Trash and construction related solid wastes must be deposited into a covered receptacle to prevent contamination of storm water and dispersal by wind.
7. Sediments and other materials shall not be tracked from the site by vehicle traffic. The construction entrance roadways must be stabilized so as to inhibit sediments from being deposited into the street/public ways. Accidental depositions must be swept up immediately and may not be washed down by rain or by any other means.
8. Retention basins of sufficient size shall be provided to retain storm water runoff on-site and shall be properly located to collect all tributary site runoff.
9. Where retention of storm water runoff on-site is not feasible due to site constraints, runoff may be conveyed to the street and the storm drain system provided that an approved filtering system is installed and maintained on-site during the construction duration.

City of Santa Monica

Formaldehyde Emissions Verification Checklist 2019 California Green Building Standards Code

Eff. 1-01-20

** This form is required at final inspection. Attach product specification sheets and other supporting documents. Use additional sheets if necessary. Allowable Formaldehyde limits can be found in 2019 Cal Green Standards Code Tables 4.504.5, 5.504.4.5.

Item #	Product Category (e.g. particleboard, hardwood plywood, etc)	Location	Product Manufacturer	Product Specification	Formaldehyde Content (in parts per million)	Formaldehyde Limit (in parts per million)

City of Santa Monica

VOC Content Verification Checklist 2019 California Green Building Standards Code

Eff. 1-01-20

** This form is required at final inspection. Attach product specification sheets and other supporting documents. Use additional sheets if necessary. Allowable VOC limits can be found in 2019 Cal Green Standards Code Tables 4.504.1, 4.504.2, 4.504.3, 5.504.4.1, 504.4.2 and 504.4.3.

Item #	Product Category (e.g. paint, carpet, adhesive)	Product Manuf.	Product Specs. (e.g. model #)	VOC Content (in grams/liters) or Test Cert	Allowable VOC Limits (in grams/liters)

Gregory H Ginter
ARCHITECT
1525 Pearl Street, A 90405
Santa Monica, CA
(Tel) 310-314-1984
greg@ghgarch.com

COMMENTS
For PERMIT

ISSUED
SMB&S

DATE
02-06-22

KARLIN RESIDENCE
654 HILL ST, SANTA MONICA, CA 90405

Scale

Drawing Title
GREEN BUILDING NOTES & FORMS

LICENSED ARCHITECT
GREGORY H GINTER
C-30586
11-30-2021
STATE OF CALIFORNIA

A0.6

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GENERAL NOTES:

1. Site information based upon survey by M&G CIVIL ENGINEERING AND LAND SURVEYING dated 03/11/2021
2. All survey points shall be protected or re-establishedif they are removed, damaged or destroyed during construction.
3. No public utility easement as per city map, Engineering Rm 113.
4. See dwg #A1.0 & A2.1 for exact new meter locations.
5. House sewer lateral location as per SM Engineering Dept. records. GC to confirm exact location in field.

STANDARD TREE PROTECTION GUIDELINES:

1. Applicant/contractor is defined as any parties involved in the planning, demolition and construction of any work on the proposed project including subcontractors. It is the project manager's responsibility to contact the Urban Forestry Division at 310- 458-8974 or public.landscape@smgov.net about any work that may impact existing trees a minimum of one week in advance.
2. Trees within the jurisdiction of the City of Santa Monica are public assets. They may not be removed for any reason and are to be protected from injury or damage during all phases of demolition and construction. The applicant/contractor shall be responsible for the protection and preservation of all existing trees that are located completely or partially within but not limited to the contract limit line. Adjacent trees within close proximity to the project may require protection. If construction is occurring via the alley, trees at the alley entrances may require protection.
3. If a healthy public tree is removed or destroyed, its loss will be accounted for by sufficient levels of replacement tree planting. Often, a replacement tree of a similar size as the one removed or destroyed cannot be planted as it would be impractical and/or cost prohibitive. As a result, the City of Santa Monica uses the Council of Tree & Landscape Appraisers methodologies for valuing trees. Unpermitted removals, accidental damage to trees that ultimately leads to the removal of trees and neglect to preserve trees that ultimately leads to the removal of trees within the jurisdiction of the City of Santa Monica will be valued and billed to the applicant. Signoff will be frozen until resolved. The contractor shall be assessed restitution for trees that are injured, irreparably damaged, destroyed or removed without authorization.
4. Any damage to existing trees during construction shall be the responsibility of the applicant/contractor. The applicant shall mitigate any damage at their expense to the satisfaction of the Urban Forestry Division. Final signoff will not be approved until mitigation is resolved.
5. Approved tree removals are to be posted for public review and removed immediately after the review period provided there is no appeal. The applicant/contractor is responsible for confirming there is no appeal prior to the approved removal. Removal cost is included in approved removals.
6. Schedule anappointment with Urban Forestry Division staff at 310-458-8974to review any tree parts in conflict with construction. Pruning for construction clearance shall only be done by Urban Forestry Division staff.
7. All public trees being preserved are to receive water per the City of Santa Monica guidelines for watering trees during a drought. Water shall not be pooled around the tree at any time.
8. Prior to the release of a demo or construction permit, the tree protection fence shall be made with six foot (6 ft) high chain link with fence posts in the ground. Tree wells may be marked to be expanded by applicant to best install tree protection fence prior to demo or proposed work. The fence is to be maintained throughout the entire duration of the project and is not to be removed without written permission from the Urban Forestry Division. Contact Urban Forestry Division staff at 310-458-8974 or public.landscape@smgov.net if there are any questions about determining the precise requirements of the tree protection fence. "Tree Protection Zone" signs can be picked up at 2600 Ocean Park Blvd in Santa Monica.
9. Metal tree grates, cobblestones or other debris in the parkway are to be removed prior to tree protection fence installation.Apply three to four inches of mulch to the entire area inside the tree protection fence over the soil surface to reduce soil compaction, improve aeration, enhance moisture retention and reduce temperature extremes. Mulch generally consists of shredded leaves, bark, pine straw, peat moss and/or wood chips. Weeds and overgrown grass are to be mowed and/or removed prior to mulch installation and maintained throughout the project.
10. At no time shall any vehicles, equipment, supplies, materials, fill, or soil be allowed/stockpiled in the Tree Protection Zone.
11. In the case of tree protection deficiency, as identified by the Urban Forestry Division, immediate remedy at the cost of the applicant/ contractor is to be completed within the timeframe issued by the Urban Forestry Division. Failure to correct the deficiency within the designated timeframe may result in a delayed final sign-off, stop work order, summons and/or fines.
12. Take note that the critical root zone may encroach on private property. This should be reviewed with Urban Forestry Division staff to minimize impact on existing tree roots during excavation.
13. The minimum distance between an open trench and any tree shall be between six inches (6") and one foot (1') for every inch of trunk diameter measured at four and a half feet (4 1/2') above existing grade, depending on the species of tree. Minimum clearance shall be ten feet (10') from either the trunk of the tree or the dripline (whichever is greater).
14. Should it be necessary to trench within the dripline of a tree all trenches shall be done carefully with an air spade or by hand. If at any time twenty-five percent (25%) of the area within the critical root zone is being separated from the tree by a trench, then the line shall be either relocated or trenchless methods are to be used. No roots larger than two inches (2") shall be cut unless approved by urban forestry staff. All smaller roots that require cutting shall be cut with clean, sterile pruning tools. Cuts shall be made flush with the side of the trench.
15. The excavation area within the tree protection zone shall be backfilled immediately. Roots shall be kept moist by wrapping them with burlap and white plastic and checked a minimum of two times a day. Burlap shall be inspected once in the morning and again in the afternoon. If directed, soaker hoses shall be installed to facilitate properly moist conditions.
16. If roots are to be exposed for a period greater than forty-eight (48) hours, the exposed area shall be covered with at least six (6) inches of mulch and maintained moist during the course of construction until the area can be properly backfilled. Periodic photos must be provided to Santa Monica Urban Forestry staff by the contractor or contracted certified arborist.
17. No runoff or spillage of noxious materials while mixing, placing or storing construction material shall occur within the tree protection zone. No ponding, eroding or excessive wetting caused by dewatering or equipment cleaning operations shall occur within the tree protection zone or critical root zone.
18. In the event root pruning is required to accommodate grade changes or the installation of hardscape features the root pruning procedures can be recommended by a consulting arborist but shall be directed by Santa Monica Urban Forestry staff.
19. Concrete should be left intact throughout the demolition and construction process to prevent further soil compaction on existing tree roots. Other work may be specified by Santa Monica Urban Forestry staff to be completed within a prescribed timeframe if required upon inspection.
20. Removal of hardscape and/or excavation within the TPZ shall be done manually. To best protect tree roots, the applicant shall exercise extreme care in removing concrete or asphalt within the dripline of existing trees. Pavement should be lifted rather than dragged. Any excavation within the dripline, on site as indicated shall be broken with pneumatic tools and removed by hand in the presence of the Santa Monica Urban Forestry staff or the contracted certified arborist with associated photos and report submitted to Santa Monica Urban Forestry staff. Applicant shall schedule appointments with Santa Monica Urban Forestry staff at least one week in advance.
21. If any vehicles are to pass over unpaved ground in conflict with the tree protection zone, the pathway will be covered with at least six (6) inches of course mulch/wood chips and covered with 3/4 inch exterior plywood, 1/2 inch steel plates, ground protection mats or combination thereof, to abate soil compaction and root damage caused by heavy equipment. The plywood and/or steel plates shall be installed doubled up in a half lap configuration and staked or secured to prevent shifting. Such coverings shall be maintained during the course of construction and removed by hand or as specified by the contracted certified arborist or Santa Monica Urban Forestry staff. Associated photos shall be reported accordingly.
22. Fertilizer application to encourage root growth after the completion of all exterior work on the building prior to the parkway landscape phase is to occur. This could be granular or soil drench application. Your arborist can contact Santa Monica Urban Forestry staff for best direction.

SITE PROTECTION NOTES:

1. The entire site shall be protected with a minimum 6ft high construction fence with lockable gates for construction access.
2. Fencing along adjacent properties shall have wind/dust screen.
3. Provide sasfeguarding features during construction such as protection of adjoining property and sanitary facilites as per CBC [3305, 3306]

UTILITIES

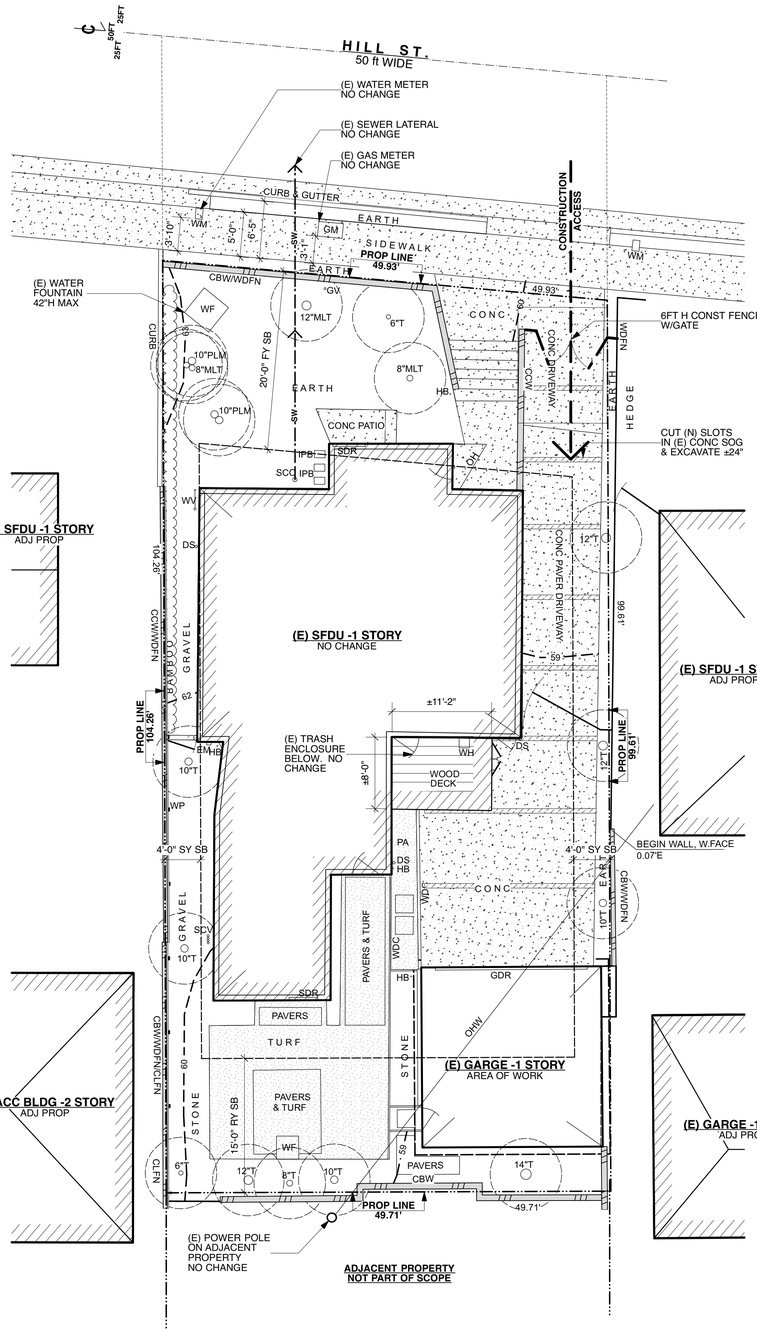
1. Prior to construction of underground utilities, separate utility excavation permit to be obtained from EPWM Department Administrative Services, City Hall Rm 113.
2. Prior to construction of new sewer lateral and connection to sewer a separate sewer permit to be obtained from EPWM Department Administrative Services, City Hall Rm 113.
3. Obtain a separate water meter permit from the Public Works Department, City Hall Room 113. for all installations or enlargements of your water / fire service(s). There may be up to a 90-working day waiting period for the installation or enlargement / relocation. All traffic control requirements are the responsibility of the Contractor.
4. Obtain a separate sewer permit from the Public Works Department, City Hall Room 113, for all proposed sewer connections and/or work inside the public right of way performed on the existing sewer lateral. All traffic control requirements are the responsibility of the Contractor.
5. Driveway apron shall be removed and replaced with curbing, parkway, and sidewalk in conformity with the curbing, parking, and sidewalk adjoining such abandoned driveway (SMMC 7.24.050 and 7.24.060.) Obtain a separate offsite improvements permit from Public Works, City Hall Room 113.
6. All site utilities shall be installed underground per the approved plans supplied or reviewed by the relevant utility companies. A separate Public Works utility excavation permit must be obtained from the Public Works Counter, City Hall Room 113 for any excavation in the Public ROW. The Public Works utility excavation permit application may take up to four (4) weeks for review and must include the undergrounding design which may take up to six (6) months to obtain from Southern California Edison. All traffic control requirements are the responsibility of the Contractor

LANDSCAPING NOTES:

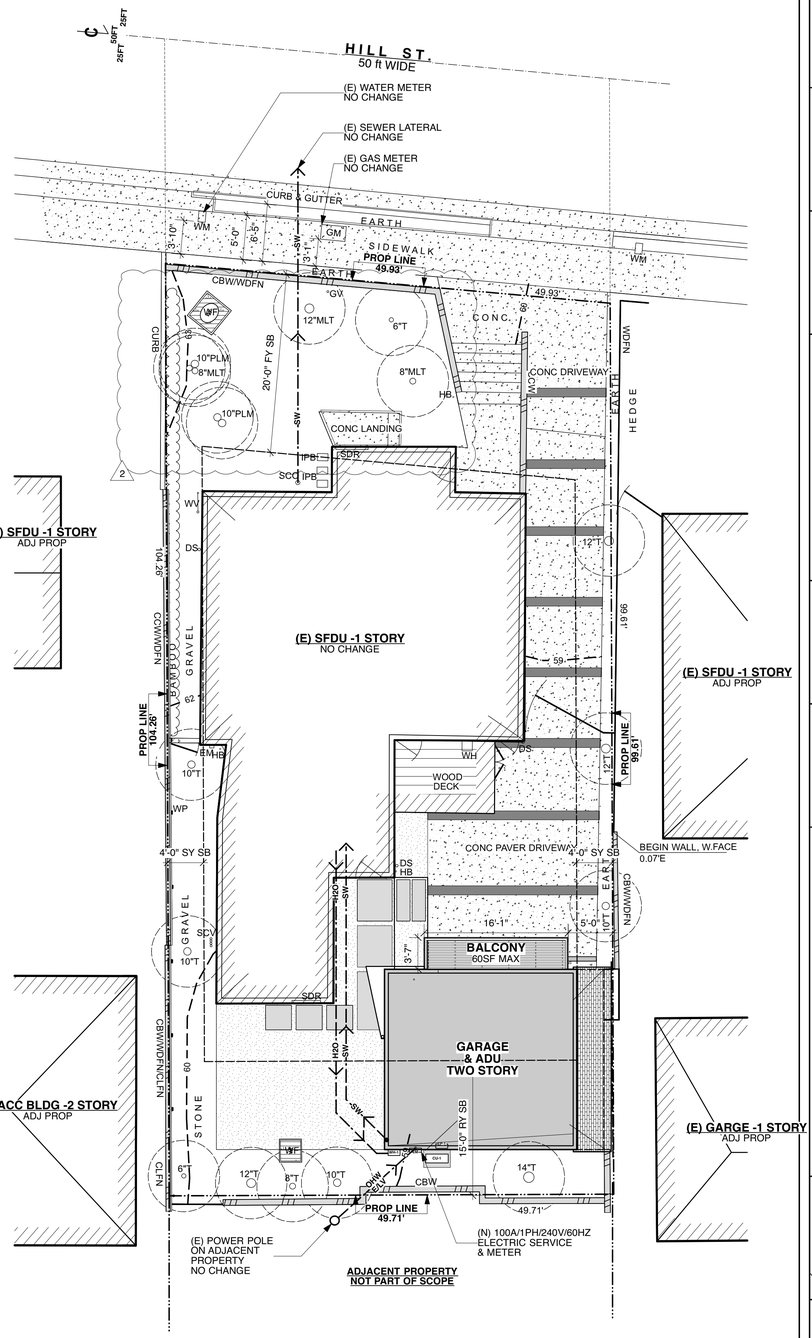
1. No new permanent, automated irrigation system to be installed.
2. A minimum 3 inch (3") layer of mulch shall be applied on all exposed soil surfaces of existing planting areas except in turf areas, over creeping or rooting groundcovers, or in direct seeding applications, where mulch is not appropriate.
3. Any revisions to approved plans will require re-submittal and approval and must comply with the current Water-Efficient Landscape and Irrigation Standards.
4. Call 310-458-8972 x3, or email savewater@santamonica.gov to schedule an final landscape inspection.

CITY OF SANTA MONICA · CALIFORNIA · FOUNDED 1875

22BLD-0701
06/28/22



1 **SITE DEMOLITON PLAN**
SCALE: 1/8"=1'-0"



2 **SITE CONSTRUCTION PLAN**
SCALE: 1/8"=1'-0"

0 10 20

Gregory H Ginter
ARCHITECT
1525 Pearl Street
Santa Monica, CA 90405
(Tel) 310-314-1984
greg@ghgarch.com

COMMENTS	DATE
For PERMIT	02-06-22
For PERMIT	04-20-22
For PERMIT	05-27-22

ISSUED	DATE
1. SMB&S	04-20-22
2. SMB&S	05-27-22

KARLIN RESIDENCE
654 HILL ST, SANTA MONICA, CA 90405

Scale 1/8"=1'-0" U.O.N.

Drawing Title **SITE DEMOLITON PLAN**

LICENSED ARCHITECT
GREGORY H GINTER
C-30698
11/30/23
Renewal Date
STATE OF CALIFORNIA

A1.0

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GENERAL NOTES:

1. Site information based upon survey by Richard Garcia. P.E. lic. no. 20546 dated: 04/21/16. All survey points shall be protected or re-establishedif they are removed, damaged or destroyed during construction.
2. No public utility easement as per city map, Engineering Rm 113.
3. See dwg #A1.1 & A2.1 for exact new meter locations.
4. House sewer lateral location as per SM Engineering Dept. records. GC to confirm exact location in field.

PUBLIC WORKS STANDARD NOTES:

1. All immediate ground areas affected by new improvements shall be graded away from wall foundation and adjacent properties.
2. Architect and/or Civil Engineer shall design such that all underground pipes from downspouts and area drains have an acceptable slope leading to the infiltration pit and overflow to the street curb.
3. Prior to installation of infiltration pit's overflow pipe towards street, obtain a separate permit and inspection from EPWM Administration, Rm 113.
4. All downspouts at gutter level and all hardscape area drains that are connected to the infiltration pit, infiltration area, cistern or any other BMP shall be net screened.
5. Contact Neal Shapiro 310-458-8223 or current supervisor for BMP inspector two working days prior to start of construction of urban runoff mitigation infiltration pit, cistern and/or infiltration area. Prior to backfilling any urban runoff mitigation features, contact the City Urban Runoff Coordinator at (310) 458-8223 for inspection.
6. All offsite work shall be done in accordance with the Standard Specifications/Drawings for Public Works Construction, current edition as amended by the city of Santa Monica, and City of Santa Monica Standards.
7. All labor, equipment, and material requirements for offsite improvements are the responsibility of the General Contractor.
8. The City strongly urges the applicant to inspect the existing sewer connection. If the connection is damaged or over 30 years old, the City recommends that the applicant show on the plans the construction of a new 6-inch diameter VCP sanitary sewer connection from property line to sanitary sewer main in accordance with City of Santa Monica Standards. (Sewer permit required).
9. All abandoned driveway aprons/approach resulting from the new development shall be removed and replaced with sidewalk, parkway and curb and gutter.
10. Modify existing driveways (widen to 10feet minimum, etc) between curb and property line as per City of Santa Monica Standard Plan No. 4008.
11. Non-storm water runoff, sediment and construction waste from the construction site and parking areas is prohibited from leaving the site.
12. Any sediments or materials, which are tracked off site, must be removed the same day.
13. Excavated soil must be located on the site and soil piles should be covered and otherwise protected so that sediments do not go into the street or adjoining properties.
14. Washing of construction or other industrial equipment adjacent to the construction site is prohibited. Wash water is not allowed to leave the construction site.
15. Drainage controls may be required depending on the extent of grading and the topography of the site.
16. The General Contractor is at the General Contractor's expense for repair of damage to offsite improvements caused by construction as required by Sr. Public Works Inspector.
17. All overhead utilities shall be placed underground per Santa Monica Municipal Code Section 7.04.820 for new construction, or renovation and remodeling that exceeds 50% of the replacement cost of the building or structure.
    a. Obtain separate utility excavation permit and inspection from Public Works when installing utilities underground, and/or removing or relocating existing utility pole
    b. i. Contractor/Developer has made arrangements with the utility companies to place all overhead utilities underground.
18. The project must comply with cross-connection control survey inspection, as per Santa Monica Municipal Code section 7.12.370. Read attached Cross Connection Control Guidelines. For more information go to http://www.lapublichealth.org/eh/progs/envirp/ehcross.htm. Failure to comply with Santa Monica Municipal Code section 7.12.370 may result in a discontinuation of water service. Prior to issuance of Certificate of Occupancy, cross-connection control inspection must be completed. Contact the Water Division at (310) 458-8531. Prior to installation of any cross-connection device, contact the Water Division at (310) 458-8531.
19. If relocating or installing new house water and gas meters, contact the following persons and obtain approval of the new meter locations:
    Gas Meter: Tino Martinez, Gas Company (310) 264-0286
    WaterMeter: Jaime Gomez, Water Division (310) 458-8579
20. Contact Sr. Public Works Inspector at (310) 458-8737 for inspection and coordination of offsite improvements at substantial completion of onsite work.
21. No work shall be done within the public right of way without the prior approval and permit from Public Works Dept. -Admin Services, Rm 113.
22. Owner is responsible for repair of all damage to offsite improvements caused by construction. Call Public Works Inspector for inspection of offsite improvements at substantial completion of onsite work @ 310-458-8737.
23. New proposed improvements shall not obstruct drainage or drain into neighboring private properties.
24. Water shall be drained away from all structures at grading @ 2% slope. Water shall be drained away from the building foundation and shall be mitigated from permeating into foundation wall and footing of the new proposed improvements.
25. All downspouts, area drains, catch basins and trench drains to have net screening before the outlet pipe.
26. Prior to commencing any underground utility work, obtain separate utility excavation permits and street use permits for utility excavation. Contact PW Dept. Administrative Services, Room 113.
27. The site must comply with SMMC Chapter 7.10.060 Urban Runoff Pollution Ordinance for construction activities and temporary BMPs.
28. No construction debris shall be spilled or stored onto public right-of way.
29. All survey points shall be protected or reestablished if they are removed, damaged, or destroyed during construction.
30. In accordance with California Regional Water Quality Control Board MS4 permit:
    1. For construction sites less than 1 acre, Developer shall implement an effective combination of erosion and sediment control BMPs from Table 12 to prevent erosion and sediment loss and the discharge of construction wastes.

Table 12. Applicable Set of BMPs for All Construction Sites

- **Erosion Controls**
  - Scheduling
  - Preservation of Existing Vegetation
- **Sediment Controls**
  - Silt Fence & Plastic Sheet Coverings
  - Sand Bag Barrier
  - Stabilized Construction Site Entrance/Exit
- **Non-Storm Water Mgmt.**
  - Water Conservation Practices
  - Dewatering Operations
- **Waste Mgmt.**
  - Material Delivery and Storage
  - Stockpile Management
  - Spill Prevention and Control
  - Solid Waste Management
  - Concrete Waste Management
  - Sanitary/Septic Waste Management

    2. Construction sites shall be inspected and evaluated based on the following factors: soil erosion potential, site slope, project size and type, pollution runoff potential, sensitivity and proximity of receiving water bodies, non-storm water discharges, past record of non-compliance, and any water quality issues relevant to the particular MS4 requirements.
    3. City shall employ a Progressive Enforcement Policy to ensure that construction sites are brought into compliance with the erosion and sediment control requirements within a reasonable time period.
31. Southern California Gas equipment including meters, and all Southern California Edison equipment and infrastructure, including transformers, poles, and vaults shall be shown on the plans, located entirely on private property, and designed per SCG/SCE requirements. No equipment or infrastructure serving this property will be permitted in the public right-of-way.
32. If fire sprinklers are required to be installed or altered by Building & Safety and/or Fire Department, contractor shall install a double check detector assembly on site and above ground per city standards, the location of which shall be readily accessible to all city agencies. Protection from vehicular impact shall be provided on private property and not in the public right-of-way. The DCDA requires 3' x 8' clear space.
33. Paint removal and preparation will result in particles entering the air or landing on the ground and requires that BMP steps be implemented to prevent or minimize to the maximum extent practicable such particle releases into the environment. If exterior sandblasting is required, a separate permit will be required from Building and Safety.

OPERATION AND MAINTENANCE PLAN:

1. Regular Inspections:
a. The catch basins, downspouts, infiltration pit and overflow curb openings will be inspected every three months.
b. The frequency of inspections will be based on the amount of debris, leaves, etc. and amount of runoff. At a minimum, there will be at least three inspections per year.
2. Conduct of the Visual Inspection:
a. Check the roof gutters and downspouts for any debris or leaves and remove at a minimum three times per year.
b. Inspect catch basins, trench drains and overflow curb opening and clear any debris.

Urban Runoff Drainage Plan Worksheet

Working for a Cleaner Bay

1. Project Questionnaire

Please answer the following questions: Project Address 654 HILL ST, SANTA MONICA

a. Will the project build on a vacant parcel? ☐ Yes ☑ No
b. Will the project add/replace 50% or more of the total square footage of an existing structure >500 sq. ft.? ☐ Yes ☐ No
c. Will the project create, add, or replace 5,000 square feet or more of impervious surface? ☐ Yes ☑ No
d. Will the project create a new detached structure that is 500 square feet or larger? ☐ Yes ☑ No
e. Is the project located in or within 200 feet of an environmentally sensitive area? ☐ Yes ☑ No
f. Is the project a new development on a 15,000+ sq. ft. parcel? ☐ Yes ☐ No

If you answered yes to any of the above questions mitigation is required.

If mitigation is not required would you like to voluntarily mitigate urban runoff? ☐ Yes ☐ No

If you answered yes to any of the questions above you must complete the remainder of the worksheet.

Type of land use (check one): ☉ Single-Family ☐ Multi-Family ☐ Mixed Use (Residential-Commercial) ☐ Commercial ☐ Government ☐ Education ☐ Medical/Health Facilities-Services

2. Calculate total impervious area

Enter the square footage of each impervious area.
Roof area: 2,164 + Walkway area: 0 + Patio area: 0 +
Parking Lot and/or Driveway area: 970 + Misc. area: _____ = Total impervious area: 3,134.0

All new and existing impermeable areas shall be directed to BMPs unless excluded by the approved building plans or appropriate City official. (Note: Stormwater runoff is not allowed to discharge to adjacent parcels or over the sidewalk.)

3. Calculate runoff mitigation volume required

Total impervious area 3,134.0 ft² X .0625 ft = 195.9 ft³ Required Mitigation Volume

4. Design volume and/or fee amount

The volume may be mitigated via a number of mitigation measures or a combination of measures. Additionally, a combination of mitigation measures and payment of an in-lieu fee is acceptable. Infiltration pits allow water to percolate back to ground water. They can be filled with rock (3/4" or larger and consistently sized) or use plastic infill devices. Cisterns or rain barrels can store water on-site for future use as a non-potable water source for irrigation. Surface depressions can be incorporated into landscaping and store water for percolation to ground water. (Note: Some watersheds in the City do not allow infiltration and new development on lots >15,000 sq. ft. must reuse.)

Mitigation Measure	Installed Volume (ft³)		Conversion		Void Volume (ft³)
Percolation Pit with infill device		X	0.95	=	0.0
Percolation Pit with rock/gravel	489.8	X	0.40	=	195.9
Cistern / rain barrel / surface depression		X	1.00	=	0.0
Total Void Volume					195.9

Total volume should be greater than or equal to required mitigation volume or pay an in-lieu fee for remainder

In lieu fee calculation

-0.0 ft³ (Required Mitigation Volume – Total Void Volume = Fee Volume (Can be zero)) X 7.49 gal./ft³ (Conversion) X $7.61/gal. (Unit Cost) = -$ 1.42 (One-Time Fee)

Note: Unit cost can change each year. Obtain the latest from Engineering Division (310) 458-8737

OVER

2017 revision

Urban Runoff Drainage Worksheet – continued

4. Required figures for submission (these specific figures are kept confidential)

a. Include area of permeable paving used as BMP (where applicable) $ 0 ft²
b. Include total cost or estimate of BMP(s) (labor and materials)$ $ 5,000.00
c. Include total project cost $ $ 200,000.

5. List name(s) of proposed mitigation measures or best management practices (BMPs) used

(See Insert List of Approved BMPs or City web site under Engineering, Design page):

INFILTRATION PIT AND INFILTRATION SLOTS

6. Explain the maintenance plan

(Such as, BMPs shall be inspected before and after rainy seasons, checking roof downspouts, visually checking overflow pipes, clearing debris from gutters and downspouts, checking overflow curb openings of BMPs, maintaining the depressed areas, maintaining landscape above and around an infiltration pit, where applicable):

MAINTAIN GUTTERS AND DOWNSPOUTS, INSPECT BMPS AFTER HEAVY RAINFALL

7. Project plan information

a. Project address in Santa Monica:
654 HILL ST, SANTA MONICA
b. Property owner name/ address/ phone (if different than a):
BEN KARLIN
c. Alternate address during construction (if different than a):
d. Contractor name/ address/ phone/ fax/ email:
TBD

Report Prepared by: GREGORY GINTER Date: 04/22/2022

Architect or engineer name / address / phone / email: GREGORY H GINTER/1525 PEARL ST/3103141984/greg@ghgi

I hereby agree that I will complete all runoff mitigation measures described herein and/or in the approved plans prior to completion of the project. The City of Santa Monica has no responsibility or liability for any urban runoff mitigation measure, i.e. BMP, installed to comply with the urban runoff requirements at this project address. I agree that I have consulted with appropriate professionals regarding the size and suitability of the BMP that I have selected for the specific conditions present at my site. I further agree to maintain any BMP(s) on my property for as long as I own this property and to inform a buyer of any BMP(s) if I sell my property.

Property Owner or Authorized Representative

Signature: _____ Date: 04/22/2022

Print name/ title: GREGORY GINTER/ARCHITECT

You need to call the City's Urban Runoff Management Coordinator before completion of your BMP so that the BMP can be inspected for approval. You will NOT receive a Certificate of Occupancy without this approval. For this and for more information about the Santa Monica Urban Runoff Ordinance, call (310) 458-8223. For engineering questions, call (310) 458-8721.

CITY USE

Parcel # _____ Plan Check # _____

Vendor List for Infiltration Pit Materials

Working for a Cleaner Bay

The following list features suggested materials for use in an infiltration pit or other sub-surface runoff retention and infiltration systems, or Best Management Practice (BMP), to meet the city's requirements for the Urban Runoff Pollution Mitigation Ordinance. Each product has its own advantages, whether it is cost, void space, or ease of installation. One critical feature is to maximize runoff storage capacity and reduce clogging of void spaces with sediment and debris that may enter the system. While rock is cheaper, generally, it has significantly lower void space and can plug sooner.

NOTE: If you choose rock, the pit volume must be increased by 2.5 times, for plastic devices, 1.05. The city does not endorse any specific product.

ROCK

2.5 inch rock and greater (#3 rock), available from various local or regional rock/quarry/building materials companies throughout Southern California

PLASTIC INFILL DEVICES (Check each vendor for a local supplier)

Modular Tanks, plastic, snap together matrix boxes, approximately 95% + void.

Atlantis Matrix Tank Modules, Atlantis Corp., 360.714.6553, leslie@atlantiscorp.com as, or equivalent, 6" below

ADS Stormtech chamber system or equivalent, 6" below

CULTEC Recharger 330XL chambers, Cultec, Inc., 800.428.5832, www.cultec.com, or equivalent, 6" below

CULTEC Contactor™ H-20 Chambers, Cultec, Inc., 800.428.5832, www.cultec.com, a plastic, concave open-bottom chamber 8.5-22.5' high with various lengths, 99% void, best suited for long oval, shallow BMP depth.

CULTEC Recharger™/Contactor™ H-20 Chambers, Cultec, Inc., 800.428.5832, www.cultec.com, a plastic, concave open-bottom chamber 8.5-22.5' high with various lengths, 99% void, best suited for long oval, shallow BMP depth.

CULTEC Contactor™ H-20 Chambers, Cultec, Inc., 800.428.5832, www.cultec.com, a plastic, concave open-bottom chamber, 34" high, 60" wide, 100" long, 95.0% void, best suited for long oval, shallow depth.

D-Rainbank, modular plastic storage chambers, Franks North America Ltd., 705.528.1064, fax 705.528.0192, info@franksnorthamerica@.com, www.franksnorthamericaltd.com

EcoRain Tanks,/ Stormwater Solutions, 866.786.7690, www.storm2solutions.com, info@storm2solutions.com

Stormbloc™, Hydro International Stormwater, www.hydro-int.com

StormTank, Bowhead Industries, 610.256.1100, www.bowheadpraxair.com

Rainstore®, Invisible Structures, Inc., 800.233.1510, www.invisiblestructures.com, a plastic matrix one meter by one metre, four inches high, stackable, 94% void space, with geogrid top covering, best suited for small area, deep BMP depth.

StormCell®, Hydroinformatiosol, 207.756.6200, www.hydro-int.com, a geoplastic modular block, 95% void, with geogrid top covering, structural integrity, best suited for small area, deep depth.

CONCRETE-METAL-PLASTIC PIPES & CHAMBERS (Check each vendor for a local supplier)

Advanced Drainage Systems, Inc. 800.821.6710, www.ads-pipe.com, corrugated plastic pipe, solid and perforated for a variety of urban runoff retention purposes.

Blue Seal, Kenoz, 888.367.7473, www.kenoz.com, corrugated plastic pipe in various lengths and diameters, solid and perforated, suited for small and large areas, shallow and deep areas.

Cor/Tyon, Cor/Storm, Contech Stormwater Solutions, 800.338.1122, www.conteches.com, modular, arched, pre-cast concrete stormwater retention system.

Corrugated Steel Pipe, Pacific Corrugated Pipe Co., 800.228.5850, www.pac-cor-pipe.com, corrugated steel pipe in various lengths and diameters, solid and perforated, horizontal with geogrid covering at each end, best suited for small and large areas, shallow and deep depths.

Epic System, Firestone Specialty Products, 800.428.4442, www.firestonesp.com, plastic concave chambers.

MaxWell™ Drainage System, Tormet Resources, Inc., 602.268.0195, www.tormetresources.com, water drainage system.

Oceansaver® System, 949.642.0660, www.cbwconstruction.com, combination aggregate-pipe storage, filtering-infiltration, horizontal-vertical system.

PP Fill Media, Bio-Bloodies, Inc., 913.422.0707, www.bioinnovations.com, scientific@bioinnovations.com, a polypropylene modular disc, 8.2'-32', 95% void, best suited for small surface areas and deeper depths.

Recharger™/Contactor™ H-20 Chambers, Cultec, Inc., 800.428.5832, www.cultec.com, a plastic, concave open-bottom chamber 8.5-22.5' high with various lengths, 99% void, best suited for long oval, shallow BMP depth.

StormChamber™, Hydrologic Solutions, 877.426.9128, www.stormchamber.com, info@hydrologicsolutions.com, a plastic, concave open-bottom chamber, 34" high, 60" wide, 100" long, 95.0% void, best suited for long oval, shallow depth.

StormTech Chambers, StormTech, Inc., Suburban Stormwater Management, 888.892.2694, www.stormtech.com, a plastic, concave open-bottom chamber 24"x 75"x 16", 99% void, best suited for long oval, shallow depth.

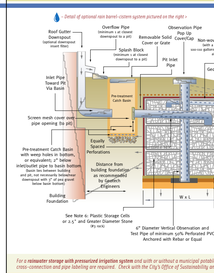
StormTrap™, StormTrap, 877.867.6877, www.stormtrap.com, pre-cast concrete modular stormwater retention system to hold runoff underground, exceeds H-20 loading.

Triton, Triton Stormwater Solutions, 810.222.7652, www.tritonusa.com, plastic, concave open-bottom chamber in various lengths, H-20, 99% void, best suited for long area, shallow depth.

Infiltration Pit and Rain Barrel-Cistern Sample Details*

Working for a Cleaner Bay

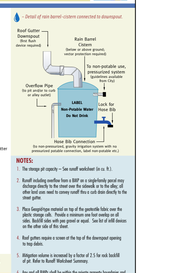
*Detail of optional rain barrel-cistern system pictured on the right >



For a rainwater storage with pressurized irrigation system and with or without a municipal potable water make-up, additional backflow prevention (BP), cross-connection and pipe labeling are required. Check with the City's Office of Sustainability and the Environment for guidelines @ 310.458.8226).

* DISCLAIMER: The City of Santa Monica does not prefer or require any one specific runoff mitigation device, i.e., BMP. No reference BMP is one of many BMP options from which to select. This one is the most popular runoff BMP for most projects, especially single and multi-family projects and can be modified to meet site-specific needs.

*Detail of rain barrel-cistern connected to downspout.

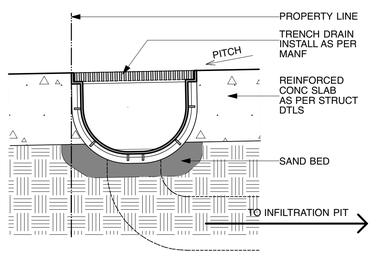


NOTES:

1. The storage pit capacity – See runoff worksheet (in no. 8.).
2. Runoff including overflow from a BMP or a single/entire parcel may be discharged directly to the street over the sidewalk or to the alley; at no other point over, next to runway runoff this is curb drain directly to the street gutter.
3. Place Gypsum/pea metered on top of the geotextile fabric over the plastic storage cells. Provide a minimum one foot overlap on all sides. Backfill sides with pea gravel or equal. See list of infill devices on the other side of this sheet.
4. Roof gutters require a screen at the top of the downspout opening to trap debris.
5. Mitigation volume is increased by a factor of 2.5 for rock backfill of pit. Refer to Runoff Worksheet Summary.
6. Any and all BMPs shall be within the private property boundaries and not in the public right-of-way unless so permitted by the appropriate City official(s).

IMPERVIOUS AREAS		TYPE		BMP
A	1653	ROOF		INF PIT #1
B	511	ROOF		INF PIT #1
C	812	DRIVEWAY		INFL SLOTS
D	NIC	LANDING		GRADE
E	158	DRIVEWAY		INF PIT #1
Total	3134			

INFILTRATION PIT CALC				
	Area SF	Percent of Total	Total CUF	Total/Pit CUF
A,B,E	2322			INF PIT #1
Total	3134	74.09%	489.8	363
Pit Size				10' x 8.67' x 4.2'
C	812			INFL SLOTS
Total	3134	25.91%	489.8	127
Pit Size				94LF x 1' x 1.4'



2 **TRENCH DRAIN DTL**
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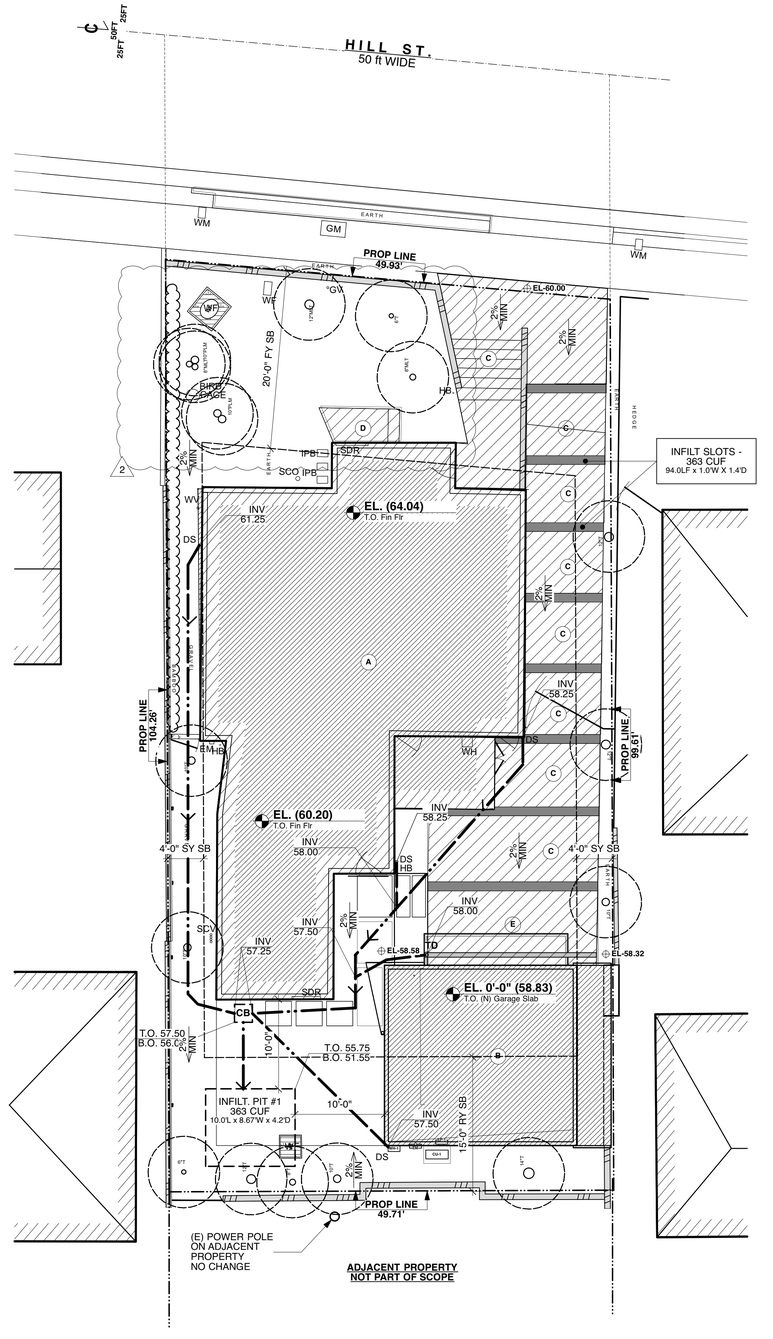

1 **STORMWATER MGMT PLAN**
SCALE: 1/8"=1'-0"

0 10 20

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Santa Monica, CA 90405
(Tel) 310-314-1984
greg@ghgarch.com

CITY OF SANTA MONICA · CALIFORNIA · FOUNDED 1875

22BLD-0701
06/28/22

COMMENTS
For PERMIT
For PERMIT
For PERMIT

ISSUED	DATE
SMB&S	02-06-22
SMB&S	04-20-22
SMB&S	05-27-22

KARLIN RESIDENCE
654 HILL ST, SANTA MONICA, CA 90405

Scale 1/8"=1'-0" U.O.N.

Drawing Title **STORMWATER MITIGATION PLAN**

LICENSED ARCHITECT · GREGORY H GINTER · C-30605 · 11/30/23 Renewal Date · STATE OF CALIFORNIA

A1.2

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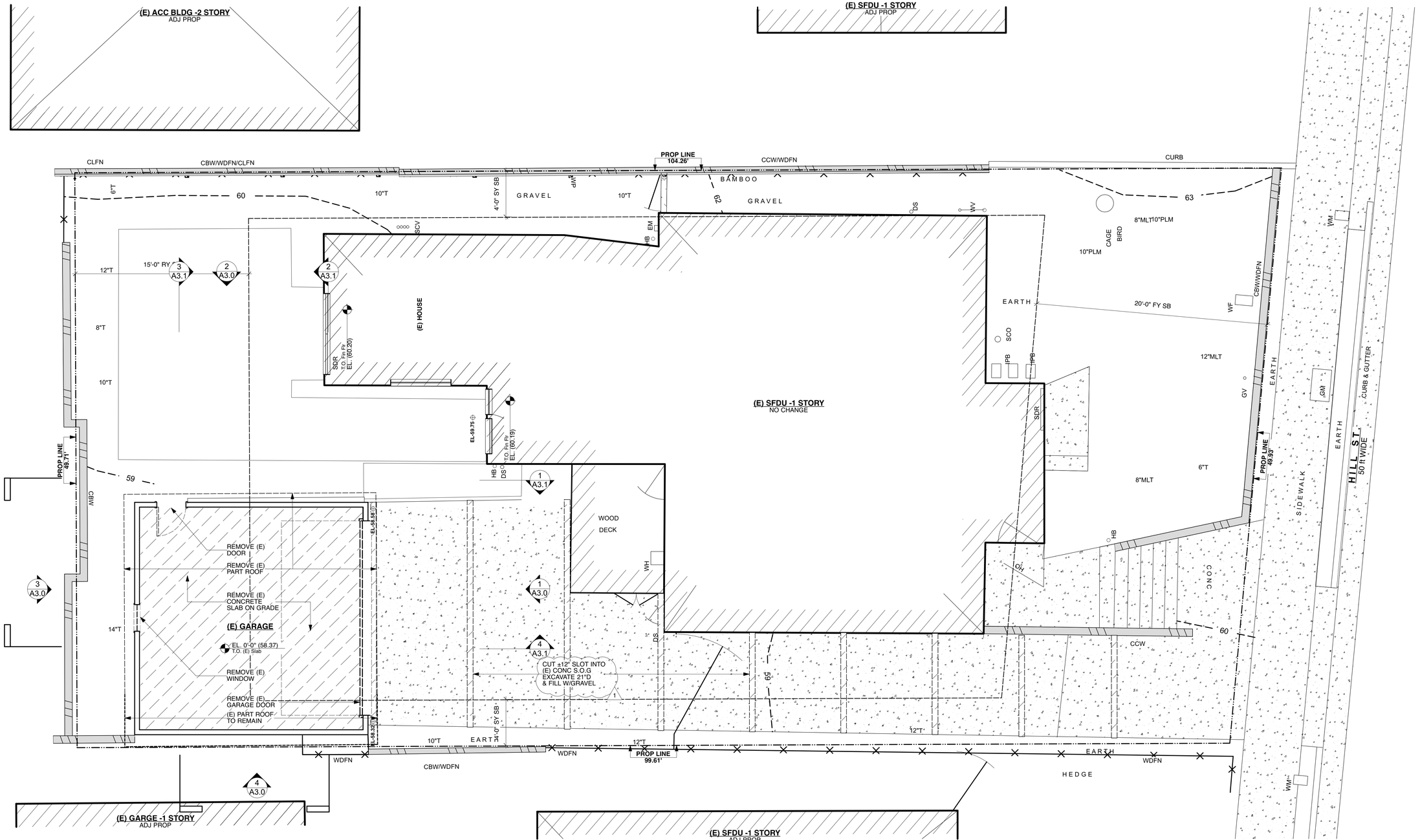
22BLD-0701
06/28/22



1 **DEMOLITION PLAN**
SCALE: 1/4"=1'-0"

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greg@ghgarch.com

TRUE NORTH
N

COMMENTS
For PERMIT
For PERMIT

ISSUED	DATE
SMB&S 1	02-06-22
SMB&S 2	04-20-22

KARLIN RESIDENCE
654 HILL ST, SANTA MONICA, CA 90405

Scale 1/4"=1'-0"

Drawing Title **DEMOLITION PLAN**

LICENSED ARCHITECT
GREGORY H GINTER
C-30595
11/30/23
Renewal Date
STATE OF CALIFORNIA

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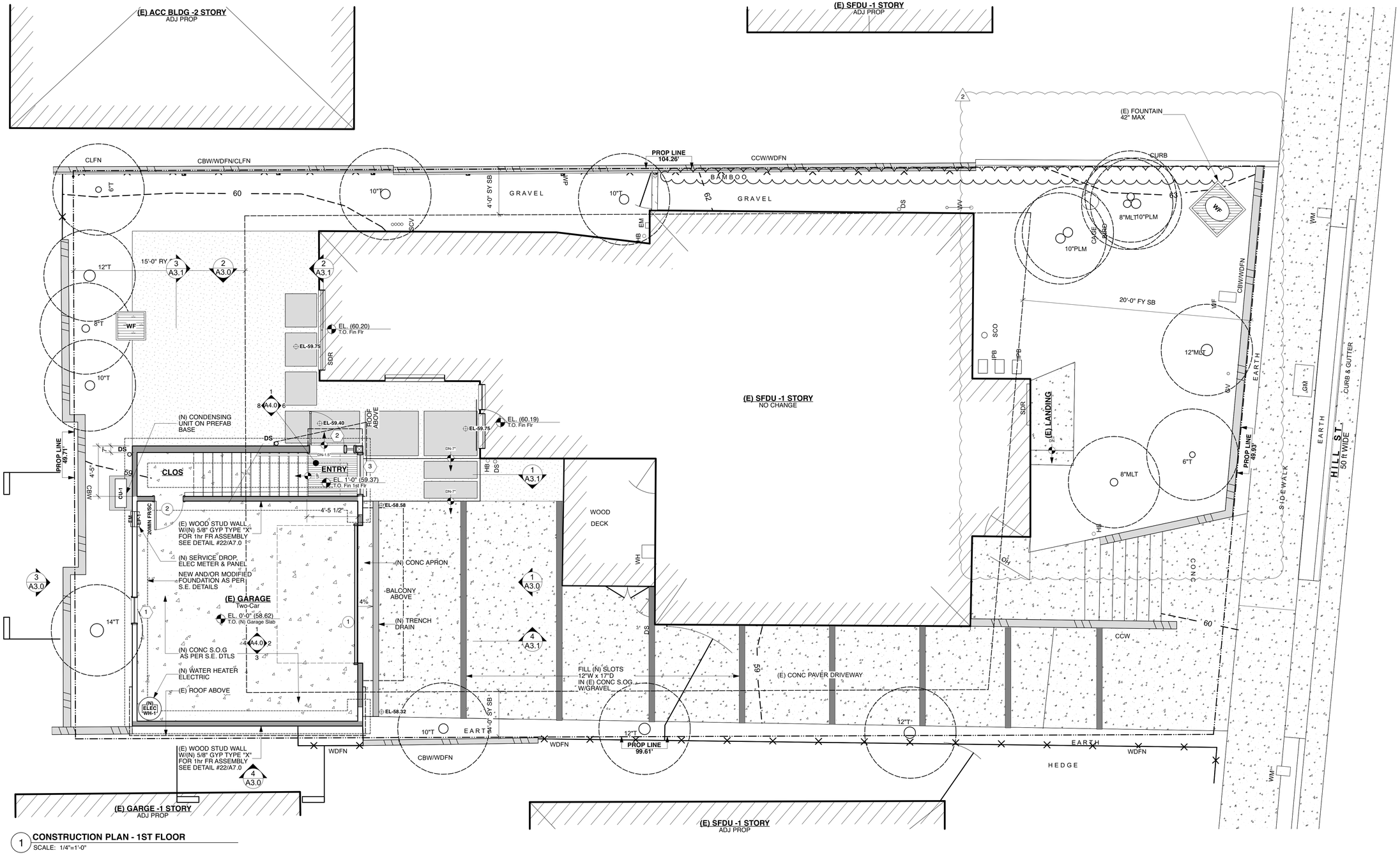
22BLD-0701
06/28/22



1 **CONSTRUCTION PLAN - 1ST FLOOR**
SCALE: 1/4"=1'-0"

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TRUE NORTH

COMMENTS
For PERMIT
For PERMIT
For PERMIT

ISSUED	DATE
SMB&S	02-06-22
1 SMB&S	04-20-22
2 SMB&S	05-27-22

KARLIN RESIDENCE
654 HILL ST, SANTA MONICA, CA 90405

Scale 1/4"=1'-0"

Drawing Title **CONSTRUCTION PLAN**

LICENSED ARCHITECT
GREGORY H GINTER
C-30695
11/30/23
Renewal Date
STATE OF CALIFORNIA

A2.1

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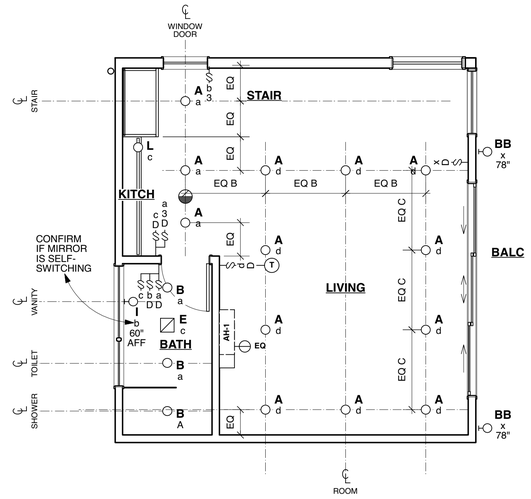
SYMBOL KEY

LINE VOLTAGE SYMBOLS		LIGHTING SYMBOLS		LOW VOLTAGE SYMBOLS		MISCELLANEOUS SYMBOLS & ABBREVIATIONS	
	JUNCTION BOX		SWITCH		PHONE JACK (2) Cat5e	MW	MICROWAVE
a(1)	SWITCHED OUTLET-Location (Outlet #)	3	3-WAY SWITCH	V	VIDEO INTERCOM	R	REFRIGERATOR
	DUPLEX OUTLET	JS	JAMB SWITCH	W	WALL PHONE (1) Cat5e	W	WASHER
	QUADRUPLEX OUTLET		RECESSED CEILING FIXTURE	C	CORDLESS PHONE (No Phone Jack)	D	DRYER
GFI	GROUND FAULT INTERRUPT OUTLET		SURFACE MOUNTED CEILING FIXTURE	TP	TELEPHONE FLOOR OUTLET	DW	DISHWASHER
WP	EXTERIOR OUTLET		WALL MOUNTED FIXTURE	TV	TV OUTLET (1) RG6U (1) Cat6e	WP	WATERPROOF
	DUPLEX FLOOR OUTLET		PENDANT MOUNTED FIXTURE	D	DATA OUTLET (2)Cat6e	D	DIMMER
	SIMPLEX FLOOR OUTLET		TRACK LIGHTING W/FIXTURES	AV	AUDIO/VIDEO OUTLET As per AV Specs	3, 4	3 OR 4 WAY SWITCHING
	DEDICATED OUTLET		UNDER CABINET FIXTURE	T	THERMOSTAT	F	FAN
	SMOKE/CARBON MONOXIDE DETECTOR		CEILING MOUNTED FAN	LT	LOW TEMPERATURE SENSOR	"A"	FIXTURE TYPE
RR	RATE OF RISE DETECTOR		STRING LIGHT	K	KEYPAD	"a"	FIXTURE LOCATION
SM	SHADE MOTOR		FLOURESCENT FIXTURE	B	BUZZER	VO	VACUUM OUTLET
TM	TIMER w/Switch		LED STRIP LIGHT	MD	MOTION DETECTOR	EC	EMPTY CONDUIT
EQ	DEDICATED EQUIPMENT OUTLET			SA	SATELITE DISH		GAS CONNECTION
BX	BX TAIL 3ft Long			ES	ELECTRIC DOOR STRIKE		SUPPLY GRILLE
OS	OCCUPANCY SENSOR			SC	SECURITY CONTACT		RETURN/EXHAUST GRILLE
				RT	REMOTE TRANSFORMER		ACCESS PANEL
				I	INTERCOM	ss	SELF SWITCHING
				SP	CEILING SPEAKER	MD	MOTION DECTOR ACTIVATED
				SP	WALL SPEAKER	PE	PHOTO ELECTRONIC SENSOR ACTIVATED
				SB	SUBWOOFER		W/Overide Timer
				AL	SECURITY ALARM SIREN	SM	SURFACE MOUNTED
				POS	POINT OF SALE As per Specs		HVAC DIFFUSER W/AIR DIRECTION
				PTR	POS Printer As per Specs		
				FA	EXIST. FIRE ALARM PULL BOX		



1 **REFLECTED CLG PLAN -2nd FLR**
SCALE: 1/4"=1'-0"

CITY OF SANTA MONICA · CALIFORNIA · FOUNDED 1875

22BLD-0701
06/28/22

Gregory H Ginter
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COMMENTS
For PERMIT
For PERMIT

ISSUED	DATE
SMB&S	02-06-22
SMB&S	04-20-22

KARLIN RESIDENCE
654 HILL ST, SANTA MONICA, CA 90405

Drawing Title
REFLECTED CLG PLAN- 2nd FLR

Scale
1/4"=1'-0"

LICENSED ARCHITECT · GREGORY H GINTER · STATE OF CALIFORNIA
C-30016
11/30/23
Renewal Date

A2.10

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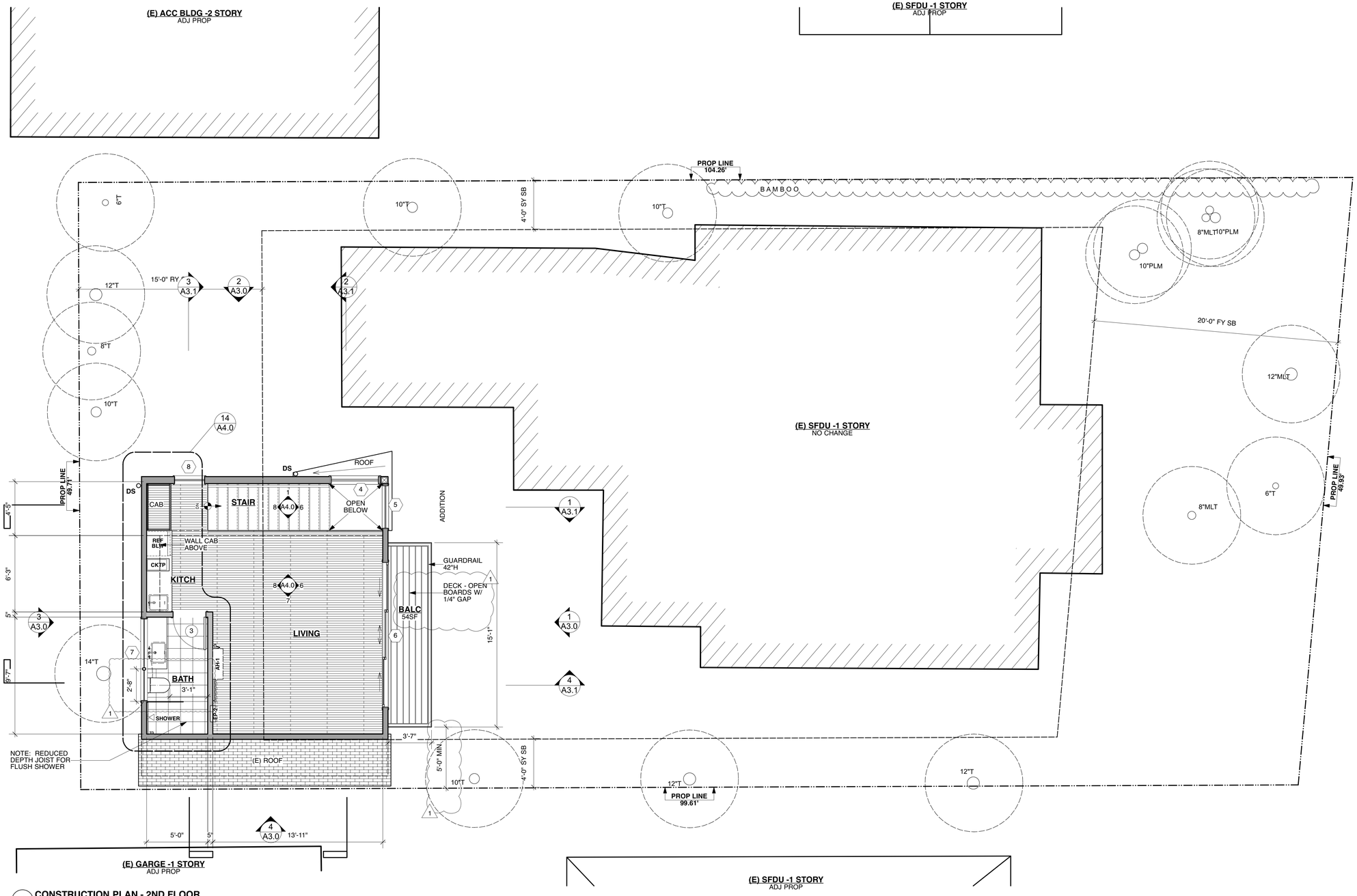
06/28/22



1 **CONSTRUCTION PLAN - 2ND FLOOR**
SCALE: 1/4"=1'-0"

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TRUE NORTH
GRID NORTH

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ISSUED	DATE
SMB&S	02-06-22
1 SMB&S	04-20-22

KARLIN RESIDENCE
654 HILL ST, SANTA MONICA, CA 90405

Drawing Title: **SECOND FLOOR CONSTRUCTION PLAN**

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

LICENSED ARCHITECT
GREGORY H GINTER
C-30026
11/30/23
Renewal Date
STATE OF CALIFORNIA

A2.2

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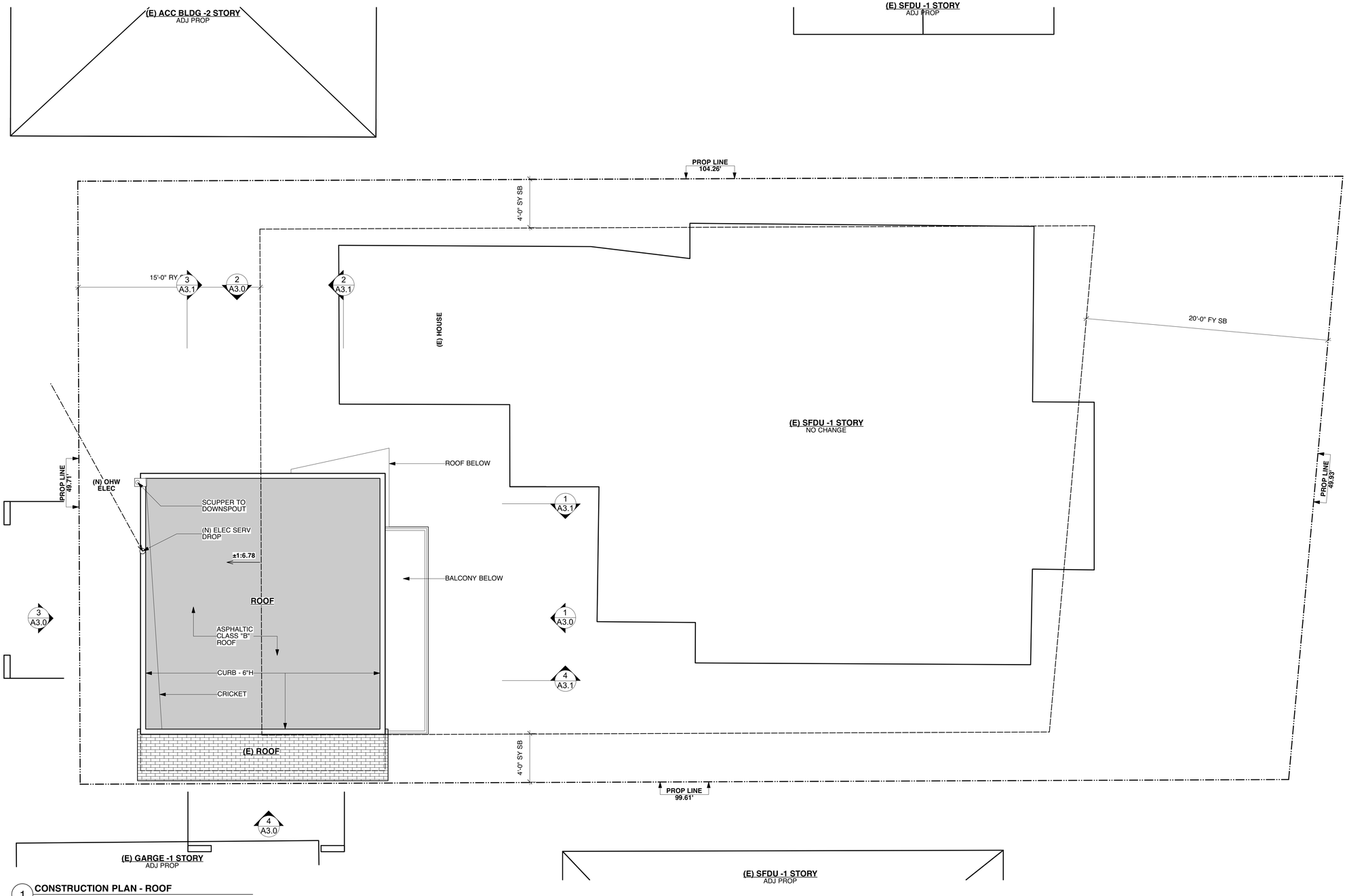

1 **CONSTRUCTION PLAN - ROOF**
SCALE: 1/4"=1'-0"

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SMB&S	04-20-22
1	
2	

KARLIN RESIDENCE
654 HILL ST, SANTA MONICA, CA 90405

Scale 1/4"=1'-0"

Drawing Title **ROOF CONSTRUCTION PLAN**

LICENSED ARCHITECT
GREGORY H GINTER
C-30686
11/30/23
Renewal Date
STATE OF CALIFORNIA

A2.3

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SYMBOL KEY

LINE VOLTAGE SYMBOLS		LIGHTING SYMBOLS		LOW VOLTAGE SYMBOLS		MISCELLANEOUS SYMBOLS & ABBREVIATIONS	
	JUNCTION BOX		SWITCH		PHONE JACK (2) Cat5e	MW	MICROWAVE
a(1)	SWITCHED OUTLET-Location (Outlet #)	3	3-WAY SWITCH	V	VIDEO INTERCOM	R	REFRIGERATOR
	DUPLEX OUTLET	JS	JAMB SWITCH	W	WALL PHONE (1) Cat5e	W	WASHER
	QUADRUPLEX OUTLET		RECESSED CEILING FIXTURE	C	CORDLESS PHONE (No Phone Jack)	D	DRYER
GFI	GROUND FAULT INTERRUPT OUTLET		SURFACE MOUNTED CEILING FIXTURE		TELEPHONE FLOOR OUTLET	DW	DISHWASHER
WP	EXTERIOR OUTLET		WALL MOUNTED FIXTURE	TV	TV OUTLET (1) RG6U (1) Cat6e	WP	WATERPROOF
	DUPLEX FLOOR OUTLET		PENDANT MOUNTED FIXTURE	D	DATA OUTLET (2)Cat6e	D	DIMMER
	SIMPLEX FLOOR OUTLET		TRACK LIGHTING W/FIXTURES	AV	AUDIO/VIDEO OUTLET As per AV Specs	3, 4	3 OR 4 WAY SWITCHING
	DEDICATED OUTLET		UNDER CABINET FIXTURE	T	THERMOSTAT	F	FAN
	SMOKE/CARBON MONOXIDE DETECTOR		CEILING MOUNTED FAN	LT	LOW TEMPERATURE SENSOR	"A"	FIXTURE TYPE
RR	RATE OF RISE DETECTOR		STRING LIGHT	K	KEYPAD	"a"	FIXTURE LOCATION
SM	SHADE MOTOR		FLOURESCENT FIXTURE	B	BUZZER	VO	VACUUM OUTLET
TM	TIMER w/Switch		LED STRIP LIGHT	MD	MOTION DETECTOR	EC	EMPTY CONDUIT
EQ	DEDICATED EQUIPMENT OUTLET			SA	SATELITE DISH		GAS CONNECTION
BX	BX TAIL 3ft Long			ES	ELECTRIC DOOR STRIKE		SUPPLY GRILLE
OS	OCCUPANCY SENSOR			SC	SECURITY CONTACT		RETURN/EXHAUST GRILLE
				RT	REMOTE TRANSFORMER		ACCESS PANEL
				I	INTERCOM	ss	SELF SWITCHING
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				SP	WALL SPEAKER	PE	PHOTO ELECTRONIC SENSOR ACTIVATED
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				AL	SECURITY ALARM SIREN	SM	SURFACE MOUNTED
				POS	POINT OF SALE As per Specs		HVAC DIFFUSER W/AIR DIRECTION
				PTR	POS Printer As per Specs		
				FA	EXIST. FIRE ALARM PULL BOX		

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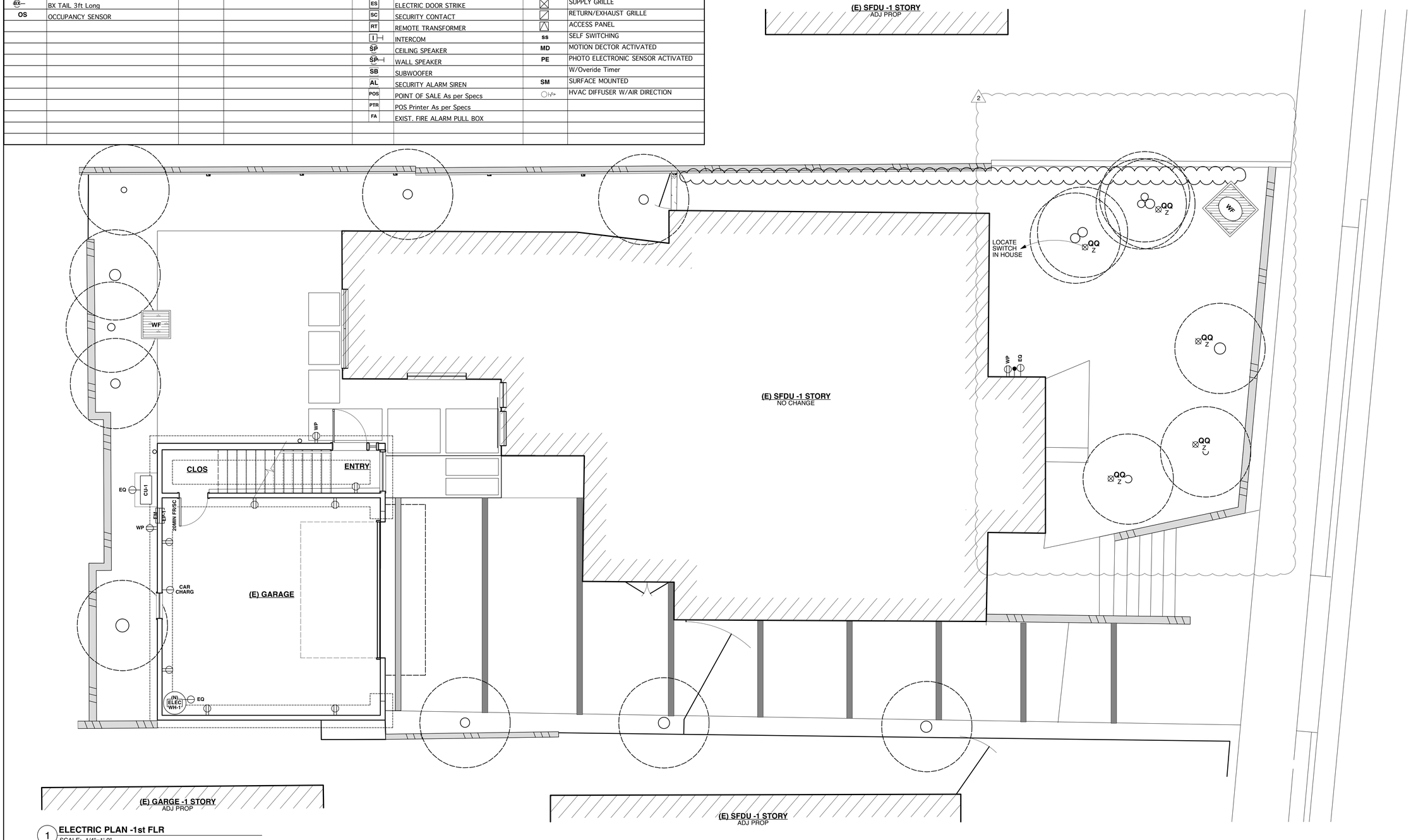
06/28/22



1 **ELECTRIC PLAN -1st FLR**
SCALE: 1/4"=1'-0"

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TRUE NORTH N

COMMENTS	DATE	ISSUED
For PERMIT	02-06-22	SMB&S
For PERMIT	04-20-22	SMB&S
For PERMIT	05-27-22	2 SMB&S

KARLIN RESIDENCE
654 HILL ST, SANTA MONICA, CA 90405

Drawing Title **ELECTRIC PLAN -1st FLR**

Scale **1/4"=1'-0"**

LICENSED ARCHITECT · GREGORY H GINTER · C-30686 · 11/30/23 Renewal Date · STATE OF CALIFORNIA

A2.7

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	DUPLEX OUTLET	JS	JAMB SWITCH	W	WALL PHONE (1) Cat5e	W	WASHER
	QUADRUPLEX OUTLET		RECESSED CEILING FIXTURE	C	CORDLESS PHONE (No Phone Jack)	D	DRYER
GFI	GROUND FAULT INTERRUPT OUTLET		SURFACE MOUNTED CEILING FIXTURE		TELEPHONE FLOOR OUTLET	DW	DISHWASHER
WP	EXTERIOR OUTLET		WALL MOUNTED FIXTURE	TV	TV OUTLET (1) RG6U (1) Cat6e	WP	WATERPROOF
	DUPLEX FLOOR OUTLET		PENDANT MOUNTED FIXTURE	D	DATA OUTLET (2)Cat6e	D	DIMMER
	SIMPLEX FLOOR OUTLET		TRACK LIGHTING W/FIXTURES	AV	AUDIO/VIDEO OUTLET As per AV Specs	3, 4	3 OR 4 WAY SWITCHING
	DEDICATED OUTLET		UNDER CABINET FIXTURE	T	THERMOSTAT	F	FAN
	SMOKE/CARBON MONOXIDE DETECTOR		CEILING MOUNTED FAN	LT	LOW TEMPERATURE SENSOR	"A"	FIXTURE TYPE
RR	RATE OF RISE DETECTOR		STRING LIGHT	K	KEYPAD	"a"	FIXTURE LOCATION
SM	SHADE MOTOR		FLOURESCENT FIXTURE	B	BUZZER	VO	VACUUM OUTLET
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EQ	DEDICATED EQUIPMENT OUTLET			SA	SATELITE DISH		GAS CONNECTION
6X	BX TAIL 3ft Long			ES	ELECTRIC DOOR STRIKE		SUPPLY GRILLE
OS	OCCUPANCY SENSOR			SC	SECURITY CONTACT		RETURN/EXHAUST GRILLE
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				I	INTERCOM	ss	SELF SWITCHING
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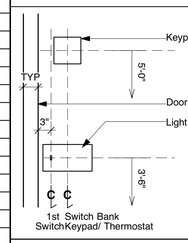
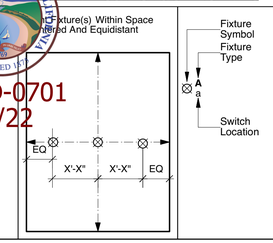
				SB	SUBWOOFER		W/Overide Timer
				AL	SECURITY ALARM SIREN	SM	SURFACE MOUNTED
				POS	POINT OF SALE As per Specs		HVAC DIFFUSER W/AIR DIRECTION
				PTR	POS Printer As per Specs		
				FA	EXIST. FIRE ALARM PULL BOX		

SWITCH & DEVICE LOCATION KEY



LIGHT FIXT. LOCATION & SYMBOL KEYS



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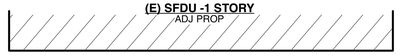

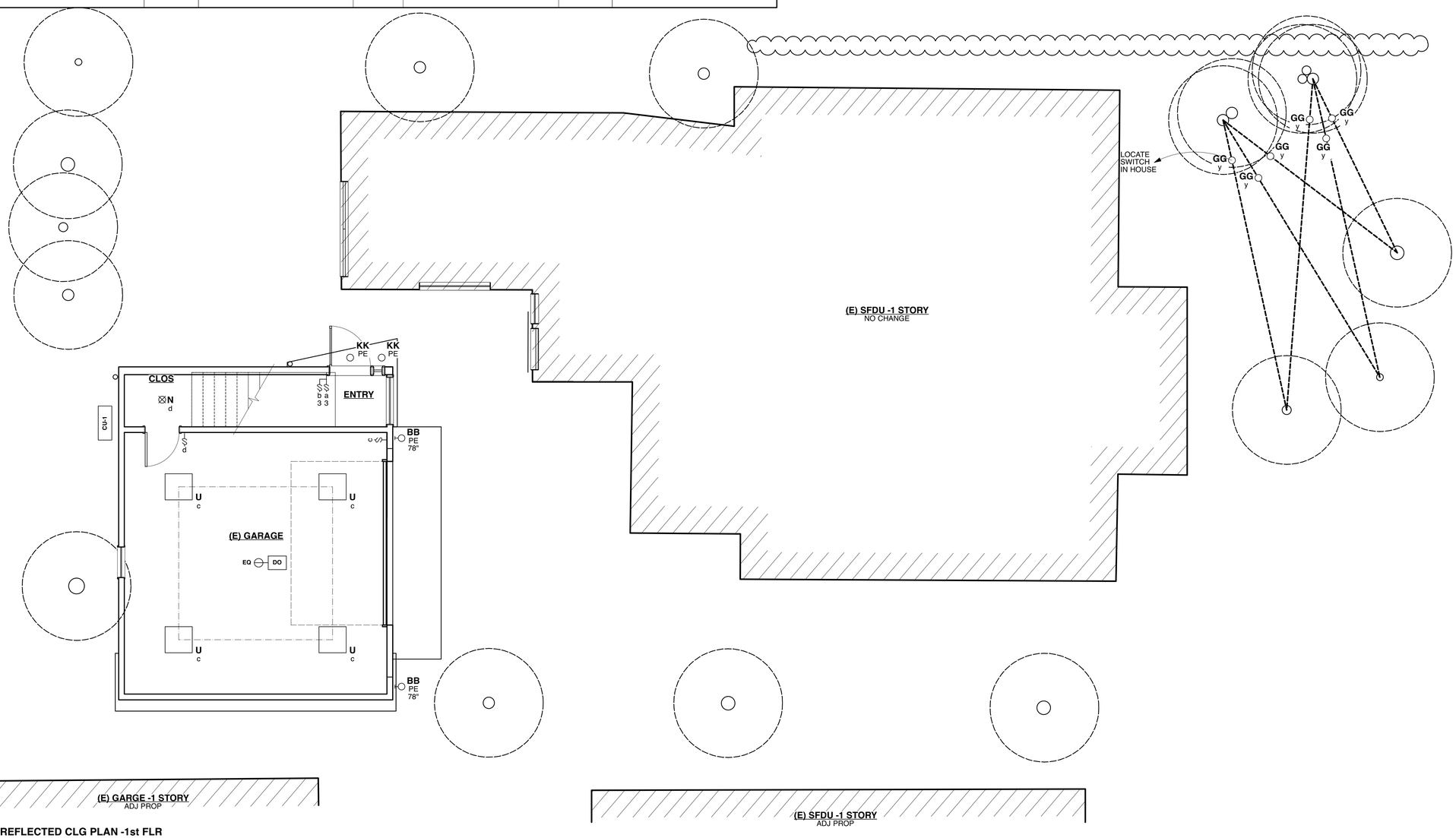

1 **REFLECTED CLG PLAN -1st FLR**
SCALE: 1/4"=1'-0"

Gregory H Ginter
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TRUE NORTH N

COMMENTS	DATE
For PERMIT	02-06-22
For PERMIT	04-20-22

ISSUED	
SMB&S	2
SMB&S	

KARLIN RESIDENCE
654 HILL ST, SANTA MONICA, CA 90405

Drawing Title
REFLECTED CLG PLAN- 1st FLR

Scale
1/4"=1'-0"

LICENSED ARCHITECT
GREGORY H GINTER
C-30606
11/30/23
Renewal Date
STATE OF CALIFORNIA

A2.8

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RR	RATE OF RISE DETECTOR		STRING LIGHT	K	KEYPAD	"a"	FIXTURE LOCATION
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BX	BX TAIL 3ft Long			ES	ELECTRIC DOOR STRIKE		SUPPLY GRILLE
OS	OCCUPANCY SENSOR			SC	SECURITY CONTACT		RETURN/EXHAUST GRILLE
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				I	INTERCOM	SS	SELF SWITCHING
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				SB	SUBWOOFER		W/Overide Timer
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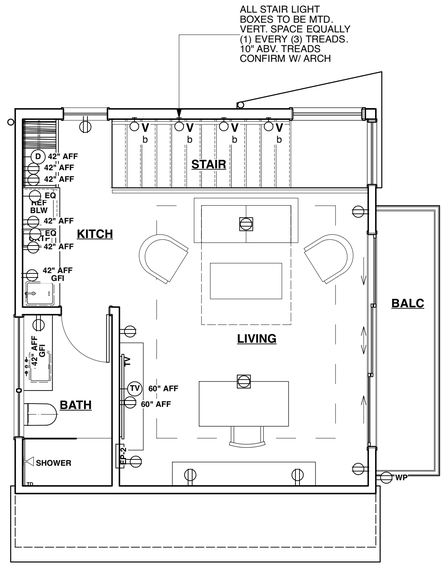
				POS	POINT OF SALE As per Specs		HVAC DIFFUSER W/AIR DIRECTION
				PTR	POS Printer As per Specs		
				FA	EXIST. FIRE ALARM PULL BOX		



1 **ELECTRIC PLAN -2nd FLR**
SCALE: 1/4"=1'-0"

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06/28/22

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TRUE NORTH

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For PERMIT

ISSUED	DATE
SMB&S	02-06-22
SMB&S	04-20-22

KARLIN RESIDENCE
654 HILL ST, SANTA MONICA, CA 90405

Drawing Title **ELECTRIC PLAN -2nd FLR**

Scale 1/4"=1'-0"

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A2.9

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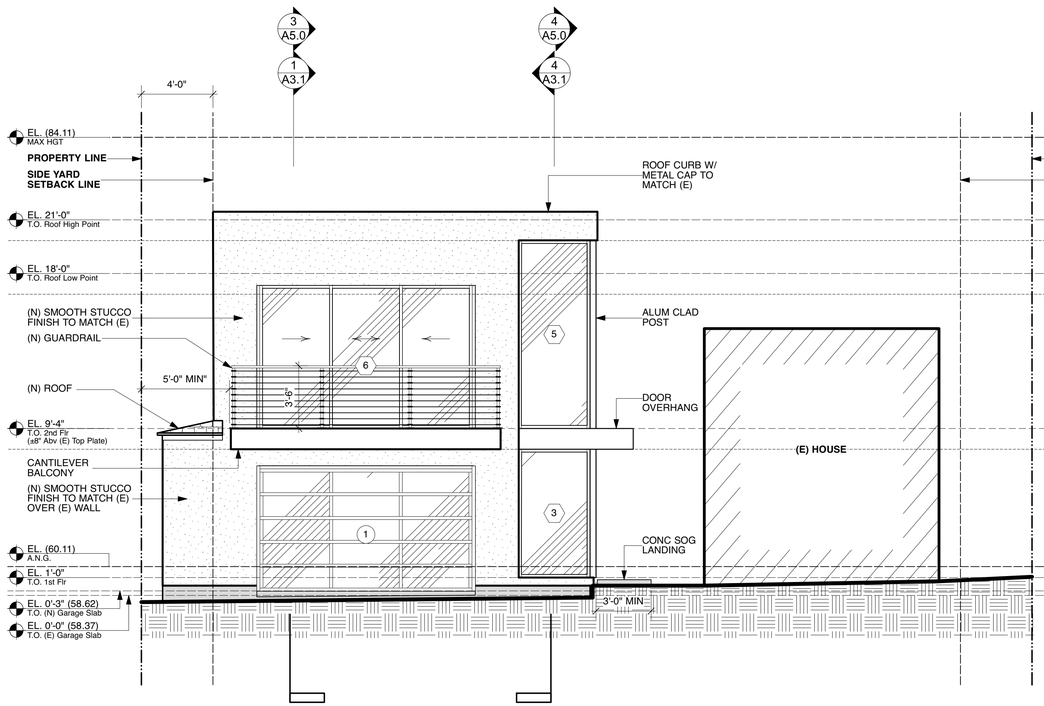
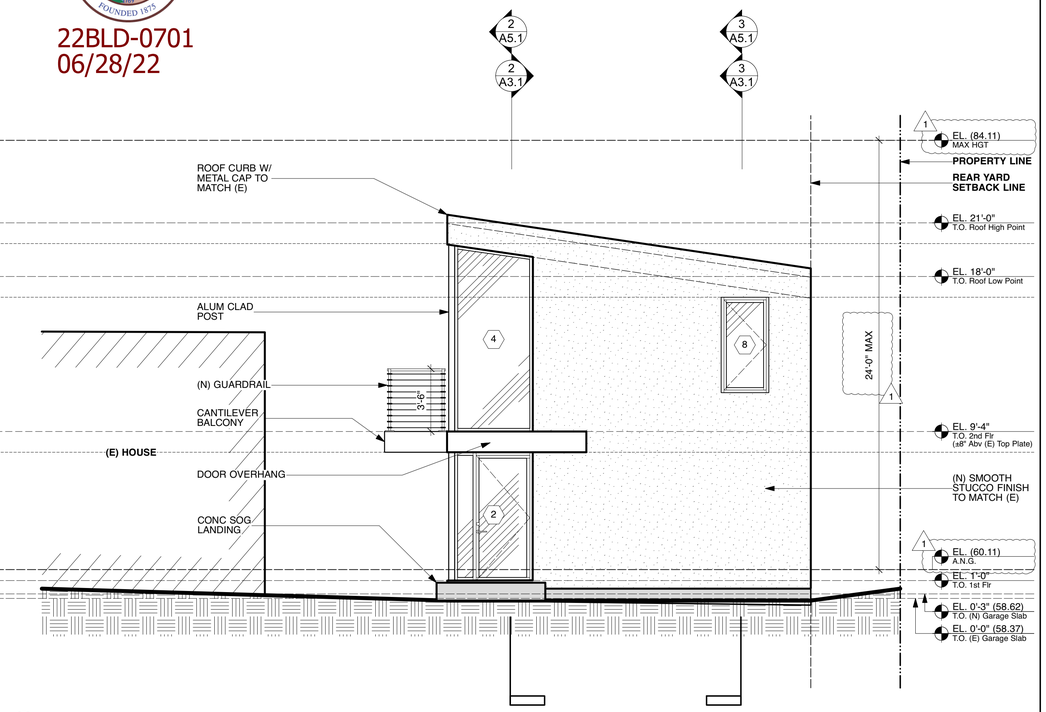
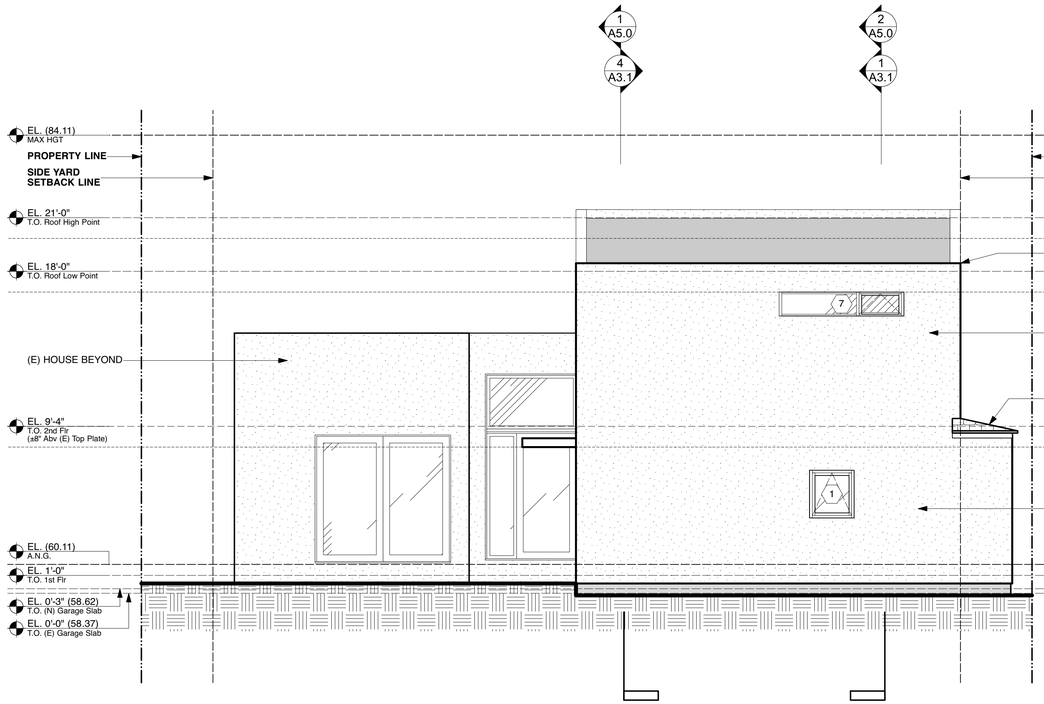


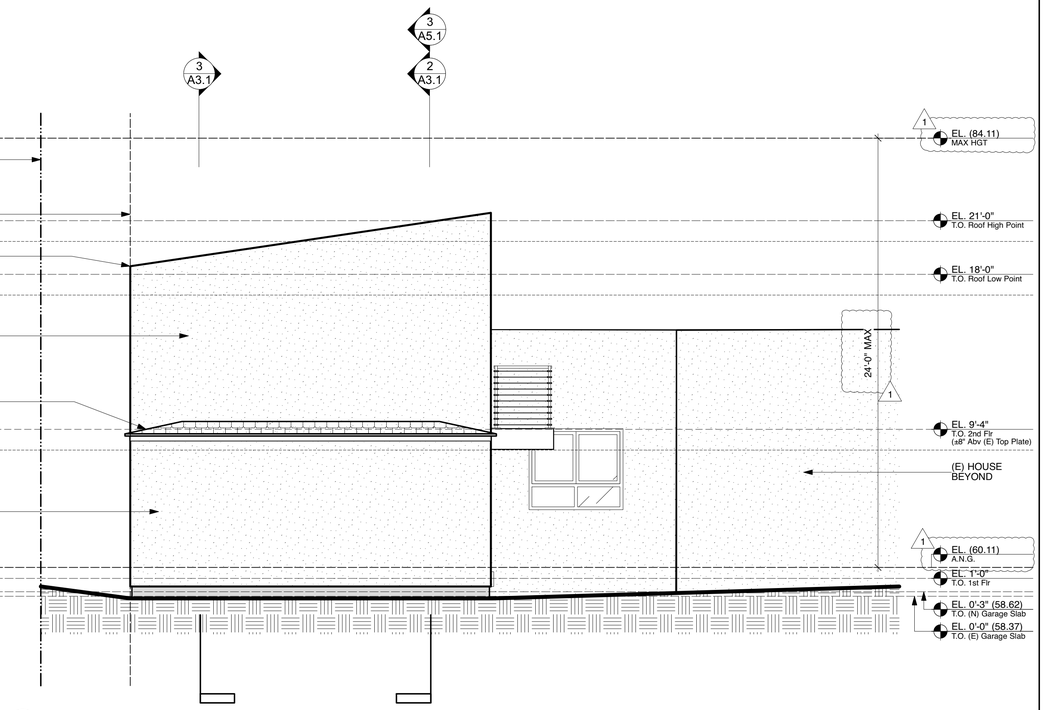
1 **EXTERIOR ELEVATION**
NORTH



2 **EXTERIOR ELEVATION**
WEST



3 **EXTERIOR ELEVATION**
SOUTH



4 **EXTERIOR ELEVATION**
EAST

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SMB&S	02-06-22
1 SMB&S	04-20-22

KARLIN RESIDENCE
654 HILL ST, SANTA MONICA, CA 90405

Scale 1/4"=1'-0"

Drawing Title **EXTERIOR ELEVATIONS**

LICENSED ARCHITECT
GREGORY H GINTER
C-30556
11/30/23
Renewal Date
STATE OF CALIFORNIA

A3.0

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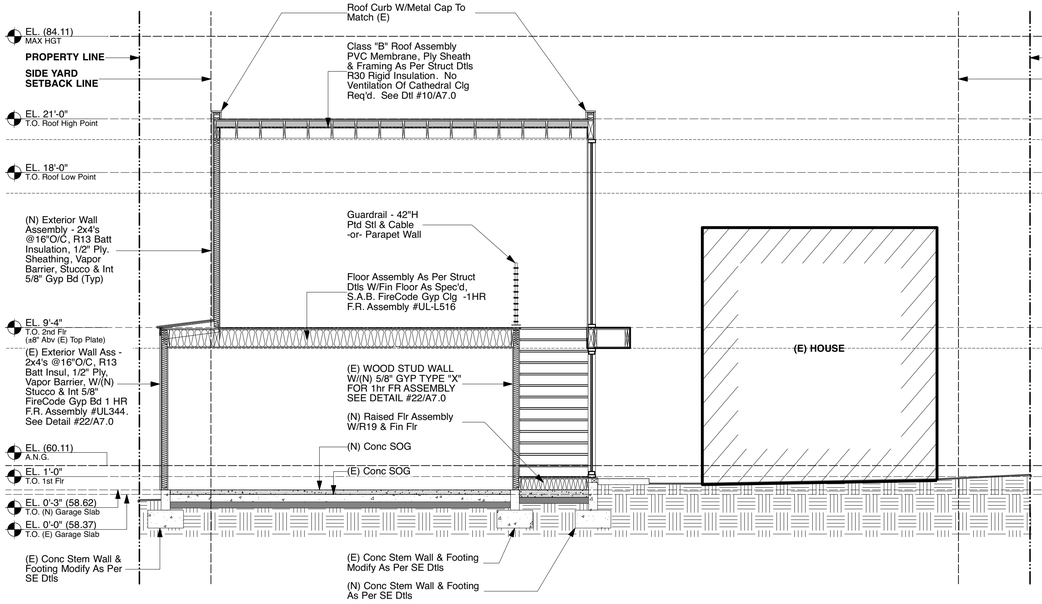
06/28/22



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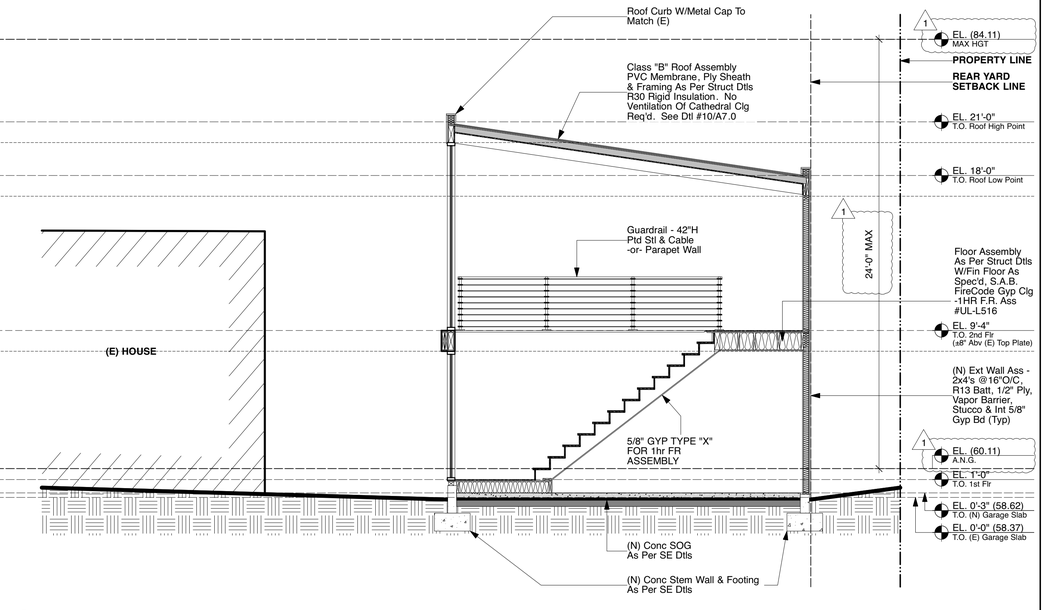

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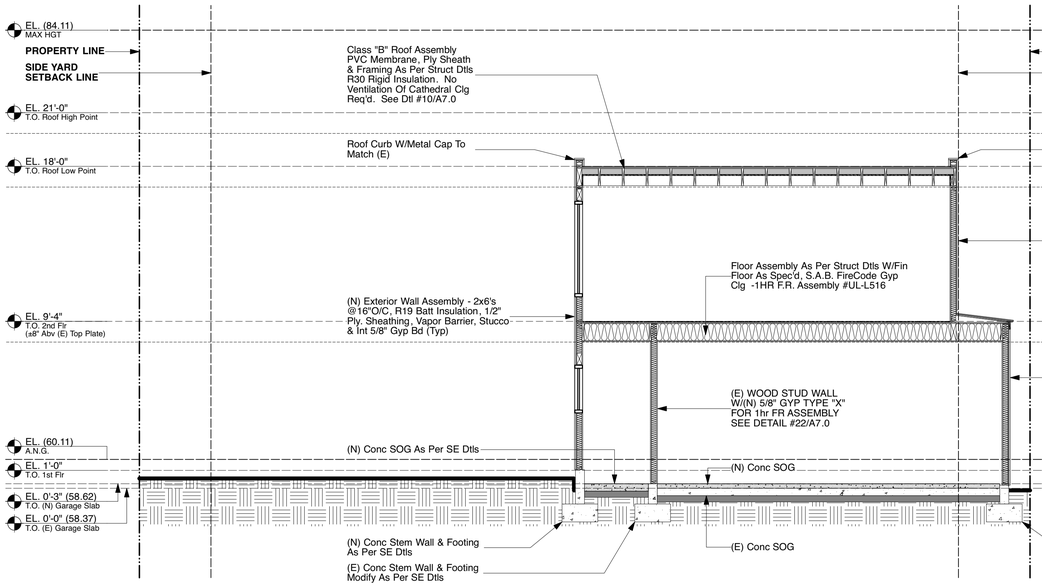
NORTH/SOUTH



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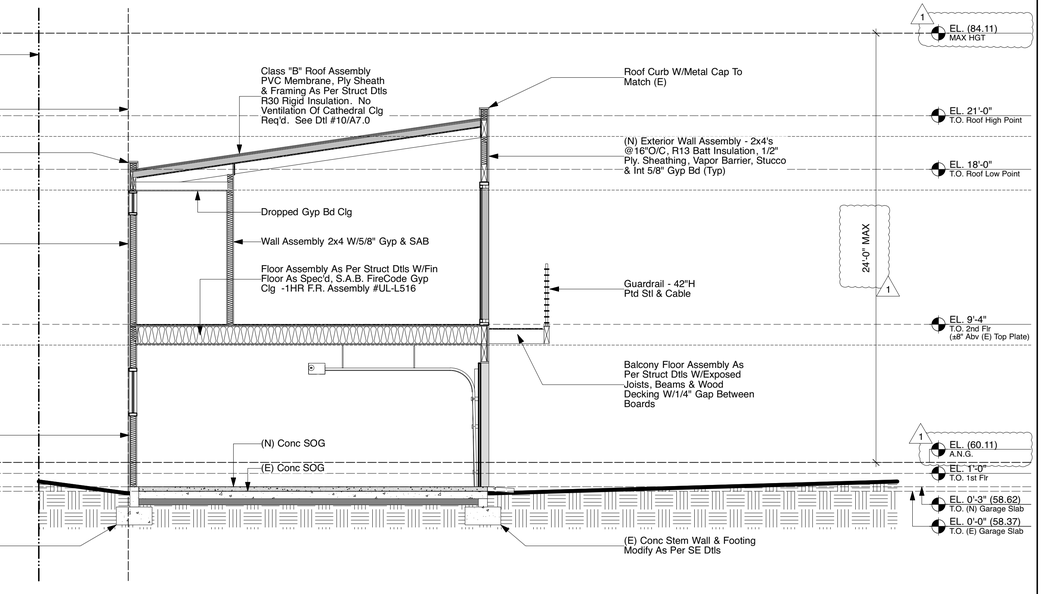

4 **BUILDING SECTION**
NORTH/SOUTH

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COMMENTS
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ISSUED	DATE
SMB&S	02-06-22
SMB&S	04-20-22

KARLIN RESIDENCE
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Drawing Title
BUILDING SECTIONS

Scale
1/4"=1'-0"

LICENSED ARCHITECT
GREGORY H GINTER
C-30556
11/30/23
Renewal Date
STATE OF CALIFORNIA

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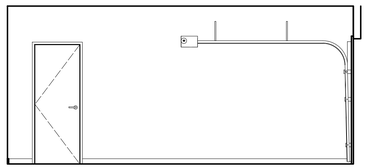

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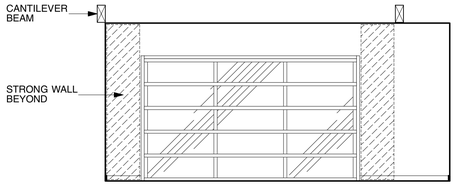

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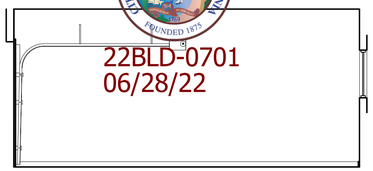

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EAST

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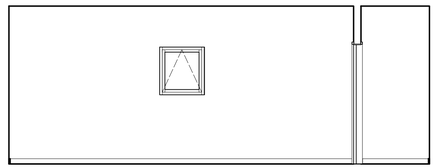

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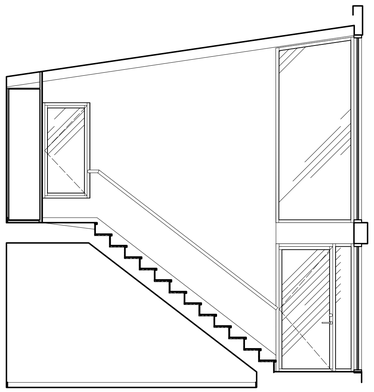
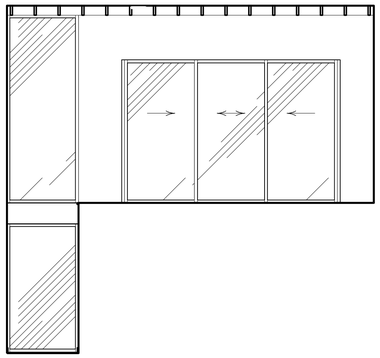
SOUTH



5 **INT ELEV - LIVING, STAIR & CL**
WEST



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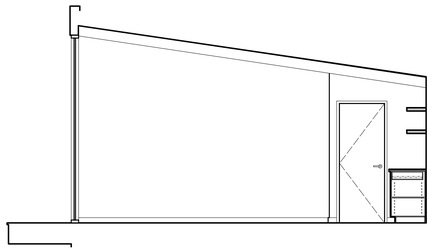

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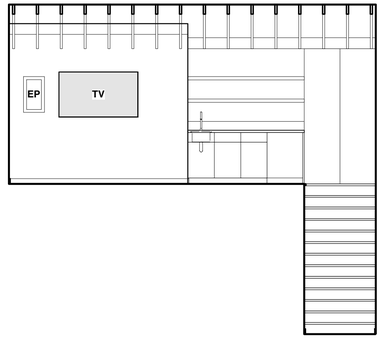

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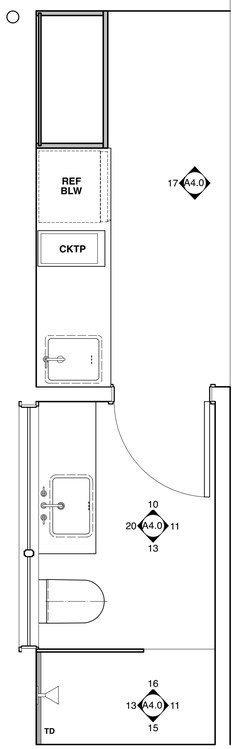
SOUTH



14 **PLAN - BATHROOM**
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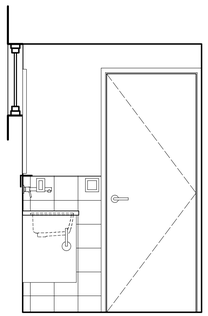
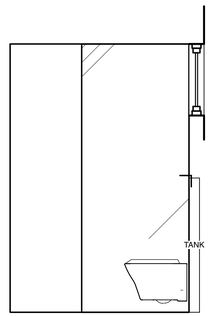
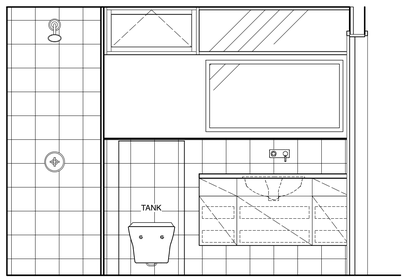


10 **INT ELEV - BATHROOM**
WEST

11 **INT ELEV - BATHROOM**
NORTH



12 **INT ELEV - BATHROOM**
EAST



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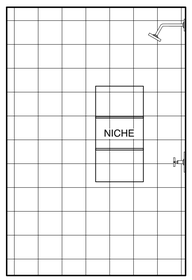
SOUTH



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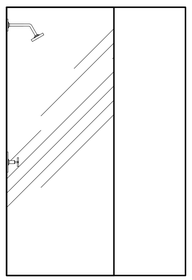
EAST



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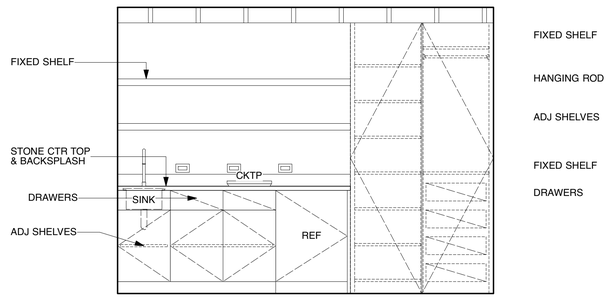
WEST



17 **INT ELEV - KITCHEN**
SOUTH

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COMMENTS
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Scale 1/4"=1'-0" U.O.N.

Drawing Title
INTERIOR ELEVATIONS & BATH PLAN

LICENSED ARCHITECT
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11/30/23
Renewal Date
STATE OF CALIFORNIA

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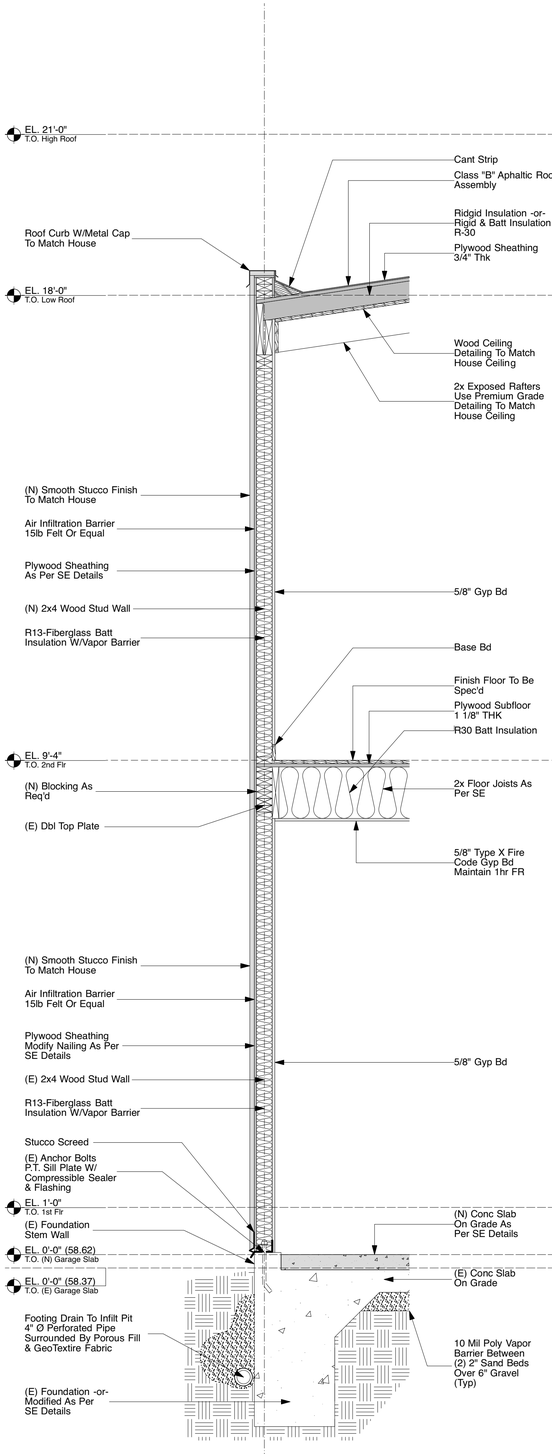

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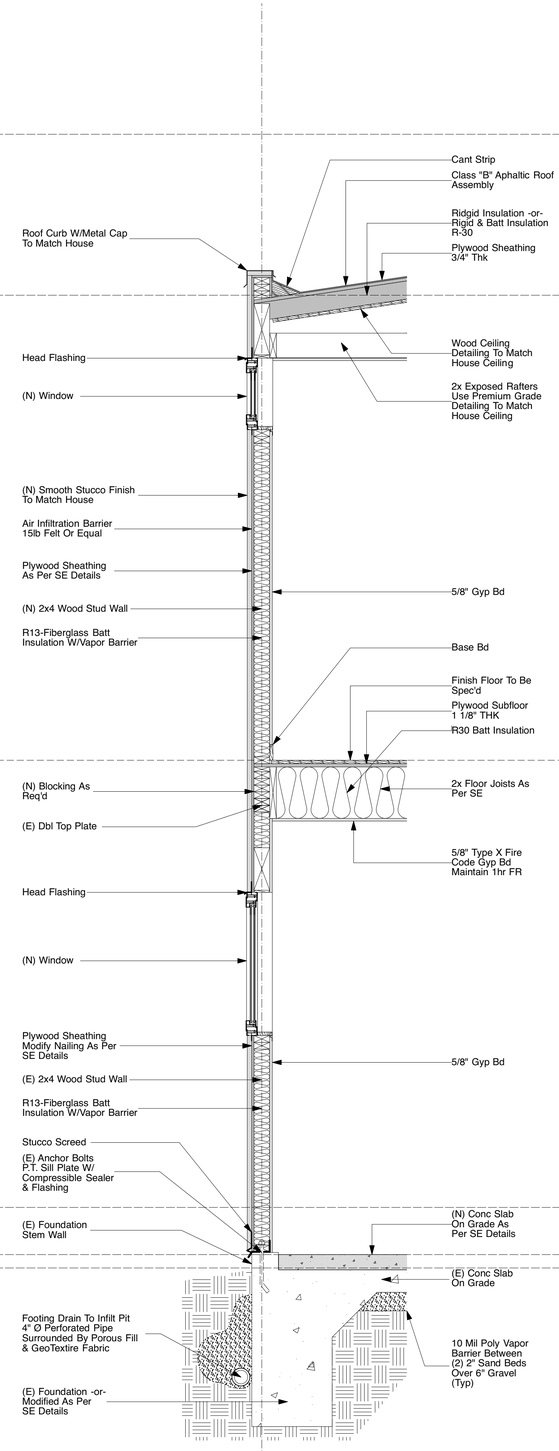

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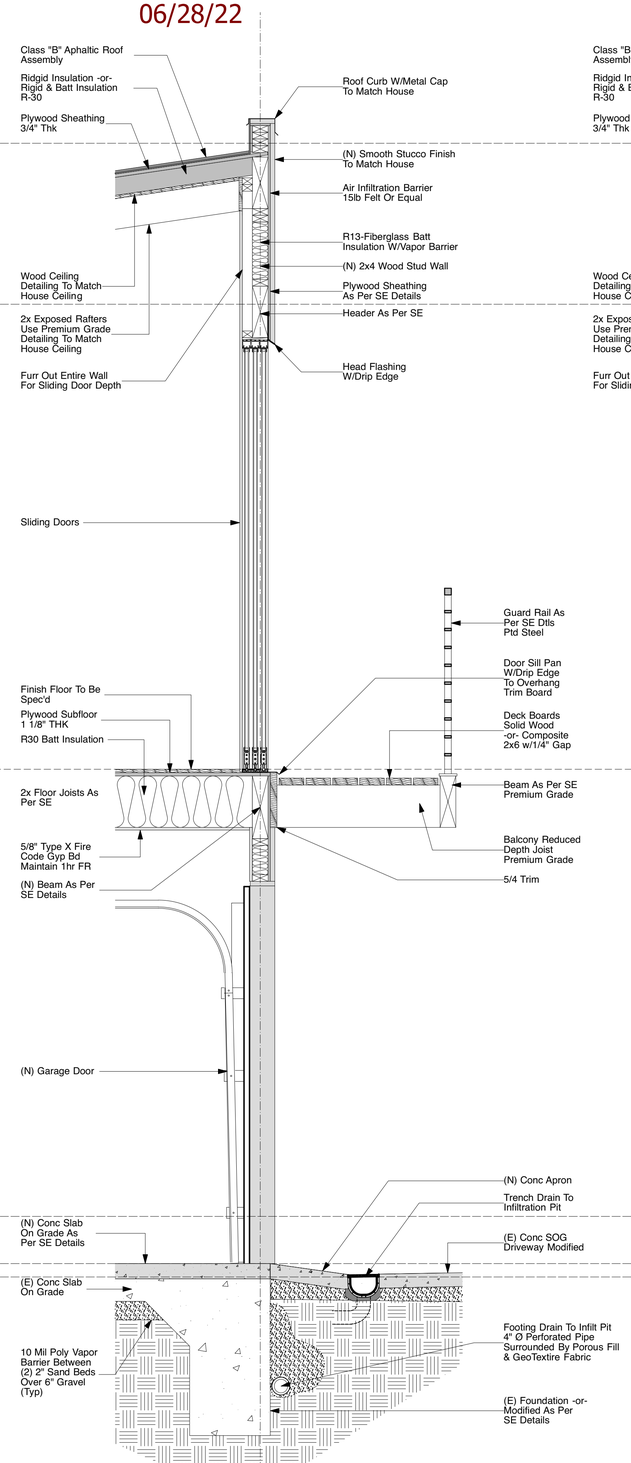

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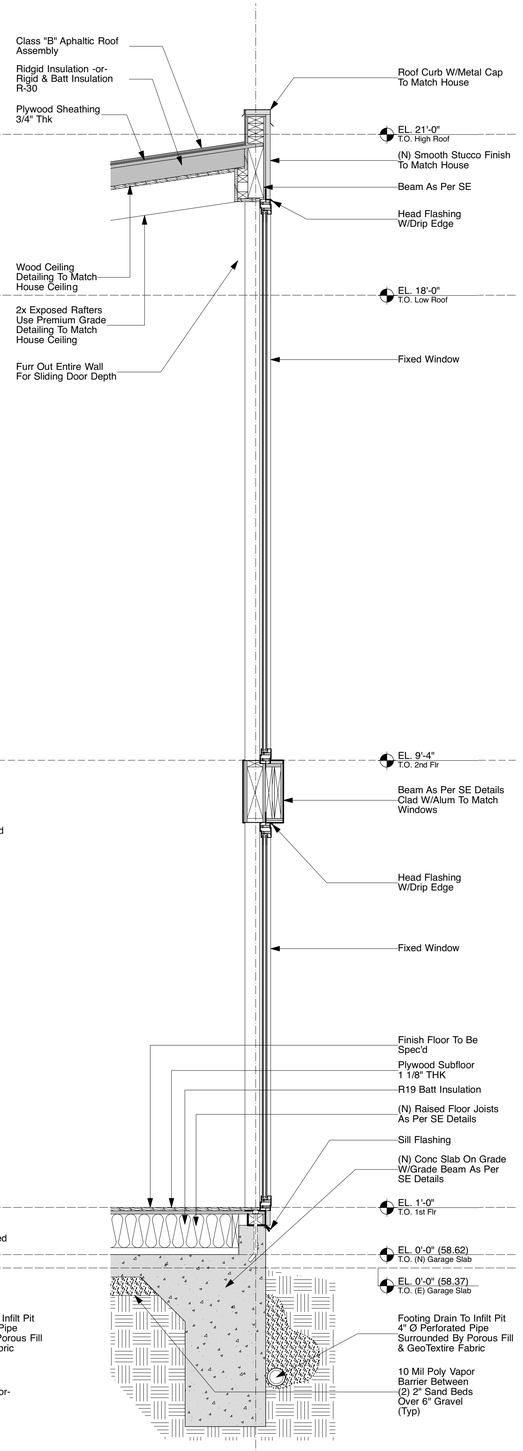

4 **WALL SECTION**
SCALE:: 3/4"=1'-0"

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04-20-22

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Scale **3/4"=1'-0"**

Drawing Title **WALL SECTIONS**

LICENSED ARCHITECT
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11/30/23
Renewal Date
STATE OF CALIFORNIA

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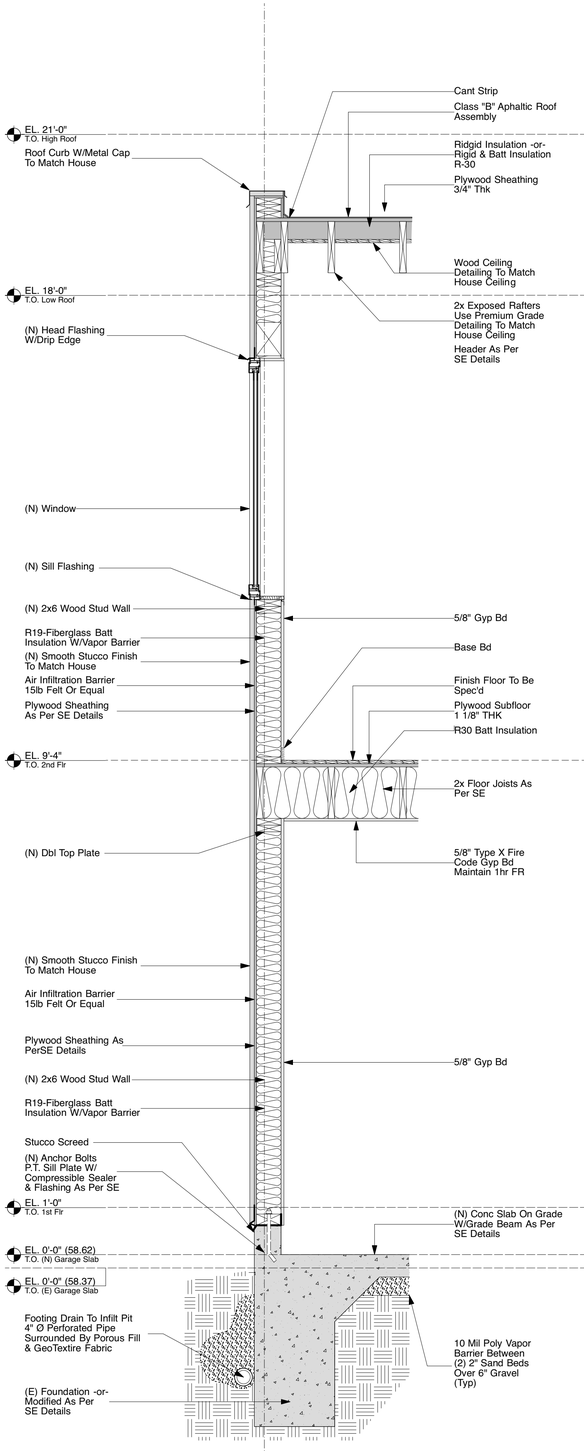

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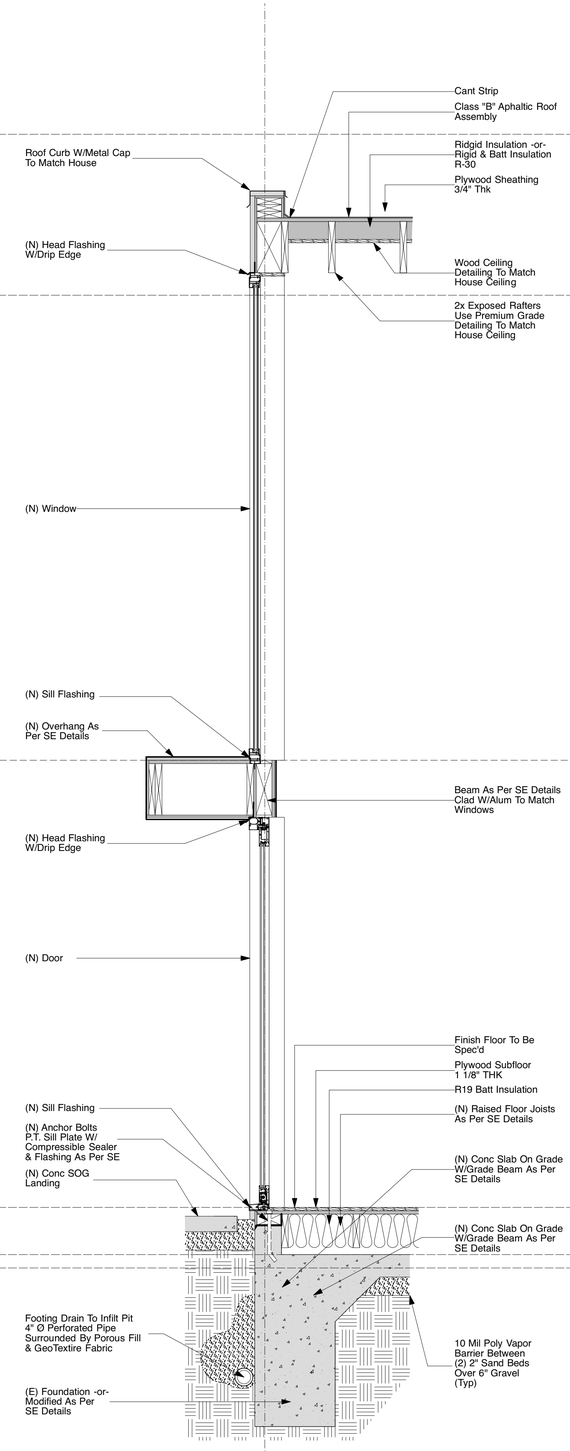

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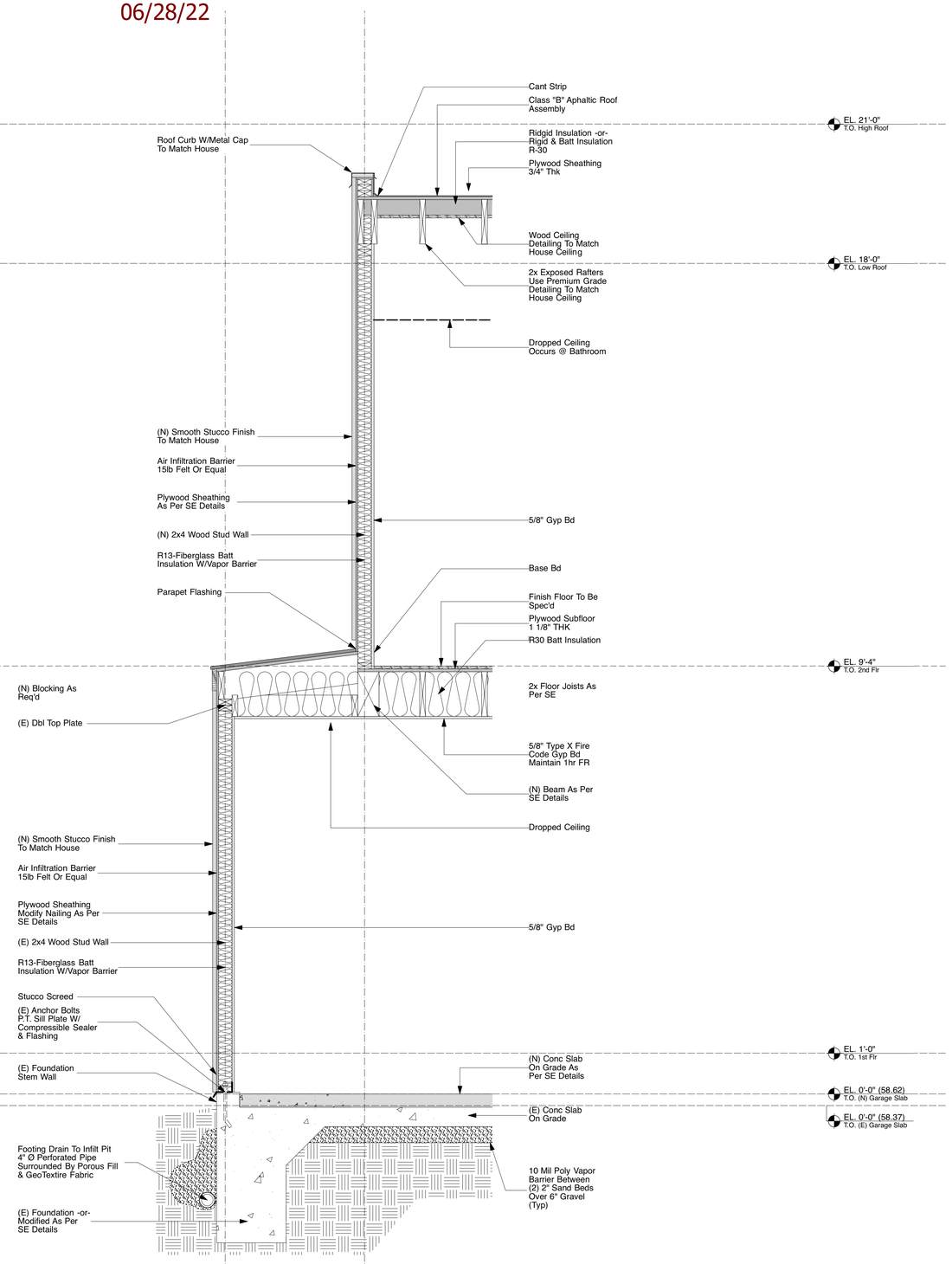

3 **WALL SECTION**
SCALE:: 3/4"=1'-0"

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Scale
3/4"=1'-0"

Drawing Title
WALL SECTIONS

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C-30855
11/30/23
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STATE OF CALIFORNIA

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WINDOW SCHEDULE

WINDOW NO	TYPE	STYLE	UNIT MODEL #	EGRESS	TEMPER	FINISH	ROUGH OPENING W (inch)	ROUGH OPENING H (inch)	UNIT DIMENSION (F.S.) W (inch)	UNIT DIMENSION (F.S.) H (inch)	AREA (SF)	ENERGY EFFICIENCY ORRIENTATION	SHGC	U-VALUE	DETAILS HEAD	SILL	JAMB	HORZ MULL	VERT MULL	REMARKS
1	ALUM	AWN	REPLACEMENT				±31.00	±32.50	30.00	32.00	6.67	SE	0.40	0.25						
2	ALUM	FIX/SWING		X	X		51.00	86.50	50.00	86.00	29.86	SW	0.40	0.25						
3	ALUM	FIX			X		47.00	86.50	46.00	86.00	27.47	NW	0.40	0.25						
4	ALUM	FIX					51.00	VARIES 124.50	50.00	VARIES 124.00	42.43	SW	0.40	0.25						
5	ALUM	FIX					47.00	124.50	46.00	124.00	39.61	NW	0.40	0.25						
6	ALUM	SLIDING		X	X		153.00	96.50	152.00	96.00	101.33	NW	0.40	0.25						
7	ALUM	FIX/AWN					85.00	16.50	84.00	16.00	9.33	SE	0.40	0.25						
8	ALUM	CSMT					33.00	64.50	32.00	64.00	14.22	SW	0.40	0.25						

DOOR SCHEDULE

DOOR NO	HDWR	TYPE	UNIT PANEL SIZE	EGRESS	TEMPER	FINISH	ROUGH OPENING W (inch)	ROUGH OPENING H (inch)	UNIT DIMENSION (F.S.) W (inch)	UNIT DIMENSION (F.S.) H (inch)	DETAILS HEAD	SILL	JAMB	HORZ MULL	VERT MULL	REMARKS
1	MANF	GARAGE	152X84		X	POWDER CT	153.00	85.00	152.00	84.00						
2	PASS	SWING	32x84x1.75			PAINT	34.50	85.25	33.50	84.75						20 MIN FR SELF-CLOSING
3	PRIV	SWING	32x84x1.75			PAINT	34.50	85.25	33.50	84.75						

1

WINDOW & DOOR NOTES:

1. All voids to be filled with thermal insulation at all window and door assemblies. Insulation is not shown in details for clarity, typical.
2. See specifications for window and door manufacturers, glazing types and hardware.
3. For prehung doors and for windows, confirm rough openings with manufacturer.
4. Exterior doors to have 5/4" jambs and heads. Interior doors to have 3/4" jambs and heads.
5. All door heads and window heads within a room are to align unless otherwise noted. See elevations.
6. Install all windows and doors as per manufacturer's specifications. Details are for design intent only.
7. Interior door rough opening heights are taken from the finish floor.
8. Where vertical and horizontal structural mullions intersect, vertical mullion to be continuous, unless otherwise noted in structural details. Structural details to govern.
9. All windows and doors to have optional 1" nailer for installation, unless otherwise noted in details.
10. All windows and doors to have dual pane insulated with glass panels 9/16"thk minimum.
11. Details are shown for design intent only. GC is responsible for all dimensions, parts, hardware, etc. required to install windows as shown and to combine various window/door units as shown and to insure compatibility.
12. Abbreviations:
    "P" Insulated Panel. No glass
    "R" Reverse View. View pictured in window type diagram is the mirror image of actual unit. See exterior elevations.
13. Guardrails are not required. All sills of operable windows on 2nd floor are above 2ft off the finish floor.
14. See schedule for safety glazing. GC to review with inspector prior to ordering glass.
15. All windows and exterior doors to be ?????????.
16. All skylights to be Velux
17. All interior doors to be solid core wood, flat slab primed for painting. TM Cobb or equal.
18. Confirm all dimensions in field prior to placing order. Rough and finish openings are for design intent only. Confirm all discrepencies with Architect.

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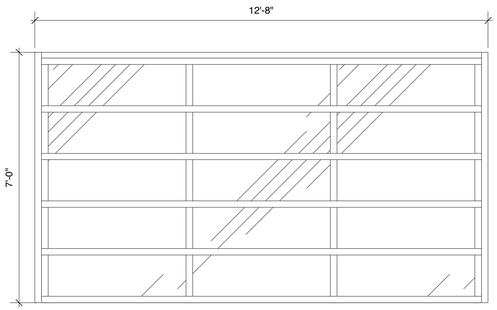

1
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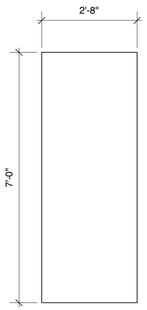

2 3
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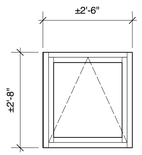

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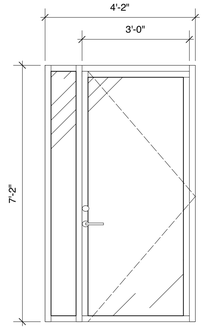

2
4 **WINDOW TYPE - D**
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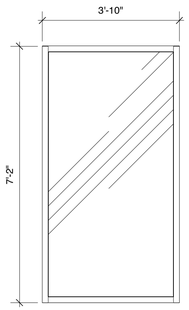

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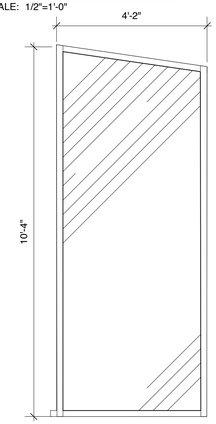

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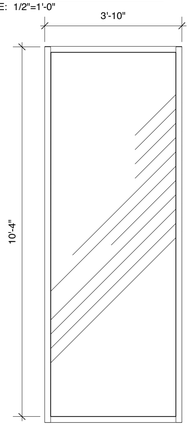

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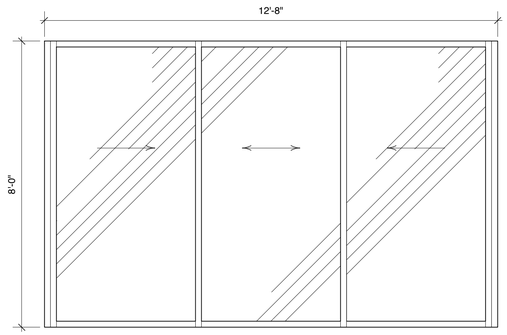

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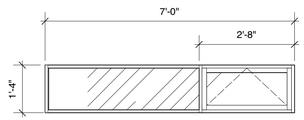

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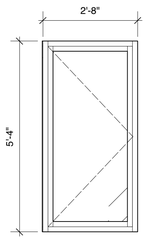

8
10 **WINDOW TYPE - J**
SCALE: 1/2"=1'-0"

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ISSUED	DATE	COMMENTS
SM B&S	02-06-22	For PERMIT
1 SM B&S	04-20-22	For PERMIT

KARLIN RESIDENCE
654 HILL ST, SANTA MONICA, CA 90405

Drawing Title **WINDOW & DOOR SCHEDULES**

Scale **NONE**

LICENSED ARCHITECT
GREGORY H GINTER
C-30606
11/30/23
Renewal Date
STATE OF CALIFORNIA

A6.0

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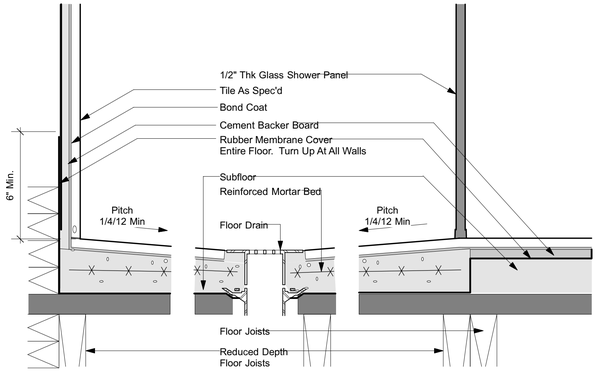

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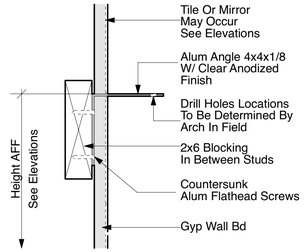

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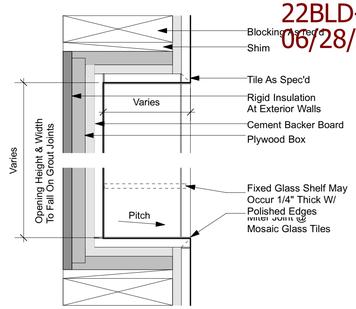

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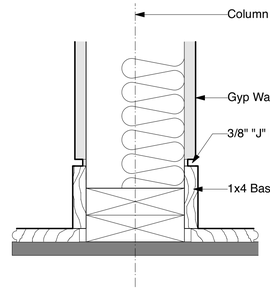

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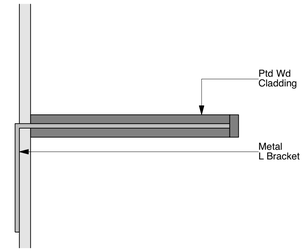

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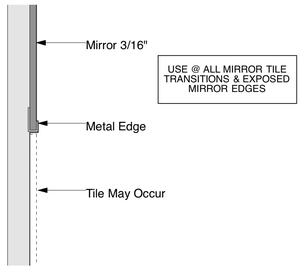

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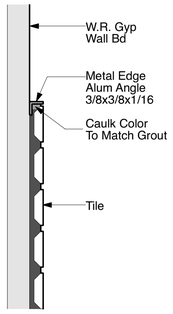

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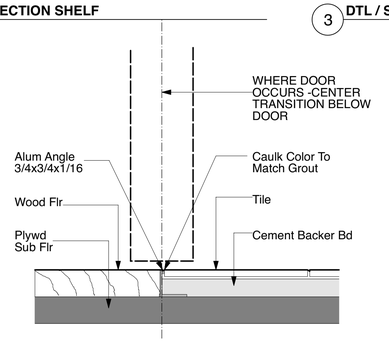

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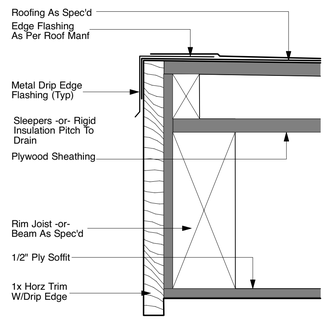

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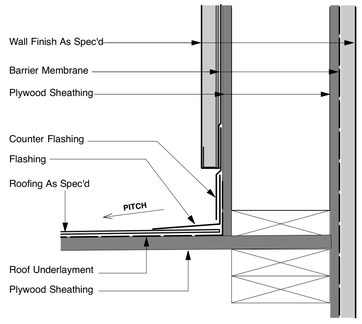

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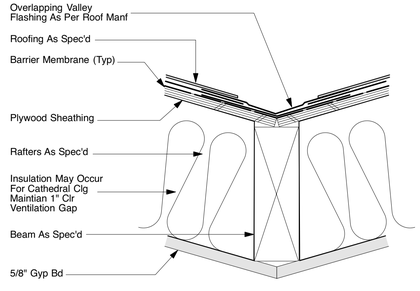

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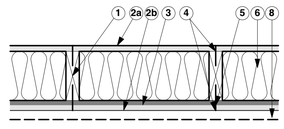

WS6-1.4 / UL #U344 ONE-HOUR FIRE-RESISTIVE WOOD-FRAME WALL ASSEMBLY
2X6 WOOD STUD WALL – 100% DESIGN LOAD – ASTM E 119 / NFPA 251 - ASSEMBLY
RATED FROM BOTH SIDES

1. Framing – Nominal 2x6 wood studs @ 16" o/c, double top plates, single bottom plate
2a. Interior Sheathing – 5/8" Type X gypsum wallboard, 4ft wide, applied horizontally. Horizontal joints are unblocked. Horizontal application of wallboard represents the direction of least fire resistance as opposed to vertical application.
2b. Exterior Sheathing - 5/8" Type X gypsum sheathing, 4ft wide, applied horizontally. Horizontal joints are unblocked. Horizontal application of wallboard represents the direction of least fire resistance as opposed to vertical application.
3. Exterior Structural Sheathing – 15/32" wood structural panels (OSB) Exp. 1applied vertically, horizontal joints blocked
4. Gypsum Fasteners – 2 1/4" #6 Type S drywall screws, spaced 12" o/c
5. Panel Fasteners – 6d common nails (bright) – 12" o/c field, 6" o/c edges
6. Insulation – 5 1/2" thick mineral wool insulation (2.5 pcf, nominal)
7. Joints and Fastener Heads – Wallboard joints covered with paper tape and joint compound, fastener heads covered with joint compound
8. Exterior Siding - See elevations for materials

22 **1 HR FIRE RATED WALL ASSEMBLY**
SCALE: 1 1/2"=1'-0"

CITY OF SANTA MONICA - CALIFORNIA
FOUNDED 1875

22BLD-0701
06/28/22

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COMMENTS
For PERMIT

ISSUED
SMB&S

DATE
02-06-22

1

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Drawing Title
DETAILS

Scale
AS NOTED

LICENSED ARCHITECT
GREGORY H GINTER
C-30598
11/30/23
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STATE OF CALIFORNIA

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R311.7 Stairways

R311.7.1 Width
Stairways shall be not less than 36 inches (914 mm) in clear width at all points above the permitted handrail height and below the required headroom height. The clear width of stairways at and below the handrail height, including treads and landings, shall be not less than 311/2 inches (787 mm) where a handrail is installed on one side and 27 inches (698 mm) where handrails are installed on both sides.
Exception: The width of spiral stairways shall be in accordance with Section R311.7.10.1.

R311.7.2 Headroom
The headroom in stairways shall be not less than 6 feet 8 inches (2032 mm) measured vertically from the sloped line adjoining the tread nosing or from the floor surface of the landing or platform on that portion of the stairway.
Exceptions:
Where the nosings of treads at the side of a flight extend under the edge of a floor opening through which the stair passes, the floor opening shall not project horizontally into the required headroom more than 43/4 inches (121 mm).
The headroom for spiral stairways shall be in accordance with Section R311.7.10.1.

R311.7.3 Vertical Rise
A flight of stairs shall not have a vertical rise larger than 151 inches (3835 mm) between floor levels or landings.

R311.7.4 Walkline
The walkline across winder treads and landings shall be concentric to the turn and parallel to the direction of travel entering and exiting the turn. The walkline shall be located 12 inches (305 mm) from the inside of the turn. The 12-inch (305 mm) dimension shall be measured from the widest point of the clear stair width at the walking surface. Where winders are adjacent within a flight, the point of the widest clear stair width of the adjacent winders shall be used.

R311.7.5 Stair Treads and Risers
Stair treads and risers shall meet the requirements of this section. For the purposes of this section, dimensions and dimensioned surfaces shall be exclusive of carpets, rugs or runners.

R311.7.5.1 Risers
The riser height shall be not more than 73/4 inches (196 mm). The riser shall be measured vertically between leading edges of the adjacent treads. The greatest riser height within any flight of stairs shall not exceed the smallest by more than 3/8 inch (9.5 mm). Risers shall be vertical or sloped from the underside of the nosing of the tread above at an angle not more than 30 degrees (0.51 rad) from the vertical. At open risers, openings located more than 30 inches (762 mm), as measured vertically, to the floor or grade below shall not permit the passage of a 4-inch-diameter (102 mm) sphere.
Exceptions:
The opening between adjacent treads is not limited on spiral stairways. The riser height of spiral stairways shall be in accordance with Section R311.7.10.1.

R311.7.5.2 Treads
The tread depth shall be not less than 10 inches (254 mm). The tread depth shall be measured horizontally between the vertical planes of the foremost projection of adjacent treads and at a right angle to the tread's leading edge. The greatest tread depth within any flight of stairs shall not exceed the smallest by more than 3/8 inch (9.5 mm).

R311.7.5.2.1 Winder Treads
Winder treads shall have a tread depth of not less than 10 inches (254 mm) measured between the vertical planes of the foremost projection of adjacent treads at the intersections with the walkline. Winder treads shall have a tread depth of not less than 6 inches (152 mm) at any point within the clear width of the stair. Within any flight of stairs, the largest winder tread depth at the walkline shall not exceed the smallest winder tread by more than 3/8 inch (9.5 mm). Consistently shaped winders at the walkline shall be allowed within the same flight of stairs as rectangular treads and shall not be required to be within 3/8 inch (9.5 mm) of the rectangular tread depth.
Exception: The tread depth at spiral stairways shall be in accordance with Section R311.7.10.1.

R311.7.5.3 Nosings
Nosings at treads, landings and floors of stairways shall have a radius of curvature at the nosing not greater than 9/16 inch (14 mm) or a bevel not greater than 1/2 inch (12.7 mm). A nosing projection not less than 3/4 inch (19 mm) and not more than 11/4 inches (32 mm) shall be provided on stairways. The greatest nosing projection shall not exceed the smallest nosing projection by more than 3/8 inch (9.5 mm) within a stairway.
Exception: A nosing projection is not required where the tread depth is not less than 11 inches (279 mm).

R311.7.5.4 Exterior Plastic Composite Stair Treads
Plastic composite exterior stair treads shall comply with the provisions of this section and Section R507.2.2.

R311.7.6 Landings for Stairways
There shall be a floor or landing at the top and bottom of each stairway. The width perpendicular to the direction of travel shall be not less than the width of the flight served. For landings of shapes other than square or rectangular, the depth at the walk line and the total area shall be not less than that of a quarter circle with a radius equal to the required landing width. Where the stairway has a straight run, the depth in the direction of travel shall be not less than 36 inches (914 mm).
Exception: A floor or landing is not required at the top of an interior flight of stairs, including stairs in an enclosed garage, provided that a door does not swing over the stairs.

R311.7.7 Slope of Walking Surface
The walking surface of treads and landings of stairways shall be sloped not steeper than 1 unit vertical in 48 inches horizontal (2-percent slope).

R311.7.8 Handrails
Handrails shall be provided on not less than one side of each flight of stairs.

R311.7.8.1 Height
Handrail height, measured vertically from the sloped plane adjoining the tread nosing, or finish surface of ramp slope, shall be not less than 34 inches (864 mm) and not more than 38 inches (965 mm).
Exceptions:
1. A volute, turnout or starting easing shall be allowed over the lowest tread.

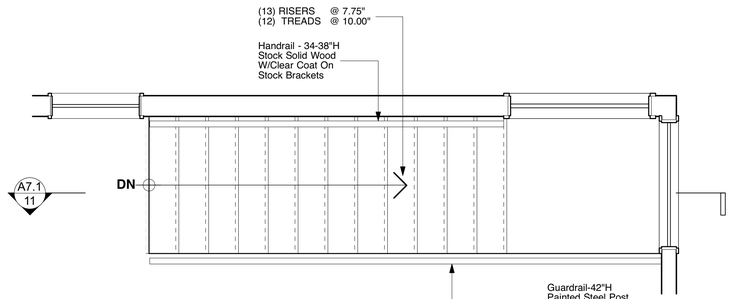
R311.7.8.2 Handrail Projection
Handrails shall not project more than 41/2 inches (114 mm) on either side of the stairway.
Exception: Where nosings of landings, floors or passing flights project into the stairway reducing the clearance at passing handrails, handrails shall project not more than 61/2 inches (165 mm) into the stairway, provided that the stair width and handrail clearance are not reduced to less than that required.

R311.7.8.3 Handrail Clearance
Handrails adjacent to a wall shall have a space of not less than 11/2 inches (38 mm) between the wall and the handrails.

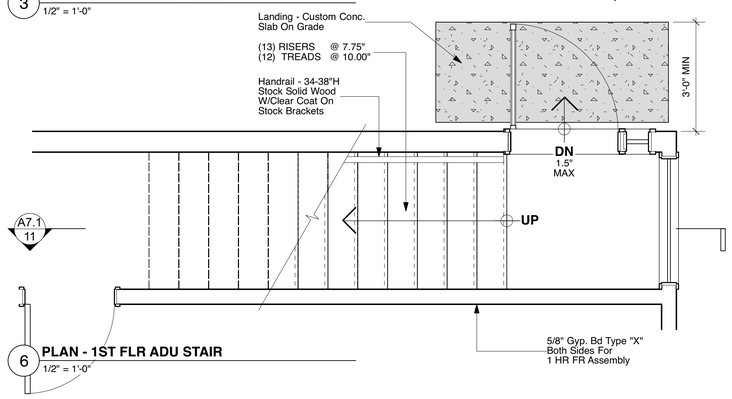
R311.7.8.4 Continuity
Handrails shall be continuous for the full length of the flight, from a point directly above the top riser of the flight to a point directly above the lowest riser of the flight. Handrail ends shall be returned or shall terminate in newel posts or safety terminals.
Exceptions:
Handrail continuity shall be permitted to be interrupted by a newel post at a turn in a flight with winders, at a landing, or over the lowest tread. A volute, turnout or starting easing shall be allowed to terminate over the lowest tread.

R311.7.8.5 Grip Size
Required handrails shall be of one of the following types or provide equivalent graspability.
Type I. Handrails with a circular cross section shall have an outside diameter of not less than 11/4 inches (32 mm) and not greater than 2 inches (51 mm). If the handrail is not circular, it shall have a perimeter of not less than 4 inches (102 mm) and not greater than 61/4 inches (160 mm) and a cross section of not more than 21/4 inches (57 mm). Edges shall have a radius of not less than 0.01 inch (0.25 mm).
Type II. Handrails with a perimeter greater than 61/4 inches (160 mm) shall have a graspable finger recess area on both sides of the profile. The finger recess shall begin within 3/4 inch (19 mm) measured vertically from the tallest portion of the profile and have a depth of not less than 5/16 inch (8 mm) within 7/8 inch (22 mm) below the widest portion of the profile. This required depth shall continue for not less than 3/8 inch (10 mm) to a level that is not less than 13/4 inches (45 mm) below the tallest portion of the profile. The width of the handrail above the recess shall be not less than 11/4 inches (32 mm) and not more than 23/4 inches (70 mm). Edges shall have a radius of not less than 0.01 inch (0.25 mm).

SANTA MONICA BUILDING & SAFETY
2022-D-0701
06/28/2023



3 **PLAN - 2ND FLR ADU STAIR**
1/2" = 1'-0"



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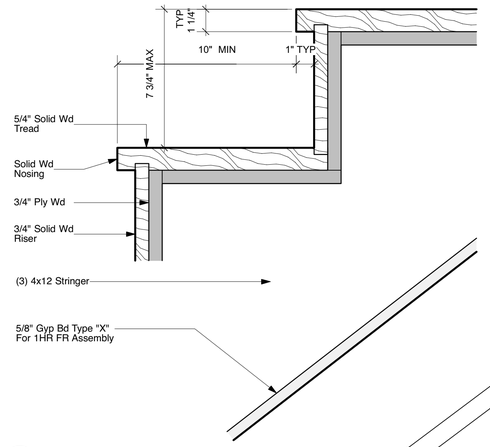

7 **DTL SECTION - STAIR TREAD & RISER**
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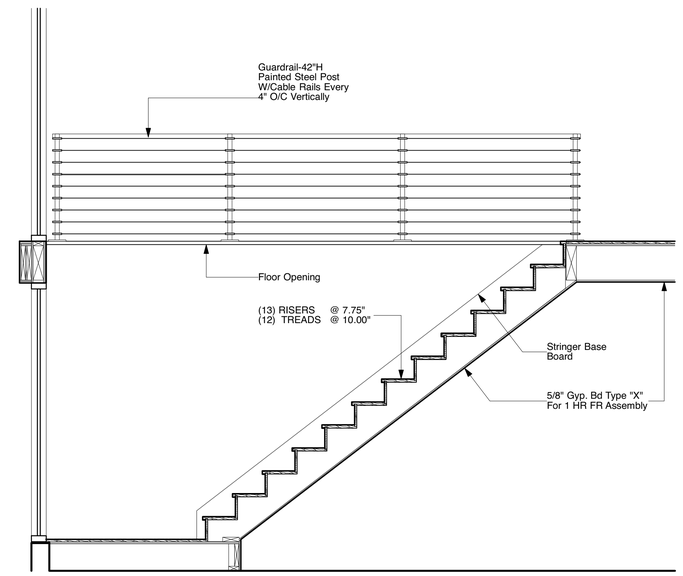

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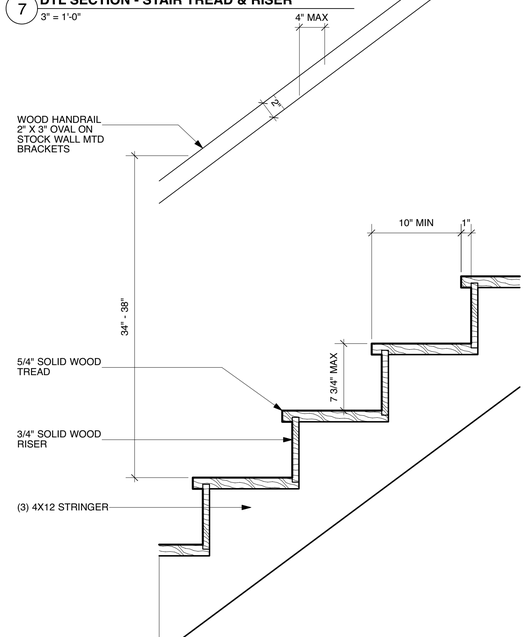

12 **DTL SECTION - STAIR**
1 1/2" = 1'-0"

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COMMENTS
For PERMIT

DATE
02-06-22

ISSUED
SMB&S

1

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Scale
U.O.N.

Drawing Title
STAIR DETAILS

LICENSED ARCHITECT
GREGORY H GINTER
C-30596
11/30/23
Renewal Date
STATE OF CALIFORNIA

A7.1

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