NEW 3 STORY DUPLEX IN FRONT :2639 & 2639 1/2 S LONGWOOD AVE LOS ANGELES CA 90016

NEW 2 STORY TWO ADU IN REAR :2637 & 2637 1/2 S LONGWOOD AVE LOS ANGELES CA 90016

SHEET INDEX

ARCHITECTURAL

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D-1 & D-2	DETAILS

LEGAL DESCRIPTION

APN:	5049-004-007
LOT :	7
PIN # :	123B181 1168
MAP REFERENCE:	M B 21-6/7
MAP SHEET:	123B181
TRACT:	TR 1601
BLOCK:	NONE

PROJECT DATA

BUILDING DATA

ZONE:	R2-1
CODE:	2023 LARC
LOT AREA:	5,098.6 (sq ft)(PER ZIMAS)
CONSTRUCTION TYPE:	TYPE V-B
OCCUPANCY GROUP	R3/U
EXTERIOR FINISH:	STUCCO
ROOFING:	CLASS "A" FLENTLASTIC
FRAME:	WOOD FRAME
HEIGHT OF DUPLEX	: 30'-2"
HEIGHT OF ADUS	: 20'-0"

NUMBER OF STORY OF DUPLEX:3 STORY
NUMBER OF STORY OF ADUS : 2 STORY

SPRINKLER THROUGHOUT: YES (NFPA-13D) ALL BUILDINGS

SPRINKLER SYSTEM SHALL BE APPROVED BY PLUMBING DIVISION PRIOR TO INSTALLATION

GOVERNING CODES

THE GOVERNING CODES FOR THIS PROJECT ARE:
2023 LOS ANGELES RESIDENTIAL CODE (LARC)
2023 L.A. AMENDMENT BUILDING CODE(CBC)
2023 LOS ANGELES RESIDENTIAL CODE (CRC)
2023 LOS ANGELES PLUMBING CODE (CPC)
2023 LOS ANGELES MECHANICAL CODE (CMC)
2023 LOS ANGELES ELECTRICAL CODE (CEC)
2023 LOS ANGELES FIRE CODE (CFC)
2023 BUILDING ENERGY STANDARDS
2023 LOS ANGELES REFERENCE STANDARD CODE
2023 LOS ANGELES GREEN STANDARDS CODE (CGSC)

AREA CALCULATION

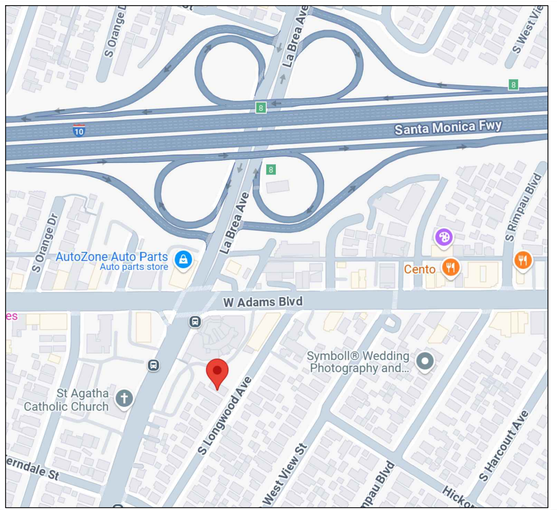
DUPLEX

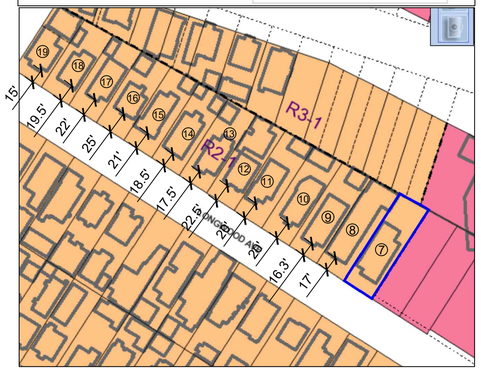
FIRST FLOOR:	700 SF
SECOND FLOOR:	1120 SF
THIRD FLOOR:	1120 SF
UNDER PROJECTION:	130 SF
TOTAL AREA:	3,070 SF
GARAGE:	180 SF
BLDG CODE SF:(-EXTERIOR WALLS):	2,830 SF
ZONING CODE:(-EXT WALL -STAIRWELL):	2,760 SF
SCHOOL AREA	: 2,940 SF

2 ADU

FIRST FLOOR:	755 SF
SECOND FLOOR:	1260 SF
UNDER PROJECTION:	144 SF
TOTAL AREA	2,159 SF
GARAGE:	180 SF
BLDG CODE SF:(- EXTERIOR WALLS) :	1,999 SF
ZONING CODE:(-EXT WALL-STAIRWELL) :	1,959 SF
SCHOOL AREA:	2,015 SF

VICINITY MAP





Add Lot — Enter the Lot Information after adding rows:

Lot	Frontage (ft)	Setback (ft)
7	40	0
8	40	17
9	40	16.3
10	40	20
11	40	20
12	40	22.5
13	40	17.5
14	40	18.5
15	40	21
16	40	25
17	40	22
18	40	19.5
19	40	15

Clear — Calculate

Results

Number of lots: **13**

Prevailing Setback: **19.53 ft**

Calculation

Total no of lots entered: **13**
Total frontage entered: **520.00 ft**
40% from total frontage entered: **208.00 ft**
No of lots used in the calculation: **12**
Setback range used: **15.00 ft - 25.00 ft**
Total frontage used in the calculation: **480.00 ft**

Lots Used

Lot	Frontage (ft)	Setback (ft)
8	40.00	17.00
9	40.00	16.30
10	40.00	20.00
11	40.00	20.00
12	40.00	22.50
13	40.00	17.50
14	40.00	18.50
15	40.00	21.00
16	40.00	25.00
17	40.00	22.00
18	40.00	19.50
19	40.00	15.00

View Calculation Details

DRIVEWAY NOTE:
MAXIMUM DRIVEWAY SLOPE SHALL NOT EXCEED 20% GRADE DETAILS AND TRANSITION SLOPES REQUIRED WHERE SLOPES EXCEEDS 12 1/2%. MAXIMUM DRIVEWAY CROSS SLOPE IS 10%. MAXIMUM SLOPEWITHIN PARKING 1S 5%.

ELECTRICAL NOTES:
1. THE MAIN SERVICE PANEL SHALL HAVE A MINIMUM BUSBAR RATING OF 200 AMP.
2. THE MAIN ELECTRICAL SERVICE PANEL SHALL HAVE A RESERVED SPACE TO ALLOW FOR INSTALLATIONOF A DOUBLE POLE CIRCUIT BREAKER FOR A FUTURE SOLAR ELECTRIC INSTALLATION. THE RESERVED SPACE SHALL BE POSITIONED AT THE OPPOSITE (LOAD)END FROM THE INPUT FEEDER LOCATION OR MAIN CIRCUIT LOCATION AND SHALL BE PERMANENTLY MARKED AS "FOR FUTURE SOLAR ELECTRIC".

LOT DRAINAGE NOTES:
1. LOTS SHALL BE GRADED TO DRAIN SURFACE WATER AWAY FROM FOUNDATION WALLS WITH A MINIMUM FALL OF 6 INCHES WITHIN THE FIRST 10 FEET (R401.3).

REQUIRED PARKING:NOT REQUIRED PER AB 2097.
PROVIDED PARKING 2 VOLUNTARY COMPACT

BUILDABLE AREA (LOT AREA- SETBACKS):
(126-34.75')X(40'-10')= 2,737.5 SF
ALLOWABLE FAR : 2,737.5 X 3= 8,212.5 SF
PROPOSED FLOOR AREA(Z.C.) : 4,719 SF
4,719 SF < 8,212.5 SF OK.

2,970 SF PERMEABLE
CONCRETE PAVING
O/6" GRAVEL SUBBASE

DIRECTORY

OWNER:**2637 S LONGWOOD AVE LLC**

2637 S LONGWOOD AVE
LOS ANGELES CA 90016
CEL:626-722-3399

PROFFESIONAL ENGINEER: (STRUCTURAL PLAN)

MARTIN H SANDOVAL(C56905)
9900 LAKEWOOD BLVD., SUITE 109
DOWNEY, CA. 90240
CEL:562-314-5500

DESIGNER:(ARCHITECTURAL PLAN)
PASARGAD ARCHITECTURE AND DESIGN **LLC**
MICHAEL MEHRIZ
MICHAELMEHRIZ@YAHOO.COM
CEL: 818-251-0574

T24 ENGINEER:

AC ENGINEERING
PJ TOUFIGHI, P.E
28001 SMYTH DR, SUITE 104 VALENCIA, CA 91355
CEL: 818-554-7496

REQUIRED ZONING SETBACKS:

FRONT YARD: 19.53' PER PREVAILING CALC
SIDE YARD: 6' FOR DUPLEX 4 FEET FOR ADUS
REAR YARD: 4' FOR ADUS

PROVIDED ZONING SETBACKS:

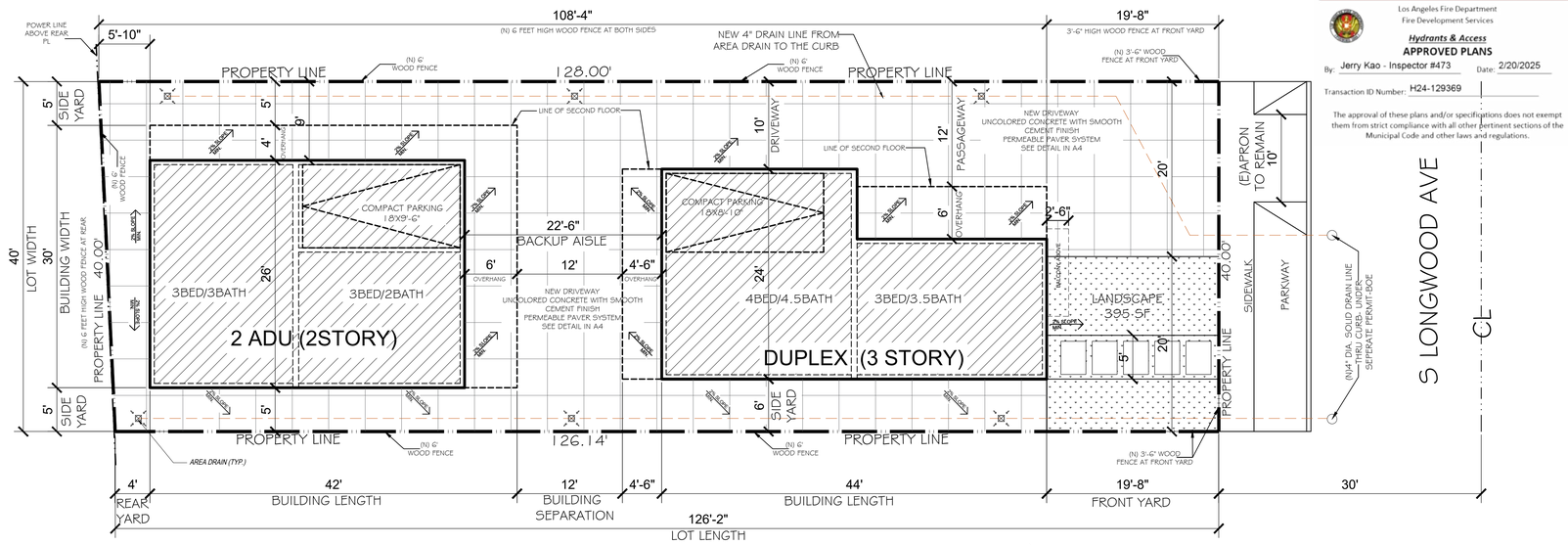
FRONT YARD: 19.80'
SIDE YARD: 6' FOR DUPLEX 5' FOR ADUS
REAR YARD: 4' FOR ADUS

FRONT YARD LANDSCAPING CALC:

FRONT YARD: 19.75x40=790 S.F.
REQUIRED LANDSCAPING IN FRONT YARD: 790/2 = 395 S.F.
PROVIDED LANDSCAPING IN FRONT YARD: 395 S.F.

ALL ELECTRIC BUILDING.

PROVIDE AIR FILER WITH MINIMUM EFFICIENCY MERV-13 OR GRATER.



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

NORTH

Los Angeles Fire Department
Fire Development Services
Hydrants & Access
APPROVED PLANS
By: Jerry Kao - Inspector #473 Date: 2/20/2025
Transaction ID Number: H24-129369
The approval of these plans and/or specifications does not exempt them from strict compliance with all other pertinent sections of the Municipal Code and other laws and regulations.





REVISIONS | BY

LICENSED ARCHITECT HAMID DEHGHANI C 39150 SEPTEMBER 30, 2025 RENEWAL DATE STATE OF CALIFORNIA

PASARGAD
ARCHITECTURE & DESIGN
PASARGAD
ARCHITECTURE & DESIGN LLC.

NEW 3 STORY DUPLEX IN FRONT :2639 & 2639 1/2 S LONGWOOD AVE LOS ANGELES CA 90016

NEW 2 STORY TWO ADU IN REAR :2637 & 2637 1/2 S LONGWOOD AVE LOS ANGELES CA 90016

DRAWING TITLE:
PLOT PLAN AND PROJECT DATA

DATE:11/01/24
DRAWN:Z.SH
CHEKED:M.M
SCALE:1/8"=1'-0"
JOB NO:24-076

A0

GENERAL NOTES:

A. THE CONSTRUCTION SHALL NOT RESTRICT A FIVE-FOOT CLEAR AND UNOBSTRUCTED ACCESS TO ANY WATER OR POWER DISTRIBUTION FACILITIES (POWER POLES, PULL-BOXES, TRANSFORMERS, VAULTS, PUMPS, VALVES, METERS, APPURTENANCES, ETC.) OR TO THE LOCATION OF THE HOOK-UP. THE CONSTRUCTION SHALL NOT BE WITHIN TEN FEET OF ANY POWER LINES-WHETHER OR NOT THE LINES ARE LOCATED ON THE PROPERTY. FAILURE TO COMPLY MAY CAUSE CONSTRUCTION DELAYS AND/OR ADDITIONAL EXPENSES.

B. AN APPROVED SEISMIC GAS SHUTOFF VALVE WILL BE INSTALLED ON THE FUEL GAS LINE ON THE DOWN STREAM SIDE OF THE UTILITY METER AND BE RIGIDLY CONNECTED TO THE EXTERIOR OF THE BUILDING OR STRUCTURE CONTAINING THE FUEL GAS PIPING." (PER ORDINANCE 170,158) (SEPARATE PLUMBING PERMIT IS REQUIRED).

C. PLUMBING FIXTURES ARE REQUIRED TO BE CONNECTED TO A SANITARY SEWER OR TO AN APPROVED SEWAGE DISPOSAL SYSTEM (R306.3).

D. KITCHEN SINKS, LAVATORIES, BATHTUBS, SHOWERS, BIDETS, LAUNDRY TUBS AND WASHING MACHINE OUTLETS SHALL BE PROVIDED WITH HOT AND COLD WATER AND CONNECTED TO AN APPROVED WATER SUPPLY (R306.4).

E. BATHTUB AND SHOWER FLOORS, WALLS ABOVE BATHTUBS WITH A SHOWERHEAD, AND SHOWER COMPARTMENTS SHALL BE FINISHED WITH A NONABSORBENT SURFACE. SUCH WALL SURFACES SHALL EXTEND TO A HEIGHT OF NOT LESS THAN 6 FEET ABOVE THE FLOOR (R307.2).

F. PROVIDE ULTRA LOW FLUSH WATER CLOSETS FOR ALL NEW CONSTRUCTION. EXISTING SHOWER HEADS AND TOILETS MUST BE ADAPTED FOR LOW WATER CONSUMPTION.

G.UNIT SKYLIGHT SHALL BE LABELED BY A LA APPROVED LABELING AGENCY.SUCH LABEL SHALL STATE THE APPROVED LABELING AGENCY NAME,PRODUCT DESIGNATION AND PERFORMANCE GRADE RATING.(RESEARCH REPORT NOT REQUIRED). (R308.6.9)

GENERAL NOTES:
H. WATER HEATER MUST BE STRAPPED TO WALL (SEC. 507.3, LAPC)

I. FOR EXISTING POOL ON SITE, PROVIDE AN ALARM FOR DOORS TO THE DWELLING THAT FORM A PART OF THE POOL ENCLOSURE. THE ALARM SHALL SOUND CONTINUOUSLY FOR A MIN. OF 30 SECONDS WHEN THE DOOR IS OPENED. IT SHALL AUTOMATICALLY RESET AND BE EQUIPPED WITH A MANUAL MEANS TO DEACTIVATE (FOR 15 SECS. MAX.) FOR A SINGLE OPENING. THE DEACTIVATION SWITCH SHALL BE AT LEAST 54" ABOVE THE FLOOR. P/BC 2008-014

J. FOR EXISTING POOL ON SITE,PROVIDE ANTI ENTRAPMENT COVER MEETING THE CURRENT ASTM OR ASME FOR THE SUCTION OUTLETS OF THE SWIMMING POOL,TODDLER POOL AND SPA FOR SINGLE FAMILY DWELLINGS PER ASSEMBLY BILL(AB)NO.2977.()3162B)

K. AUTOMATIC GARAGE DOOR OPENERS, IF PROVIDED, SHALL BE LISTED IN ACCORDANCE WITH UL 325.
L. SMOKE DETECTORS SHALL BE PROVIDED FOR ALL DWELLING UNITS INTENDED FOR HUMAN OCCUPANCY, UPON THE OWNER'S APPLICATION FOR A PERMIT FOR ALTERATIONS, REPAIRS, OR ADDITIONS, EXCEEDING ONE THOUSAND DOLLARS ($1,000). (R314.6.2)

M. WHERE A PERMIT IS REQUIRED FOR ALTERATIONS, REPAIRS OR ADDITIONS EXCEEDING ONE THOUSAND DOLLARS ($1,000), EXISTING DWELLINGS OR SLEEPING UNITS THAT HAVE ATTACHED GARAGES OR FUEL-BURNING APPLIANCES SHALL BE PROVIDED WITH A CARBON MONOXIDE ALARM IN ACCORDANCE WITH SECTION R315.1. CARBON MONOXIDE ALARMS SHALL ONLY BE REQUIRED IN THE SPECIFIC DWELLING UNIT OR SLEEPING UNIT FOR WHICH THE PERMIT WAS OBTAINED. (R315.2)

N. EVERY SPACE INTENDED FOR HUMAN OCCUPANCY SHALL BE PROVIDED WITH NATURAL LIGHT BY MEANS OF EXTERIOR GLAZED OPENINGS IN ACCORDANCE WITH SECTION R303.1 OR SHALL BE PROVIDED WITH ARTIFICIAL LIGHT THAT IS ADEQUATE TO PROVIDE AN AVERAGE ILLUMINATION OF 6 FOOT-CANDLES OVER THE AREA OF THE ROOM AT A HEIGHT OF 30 INCHES ABOVE THE FLOOR LEVEL. (R303.1)

O. A COPY OF THE EVALUATION REPORT AND/OR CONDITIONS OF LISTING SHALL BE MADE AVAILABLE AT THE JOB SITE

OCCUPANCY NOTES:
1. THE PROPOSED BUILDING IS A GARAGE AND NOT A CARPORT SINCE IT IS NOT OPEN AT LEAST 2 SIDES.

2. OPENINGS FROM A PRIVATE GARAGE DIRECTLY INTO A ROOM USED FOR SLEEPING PURPOSES ARE
NOT PERMITTED (R302.5.1).

3. DOORS BETWEEN GARAGE AND THE DWELLING UNIT SHALL BE SELF-CLOSING AND SELF-LATCHING,
SOLID WOOD OR SOLID OR HONEYCOMB CORE STEEL NOT LESS THAN 1 3/8 INCHES THICK, OR HAVE A
MINIMUM FIRE PROTECTION RATING OF 20 MINUTES. (R302.5.1)

4. THE GARAGE SHALL BE SEPARATED FROM THE DWELLING AND ITS ATTIC AREA IN ACCORDANCE WITH
TABLE R302.6 (R302.6).

5. DUCTS PENETRATING THE WALLS OR CEILINGS SEPARATING THE DWELLING FROM THE GARAGE SHALL BE CONSTRUCTED OF A MINIMUM NO. 26 GAGE SHEET STEEL OR OTHER APPROVED MATERIAL
AND THERE SHALL BE NO OPENINGS FROM THE DUCTS INTO THE GARAGE (R302.5.2).

6. OTHER PENETRATIONS OF GARAGE/DWELLING CEILINGS AND WALLS ARE TO BE PROTECTED AS REQUIRED BY SECTION R302.11, ITEM 4 (R302.5.3).

7. GARAGE FLOOR SURFACES SHALL BE OF AN APPROVED NONCOMBUSTIBLE MATERIAL, AND THE AREA
USED TO PARK VEHICLES SHALL BE SLOPED TO A DRAIN OR TOWARD THE MAIN VEHICLE ENTRY (R309.1).

FIRE PROTECTION NOTES:
1. THE BUILDING SHALL BE EQUIPPED WITH AN AUTOMATIC RESIDENTIAL FIRE SPRINKLER SYSTEM IN ACCORDANCE WITH SECTION R313.3 OR NFPA13D. (R313, 12.21A17(D))

2. ADD NOTE ON PLANS: THE SPRINKLER SYSTEM SHALL BE APPROVED BY PLUMBING DIV. PRIOR TO INSTALLATION.

3. AN APPROVED SMOKE ALARMS SHALL BE INSTALLED IN EACH SLEEPING ROOM & HALLWAY OR AREA GIVING ACCESS TO A SLEEPING ROOM, AND ON EACH STORY AND BASEMENT FOR DWELLINGS WITH MORE THAN ONE STORY. SMOKE ALARMS SHALL BE INTERCONNECTED SO THAT ACTUATION OF ONE ALARM WILL ACTIVATE ALL THE ALARMS WITHIN THE INDIVIDUAL DWELLING UNIT. IN NEW CONSTRUCTION SMOKE ALARMS SHALL RECEIVE THEIR PRIMARY POWER SOURCE FROM THE BUILDING WIRING AND SHALL BE EQUIPPED WITH BATTERY BACK UP AND LOW BATTERY SIGNAL. (R314)

4. AN APPROVED CARBON MONOXIDE ALARM SHALL BE INSTALLED IN DWELLING UNITS AND IN SLEEPING UNITS WITHIN WHICH FUEL-BURNING APPLIANCES ARE INSTALLED
AND IN DWELLING UNITS THAT HAVE ATTACHED GARAGES. CARBON MONOXIDE ALARM SHALL BE PROVIDED OUTSIDE OF EACH SEPARATE DWELLING UNIT SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOM(S) AND ON EVERY LEVEL OF A DWELLING UNIT INCLUDING BASEMENTS. (R315)

FIRE RESISTANCE RATED CONSTRUCTION NOTES:

7. THROUGH PENETRATIONS OF FIRE-RESISTANCE-RATED WALL OR FLOOR ASSEMBLIES SHALL COMPLY WITH SECTION R302.4.1.1 ORR302.4.1.2. PROVIDE DETAIL AND COPY OF LISTING ON THEPLANS.(R302.4.1)

8. MEMBRANE PENETRATIONS SHALL COMPLY WITH SECTION R302.4.1. WHERE WALLS ARE REQUIRED TO HAVE A
FIRE-RESISTANCE RATING, RECESSED FIXTURES SHALL BE INSTALLED SO THAT THE REQUIRED FIRE-RESISTANCERATING WILL NOT BE REDUCED. (R302.4.2)

9. IN COMBUSTIBLE CONSTRUCTION, FIRE BLOCKING SHALL BE PROVIDED TO CUT OFF ALL CONCEALED DRAFT OPENINGS (BOTHVERTICAL AND HORIZONTAL) AND TO FORM AN EFFECTIVE FIREBARRIER BETWEEN STORIES, AND BETWEEN A TOP STORY AND THE ROOF SPACE. (R302.11)

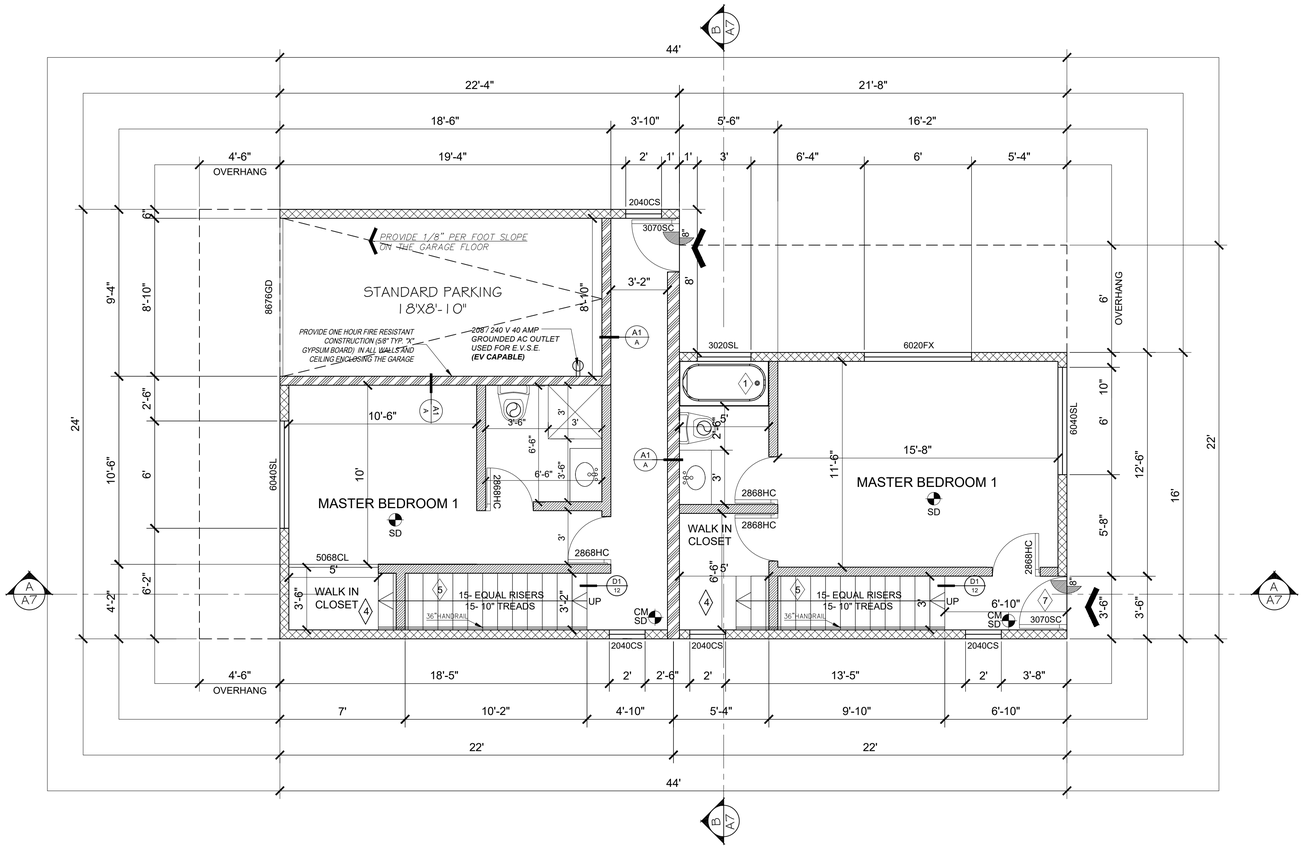
10. IN COMBUSTIBLE CONSTRUCTION WHERE THERE IS USABLE SPACE BOTH ABOVE AND BELOW THE CONCEALED SPACE OF AFLOOR/CEILING ASSEMBLY, DRAFTSTOPS SHALL BE INSTALLED SOTHAT THE AREA OF THE CONCEALED SPACE DOES NOT EXCEED 1,000SQUARE FEET. DRAFTSTOPPING SHALL DIVIDE THE CONCEALEDSPACE INTO APPROXIMATELY EQUAL AREAS. (R302.12

SD HARDWIRED W/ BATTERY BACK-UP NEW SMOKE DETECTOR

CM NEWCARBON MONOXIDE DETECTOR

ALL NEW EXTERIOR WALLS SHALL BE PAINTED WITH GENESIS COATINGS, INC.- GRAFFITI MELT -SACRIFICIAL ANTI-GRAFFITI COATING FOR PROTECTION OF ALL TYPES OF SURFACES AGAINST GRAFFITI- LARR # 25079

= BATHROOM SHALL BE PROVIDED WITH AN EXHAUST FAN WITH A MINIMUM CAPACITY OF 50 CFM INTERMITENT OR 25 CFM CONTINUOUS.
FANS SHALL BE ENERGY STAR COMPLIANT AND BE DUCTED TO TERMINATE TO THE OUTSIDE OF THE BUILDING.
FANS NOT FUNCTIONING AS A COMPONENT OF A WHOLE HOUSE VENTILATION SYSTEM , MUST BE CONTROLLED BY A HUMIDITY CONTROL.



FIRST FLOOR PLAN (DUPLEX)

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

NORTH

1. PROVIDE A 12" SQ. (MINIMUM) ACCESS PANEL TO BATHTUB TRAP CONNECTION EXCEPT WHERE CONCEALED FIXTURE CONNECTIONS ARE MADE WITHOUT SLIP JOINTS. DOOR TO BE TIGHTFITTING AND GASKETED.

2. TWENTY MINUTE FIRE RATED OR SELF CLOSING, TIGHT FITTING, SOLID WOOD, 1 3/8" THICK DOOR AT OPENINGS INTO DWELLING (302.4). FRONT ENTRY SHALL BE PROVIDED WITH A VIEW PORT

3. DRYER VENT TO BE LIMITED TO 14'-0" HORIZ. W/2-90 DEG. ELBOWS MAX. OR VENT TO BE INCREASED IN SIZE PER U.M.C.

4. ENCLOSED USABLE SPACE UNDER INTERIOR STAIRS REQUIRES ONE-HOUR FIRE RESISTIVE CONSTRUCTION ON ENCLOSED SIDE. SHALL BE COVERED W /1/2" TYPE "X" GYP. BD.

5. STAIRWAY ILUMINATION SHALL BE PROVIDED- (MIN. OF 1 FOOT-CANDLE AT TREAD RUNS.

6. HEATER SHALL BE CAPABLE OF MAINTAINING A MINIMUM ROOM TEMPRATURE OF 68 F AT A POINT 3 FEET ABOVE THE FLOOR AND 2 FEET FROM EXTERIOR WALLS IN ALL HABITABLE ROOMS AT THE DESIGN TEMPERATURE.

7. BALCONY & ROOF DECK FINISH(ICC#:1757) SEE SPECIFICATION AT SHEET GB-2

LEGEND:

- 2x4 INTERIOR STUD WALL W/1/2" GYP BD. EA. SIDE PAGE D2 #3
- 1-HOUR — 2x4 EXTERIOR STUD WALL W/1/2" GYP. BD. @ INSIDE AND 7/8" STUCCO @ EXTERIOR SIDE -SEE PAGE D2#2
- 1-HOUR STC- 50 — 2x4 STUD WALL @ DEMIZING WALL W 5/8" TYPE "X" DRYWALL @ 1-SIDE AND 5/8" TYPE "X" DRYWALL ORESILIENT CHANNELS AT OTHER SIDE - 1 HOUR RATED WALL-STC-50- SOUND RATED WALL SEE PAGE A2 DETAIL A

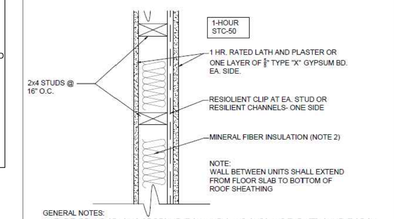
DOOR/WINDOW LEGEND

SC = SOLID CORE
HC = HOLLOW CORE
CL = CLOSET
SH = SINGLE HUNG
SL = SLIDER
FX = FIXED
BF = BI-FOLD
GD = GARAGE DOOR

EE: EMERGENCY EGRESS

TANKLESS WATER HEATER

NOTE:
1. ELECTRICAL OUTLET BOXES IN OPPOSITE FACES OF SEPARATION WALLS SHALL BE SEPARATED HORIZONTALLY BY 24" AND NOTE THAT BACK AND SIDES OF BOXES WILL BE SEALED WITH 1/8" RESILIENT SEALANT AND BACKED BY A MINIMUM OF 2" THICK MINERAL FIBER INSULATION. (TV, TELEPHONE AND INTERCOM OUTLETS MUST BE INSTALLED IN BOXES ACCORDINGLY.)



GENERAL NOTES:
1. THE TYPE AND SPACING OF RESILIENT CHANNELS AND CLIPS AND THE ATTACHMENT OF GYP. BD. OR LATH SHALL BE AS REQUIRED FOR FIRE RATINGS.
2. THE MINERAL FIBER INSULATION SHALL HAVE THERMAL RESISTANCE R VALUE OF 11 OR GREATER AS DETERMINED BY THE FEDERAL SPECIFICATION RR-I-521B.
3. NO TEST IS ON FILE TO JUSTIFY AN STC 50 WITH ONE 5/8" TYPE "X" GYPSUM BD. EACH SIDE.
4. SMOKE AND FIRE DAMPERS TO BE INSTALLED AT PENETRATIONS AT ALL OCCUPANCY SEPARATION WALLS

A 1-HR & STC 50 SOUND RATED WALL
PLAN VIEW

ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE) NOTES:

b."The panel or subpanel shall provide capacity to install a 40-ampere minimum dedicated branch circuit and space(s) reserved to permit installation of a branch circuit overcurrent protective device."

c."The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging as EV CAPABLE. The raceway termination location shall be permanent and visibly marked EV CAPABLE.(4.106.4.1)

DUPLEX

REVISIONS	BY

LICENSED ARCHITECT HAMID DEHGHANI C 35150 SEPTEMBER 30, 2025 RENEWAL DATE STATE OF CALIFORNIA

PASARGAD
ARCHITECTURE & DESIGN
PASARGAD
ARCHITECTURE & DESIGN LLC.

NEW 3 STORY DUPLEX IN FRONT :2639 & 2639 1/2 S LONGWOOD AVE LOS ANGELES CA 90016
NEW 2 STORY TWO ADU IN REAR :2637 & 2637 1/2 S LONGWOOD AVE LOS ANGELES CA 90016

DRAWING TITLE:
DUPLEX
FIRST FLOOR PLAN

DATE:11/01/24
DRAWN:Z.SH
CHEKED:M.M
SCALE:1/4"=1'-0"
JOB NO:24-076

A1

GENERAL NOTES:

A. THE CONSTRUCTION SHALL NOT RESTRICT A FIVE-FOOT CLEAR AND UNOBSTRUCTED ACCESS TO ANY WATER OR POWER DISTRIBUTION FACILITIES (POWER POLES, PULL-BOXES, TRANSFORMERS, VAULTS, PUMPS, VALVES, METERS, APPURTENANCES, ETC.) OR TO THE LOCATION OF THE HOOK-UP. THE CONSTRUCTION SHALL NOT BE WITHIN TEN FEET OF ANY POWER LINES-WHETHER OR NOT THE LINES ARE LOCATED ON THE PROPERTY. FAILURE TO COMPLY MAY CAUSE CONSTRUCTION DELAYS AND/OR ADDITIONAL EXPENSES.

B. AN APPROVED SEISMIC GAS SHUTOFF VALVE WILL BE INSTALLED ON THE FUEL GAS LINE ON THE DOWN STREAM SIDE OF THE UTILITY METER AND BE RIGIDLY CONNECTED TO THE EXTERIOR OF THE BUILDING OR STRUCTURE CONTAINING THE FUEL GAS PIPING." (PER ORDINANCE 170,158) (SEPARATE PLUMBING PERMIT IS REQUIRED).

C. PLUMBING FIXTURES ARE REQUIRED TO BE CONNECTED TO A SANITARY SEWER OR TO AN APPROVED SEWAGE DISPOSAL SYSTEM (R306.3).

D. KITCHEN SINKS, LAVATORIES, BATHTUBS, SHOWERS, BIDETS, LAUNDRY TUBS AND WASHING MACHINE OUTLETS SHALL BE PROVIDED WITH HOT AND COLD WATER AND CONNECTED TO AN APPROVED WATER SUPPLY (R306.4).

E. BATHTUB AND SHOWER FLOORS, WALLS ABOVE BATHTUBS WITH A SHOWERHEAD, AND SHOWER COMPARTMENTS SHALL BE FINISHED WITH A NONABSORBENT SURFACE. SUCH WALL SURFACES SHALL EXTEND TO A HEIGHT OF NOT LESS THAN 6 FEET ABOVE THE FLOOR (R307.2).

F. PROVIDE ULTRA LOW FLUSH WATER CLOSETS FOR ALL NEW CONSTRUCTION. EXISTING SHOWER HEADS AND TOILETS MUST BE ADAPTED FOR LOW WATER CONSUMPTION.

G.UNIT SKYLIGHT SHALL BE LABELED BY A LA APPROVED LABELING AGENCY.SUCH LABEL SHALL STATE THE APPROVED LABELING AGENCY NAME,PRODUCT DESIGNATION AND PERFORMANCE GRADE RATING.(RESEARCH REPORT NOT REQUIRED). (R308.6.9)

GENERAL NOTES:
H. WATER HEATER MUST BE STRAPPED TO WALL (SEC. 507.3, LAPC)

I. FOR EXISTING POOL ON SITE, PROVIDE AN ALARM FOR DOORS TO THE DWELLING THAT FORM A PART OF THE POOL ENCLOSURE. THE ALARM SHALL SOUND CONTINUOUSLY FOR A MIN. OF 30 SECONDS WHEN THE DOOR IS OPENED. IT SHALL AUTOMATICALLY RESET AND BE EQUIPPED WITH A MANUAL MEANS TO DEACTIVATE (FOR 15 SECS. MAX.) FOR A SINGLE OPENING. THE DEACTIVATION SWITCH SHALL BE AT LEAST 54" ABOVE THE FLOOR. P/BC 2008-014

J. FOR EXISTING POOL ON SITE,PROVIDE ANTI ENTRAPMENT COVER MEETING THE CURRENT ASTM OR ASME FOR THE SUCTION OUTLETS OF THE SWIMMING POOL,TODDLER POOL AND SPA FOR SINGLE FAMILY DWELLINGS PER ASSEMBLY BILL(AB)NO.2977.()3162B)

K. AUTOMATIC GARAGE DOOR OPENERS, IF PROVIDED, SHALL BE LISTED IN ACCORDANCE WITH UL 325.
L. SMOKE DETECTORS SHALL BE PROVIDED FOR ALL DWELLING UNITS INTENDED FOR HUMAN OCCUPANCY, UPON THE OWNER'S APPLICATION FOR A PERMIT FOR ALTERATIONS, REPAIRS, OR ADDITIONS, EXCEEDING ONE THOUSAND DOLLARS ($1,000). (R314.6.2)

M. WHERE A PERMIT IS REQUIRED FOR ALTERATIONS, REPAIRS OR ADDITIONS EXCEEDING ONE THOUSAND DOLLARS ($1,000), EXISTING DWELLINGS OR SLEEPING UNITS THAT HAVE ATTACHED GARAGES OR FUEL-BURNING APPLIANCES SHALL BE PROVIDED WITH A CARBON MONOXIDE ALARM IN ACCORDANCE WITH SECTION R315.1. CARBON MONOXIDE ALARMS SHALL ONLY BE REQUIRED IN THE SPECIFIC DWELLING UNIT OR SLEEPING UNIT FOR WHICH THE PERMIT WAS OBTAINED. (R315.2)

N. EVERY SPACE INTENDED FOR HUMAN OCCUPANCY SHALL BE PROVIDED WITH NATURAL LIGHT BY MEANS OF EXTERIOR GLAZED OPENINGS IN ACCORDANCE WITH SECTION R303.1 OR SHALL BE PROVIDED WITH ARTIFICIAL LIGHT THAT IS ADEQUATE TO PROVIDE AN AVERAGE ILLUMINATION OF 6 FOOT-CANDLES OVER THE AREA OF THE ROOM AT A HEIGHT OF 30 INCHES ABOVE THE FLOOR LEVEL. (R303.1)

O. A COPY OF THE EVALUATION REPORT AND/OR CONDITIONS OF LISTING SHALL BE MADE AVAILABLE AT THE JOB SITE

OCCUPANCY NOTES:
1. THE PROPOSED BUILDING IS A GARAGE AND NOT A CARPORT SINCE IT IS NOT OPEN AT LEAST 2 SIDES.

2. OPENINGS FROM A PRIVATE GARAGE DIRECTLY INTO A ROOM USED FOR SLEEPING PURPOSES ARE
NOT PERMITTED (R302.5.1).

3. DOORS BETWEEN GARAGE AND THE DWELLING UNIT SHALL BE SELF-CLOSING AND SELF-LATCHING,
SOLID WOOD OR SOLID OR HONEYCOMB CORE STEEL NOT LESS THAN 1 3/8 INCHES THICK, OR HAVE A
MINIMUM FIRE PROTECTION RATING OF 20 MINUTES. (R302.5.1)

4. THE GARAGE SHALL BE SEPARATED FROM THE DWELLING AND ITS ATTIC AREA IN ACCORDANCE WITH
TABLE R302.6 (R302.6).

5. DUCTS PENETRATING THE WALLS OR CEILINGS SEPARATING THE DWELLING FROM THE GARAGE SHALL BE CONSTRUCTED OF A MINIMUM NO. 26 GAGE SHEET STEEL OR OTHER APPROVED MATERIAL
AND THERE SHALL BE NO OPENINGS FROM THE DUCTS INTO THE GARAGE (R302.5.2).

6. OTHER PENETRATIONS OF GARAGE/DWELLING CEILINGS AND WALLS ARE TO BE PROTECTED AS REQUIRED BY SECTION R302.11, ITEM 4 (R302.5.3).

7. GARAGE FLOOR SURFACES SHALL BE OF AN APPROVED NONCOMBUSTIBLE MATERIAL, AND THE AREA
USED TO PARK VEHICLES SHALL BE SLOPED TO A DRAIN OR TOWARD THE MAIN VEHICLE ENTRY (R309.1).

FIRE PROTECTION NOTES:
1. THE BUILDING SHALL BE EQUIPPED WITH AN AUTOMATIC RESIDENTIAL FIRE SPRINKLER SYSTEM IN ACCORDANCE WITH SECTION R313.3 OR NFPA13D. (R313, 12.21A17(D))

2. ADD NOTE ON PLANS: THE SPRINKLER SYSTEM SHALL BE APPROVED BY PLUMBING DIV. PRIOR TO INSTALLATION.

3. AN APPROVED SMOKE ALARMS SHALL BE INSTALLED IN EACH SLEEPING ROOM & HALLWAY OR AREA GIVING ACCESS TO A SLEEPING ROOM, AND ON EACH STORY AND BASEMENT FOR DWELLINGS WITH MORE THAN ONE STORY. SMOKE ALARMS SHALL BE INTERCONNECTED SO THAT ACTUATION OF ONE ALARM WILL ACTIVATE ALL THE ALARMS WITHIN THE INDIVIDUAL DWELLING UNIT. IN NEW CONSTRUCTION SMOKE ALARMS SHALL RECEIVE THEIR PRIMARY POWER SOURCE FROM THE BUILDING WIRING AND SHALL BE EQUIPPED WITH BATTERY BACK UP AND LOW BATTERY SIGNAL. (R314)

4. AN APPROVED CARBON MONOXIDE ALARM SHALL BE INSTALLED IN DWELLING UNITS AND IN SLEEPING UNITS WITHIN WHICH FUEL-BURNING APPLIANCES ARE INSTALLED
AND IN DWELLING UNITS THAT HAVE ATTACHED GARAGES. CARBON MONOXIDE ALARM SHALL BE PROVIDED OUTSIDE OF EACH SEPARATE DWELLING UNIT SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOM(S) AND ON EVERY LEVEL OF A DWELLING UNIT INCLUDING BASEMENTS. (R315)

FIRE RESISTANCE RATED CONSTRUCTION NOTES:

7. THROUGH PENETRATIONS OF FIRE-RESISTANCE-RATED WALL OR FLOOR ASSEMBLIES SHALL COMPLY WITH SECTION R302.4.1.1 ORR302.4.1.2. PROVIDE DETAIL AND COPY OF LISTING ON THEPLANS.(R302.4.1)

8. MEMBRANE PENETRATIONS SHALL COMPLY WITH SECTION R302.4.1. WHERE WALLS ARE REQUIRED TO HAVE A
FIRE-RESISTANCE RATING, RECESSED FIXTURES SHALL BE INSTALLED SO THAT THE REQUIRED FIRE-RESISTANCERATING WILL NOT BE REDUCED. (R302.4.2)

9. IN COMBUSTIBLE CONSTRUCTION, FIRE BLOCKING SHALL BE PROVIDED TO CUT OFF ALL CONCEALED DRAFT OPENINGS (BOTHVERTICAL AND HORIZONTAL) AND TO FORM AN EFFECTIVE FIREBARRIER BETWEEN STORIES, AND BETWEEN A TOP STORY AND THE ROOF SPACE. (R302.11)

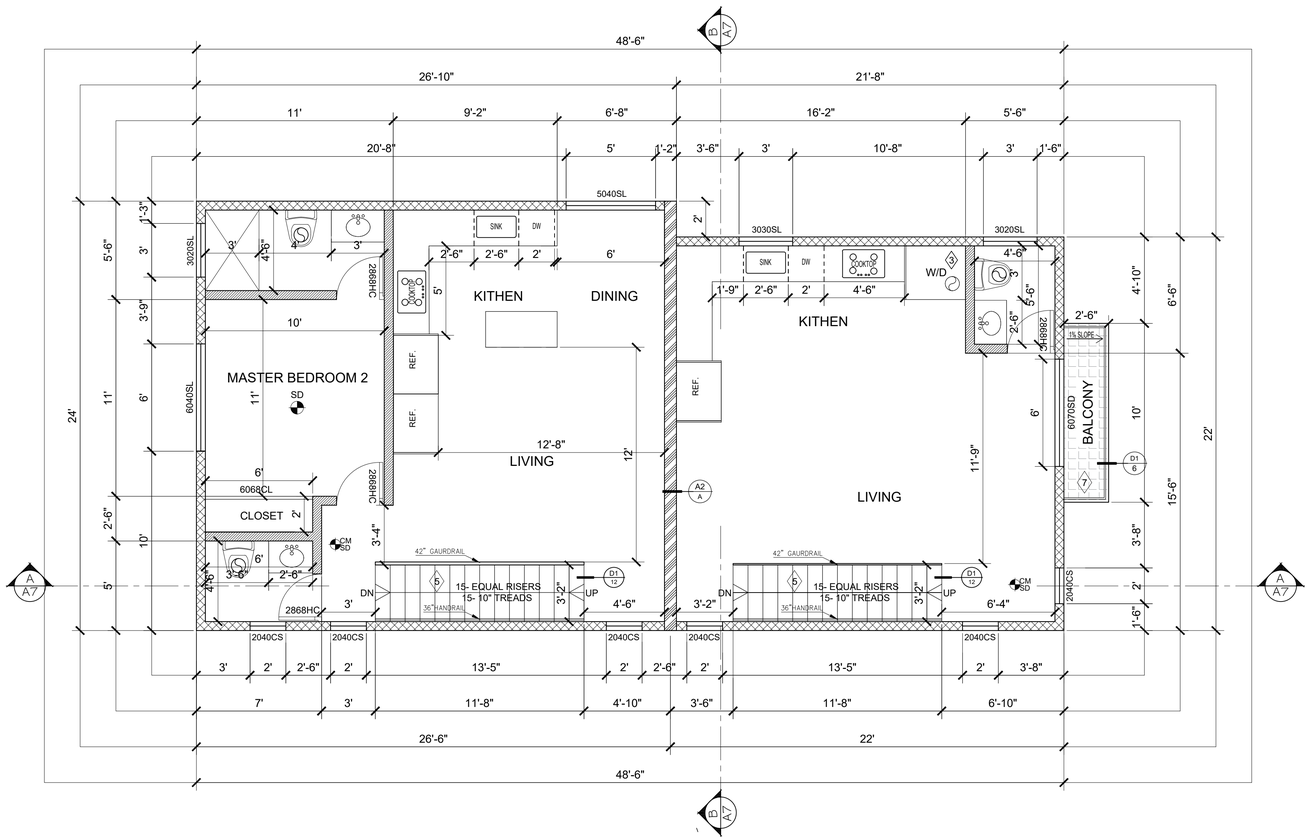
10. IN COMBUSTIBLE CONSTRUCTION WHERE THERE IS USABLE SPACE BOTH ABOVE AND BELOW THE CONCEALED SPACE OF AFLOOR/CEILING ASSEMBLY, DRAFTSTOPS SHALL BE INSTALLED SOTHAT THE AREA OF THE CONCEALED SPACE DOES NOT EXCEED 1,000SQUARE FEET. DRAFTSTOPPING SHALL DIVIDE THE CONCEALEDSPACE INTO APPROXIMATELY EQUAL AREAS. (R302.12

SD HARDWIRED W/ BATTERY BACK-UP
NEW SMOKE DETECTOR

CM NEWCARBON MONOXIDE DETECTOR

ALL NEW EXTERIOR WALLS SHALL BE PAINTED WITH GENESIS COATINGS, INC.- GRAFFITI MELT -SACRIFICIAL ANTI-GRAFFITI COATING FOR PROTECTION OF ALL TYPES OF SURFACES AGAINST GRAFFITI- LARR # 25079

= BATHROOM SHALL BE PROVIDED WITH AN EXHAUST FAN
WITH A MINIMUM CAPACITY OF 50 CFM INTERMITENT OR 25 CFM CONTINUOUS.
FANS SHALL BE ENERGY STAR COMPLIANT AND BE DUCTED TO TERMINATE TO THE OUTSIDE OF THE BUILDING.
FANS NOT FUNCTIONING AS A COMPONENT OF A WHOLE HOUSE VENTILATION SYSTEM , MUST BE CONTROLLED BY A HUMIDITY CONTROL.



SECOND FLOOR PLAN (DUPLEX)

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

NORTH

1. PROVIDE A 12" SQ. (MINIMUM) ACCESS PANEL TO BATHTUB TRAP CONNECTION EXCEPT WHERE CONCEALED FIXTURE CONNECTIONS ARE MADE WITHOUT SLIP JOINTS. DOOR TO BE TIGHTFITTING AND GASKETED.

2. TWENTY MINUTE FIRE RATED OR SELF CLOSING, TIGHT FITTING, SOLID WOOD, 1 3/8" THICK DOOR AT OPENINGS INTO DWELLING (302.4). FRONT ENTRY SHALL BE PROVIDED WITH A VIEW PORT

3. DRYER VENT TO BE LIMITED TO 14'-0" HORIZ. W/2-90 DEG. ELBOWS MAX. OR VENT TO BE INCREASED IN SIZE PER U.M.C.

4. ENCLOSED USABLE SPACE UNDER INTERIOR STAIRS REQUIRES ONE-HOUR FIRE RESISTIVE CONSTRUCTION ON ENCLOSED SIDE. SHALL BE COVERED W /1/2" TYPE "X" GYP. BD.

5. STAIRWAY ILUMINATION SHALL BE PROVIDED- (MIN. OF 1 FOOT-CANDLE AT TREAD RUNS.

6. HEATER SHALL BE CAPABLE OF MAINTAINING A MINIMUM ROOM TEMPRATURE OF 68 F AT A POINT 3 FEET ABOVE THE FLOOR AND 2 FEET FROM EXTERIOR WALLS IN ALL HABITABLE ROOMS AT THE DESIGN TEMPERATURE.

7. BALCONY & ROOF DECK FINISH(ICC#:1757) SEE SPECIFICATION AT SHEET GB-2

LEGEND:

- 2x4 INTERIOR STUD WALL W/12" GYP BD. EA. SIDE PAGE D2 #3
- 1-HOUR — 2x4 EXTERIOR STUD WALL W/1/2" GYP. BD. @ INSIDE AND 7/8" STUCCO @ EXTERIOR SIDE -SEE PAGE D2#2
- 1-HOUR STC- 50 — 2x4 STUD WALL @ DEMIZING WALL W 5/8" TYPE "X" DRYWALL @ 1-SIDE AND 5/8" TYPE "X" DRYWALL O/RESILIENT CHANNELS AT OTHER SIDE - 1 HOUR RATED WALL-STC-50- SOUND RATED WALL SEE PAGE A2 DETAIL A

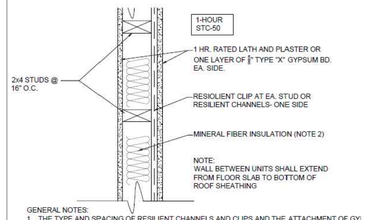
DOOR/WINDOW LEGEND

SC = SOLID CORE
HC = HOLLOW CORE
CL = CLOSET
SH = SINGLE HUNG
SL = SLIDER
FX = FIXED
BF = BI-FOLD
GD = GARAGE DOOR

EE: EMERGENCY EGRESS

TANKLESS WATER HEATER

NOTE:
1. ELECTRICAL OUTLET BOXES IN OPPOSITE FACES OF SEPARATION WALLS SHALL BE SEPARATED HORIZONTALLY BY 24" AND NOTE THAT BACK AND SIDES OF BOXES WILL BE SEALED WITH 1/8" RESILIENT SEALANT AND BACKED BY A MINIMUM OF 2" THICK MINERAL FIBER INSULATION. (TV, TELEPHONE AND INTERCOM OUTLETS MUST BE INSTALLED IN BOXES ACCORDINGLY.)



GENERAL NOTES:
1. THE TYPE AND SPACING OF RESILIENT CHANNELS AND CLIPS AND THE ATTACHMENT OF GYP. BD. OR LATH SHALL BE AS REQUIRED FOR FIRE RATINGS.
2. THE MINERAL FIBER INSULATION SHALL HAVE THERMAL RESISTANCE R VALUE OF 11 OR GREATER AS DETERMINED BY THE FEDERAL SPECIFICATION RR-I-521B.
3. NO TEST IS ON FILE TO JUSTIFY AN STC 50 WITH ONE 5/8" TYPE "X" GYPSUM BD. EACH SIDE.
4. SMOKE AND FIRE DAMPERS TO BE INSTALLED AT PENETRATIONS AT ALL OCCUPANCY SEPARATION WALLS

A 1-HR & STC 50 SOUND RATED WALL
PLAN VIEW

DUPLEX

REVISIONS | BY

LICENSED ARCHITECT HAMID DEHGHANI C 36150 SEPTEMBER 30, 2025 RENEWAL DATE STATE OF CALIFORNIA

PASARGAD
ARCHITECTURE & DESIGN
PASARGAD
ARCHITECTURE & DESIGN LLC.

NEW 3 STORY DUPLEX IN FRONT :2639 & 2639 1/2 S LONGWOOD AVE LOS ANGELES CA 90016
NEW 2 STORY TWO ADU IN REAR :2637 & 2637 1/2 S LONGWOOD AVE LOS ANGELES CA 90016

DRAWING TITLE:
DUPLEX
SECOND FLOOR PLAN

DATE:11/01/24
DRAWN:Z.SH
CHEKED:M.M
SCALE:1/4"=1'-0"
JOB NO:24-076

A2

GENERAL NOTES:

A. THE CONSTRUCTION SHALL NOT RESTRICT A FIVE-FOOT CLEAR AND UNOBSTRUCTED ACCESS TO ANY WATER OR POWER DISTRIBUTION FACILITIES (POWER POLES, PULL-BOXES, TRANSFORMERS, VAULTS, PUMPS, VALVES, METERS, APPURTENANCES, ETC.) OR TO THE LOCATION OF THE HOOK-UP. THE CONSTRUCTION SHALL NOT BE WITHIN TEN FEET OF ANY POWER LINES-WHETHER OR NOT THE LINES ARE LOCATED ON THE PROPERTY. FAILURE TO COMPLY MAY CAUSE CONSTRUCTION DELAYS AND/OR ADDITIONAL EXPENSES.

B. AN APPROVED SEISMIC GAS SHUTOFF VALVE WILL BE INSTALLED ON THE FUEL GAS LINE ON THE DOWN STREAM SIDE OF THE UTILITY METER AND BE RIGIDLY CONNECTED TO THE EXTERIOR OF THE BUILDING OR STRUCTURE CONTAINING THE FUEL GAS PIPING." (PER ORDINANCE 170,158) (SEPARATE PLUMBING PERMIT IS REQUIRED).

C. PLUMBING FIXTURES ARE REQUIRED TO BE CONNECTED TO A SANITARY SEWER OR TO AN APPROVED SEWAGE DISPOSAL SYSTEM (R306.3).

D. KITCHEN SINKS, LAVATORIES, BATHTUBS, SHOWERS, BIDETS, LAUNDRY TUBS AND WASHING MACHINE OUTLETS SHALL BE PROVIDED WITH HOT AND COLD WATER AND CONNECTED TO AN APPROVED WATER SUPPLY (R306.4).

E. BATHTUB AND SHOWER FLOORS, WALLS ABOVE BATHTUBS WITH A SHOWERHEAD, AND SHOWER COMPARTMENTS SHALL BE FINISHED WITH A NONABSORBENT SURFACE. SUCH WALL SURFACES SHALL EXTEND TO A HEIGHT OF NOT LESS THAN 6 FEET ABOVE THE FLOOR (R307.2).

F. PROVIDE ULTRA LOW FLUSH WATER CLOSETS FOR ALL NEW CONSTRUCTION. EXISTING SHOWER HEADS AND TOILETS MUST BE ADAPTED FOR LOW WATER CONSUMPTION.

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GENERAL NOTES:
H. WATER HEATER MUST BE STRAPPED TO WALL (SEC. 507.3, LAPC)

I. FOR EXISTING POOL ON SITE, PROVIDE AN ALARM FOR DOORS TO THE DWELLING THAT FORM A PART OF THE POOL ENCLOSURE. THE ALARM SHALL SOUND CONTINUOUSLY FOR A MIN. OF 30 SECONDS WHEN THE DOOR IS OPENED. IT SHALL AUTOMATICALLY RESET AND BE EQUIPPED WITH A MANUAL MEANS TO DEACTIVATE (FOR 15 SECS. MAX.) FOR A SINGLE OPENING. THE DEACTIVATION SWITCH SHALL BE AT LEAST 54" ABOVE THE FLOOR. P/BC 2008-014

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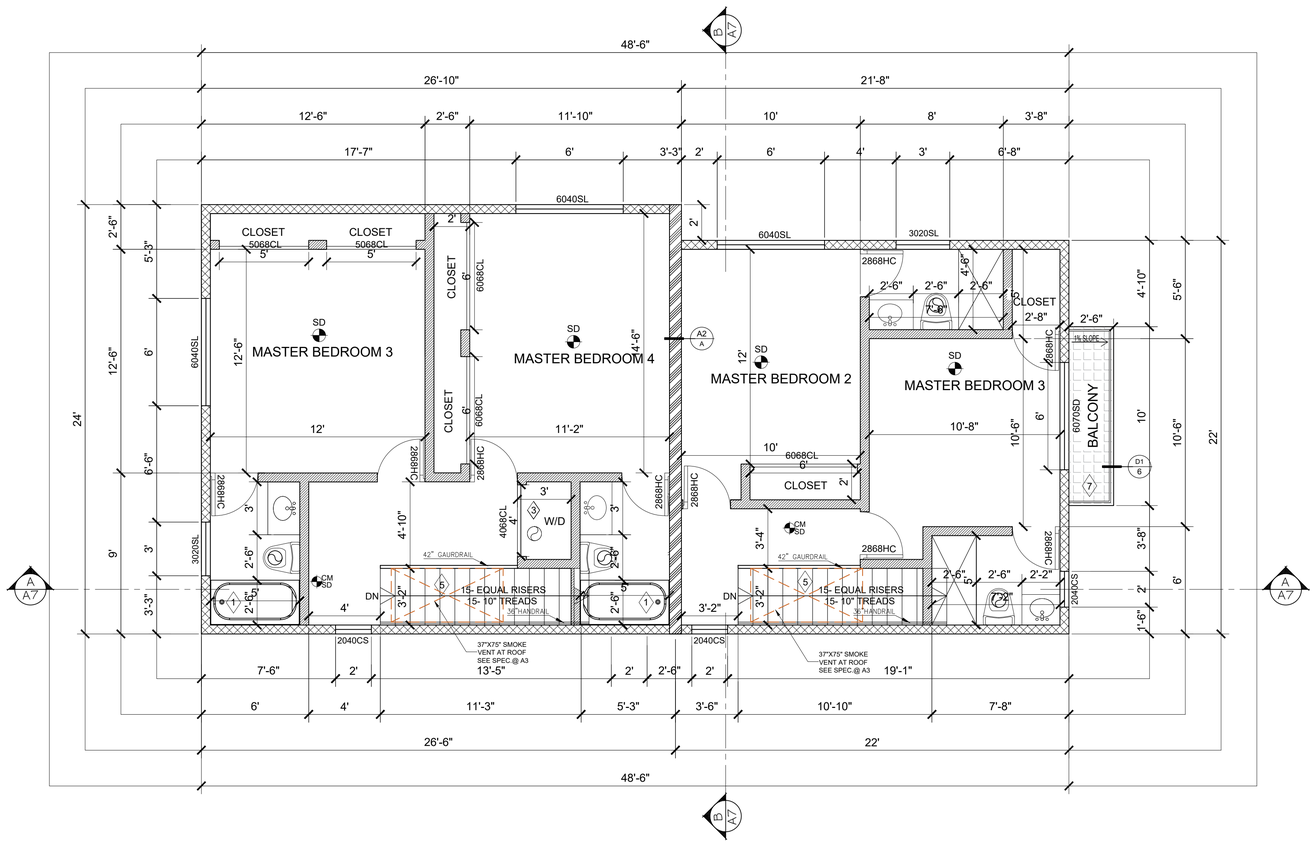
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NEW SMOKE DETECTOR

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FANS NOT FUNCTIONING AS A COMPONENT OF A WHOLE HOUSE VENTILATION SYSTEM , MUST BE CONTROLLED BY A HUMIDITY CONTROL.



THIRD FLOOR PLAN (DUPLEX)
SCALE: 1/4"= 1'-0"

NORTH

1 PROVIDE A 12" SQ. (MINIMUM) ACCESS PANEL TO BATHTUB TRAP CONNECTION EXCEPT WHERE CONCEALED FIXTURE CONNECTIONS ARE MADE WITHOUT SLIP JOINTS. DOOR TO BE TIGHTFITTING AND GASKETED.

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3 DRYER VENT TO BE LIMITED TO 14'-0" HORIZ. W/2-90 DEG. ELBOWS MAX. OR VENT TO BE INCREASED IN SIZE PER U.M.C.

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6 HEATER SHALL BE CAPABLE OF MAINTAINING A MINIMUM ROOM TEMPRATURE OF 68 F AT A POINT 3 FEET ABOVE THE FLOOR AND 2 FEET FROM EXTERIOR WALLS IN ALL HABITABLE ROOMS AT THE DESIGN TEMPERATURE.

7 BALCONY & ROOF DECK FINISH(ICC#:1757)
SEE SPECIFICATION AT SHEET GB-2

CrystaLite, Inc. : Series 1100 Smoke Vent

MADE IN AMERICA with regionally sourced materials

Smoke and Heat Vents

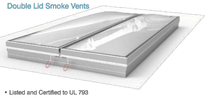
CrystaLite's Smoke and Heat Vents allow for the release of rising heat, smoke, and other harmful gases during the event of a fire. Smoke vents are a vital aid for firefighters extinguishing a building fire - and greatly improves visibility during and after a fire, which is crucial for search and rescue.

Framing members are made with aircraft grade 6063-T5 aluminum with welded corners on internal and external framing members which provides maximum durability and a weather tight enclosure - and consists of all stainless steel components for superior corrosion resistance.

Standard Smoke Vents



UL 793 CERTIFIED
Double Lid Smoke Vents



- UL 33 Listed fusible links. Available in 135, 165, 212, 350, 360, 370 and 386 degrees F.
- Exterior manual release lanyard included.
- Interior release lanyards are also available upon request.
- Interior fall protection screens available.
- Dynamic (Impact) Load Test : 800 lbs
- Static Load Test : 1,038 lbs
- Single Lid - Double Dome Glazing

- Listed and Certified to UL 793
  - 250 full stroke cycle testing without damage
  - 150 mph (60 psf) wind uplift load - 5 time cycle without damage
  - Operates with additional 184 lb uniform static snow load
  - Undamaged after dynamic 100 lb. drop bag impact from a height of 4 feet.
  - Class 30 and Class 60 roof system rating
- UL 33 Listed fusible links. Available in 135, 165, 212, 350, 360, 370 and 386 degrees F.
- Exterior manual release lanyard included.
- Interior release lanyards are also available upon request.
- Interior fall protection screens available.
- Dynamic (Impact) Load Test : 800 lbs
- Static Load Test : 1,038 lbs
- Double Lead Lid - Double Dome Glazing

Double Dome Glazing

Copolyester Outer Dome complies with the following:
- Rate of Burn, per ASTM D 635: CC1 classification
- ICC-ES listings as CC1 approved plastic complying with Section 2606.4 of the IBC
- ANSI Z97.1 Safety Glazing Requirements
- Miami-Dade County Product Notice of Acceptance-Plastics
- Light-transmitting plastic in accordance with Section 2606 of the IBC
- Weathering data in accordance to ICC-ES AC16

Inner Dome complies with the following:
- ICC-ES listings as CC2 approved plastic complying with Section 2606.4 of the IBC
- ANSI Z97.1 Safety Glazing Requirements
- Underwrites Laboratories (UL) listings as UL 94HB and UL746 Compliant
- Miami-Dade County Product Notice of Acceptance-Plastics
- ASTM D-4802 B-1 Plastics

NFRC - Energy Performance Properties

Tested in accordance to ASTM C 1363 per NFRC requirements, NFRC 201 procedures, and ASTM E 972 / ASTM E 1084.

Plastic Double Glazing:

	U-Factor	SHGC	VT
Clear / Clear	0.60	0.75	0.77
White / Clear	0.60	0.52	0.43

Mounting Options

- Curb Mount - Standard
- Self-Flashing Insulated Curbs - Available
- Fall Protection Safety Grids - Available

CrystaLite, Inc. : www.CrystaLiteInc.com : 1-800-666-6065 Page 1

SERIES 1100 SMOKE VENTS ORDER FORM

			UL 793 CERTIFIED	
	SINGLE LID CURB MOUNT	SINGLE LID SELF FLASHING CURB	DOUBLE LID CURB MOUNT	DOUBLE LID SELF FLASHING CURB
QTY				
HEIGHT	NA	❑ 9" tall ❑ 12" tall ❑ _____	NA	❑ 9" tall ❑ 12" tall ❑ _____
STANDARD SIZE ROUGH OPENING	❑ 48" x 48" ❑ 48" x 96" ❑ 37" x 75" ❑ 46.25" x 69.5" ❑ 46.25" x 89.5"	❑ 48" x 48" ❑ 48" x 96" ❑ 37" x 75" ❑ 46.25" x 69.5" ❑ 46.25" x 89.5"	❑ 48" x 96" (OUTSIDE CURB DIM 51.5" x 99.5")	❑ 48" x 96"

NOTE: ALL 4" x 4" SIZES ONLY

DUPLEX

REVISIONS | BY

LICENSED ARCHITECT HAMID DEHGHANI C 35150 SEPTEMBER 30, 2025 RENEWAL DATE STATE OF CALIFORNIA

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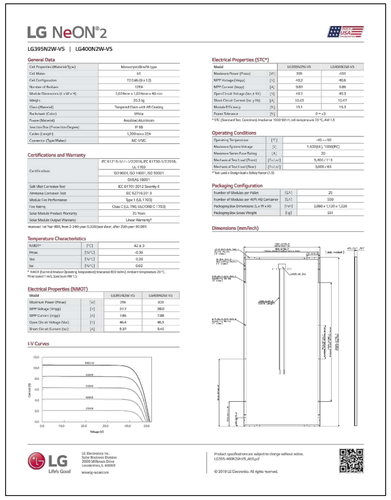
NEW 3 STORY DUPLEX IN FRONT :2639 & 2639 1/2 S LONGWOOD AVE LOS ANGELES CA 90016
NEW 2 STORY TWO ADU IN REAR :2637 & 2637 1/2 S LONGWOOD AVE LOS ANGELES CA 90016

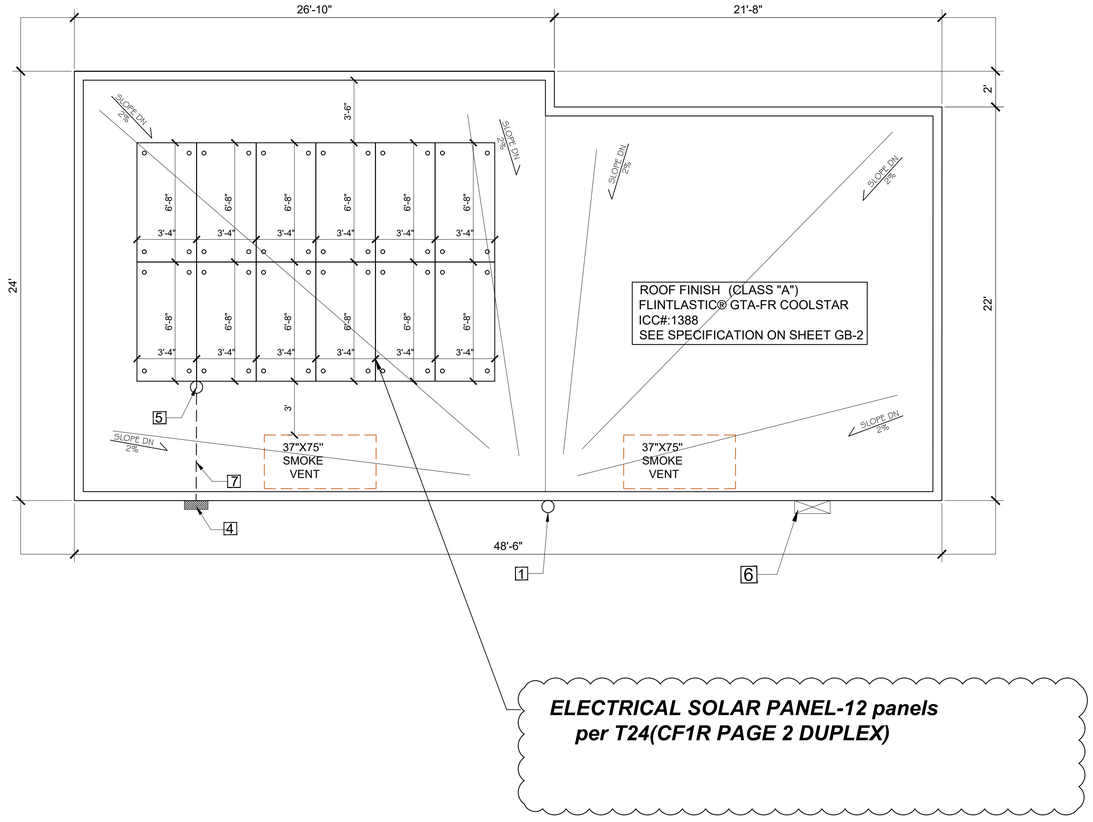
DRAWING TITLE:
DUPLEX
THIRD FLOOR PLAN

DATE:11/01/24
DRAWN:Z.SH
CHEKED:M.M
SCALE:1/4"=1'-0"
JOB NO:24-076

A3







ELECTRICAL SOLAR PANEL-12 panels per T24(CF1R PAGE 2 DUPLEX)

KEY NOTE:

1. RAIN DRAIN AND DOWN SPOUT CONNECTED TO PLANTER BOX
2. WATER HEATER LOCATION AT GARAGES
3. PATHWAY FOR ROUTING OF PLUMBING FROM THE SOLAR ZONE TO THE WATER HEATER AT GARAGES
4. LOCATION FOR INVERTERS AND METERING EQUIPMENT AND A PATHWAY FOR ROUTING FROM THE SOLAR ZONE TO THE MAIN SERVICE PANEL
5. METAL CONDUIT TERMINATION
6. ELECTRICAL PANEL 200AMP MIN
7. 1" METAL CONDUIT
8. AUTOMATIC CONTROLLER IRRIGATION

SST Smart Series NEW

"Simple to Set" Smart Indoor/Outdoor Irrigation Timer that automatically adjusts all year based on current weather.



The Simple-To-Set Smart Controller saves you time, money, and water with Self-Adjusting Weather Sensing Technology that is so simple to use, you can FORGET THE INSTRUCTIONS.

The Simple-To-Set Smart Controller automatically adjusts your watering schedule to take into account both the seasons and current weather conditions. This allows the controller to optimally water plants year round without the need to constantly reprogram the controller throughout the year. The SST accomplishes this with a combination of a built in nationwide historical weather database and a Smart Weather Sensor that is included with the product. Just enter your zip code and the watering schedule you prefer and the SST takes over making adjustments in the amount of watering either up or down as needed.

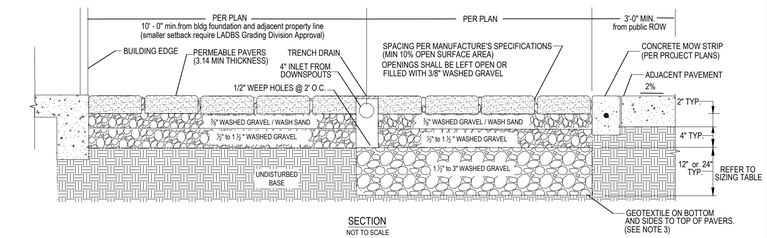
ROOF PLAN (DUPLEX)

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

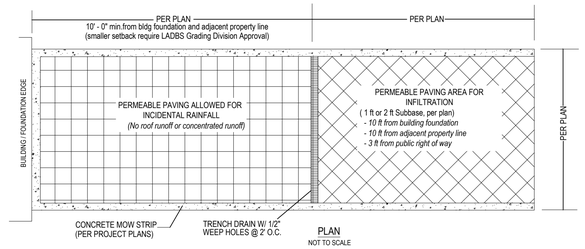
NORTH

NOTES:

1. SITE SOILS SHALL HAVE ADEQUATE DRAINAGE (AT LEAST 0.5 INCHES PER HOUR).
2. INFILTRATION SHALL NOT CAUSE GEOTECHNICAL HAZARDS RELATED TO EXPANSIVE SOIL MOVEMENT, TUNNEL EROSION, OR SLOPE STABILITY.
3. IF INFILTRATION HARZARDS ARE A CONCERN, AN UNDERDRAIN SHALL BE INSTALLED TO DRAIN WATER INTO STORM DRAIN INLET OR ONSITE BMP.
4. ANY OVERFLOW SHALL BE DISCHARGED PER BUREAU OF ENGINEERING AND BUILDING & SAFETY REQUIREMENTS.
5. SLOPE IS NOT GREATER THAN 3 PERCENT.
6. FLOW DIRECTED TO PERMEABLE PAVEMENT SHALL BE DISPERSED SO AS NOT TO BE CONCENTRATED AT A SMALL AREA OF PAVEMENT.
7. PRE-FABRICATED PRODUCTS HAVE BEEN INSTALLED PER ALL APPROPRIATE MANUFACTURER'S SPECIFICATIONS. IF REQUIRED, SUB-GRADE SOIL SHALL BE COMPACTED IN ACCORDANCE WITH PRODUCT INSTALLATION SPECIFICATION.
8. SEE PERMEABLE PAVERS FACT SHEET FOR MORE INFORMATION.



SECTION
NOT TO SCALE



PLAN
NOT TO SCALE

PERMEABLE PAVERS FOR SMALL SCALE RESIDENTIAL

REVISIONS | BY

LICENSED ARCHITECT HAMID DEHGHAN C 39150 SEPTEMBER 30, 2025 RENEWAL DATE STATE OF CALIFORNIA

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DUPLEX
ROOF PLAN

DATE:11/01/24

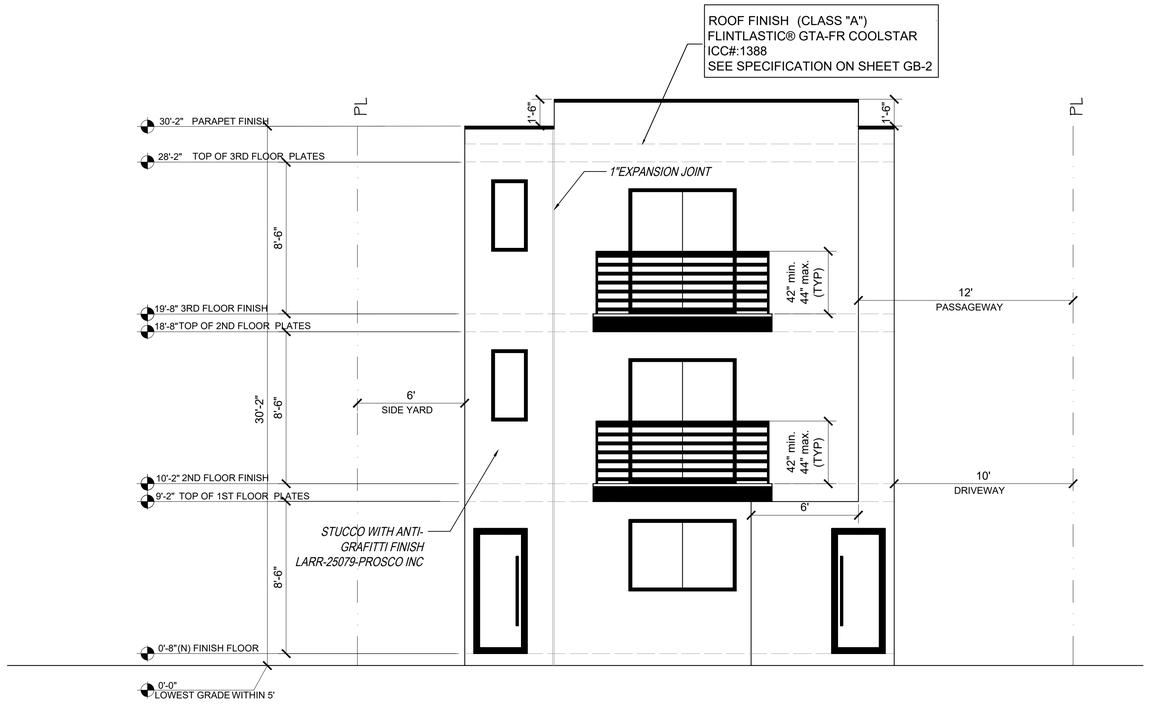
DRAWN:Z.SH

CHEKED:M.M

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

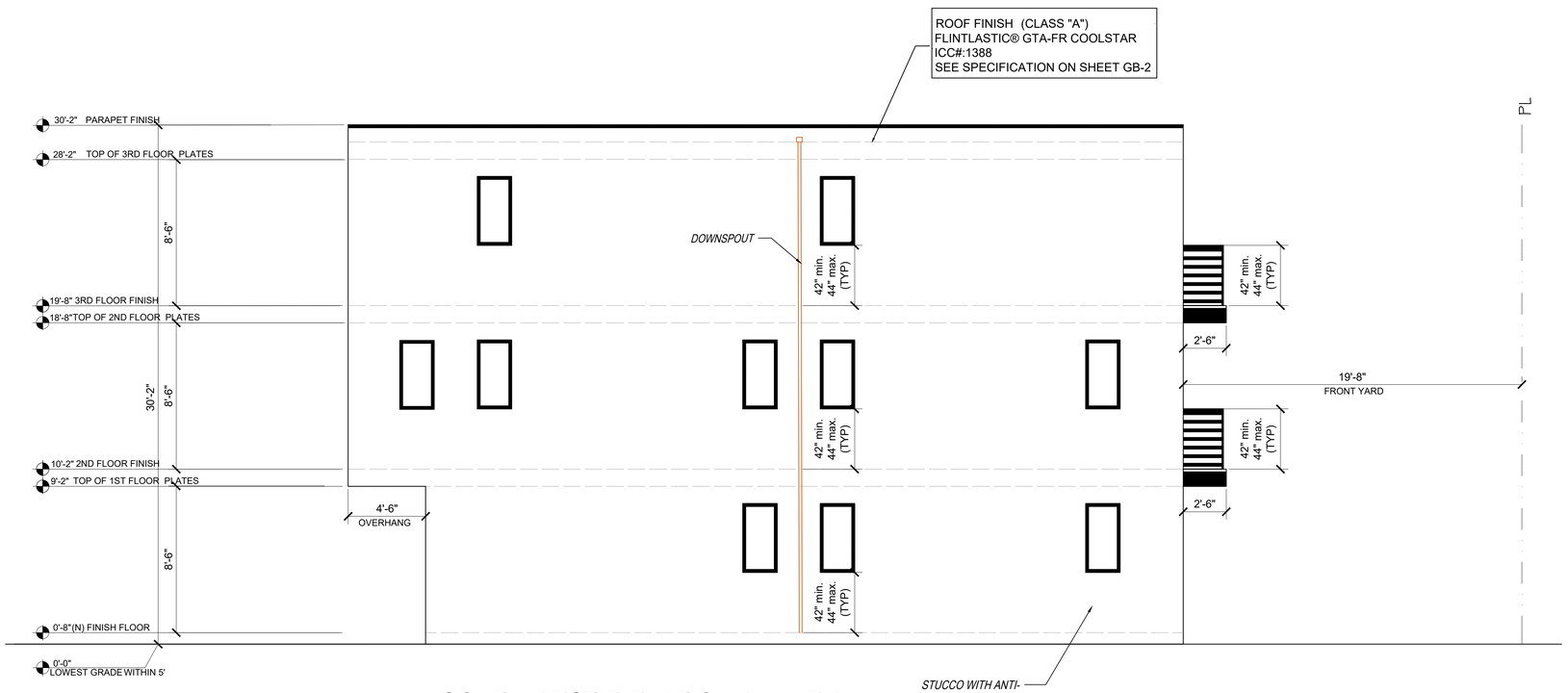
JOB NO:24-076

A4



SOUTH-EAST ELEVATION (DUPLEX)

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



SOUTH-WEST ELEVATION (DUPLEX)

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

ZIMAS

Search

2637 S LONGWOOD AVE

Font: A A A +/-

- Address/Legal
- Jurisdictional
- Permitting and Zoning Compliance
- Planning and Zoning

Special Notes	None
Zoning	R2-1
Zoning Information (ZI)	ZI-2452 Transit Priority Area in the City of Los Angeles
Zoning Information (ZI)	ZI-2427 Freeway Adjacent Advisory Notice for Sensitive Uses
Zoning Information (ZI)	ZI-2498 Local Emergency Temporary Regulations - Time Limits and Parking Relief - LAMC 16.02.1
Zoning Information (ZI)	ZI-2374 State Enterprise Zone: Los Angeles
Zoning Information (ZI)	ZI-2512 Housing Element Sites
Zoning Information (ZI)	ZI-1231 Specific Plan: South Los Angeles Alcohol Sales
General Plan Land Use	Low Medium I Residential
General Plan Note(s)	Yes
Minimum Density Requirement	No
Hillside Area (Zoning Code)	No
Specific Plan Area	SOUTH LOS ANGELES ALCOHOL SALES
Subarea	None
Special Land Use / Zoning	None
Historic Preservation Review	No
HistoricPlacesLA	No
CDO: Community Design Overlay	None
CPIO: Community Plan Imp. Overlay	None
Subarea	None
CPIO Historic Preservation Review	No
CUGU: Clean Up-Green Up	None
HCR: Hillside Construction Regulation	No
NSO: Neighborhood Stabilization Overlay	No
POD: Pedestrian Oriented Districts	None
RBP: Restaurant Beverage Program Eligible Area	None
ASP: Alcohol Sales Program	No
RFA: Residential Floor Area District	None
RIO: River Implementation Overlay	No
SN: Sign District	No
SB 9 Eligibility	View
SB 35 Eligibility	View
SB 684 Eligibility	View
AB 2334: Low Vehicle Travel Area	Yes
AB 2097: Within a half mile of a Major Transit Stop	Yes

DUPLEX

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DUPLEX
ELEVATIONS

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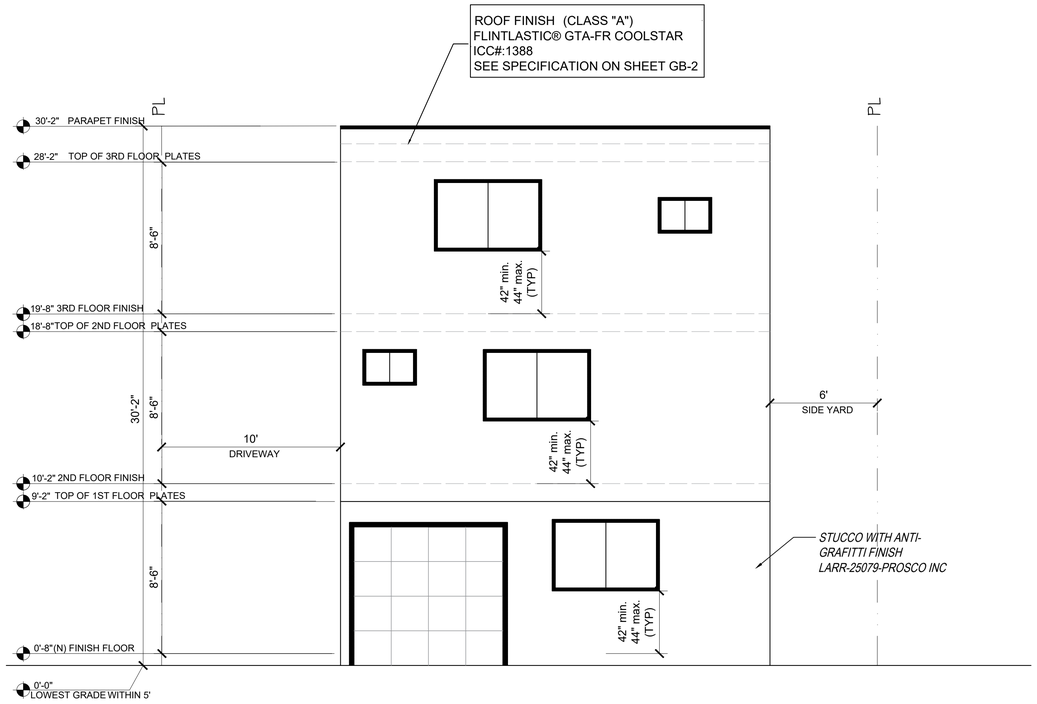
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CHEKED:M.M

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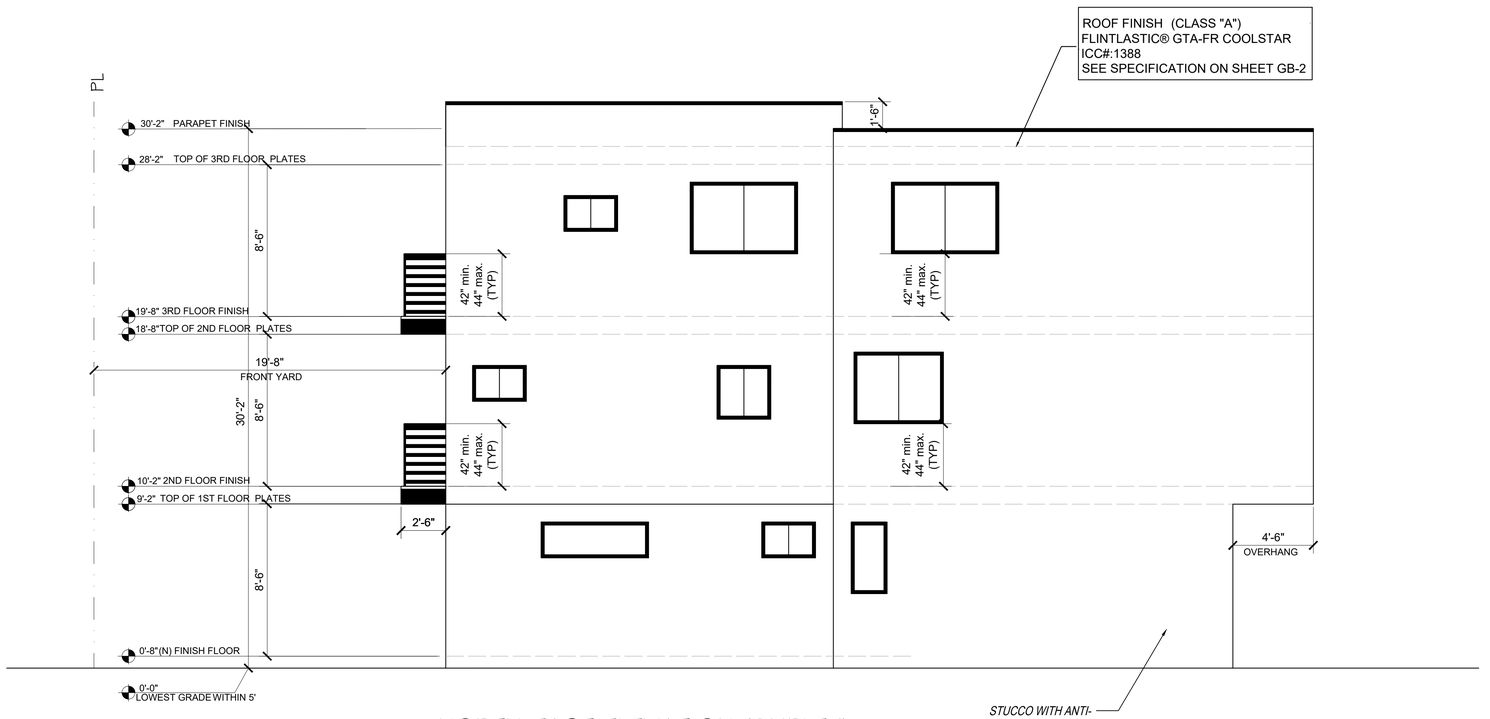
JOB NO:24-076

A5



NORTH-WEST ELEVATION (DUPLEX)

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



NORTH-EAST ELEVATION (DUPLEX)

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

DUPLEX

REVISIONS	BY

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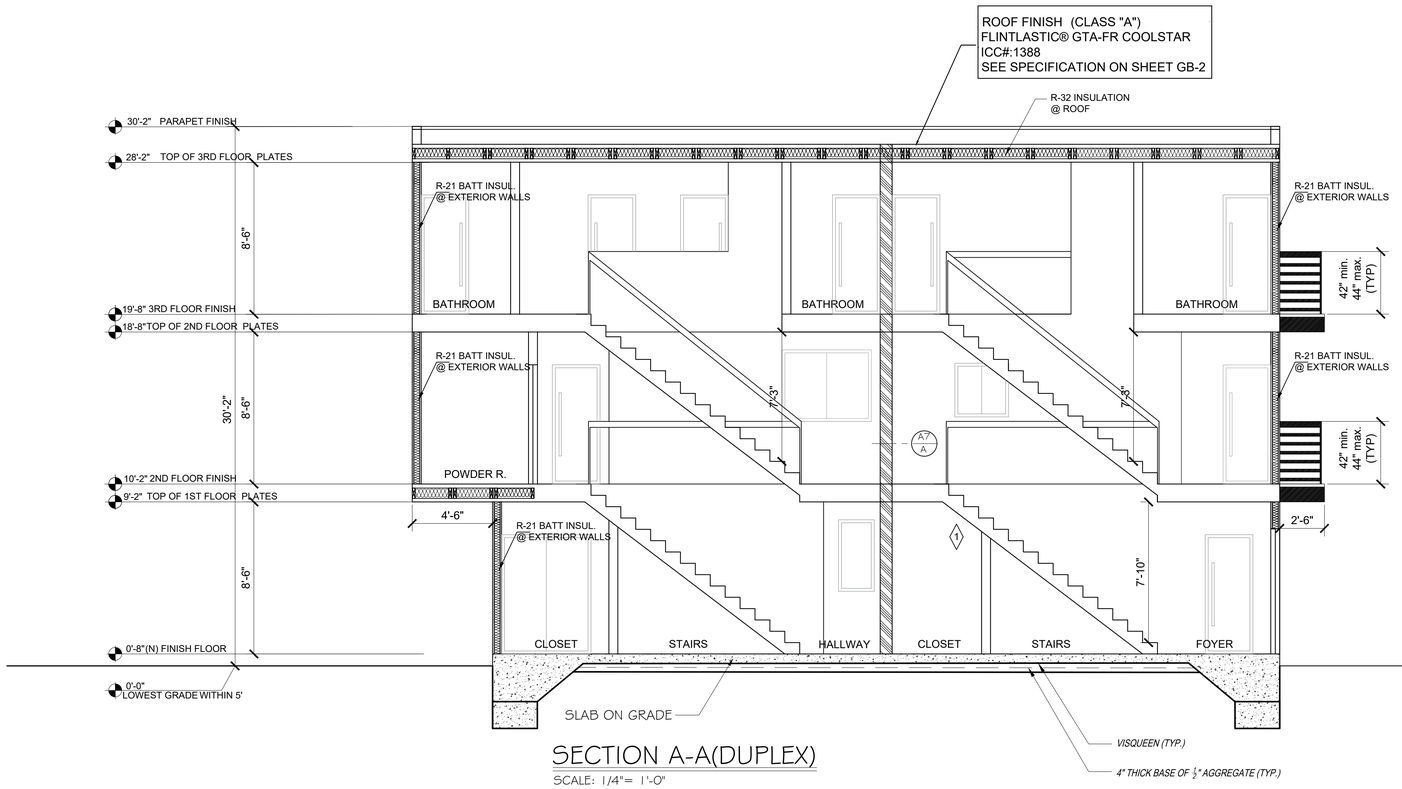
DRAWN:Z.SH

CHEKED:M.M

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

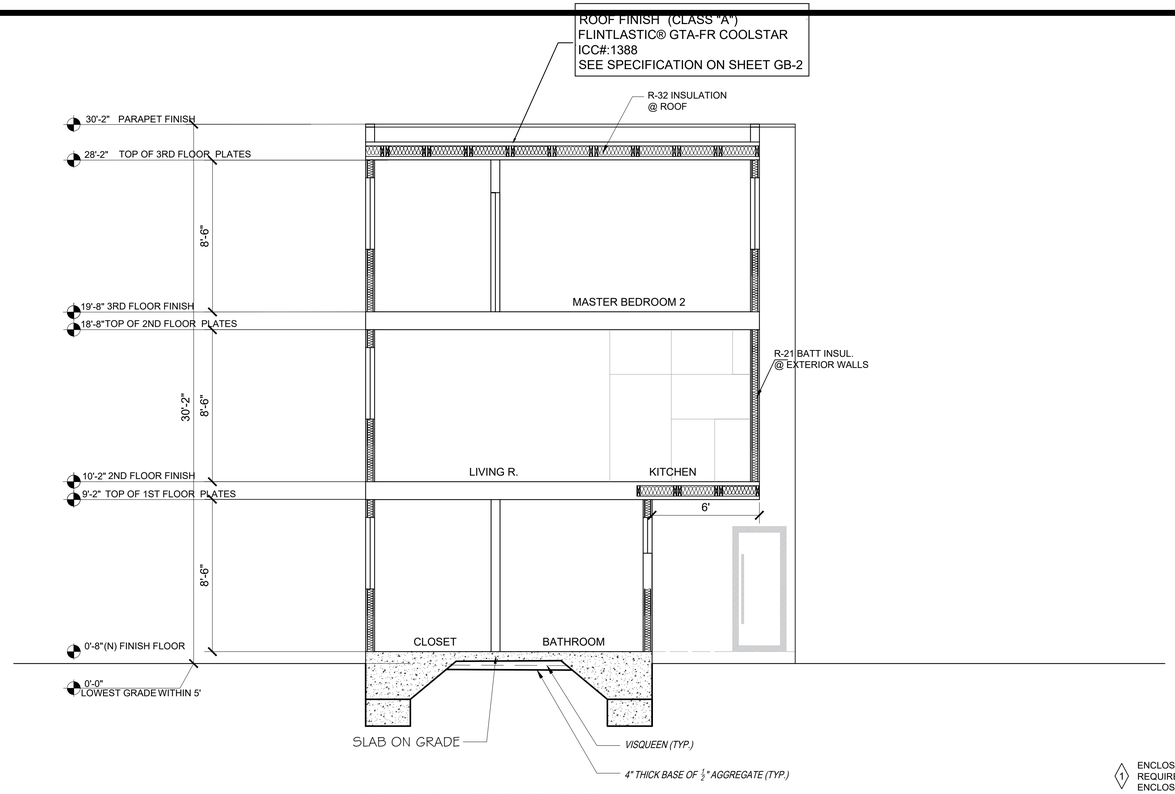
JOB NO:24-076

A6



SECTION A-A(DUPLEX)

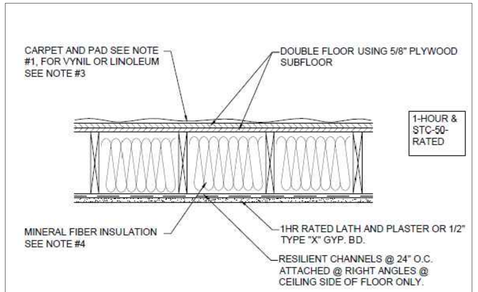
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SECTION B-B(DUPLEX)

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

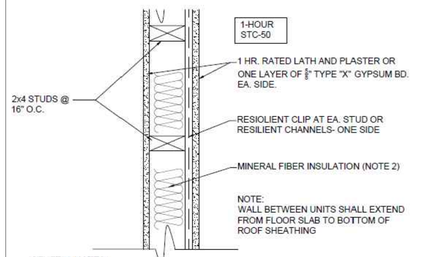
1 ENCLOSED USABLE SPACE UNDER INTERIOR STAIRS REQUIRES ONE-HOUR FIRE RESISTIVE CONSTRUCTION ON ENCLOSED SIDE. SHALL BE COVERED W /1/2" TYPE "X" GYP. BD.



GENERAL NOTES:
1. 13 oz. FACE WT. CARPET (31 OZ. TOT) AND 40 oz. JUTED PAD, OR 48oz. FOAM RUBBER, OR 3/
REBONDED URETHANE FOAM (4 pcf), OR ½" URETHANE FOAM (2.4 pcf)
2. TYPE AND SPACING OF RESILIENT CHANNELS AND THE ATTACHMENT OF CHANNELS AND G
BD. OR LATH SHALL BE AS REQUIRED FOR FIRE RATINGS.
3. SHEET VYNIL AND LINOLEUM FLOOR COVERINGS WITH ¼" MINIMUM THICKNESS RESILIENT BACKING MAY BE SUBSTITUTED FOR CARPET AND PADDING IN KITCHEN AND BATHROOM AREA CEILINGS ARE ON RESILIENT CHANNELS.
4. THE MINERAL FIBER INSULATION SHALL HAVE A THERMAL RESISTANCE R VALUE OF 11 OR GREATER AS DETERMINED BY THE FEDERAL SPECIFICATION HH-I-521E.

D SOUND RATED FLOOR SECTION VIEW

NOTE:
1. ELECTRICAL OUTLET BOXES IN OPPOSITE FACES OF SEPARATION WALLS SHALL BE SEPARATED HORIZONTALLY BY 24" AND NOTE THAT BACK AND SIDES OF BOXES WILL BE SEALED WITH 1/8" RESILIENT SEALANT AND BACKED BY A MINIMUM OF 2" THICK MINERAL FIBER INSULATION. (TV, TELEPHONE AND INTERCOM OUTLETS MUST BE INSTALLED IN BOXES ACCORDINGLY.)



GENERAL NOTES:
1. THE TYPE AND SPACING OF RESILIENT CHANNELS AND CLIPS AND THE ATTACHMENT OF GY
BD. OR LATH SHALL BE AS REQUIRED FOR FIRE RATINGS.
2. THE MINERAL FIBER INSULATION SHALL HAVE THERMAL RESISTANCE R VALUE OF 11 OR GREATER AS DETERMINED BY THE FEDERAL SPECIFICATION RR-I-521B.
3. NO TEST IS ON FILE TO JUSTIFY AN STC 50 WITH ONE ⅝" TYPE "X" GYPSUM BD. EACH SIDE.
4. SMOKE AND FIRE DAMPERS TO BE INSTALLED AT PENETRATIONS AT ALL OCCUPANCY SEPARATION WALLS

A 1-HR & STC 50 SOUND RATED WALL PLAN VIEW

DUPLEX

REVISIONS | BY

LICENSED ARCHITECT HAMID DEHGHANI C 36150 SEPTEMBER 30, 2025 RENEWAL DATE STATE OF CALIFORNIA

PASARGAD ARCHITECTURE & DESIGN

PASARGAD ARCHITECTURE & DESIGN LLC.

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DRAWING TITLE: DUPLEX SECTIONS

DATE:11/01/24

DRAWN:Z.SH

CHEKED:M.M

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

JOB NO:24-076

A7

GENERAL NOTES:

A. THE CONSTRUCTION SHALL NOT RESTRICT A FIVE-FOOT CLEAR AND UNOBSTRUCTED ACCESS TO ANY WATER OR POWER DISTRIBUTION FACILITIES (POWER POLES, PULL-BOXES, TRANSFORMERS, VAULTS, PUMPS, VALVES, METERS, APPURTENANCES, ETC.) OR TO THE LOCATION OF THE HOOK-UP. THE CONSTRUCTION SHALL NOT BE WITHIN TEN FEET OF ANY POWER LINES-WHETHER OR NOT THE LINES ARE LOCATED ON THE PROPERTY. FAILURE TO COMPLY MAY CAUSE CONSTRUCTION DELAYS AND/OR ADDITIONAL EXPENSES.

B. AN APPROVED SEISMIC GAS SHUTOFF VALVE WILL BE INSTALLED ON THE FUEL GAS LINE ON THE DOWN STREAM SIDE OF THE UTILITY METER AND BE RIGIDLY CONNECTED TO THE EXTERIOR OF THE BUILDING OR STRUCTURE CONTAINING THE FUEL GAS PIPING." (PER ORDINANCE 170,158) (SEPARATE PLUMBING PERMIT IS REQUIRED).

C. PLUMBING FIXTURES ARE REQUIRED TO BE CONNECTED TO A SANITARY SEWER OR TO AN APPROVED SEWAGE DISPOSAL SYSTEM (R306.3).

D. KITCHEN SINKS, LAVATORIES, BATHTUBS, SHOWERS, BIDETS, LAUNDRY TUBS AND WASHING MACHINE OUTLETS SHALL BE PROVIDED WITH HOT AND COLD WATER AND CONNECTED TO AN APPROVED WATER SUPPLY (R306.4).

E. BATHTUB AND SHOWER FLOORS, WALLS ABOVE BATHTUBS WITH A SHOWERHEAD, AND SHOWER COMPARTMENTS SHALL BE FINISHED WITH A NONABSORBENT SURFACE. SUCH WALL SURFACES SHALL EXTEND TO A HEIGHT OF NOT LESS THAN 6 FEET ABOVE THE FLOOR (R307.2).

F. PROVIDE ULTRA LOW FLUSH WATER CLOSETS FOR ALL NEW CONSTRUCTION. EXISTING SHOWER HEADS AND TOILETS MUST BE ADAPTED FOR LOW WATER CONSUMPTION.

G.UNIT SKYLIGHT SHALL BE LABELED BY A LA APPROVED LABELING AGENCY.SUCH LABEL SHALL STATE THE APPROVED LABELING AGENCY NAME,PRODUCT DESIGNATION AND PERFORMANCE GRADE RATING.(RESEARCH REPORT NOT REQUIRED). (R308.6.9)

GENERAL NOTES:
H. WATER HEATER MUST BE STRAPPED TO WALL (SEC. 507.3, LAPC)

I. FOR EXISTING POOL ON SITE, PROVIDE AN ALARM FOR DOORS TO THE DWELLING THAT FORM A PART OF THE POOL ENCLOSURE. THE ALARM SHALL SOUND CONTINUOUSLY FOR A MIN. OF 30 SECONDS WHEN THE DOOR IS OPENED. IT SHALL AUTOMATICALLY RESET AND BE EQUIPPED WITH A MANUAL MEANS TO DEACTIVATE (FOR 15 SECS. MAX.) FOR A SINGLE OPENING. THE DEACTIVATION SWITCH SHALL BE AT LEAST 54" ABOVE THE FLOOR. P/BC 2008-014

J. FOR EXISTING POOL ON SITE,PROVIDE ANTI ENTRAPMENT COVER MEETING THE CURRENT ASTM OR ASME FOR THE SUCTION OUTLETS OF THE SWIMMING POOL,TODDLER POOL AND SPA FOR SINGLE FAMILY DWELLINGS PER ASSEMBLY BILL(AB)NO.2977.()3162B)

K. AUTOMATIC GARAGE DOOR OPENERS, IF PROVIDED, SHALL BE LISTED IN ACCORDANCE WITH UL 325.
L. SMOKE DETECTORS SHALL BE PROVIDED FOR ALL DWELLING UNITS INTENDED FOR HUMAN OCCUPANCY, UPON THE OWNER'S APPLICATION FOR A PERMIT FOR ALTERATIONS, REPAIRS, OR ADDITIONS, EXCEEDING ONE THOUSAND DOLLARS ($1,000). (R314.6.2)

M. WHERE A PERMIT IS REQUIRED FOR ALTERATIONS, REPAIRS OR ADDITIONS EXCEEDING ONE THOUSAND DOLLARS ($1,000), EXISTING DWELLINGS OR SLEEPING UNITS THAT HAVE ATTACHED GARAGES OR FUEL-BURNING APPLIANCES SHALL BE PROVIDED WITH A CARBON MONOXIDE ALARM IN ACCORDANCE WITH SECTION R315.1. CARBON MONOXIDE ALARMS SHALL ONLY BE REQUIRED IN THE SPECIFIC DWELLING UNIT OR SLEEPING UNIT FOR WHICH THE PERMIT WAS OBTAINED. (R315.2)

N. EVERY SPACE INTENDED FOR HUMAN OCCUPANCY SHALL BE PROVIDED WITH NATURAL LIGHT BY MEANS OF EXTERIOR GLAZED OPENINGS IN ACCORDANCE WITH SECTION R303.1 OR SHALL BE PROVIDED WITH ARTIFICIAL LIGHT THAT IS ADEQUATE TO PROVIDE AN AVERAGE ILLUMINATION OF 6 FOOT-CANDLES OVER THE AREA OF THE ROOM AT A HEIGHT OF 30 INCHES ABOVE THE FLOOR LEVEL. (R303.1)

O. A COPY OF THE EVALUATION REPORT AND/OR CONDITIONS OF LISTING SHALL BE MADE AVAILABLE AT THE JOB SITE

OCCUPANCY NOTES:
1. THE PROPOSED BUILDING IS A GARAGE AND NOT A CARPORT SINCE IT IS NOT OPEN AT LEAST 2 SIDES.

2. OPENINGS FROM A PRIVATE GARAGE DIRECTLY INTO A ROOM USED FOR SLEEPING PURPOSES ARE
NOT PERMITTED (R302.5.1).

3. DOORS BETWEEN GARAGE AND THE DWELLING UNIT SHALL BE SELF-CLOSING AND SELF-LATCHING,
SOLID WOOD OR SOLID OR HONEYCOMB CORE STEEL NOT LESS THAN 1 3/8 INCHES THICK, OR HAVE A
MINIMUM FIRE PROTECTION RATING OF 20 MINUTES. (R302.5.1)

4. THE GARAGE SHALL BE SEPARATED FROM THE DWELLING AND ITS ATTIC AREA IN ACCORDANCE WITH
TABLE R302.6 (R302.6).

5. DUCTS PENETRATING THE WALLS OR CEILINGS SEPARATING THE DWELLING FROM THE GARAGE SHALL BE CONSTRUCTED OF A MINIMUM NO. 26 GAGE SHEET STEEL OR OTHER APPROVED MATERIAL
AND THERE SHALL BE NO OPENINGS FROM THE DUCTS INTO THE GARAGE (R302.5.2).

6. OTHER PENETRATIONS OF GARAGE/DWELLING CEILINGS AND WALLS ARE TO BE PROTECTED AS REQUIRED BY SECTION R302.11, ITEM 4 (R302.5.3).

7. GARAGE FLOOR SURFACES SHALL BE OF AN APPROVED NONCOMBUSTIBLE MATERIAL, AND THE AREA
USED TO PARK VEHICLES SHALL BE SLOPED TO A DRAIN OR TOWARD THE MAIN VEHICLE ENTRY (R309.1).

FIRE PROTECTION NOTES:
1. THE BUILDING SHALL BE EQUIPPED WITH AN AUTOMATIC RESIDENTIAL FIRE SPRINKLER SYSTEM IN ACCORDANCE WITH SECTION R313.3 OR NFPA13D. (R313, 12.21A17(D))

2. ADD NOTE ON PLANS: THE SPRINKLER SYSTEM SHALL BE APPROVED BY PLUMBING DIV. PRIOR TO INSTALLATION.

3. AN APPROVED SMOKE ALARMS SHALL BE INSTALLED IN EACH SLEEPING ROOM & HALLWAY OR AREA GIVING ACCESS TO A SLEEPING ROOM, AND ON EACH STORY AND BASEMENT FOR DWELLINGS WITH MORE THAN ONE STORY. SMOKE ALARMS SHALL BE INTERCONNECTED SO THAT ACTUATION OF ONE ALARM WILL ACTIVATE ALL THE ALARMS WITHIN THE INDIVIDUAL DWELLING UNIT. IN NEW CONSTRUCTION SMOKE ALARMS SHALL RECEIVE THEIR PRIMARY POWER SOURCE FROM THE BUILDING WIRING AND SHALL BE EQUIPPED WITH BATTERY BACK UP AND LOW BATTERY SIGNAL. (R314)

4. AN APPROVED CARBON MONOXIDE ALARM SHALL BE INSTALLED IN DWELLING UNITS AND IN SLEEPING UNITS WITHIN WHICH FUEL-BURNING APPLIANCES ARE INSTALLED
AND IN DWELLING UNITS THAT HAVE ATTACHED GARAGES. CARBON MONOXIDE ALARM SHALL BE PROVIDED OUTSIDE OF EACH SEPARATE DWELLING UNIT SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOM(S) AND ON EVERY LEVEL OF A DWELLING UNIT INCLUDING BASEMENTS. (R315)

FIRE RESISTANCE RATED CONSTRUCTION NOTES:

7. THROUGH PENETRATIONS OF FIRE-RESISTANCE-RATED WALL OR FLOOR ASSEMBLIES SHALL COMPLY WITH SECTION R302.4.1.1 ORR302.4.1.2. PROVIDE DETAIL AND COPY OF LISTING ON THEPLANS.(R302.4.1)

8. MEMBRANE PENETRATIONS SHALL COMPLY WITH SECTION R302.4.1. WHERE WALLS ARE REQUIRED TO HAVE A
FIRE-RESISTANCE RATING, RECESSED FIXTURES SHALL BE INSTALLED SO THAT THE REQUIRED FIRE-RESISTANCERATING WILL NOT BE REDUCED. (R302.4.2)

9. IN COMBUSTIBLE CONSTRUCTION, FIRE BLOCKING SHALL BE PROVIDED TO CUT OFF ALL CONCEALED DRAFT OPENINGS (BOTHVERTICAL AND HORIZONTAL) AND TO FORM AN EFFECTIVE FIREBARRIER BETWEEN STORIES, AND BETWEEN A TOP STORY AND THE ROOF SPACE. (R302.11)

10. IN COMBUSTIBLE CONSTRUCTION WHERE THERE IS USABLE SPACE BOTH ABOVE AND BELOW THE CONCEALED SPACE OF AFLOOR/CEILING ASSEMBLY, DRAFTSTOPS SHALL BE INSTALLED SOTHAT THE AREA OF THE CONCEALED SPACE DOES NOT EXCEED 1,000SQUARE FEET. DRAFTSTOPPING SHALL DIVIDE THE CONCEALEDSPACE INTO APPROXIMATELY EQUAL AREAS. (R302.12

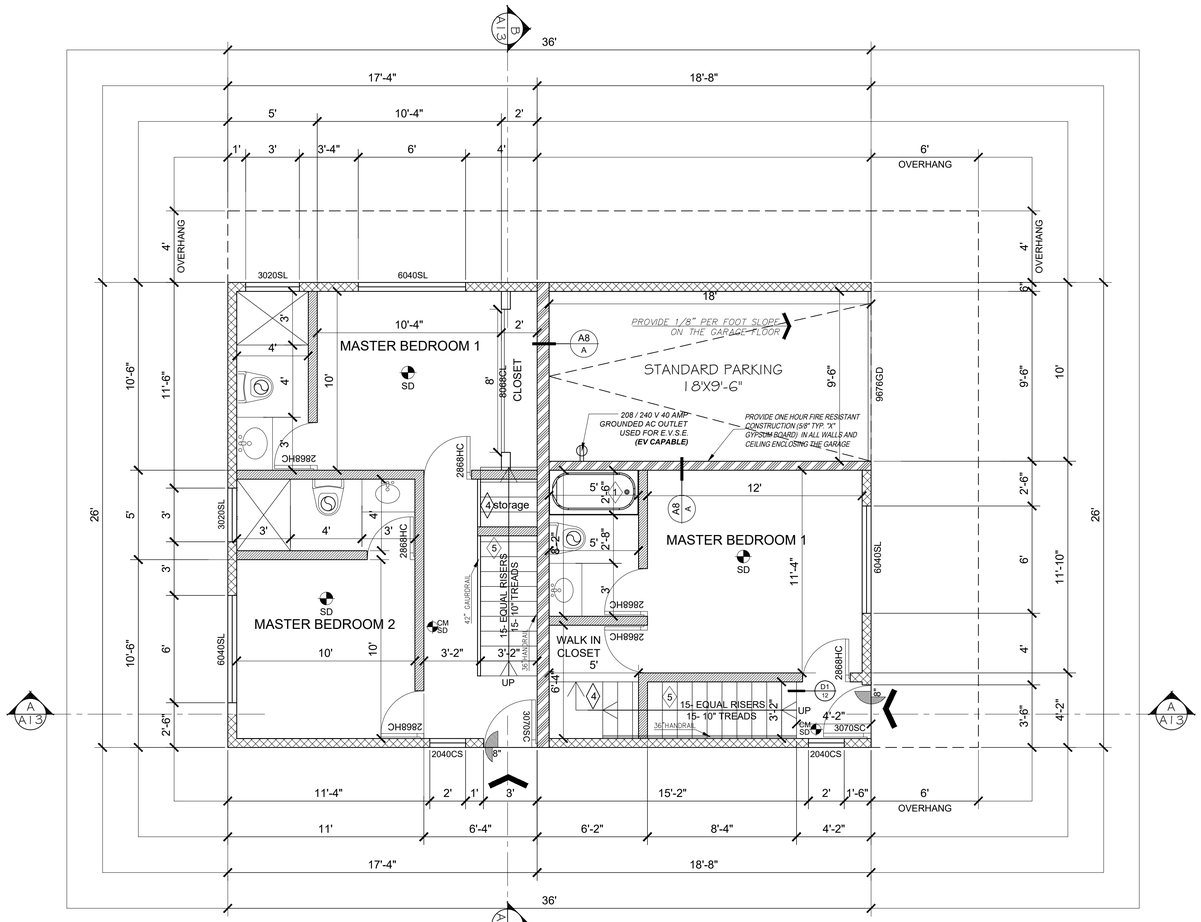
1. **PROVIDE A 12" SQ. (MINIMUM) ACCESS PANEL TO BATHTUB TRAP CONNECTION EXCEPT WHERE CONCEALED FIXTURE CONNECTIONS ARE MADE WITHOUT SLIP JOINTS. DOOR TO BE TIGHT FITTING AND GASKETED.**
2. **TWENTY MINUTE FIRE RATED OR SELF CLOSING, TIGHT FITTING, SOLID WOOD, 1 3/8" THICK DOOR AT OPENINGS INTO DWELLING (302.4). FRONT ENTRY SHALL BE PROVIDED WITH A VIEW PORT**
3. **DRYER VENT TO BE LIMITED TO 14'-0" HORIZ. W/2-90 DEG. ELBOWS MAX. OR VENT TO BE INCREASED IN SIZE PER U.M.C.**
4. ENCLOSED USABLE SPACE UNDER INTERIOR STAIRS REQUIRES ONE-HOUR FIRE RESISTIVE CONSTRUCTION ON ENCLOSED SIDE. SHALL BE COVERED W /1/2" TYPE "X" GYP. BD.
5. STAIRWAY ILUMINATION SHALL BE PROVIDED- (MIN. OF 1 FOOT-CANDLE AT TREAD RUNS.
6. HEATER SHALL BE CAPABLE OF MAINTAINING A MINIMUM ROOM TEMPRATURE OF 68 F AT A POINT 3 FEET ABOVE THE FLOOR AND 2 FEET FROM EXTERIOR WALLS IN ALL HABITABLE ROOMS AT THE DESIGN TEMPERATURE.
7. BALCONY & ROOF DECK FINISH(ICC#:1757) SEE SPECIFICATION AT SHEET GB-2

SD HARDWIRED W/ BATTERY BACK-UP NEW SMOKE DETECTOR

CM NEWCARBON MONOXIDE DETECTOR

ALL NEW EXTERIOR WALLS SHALL BE PAINTED WITH GENESIS COATINGS, INC.- GRAFFITI MELT -SACRIFICIAL ANTI-GRAFFITI COATING FOR PROTECTION OF ALL TYPES OF SURFACES AGAINST GRAFFITI- LARR # 25079

= BATHROOM SHALL BE PROVIDED WITH AN EXHAUST FAN WITH A MINIMUM CAPACITY OF 50 CFM INTERMITENT OR 25 CFM CONTINUOUS.
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FIRST FLOOR PLAN (TWO ADU)

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

NORTH

LEGEND:

- 2x4 INTERIOR STUD WALL W/12" GYP BD. EA. SIDE PAGE D2 #3
- 1-HOUR — 2x4 EXTERIOR STUD WALL W/1/2" GYP. BD. @ INSIDE AND 7/8" STUCCO @ EXTERIOR SIDE -SEE PAGE D2#2
- 1-HOUR STC- 50 — 2x4 STUD WALL @ DEMIZING WALL W 5/8" TYPE "X" DRYWALL @ 1-SIDE AND 5/8" TYPE "X" DRYWALL ORESILIENT CHANNELS AT OTHER SIDE - 1 HOUR RATED WALL-STUCCO- SOUND RATED WALL SEE PAGE A8 DETAIL A

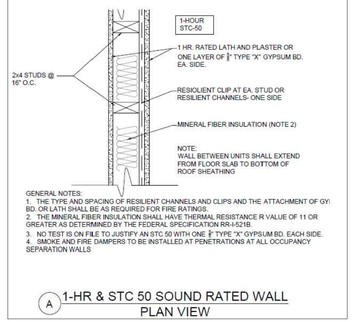
DOOR/WINDOW LEGEND

SC = SOLID CORE
HC = HOLLOW CORE
CL = CLOSET
SD = SLIDING DOOR
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FX = FIXED
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AW= AWNING
CS=CASEMENT
GD = GARAGE DOOR

EE: EMERGENCY EGRESS

TANKLESS WATER HEATER

NOTE:
1. ELECTRICAL OUTLET BOXES IN OPPOSITE FACES OF SEPARATION WALLS SHALL BE SEPARATED HORIZONTALLY BY 24" AND NOTE THAT BACK AND SIDES OF BOXES WILL BE SEALED WITH 1/8" RESILIENT SEALANT AND BACKED BY A MINIMUM OF 2" THICK MINERAL FIBER INSULATION. (TV, TELEPHONE AND INTERCOM OUTLETS MUST BE INSTALLED IN BOXES ACCORDINGLY.)



GENERAL NOTES:
1. THE TYPE AND SPACING OF RESILIENT CHANNELS AND CLIPS AND THE ATTACHMENT OF GYP. BD. OR LATH SHALL BE AS REQUIRED FOR FIRE RATINGS.
2. THE MINERAL FIBER INSULATION SHALL HAVE THERMAL RESISTANCE R VALUE OF 11 OR GREATER AS DETERMINED BY THE FEDERAL SPECIFICATION RR-I-521B.
3. NO TEST IS ON FILE TO JUSTIFY AN STC 50 WITH ONE 5/8" TYPE "X" GYPSUM BD. EACH SIDE.
4. SMOKE AND FIRE DAMPERS TO BE INSTALLED AT PENETRATIONS AT ALL OCCUPANCY SEPARATION WALLS

A 1-HR & STC 50 SOUND RATED WALL PLAN VIEW

2ADU

REVISIONS | BY

LICENSED ARCHITECT HAMID DEHGHANI C-35150 SEPTEMBER 30, 2025 RENEWAL DATE STATE OF CALIFORNIA

PASARGAD ARCHITECTURE & DESIGN

PASARGAD
ARCHITECTURE & DESIGN LLC.

NEW 3 STORY DUPLEX IN FRONT :2639 & 2639 1/2 S LONGWOOD AVE LOS ANGELES CA 90016
NEW 2 STORY TWO ADU IN REAR :2637 & 2637 1/2 S LONGWOOD AVE LOS ANGELES CA 90016

DRAWING TITLE:
2ADU
FIRST FLOOR PLAN

DATE:11/01/24
DRAWN:Z.SH
CHEKED:M.M
SCALE:1/4"=1'-0"
JOB NO:24-076

A8

GENERAL NOTES:

A. THE CONSTRUCTION SHALL NOT RESTRICT A FIVE-FOOT CLEAR AND UNOBSTRUCTED ACCESS TO ANY WATER OR POWER DISTRIBUTION FACILITIES (POWER POLES, PULL-BOXES, TRANSFORMERS, VAULTS, PUMPS, VALVES, METERS, APPURTENANCES, ETC.) OR TO THE LOCATION OF THE HOOK-UP. THE CONSTRUCTION SHALL NOT BE WITHIN TEN FEET OF ANY POWER LINES-WHETHER OR NOT THE LINES ARE LOCATED ON THE PROPERTY. FAILURE TO COMPLY MAY CAUSE CONSTRUCTION DELAYS AND/OR ADDITIONAL EXPENSES.

B. AN APPROVED SEISMIC GAS SHUTOFF VALVE WILL BE INSTALLED ON THE FUEL GAS LINE ON THE DOWN STREAM SIDE OF THE UTILITY METER AND BE RIGIDLY CONNECTED TO THE EXTERIOR OF THE BUILDING OR STRUCTURE CONTAINING THE FUEL GAS PIPING." (PER ORDINANCE 170,158) (SEPARATE PLUMBING PERMIT IS REQUIRED).

C. PLUMBING FIXTURES ARE REQUIRED TO BE CONNECTED TO A SANITARY SEWER OR TO AN APPROVED SEWAGE DISPOSAL SYSTEM (R306.3).

D. KITCHEN SINKS, LAVATORIES, BATHTUBS, SHOWERS, BIDETS, LAUNDRY TUBS AND WASHING MACHINE OUTLETS SHALL BE PROVIDED WITH HOT AND COLD WATER AND CONNECTED TO AN APPROVED WATER SUPPLY (R306.4).

E. BATHTUB AND SHOWER FLOORS, WALLS ABOVE BATHTUBS WITH A SHOWERHEAD, AND SHOWER COMPARTMENTS SHALL BE FINISHED WITH A NONABSORBENT SURFACE. SUCH WALL SURFACES SHALL EXTEND TO A HEIGHT OF NOT LESS THAN 6 FEET ABOVE THE FLOOR (R307.2).

F. PROVIDE ULTRA LOW FLUSH WATER CLOSETS FOR ALL NEW CONSTRUCTION. EXISTING SHOWER HEADS AND TOILETS MUST BE ADAPTED FOR LOW WATER CONSUMPTION.

G.UNIT SKYLIGHT SHALL BE LABELED BY A LA APPROVED LABELING AGENCY.SUCH LABEL SHALL STATE THE APPROVED LABELING AGENCY NAME,PRODUCT DESIGNATION AND PERFORMANCE GRADE RATING.(RESEARCH REPORT NOT REQUIRED). (R308.6.9)

GENERAL NOTES:
H. WATER HEATER MUST BE STRAPPED TO WALL (SEC. 507.3, LAPC)

I. FOR EXISTING POOL ON SITE, PROVIDE AN ALARM FOR DOORS TO THE DWELLING THAT FORM A PART OF THE POOL ENCLOSURE. THE ALARM SHALL SOUND CONTINUOUSLY FOR A MIN. OF 30 SECONDS WHEN THE DOOR IS OPENED. IT SHALL AUTOMATICALLY RESET AND BE EQUIPPED WITH A MANUAL MEANS TO DEACTIVATE (FOR 15 SECS. MAX.) FOR A SINGLE OPENING. THE DEACTIVATION SWITCH SHALL BE AT LEAST 54" ABOVE THE FLOOR. P/BC 2008-014

J. FOR EXISTING POOL ON SITE,PROVIDE ANTI ENTRAPMENT COVER MEETING THE CURRENT ASTM OR ASME FOR THE SUCTION OUTLETS OF THE SWIMMING POOL,TODDLER POOL AND SPA FOR SINGLE FAMILY DWELLINGS PER ASSEMBLY BILL(AB)NO.2977.()3162B)

K. AUTOMATIC GARAGE DOOR OPENERS, IF PROVIDED, SHALL BE LISTED IN ACCORDANCE WITH UL 325.
L. SMOKE DETECTORS SHALL BE PROVIDED FOR ALL DWELLING UNITS INTENDED FOR HUMAN OCCUPANCY, UPON THE OWNER'S APPLICATION FOR A PERMIT FOR ALTERATIONS, REPAIRS, OR ADDITIONS, EXCEEDING ONE THOUSAND DOLLARS ($1,000). (R314.6.2)

M. WHERE A PERMIT IS REQUIRED FOR ALTERATIONS, REPAIRS OR ADDITIONS EXCEEDING ONE THOUSAND DOLLARS ($1,000), EXISTING DWELLINGS OR SLEEPING UNITS THAT HAVE ATTACHED GARAGES OR FUEL-BURNING APPLIANCES SHALL BE PROVIDED WITH A CARBON MONOXIDE ALARM IN ACCORDANCE WITH SECTION R315.1. CARBON MONOXIDE ALARMS SHALL ONLY BE REQUIRED IN THE SPECIFIC DWELLING UNIT OR SLEEPING UNIT FOR WHICH THE PERMIT WAS OBTAINED. (R315.2)

N. EVERY SPACE INTENDED FOR HUMAN OCCUPANCY SHALL BE PROVIDED WITH NATURAL LIGHT BY MEANS OF EXTERIOR GLAZED OPENINGS IN ACCORDANCE WITH SECTION R303.1 OR SHALL BE PROVIDED WITH ARTIFICIAL LIGHT THAT IS ADEQUATE TO PROVIDE AN AVERAGE ILLUMINATION OF 6 FOOT-CANDLES OVER THE AREA OF THE ROOM AT A HEIGHT OF 30 INCHES ABOVE THE FLOOR LEVEL. (R303.1)

O. A COPY OF THE EVALUATION REPORT AND/OR CONDITIONS OF LISTING SHALL BE MADE AVAILABLE AT THE JOB SITE

OCCUPANCY NOTES:
1. THE PROPOSED BUILDING IS A GARAGE AND NOT A CARPORT SINCE IT IS NOT OPEN AT LEAST 2 SIDES.

2. OPENINGS FROM A PRIVATE GARAGE DIRECTLY INTO A ROOM USED FOR SLEEPING PURPOSES ARE
NOT PERMITTED (R302.5.1).

3. DOORS BETWEEN GARAGE AND THE DWELLING UNIT SHALL BE SELF-CLOSING AND SELF-LATCHING,
SOLID WOOD OR SOLID OR HONEYCOMB CORE STEEL NOT LESS THAN 1 3/8 INCHES THICK, OR HAVE A
MINIMUM FIRE PROTECTION RATING OF 20 MINUTES. (R302.5.1)

4. THE GARAGE SHALL BE SEPARATED FROM THE DWELLING AND ITS ATTIC AREA IN ACCORDANCE WITH
TABLE R302.6 (R302.6).

5. DUCTS PENETRATING THE WALLS OR CEILINGS SEPARATING THE DWELLING FROM THE GARAGE SHALL BE CONSTRUCTED OF A MINIMUM NO. 26 GAGE SHEET STEEL OR OTHER APPROVED MATERIAL
AND THERE SHALL BE NO OPENINGS FROM THE DUCTS INTO THE GARAGE (R302.5.2).

6. OTHER PENETRATIONS OF GARAGE/DWELLING CEILINGS AND WALLS ARE TO BE PROTECTED AS REQUIRED BY SECTION R302.11, ITEM 4 (R302.5.3).

7. GARAGE FLOOR SURFACES SHALL BE OF AN APPROVED NONCOMBUSTIBLE MATERIAL, AND THE AREA
USED TO PARK VEHICLES SHALL BE SLOPED TO A DRAIN OR TOWARD THE MAIN VEHICLE ENTRY (R309.1).

FIRE PROTECTION NOTES:
1. THE BUILDING SHALL BE EQUIPPED WITH AN AUTOMATIC RESIDENTIAL FIRE SPRINKLER SYSTEM IN ACCORDANCE WITH SECTION R313.3 OR NFPA13D. (R313, 12.21A17(D))

2. ADD NOTE ON PLANS: THE SPRINKLER SYSTEM SHALL BE APPROVED BY PLUMBING DIV. PRIOR TO INSTALLATION.

3. AN APPROVED SMOKE ALARMS SHALL BE INSTALLED IN EACH SLEEPING ROOM & HALLWAY OR AREA GIVING ACCESS TO A SLEEPING ROOM, AND ON EACH STORY AND BASEMENT FOR DWELLINGS WITH MORE THAN ONE STORY. SMOKE ALARMS SHALL BE INTERCONNECTED SO THAT ACTUATION OF ONE ALARM WILL ACTIVATE ALL THE ALARMS WITHIN THE INDIVIDUAL DWELLING UNIT. IN NEW CONSTRUCTION SMOKE ALARMS SHALL RECEIVE THEIR PRIMARY POWER SOURCE FROM THE BUILDING WIRING AND SHALL BE EQUIPPED WITH BATTERY BACK UP AND LOW BATTERY SIGNAL. (R314)

4. AN APPROVED CARBON MONOXIDE ALARM SHALL BE INSTALLED IN DWELLING UNITS AND IN SLEEPING UNITS WITHIN WHICH FUEL-BURNING APPLIANCES ARE INSTALLED
AND IN DWELLING UNITS THAT HAVE ATTACHED GARAGES. CARBON MONOXIDE ALARM SHALL BE PROVIDED OUTSIDE OF EACH SEPARATE DWELLING UNIT SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOM(S) AND ON EVERY LEVEL OF A DWELLING UNIT INCLUDING BASEMENTS. (R315)

FIRE RESISTANCE RATED CONSTRUCTION NOTES:

7. THROUGH PENETRATIONS OF FIRE-RESISTANCE-RATED WALL OR FLOOR ASSEMBLIES SHALL COMPLY WITH SECTION R302.4.1.1 ORR302.4.1.2. PROVIDE DETAIL AND COPY OF LISTING ON THEPLANS.(R302.4.1)

8. MEMBRANE PENETRATIONS SHALL COMPLY WITH SECTION R302.4.1. WHERE WALLS ARE REQUIRED TO HAVE A
FIRE-RESISTANCE RATING, RECESSED FIXTURES SHALL BE INSTALLED SO THAT THE REQUIRED FIRE-RESISTANCERATING WILL NOT BE REDUCED. (R302.4.2)

9. IN COMBUSTIBLE CONSTRUCTION, FIRE BLOCKING SHALL BE PROVIDED TO CUT OFF ALL CONCEALED DRAFT OPENINGS (BOTHVERTICAL AND HORIZONTAL) AND TO FORM AN EFFECTIVE FIREBARRIER BETWEEN STORIES, AND BETWEEN A TOP STORY AND THE ROOF SPACE. (R302.11)

10. IN COMBUSTIBLE CONSTRUCTION WHERE THERE IS USABLE SPACE BOTH ABOVE AND BELOW THE CONCEALED SPACE OF AFLOOR/CEILING ASSEMBLY, DRAFTSTOPS SHALL BE INSTALLED SOTHAT THE AREA OF THE CONCEALED SPACE DOES NOT EXCEED 1,000SQUARE FEET. DRAFTSTOPPING SHALL DIVIDE THE CONCEALEDSPACE INTO APPROXIMATELY EQUAL AREAS. (R302.12

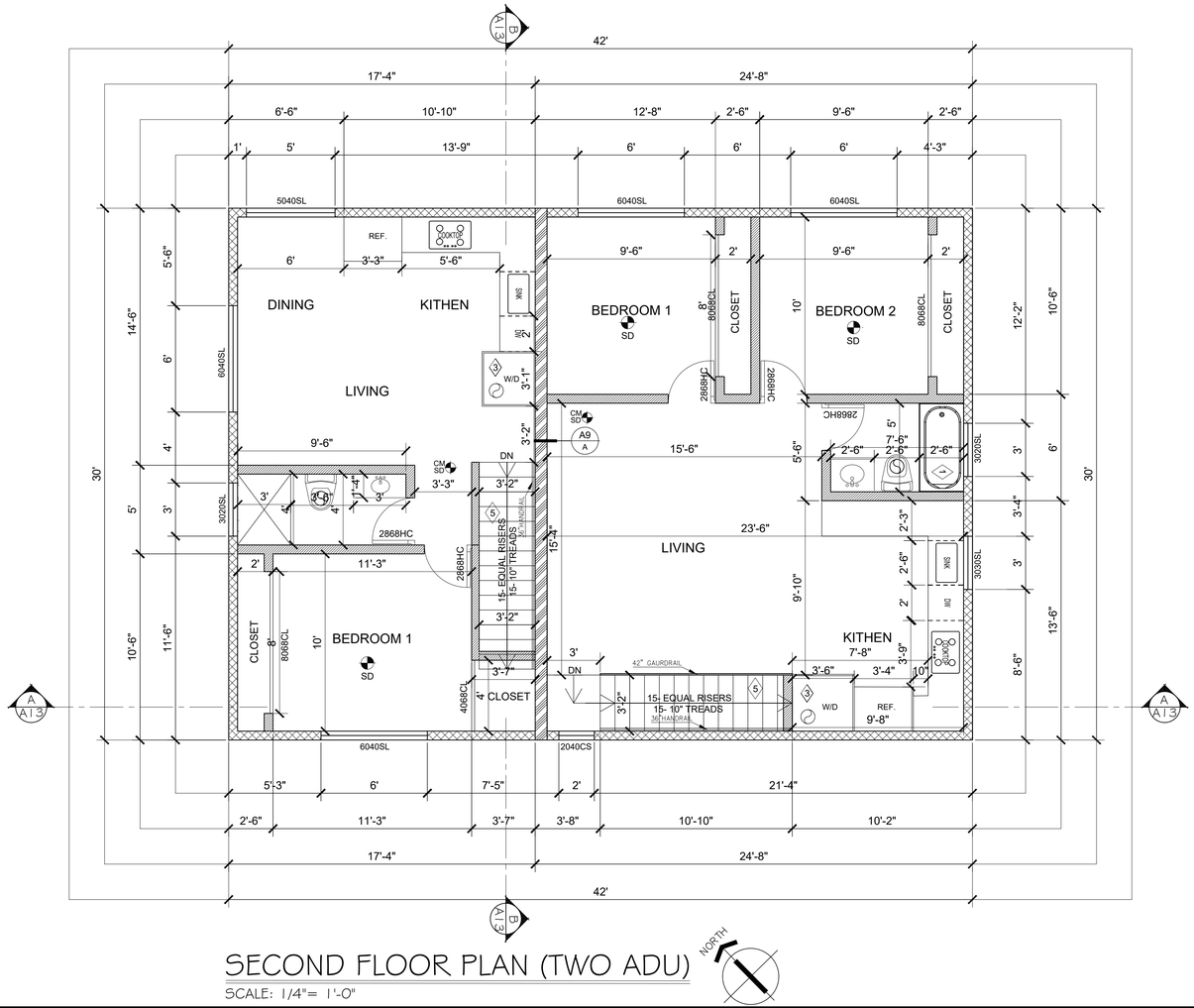
1. **PROVIDE A 12" SQ. (MINIMUM) ACCESS PANEL TO BATHTUB TRAP CONNECTION EXCEPT WHERE CONCEALED FIXTURE CONNECTIONS ARE MADE WITHOUT SLIP JOINTS. DOOR TO BE TIGHT FITTING AND GASKETED.**
2. **TWENTY MINUTE FIRE RATED OR SELF CLOSING, TIGHT FITTING, SOLID WOOD, 1 3/8" THICK DOOR AT OPENINGS INTO DWELLING (302.4). FRONT ENTRY SHALL BE PROVIDED WITH A VIEW PORT**
3. **DRYER VENT TO BE LIMITED TO 14'-0" HORIZ. W/2-90 DEG. ELBOWS MAX. OR VENT TO BE INCREASED IN SIZE PER U.M.C.**
4. ENCLOSED USABLE SPACE UNDER INTERIOR STAIRS REQUIRES ONE-HOUR FIRE RESISTIVE CONSTRUCTION ON ENCLOSED SIDE. SHALL BE COVERED W /1/2" TYPE "X" GYP. BD.
5. STAIRWAY ILUMINATION SHALL BE PROVIDED- (MIN. OF 1 FOOT-CANDLE AT TREAD RUNS.
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SECOND FLOOR PLAN (TWO ADU)
SCALE: 1/4"= 1'-0"

NORTH

LEGEND:

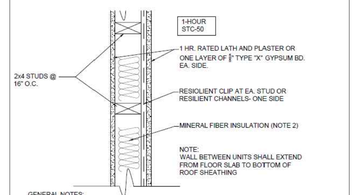
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- 1-HOUR STC- 50 — 2x4 STUD WALL @ DEMIZING WALL W 5/8" TYPE "X" DRYWALL @ 1-SIDE AND 5/8" TYPE "X" DRYWALL ORESILIENT CHANNELS AT OTHER SIDE - 1 HOUR RATED WALL-STC-50- SOUND RATED WALL SEE PAGE A8 DETAIL A

DOOR/WINDOW LEGEND

SC = SOLID CORE
HC = HOLLOW CORE
CL = CLOSET
SD = SLIDING DOOR
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A 1-HR & STC 50 SOUND RATED WALL PLAN VIEW

REVISIONS | BY

LICENSED ARCHITECT HAMID DEHGHAN C 39150 SEPTEMBER 30, 2025 STATE OF CALIFORNIA

PASARGAD
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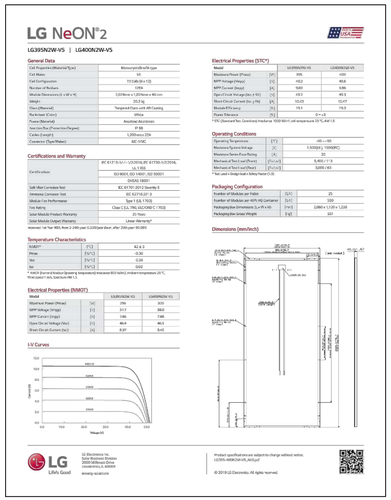
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2ADU
2ND FLOOR PLAN

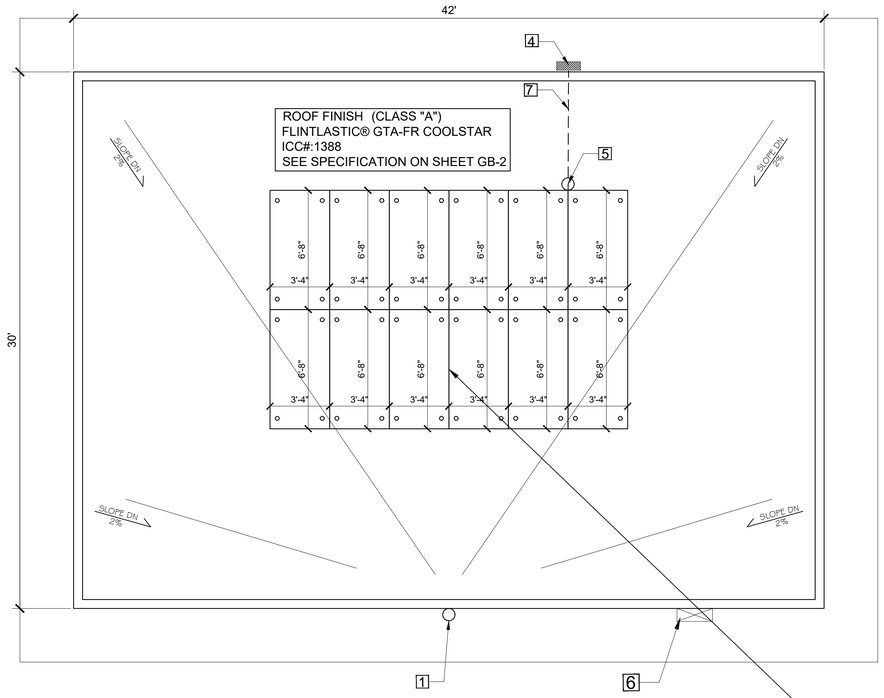
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SCALE:1/4"=1'-0"
JOB NO:24-076

A9

2ADU







ELECTRICAL SOLAR PANEL-12 panels per T24(CF1R PAGE 2 TWO ADU)

KEY NOTE:

1. RAIN DRAIN AND DOWN SPOUT CONNECTED TO PLANTER BOX
2. WATER HEATER LOCATION AT GARAGES
3. PATHWAY FOR ROUTING OF PLUMBING FROM THE SOLAR ZONE TO THE WATER HEATER AT GARAGES
4. LOCATION FOR INVERTERS AND METERING EQUIPMENT AND A PATHWAY FOR ROUTING FROM THE SOLAR ZONE TO THE MAIN SERVICE PANEL
5. METAL CONDUIT TERMINATION
6. ELECTRICAL PANEL 200AMP MIN
7. 1" METAL CONDUIT
8. AUTOMATIC CONTROLLER IRRIGATION

SST Smart Series NEW

"Simple to Set" Smart Indoor/Outdoor Irrigation Timer that automatically adjusts all year based on current weather.



The Simple-To-Set Smart Controller saves you time, money, and water with Self-Adjusting Weather Sensing Technology that is so simple to use, you can FORGET THE INSTRUCTIONS.

The Simple-To-Set Smart Controller automatically adjusts your watering schedule to take into account both the seasons and current weather conditions. This allows the controller to optimally water plants year round without the need to constantly reprogram the controller throughout the year. The SST accomplishes this with a combination of a built in nationwide historical weather database and a Smart Weather Sensor that is included with the product. Just enter your zip code and the watering schedule you prefer and the SST takes over making adjustments in the amount of watering either up or down as needed.

ROOF PLAN (2 ADU)

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

NORTH

REVISIONS	BY

LICENSED ARCHITECT NAMID DEHGHAN C 36150 SEPTEMBER 30, 2025 RENEWAL DATE STATE OF CALIFORNIA

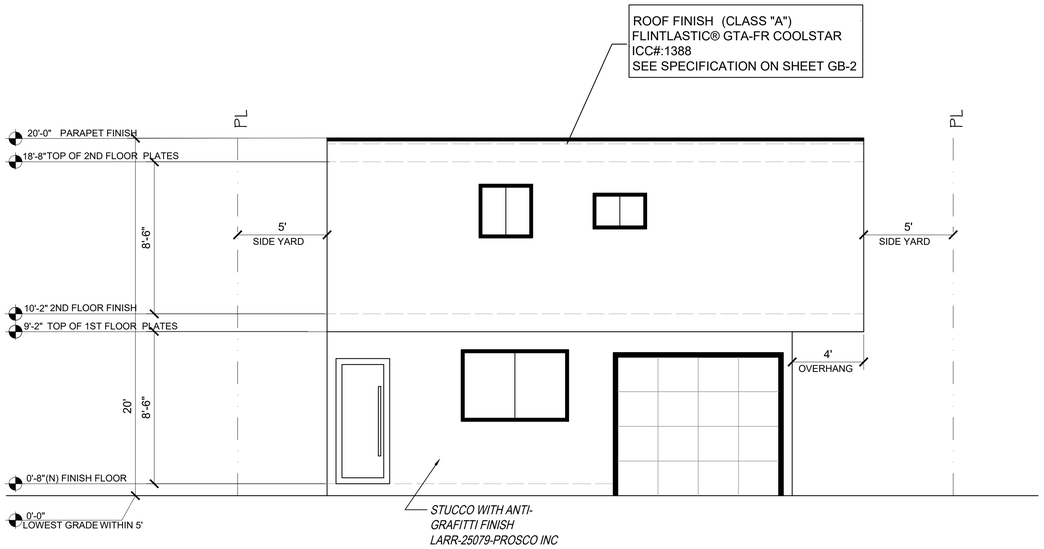
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DRAWING TITLE:
2 ADU
ROOF PLAN

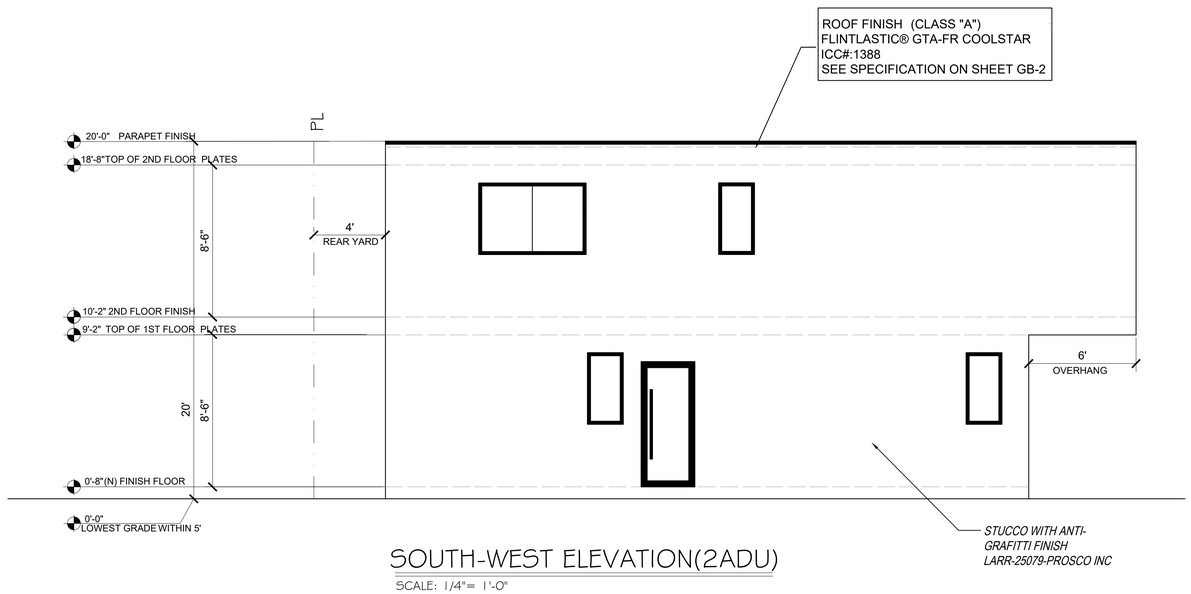
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SOUTH-EAST ELEVATION(2ADU)

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



SOUTH-WEST ELEVATION(2ADU)

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

INTERIOR ENVIRONMENT

3-THE MINIMUM CEILING HEIGHT FOR HABITABLE SPACE ,HALLWAYS,BATHROOMS, TOILET ROOMS,LAUNDRY ROOMS AND PORTIONS OF BASEMENTS CONTAINING THESE SPACES SHALL BE NOT LESS THAN 7 FEET(R305.1)

12-PROVIDE 15" MINIMUM BETWEEN THE CENTER OF WATER CLOSET TO ANY SIDE WALL.(CALIF.PLUMB.CODE407.6)

13-PROVIDE 24" CLEAR SPACE IN FRONT OF ANY WATER CLOSET.(CALIF.PLUMB.CODE 407.6)

14-BATHROOMS ,WATER CLOSET COMPARTMENTS AND OTHER SIMILAR ROOM SHALL BE PROVIDED NATURAL VENTILATION OR WITH MECHANICAL VENTILATION CAPABLE OF 50 CFM EXHAUSTED DIRECTLY TO THE OUTSIDE(R303.3)

15-HEATER SHALL BE CAPABLE OF MAINTAINING A MINIMUM ROOM TEMPERATURE OF 68 F AT A POINT 3 FEET ABOVE THE FLOOR AND 2 FEET FROM EXTERIOR WALLS IN ALL HABITABLE ROOMS AT THE DESIGN TEMPERATURE.(R303.9)

MEANS OF EGRES

7. Provide 32" wide doors to all interior accessible rooms. (6304.1)

8. Show on plans that the entry/exit door must open over a landing not more than 1.5" below the threshold. Exception: Providing the door does not swing over the landing. Landing shall be not more than 7.75" below the threshold. Storm and screen doors are permitted to swing over all exterior stairs and landings. (R311.3.1)

9. Landing at a door shall have a length measured in the direction of travel of no less than 36". (R311.3)

10. A landing shall be provided at the top and bottom of stairways. (R311.7.6)

BUILDING ENVELOPE

1. Provide a class A, B or C fire-retardant roof covering per Section R902.1.

2. Every dwelling unit shall be provided with a water closet, lavatory, bathtub or shower, and kitchen (R306.1 and R306.2).

4. Skylights and sloped glazing shall comply with Section R308.6.

5. Lots shall be graded to drain surface water away from foundation walls with a minimum fall of 6 inches within the first 10 feet (R401.3).

6. Dampproofing, where required, shall be installed with materials and as required in Section R406.1.

7. Vehicular access doors shall comply with Section R609.4.

8. Buildings shall have approved address numbers, building numbers or approved building identification placed in a position that is plainly legible and visible from the street or road fronting the property. (R319.1)

9. Protection of wood and wood based products from decay shall be provided in the locations specified per Section R317.1 by the use of naturally durable wood or wood that is preservative-treated in accordance with AWPA U1 for the species, product, preservative and end use. Preservatives shall be listed in Section 4 of AWPA U1.

10. Provide anti-Graffiti finish within the first 9 feet, measured from grade, at exterior walls and doors.

2ADU

REVISIONS

LICENSED ARCHITECT
KAMID DEHGHAN
C 35150
SEPTEMBER 30, 2025
RENEWAL DATE
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DRAWING TITLE:
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ELEVATIONS

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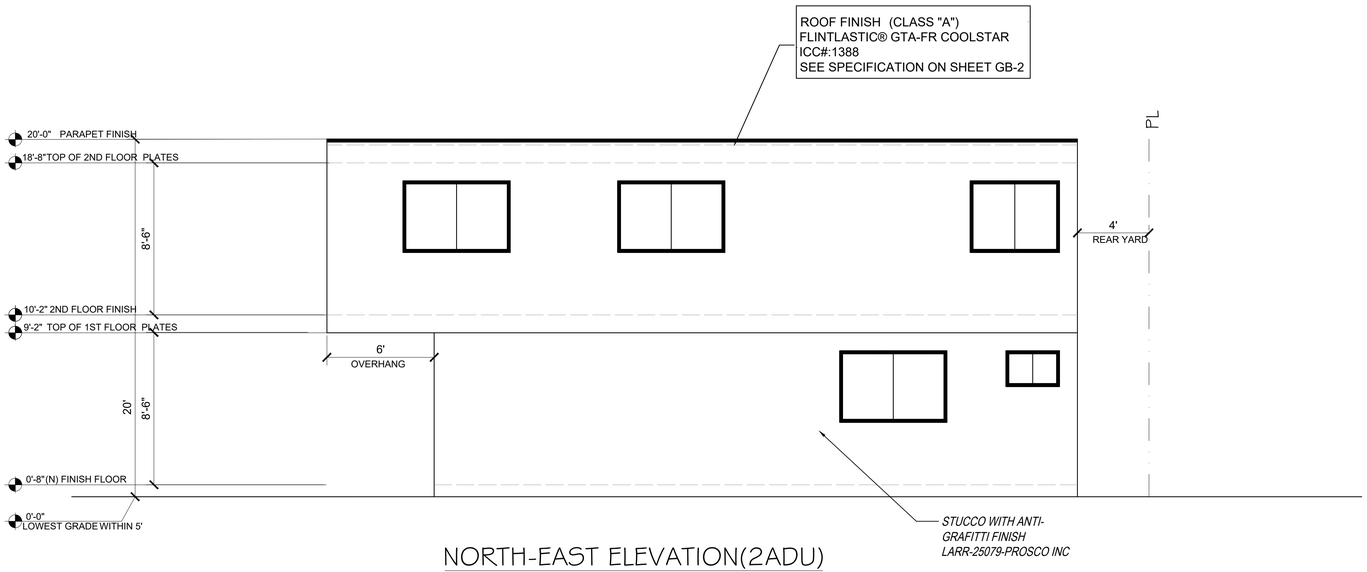
DRAWN:Z.SH

CHEKED:M.M

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

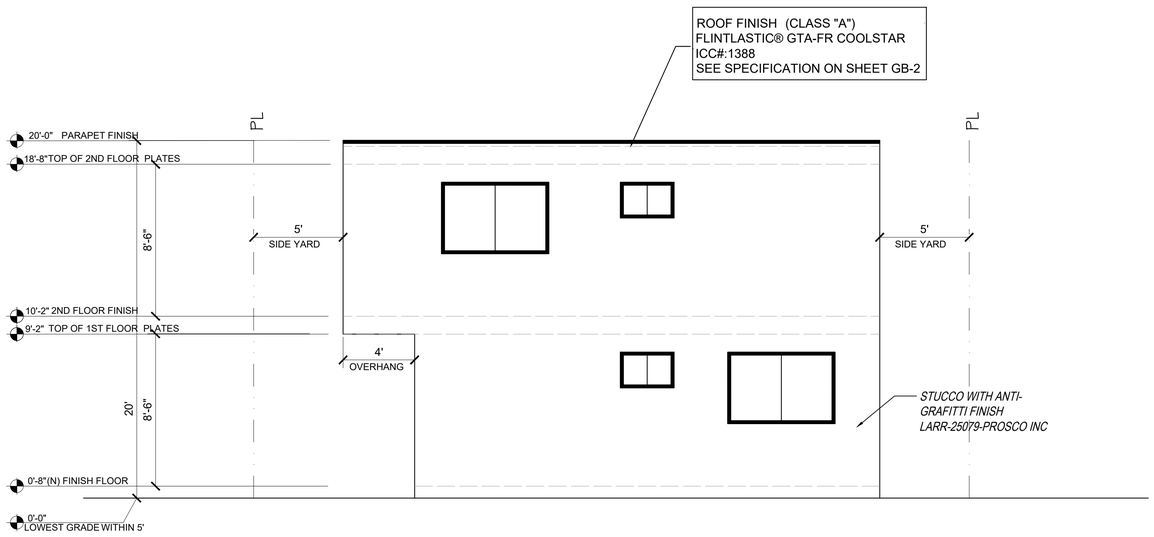
JOB NO:24-076

A11



NORTH-EAST ELEVATION(2ADU)

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



NORTH-WEST ELEVATION(2ADU)

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

2ADU

REVISIONS | BY

LICENSED ARCHITECT
RAMIN DEHGHAN
C 36150
EXPIRES 10-31-2025
REN/WA DATE
STATE OF CALIFORNIA

PASARGAD
ARCHITECTURE & DESIGN
PASARGAD
ARCHITECTURE & DESIGN LLC.

NEW 3 STORY DUPLEX IN FRONT :2639 & 2639 1/2 S LONGWOOD AVE LOS ANGELES CA 90016
NEW 2 STORY TWO ADU IN REAR :2637 & 2637 1/2 S LONGWOOD AVE LOS ANGELES CA 90016

DRAWING TITLE:
2ADU
ELEVATIONS

DATE:11/01/24

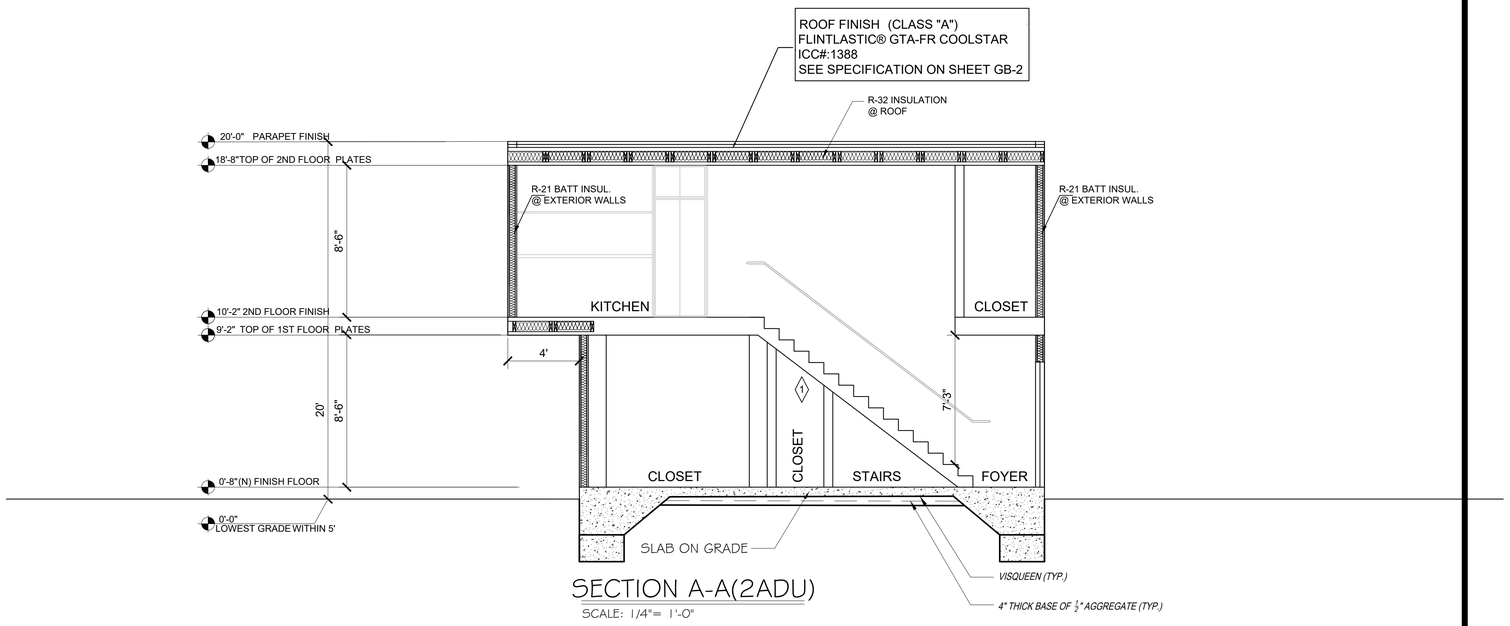
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SCALE:1/4"=1'-0"

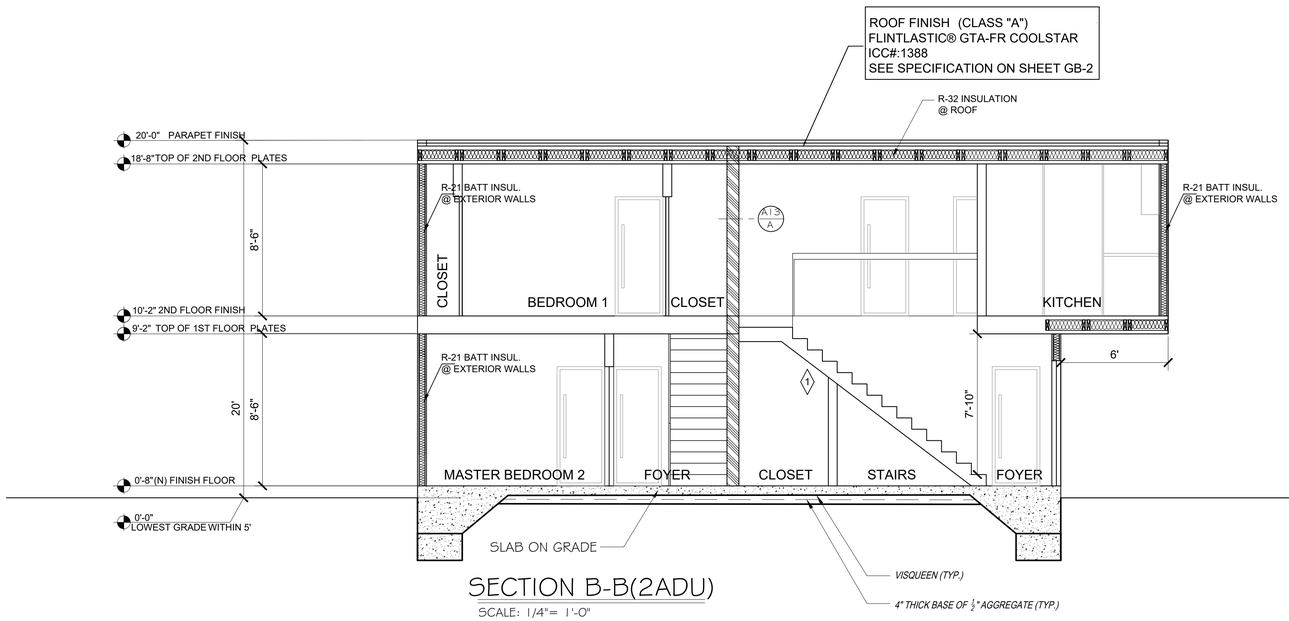
JOB NO:24-076

A12



SECTION A-A(2ADU)

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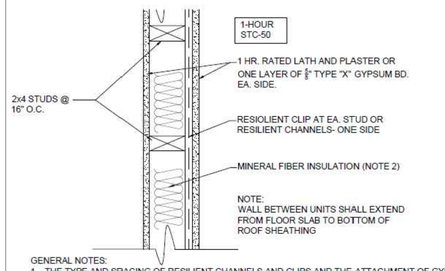


SECTION B-B(2ADU)

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

1 ENCLOSED USABLE SPACE UNDER INTERIOR STAIRS REQUIRES ONE-HOUR FIRE RESISTIVE CONSTRUCTION ON ENCLOSED SIDE. SHALL BE COVERED W /1/2" TYPE "X" GYP. BD.

NOTE:
1. ELECTRICAL OUTLET BOXES IN OPPOSITE FACES OF SEPARATION WALLS SHALL BE SEPARATED HORIZONTALLY BY 24" AND NOTE THAT BACK AND SIDES OF BOXES WILL BE SEALED WITH 1/8" RESILIENT SEALANT AND BACKED BY A MINIMUM OF 2" THICK MINERAL FIBER INSULATION. (TV, TELEPHONE AND INTERCOM OUTLETS MUST BE INSTALLED IN BOXES ACCORDINGLY.)



GENERAL NOTES:
1. THE TYPE AND SPACING OF RESILIENT CHANNELS AND CLIPS AND THE ATTACHMENT OF GYP BD. OR LATH SHALL BE AS REQUIRED FOR FIRE RATINGS.
2. THE MINERAL FIBER INSULATION SHALL HAVE THERMAL RESISTANCE R VALUE OF 11 OR GREATER AS DETERMINED BY THE FEDERAL SPECIFICATION RR-I-521B.
3. NO TEST IS ON FILE TO JUSTIFY AN STC 50 WITH ONE ⅝" TYPE "X" GYPSUM BD. EACH SIDE.
4. SMOKE AND FIRE DAMPERS TO BE INSTALLED AT PENETRATIONS AT ALL OCCUPANCY SEPARATION WALLS

A 1-HR & STC 50 SOUND RATED WALL PLAN VIEW

2ADU

REVISIONS | BY

LICENSED ARCHITECT SAMID DEHGHAN C 35150 SEPTEMBER 30, 2025 RENEWAL DATE STATE OF CALIFORNIA

PASARGAD
ARCHITECTURE & DESIGN
PASARGAD
ARCHITECTURE & DESIGN LLC.

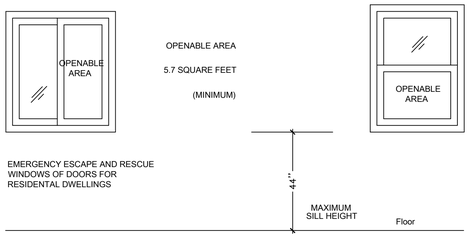
NEW 3 STORY DUPLEX IN FRONT :2639 & 2639 1/2 S LONGWOOD AVE LOS ANGELES CA 90016
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DRAWING TITLE:
2ADU
SECTIONS

DATE:11/01/24
DRAWN:Z.SH
CHEKED:M.M
SCALE:1/4"=1'-0"
JOB NO:24-076

A13

AT LEAST ONE OPERABLE EMERGENCY ESCAPE AND RESCUE WINDOW OR DOOR SHALL BE PROVIDED AT BASEMENT AND EVERY SLEEPING ROOM IT DWELLING UNIT.



EMERGENCY ESCAPE AND RESCUE WINDOWS

- THE MINIMUM NET CLEAR OPENABLE AREA SHALL BE NO LESS THAN 5.7 SQUARE FEET
- THE MINIMUM NET CLEAR OPENABLE WIDTH DIMENSION SHALL BE 20 INCHES
- THE MINIMUM NET CLEAR OPENABLE HEIGHT SHALL BE 24 INCHES
- WHERE EMERGENCY ESCAPE AND RESCUE OPENINGS ARE PROVIDED THEY SHALL HAVE A SILL HEIGHT OF NOT MORE THAN 44 INCHES (1118mm) ABOVE THE FLOOR
- A WINDOW WITH THE REQUIRED MINIMUM WIDTH 20" AND THE HEIGHT 24" DOES NOT PROVIDE THE REQUIRED OPENABLE AREA OF 5.7 SQUARE FEET
- THE EMERGENCY WINDOW OR DOOR SHALL BE OPERABLE FROM THE INSIDE TO PROVIDE A FULL, CLEAR OPENING WITHOUT THOUSE OF SEPARABLE TOOLS
- THE OPERABLE EMERGENCY WINDOWS OR DOORS SHALL OPEN DIRECTLY INTO A PUBLIC STREET, PUBLIC ALLEY, YARD OR EXIT COURT
- IT IS THE INTENT OF THE CODE THAT THE WINDOWS USED FOR EMERGENCY ESCAPE OR RESCUE SHALL BE LOCATED ON THE EXTERIOR OF THE BUILDING SO THAT RESCUE CAN BE EFFECTED FROM THE EXTERIOR

BUILDING ENVELOPE(SAFETY GLAZING)

Glazing in the following locations shall be safety glazing conforming to the human impact loads of Section R308.3 (see exceptions) (R308.4):

a. Fixed and operable panels of swinging, sliding and bi-fold door assemblies.

b. Glazing in an individual fixed or operable panel adjacent to a door where the nearest vertical edge is within a 24-inch arc of either vertical edge of the door in a closed position and whose bottom edge is less than 60 inches above the floor or walking surface.

c. Glazing in an individual fixed or operable panel that meets all of the following conditions: iii. Exposed area of an individual pane greater than 9 square feet. iv. Bottom edge less than 18 inches above the floor. v. Top edge greater than 36 inches above the floor. vi. One or more walking surfaces within 36 inches horizontally of the glazing.

d. Glazing in guards and railings.

e. Glazing in enclosures for or walls facing hot tubs, whirlpools, saunas, steam rooms, bathtubs and showers where the bottom edge of the glazing is less than 60 inches measured vertically above any standing or walking surface.

f. Glazing in walls and fences adjacent to indoor and outdoor swimming pools, hot tubs and spas where the bottom edge of the glazing is less than 60 inches above a walking surface and within 60 inches, measured horizontally and in a straight line, of the water's edge.

g. Glazing where the bottom exposed edge of the glazing is less than 36 inches above the plane of the adjacent walking surface of stairways, landings between flights of stairs and ramps.

h. Glazing adjacent to the landing at the bottom of a stairway where the glazing is less than 36 inches above the landing and within a 60 inch horizontal arc less than 180 degrees from the bottom tread nosing (R304.2).

NOTES FOR SECURITY DOORS (ENTRY DOORS ACCESSIBLE FROM PUBLIC WAY):

1. SWINGING WOOD DOORS SHALL BE OF CONSTRUCTION OF ONE OF THE FOLLOWING:
a. WOOD FLUSH TYPE DOORS SHALL BE 1 3/8 " THICK MINIMUM WITH SOLID CORE CONSTRUCTION
b. HOLLOW CORE DOORS OR DOORS LESS THAN 1 3/8" IN THICKNESS COVERED ON THE INSIDE FACE WITH 16 GAUGE SHEET METAL ATTACHED WITH SCREWS AT 6" ON CENTERS OF PERIMETER OR EQUIVALENT.
c. WOOD PANEL TYPE DOORS WITH PANELS FABRICATED OF LUMBER NOT LESS THAN 9/16" THICKNESS, PROVIDED SHAPED PORTIONS OF THE PANELS ARE NOT LESS THAN 1/4" THICK. INDIVIDUAL PANELS SHALL NOT EXCEED 300 SQ. FT. IN AREA. STILES AND RAILS SHALL BE OF SOLID LUMBER IN THICK- NEST WITH OVERALL DIMENSIONS OF NOT LESS THAN 1 3/5" AND 3" IN WIDTH. MULLIONS SHALL BE CONSIDERED A PART OF ADJACENT PANELS UNLESS SIZED AS REQUIRED HEREIN FOR STILES AND RAILS EXCEPT MULLIONS NOT OVER 18" LONG MAY HAVE AN OVERALL WIDTH OF NOT LESS THAN 2". CARVED AREAS SHALL HAVE A THICKNESS OF NOT LESS THAN 3/8" .
2. ALL ENTRY DOORS SHALL BE PROVIDED W/ A DOOR VIEWER, VIEW PORTS, OR VIEWING WINDOWS. SUCH VIEW PORTS OR WINDOWS SHALL BE FULLY TEMPERED GLASS.
3. GLAZED OPENING WITHIN 40" OF THE DOOR LOCK WHEN THE DOOR IS IN THE CLOSED POSITION SHALL BE FULLY TEMPERED GLASS OR APPROVED BURGLARY RESISTANT MATERIAL, OR SHALL BE PROTECTED BY METAL BARS, SCREENS OR GRILLS HAVING A MAXIMUM OPENING OF 2".
4. DOOR STOPS OF IN-SWINGING DOORS SHALL BE OF ONE-PEICE CONSTRUCTION WITH THE JAMB OR JOINED BY RABBET TO THE JAMB.
5. ALL PIN-TYPE HINGES WHICH ARE ACCESSIBLE FROM THE OUTSIDE THE SECURED AREA WHEN THE DOOR IS CLOSED SHALL HAVE NON-REMOVABLE HINGE PINS. IN ADDITION, THEY SHALL HAVE MINIMUM 1/4" DIAMETER STEEL JAMB STUD WITH 1/4" MINIMUM PROTECTION UNLESS THE HINGES ARE SHAPED TO PREVENT REMOVAL OF THE DOOR IF THE HINGE PINS ARE REMOVED.
6. THE STRIKE PLATE FOR LATCHES AND THE HOLDING DEVICE FOR PROJECTING DEAD BOLTS IN WOOD CONSTRUCTION SHALL BE SECURED TO THE JAMB AND THE WALL FRAMING WITH SCREWS NOT LESS THAN 2 1/2" IN LENGTH.
7. SINGLE SWING DOOR, THE ACTIVE LEAF OF A PAIR OF DOORS, & BOTTOM LEAF OF DUTCH DOORS SHALL BE EQUIPPED W/ A DEAD BOLT & DEADLOCKING LATCH. DEAD BOLT & LATCH MAY BE SIDE OF THE DOOR & OPEN ABLE FROM INTERIOR SIDE BY A DEVICE WHICH DOES NOT REQUIRE A KEY, SPECIAL KNOWLEDGE, OR SPECIAL EFFORT TO OPERATE.
8. DEAD BOLTS SHALL CONTAIN HARDENED INSERTS TO REPEL CUTTING TOOLS. A STRAIGHT DEAD BOLT SHALL HAVE A MINIMUM THROW OF 1" AND AN EMBEDMENT OF NOT LESS THAN 5/8" INTO THE HOLDING DEVICE RECEIVING PROJECTED BOLT.
9. A HOOK-SHAPED OR AN EXPANDING-LUG DEAD BOLT SHALL HAVE A MINIMUM THROW OF 3/4".
10. CYLINDER GUARDS SHALL BE INSTALLED ON ALL CYLINDER LOCKS WHENEVER THE CYLINDER LOCKS WHENEVER THE CYLINDER PROJECTS BEYOND THE FACE OF THE DOOR OR IS OTHERWISE ACCESSIBLE TO GRIPPING TOOLS.
11. SLIDING DOORS AND WINDOWS SHALL BE EQUIPPED W/ LOCKING DEVICES PROVIDED WITH A DEVICE IN UPPER CHANNEL OF THE MOVING PANEL TO PROHIBIT RAISING AND REMOVING OF THE MOVING PANEL IN THE CLOSED OR PARTIALLY OPEN POSITION.
12. EXTERIOR DOORS SHALL BE OPENABLE FROM INSIDE WITHOUT THE USE OF A KEY, SPECIAL KNOWLEDGE THERE SHALL BE A READILY VISIBLE, DURABLE SIGN ON EXIT DOORS STATING " THIS DOOR TO REMAIN UNLOCKED DURING BUSINESS HOURS", SIGN SHALL BE IN LETTERS NOT LESS THAN 1 INCH HIGH ON A CONTRASTING BACKGROUND.
13. THE EXTERIOR DOOR MUST OPEN OVER A LANDING NOT MORE THAN 1" BELOW THRESHOLD
14. DOORS BETWEEN GARAGE AND THE DWELLING UNIT SHALL HAVE A MINIMUM FIRE PROTECTION RATING OF 20 MINUTES AND SELF-CLOSING AND SELF-LATCHING DEVICES, OR SOLID WOOD OR SOLID HONEYCOMB CORE STEEL NOT LESS THAN 1 3/8 " THICK. (R302.5.1)

GLAZING:

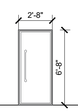
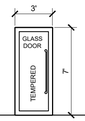
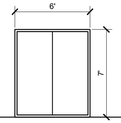
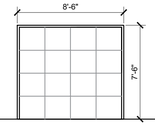
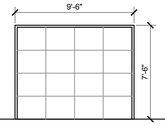
1. GLAZED OPENING WITHIN 40" OF THE DOOR LOCK WHEN THE DOOR IS IN THE CLOSED POSITION SHALL BE FULLY TEMPERED GLASS OR APPROVED BURGLARY RESISTANT MATERIAL, OR SHALL BE PROTECTED BY METAL BARS, SCREENS OR GRILLS HAVING A MAXIMUM OPENING OF 2". THE PROVISIONS OF THIS SECTION SHALL NOT APPLY TO VIEW PORTS OR WINDOWS WHICH DO NOT EXCEED 2" OF THEIR GREATEST DIMENSIONS 91.6720
2. GLAZED OPENING WITHIN 18" OF WALKING SURFACE SHALL BE TEMPERED OR LAMINATED GLASS.

HARDWARE NOTES APPLICABLE TO ALL DOORS:

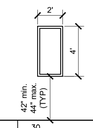
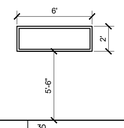
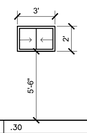
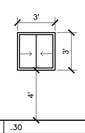
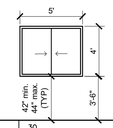
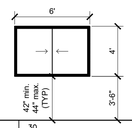
1. HINGES USED FOR WOOD DOORS SHALL BE BLABBERING TYPE, STAINLESS STEEL AS MANUF. BY "STANLEY".
2. 2. DOOR HANDLES SHALL BE HANDICAP APPROVED & CENTERED BETWEEN 30" - 44" ABOVE FLOOR.

DOOR & WINDOW SCHEDULE :

DOORS:

2868HC	3070SC	6070SD	8676GD	9676GD
				
INTERIOR	EXTERIOR	BALCONY	CARAGE	CARAGE
SPECIFICATION: SINGLE PANEL WOOD FRAME; STAINED FINISH. COLOR TO BE APPROVED BY THE ARCHITECT	SPECIFICATION: WOOD FRAME BLACK FINISH OR 2" BLACK ALUMINUM FRAME WITH BLACK REFLECTIVE GLASS. COLOR TO BE APPROVED BY THE ARCHITECT	SPECIFICATION: SLIDING DOOR; 2" BLACK ALUM. FRAME. COLOR TO BE APPROVED BY THE ARCHITECT	SPECIFICATION: GARAGE SECTIONAL DOOR; 3" BLACK ALUM. FRAME. COLOR TO BE APPROVED BY THE ARCHITECT	SPECIFICATION: GARAGE SECTIONAL DOOR; 3" BLACK ALUM. FRAME. COLOR TO BE APPROVED BY THE ARCHITECT
LOCATION: BEDROOMS, BATHROOMS, CLOSET	LOCATION: ENTRANCE, BALCONY	LOCATION: BALCONY	LOCATION: GARAGE	LOCATION: GARAGE
NUMBER OF SETS: 30 SETS	NUMBER OF SETS: 4 SET	NUMBER OF SETS: 2 SET	NUMBER OF SETS: 1 SET	NUMBER OF SETS: 1 SET
REMARKS:	REMARKS:	REMARKS:	REMARKS:	REMARKS:

WINDOWS:

2040CS	6020FX	3020SL	3030SL	5040SL	6040SL
					
U-F: .30	U-F: .30	U-F: .30	U-F: .30	U-F: .30	U-F: .30
SHGC: .21	SHGC: .21	SHGC: .21	SHGC: .21	SHGC: .21	SHGC: .21
MANUFACTURER: MILGUARD OR EQUAL	MANUFACTURER: MILGUARD OR EQUAL	MANUFACTURER: MILGUARD OR EQUAL	MANUFACTURER: MILGUARD OR EQUAL	MANUFACTURER: MILGUARD OR EQUAL	MANUFACTURER: MILGUARD OR EQUAL
SPECIFICATION: CASEMENT GLASS WINDOWS; 2" BLACK ALUM. FRAME. COLOR TO BE APPROVED BY THE ARCHITECT	SPECIFICATION: FIXED GLASS WINDOWS; 2" BLACK ALUM. FRAME. COLOR TO BE APPROVED BY THE ARCHITECT	SPECIFICATION: SLIDING GLASS WINDOWS; 2" BLACK ALUM. FRAME. COLOR TO BE APPROVED BY THE ARCHITECT	SPECIFICATION: SLIDING GLASS WINDOWS; 2" BLACK ALUM. FRAME. COLOR TO BE APPROVED BY THE ARCHITECT	SPECIFICATION: SLIDING GLASS WINDOWS; 2" BLACK ALUM. FRAME. COLOR TO BE APPROVED BY THE ARCHITECT	SPECIFICATION: SLIDING GLASS WINDOWS; 2" BLACK ALUM. FRAME. COLOR TO BE APPROVED BY THE ARCHITECT
LOCATION: LIVING, BEDROOM, STAIRCASE	LOCATION: BEDROOM	LOCATION: BATHROOM	LOCATION: KITCHEN	LOCATION: DINING	LOCATION: BEDROOM, LIVING
NUMBER OF SETS: 16 SET	NUMBER OF SETS: 1 SET	NUMBER OF SETS: 9 SET	NUMBER OF SETS: 2 SET	NUMBER OF SETS: 2 SET	NUMBER OF SETS: 13 SET
REMARKS: LOOK AT ELEVATIONS FOR HEIGHT	REMARKS:	REMARKS:	REMARKS:	REMARKS: EGRESS WINDOW	REMARKS: EGRESS WINDOW

REVISIONS | BY

LICENSED ARCHITECT HAMID DEHGHAN C-35150 RENEWAL SEPTEMBER 30, 2025 STATE OF CALIFORNIA

PASARGAD ARCHITECTURE & DESIGN

PASARGAD ARCHITECTURE & DESIGN LLC.

NEW 3 STORY DUPLEX IN FRONT :2639 & 2639 1/2 S LONGWOOD AVE LOS ANGELES CA 90016
NEW 2 STORY TWO ADU IN REAR :2637 & 2637 1/2 S LONGWOOD AVE LOS ANGELES CA 90016

DRAWING TITLE: DETAILS

DATE:11/01/24

DRAWN:Z.SH

CHEKED:M.M

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

JOB NO:24-076

A14

STORM WATER POLLUTION CONTROL
(2023 Los Angeles Green Building Code)

FORM GRN 1

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/grading plans and represents the minimum standards of good housekeeping which 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. (Order No. 01-182, NPDES Permit No. CAS004001 – Part 5: Definitions)

1. Eroded sediments and pollutants shall be retained on site and shall not be transported from the site via sheet flow, swales, 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 nor 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 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.

As a covered entity under Title II of the Americans with Disabilities Act, the City of Los Angeles does not discriminate on the basis of disability and, upon request, will provide reasonable accommodation to ensure equal access to its programs, services and activities.

2023 Los Angeles Green Building Code

FORM GRN 4

MANDATORY REQUIREMENTS CHECKLIST
NEWLY CONSTRUCTED RESIDENTIAL BUILDINGS
(COMPLETE AND INCORPORATE THIS FORM INTO THE PLANS)

Permit # _____ - _____ - _____ Date: _____

ITEM #	CODE SECTION	REQUIREMENTS	REFERENCE SHEET (Sheet # or N/A)	COMMENTS (e.g. note #, detail # or reason for N/A)
		PLANNING AND DESIGN		
1	4.106.2	Storm water drainage and retention during construction	GB -1	GRN1
2	4.106.3	Grading and paving	A0	SITE PLAN
3	4.106.4	Electric vehicle (EV) charging	A7	FIRST FLOOR PLAN
4	4.106.5	Cool roof for reduction of heat island effect	A3-A10-GB-2	ROOF MATERIAL
5	4.106.7	Reduction of heat island effect for non-roof areas	A0	UNCOLORED CONC
		ENERGY EFFICIENCY		
6	4.211.4	Solar ready buildings	A3-A10	ROOF PLAN
		WATER EFFICIENCY & CONSERVATION		
7	4.303.1	Water conserving plumbing fixtures and fittings	GB-1	GRN-14 #5 / GRN-16
8	4.303.1.3.2	Multiple showerheads serving one shower	GB-1	GRN-14 #6
9	4.303.3	Water submeters	GB-1	GRN 18R #1
10	4.303.4	Water use reduction	GB-1	GRN 18R #2
11	4.304.1	Outdoor water use in landscape areas	GB-1	GRN 18R #3
12	4.304.2	Irrigation controllers	A0 & GB-1	GRN 18R #12
13	4.304.3	Metering outdoor water use	N/A	----------
14	4.304.4	Exterior faucets	N/A	----------
15	4.304.5	Swimming pool covers	N/A	----------
16	4.305.1	Graywater ready	GB-1	GRN 18R #7
17	4.305.2	Recycled water supply to fixtures	GB-1	GRN 18R #8
18	4.305.3.1	Cooling towers (buildings ≤ 25 stories)	N/A	----------
19	4.305.3.2	Cooling towers (buildings > 25 stories)	N/A	----------
20	4.305.4	Groundwater discharge	GB-1	GRN 18R #11
		MATERIAL CONSERVATION & RESOURCE EFFICIENCY		
21	4.406.1	Rodent proofing	GB-1	GRN-14 #9
22	4.407.3	Flashing details	GB-2- D1	DETAIL #5

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2023 Los Angeles Green Building Code

FORM GRN 4

ITEM #	CODE SECTION	REQUIREMENTS	REFERENCE SHEET (Sheet # or N/A)	COMMENTS (e.g. note #, detail # or reason for N/A
23	4.407.4	**Material protection**	GB-1	GRN-10 # 10
24	4.408.1	**Construction waste reduction**	GB-1	GRN-14#11
25	4.410.1	**Operation and maintenance manual**	GB-1	GRN-14 #12
		ENVIRONMENTAL QUALITY		
26	4.503.1	**Fireplaces and woodstoves**	N/A	NO FIREPLACE
27	4.504.1	**Covering of duct openings and protection of mechanical equipment during construction**	GB-1	GRN -14
28	4.504.2	**Finish material pollutant control**	GB-1	GRN -11
29	4.504.2.1	– **Adhesives, sealants, caulks**	GB-1	GRN-14 #15,#16GRN-11
30	4.504.2.2	– **Paints and coatings**		
31	4.504.2.3	– **Aerosol paints and coatings**		
32	4.504.2.4	– **Verification**	GB-1	GRN-14 #16,21
33	4.504.3	**Carpet systems**	GB-1	GRN-14#17
34	4.504.3.1	**Carpet cushion**	GB-1	GRN-14#18
35	4.504.4	**Resilient flooring systems**	GB-1	GRN-14#19
36	4.504.5	**Composite wood products**	GB-1	GRN-14#20
37	4.504.6	**Filters**	N/A	NO FILTER
38	4.505.2.1	**Capillary break**	S1-S3 -SD3	FOUNDATION & DETA
39	4.505.3	**Moisture content of building materials**	GB-1	
40	4.506.1	**Bathroom exhaust fans**	A1-A2-A7-A8	1ST2ND FLOOR PLAN
41	4.507.2	**Heating and air-conditioning system design**	GB-1	GRN-14#27

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VOC AND FORMALDEHYDE LIMITS
2023 Los Angeles Green Building Code
(Incorporate this form into the plans)

FORM GRN 11

2020 Los Angeles Green Building Code Tables 4.504.1, 4.504.2, 4.504.3, 4.504.5, 5.504.4.1, 5.504.4.2, 5.504.4.3, 5.504.4.5

VOC CONTENT LIMITS FOR ARCHITECTURAL COATINGS [3,3]
Grams of VOC per Liter of Coating, Less Water and Less Exempt Compounds

COATING CATEGORY [3,3]	CURRENT LIMIT
Flat coatings	50
Nonflat coatings	50
Nonflat-high gloss coatings	50
Specialty Coatings	
Aluminum roof coatings	100
Basement specialty coatings	400
Bituminous roof coatings	50
Bituminous roof primers	350
Bond breakers	350
Concrete curing compounds	100
Concrete curing compounds, Roadways & Bridges	350
Concrete/masonry sealers	100
Driveway sealers	50
Dry fog coatings	50
Faux finishing coatings	
Clear Top Coat	100
Decorative Coatings	350
Glazes	350
Japan	350
Trowel Applied Coatings	50
Fire resistive coatings	150
Floor coatings	50
Form-release compounds	100
Graphic arts coatings (sign paints)	200
High lanparelture coatings	420
Industrial maintenance coatings	100
Low solids coatings	120
Magnesite cement coatings	450
Mastic texture coatings	100
Metallic pigmented coatings	150
Multicolor coatings	250
Pretreatment wash primers	420
Primers, sealers, and undercoaters	100
Reactive penetrating sealers	350
Recycled coatings	250
Roof coatings	50
Roof coatings, aluminum	100
Rust preventative coatings	100
Shellacs	
Clear	730
Opaque	550
Specialty primers, sealers and undercoaters	100
Stains	100
Stains, Interior	250
Stone consolidants	450
Swimmsig pool coatings	340
Traffic marking coatings	100
Tub and tile refinish coatings	420
Waterproofing membranes	100
Wood coatings	275
Wood preservatives	350
Zinc-rich primers	100

[1] Grams of VOC per liter of coating, including water and including exempt compounds.
[2] The specified limits remain in effect unless revised limits are listed in subsequent columns in the table.
[3] Some values in this table are derived from those specified by the California Air Resources Board, Architectural Coatings Suggested Control Measure, February 5, 2016. More information is available from the Air Resources Board.

FORMALDEHYDE LIMITS[1]
Maximum Formaldehyde Emissions in Parts per Million

PRODUCT	CURRENT LIMIT
Hardwood plywood veneer core	0.05
Hardwood plywood composite core	0.05
Particleboard	0.09
Medium density fiberboard	0.11
Thin medium density fiberboard[2]	0.13

[1] Values in this table are derived from those specified by the California Air Resources Board, Air Toxics Control Measure for Composite Wood as tested in accordance with ASTM E 1333. For additional information, see *California Code of Regulations*, Title 17, Sections 93120 through 93120.12.
[2] Thin medium density fiberboard has a maximum thickness of $\frac{5}{16}$ inches (8 mm).

SEALANT VOC LIMIT
Less Water and Less Exempt Compounds in Grams per Liter

SEALANTS	CURRENT VOC LIMIT
Architectural	50
Marine deck	760
Nonmembrane roof	300
Roadway	250
Single-ply roof membrane	450
Other	420
SEALANT PRIMERS	
Architectural	
Nonporous	250
Porous	775
Modified bituminous 500	500
Marine deck	760
Other	750

Note: For additional information regarding methods to measure the VOC content specified in these tables, see South Coast Air Quality Management District Rule 1168.

ADHESIVE VOC LIMIT [1,2]
Less Water and Less Exempt Compounds in Grams per Liter

ARCHITECTURAL APPLICATIONS	CURRENT VOC LIMIT
Indoor carpet adhesives	50
Carpet pad adhesives	50
Outdoor carpet adhesives	150
Wood flooring adhesive	100
Rubber floor adhesives	60
Subfloor adhesives	50
Ceramic tile adhesives	65
VCT and asphalt tile adhesives	50
Drywall and panel adhesives	50
Cove base adhesives	50
Multipurpose construction adhesives	70
Structural glazing adhesives	100
Single-ply roof membrane adhesives	250
Other adhesives not specifically listed	50
SPECIALTY APPLICATIONS	
PVC welding	510
CPVC welding	490
ABS welding	325
Plastic cement welding	100
Adhesive primer for plastic	550
Contact adhesive	80
Special purpose contact adhesive	250
Structural wood member adhesive	140
Top and trim adhesive	250
SUBSTRATE SPECIFIC APPLICATIONS	
Metal to metal	30
Plastic foams	50
Porous material (except wood)	50
Wood	30
Fiberglass	80

[1] If an adhesive is used to bond dissimilar substrates together, the adhesive with the highest VOC content shall be allowed.
[2] For additional information regarding methods to measure the VOC content specified in this table, see South Coast Air Quality Management District Rule 1168, http://www.arb.ca.gov/DRDB/SC/CURHTML/R1168.PDF.

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2023 Los Angeles Green Building Code

FORM GRN 14

GREEN BUILDING CODE PLAN CHECK NOTES
RESIDENTIAL BUILDINGS

1. For each new dwelling and townhouse, provide a listed raceway that can accommodate a dedicated 208/240 volt branch circuit. The raceway shall not be less than trade size 1 (nominal 1-inch inside diameter), 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. The panel or subpanel shall provide capacity to install a 40-ampere minimum dedicated branch circuit and space(s) reserved to permit installation of a branch circuit overcurrent protective device. The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging as "EV CAPABLE". The raceway termination location shall be permanently and visibly marked as "EV CAPABLE". (4.106.4.1)
2. For common parking area serving R-occupancies, the electrical system shall have sufficient capacity to simultaneously charge all designated EV spaces at the full rated amperage of the Electric Vehicle Supply Equipment (EVSE). Design shall be based upon a 40-ampere minimum branch circuit. The raceway shall not be less than trade size 1 (nominal 1-inch inside diameter), 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 and related components that are planned to be installed underground, enclosed, inaccessible or in concealed areas and spaces shall be installed at the time of original construction. The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging purposes as "EV CAPABLE" in accordance with the Los Angeles Electrical Code. (4.106.4.2)
3. Residential Buildings 1-3 stories in height with roof slope < 2:12 shall have a 3-year aged SRI value of at least 78 or both a 3-year aged solar reflectance of at least 0.65 and a thermal emittance of at least 0.85. Roofs with slopes ≥ 2:12 shall have an aged SRI value of at least 20 or both a 3-year solar reflectance of at least 0.25 and a thermal emittance of at least 0.85.

   Residential Buildings 4+ stories in height with roof slope < 2:12 shall have a 3-year aged SRI value of at least 78 or both a 3-year aged solar reflectance of at least 0.65 and a thermal emittance of at least 0.75. Roofs with slopes ≥ 2:12 shall have an aged SRI value of at least 20 or both a 3-year solar reflectance of at least 0.25 and a thermal emittance of at least 0.75. (4.106.5)
4. The required hardscape used to reduce heat island effects shall have a solar reflectance value of at least 0.30 as determined per ASTM E1918 or ASTM C1549. (4.106.7)
5. The flow rates for all plumbing fixtures shall comply with the maximum flow rates in Section 4.303.1. (4.303.1)
6. 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 2.0 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)
7. Installed automatic irrigation system controllers shall be weather- or soil-based controllers. (MWELO, § 492.7)
8. For projects that include landscape work, the *Landscape Certification*, Form GRN 12, shall be completed prior to final inspection approval. (State Assembly Bill No. 1881)
9. Annular spaces around pipes, electric cables, conduits, or other openings in the building's envelope at exterior walls shall be protected against the passage of rodents by closing such openings with cement mortar, concrete masonry, or metal plates. Piping prone to corrosion shall be protected in accordance with Section 313.0 of the Los Angeles Plumbing Code. (4.406.1)
10. Materials delivered to the construction site shall be protected from rain or other sources of moisture. (4.407.4)
11. Only a City of Los Angeles permitted hauler will be used for hauling of construction waste. (4.408.1)
12. 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)
13. 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)
14. 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)
15. 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.
16. The *VOC Content Verification Checklist*, Form GRN 2, 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. (4.504.2.4)
17. All new carpet and carpet cushions installed in the building interior shall meet the testing and product requirements of one of the following (4.504.3):
    a. Carpet and Rug Institute's Green Label Plus Program
    b. California Department of Public Health's Specification 01350
    c. NSF/ANSI 140 at the Gold level
    d. Scientific Certifications Systems Indoor Advantage™ Gold
18. 80% of the total area receiving resilient flooring shall comply with one or more of the following (4.504.4):
    a. VOC emission limits defined in the CHPS High Performance Products Database
    b. Certified under UL GREENGUARD Gold
    c. Certification under the Resilient Floor Covering Institute (RFCI) FloorScore program
    d. Meet the California Department of Public Health's Specification 01350
19. 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.
20. The *Formaldehyde Emissions Verification Checklist*, Form GRN 3, shall be completed prior to final inspection approval. (4.504.5)
21. Mechanically ventilated buildings shall provide regularly occupied areas of the building with a MERV 13 filter for outside and return air. Filters shall be installed prior to occupancy and recommendations for maintenance with filters of the same value shall be included in the operation and maintenance manual. (4.504.6)
22. A 4-inch thick base of ½ inch or larger clean aggregate shall be provided for proposed slab on grade construction. A vapor barrier shall be provided in direct contact with concrete for proposed slab on grade construction. (4.505.2.1)
23. 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)
24. Newly installed bathroom exhaust fans shall be ENERGY STAR compliant and be ducted to terminate to the outside of the building. Fans must be controlled by a humidistat which shall be readily accessible. Provide the manufacturer's cut sheet for verification. (4.506.1)
25. A copy of the construction documents or a comparable document indicating the information from Energy Code Sections 110.10(b) through 110.10(c) shall be provided to the occupant." (Energy Code §110.10(d))
26. 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)

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PLUMBING FIXTURE FLOW RATES
Residential Occupancies
2023 Los Angeles Green Building Code
(Incorporate this form into the plans)

FORM GRN 16

SECTION 4.303.1
WATER REDUCTION FIXTURE FLOW RATES

FIXTURE TYPE	MAXIMUM ALLOWABLE FLOW RATE
Showerheads	1.8 gpm @ 80 psi
Lavatory faucets, residential	1.2 gpm @ 60 psi[1,3]
Lavatory faucets, nonresidential	0.4 gpm @ 60 psi[1,3]
Kitchen faucets	1.5 gpm @ 60 psi[2,4]
Metering Faucets	0.2 gallons/cycle
Gravity tank type water closets	1.28 gallons/flush[5]
Flushometer tank water closets	1.28 gallons/flush[5]
Flushometer valve water closets	1.28 gallons/flush[5]
Urinals	0.125 gallons/flush
Clothes Washers	ENERGY-STAR certified
Dishwashers	ENERGY-STAR certified

[1] Lavatory Faucets shall not have a flow rate less than 0.8 gpm at 20 psi.
[2] Kitchen faucets may temporarily increase flow above the maximum rate, but not above 2.2gpm @ 60psi and must default to a maximum flow rate of 1.8 gpm @ 60psi.
[3] Where complying faucets are unavailable, aerators or other means may be used to achieve reduction.
[4] Kitchen faucets with a maximum 1.8 gpm flow rate may be installed in buildings that have water closets with a maximum flush rate of 1.06 gallons/flush installed throughout.
[5] Includes single and dual flush water closets with an effective flush of 1.28 gallons or less.
Single Flush Toilets - The effective flush volume shall not exceed 1.28 gallons (4.8 liters). The effective flush volume is the average flush volume when tested in accordance with ASME A112.19.233.2.
Dual Flush Toilets - The effective flush volume shall not exceed 1.28 gallons (4.8 liters). The effective flush volume is defined as the composite, average flush volume of two reduced flushes and one full flush. Flush volumes will be tested in accordance with ASME A112.19.2 and ASME A112.19.14.

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2023 Los Angeles Green Building Code

FORM GRN 18R

WATER CONSERVATION NOTES - ORDINANCE #184248
RESIDENTIAL BUILDINGS

PLUMBING SYSTEM

1. Multi-family dwellings not exceeding three stories and containing 50 units or less shall install a separate meter or submeter within common areas and within each individual dwelling unit. (4.303.3)
2. Water use reduction shall be met by complying with one of the following:
   A. Provide a 20% reduction in the overall potable water use within the building. The reduction shall be based on the maximum allowable water use for plumbing fixtures and fittings as required by the Los Angeles Plumbing Code. Calculations demonstrating a 20% reduction in the building "water use baseline", as established in Table 4.303.4.1, shall be provided; or
   B. New fixtures and fittings shall comply with the maximum flow rates shown in Table 4.303.4.2, or
   C. Plumbing fixtures shall use recycled water.
   Exception: Fixture replacements (4.303.4)
3. New building on a site with 500 square feet or more of cumulative landscape area shall have separate meters or submeters for outdoor water use. (4.304.3)
4. Additions and alterations on a site with 500 square feet or more of cumulative landscape area and where the entire potable water system is replaced, shall have separate meters or submeters for outdoor water use. (4.304.3)
5. In other than single family dwellings, locks shall be installed on all publicly accessible exterior faucets and hose bibs. (4.304.4)
6. Provide a cover having a manual or power-operated reel system in any permanently installed outdoor in-ground swimming pool or spa in one- and two-family dwellings. For irregular-shaped pools where it is infeasible to cover 100% of the pool due to its irregular shape, a minimum of 80% of the pool shall be covered. (4.304.5)
7. Except as provided in this section, for sites with over 500 square feet of landscape area, alternate waste piping shall be installed to permit discharge from the clothes washer, bathtub, showers, and bathroom/restrooms wash basins to be used for a future graywater irrigation system. (4.305.1)
8. Except as provided in this section, where City-recycled water is available within 200 feet of the property line, water closets, urinals, floor drains, and process cooling and heating in the building shall be supplied from recycled water and shall be installed in accordance with the Los Angeles Plumbing Code. (4.305.2)
9. In new buildings of 25 stories or less, the cooling towers shall comply with one of the following:
   A. Shall have a minimum of 6 cycles of concentration (blowdown); or
   B. A minimum of 50% of the makeup water supply to the cooling towers shall come from non-potable water sources, including treated backwash. (4.305.3.1)
10. In new buildings over 25 stories, the cooling towers shall comply with all of the following:
    A. Shall have a minimum of 6 cycles of concentration (blowdown); and
    B. 100% of the makeup water supply to the cooling towers shall come from non-potable water sources, including treated backwash. (4.305.3.2)
11. Where groundwater is being extracted and discharged, develop and construct a system for onsite reuse of the groundwater. Alternatively, the groundwater may be discharged to the sewer. (4.305.4)
12. Provide a hot water system complying with one of the following (Los Angeles Plumbing Code Section 610.4.1):
    A. The hot water system shall not allow more than 0.6 gallons of water to be delivered to any fixture before hot water arrives.
    B. Where a hot water recirculation or electric resistance heat trace wire system is installed, the branch from the recirculating loop or electric resistance heat trace wire to the fixture shall contain a maximum of 0.6 gallons.
    C. Residential units having individual water heaters shall have a compact hot water system that meets all of the following:
       a. The hot water supply piping from the water heater to the fixtures shall take the most direct path.
       b. The total developed length of pipe from the water heater to farthest fixture shall not exceed the distances specified in Table 3.6.5 of the California Energy Code Residential Appendix.
       c. The hot water supply piping shall be installed and insulated in accordance with Section RA3.6.2 of the California Energy Code Residential Appendix.

IRRIGATION SYSTEM

12. A water budget for landscape irrigation use that conforms to the California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO) is required for new landscape areas of 500 sq. ft. or more. The following methods to reduce potable water use in landscape areas include, but are not limited to, use of captured rainwater, recycled water, graywater, or water treated for irrigation purposes and conveyed by a water district or public entity. (4.304.1)

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REVISIONS	BY

LICENCED ARCHITECT
HAMID DEHGHAN
C 35750
SEPTEMBER 30, 2025
RENEWAL
DATE
STATE OF CALIFORNIA

PASARGAD
ARCHITECTURE & DESIGN
PASARGAD
ARCHITECTURE & DESIGN LLC.

NEW 3 STORY DUPLEX IN FRONT :2639 & 2639 1/2 S LONGWOOD AVE LOS ANGELES CA 90016
NEW 2 STORY TWO ADU IN REAR :2637 & 2637 1/2 S LONGWOOD AVE LOS ANGELES CA 90016

DRAWING TITLE:
GREEN BUILDING

DATE:11/01/24
DRAWN:Z.SH
CHEKED:M.M
SCALE:1/4"=1'-0"
JOB NO:24-076

GB-1

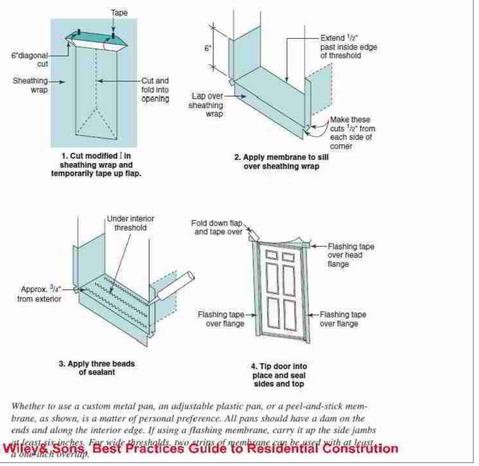
Security Requirements (2023 LABC)

1. All entry doors to dwelling units or guest rooms shall be arranged so that the occupant has a view of the area immediately outside the door without opening the door. Such view may be provided by a door viewer, through windows located in the vicinity of the door or through view ports in the door or adjoining wall. (6706)
2. Screens, barricades, or fences made of a material which would preclude human climbing shall be provided at every portion of every roof, balcony, or similar surface which is within 8 ft. of the utility pole or access structures. (6707)
3. Wood flush-type doors shall be 1 3/8" thick minimum with solid core construction. (6709.1) Door stops of in-swinging doors shall be of one-piece construction with the jamb, or joined by rabbet to the jamb. (6709.4)
4. Every door in a security opening for an apartment house shall be provided with incandescent light bulb (60 watt min) at a maximum height of 8 feet on the exterior side of the unit. (6708)
5. All pin-type door hinges accessible from outside shall have non-removable hinge pins. Hinges shall have min. 1/4" dia. steel jamb stud with 1/4" min. protection. The strike plate for latches and holding device for projecting dead bolts in wood construction shall be secured to the jamb and the wall framing with screws no less than 2-1/2" long. (6709.5, 6709.7
6. Provide dead bolts with hardened inserts; deadlocking latch with key-operated locks on exterior. Doors must be operable from the inside without a key, special knowledge, or special effort (latch not required in B, F, M and S occupancies). (6709.2)
7. Straight dead bolts shall have a min. throw of 1" and an embedment of not less than 5/8", and a hook-shaped or an expanding-lug deadbolt shall have a minimum throw of 3/4". (6709.2)
8. Wood panel type doors must have panels at least 9/16 inch thick with shaped portions of the panels not less than 1/4 inch thick, and individual panels must be no more than 300 sq. in. in area. Mullions shall be considered a part of adjacent panels except mullions not over 18 inches long may have an overall width of not less than 2 inches. Stiles and rails shall be of solid lumber in thickness with overall dimensions of not less than 1 3/8 inches and 3 inches in width. (6709.1 item 2)
9. Sliding glass doors shall be provided with a device in the upper channel of the moving panel to prohibit raising and removal of the moving panel from the track while in the closed position. (6710)
10. Sliding glass doors shall be equipped with locking devices and shall be so constructed and installed that they remain intact and engaged when subjected to the tests specified in Sec. 6717.1
11. Metal or wooden overhead and sliding doors shall be secured with a cylinder lock, padlock with a min. 9/32" diameter hardened steel shackle bolted, hardened steel hasps, metal slide board, bolt or equivalent device unless secured electrically operated. (6711)
12. Provide metal guides at top and bottom of metal accordion grate or grille-type doors and cylinder locks or padlocks. Cylinder guards shall be installed on all cylinder locks whenever the cylinder projects beyond the face of the door or is otherwise accessible to gripping tools. (6712)
13. In Group B, F, M, and S occupancies, panes of glazing with at least one dimension greater than 6 in. but less than 48 in, shall be constructed of tempered or approved burglary-resistant material or protected with metal bars or grilles. (6714)
14. Glazed openings within 40" of the door lock when the door is in the closed and locked position, shall be fully tempered glass or approved burglary-resistant material, or shall be protected by metal bars, screens or grilles having a maximum opening of 2". The provisions of this section shall not apply to view ports or windows which do not exceed 2" in their greatest dimensions. (6713)
15.
16. Other openable windows shall be provided with substantial locking devices. In Group B, F, M and S occupancies, such devices shall be glide bars, bolts, cross-bars, and/or padlocks with minimum 9/32" hardened steel shackles and bolted, hardened steel hasps. (6715.2)
17. Sliding windows shall be provided with locking device in the upper channel of the moving panel to prohibit raising and removal of the moving panel in the closed or partially open position. (6715.1)
18. Sliding windows shall be equipped with locking devices and shall be so constructed and installed that they remain intact and engaged when subjected to the tests specified in Sec. 6717.2.
19. Any release for metal bars, grilles, grates or similar devices constructed to preclude human entry that are installed shall be located on the inside of the adjacent room and at least 24 inches from the closest opening through such metal bars, grilles, grates or similar devices that exceeds two inches in any dimension. (6715.4)

20 All other openings must be protected by metal bars or grilles with openings of not less than 6 inches in one dimension. (6716)

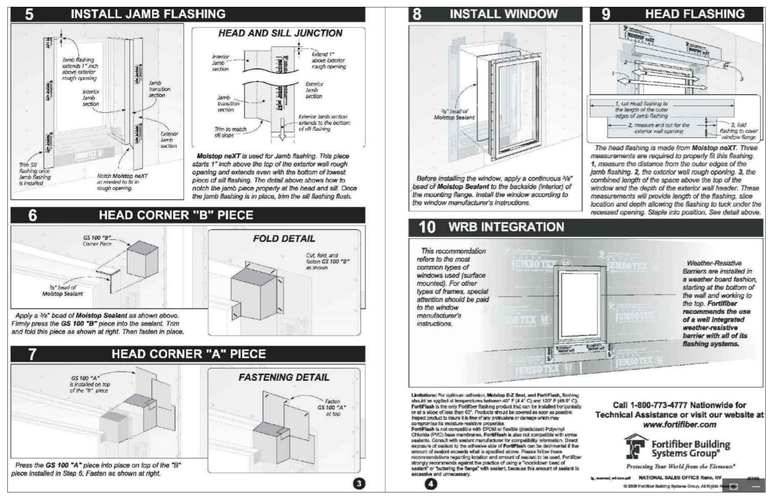
DOORS & WINDOWS FLASHING:

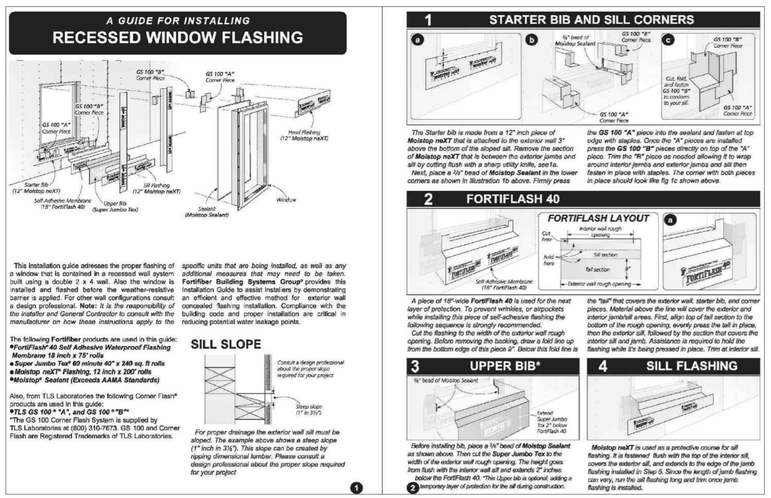
FIGURE 3-26 Flashing at Doors.



Whether to use a custom metal pan, an adjustable plastic pan, or a peel-and-stick membrane, as shown, is a matter of personal preference. All pans should have a dam on the ends and along the interior edge. If using a flashing membrane, carry it up the side jambs at least six inches. For wide thresholds, two strips of membrane can be used with at least a one-inch overlap.

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ROOF FINISH MATERIAL (ICC#: 1388):

CertainTeed Commercial Roofing

Technical Product Data

FLINTLASTIC® GTA-FR COOLSTAR®

FIRE RESISTANT, APP MODIFIED BITUMEN POLYESTER CAP SHEET WITH HIGHLY REFLECTIVE MINERAL SURFACE

LEARN MORE AT energystar.gov

Product Application



Product Use: Flintlastic GTA-FR CoolStar is designed for use as a cap membrane over various types of substrates for both new construction and reroofing installations. It is suitable for most low slope roof applications and may be used for roof system flashings including wall treatments, base flashings and field flashings.

Limitations: Flintlastic GTA-FR CoolStar is intended for torch application only and should not be exposed to asbestos or solvent-based materials. Rolls should be stored upright, off ground, completely protected from the weather. Roof decks shall be structurally sound, dry, smooth and meet or exceed minimum requirements of the deck manufacturer, local code and CertainTeed. Additional specifications and precautions are listed in the CertainTeed Commercial Roof Systems Specifications.

Product Composition and Features: Flintlastic GTA-FR products are manufactured on state-of-the-art dedicated roofing lines that were exclusively designed for the production of modified bitumen roofing membrane. Flintlastic GTA-FR CoolStar is produced with a high-performance, stress-resistant polyester mat and a superior grade fire-resistant modified bitumen compound.

Roll Dimensions:	39⅜" X 32' 10"
Nominal Coverage:	One square
Approximate Weight:	106 lbs. per roll
Top Surface:	Highly reflective CoolStar granules
Back Surface:	Torchable polyethylene film

Applicable Standards: Meets ASTM D6222, Grade G, Type I. Flintlastic GTA-FR CoolStar is approved by Underwriters Laboratories for use in various Class A, B, and C roof assemblies, ICC (ESR-1388), Factory Mutual, Miami-Dade, Florida Building Code Statewide Approval (FL 2533 and FL 16709) and Texas Department of Insurance (RC-47). Flintlastic GTA-FR CoolStar can be used to comply with the 2016 California Title 24 Part 6 Cool Roof Requirements, CRRC product ID pending. Flintlastic GTA-FR CoolStar is an approved ENERGY STAR® product.

CoolStar Used to Comply With 2016 Title 24 Part 6 Cool Roof Requirements

Technical Data

Modified Bitumen Coating: Non-oxidized (flux) asphalt, blended with various thermoplastic atactic polypropylene polymers and co-polymers.

Support Mat: High-performance, stress-resistant polyester mat.

Test Description	Test Method	Results*
Solar Reflectance (SR) Initial/Aged:	ASTM D7897 Rapid Rating	71%/67%
Solar Reflectance Index (SRI) Initial/Aged:	ASTM E1980-79	88/82
Softening Point:	ASTM D36	310°F
Tensile Strength:	ASTM D5147	
	@ 73.4°F ±3.6° MDXD	80/60 lbs. per in.
	@ 0°F ±3.6° MDXD	135/100 lbs. per in.
Elongation:	ASTM D5147	
	@ 73.4°F ±3.6° MDXD	35%/40%
	@ 0°F ±3.6° MDXD	20%/22%
Dimensional Stability:	ASTM D5147 MDXD	0.5%/0.3%
Low Temperature Flex:	ASTM D5147	Pass @ 8°F
Compound Stability:	ASTM D5147	250°F
Thickness:	ASTM D5147	4.0 mm (156 mils)
Tear Strength:	ASTM D5147	
	@ 73.4°F ±3.6° MD / XD	140/85 lbs.

***NOTE: Published results are nominal production values confirmed by independent laboratory testing.**

MADE IN U.S.A.

ES ICC EVALUATION SERVICE, LLC. An Innovation Company

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ICC-ES Evaluation Report

ESR-1388

Reissued May 2017

This report is subject to renewal May 2018.

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DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION
Section: 07 52 00—Modified Bituminous Sheet Roofing

REPORT HOLDER:

CERTAINTEED CORPORATION
18 MOORES ROAD
MALVERN, PENNSYLVANIA 19355
(800) 274-8530
www.certainteed.com

EVALUATION SUBJECT:

CERTAINTEED FLINTLASTIC MODIFIED BITUMEN ROOF COVERING SYSTEMS

1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2012, 2009 and 2006 *International Building Code®* (IBC)
- 2012, 2009 and 2006 *International Residential Code®* (IRC)
- 1997 *Uniform Building Code™* (UBC)

Properties evaluated:

- Fire classification
- Wind uplift resistance
- Physical properties
- Impact resistance

2.0 USES

The CertainTeed Flintlastic modified bitumen roof covering membranes are used as roof coverings in Class A, B or C roof covering systems, described in this report, on new or existing roofs.

3.0 DESCRIPTION

3.1 General:

CertainTeed roofing membranes are atactic polypropylene (APP) or styrene butadiene styrene (SBS) modified bitumen membranes complying with ASTM D6222, ASTM D6163 or ASTM D6164, as applicable. Roof covering systems utilizing CertainTeed roofing membranes consist of single-ply membranes, base sheets and ply sheets, approved insulation, flashing, asphalts, adhesives, coatings and mechanical fasteners that are installed to produce an integrated roof system.

3.2 Membranes:

3.2.1 Flintlastic FR Cap 30 (Standard or CoolStar): Flintlastic FR Cap 30 is a 0.14-inch-thick (3.5 mm), granular-surfaced, reinforced, SBS modified bitumen roofing membrane manufactured from a glass fiber mat impregnated and covered with SBS modified bitumen. The membrane is a Type I, Grade G, membrane complying with ASTM D6163 and intended for adhesive or hot asphalt application. The membrane weighs approximately 7.2 pounds per square yard (3.9 kg/m²). The membrane is also available as a CoolStar option, which utilizes bright white granules.

3.2.2 Flintlastic FR-P(Standard or CoolStar): Flintlastic FR-P is a 0.17-inch-thick (4.3 mm), granular-surfaced, reinforced, SBS modified bitumen roofing membrane manufactured from a nonwoven polyester fabric impregnated and covered with SBS modified bitumen. The membrane is a Type I, Grade G, membrane complying with ASTM D6164 and intended for adhesive or hot asphalt application. The membrane weighs approximately 8.4 pounds per square yard (4.6 kg/m²). The membrane is also available as a CoolStar option, which utilizes bright white granules.

3.2.3 Flintlastic Premium FR-PStandard or CoolStar): Flintlastic PremiumFR-P is a 0.17-inch-thick (4.3 mm), mineral-surfaced, reinforced, SBS modified bitumen roofing membrane manufactured from a nonwoven polyester fabric impregnated and covered with SBS modified bitumen. The membrane is a Type I, Grade G, membrane complying with ASTM D6164 and intended for adhesive or hot asphalt application. The membrane weighs approximately 8.4 pounds per square yard (4.6 kg/m²). The membrane is also available as a CoolStar option, which utilizes bright white granules.

3.2.4 Flintlastic GTS (Standard or CoolStar): Flintlastic GTS is a 0.18-inch-thick (4.5 mm), granular-surfaced, reinforced, SBS modified bitumen roofing membrane manufactured from a nonwoven polyester fabric impregnated and covered with SBS modified bitumen. The membrane is a Type II, Grade G, membrane complying with ASTM D6164 and intended for torch application only. The membrane weighs approximately 9.9 pounds per square yard (5.4 kg/m²). The membrane is also available as a CoolStar option, which utilizes bright white granules.

3.2.5 Flintlastic GMS (Standard or CoolStar): Flintlastic GMS is a 0.17-inch-thick (4.3 mm), granular-surfaced, reinforced, SBS modified bitumen roofing membrane manufactured from a nonwoven polyester fabric impregnated and covered with SBS modified bitumen. The membrane is a Type I, Grade G, membrane complying

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BALCONY & DECK FINISH(ICC#: 1757)

DEX-O-TEX®

System Description Sheet

Weatherwear

Promenade and Roof Deck Waterproofing Surfacing System

1. PRODUCT DESCRIPTION

A. COMPOSITION

Weatherwear promenade and roof deck covering system is a multi-layered trowelled applied waterproofing and wearing surface. It is designed for use as waterproof promenade decks and roof surfaces, such as sun decks, play roofs, observation decks, etc., which are subject to normal foot traffic, roof furniture and rubber-tired window washing rigs.

The material is applied in a series of trowelled coatings, which form an elastic latex membrane with integral composition flashing and a flexible rubber-cement traffic surface. A unique "slip-sheet" divorces the system from the surface and permits it to "float" over normal building cracks and isolated element movement.

Weatherwear components consist of a combination of dehydrated polymeric liquid rubber-latex in powder form and volcanizers, as well as special pre-engineered aggregates.

The total thickness of the material is 3/16" (4.75mm) to 1/4" (6.35mm). It can be applied over plywood or concrete. After suitable preparation it may be installed over existing promenade surfaces of various types, such as quarry tile, flagstone, etc. Direct bond application may be substituted for the slip-sheet feature, contact Crossfield for recommendations. It is available in a wide range of colors.

Weatherwear is a fire retardant system, with a One Hour Fire-resistive Construction Rating and it is approved by the following agencies:

1. International Code Council (ICC), Class A Fire Retardant Roof Covering, Report No. ESR-1757.
2. City of Los Angeles Research Report No. 2360.

B. TYPICAL USES

Promenade roofs, condominium roofs, sun decks, play decks, office roofs where heavy washing equipment is used, etc.

C. ADVANTAGES AND LIMITATIONS

ADVANTAGES:

1. Monolithic, including integral flashing.
2. Slip-sheet permits "float" over cracks in substrate.
3. Installed only by Professional Factory Trained Dex-O-Tex Contractors.

LIMITATIONS:

1. Substrates must be dry when material is applied.
2. Not suitable for use when subjected to heavy steel wheeled loads.
3. Material subject to vapor damage upon water leakage underneath stemming from adjacent areas.
4. Residual moisture content of plywood substrates must be less than 15% when measured with an electric resistance type moisture meter (Delmhorst H3-10 or functional equivalent).
5. Concrete substrates shall be fully cured and dried. Concrete that exhibits indications of high levels of residual moisture shall be tested in accordance with ASTM 1M2d4 and an electric resistance type moisture meter. In general, minor evidence of moisture (light misting or fogging under the plastic sheet) and electric relative meter reading under 60% are acceptible. If higher levels of moisture are detected a vapor control primer shall be applied before proceeding with the application of the Weatherwear system.
6. Vapor control primers, sloping, smoothing or leveling compounds, crack repair or isolation, or other supplementary items may be required for proper installation at an additional cost. Consult with Crossfield Products Corp. for specific recommendations.

2. TYPICAL PHYSICAL PROPERTIES at 75°F (24°C)

A.	**Weight**	2.5 lbs. psf
B.	**Accelerated Weathering** ASTM G23** (Atlas Twin-Arc Weatherometer: 120/min. Cycle/102 mins. Dry at 145°F, 18 mins. Wet at 60° 2,000 hours) Under 5x Magnification, No cracking, Blistering, chalking, crazing or color change. **Note:** 2,000 hrs. as above is generally considered equivalent of 6 years natural weathering.	
C.	**Accelerated Aging** ASTM 1754* Procedure D & E, 6 cycles (No chalking, crazing, cracking, blistering, delaminating, etc.)	No effect
D.	**Freeze-Thaw** ASTM C67 (50 cycles)	No breakage Weight loss<1%
E.	**Chemical Resistance** ASTM D2299*	
	Industrial	No color change or change in texture
	Detergent (20%)	
	Salt 20% solution	No color change or change in texture
	Ammonia	No color change or change in texture
	Solution (5%)	
	Muriatic Acid 10%	No color change or change in texture
	Chlorine (10%)	No color change or change in texture
	Kerosene	No color change or change in texture
	Turpentine	Slight softening of surface
	Paint Thinner	Slight softening of surface
F.	**Percolation** ICC Test No moisture on underside, Max. drop in water column 0.10" Complies ICC Standard for this test.	
G.	**Water Absorption** MEA-83-81R & ASTM 1570.... 6.09% (No warping, cracking, crazing under 5X magnification)	
H.	**Wind Uplift** Factory Mutual 1-52, Qualifying Wind Velocity with a 3 Safety Factor – 131 m.p.h. complies ICC requirement.	
I.	**Fire Safety** ASTM E108, UL 790, NFPA 256	
	Intumiktion Flame Exposure	Class A
	Spread of Flame	Class A
	Burning Brand	Class A

3. OVERVIEW OF INSTALLATION STEPS

A. On suitably pitched sub-surfaces apply Dex-O-Tex Slip Sheet.

B. Apply Elastomeric rubber composition membrane with fabric reinforcement.

C. Apply Dex-O-Tex integral flashing of similar construction as above.

Weatherwear

System Description Sheet

Promenade and Roof Deck Waterproofing Surfacing System

D. Apply two trowel coats of liquid rubber and aggregate composition traffic surfacing over entire deck. Sand to remove trowel ridges.

E. Apply two grout-smoothing coats of rubber-cement composition to smooth surface.

F. Roller apply two coats of surface dressing to achieve uniform surface.

For Substrate Preparation: See Weatherwear Architectural Information Sheet and its Detail Drawings for particulars. Note: Generally all Special Dex-O-Tex drains are available from major drain manufacturers. Consult Crossfield for current listings and plumbing roughing.

4. PRODUCT AVAILABILITY

Crossfield Products Corp. maintains offices and/or factories at all addresses listed below. Factory Trained Contractors are established in all major trading areas in the United States, Canada and various European, Latin American and Far East nations.

5. SKID RESISTANCE AND CLEANABILITY

In general, the more aggressive the finished surface the greater the coefficient of friction and corresponding skid resistance, the more difficult to clean. The smoother the finished texture the easier the surface is to clean, but there is a loss of skid resistant properties.

6. CLEANING

Cleaning and disinfecting compounds and cleaning techniques can affect the color, gloss, texture and performance of the system. As a precautionary step, Crossfield recommends that the end-user test their cleaning and disinfecting compounds on a sample or on a small, out of the way finished area, utilizing the intended cleaning technique prior to cleaning the entire surface area. If no deleterious effects are observed, the procedure can be continued. If the cleaning and disinfecting compounds or cleaning techniques damage the system, modification of the cleaning material or techniques will be required. Contact your Representative for additional information.

7. SPECIFICATION ASSISTANCE

Consult Crossfield for specification assistance, detailing, etc. This consultation is highly recommended prior to specification.

8. TESTING

The technical data contained herein is the result of tests made in Crossfield's laboratories or in independent laboratories using small scale equipment, following generally accepted trade practices. Although this information is believed to be true and accurate, the use of different equipment for testing under dissimilar conditions or the testing of samples produced under dissimilar conditions may develop substantially different results.

LIMITED WARRANTY

NO WARRANTY SHALL BE EFFECTIVE UNTIL THE TERMS AND CONDITIONS OF SALE SET FORTH IN CROSSFIELD PRODUCTS CORP. INVOICE ARE MET.

Crossfield Products Corp. warrants to the purchaser of its products that such products are free from manufacturing defects and does not warrant or guarantee the workmanship performed by any person or firm installing its products. Crossfield's obligation under this warranty is limited solely to the original purchaser and solely to the remedy of replacement in kind of any product which Crossfield sold which may prove defective in manufacture within one year from date of installation, provided said product was stored correctly and installed within the product's shelf life, by the original purchaser and which Crossfield examination shall disclose to Crossfield's satisfaction to be thus defective.

IN NO EVENT SHALL CROSSFIELD PRODUCTS CORP. BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES. THIS WARRANTY IS EXPRESSLY GIVEN IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR USE AND ALL OTHER OBLIGATIONS OR LIABILITIES ON CROSSFIELD'S PART, AND WE NEITHER ASSUME NOR AUTHORIZE ANY PERSON OR PERSONS TO ASSUME FOR US ANY OTHER LIABILITY IN CONNECTION WITH THE SALE OF A CROSSFIELD PRODUCT. THIS WARRANTY SHALL NOT APPLY TO ANY OF CROSSFIELD'S PRODUCTS, WHICH HAVE BEEN SUBJECT TO ADULTERATION, ALTERATION, ABUSE OR MISUSE, CROSSFIELD'S PRODUCTS CORP. MAKES NO WARRANTY WHATSOEVER IN RESPECT TO ACCESSORIES, PARTS OR MATERIALS NOT SUPPLIED BY CROSSFIELD PRODUCTS CORP., WHICH ARE USED IN CONJUNCTION WITH ITS PRODUCTS. ANY ITEM "ORIGINAL PURCHASER" IN THIS WARRANTY MEANS THAT PERSON, CORPORATION OR ENTITY TO WHOM CROSSFIELD PRODUCTS CORP. SOLD ITS PRODUCT OR PRODUCTS. ANY ACTION TO ENFORCE ANY WARRANTY OR FOR BREACH OF CONTRACT OR ARISING OUT OF ANY CLAIM AGAINST CROSSFIELD PRODUCTS CORP. SHALL BE COMMENCED AND MAINTAINED ONLY IN A COURT OF COMPETENT JURISDICTION IN THE CONTINENTAL UNITED STATES OF AMERICA. THE PURCHASER ACCEPTS THESE TERMS AND CONDITIONS, AND HEREBY EXPRESSLY WAIVES ANY CLAIM TO ADDITIONAL DAMAGES.

CAUTION: ALWAYS KEEP OUT OF THE REACH OF CHILDREN.

DEX-O-TEX PRODUCT LINE
Crossfield Products Corp.

West Coast Office	East Coast Office
3000 E. Harcourt Street	149 Valley Road
Rancho Dominguez, CA	Roselle Park, NJ
90221	07204
310-886-9100	908-245-2800
310-886-9119 fax	908-245-0659 fax

www.dexotex.com

REVISIONS | BY

LICENSED ARCHITECT HAMID G. DEAGHAN C 39150 SEPTEMBER 30, 2024 REN. DATE STATE OF CALIFORNIA

PASARGAD ARCHITECTURE & DESIGN

PASARGAD ARCHITECTURE & DESIGN LLC.

NEW 3 STORY DUPLEX IN FRONT :2639 & 2639 1/2 S LONGWOOD AVE LOS ANGELES CA 90016

NEW 2 STORY TWO ADU IN REAR :2637 & 2637 1/2 S LONGWOOD AVE LOS ANGELES CA 90016

DRAWING TITLE:

ROOFING MATERIAL

DATE:11/01/24

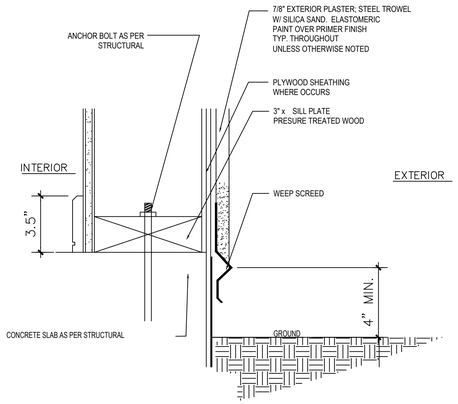
DRAWN:Z.SH

CHEKED:M.M

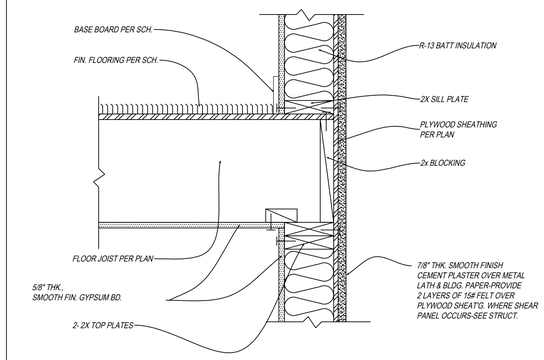
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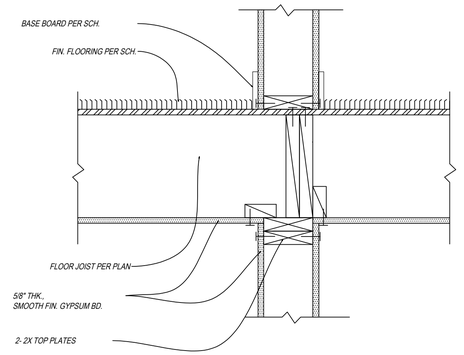
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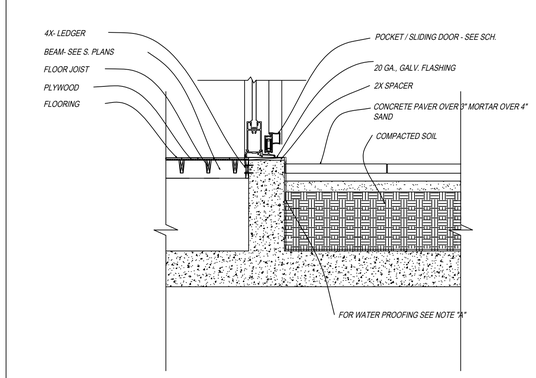
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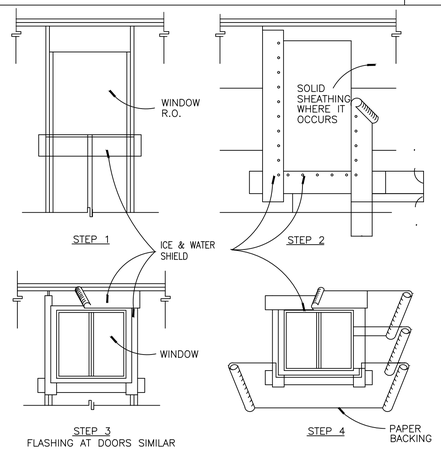
2 EXTERIOR WALL AND FLOOR — SCALE NTS



3 INTERIOR WALL AND FLOOR — SCALE NTS

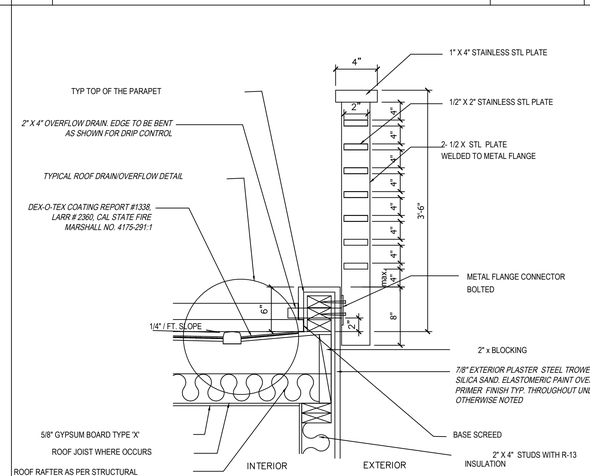


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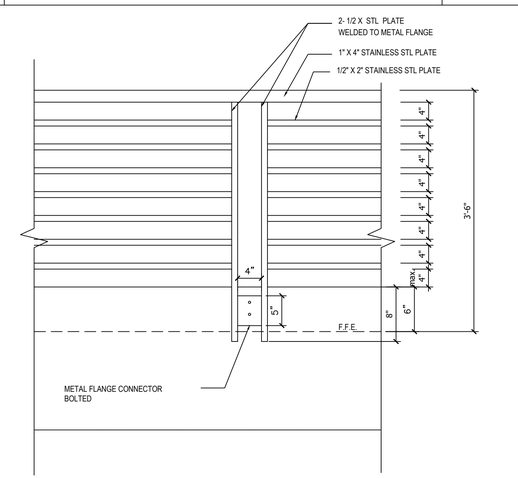
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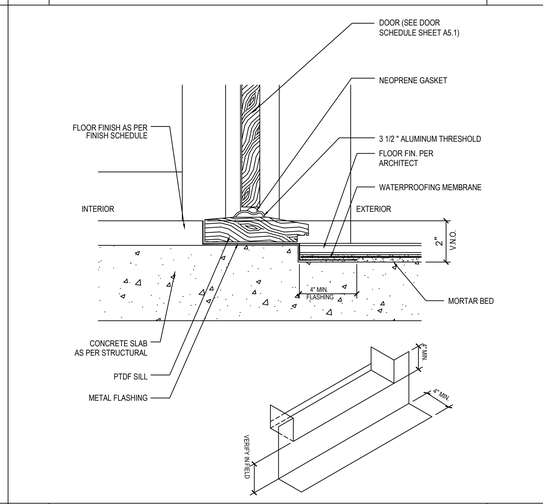
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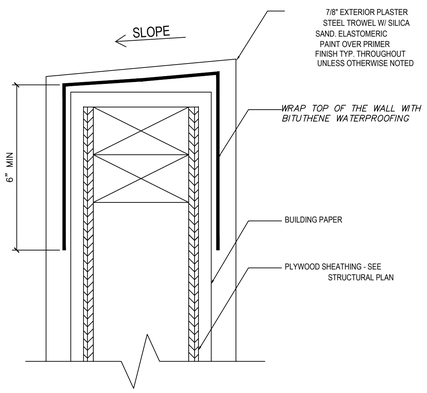
A. SECTION

6 EXTERIOR GUARDRAIL DETAIL TYP. — SCALE NTS

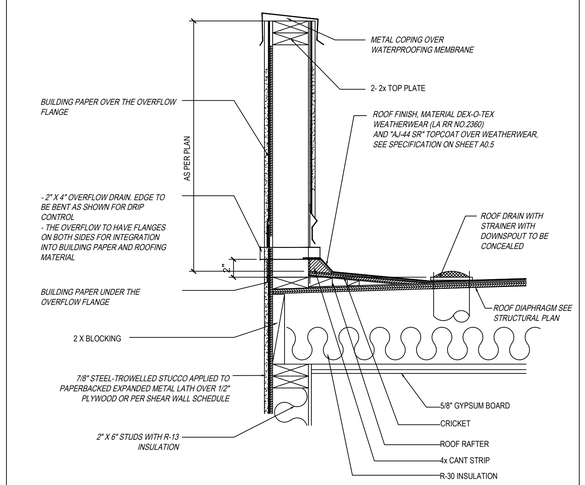




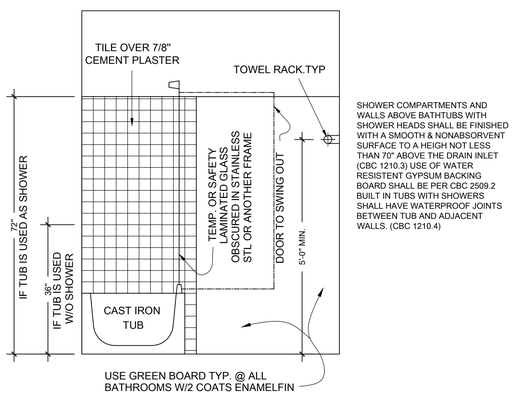
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9 TOP OF PARAPET DETAIL



10 TYP. ROOF DRAIN/OVERFLOW@ PARAPET — SCALE NTS

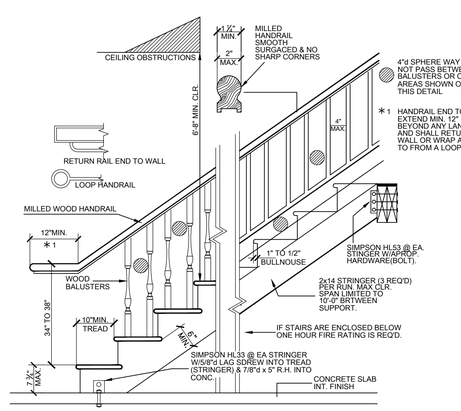


SHOWER COMPARTMENTS AND WALLS ABOVE BATHTUBS WITH SHOWER HEADS SHALL BE FINISHED WITH A SMOOTH & NONABSORVENT SURFACE TO A HEIGH NOT LESS THAN 70" ABOVE THE DRAIN INLET (CBC 1210.3) USE OF WATER RESISTENT GYPSUM BACKING BOARD SHALL BE PER CBC 2509.2 BUILT IN TUBS WITH SHOWERS SHALL HAVE WATERPROOF JOINTS BETWEEN TUB AND ADJACENT WALLS. (CBC 1210.4)

11 TUB DETAIL

INTERIOR STAIRWAY NOTES:

1. MAXIMUM RISE OF 7 INCHES AND MINIMUM RUN (TREAD) OF 11 INCHES.
2. MINIMUM WIDTH OF 44 INCHES.
3. MINIMUM HEADROOM OF 6 FEET 8 INCHES.
4. FRAMING (STRINGER, LANDING, ETC.) SIZE, BRACING,CONNECTIONS, FOOTINGS.
5. STAIRWAYS POSITIVELY ANCHORED TO THE PRIMARY STRUCTURE WITHOUT USING TOE NAILS OR NAILS SUBJECT TO WITHDRAWAL.
6. ENCLOSED USABLE SPACE UNDER A STAIRWAY REQUIRES ONE-HOUR FIRE-RESISTANT CONSTRUCTION ON ENCLOSED SIDE.



12 STAIR DETAIL — SCALE NTS

REVISIONS | BY

LICENSED ARCHITECT HAMID DEHGHAN C 33150 SEPTEMBER 30, 2025 RENEWAL DATE STATE OF CALIFORNIA

PASARGAD ARCHITECTURE & DESIGN

PASARGAD ARCHITECTURE & DESIGN LLC.

NEW 3 STORY DUPLEX IN FRONT :2639 & 2639 1/2 S LONGWOOD AVE LOS ANGELES CA 90016
NEW 2 STORY TWO ADU IN REAR :2637 & 2637 1/2 S LONGWOOD AVE LOS ANGELES CA 90016

DRAWING TITLE: DETAILS

DATE:11/01/24

DRAWN:Z.SH

CHEKED:M.M

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

JOB NO:24-076

D-1

REVISIONS	BY

LICENSED ARCHITECT HAMID DEHGHAN C 35150 RENEWAL DATE: SEPTEMBER 30, 2025 STATE OF CALIFORNIA

PASARGAD ARCHITECTURE & DESIGN

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CHEKED:M.M

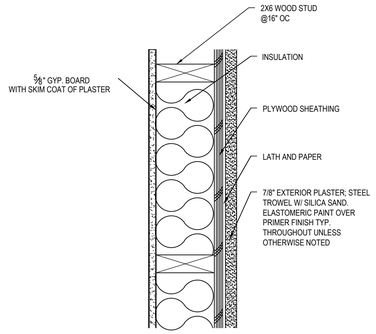
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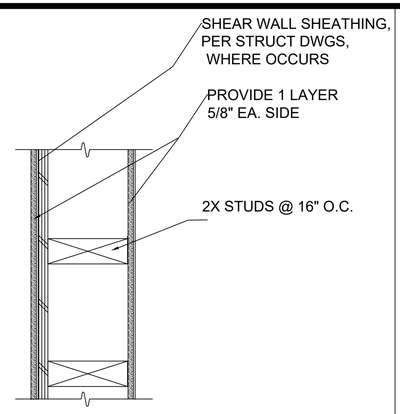
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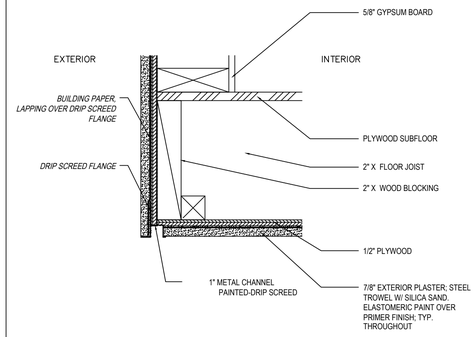
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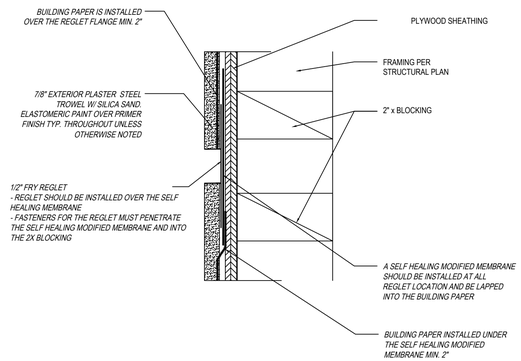


3 TYP. INTERIOR WALL | SCALE NTS



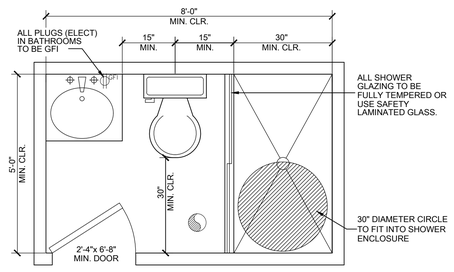
4 DRIP SCREED DETAIL | SCALE NTS



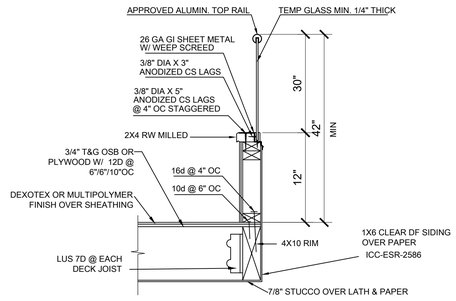


5 EXT. PLASTER EXPANSION JOINT | SCALE NTS

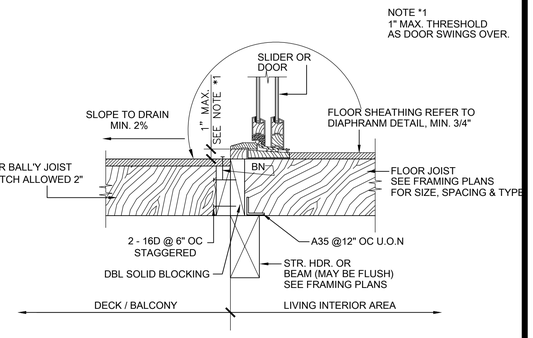
6 MIN. BATHRM REQUIRM'T | SCALE NTS

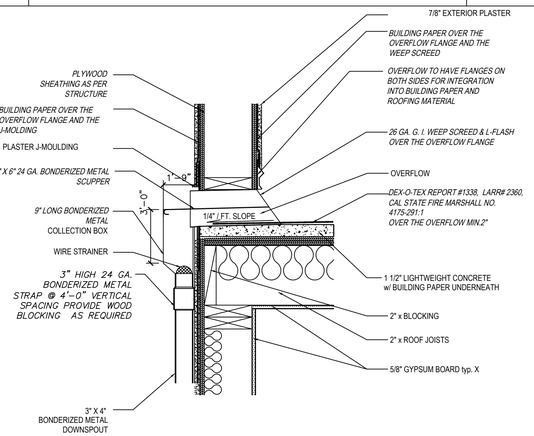


7 GUARDRAIL CONNECTION @ 2ND FLOOR | SCALE NTS



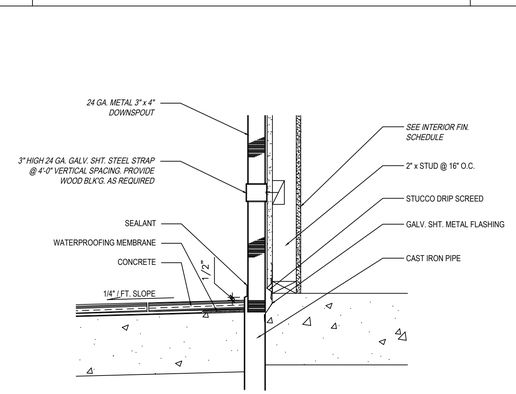
8 BALCONY DETAIL | SCALE NTS



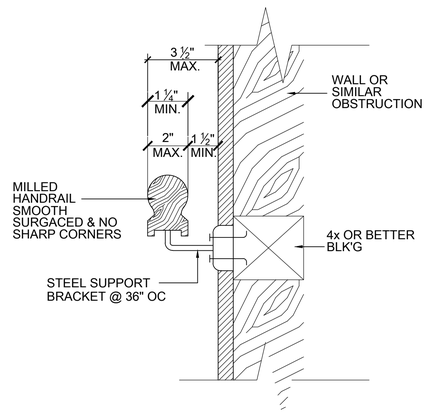


9 DOWNSPOUT & OVERFLOW | SCALE NTS

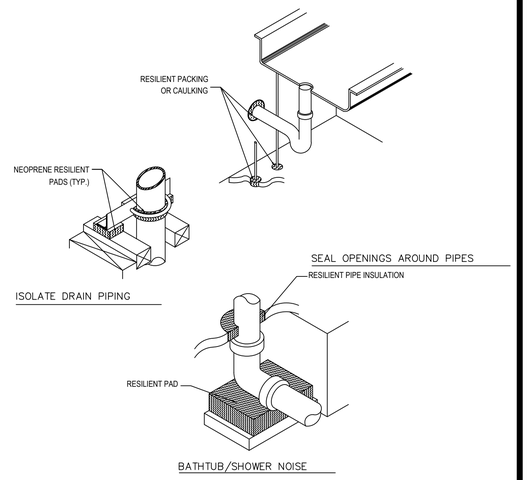
10 DOWNSPOUT DETAIL | SCALE NTS



11 HANDRAIL DETAIL | SCALE NTS



12 LOCATION OF RESILIENT PAD | SCALE NTS



02-24-20

2022 CALIFORNIA BUILDING CODE SHEARWALL SCHEDULE

SHEAR-WALL No.	STRUCTURAL APA-RATED WOOD STRUCTURAL PANEL THICKNESS	COMMON NAIL SPACING @ BOUNDARIES & EDGES (B.N. & E.N.) FIELD NAILING @ 12" O.C.	ALLOWABLE SHEAR / FT (WOOD STUDS @16" O.C., U.N.0) (LIMITED TO 75%)	SLIDING ANCHOR SYSTEM[4] 5/8"ø A.B. SPACING[2] 2x SILL V= 1184# 3x SILL V= 1520# O.C.	FRAMING CLIP SPACING V = 450# O.C.	16d COMMON NAIL SPACING[3] OR GALV. BOX 2x SOLE PLATE ONLY: V= 121# O.C.	1/4" ø LAG x 6" LONG 3x SOLE PLATE ONLY: V= 537# O.C.
S	7/8" STUCCO	No. 11 GA. @ 6" O.C.	90 #/FT.	48"	A35 @ 30"	8"	36"
A	15/32"	8d @ 6" o.c.	280#/FT.	48"	A35 @ 18"	5"	23"
B 1, 5	15/32"	8d @ 4" o.c.	430#/FT.	42"	A35 @ 12"	3"	15"
C 1, 5	15/32"	8d @ 3" o.c.	550#/FT.	32"	A35 @ 12"	3"	24"
D 1, 5	15/32"	8d @ 2" o.c.	730#/FT.	24"	A35 @ 7"	→	9"
E 1, 5	15/32"	10d @ 2" o.c.	850#/FT.	20"	A35 @ 6"	→	6"

1. FRAMING AT FOUNDATION SILL PLATES AND ADJOINING PANEL EDGE STUDS SHALL BE A SINGLE 3x NOMINAL MEMBER, AND ALL NAILS SHALL BE STAGGERED WITH 1/2" EDGE DISTANCE.
2. SIMPSON BP5/8-3 BEARING PLATES (LARR 25293), OR OTHER LISTED MAKE, APPROVED BY BUILDING OFFICIAL, SHALL BE USED WITH ALL 5/8" DIA. ANCHORS. 5/8" DIA. SIMPSON TITAN HD ANCHORS (ICC-ES-ESER-1056/LARR# 25560) WITH 4\" MIN. EMBEDMENT, MAY BE USED IN LIEU OF 5/8" DIA. ANCHOR BOLTS AT EXISTING FOOTINGS WITH SAME SPACING PER TABLE ABOVE. SPECIAL INSPECTION REQUIRED FOR ALL EPOXY ANCHOR INSTALLATIONS.
3. ALL SILL NAILING SHALL BE STAGGERED 1/2" MINIMUM. (TYPICAL)
4. WHEN A SHEARWALL IS SPECIFIED ON BOTH SIDES OF WALL, ALL SLIDING ANCHOR CONNECTORS SHALL BE ATTACHED WITH SPACINGS FROM THE TABLE ABOVE TO BE REDUCED BY HALF.
5. SPECIAL INSPECTION REQUIRED

SHEARWALL SCHEDULE NOTES:

A. SHEAR WALL AT LOCATIONS AS SHOWN ON THE PLANS ARE TO BE SHEATHED AND DETAILED IN ACCORDANCE WITH THIS SCHEDULE FOR THE MARK INDICATED. IN CASE OF QUESTION CONTACT STRUCTURAL ENGINEER FOR CLARIFICATION BEFORE PROCEEDING.

B. SHEATHING SHALL EXTEND FROM TOP PLATE TO BOTTOM PLATE.

C. TOP PLATE SHALL BE CONNECTED TO THE STRUCTURAL DIAPHRAGM PER SPECIFIC DETAILS.WHERE NO DETAIL IS GIVEN, DIAPHRAGM BOUNDARY NAILING SHALL BE MADE INTO A RIM, JOIST OR BLOCK WHICH SHALL IN TURN BE ATTACHED TO THE TOP PLATE WITH TOE NAILS, FRAMING ANCHORS, OR TIE PLATES PER SCHEDULE.

D. WHERE BOTTOM PLATE IS SUPPORTED BY CONCRETE OR MASONRY CONNECTION SHALL BE MADE PER SPECIFIC DETAILS. SILL BOLTS PER SCHEDULE SHALL BE USED WHERE NO DETAIL IS GIVEN.

E. IF BOTTOM PLATE IS SUPPORTED BY WOOD FRAMING, CONNECTION SHALL BE PER SPECIFIC DETAILS. WHERE NO DETAIL IS GIVEN, NAILS PER SCHEDULE SHALL BE DRIVEN THROUGH THE BOTTOM PLATE AND THE DIAPHRAGM INTO A RIM, JOIST OR BLOCK. NAILING SHALL BE STAGGERED TO DOUBLE OR 4x JOISTS OR BLOCKS TO PREVENT SPLITTING WHERE NAIL SPACING IS LESS THAN 4" O.C..

F. T-NAILS, STAPLES OR OTHER SPECIAL FASTENERS SHALL NOT BE USED IN SHEAR WALLS.

G. PLATE WASHERS SHALL BE USED ON THE BACK SIDE OF THE HOLDOWN POST.

HDU HOLD DOWN
LARR #25720 & ICC-ES # ESR-2330

SSTB ANCHOR BOLTS
LARR #25827 FOR DETAIL SEE

MODEL NO.	SIMPSON SDS WOOD SCREWS		HOLDOWN ANCHOR SSTB ANCHORS	
	SCREW SIZE	SDS SCREWS QTY	SSTB MODEL NO.	MIN. EMBED
HDU2-SDS3[a]	1/4"X2.5"	6-1/4"X2.5"SDS	SSTB20	16-5/8"
HDU4-SDS3[a]	1/4"X2.5"	10-1/4"X2.5"SDS	SSTB24	20-5/8"
HDU5-SDS3[a]	1/4"X2.5"	14-1/4"X2.5"SDS	SSTB24	20-5/8"
HDU8-SDS3[b]	1/4"X2.5"	20-1/4"X2.5"SDS	SSTB34	28-7/8"
HHDQ11-SDS3[b]	1/4"X2.5"	24-1/4"X2.5"SDS	SB 1x30	24"

a. wood member thickness = 3.5"
b. wood member thickness = 5.5"

A. MATERIAL SPECIFICATIONS & INSPECTIONS:

1. CONTRACTORS RESPONSIBLE FOR THE CONSTRUCTION OF A WIND OR SEISMIC FORCE RESISTING SYSTEM/COMPONENT LISTED IN THE STATEMENT OF SPECIAL INSPECTION SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE LADBS INSPECTORS AND THE OWNER PRIOR TO THE COMMENCEMENT OF WORK ON SUCH SYSTEM OR COMPONENT PER SEC 1704.4.
2. CONTINUOUS SPECIAL INSPECTION BY A REGISTERED DEPUTY INSPECTOR IS REQUIRED FOR FIELD WELDING, POST-INSTALLED ADHESIVE ANCHORS INSTALLED HORIZONTALLY OR UPWARDLY INCLINED TO RESIST SUSTAINED TENSION LOADS, SHOTCRETE PLACEMENT, CONCRETE STRENGTH F=C > 2500 PSI, SPRAYED-ON FIREPROOFING, ENGINEERED MASONRY, HIGH-LIFT GROUTING, HIGH LOAD DIAPHRAGMS, SPECIAL MOMENT-RESISTING CONCRETE FRAMES, AND HELICAL PILE FOUNDATIONS. (1705 & CHAPTERS 19, 21, AND 22)
3. FOUNDATION SILLS SHALL BE NATURALLY DURABLE OR PRESERVATIVE-TREATED WOOD. (2304.12.1.4)
4. FIELD WELDING TO BE DONE BY WELDERS CERTIFIED BY THE LADBS FOR (STRUCTURAL STEEL)(REINFORCING STEEL)(LIGHT GAUGE STEEL). CONTINUOUS INSPECTION BY A DEPUTY INSPECTOR IS REQUIRED.
5. SHOP WELDS MUST BE PERFORMED IN A LADBS LICENSED FABRICATOR SHOP.
6. LADBS LICENSED FABRICATOR IS REQUIRED FOR (TRUSSES), (STRUCTURAL STEEL).
7. GLUED-LAMINATED TIMBERS MUST BE FABRICATED IN A LADBS LICENSED SHOP IDENTIFY GRADE SYMBOL AND LAMINATION SPECIES PER 2015 NDS SUPPLEMENT TABLE 5A.
8. PROVIDE LEAD HOLE 40% - 70% OF THREADED SHANK DIAMETER AND FULL DIAMETER FOR SMOOTH SHANK PORTION.
9. PERIODIC SPECIAL INSPECTION IS REQUIRED FOR WOOD SHEAR WALLS, SHEAR PANELS, AND DIAPHRAGMS, INCLUDING NAILING, BOLTING, ANCHORING, AND OTHER FASTENING TO COMPONENTS OF THE SEISMIC FORCE RESISTING SYSTEM. SPECIAL INSPECTION BY A DEPUTY INSPECTOR IS REQUIRED WHERE THE FASTENER SPACING OF THE SHEATHING IS 4 INCHES ON CENTER OR LESS. (1705.12.2)
10. SPECIAL ACTIVITY INSPECTION IS REQUIRED FOR (BUILDINGS OVER 5 STORIES OR 60' IN HEIGHT) (BUILDINGS OVER 50,000 SQ. FT. OF GROUND FLOOR AREA) (BUILDINGS OVER 200,000 SQ. FT. OF TOTAL FLOOR AREA) (1705.1.6)
11. A COPY OF THE LOS ANGELES RESEARCH REPORT AND/OR CONDITIONS OF LISTING SHALL BE MADE AVAILABLE AT THE JOB SITE.
12. IF ADVERSE SOIL CONDITIONS ARE ENCOUNTERED, A SOILS INVESTIGATIONS REPORT MAY BE REQUIRED.

B. SHEAR WALLS:

1. HOLD-DOWN CONNECTOR BOLTS INTO WOOD FRAMING REQUIRE APPROVED PLATE WASHERS; AND HOLD-DOWNS SHALL BE FINGER TIGHT AND WRENCH TURNED JUST PRIOR TO COVERING THE WALL FRAMING. CONNECTOR BOLTS INTO WOOD FRAMING REQUIRE STEEL PLATE WASHERS ON THE POST ON THE OPPOSITE SIDE OF THE ANCHORAGE DEVICE. PLATE SIZE SHALL BE A MINIMUM OF 0.299 INCH BY 3 INCHES BY 3 INCHES.
2. ROOF DIAPHRAGM NAILING TO BE INSPECTED BEFORE COVERING. FACE GRAIN OF PLYWOOD SHALL BE PERPENDICULAR TO SUPPORTS. FLOOR SHALL HAVE TONGUE AND GROOVE OR BLOCKED PANEL EDGES. PLYWOOD SPANS SHALL CONFORM WITH TABLE 2304.8(1).
3. ALL DIAPHRAGM AND SHEAR WALL NAILING SHALL UTILIZE COMMON NAILS OR GALVANIZED BOX.
4. ALL BOLT HOLES SHALL BE DRILLED 1/32" TO 1/16" OVERSIZED. (12.1.3.2, NDS)
5. HOLD-DOWN HARDWARE MUST BE SECURED IN PLACE PRIOR TO FOUNDATION INSPECTION.
6. HOLD-DOWNS SHALL BE RE-TIGHTENED JUST PRIOR TO COVERING THE WALL FRAMING.
7. ALL WALLS SHALL BE CONSTRUCTED W/ 2x4 STUDS @ 16" O.C. x 8'-0" HIGH - WALLS TALLER THAN 10'-0" HIGH SHALL BE CONSTRUCTED W /2x6 STUDS @ 16" O.C.
8. 3,000 PSI MIN. FOR CONCRETE FOUNDATIONS IN SDC D, E, OR F OTHER THAN GROUP R OR U OF LIGHT-FRAME CONSTRUCTION, THREE STORIES ABOVE OR MORE.
9. FLOOR DIAPHRAGM: 23/32" CDX, EXPOSURE 1, TONGUE AND GROOVE, W/ 10d COMMON NAILS @ 6" O.C. AT BOUNDARY & PANEL EDGE NAILING (E.N.), AND 12" O.C. AT INTERMEDIATE FRAMING MEMBERS
10. ROOF DIAPHRAGM: 15/32" CDX SHEATHING (MIN.), EXPOSURE 1, 24/0 MAX. SPAN RATING, WITH 8d COMMON NAILS @ 6" O.C. AT BOUNDARY & PANEL EDGE AILING (E.N.), AND 12" O.C. AT INTERMEDIATE FRAMING MEMBERS
11. 3x6 WALL STUDS @ 16"O.C. SHALL BE USED FOR ALL BEARING PARTITIONS AND PERIMETER WALLS WITH TWO OR MORE FLOORS ABOVE.

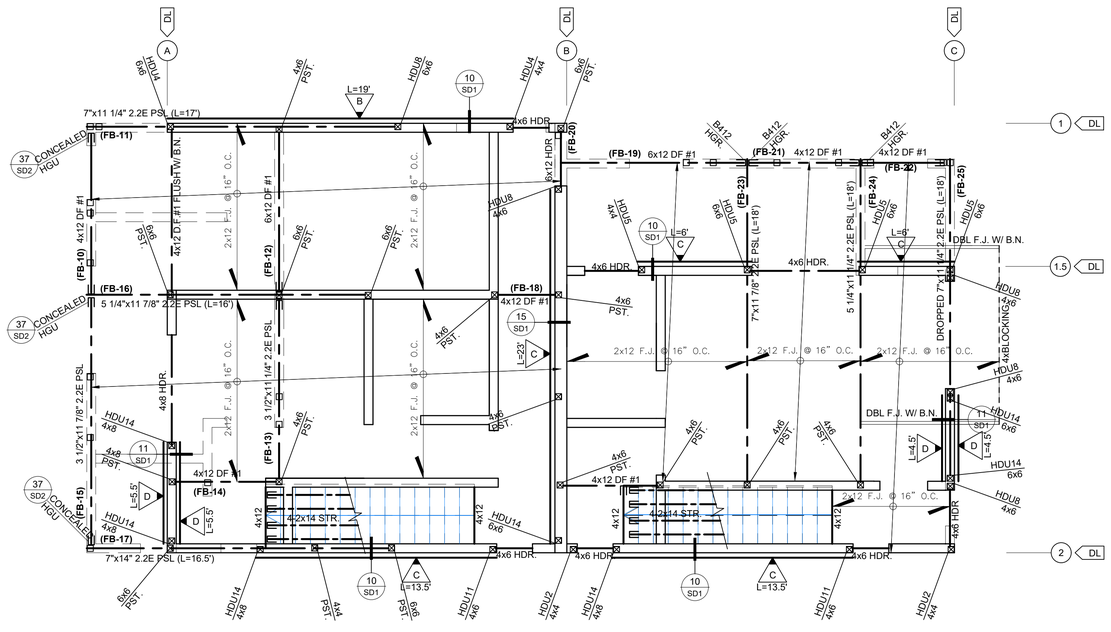
SHEARWALL SPECS.:
SHEARWALL WITH 350 PLF. OR HIGHER (C, D, E) SHALL HAVE:
A) 3X FOUNDATION SILL PLATES
B) 3X STUDS AND BLOCKS BETWEEN ADJACENT PANELS
C) 2" EDGE DISTANCE FOR PLYWOOD BOUNDARY NAILING
D) ALL PANEL JOINT AND SILL PLATE NAILING SHALL BE STAGGERED.

LARR NUMBERS:
SIMPSON HOLDOWNS: 25720 & ICC-ES # ESR-2330
SIMPSON STRAPS: 25713 & 25910
SIMPSON SET EPOXY: 25744 (CONCRETE) & 25965 (MASONRY)
SIMPSON HANGERS: 25807
PARALLAMS (TRUSS JOIST): 25202
HARDY FRAME: 25759 (SUPPLEMENT-2017)

DESIGN PARAMETERS

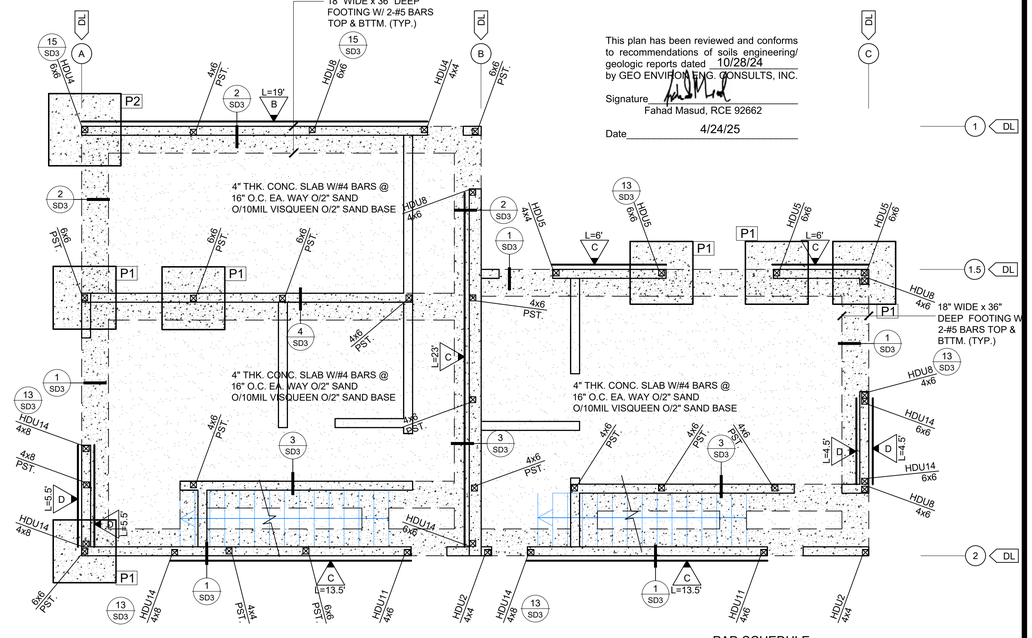
Address : 2637 S. Longwood Ave.
Los Angeles, CA 90016

Latitude:		=34.0316253
Longitude		=-118.3506405
Mapped Spectral Response Acceleration:	Ss	=1.988g
	S1	=0.704g
Spectral Response Coefficient:	SDS	=1.590g
	SD1	=0.704g
Risk Category		=II
Seismic Importance Factor, I :		=1.00
Seismic Design Category:		=E
Site Class		=D
Basic Seismic Force Resisting System:		=Wood Structural Shear Panels
Response Modification Coefficient, R :		=6.5
System Overstrength Factor, Ωo :		=3
Deflection Amplification Factor, Cd :		=4
Design Method:		=E.L.F Procedure
Weight of Building, (W):		=100.559 kips
Base Shear, (V):		=0.175 W 18.798 kips
Redundancy, (R):		=1.3
Basic Wind Speed, (Vmph):		=110mph
Wind Importance Factor, (I):		=1.0
Wind Exposure:		=C
Soils Pressure:		=1500 psf



2ND FLOOR FRAMING PLAN

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



This plan has been reviewed and conforms to recommendations of soils engineering/ geologic reports dated 10/28/24
by GEO ENVIRON ENG. CONSULTS, INC.
Signature
Fahad Masud, RCE 92662
Date 4/24/25

FOUNDATION PLAN

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

PAD SCHEDULE
P1 33" SQ. x 24" THK. W/5-#5 EA. WAY
P2 42"SQ. x 24" THK. W/6-#5 EA. WAY

REVISIONS	BY

LICENSED PROFESSIONAL ENGINEER
MARTIN H SANDOVAL
C 56905
EXP. 06/30/25
CIVIL
STATE OF CALIFORNIA

STAMP

WR DESIGN GROUP
CIVIL & STRUCTURAL ENGINEERING
9900 LAKEWOOD BLVD, SUITE 109
DOWNEY CA. 90240
(562) 314-5500

SHEET TITLE: BUILDING A

PROJECT INFO:
TITLE
2637 S. LONGWOOD AVE
LOS ANGELES, CA 90016

DRAWN: DE
CHECKED: M.D. / W.R.
DATE: APRIL 23, 2025
SCALE: 1/4"=1'-0"
JOB NO.: 256-24
SHEET: S1
OF 9 SHEETS

02-24-20

2022 CALIFORNIA BUILDING CODE SHEARWALL SCHEDULE

SHEAR-WALL No.	STRUCTURAL APA-RATED WOOD STRUCTURAL PANEL THICKNESS	COMMON NAIL SPACING @ BOUNDARIES & EDGES (B.N. & E.N.) FIELD NAILING @ 12" O.C.	ALLOWABLE SHEAR / FT (WOOD STUDS @16" O.C., U.N.0) (LIMITED TO 75%)	SLIDING ANCHOR SYSTEM[4] 5/8"ø A.B. SPACING[2] 2x SILL V= 1184# 3x SILL V= 1520# O.C.	FRAMING CLIP SPACING V = 450# O.C.	16d COMMON NAIL SPACING[3] OR GALV. BOX 2x SOLE PLATE ONLY: V= 121# O.C.	1/4" ø LAG x 6" LONG 3x SOLE PLATE ONLY: V= 537# O.C.
S	7/8" STUCCO	No. 11 GA. @ 6" O.C.	90 #/FT.	48"	A35 @ 30"	8"	36"
A	15/32"	8d @ 6" o.c.	280#/FT.	48"	A35 @ 18"	5"	23"
B 1, 5	15/32"	8d @ 4" o.c.	430#/FT.	42"	A35 @ 12"	3"	15"
C 1, 5	15/32"	8d @ 3" o.c.	550#/FT.	32"	A35 @ 12"	3"	24"
D 1, 5	15/32"	8d @ 2" o.c.	730#/FT.	24"	A35 @ 7"	→	9"
E 1, 5	15/32"	10d @ 2" o.c.	850#/FT.	20"	A35 @ 6"	→	6"

1. FRAMING AT FOUNDATION SILL PLATES AND ADJOINING PANEL EDGE STUDS SHALL BE A SINGLE 3x NOMINAL MEMBER, AND ALL NAILS SHALL BE STAGGERED WITH 1/2" EDGE DISTANCE.
2. SIMPSON BP5/8-3 BEARING PLATES (LARR 25293), OR OTHER LISTED MAKE, APPROVED BY BUILDING OFFICIAL, SHALL BE USED WITH ALL 5/8" DIA. ANCHORS. 5/8" DIA. SIMPSON TITAN HD ANCHORS (ICC-ES-ESER-1056/LARR# 25560) WITH 4\" MIN. EMBEDMENT, MAY BE USED IN LIEU OF 5/8" DIA. ANCHOR BOLTS AT EXISTING FOOTINGS WITH SAME SPACING PER TABLE ABOVE. SPECIAL INSPECTION REQUIRED FOR ALL EPOXY ANCHOR INSTALLATIONS.
3. ALL SILL NAILING SHALL BE STAGGERED 1/2" MINIMUM. (TYPICAL)
4. WHEN A SHEARWALL IS SPECIFIED ON BOTH SIDES OF WALL, ALL SLIDING ANCHOR CONNECTORS SHALL BE ATTACHED WITH SPACINGS FROM THE TABLE ABOVE TO BE REDUCED BY HALF.
5. SPECIAL INSPECTION REQUIRED

SHEARWALL SCHEDULE NOTES:

A. SHEAR WALL AT LOCATIONS AS SHOWN ON THE PLANS ARE TO BE SHEATHED AND DETAILED IN ACCORDANCE WITH THIS SCHEDULE FOR THE MARK INDICATED. IN CASE OF QUESTION CONTACT STRUCTURAL ENGINEER FOR CLARIFICATION BEFORE PROCEEDING.

B. SHEATHING SHALL EXTEND FROM TOP PLATE TO BOTTOM PLATE.

C. TOP PLATE SHALL BE CONNECTED TO THE STRUCTURAL DIAPHRAGM PER SPECIFIC DETAILS.WHERE NO DETAIL IS GIVEN, DIAPHRAGM BOUNDARY NAILING SHALL BE MADE INTO A RIM, JOIST OR BLOCK WHICH SHALL IN TURN BE ATTACHED TO THE TOP PLATE WITH TOE NAILS, FRAMING ANCHORS, OR TIE PLATES PER SCHEDULE.

D. WHERE BOTTOM PLATE IS SUPPORTED BY CONCRETE OR MASONRY CONNECTION SHALL BE MADE PER SPECIFIC DETAILS. SILL BOLTS PER SCHEDULE SHALL BE USED WHERE NO DETAIL IS GIVEN.

E. IF BOTTOM PLATE IS SUPPORTED BY WOOD FRAMING, CONNECTION SHALL BE PER SPECIFIC DETAILS. WHERE NO DETAIL IS GIVEN, NAILS PER SCHEDULE SHALL BE DRIVEN THROUGH THE BOTTOM PLATE AND THE DIAPHRAGM INTO A RIM, JOIST OR BLOCK. NAILING SHALL BE STAGGERED TO DOUBLE OR 4x JOISTS OR BLOCKS TO PREVENT SPLITTING WHERE NAIL SPACING IS LESS THAN 4" O.C..

F. T-NAILS, STAPLES OR OTHER SPECIAL FASTENERS SHALL NOT BE USED IN SHEAR WALLS.

G. PLATE WASHERS SHALL BE USED ON THE BACK SIDE OF THE HOLDOWN POST.

HDU HOLD DOWN
LARR #25720 & ICC-ES # ESR-2330

SSTB ANCHOR BOLTS
LARR #25827 FOR DETAIL SEE

MODEL NO.	SIMPSON SDS WOOD SCREWS		HOLDOWN ANCHOR SSTB ANCHORS	
	SCREW SIZE	SDS SCREWS QTY	SSTB MODEL NO.	MIN. EMBED
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HDU5-SDS3[a]	1/4"X2.5"	14-1/4"X2.5"SDS	SSTB24	20-5/8"
HDU8-SDS3[b]	1/4"X2.5"	20-1/4"X2.5"SDS	SSTB34	28-7/8"
HHDQ11-SDS3[b]	1/4"X2.5"	24-1/4"X2.5"SDS	SB 1x30	24"

a. wood member thickness = 3.5"
b. wood member thickness = 5.5"

A. MATERIAL SPECIFICATIONS & INSPECTIONS:

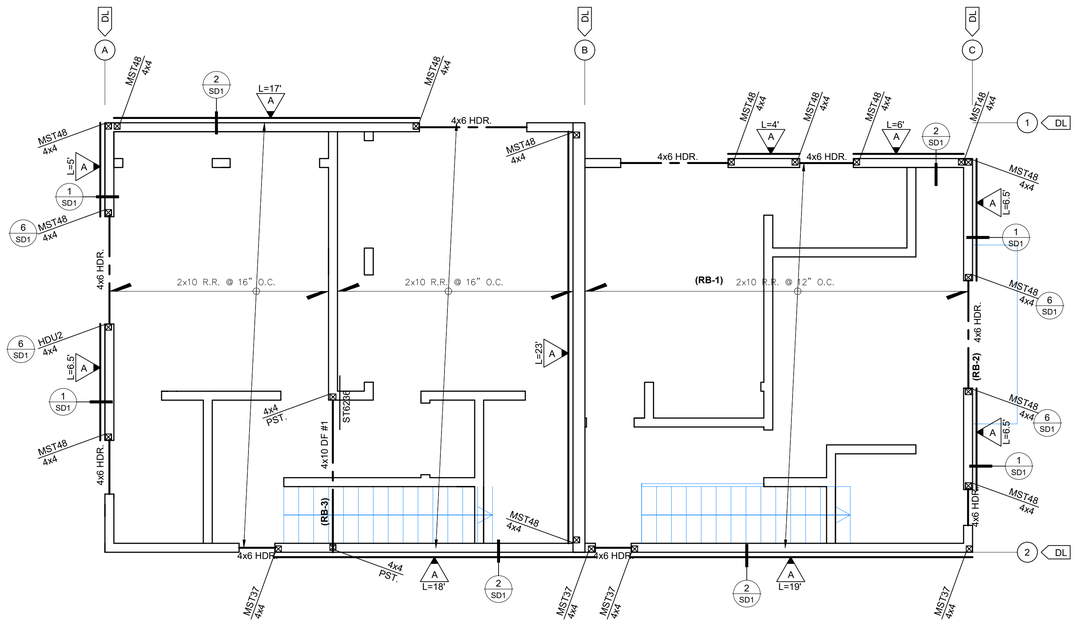
1. CONTRACTORS RESPONSIBLE FOR THE CONSTRUCTION OF A WIND OR SEISMIC FORCE RESISTING SYSTEM/COMPONENT LISTED IN THE STATEMENT OF SPECIAL INSPECTION SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE LADBS INSPECTORS AND THE OWNER PRIOR TO THE COMMENCEMENT OF WORK ON SUCH SYSTEM OR COMPONENT PER SEC 1704.4.
2. CONTINUOUS SPECIAL INSPECTION BY A REGISTERED DEPUTY INSPECTOR IS REQUIRED FOR FIELD WELDING, POST-INSTALLED ADHESIVE ANCHORS INSTALLED HORIZONTALLY OR UPWARDLY INCLINED TO RESIST SUSTAINED TENSION LOADS, SHOTCRETE PLACEMENT, CONCRETE STRENGTH F=C > 2500 PSI, SPRAYED-ON FIREPROOFING, ENGINEERED MASONRY, HIGH-LIFT GROUTING, HIGH LOAD DIAPHRAGMS, SPECIAL MOMENT-RESISTING CONCRETE FRAMES, AND HELICAL PILE FOUNDATIONS. (1705 & CHAPTERS 19, 21, AND 22)
3. FOUNDATION SILLS SHALL BE NATURALLY DURABLE OR PRESERVATIVE-TREATED WOOD. (2304.12.1.4)
4. FIELD WELDING TO BE DONE BY WELDERS CERTIFIED BY THE LADBS FOR (STRUCTURAL STEEL)(REINFORCING STEEL)(LIGHT GAUGE STEEL). CONTINUOUS INSPECTION BY A DEPUTY INSPECTOR IS REQUIRED.
5. SHOP WELDS MUST BE PERFORMED IN A LADBS LICENSED FABRICATOR SHOP.
6. LADBS LICENSED FABRICATOR IS REQUIRED FOR (TRUSSES), (STRUCTURAL STEEL).
7. GLUED-LAMINATED TIMBERS MUST BE FABRICATED IN A LADBS LICENSED SHOP. IDENTIFY GRADE SYMBOL AND LAMINATION SPECIES PER 2015 NDS SUPPLEMENT TABLE 5A.
8. PROVIDE LEAD HOLE 40% - 70% OF THREADED SHANK DIAMETER AND FULL DIAMETER FOR SMOOTH SHANK PORTION.
9. PERIODIC SPECIAL INSPECTION IS REQUIRED FOR WOOD SHEAR WALLS, SHEAR PANELS, AND DIAPHRAGMS, INCLUDING NAILING, BOLTING, ANCHORING, AND OTHER FASTENING TO COMPONENTS OF THE SEISMIC FORCE RESISTING SYSTEM. SPECIAL INSPECTION BY A DEPUTY INSPECTOR IS REQUIRED WHERE THE FASTENER SPACING OF THE SHEATHING IS 4 INCHES ON CENTER OR LESS. (1705.12.2)
10. SPECIAL ACTIVITY INSPECTION IS REQUIRED FOR (BUILDINGS OVER 5 STORIES OR 60' IN HEIGHT) (BUILDINGS OVER 50,000 SQ. FT. OF GROUND FLOOR AREA) (BUILDINGS OVER 200,000 SQ. FT. OF TOTAL FLOOR AREA) (1705.1.6)
11. A COPY OF THE LOS ANGELES RESEARCH REPORT AND/OR CONDITIONS OF LISTING SHALL BE MADE AVAILABLE AT THE JOB SITE.
12. IF ADVERSE SOIL CONDITIONS ARE ENCOUNTERED, A SOILS INVESTIGATIONS REPORT MAY BE REQUIRED.

B. SHEAR WALLS:

1. HOLD-DOWN CONNECTOR BOLTS INTO WOOD FRAMING REQUIRE APPROVED PLATE WASHERS; AND HOLD-DOWNS SHALL BE FINGER TIGHT AND WRENCH TURNED JUST PRIOR TO COVERING THE WALL FRAMING. CONNECTOR BOLTS INTO WOOD FRAMING REQUIRE STEEL PLATE WASHERS ON THE POST ON THE OPPOSITE SIDE OF THE ANCHORAGE DEVICE. PLATE SIZE SHALL BE A MINIMUM OF 0.299 INCH BY 3 INCHES BY 3 INCHES.
2. ROOF DIAPHRAGM NAILING TO BE INSPECTED BEFORE COVERING. FACE GRAIN OF PLYWOOD SHALL BE PERPENDICULAR TO SUPPORTS. FLOOR SHALL HAVE TONGUE AND GROOVE OR BLOCKED PANEL EDGES. PLYWOOD SPANS SHALL CONFORM WITH TABLE 2304.8(1).
3. ALL DIAPHRAGM AND SHEAR WALL NAILING SHALL UTILIZE COMMON NAILS OR GALVANIZED BOX.
4. ALL BOLT HOLES SHALL BE DRILLED 1/32" TO 1/16" OVERSIZED. (12.1.3.2, NDS)
5. HOLD-DOWN HARDWARE MUST BE SECURED IN PLACE PRIOR TO FOUNDATION INSPECTION.
6. HOLD-DOWNS SHALL BE RE-TIGHTENED JUST PRIOR TO COVERING THE WALL FRAMING.
7. ALL WALLS SHALL BE CONSTRUCTED W/ 2x4 STUDS @ 16" O.C. x 8'-0" HIGH - WALLS TALLER THAN 10'-0" HIGH SHALL BE CONSTRUCTED W /2x6 STUDS @ 16" O.C.
8. 3,000 PSI MIN. FOR CONCRETE FOUNDATIONS IN SDC D, E, OR F OTHER THAN GROUP R OR U OF LIGHT-FRAME CONSTRUCTION, THREE STORIES ABOVE OR MORE.
9. FLOOR DIAPHRAGM: 23/32" CDX, EXPOSURE 1, TONGUE AND GROOVE, W/ 10d COMMON NAILS @ 6" O.C. AT BOUNDARY & PANEL EDGE NAILING (E.N.), AND 12" O.C. AT INTERMEDIATE FRAMING MEMBERS
10. ROOF DIAPHRAGM: 15/32" CDX SHEATHING (MIN.), EXPOSURE 1, 24/0 MAX. SPAN RATING, WITH 8d COMMON NAILS @ 6" O.C. AT BOUNDARY & PANEL EDGE AILING (E.N.), AND 12" O.C. AT INTERMEDIATE FRAMING MEMBERS
11. 3x6 WALL STUDS @ 16"O.C. SHALL BE USED FOR ALL BEARING PARTITIONS AND PERIMETER WALLS WITH TWO OR MORE FLOORS ABOVE.

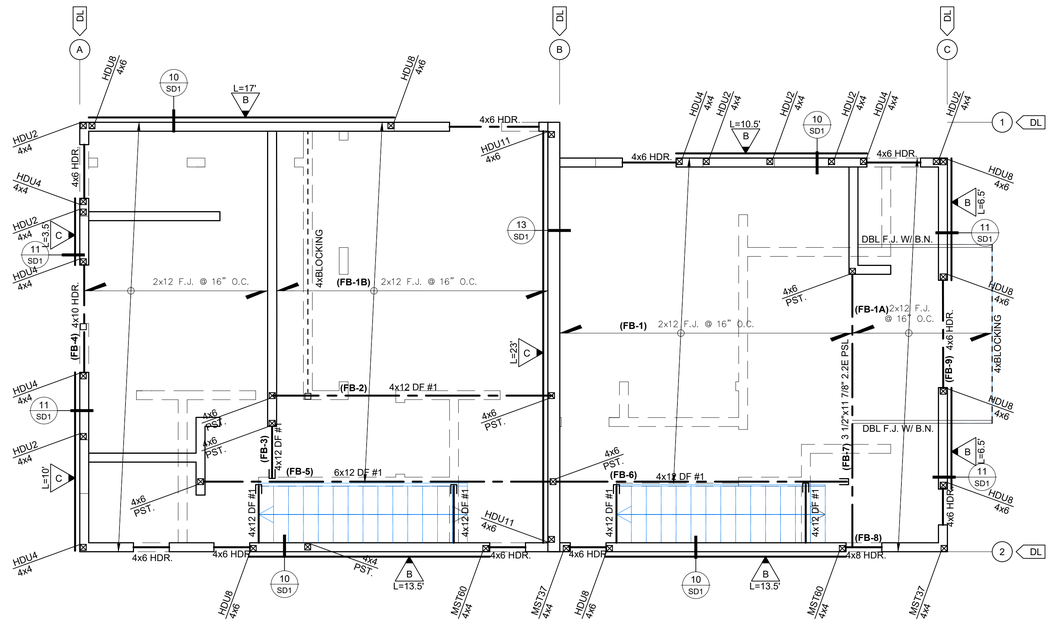
SHEARWALL SPECS.:
SHEARWALL WITH 350 PLF. OR HIGHER (C, D, E) SHALL HAVE:
A) 3X FOUNDATION SILL PLATES
B) 3X STUDS AND BLOCKS BETWEEN ADJACENT PANELS
C) ½" EDGE DISTANCE FOR PLYWOOD BOUNDARY NAILING
D) ALL PANEL JOINT AND SILL PLATE NAILING SHALL BE STAGGERED.

LARR NUMBERS:
SIMPSON HOLDOWNS: 25720 & ICC-ES # ESR-2330
SIMPSON STRAPS: 25713 & 25910
SIMPSON SET EPOXY: 25744 (CONCRETE) & 25965 (MASONRY)
SIMPSON HANGERS: 25807
PARALLAMS (TRUSS JOIST): 25202
HARDY FRAME: 25759 (SUPPLEMENT-2017)



ROOF FRAMING PLAN

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



3RD FLOOR FRAMING PLAN

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

REVISIONS	BY

LICENSED PROFESSIONAL ENGINEER
MARTIN H SANDOVAL
C 56905
EXP. 06/30/25
CIVIL
STATE OF CALIFORNIA

STAMP

WR DESIGN GROUP
CIVIL & STRUCTURAL ENGINEERING
9900 LAKEWOOD BLVD, SUITE 109
DOWNEY CA. 90240
(562) 314-5500

SHEET TITLE: BUILDING A

PROJECT INFO:
TITLE
2637 S. LONGWOOD AVE
LOS ANGELES, CA 90016

DRAWN	DE
CHECKED	M.D. / W.R.
DATE	APRIL 23, 2025
SCALE	1/4"=1'-0"
JOB NO.	256-24
SHEET	S2

OF 9 SHEETS

02-24-20

2022 CALIFORNIA BUILDING CODE SHEARWALL SCHEDULE

SHEAR-WALL No.	STRUCTURAL APA-RATED WOOD STRUCTURAL PANEL THICKNESS	COMMON NAIL SPACING @ BOUNDARIES & EDGES (B.N. & E.N.) FIELD NAILING @ 12" O.C.	ALLOWABLE SHEAR / FT (WOOD STUDS @16" O.C., U.N.0) (LIMITED TO 75%)	SLIDING ANCHOR SYSTEM[4] 5/8"ø A.B. SPACING[2] 2x SILL V= 1184# 3x SILL V= 1520# O.C.	FRAMING CLIP SPACING V = 450# O.C.	16d COMMON NAIL SPACING[3] OR GALV. BOX 2x SOLE PLATE ONLY: V= 121# O.C.	1/4"ø LAG x 6" LONG 3x SOLE PLATE ONLY: V= 537# O.C.
S	7/8" STUCCO	No. 11 GA. @ 6" O.C.	90 #/FT.	48"	A35 @ 30"	8"	36"
A	15/32"	8d @ 6" o.c.	280#/FT.	48"	A35 @ 18"	5"	23"
B 1, 5	15/32"	8d @ 4" o.c.	430#/FT.	42"	A35 @ 12"	3"	15"
C 1, 5	15/32"	8d @ 3" o.c.	550#/FT.	32"	A35 @ 12"	3"	24"
D 1, 5	15/32"	8d @ 2" o.c.	730#/FT.	24"	A35 @ 7"	→	9"
E 1, 5	15/32"	10d @ 2" o.c.	850#/FT.	20"	A35 @ 6"	→	6"

1. FRAMING AT FOUNDATION SILL PLATES AND ADJOINING PANEL EDGE STUDS SHALL BE A SINGLE 3x NOMINAL MEMBER, AND ALL NAILS SHALL BE STAGGERED WITH 1/2" EDGE DISTANCE.
2. SIMPSON BP5/8-3 BEARING PLATES (LARR 25293), OR OTHER LISTED MAKE, APPROVED BY BUILDING OFFICIAL, SHALL BE USED WITH ALL 5/8" DIA. ANCHORS. 5/8" DIA. SIMPSON TITAN HD ANCHORS (ICC-ES-ESER-1056/LARR# 25560) WITH 4\" MIN. EMBEDMENT, MAY BE USED IN LIEU OF 5/8" DIA. ANCHOR BOLTS AT EXISTING FOOTINGS WITH SAME SPACING PER TABLE ABOVE. SPECIAL INSPECTION REQUIRED FOR ALL EPOXY ANCHOR INSTALLATIONS.
3. ALL SILL NAILING SHALL BE STAGGERED 1/2" MINIMUM. (TYPICAL)
4. WHEN A SHEARWALL IS SPECIFIED ON BOTH SIDES OF WALL, ALL SLIDING ANCHOR CONNECTORS SHALL BE ATTACHED WITH SPACINGS FROM THE TABLE ABOVE TO BE REDUCED BY HALF.
5. SPECIAL INSPECTION REQUIRED

SHEARWALL SCHEDULE NOTES:

A. SHEAR WALL AT LOCATIONS AS SHOWN ON THE PLANS ARE TO BE SHEATHED AND DETAILED IN ACCORDANCE WITH THIS SCHEDULE FOR THE MARK INDICATED. IN CASE OF QUESTION CONTACT STRUCTURAL ENGINEER FOR CLARIFICATION BEFORE PROCEEDING.

B. SHEATHING SHALL EXTEND FROM TOP PLATE TO BOTTOM PLATE.

C. TOP PLATE SHALL BE CONNECTED TO THE STRUCTURAL DIAPHRAGM PER SPECIFIC DETAILS.WHERE NO DETAIL IS GIVEN, DIAPHRAGM BOUNDARY NAILING SHALL BE MADE INTO A RIM, JOIST OR BLOCK WHICH SHALL IN TURN BE ATTACHED TO THE TOP PLATE WITH TOE NAILS, FRAMING ANCHORS, OR TIE PLATES PER SCHEDULE.

D. WHERE BOTTOM PLATE IS SUPPORTED BY CONCRETE OR MASONRY CONNECTION SHALL BE MADE PER SPECIFIC DETAILS. SILL BOLTS PER SCHEDULE SHALL BE USED WHERE NO DETAIL IS GIVEN.

E. IF BOTTOM PLATE IS SUPPORTED BY WOOD FRAMING, CONNECTION SHALL BE PER SPECIFIC DETAILS. WHERE NO DETAIL IS GIVEN, NAILS PER SCHEDULE SHALL BE DRIVEN THROUGH THE BOTTOM PLATE AND THE DIAPHRAGM INTO A RIM, JOIST OR BLOCK. NAILING SHALL BE STAGGERED TO DOUBLE OR 4x JOISTS OR BLOCKS TO PREVENT SPLITTING WHERE NAIL SPACING IS LESS THAN 4" O.C..

F. T-NAILS, STAPLES OR OTHER SPECIAL FASTENERS SHALL NOT BE USED IN SHEAR WALLS.

G. PLATE WASHERS SHALL BE USED ON THE BACK SIDE OF THE HOLDOWN POST.

HDU HOLD DOWN
LARR #25720 & ICC-ES # ESR-2330

SSTB ANCHOR BOLTS
LARR #25827

FOR DETAIL SEE

MODEL NO.	SIMPSON SDS WOOD SCREWS		HOLDOWN ANCHOR SSTB ANCHORS	
	SCREW SIZE	SDS SCREWS QTY	SSTB MODEL NO.	MIN. EMBED
HDU2-SDS3[a]	1/4"X2.5"	6-1/4"X2.5"SDS	SSTB20	16-5/8"
HDU4-SDS3[a]	1/4"X2.5"	10-1/4"X2.5"SDS	SSTB24	20-5/8"
HDU5-SDS3[a]	1/4"X2.5"	14-1/4"X2.5"SDS	SSTB24	20-5/8"
HDU8-SDS3[b]	1/4"X2.5"	20-1/4"X2.5"SDS	SSTB34	28-7/8"
HHDQ11-SDS3[b]	1/4"X2.5"	24-1/4"X2.5"SDS	SB 1x30	24"

a. wood member thickness = 3.5"
b. wood member thickness = 5.5"

A. MATERIAL SPECIFICATIONS & INSPECTIONS:

1. CONTRACTORS RESPONSIBLE FOR THE CONSTRUCTION OF A WIND OR SEISMIC FORCE RESISTING SYSTEM/COMPONENT LISTED IN THE STATEMENT OF SPECIAL INSPECTION SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE LADBS INSPECTORS AND THE OWNER PRIOR TO THE COMMENCEMENT OF WORK ON SUCH SYSTEM OR COMPONENT PER SEC 1704.4.
2. CONTINUOUS SPECIAL INSPECTION BY A REGISTERED DEPUTY INSPECTOR IS REQUIRED FOR FIELD WELDING, POST-INSTALLED ADHESIVE ANCHORS INSTALLED HORIZONTALLY OR UPWARDLY INCLINED TO RESIST SUSTAINED TENSION LOADS, SHOTCRETE PLACEMENT, CONCRETE STRENGTH F=C > 2500 PSI, SPRAYED-ON FIREPROOFING, ENGINEERED MASONRY, HIGH-LIFT GROUTING, HIGH LOAD DIAPHRAGMS, SPECIAL MOMENT-RESISTING CONCRETE FRAMES, AND HELICAL PILE FOUNDATIONS. (1705 & CHAPTERS 19, 21, AND 22)
3. FOUNDATION SILLS SHALL BE NATURALLY DURABLE OR PRESERVATIVE-TREATED WOOD. (2304.12.1.4)
4. FIELD WELDING TO BE DONE BY WELDERS CERTIFIED BY THE LADBS FOR (STRUCTURAL STEEL)(REINFORCING STEEL)(LIGHT GAUGE STEEL). CONTINUOUS INSPECTION BY A DEPUTY INSPECTOR IS REQUIRED.
5. SHOP WELDS MUST BE PERFORMED IN A LADBS LICENSED FABRICATOR SHOP.
6. LADBS LICENSED FABRICATOR IS REQUIRED FOR (TRUSSES), (STRUCTURAL STEEL).
7. GLUED-LAMINATED TIMBERS MUST BE FABRICATED IN A LADBS LICENSED SHOP IDENTIFY GRADE SYMBOL AND LAMINATION SPECIES PER 2015 NDS SUPPLEMENT TABLE 5A.
8. PROVIDE LEAD HOLE 40% - 70% OF THREADED SHANK DIAMETER AND FULL DIAMETER FOR SMOOTH SHANK PORTION.
9. PERIODIC SPECIAL INSPECTION IS REQUIRED FOR WOOD SHEAR WALLS, SHEAR PANELS, AND DIAPHRAGMS, INCLUDING NAILING, BOLTING, ANCHORING, AND OTHER FASTENING TO COMPONENTS OF THE SEISMIC FORCE RESISTING SYSTEM. SPECIAL INSPECTION BY A DEPUTY INSPECTOR IS REQUIRED WHERE THE FASTENER SPACING OF THE SHEATHING IS 4 INCHES ON CENTER OR LESS. (1705.12.2)
10. SPECIAL ACTIVITY INSPECTION IS REQUIRED FOR (BUILDINGS OVER 5 STORIES OR 60' IN HEIGHT) (BUILDINGS OVER 50,000 SQ. FT. OF GROUND FLOOR AREA) (BUILDINGS OVER 200,000 SQ. FT. OF TOTAL FLOOR AREA) (1705.1.6)
11. A COPY OF THE LOS ANGELES RESEARCH REPORT AND/OR CONDITIONS OF LISTING SHALL BE MADE AVAILABLE AT THE JOB SITE.
12. IF ADVERSE SOIL CONDITIONS ARE ENCOUNTERED, A SOILS INVESTIGATIONS REPORT MAY BE REQUIRED.

B. SHEAR WALLS:

1. HOLD-DOWN CONNECTOR BOLTS INTO WOOD FRAMING REQUIRE APPROVED PLATE WASHERS; AND HOLD-DOWNS SHALL BE FINGER TIGHT AND WRENCH TURNED JUST PRIOR TO COVERING THE WALL FRAMING. CONNECTOR BOLTS INTO WOOD FRAMING REQUIRE STEEL PLATE WASHERS ON THE POST ON THE OPPOSITE SIDE OF THE ANCHORAGE DEVICE. PLATE SIZE SHALL BE A MINIMUM OF 0.299 INCH BY 3 INCHES BY 3 INCHES.
2. ROOF DIAPHRAGM NAILING TO BE INSPECTED BEFORE COVERING. FACE GRAIN OF PLYWOOD SHALL BE PERPENDICULAR TO SUPPORTS. FLOOR SHALL HAVE TONGUE AND GROOVE OR BLOCKED PANEL EDGES. PLYWOOD SPANS SHALL CONFORM WITH TABLE 2304.8(1).
3. ALL DIAPHRAGM AND SHEAR WALL NAILING SHALL UTILIZE COMMON NAILS OR GALVANIZED BOX.
4. ALL BOLT HOLES SHALL BE DRILLED 1/32" TO 1/16" OVERSIZED. (12.1.3.2, NDS)
5. HOLD-DOWN HARDWARE MUST BE SECURED IN PLACE PRIOR TO FOUNDATION INSPECTION.
6. HOLD-DOWNS SHALL BE RE-TIGHTENED JUST PRIOR TO COVERING THE WALL FRAMING.
7. ALL WALLS SHALL BE CONSTRUCTED W/ 2x4 STUDS @ 16" O.C. x 8'-0" HIGH - WALLS TALLER THAN 10'-0" HIGH SHALL BE CONSTRUCTED W /2x6 STUDS @ 16" O.C.
8. 3,000 PSI MIN. FOR CONCRETE FOUNDATIONS IN SDC D, E, OR F OTHER THAN GROUP R OR U OF LIGHT-FRAME CONSTRUCTION, THREE STORIES ABOVE OR MORE.
9. FLOOR DIAPHRAGM: 23/32" CDX, EXPOSURE 1, TONGUE AND GROOVE, W/ 10d COMMON NAILS @ 6" O.C. AT BOUNDARY & PANEL EDGE NAILING (E.N.), AND 12" O.C. AT INTERMEDIATE FRAMING MEMBERS
10. ROOF DIAPHRAGM: 15/32" CDX SHEATHING (MIN.), EXPOSURE 1, 24/0 MAX. SPAN RATING, WITH 8d COMMON NAILS @ 6" O.C. AT BOUNDARY & PANEL EDGE AILING (E.N.), AND 12" O.C. AT INTERMEDIATE FRAMING MEMBERS
11. 3x6 WALL STUDS @ 16"O.C. SHALL BE USED FOR ALL BEARING PARTITIONS AND PERIMETER WALLS WITH TWO OR MORE FLOORS ABOVE.

SHEARWALL SPECS.:
SHEARWALL WITH 350 PLF. OR HIGHER (C, D, E) SHALL HAVE:
A) 3X FOUNDATION SILL PLATES
B) 3X STUDS AND BLOCKS BETWEEN ADJACENT PANELS
C) 2" EDGE DISTANCE FOR PLYWOOD BOUNDARY NAILING
D) ALL PANEL JOINT AND SILL PLATE NAILING SHALL BE STAGGERED.

LARR NUMBERS:
SIMPSON HOLDOWNS: 25720 & ICC-ES # ESR-2330
SIMPSON STRAPS: 25713 & 25910
SIMPSON SET EPOXY: 25744 (CONCRETE) & 25965 (MASONRY)
SIMPSON HANGERS: 25807
PARALLAMS (TRUSS JOIST): 25202
HARDY FRAME: 25759 (SUPPLEMENT-2017)

DESIGN PARAMETERS

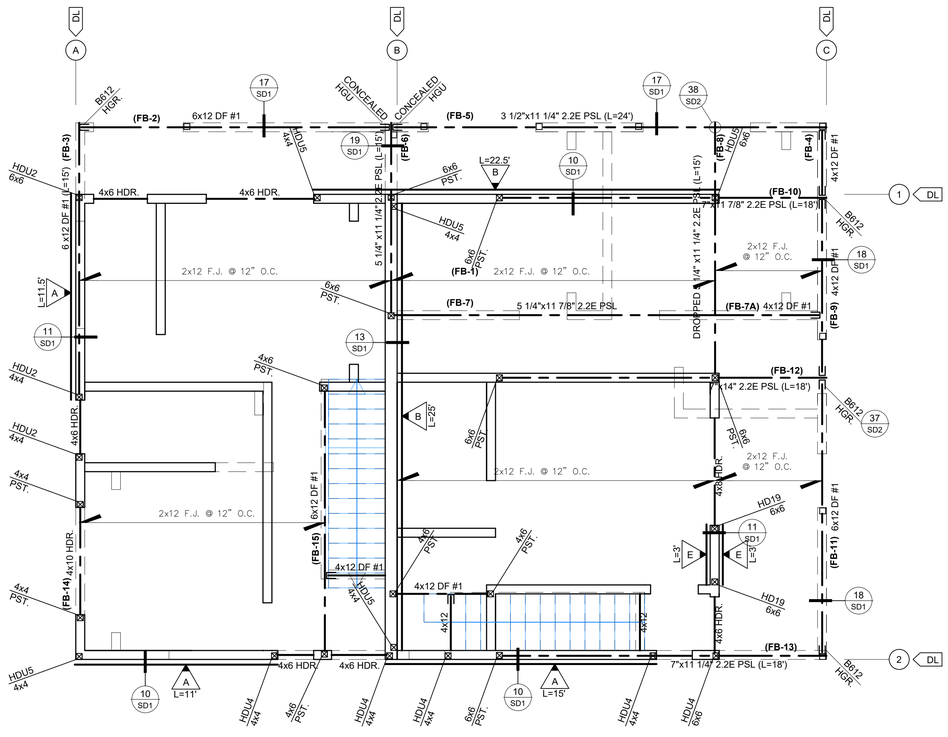
Address : 2637 S. Longwood Ave.
Los Angeles, CA 90016

Latitude:		=34.0316253
Longitude		=-118.3506405
Mapped Spectral Response Acceleration:	Ss	=1.988g
	S1	=0.704g
Spectral Response Coefficient:	SDS	=1.590g
	SD1	=0.704g
Risk Category		=II
Seismic Importance Factor, I :		=1.00
Seismic Design Category:		=E
Site Class		=D
Basic Seismic Force Resisting System:		=Wood Structural Shear Panels
Response Modification Coefficient, R :		=6.5
System Overstrength Factor, Ωo :		=3
Deflection Amplification Factor, Cd :		=4
Design Method:		=E.L.F Procedure
Weight of Building, (W):		=64.737 kips
Base Shear, (V):		=0.175 W 11.314 kips
Redundancy, (R):		=1.3
Basic Wind Speed, (Vmph):		=110mph
Wind Importance Factor, (I):		=1.0
Wind Exposure:		=C
Soils Pressure:		=1500 psf

This plan has been reviewed and conforms to recommendations of soils engineering/ geologic reports dated 10/28/24
by GEO ENVIRON ENG. CONSULTS, INC.

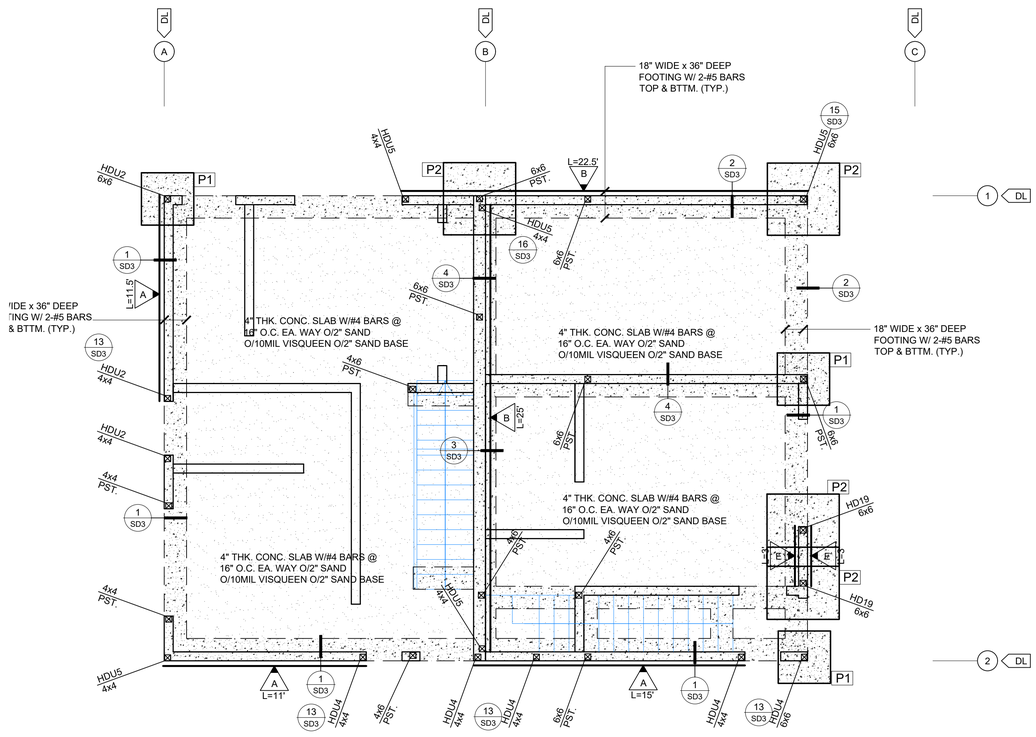
Signature _____
Fahad Masud, RCE 92662

Date 4/24/25



2ND FLOOR FRAMING PLAN

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



FOUNDATION PLAN

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

PAD SCHEDULE

P1	36" SQ. x 24" THK. W/6-#5 EA. WAY
P2	48"SQ. x 24" THK. W/7-#5 EA. WAY

REVISIONS	BY

LICENSED PROFESSIONAL ENGINEER
MARTIN H SANDOVAL
C 56905
EXP. 06/30/25
CIVIL
STATE OF CALIFORNIA

STAMP

WR DESIGN GROUP
CIVIL & STRUCTURAL ENGINEERING
9900 LAKEWOOD BLVD, SUITE 109
DOWNEY CA. 90240
(562) 314-5500

SHEET TITLE: BUILDING B

PROJECT INFO:
TITLE
2637 S. LONGWOOD AVE
LOS ANGELES, CA 90016

DRAWN	DE
CHECKED	M.D. / W.R.
DATE	APRIL 23, 2025
SCALE	1/4"=1'-0"
JOB NO.	256-24
SHEET	S3

OF 9 SHEETS

02-24-20

2022 CALIFORNIA BUILDING CODE SHEARWALL SCHEDULE

SHEAR-WALL No.	STRUCTURAL APA-RATED WOOD STRUCTURAL PANEL THICKNESS	COMMON NAIL SPACING @ BOUNDARIES & EDGES (B.N. & E.N.) FIELD NAILING @ 12" O.C.	ALLOWABLE SHEAR / FT (WOOD STUDS @16" O.C., U.N.0) (LIMITED TO 75%)	SLIDING ANCHOR SYSTEM[4] 5/8"ø A.B. SPACING[2] 2x SILL V= 1184# 3x SILL V= 1520# O.C.	FRAMING CLIP SPACING V = 450# O.C.	16d COMMON NAIL SPACING[3] OR GALV. BOX 2x SOLE PLATE ONLY: V= 121# O.C.	1/4" ø LAG x 6" LONG 3x SOLE PLATE ONLY: V= 537# O.C.
S	7/8" STUCCO	No. 11 GA. @ 6" O.C.	90 #/FT.	48"	A35 @ 30"	8"	36"
A	15/32"	8d @ 6" o.c.	280#/FT.	48"	A35 @ 18"	5"	23"
B 1, 5	15/32"	8d @ 4" o.c.	430#/FT.	42"	A35 @ 12"	3"	15"
C 1, 5	15/32"	8d @ 3" o.c.	550#/FT.	32"	A35 @ 12"	3"	24"
D 1, 5	15/32"	8d @ 2" o.c.	730#/FT.	24"	A35 @ 7"	→	9"
E 1, 5	15/32"	10d @ 2" o.c.	850#/FT.	20"	A35 @ 6"	→	6"

1. FRAMING AT FOUNDATION SILL PLATES AND ADJOINING PANEL EDGE STUDS SHALL BE A SINGLE 3x NOMINAL MEMBER, AND ALL NAILS SHALL BE STAGGERED WITH 1/2" EDGE DISTANCE.
2. SIMPSON BP5/8-3 BEARING PLATES (LARR 25293), OR OTHER LISTED MAKE, APPROVED BY BUILDING OFFICIAL, SHALL BE USED WITH ALL 5/8" DIA. ANCHORS. 5/8" DIA. SIMPSON TITAN HD ANCHORS (ICC-ES-ESER-1056/LARR# 25560) WITH 4\" MIN. EMBEDMENT, MAY BE USED IN LIEU OF 5/8" DIA. ANCHOR BOLTS AT EXISTING FOOTINGS WITH SAME SPACING PER TABLE ABOVE. SPECIAL INSPECTION REQUIRED FOR ALL EPOXY ANCHOR INSTALLATIONS.
3. ALL SILL NAILING SHALL BE STAGGERED 1/2" MINIMUM. (TYPICAL)
4. WHEN A SHEARWALL IS SPECIFIED ON BOTH SIDES OF WALL, ALL SLIDING ANCHOR CONNECTORS SHALL BE ATTACHED WITH SPACINGS FROM THE TABLE ABOVE TO BE REDUCED BY HALF.
5. SPECIAL INSPECTION REQUIRED

SHEARWALL SCHEDULE NOTES:

A. SHEAR WALL AT LOCATIONS AS SHOWN ON THE PLANS ARE TO BE SHEATHED AND DETAILED IN ACCORDANCE WITH THIS SCHEDULE FOR THE MARK INDICATED. IN CASE OF QUESTION CONTACT STRUCTURAL ENGINEER FOR CLARIFICATION BEFORE PROCEEDING.

B. SHEATHING SHALL EXTEND FROM TOP PLATE TO BOTTOM PLATE.

C. TOP PLATE SHALL BE CONNECTED TO THE STRUCTURAL DIAPHRAGM PER SPECIFIC DETAILS.WHERE NO DETAIL IS GIVEN, DIAPHRAGM BOUNDARY NAILING SHALL BE MADE INTO A RIM, JOIST OR BLOCK WHICH SHALL IN TURN BE ATTACHED TO THE TOP PLATE WITH TOE NAILS, FRAMING ANCHORS, OR TIE PLATES PER SCHEDULE.

D. WHERE BOTTOM PLATE IS SUPPORTED BY CONCRETE OR MASONRY CONNECTION SHALL BE MADE PER SPECIFIC DETAILS. SILL BOLTS PER SCHEDULE SHALL BE USED WHERE NO DETAIL IS GIVEN.

E. IF BOTTOM PLATE IS SUPPORTED BY WOOD FRAMING, CONNECTION SHALL BE PER SPECIFIC DETAILS. WHERE NO DETAIL IS GIVEN, NAILS PER SCHEDULE SHALL BE DRIVEN THROUGH THE BOTTOM PLATE AND THE DIAPHRAGM INTO A RIM, JOIST OR BLOCK. NAILING SHALL BE STAGGERED TO DOUBLE OR 4x JOISTS OR BLOCKS TO PREVENT SPLITTING WHERE NAIL SPACING IS LESS THAN 4" O.C..

F. T-NAILS, STAPLES OR OTHER SPECIAL FASTENERS SHALL NOT BE USED IN SHEAR WALLS.

G. PLATE WASHERS SHALL BE USED ON THE BACK SIDE OF THE HOLDOWN POST.

HDU HOLD DOWN
LARR #25720 & ICC-ES # ESR-2330

SSTB ANCHOR BOLTS
LARR #25827 FOR DETAIL SEE

MODEL NO.	SIMPSON SDS WOOD SCREWS		HOLDOWN ANCHOR SSTB ANCHORS	
	SCREW SIZE	SDS SCREWS QTY	SSTB MODEL NO.	MIN. EMBED
HDU2-SDS3[a]	1/4"X2.5"	6-1/4"X2.5"SDS	SSTB20	16-5/8"
HDU4-SDS3[a]	1/4"X2.5"	10-1/4"X2.5"SDS	SSTB24	20-5/8"
HDU5-SDS3[a]	1/4"X2.5"	14-1/4"X2.5"SDS	SSTB24	20-5/8"
HDU8-SDS3[b]	1/4"X2.5"	20-1/4"X2.5"SDS	SSTB34	28-7/8"
HHDQ11-SDS3[b]	1/4"X2.5"	24-1/4"X2.5"SDS	SB 1x30	24"

a. wood member thickness = 3.5"
b. wood member thickness = 5.5"

A. MATERIAL SPECIFICATIONS & INSPECTIONS:

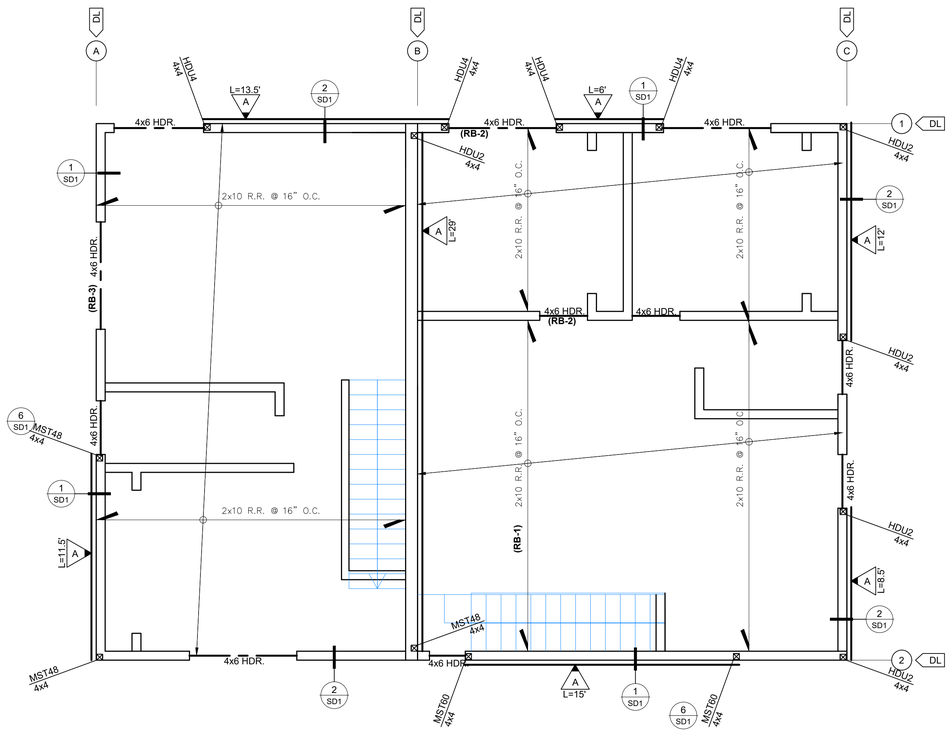
1. CONTRACTORS RESPONSIBLE FOR THE CONSTRUCTION OF A WIND OR SEISMIC FORCE RESISTING SYSTEM/COMPONENT LISTED IN THE STATEMENT OF SPECIAL INSPECTION SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE LADBS INSPECTORS AND THE OWNER PRIOR TO THE COMMENCEMENT OF WORK ON SUCH SYSTEM OR COMPONENT PER SEC 1704.4.
2. CONTINUOUS SPECIAL INSPECTION BY A REGISTERED DEPUTY INSPECTOR IS REQUIRED FOR FIELD WELDING, POST-INSTALLED ADHESIVE ANCHORS INSTALLED HORIZONTALLY OR UPWARDLY INCLINED TO RESIST SUSTAINED TENSION LOADS, SHOTCRETE PLACEMENT, CONCRETE STRENGTH F=C > 2500 PSI, SPRAYED-ON FIREPROOFING, ENGINEERED MASONRY, HIGH-LIFT GROUTING, HIGH LOAD DIAPHRAGMS, SPECIAL MOMENT-RESISTING CONCRETE FRAMES, AND HELICAL PILE FOUNDATIONS. (1705 & CHAPTERS 19, 21, AND 22)
3. FOUNDATION SILLS SHALL BE NATURALLY DURABLE OR PRESERVATIVE-TREATED WOOD. (2304.12.1.4)
4. FIELD WELDING TO BE DONE BY WELDERS CERTIFIED BY THE LADBS FOR (STRUCTURAL STEEL)(REINFORCING STEEL)(LIGHT GAUGE STEEL). CONTINUOUS INSPECTION BY A DEPUTY INSPECTOR IS REQUIRED.
5. SHOP WELDS MUST BE PERFORMED IN A LADBS LICENSED FABRICATOR SHOP.
6. LADBS LICENSED FABRICATOR IS REQUIRED FOR (TRUSSES), (STRUCTURAL STEEL).
7. GLUED-LAMINATED TIMBERS MUST BE FABRICATED IN A LADBS LICENSED SHOP. IDENTIFY GRADE SYMBOL AND LAMINATION SPECIES PER 2015 NDS SUPPLEMENT TABLE 5A.
8. PROVIDE LEAD HOLE 40% - 70% OF THREADED SHANK DIAMETER AND FULL DIAMETER FOR SMOOTH SHANK PORTION.
9. PERIODIC SPECIAL INSPECTION IS REQUIRED FOR WOOD SHEAR WALLS, SHEAR PANELS, AND DIAPHRAGMS, INCLUDING NAILING, BOLTING, ANCHORING, AND OTHER FASTENING TO COMPONENTS OF THE SEISMIC FORCE RESISTING SYSTEM. SPECIAL INSPECTION BY A DEPUTY INSPECTOR IS REQUIRED WHERE THE FASTENER SPACING OF THE SHEATHING IS 4 INCHES ON CENTER OR LESS. (1705.12.2)
10. SPECIAL ACTIVITY INSPECTION IS REQUIRED FOR (BUILDINGS OVER 5 STORIES OR 60' IN HEIGHT) (BUILDINGS OVER 50,000 SQ. FT. OF GROUND FLOOR AREA) (BUILDINGS OVER 200,000 SQ. FT. OF TOTAL FLOOR AREA) (1705.1.6)
11. A COPY OF THE LOS ANGELES RESEARCH REPORT AND/OR CONDITIONS OF LISTING SHALL BE MADE AVAILABLE AT THE JOB SITE.
12. IF ADVERSE SOIL CONDITIONS ARE ENCOUNTERED, A SOILS INVESTIGATIONS REPORT MAY BE REQUIRED.

B. SHEAR WALLS:

1. HOLD-DOWN CONNECTOR BOLTS INTO WOOD FRAMING REQUIRE APPROVED PLATE WASHERS; AND HOLD-DOWNS SHALL BE FINGER TIGHT AND WRENCH TURNED JUST PRIOR TO COVERING THE WALL FRAMING. CONNECTOR BOLTS INTO WOOD FRAMING REQUIRE STEEL PLATE WASHERS ON THE POST ON THE OPPOSITE SIDE OF THE ANCHORAGE DEVICE. PLATE SIZE SHALL BE A MINIMUM OF 0.299 INCH BY 3 INCHES BY 3 INCHES.
2. ROOF DIAPHRAGM NAILING TO BE INSPECTED BEFORE COVERING. FACE GRAIN OF PLYWOOD SHALL BE PERPENDICULAR TO SUPPORTS. FLOOR SHALL HAVE TONGUE AND GROOVE OR BLOCKED PANEL EDGES. PLYWOOD SPANS SHALL CONFORM WITH TABLE 2304.8(1).
3. ALL DIAPHRAGM AND SHEAR WALL NAILING SHALL UTILIZE COMMON NAILS OR GALVANIZED BOX.
4. ALL BOLT HOLES SHALL BE DRILLED 1/32" TO 1/16" OVERSIZED. (12.1.3.2, NDS)
5. HOLD-DOWN HARDWARE MUST BE SECURED IN PLACE PRIOR TO FOUNDATION INSPECTION.
6. HOLD-DOWNS SHALL BE RE-TIGHTENED JUST PRIOR TO COVERING THE WALL FRAMING.
7. ALL WALLS SHALL BE CONSTRUCTED W/ 2x4 STUDS @ 16" O.C. x 8'-0" HIGH - WALLS TALLER THAN 10'-0" HIGH SHALL BE CONSTRUCTED W /2x6 STUDS @ 16" O.C.
8. 3,000 PSI MIN. FOR CONCRETE FOUNDATIONS IN SDC D, E, OR F OTHER THAN GROUP R OR U OF LIGHT-FRAME CONSTRUCTION, THREE STORIES ABOVE OR MORE.
9. FLOOR DIAPHRAGM: 23/32" CDX, EXPOSURE 1, TONGUE AND GROOVE, W/ 10d COMMON NAILS @ 6" O.C. AT BOUNDARY & PANEL EDGE NAILING (E.N.), AND 12" O.C. AT INTERMEDIATE FRAMING MEMBERS
10. ROOF DIAPHRAGM: 15/32" CDX SHEATHING (MIN.), EXPOSURE 1, 24/0 MAX. SPAN RATING, WITH 8d COMMON NAILS @ 6" O.C. AT BOUNDARY & PANEL EDGE AILING (E.N.), AND 12" O.C. AT INTERMEDIATE FRAMING MEMBERS
11. 3x6 WALL STUDS @ 16"O.C. SHALL BE USED FOR ALL BEARING PARTITIONS AND PERIMETER WALLS WITH TWO OR MORE FLOORS ABOVE.

SHEARWALL SPECS.:
SHEARWALL WITH 350 PLF. OR HIGHER (C, D, E) SHALL HAVE:
A) 3X FOUNDATION SILL PLATES
B) 3X STUDS AND BLOCKS BETWEEN ADJACENT PANELS
C) ½" EDGE DISTANCE FOR PLYWOOD BOUNDARY NAILING
D) ALL PANEL JOINT AND SILL PLATE NAILING SHALL BE STAGGERED.

LARR NUMBERS:
SIMPSON HOLDOWNS: 25720 & ICC-ES # ESR-2330
SIMPSON STRAPS: 25713 & 25910
SIMPSON SET EPOXY: 25744 (CONCRETE) & 25965 (MASONRY)
SIMPSON HANGERS: 25807
PARALLAMS (TRUSS JOIST): 25202
HARDY FRAME: 25759 (SUPPLEMENT-2017)



ROOF FRAMING PLAN

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

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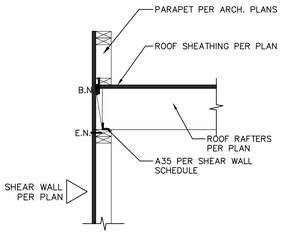
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(562) 314-5500

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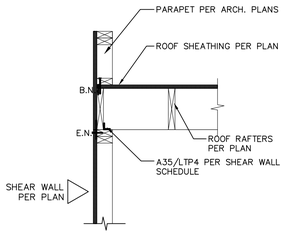
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2637 S. LONGWOOD AVE
LOS ANGELES, CA 90016

DRAWN	DE
CHECKED	M.D. / W.R.
DATE	APRIL 23, 2025
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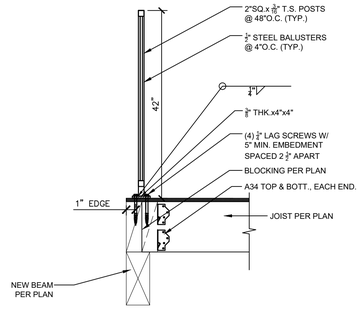
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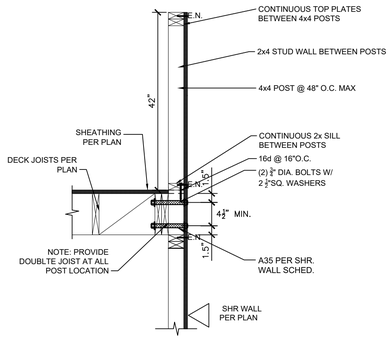
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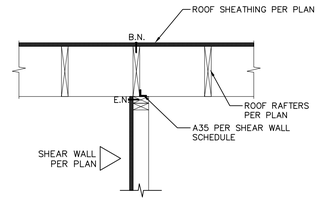
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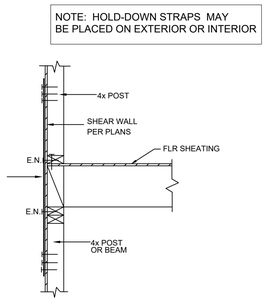
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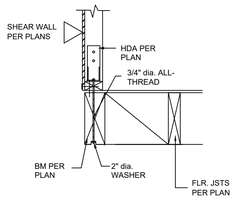
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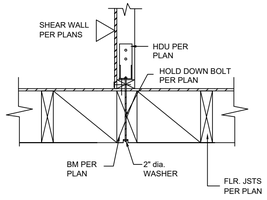
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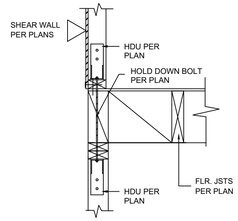
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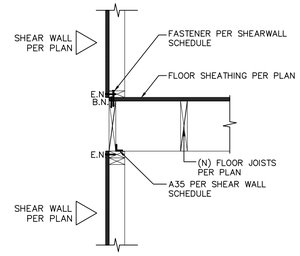
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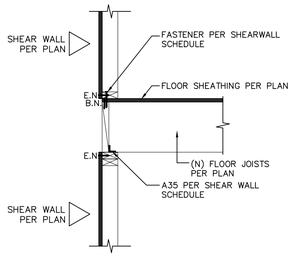
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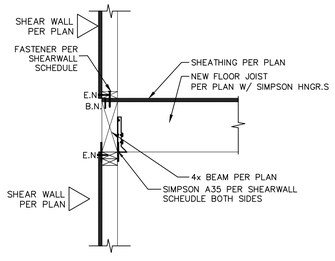
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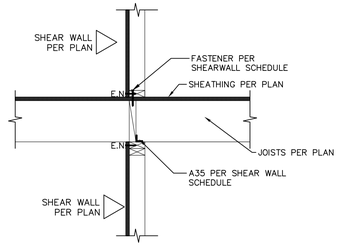
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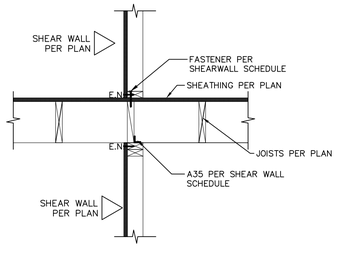
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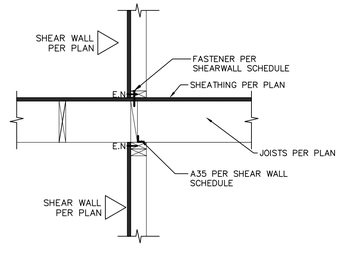
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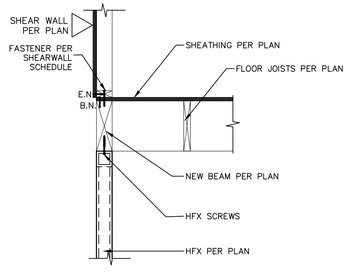
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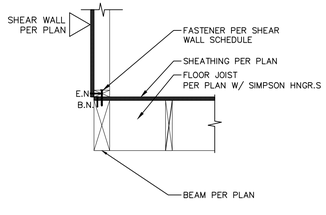
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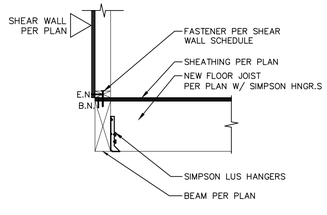
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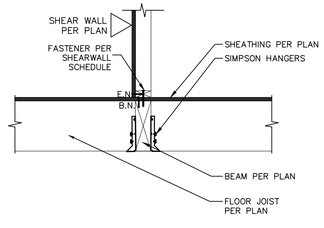
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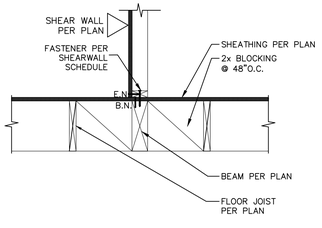
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FLOOR FRAMING | 18



FLOOR DETAIL | 19



FLOOR DETAIL | 20

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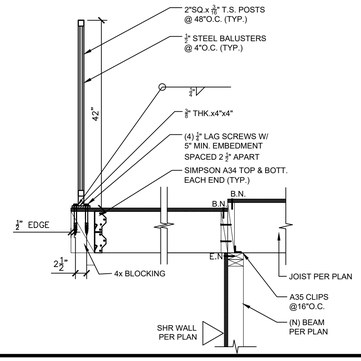
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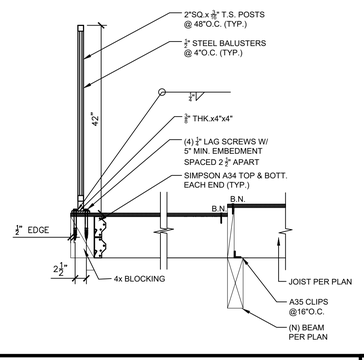
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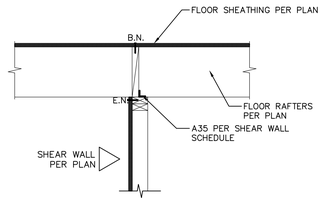
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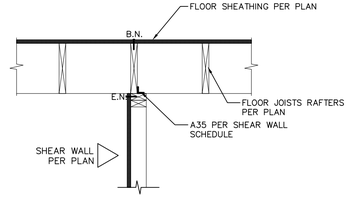
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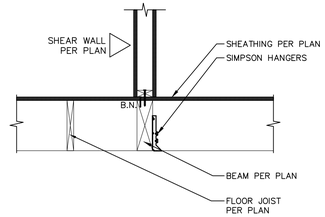
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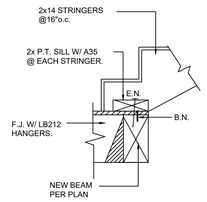
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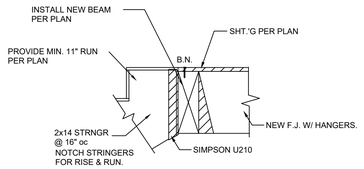
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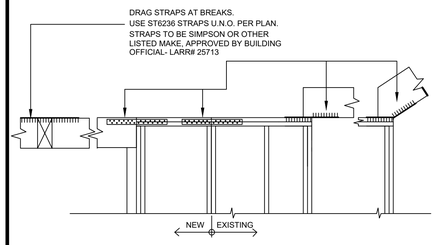
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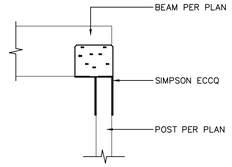
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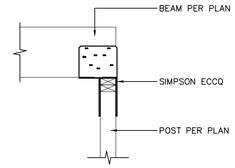
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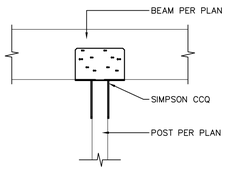
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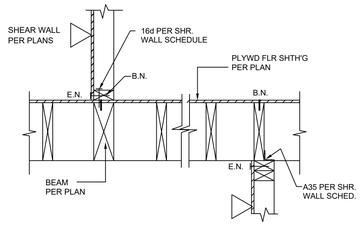
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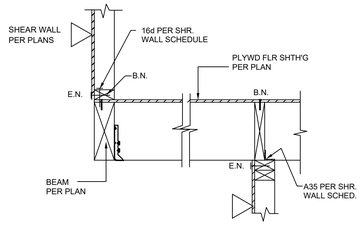
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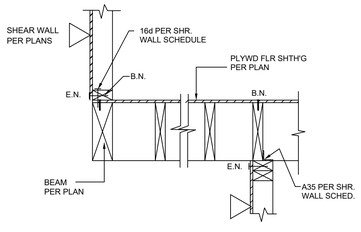
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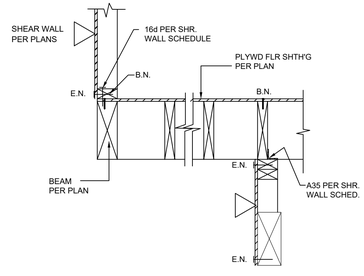
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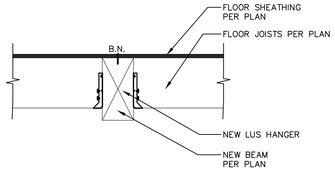
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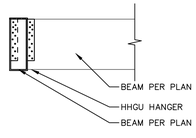
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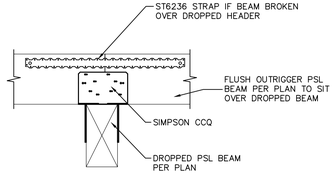
OFFSET FLOOR DETAIL | 35



FLOOR FRAMING | 36



OFFSET HANGER DETAIL | 37



DROPPED BEAM DETAIL | 38

| 39

| 40

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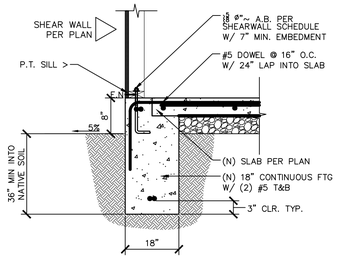
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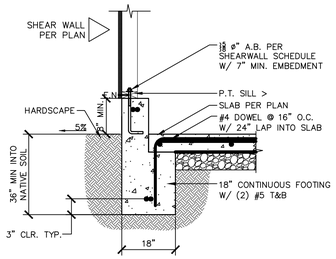
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2637 S. LONGWOOD AVE
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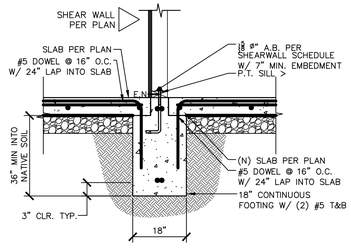
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OF 9 SHEETS



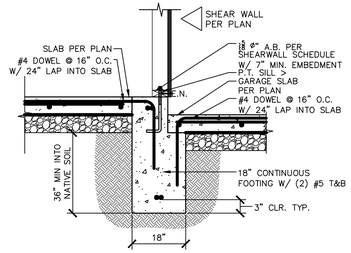
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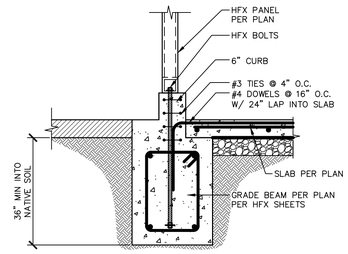
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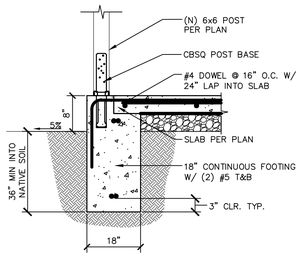
INT. FOOTING DETAIL | 3



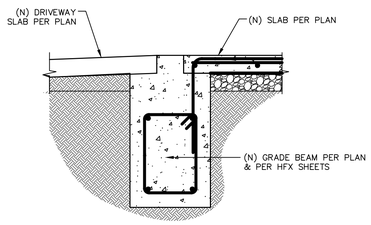
FOOTING DETAIL | 4



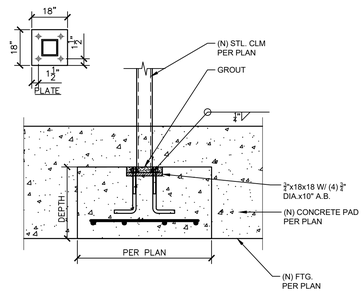
GRADE BEAM DETAIL | 5



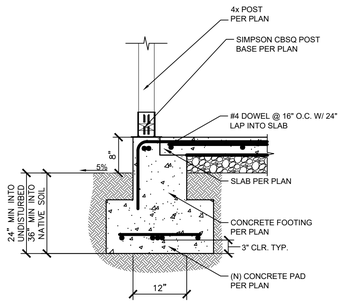
FOOTING DETAIL | 6



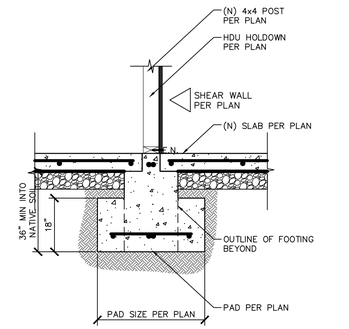
FOOTING DETAIL | 7



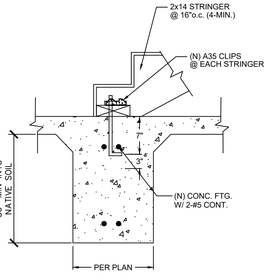
CONCRETE PAD DETAIL | 8



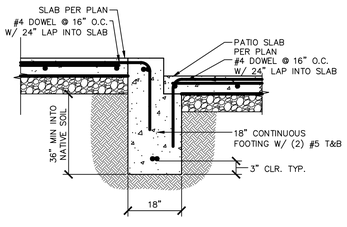
CONCRETE PAD DETAIL | 9



CONCRETE PAD DETAIL | 10



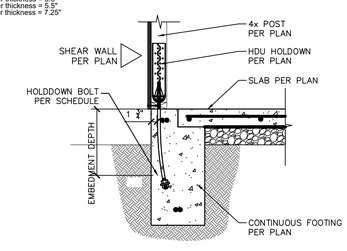
STAIR FOOTING | 11



FOOTING DETAIL | 12

MODEL NO.	SIMPSON SDS WOOD SCREWS		HOLDOWN ANCHOR SSTB ANCHORS		CAPACITY W/
	SCREW SIZE	SDS SCREWS QTY	SSTB MODEL NO.	MIN. EMBED	75 REDUCTION
HDU2-SDS3[a]	1/4"X2.5"	6-1/4"X2.5"SDS	SSTB20	16-5/8"	2,306 LBS.
HDU4-SDS3[a]	1/4"X2.5"	10-1/4"X2.5"SDS	SSTB24	20-5/8"	3,424 LBS.
HDU5-SDS3[a]	1/4"X2.5"	14-1/4"X2.5"SDS	SSTB24	20-5/8"	4,234 LBS.
HDU8-SDS3[a]	1/4"X2.5"	20-1/4"X2.5"SDS	SSTB34	28-7/8"	5,228 LBS.
HHDQ11-SDS3[a]	1/4"X2.5"	24-1/4"X2.5"SDS	SB 1x30	24"	8,858 LBS.

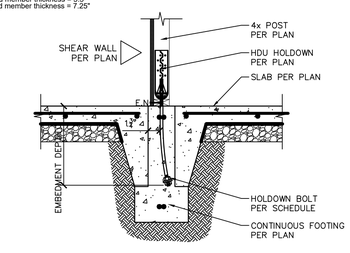
a. wood member thickness = 3.5"
b. wood member thickness = 5.5"
c. wood member thickness = 7.25"



HOLDOWN ANCHOR | 13

MODEL NO.	SIMPSON SDS WOOD SCREWS		HOLDOWN ANCHOR SSTB ANCHORS		CAPACITY W/
	SCREW SIZE	SDS SCREWS QTY	SSTB MODEL NO.	MIN. EMBED	75 REDUCTION
HDU2-SDS3[a]	1/4"X2.5"	6-1/4"X2.5"SDS	SSTB20	16-5/8"	2,306 LBS.
HDU4-SDS3[a]	1/4"X2.5"	10-1/4"X2.5"SDS	SSTB24	20-5/8"	3,424 LBS.
HDU5-SDS3[a]	1/4"X2.5"	14-1/4"X2.5"SDS	SSTB24	20-5/8"	4,234 LBS.
HDU8-SDS3[a]	1/4"X2.5"	20-1/4"X2.5"SDS	SSTB34	28-7/8"	5,228 LBS.
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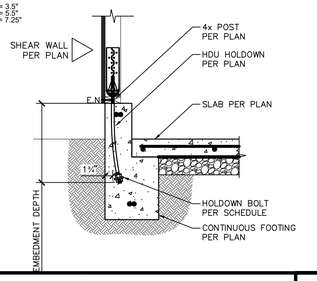
a. wood member thickness = 3.5"
b. wood member thickness = 5.5"
c. wood member thickness = 7.25"



HOLDOWN ANCHOR | 14

MODEL NO.	SIMPSON SDS WOOD SCREWS		HOLDOWN ANCHOR SSTB ANCHORS		CAPACITY W/
	SCREW SIZE	SDS SCREWS QTY	SSTB MODEL NO.	MIN. EMBED	75 REDUCTION
HDU2-SDS3[a]	1/4"X2.5"	6-1/4"X2.5"SDS	SSTB20	16-5/8"	2,306 LBS.
HDU4-SDS3[a]	1/4"X2.5"	10-1/4"X2.5"SDS	SSTB24	20-5/8"	3,424 LBS.
HDU5-SDS3[a]	1/4"X2.5"	14-1/4"X2.5"SDS	SSTB24	20-5/8"	4,234 LBS.
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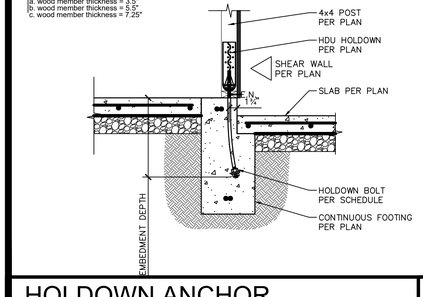
a. wood member thickness = 3.5"
b. wood member thickness = 5.5"
c. wood member thickness = 7.25"



HOLDOWN ANCHOR | 15

MODEL NO.	SIMPSON SDS WOOD SCREWS		HOLDOWN ANCHOR SSTB ANCHORS		CAPACITY W/
	SCREW SIZE	SDS SCREWS QTY	SSTB MODEL NO.	MIN. EMBED	75 REDUCTION
HDU2-SDS3[a]	1/4"X2.5"	6-1/4"X2.5"SDS	SSTB20	16-5/8"	2,306 LBS.
HDU4-SDS3[a]	1/4"X2.5"	10-1/4"X2.5"SDS	SSTB24	20-5/8"	3,424 LBS.
HDU5-SDS3[a]	1/4"X2.5"	14-1/4"X2.5"SDS	SSTB24	20-5/8"	4,234 LBS.
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a. wood member thickness = 3.5"
b. wood member thickness = 5.5"
c. wood member thickness = 7.25"



HOLDOWN ANCHOR | 16

17 | 18 | 19 | 20

This plan has been reviewed and conforms to recommendations of soils engineering/ geologic reports dated 10/28/24 by GEO ENVIRON ENG. CONSULTS, INC.

Signature _____
Fahad Masud, RCE 92662

Date 4/24/25

REVISIONS	BY

LICENSED PROFESSIONAL ENGINEER
MARTIN H SANDOVAL
C 56905
EXP. 06/30/25
CIVIL
STATE OF CALIFORNIA

STAMP

WR DESIGN GROUP
CIVIL & STRUCTURAL ENGINEERING
9900 LAKEWOOD BLVD, SUITE 109
DOWNEY CA. 90240
(562) 314-5500

SHEET TITLE: STRUCTURAL DETAILS

PROJECT INFO: TITLE
2637 S. LONGWOOD AVE
LOS ANGELES, CA 90016

DRAWN: DE
CHECKED: M.D. / W.R.
DATE: APRIL 23, 2025
SCALE: N.T.S.
JOB NO.: 256-24
SHEET: SD3
OF 9 SHEETS

A. GENERAL

1) ALL DESIGN, CONSTRUCTION, AND WORKMANSHIP SHALL CONFORM TO:
2022 EDITION OF THE CALIFORNIA BUILDING CODE (CBC), AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) 7-16, 2022 CALIFORNIA MECHANICAL CODE (CMC), 2022 CALIFORNIA PLUMBING CODE, LOS ANGELES BUILDING CODE (LABC) 2023 AND ALL LOCAL ORDINANCES AND REQUIREMENTS.

2) THE APPROVED CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION.

3) IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT ARE NOT LIMITED TO, BRACING AND SHORING FOR LOADS DUE TO CONSTRUCTION EQUIPMENT, ETC. THE METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, SUPERVISION, AND INSTALLATION OF ALL TEMPORARY BRACING AND SHORING SHOULD ENSURE THE SAFETY OF THE WORK. BRACING AND SHORING IS TO BE INSTALLED PER THE LATEST OSHA STANDARDS. ALL BRACING AND/OR SHORING SHALL STAY IN PLACE UNTIL ALL WORK HAS BEEN SUITABLY COMPLETED.

4) THE GENERAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING FIELD CONDITIONS PRIOR TO STARTING CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES OR INCONSISTENCIES.

5) DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALES ON DRAWINGS. NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS.

6) IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO ENSURE THAT ALL APPLICABLE SAFETY LAWS ARE STRICTLY ENFORCED AND TO MAINTAIN A SAFE CONSTRUCTION PROJECT.

7) IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO PROVIDE SUPERVISION OF THE CONSTRUCTION WORK TO ENSURE THAT IT IS BUILT IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS. THE ENGINEER WILL PROVIDE ONLY OBSERVATION OF THE WORK DURING CONSTRUCTION.

8) THE APPROVED SET OF CONSTRUCTION DOCUMENTS, INCLUDING ALL APPROVED REVISIONS, SHALL BE PRESENT AT THE JOB SITE AT ALL TIMES.

9) CONSTRUCTION MATERIALS SHALL BE SPREAD OUT IF PLACED ON FRAMED FLOORS OR ROOFS. LOADS SHALL NOT EXCEED THE DESIGN LOADING FOR THE SUPPORTING MEMBERS.

10) NO CHANGES IN THE PLANS WILL BE MADE AND NO EXTRA WORK PERFORMED UNLESS SO APPROVED BY THE OWNER, CIVIL/STRUCTURAL ENGINEER, SOILS ENGINEER/GEOLOGISTS, COUNTY/CITY INSPECTOR AND BUILDING OFFICIALS.

11) A CLAIM FOR EXTRAS WILL BE CONSIDERED IF A CONDITION ARISES WHICH WAS CHANGED BY DESIGN BY OTHERS, UNFORESEEN OR HAS NOT BEEN SHOWN ON THE PLANS. SUCH CLAIMS FOR EXTRAS WILL NOT BE ALLOWED UNLESS THE CONTRACTOR HAS NOTIFIED THE OWNER AND SUPERVISING ENGINEER IN WRITING, INCLUDING AN AGREED-TO REIMBURSEMENT SCHEDULE, PRIOR TO PERFORMING THE EXTRA WORK.

B. INTENT OF THE DOCUMENTS

IT IS THE INTENT OF THE DRAWINGS AND THE SPECIFICATIONS TO REQUIRE THE COMPLETION OF THE WORK IN A THOROUGH AND WORKMANLIKE MANNER IN EVERY RESPECT.

C. DESCRIPTION OF WORK

THE CONTRACTOR SHALL FURNISH PERMITS, LICENSES, FEES, MATERIAL, LABOR, TOOLS, PLANT, SUPPLIES, EQUIPMENT, TRANSPORTATION, SUPERINTENDENCE, TEMPORARY CONSTRUCTION OF EVERY NATURE, INSURANCE, TAXES, CONTRIBUTIONS, AND ALL OTHER SERVICES AND FACILITIES, UNLESS SPECIFICALLY EXCEPTED NECESSARY TO COMPLETE THIS PROJECT.

D. LIABILITY & COMPENSATION INSURANCE

THE CONTRACTOR SHALL MAINTAIN AT ALL TIMES, FULL AND UNLIMITED WORKMEN'S COMPENSATION INSURANCE IN ACCORDANCE WITH THE LABOR CODE OF THE STATE OF CALIFORNIA, AND SHALL CARRY PUBLIC CONTINGENT LIABILITY OF INSURANCE, IN AMOUNTS SATISFACTORY TO AND IN COMPANIES SELECTED WITH THE CONSENT OF THE OWNER.

E. PERMITS

THE CONTRACTOR SHALL OBTAIN THE BUILDING PERMIT, AND ALL OTHER CERTIFICATIONS, INSPECTION REPORTS, RELEASES, JURISDICTIONAL SETTLEMENTS, NOTICES, RECEIPTS FOR FEE PAYMENTS, JUDGMENTS, AND SIMILAR DOCUMENTS, CORRESPONDENCE AND RECORDS IN COLLECTION.

F. SUBCONTRACTOR'S STATUS

EVERY ITEM MENTIONED IN THE SPECIFICATIONS IS INTENDED TO REPRESENT THE QUALITY OF MATERIALS THAT WILL BE DEMANDED. SHOULD THE SUBCONTRACTOR WISH TO SUGGEST ANY SUBSTITUTES THAT HE CONSIDERS EQUAL IN VALUE AND EFFICIENCY WITH THE ONE SPECIFIED, HE SHALL STATE WHAT THE ITEM SUGGESTED IS, AND THE DIFFERENCE IN COST, IF ANY.

IF SUBSTITUTES OF MATERIALS (EQUALLY GOOD) ARE OFFERED AT THE TIME BIDS ARE SUBMITTED, THEY WILL BE CONSIDERED. AND IN THE EVENT OF THE OWNER WISHING TO ACCEPT THE SUBSTITUTE, ARRANGEMENTS WILL BE MADE FOR THE CHANGE BEFORE ENTERING INTO A CONTRACT.

IF NO ITEMS ARE SUGGESTED AS A SUBSTITUTE AT THE TIME THE BIDS ARE SUBMITTED, THEN NO DEVIATION WILL BE ALLOWED FROM THE MATERIALS SPECIFIED WITHOUT FIRST SECURING THE APPROVAL OF THE OWNER.

G. NOTIFICATION

THE ENGINEER SHALL BE NOTIFIED AT THE FOLLOWING TIMES:

1. AFTER FOUNDATION EXCAVATIONS HAVE BEEN MADE AND PRIOR TO PLACING REINFORCING STEEL AND FORMWORK.

2. PRIOR TO ALL CONCRETE POURS.

H. TRASH REMOVAL

THE CONTRACTOR SHALL PROMPTLY REMOVE FROM THE BUILDING, LOT, SIDEWALKS, AND STREETS - ALL RUBBISH AND DIRT, AS IT ACCUMULATES, DUE TO THE WORK DONE UNDER THIS CONTRACT.

ALL COMBUSTIBLE DEBRIS SHALL BE REMOVED FROM THE BUILDING ON A DAILY BASIS.

I. CONSTRUCTION NOTES

CONTRACTOR TO INCLUDE IN THIS SCOPE OF WORK PATCHING OF INTERIOR OR EXTERIOR WALLS AND CEILINGS. CONTRACTOR TO CONSULT OWNER TO THE EXTENT OF COSMETIC WORK.

CONTRACTOR TO RE-LEVEL STRUCTURE PER OWNERS APPROVAL. CONTRACTOR TO INSTALL PROPER SHIMS OR REPLACE COLUMNS AFTER RE-LEVEL.

CONTRACTOR TO UNDERSTAND CONTENTS OF THE PROJECT SOIL AND GEOLOGY REPORTS AND THEIR RECOMMENDATIONS.

J. WORKMAN SAFETY-EXCAVATIONS

IF IT IS DECIDED TO CONSTRUCT THE PILES OR CAISSONS BY HAND EXCAVATION IT IS NECESSARY FOR THE CONTRACTOR TO PROVIDE ADEQUATE SHORING AND SAFETY EQUIPMENT AS REQUIRED BY THE STATE OR FEDERAL OSHA REGULATIONS.

ALL REGULATIONS OF THE STATE OR FEDERAL OSHA SHOULD BE FOLLOWED BEFORE ALLOWING WORKMEN IN A TRENCH OR OTHER EXCAVATION.

IF EXCAVATIONS ARE TO BE MADE DURING THE RAINY SEASON PARTICULAR CARE SHOULD BE GIVEN TO INSURE THAT BERMS OR OTHER DEVICES PREVENT SURFACE WATER FROM FLOWING OVER THE TOP OF THE EXCAVATION OR PONDING AT THE TOP OF THE EXCAVATIONS.

K. NOTE

NO TRENCHES OR EXCAVATIONS 5' OR MORE IN DEPTH INTO WHICH A PERSON IS REQUIRED TO DESCEND, OR OBTAIN NECESSARY PERMIT FROM THE STATE OF CALIFORNIA DIVISION OF INDUSTRIAL SAFETY PRIOR TO ISSUANCE OF A BUILDING OR GRADING PERMIT.

WRAP AND PROTECT ALL UTILITY LINES IN WAY OF CONSTRUCTION PER STANDARD CONSTRUCTION PRACTICES

L. DRAINAGE NOTES

ALL GAPS BETWEEN PAVED AREAS AND THE HOUSE FOUNDATION SHOULD BE SEALED TO PREVENT WATER SEEPAGE.

NEW CATCH BASINS SHALL BE NDS WITH CAST IRON GRATE U.N.O.. SEE PLAN FOR LOCATION OF CATCH BASINS.

ALL DOWNSPOUTS SHALL BE CONNECTED TO THE DRAIN LINES USING 6" ADS ADAPTER.

6" DIA. ADS DRAIN LINE WITH A MINIMUM 1/8":12" OR 1% SLOPE WITH A MINIMUM 18" TOP SOIL COVER BETWEEN CATCH BASINS. SEE PLAN FOR LOCATION OF DRAIN LINES.

DRAINAGE SYSTEM CAN BE PURCHASED FROM A.D.S., "ADVANCE DRAINAGE SYSTEMS, INC." 1025 COMMERCE DR., MADERA, CA 93637. (209) 674-0903.

NDS PRODUCTS MAY BE PURCHASED FROM "NDS" (800) 726-1994 OR VISIT THEM ON THE WEB @: WWW.NDSPRO.COM

M. TIMBER

1) ALL TIMBER DESIGN AND CONSTRUCTION SHALL BE PER 2022 CBC. ALL SAWN LUMBER SHALL BE GRADED BY EITHER WWPA OR WCLIB.

2) U.N.O., ALL WOOD SILL PLATES AND LEDGERS BEARING ON CONCRETE OR MASONRY SHALL BE PRESSURE TREATED DOUGLAS FIR-LARCH. ANCHOR BOLTS SHALL BE 5/8" DIAMETER SPACED A MAXIMUM 4'-0" o.c. AND WITHIN 12" AND GREATER THAN SEVEN BOLT DIAMETERS FROM: EACH END OF A SILL, FROM A HOLE, OR FROM A NOTCH GREATER THAN 1/3 THE WIDTH OF THE SILL. SEE SHEARWALL SCHEDULE FOR OTHER REQUIREMENTS.

3) ALL WALL BRACING AND MATCHING OF STUDS SHALL CONFORM TO 2022 CALIFORNIA BUILDING CODE.

4) UNLESS NOTED OTHERWISE ON FRAMING PLANS:

ROOF SHEATHING SHALL BE 15/32" CDX APA-RATED SHEATHING, EXPOSURE 1, MIN. SPAN RATING 24/0, NAILED WITH 8d COMMON @ 6"o.c. EDGES & BOUNDARIES AND 12"o.c AT INTERMEDIATE FRAMING MEMBERS.

FLOOR SHEATHING SHALL BE 23/32" CDX APA-RATED STURD-I-FLOOR, T&G, EXPOSURE 1, MIN. SPAN RATING 20" o.c., NAILED WITH 10d COMMON @ 6"o.c. AT EDGES & BOUNDARIES AND 12"o.c. AT INTERMEDIATE FRAMING MEMBERS

SHEARWALL SHEATHING SHALL BE APA "STRUCTURAL I" RATED, EXPOSURE 1, GROUP 1. NAILING PER SHEARWALL SCHEDULE.

ALL WOOD STRUCTURAL PANEL SHEATHING SHALL BE GRADE MARKED BY APA, T.E.C.O., OR P.T.L. AND SHALL CONFORM TO PS 1-95, PS 2-92, OR PRP-108..

5) HORIZONTAL WOOD STRUCTURAL PANELS SHALL BE LAID WITH THE LONG DIMENSION AND FACE GRAIN PERPENDICULAR TO THE RAFTERS OR JOISTS, AND THE SHEETS SHALL BE STAGGERED AS SHOWN IN 2022 CBC. EACH SHEET SHALL CONTAIN A MINIMUM OF 8 SQUARE FEET AND EXTEND TO 3 SUPPORTS. 1/8" SPACING BETWEEN PANEL ENDS AND EDGES IS REQUIRED. ALL WOOD STRUCTURAL PANEL DIAPHRAGMS SHALL BE REVIEWED BY CONTRACTOR FOR COMPLIANCE WITH NAILING AND PANEL REQUIREMENTS BEFORE FINISH IS APPLIED.

6) U.N.O., ALL 2x ROOF RAFTER AND FLOOR JOIST FRAMING MEMBERS SHALL BE MINIMUM GRADE DOUGLAS FIR-LARCH NO. 2 OR BETTER. ALL BEAMS, HEADERS, AND POSTS SHALL BE MINIMUM DOUGLAS FIR-LARCH NO. 1 OR BETTER. ALL VERTICAL WALL FRAMING MEMBERS SHALL BE DOUGLAS FIR -LARCH NO. 2 OR BETTER.

7) ALL PSL AND LVL ENGINEERED FRAMING MEMBERS SHOWN ON PLANS TO BE 2.0E PARALLAM (E=2000 ksi) AND 1.9E MICROLAM BEAMS (E=1900 ksi), RESPECTIVELY, AS DESCRIBED IN ICC-ES-ESR-1153 & ICC-ES-ESR-1387. ALL WOOD I-JOIST MEMBERS SHOWN ON PLANS TO BE AS DESCRIBED IN ESR-1153.

8) MOISTURE CONTENT OF SAWN LUMBER AT TIME OF INSTALLATION SHALL NOT EXCEED 19%.

9) ALL BOLT HEADS AND NUTS BEARING ON WOOD SHALL HAVE WASHERS. HOLES IN WOOD FOR BOLTS SHALL BE DRILLED MAX. 1/16" LARGER THAN NOMINAL BOLT SIZE.

10) NOTCHING OR DRILLING HOLES IN BEAMS OR JOISTS SHALL BE ONLY AS DETAILED PER ENGINEER AND SHALL COMPLY WITH 2022 CBC.

M. TIMBER (CONTINUED)

11) ALL SAWN LUMBER (2x, 4x, 6x) RAFTERS, FLOOR JOISTS, AND BEAMS SHALL HAVE SOLID WOOD BLOCKING AT ALL POINTS OF SUPPORT. MEMBERS WITH NOMINAL DEPTH 10" OR GREATER SHALL HAVE 2x FULL DEPTH SOLID BLOCKING OR CROSS BRIDGING SPACED AT 8'-0" FOR MAXIMUM.

12) U.N.O., ALL FRAMING CONNECTION HARDWARE SHALL BE AS MANUFACTURED BY THE SIMPSON STRONG-TIE COMPANY AND SHALL BE REFERENCED AS SHOWN IN THEIR LATEST CATALOG. ALL CONNECTOR NAILS AND BOLTS SHALL BE AS DESIGNATED PER MANUFACTURER. ALTERNATE MANUFACTURER CONNECTOR HARDWARE MAY BE USED PROVIDED ENGINEER'S WRITTEN APPROVAL IS OBTAINED BY CONTRACTOR AND ICBO APPROVAL IS PROVIDED.

13) TOP PLATES SHALL LAP LOWER PLATES AT CORNERS, AND BREAKS AT PLATE SHALL BE LAPPED A MINIMUM OF 4'-0", WITH 20-16d NAILS ON EACH SIDE.

14) ALL BEAMS SHALL BE SUPPORTED BY POSTS OR GIRDERS. FOR 4x8 AND SMALLER BEAMS A MINIMUM (2)-2X4 D.F. #2 POST SHALL BE USED, U.N.O. FOR 4x10 AND LARGER BEAMS A MINIMUM 4x4 D.F. #1 POST SHALL BE USED, U.N.0. ALL POSTS SHALL PROVIDE FULL BEARING WIDTH FOR THE BEAM, U.N.O.

15) ALL POSTS SHALL BE CONTINUED BETWEEN FLOORS WITH SOLID FULL WIDTH BLOCKING AND A POST OF EQUAL OR GREATER SIZE BELOW, UNTIL A BEAM OR FOUNDATION IS ENCOUNTERED. ALL POSTS INSIDE WALLS MAY BEAR ON THE SOLE OR SILL PLATE, U.N.O. ISOLATED POSTS SHALL BE SEATED IN POST OR COLUMN BASES PER PLAN.

16) ALL WALLS HIGHER THAN 10'-0" SHALL BE 2x6 OR 3x6 STUDS @ 16" o.c., UNLESS SPECIFICALLY DESIGNED OTHERWISE BY ENGINEER. ALL WALLS CONTAINING MECHANICAL PIPING 2" IN DIAMETER OR LARGER SHALL BE FRAMED WITH 2x6 STUDS @ 16" o.c.

17) CUTTING, NOTCHING, OR BORING HOLES IN STUDS SHALL COMPLY WITH 2022 CBC.

18) FRAMING AND NAILING NOT SPECIFICALLY DETAILED ON THE PLANS ARE TO CONFORM TO 2022 CBC. COMMON NAILS ARE REQUIRED FOR ALL SHEARWALL, FLOOR AND ROOF DIAPHRAGMS. USE DOUBLE JOISTS UNDER PARALLEL PARTITIONS, U.N.O. DOUBLED HORIZONTAL MEMBERS SHALL BE STITCH-NAILED TOGETHER WITH TWO ROWS OF 16d NAILS @ 12" o.c. STAGGERED, UNLESS OTHERWISE DETAILED. TRIPLED HORIZONTAL MEMBERS SHALL HAVE MIN. 1/2" DIAMETER BOLTS AT 18" O.C. T&B, STAGGERED.

19) ANCHOR BOLTS TO SILL AND SOLE PLATES SHALL HAVE NUTS DRIVEN FLUSH WITH SQUARE PLATE WASHERS IN ACCORDANCE WITH THE FOLLOWING SCHEDULE:

BOLT DIAMETER	PLATE SIZE
5/8"	0.229" x 3" x 3"
3/4"	5/16" x 3" x 3"
7/8"	5/16" x 3" x 3"
1"	3/8" x 3 1/2" x 3 1/2"

THE ABOVE SCHEDULE ALSO APPLIES TO LAG SCREWS DRIVEN INTO SOLE PLATES FOR RAISED FLOOR AND UPPER STORY CONDITIONS.

20) LAG SCREWS SHALL BE INSTALLED IN PRE-DRILLED HOLES. THE CLEARANCE HOLE FOR THE SHANK PORTION SHALL HAVE THE SAME DIAMETER AND DEPTH AS THE SHANK. THE LEAD HOLE FOR THE THREADED PORTION SHALL HAVE A DIAMETER EQUAL TO 40%-70% OF THE SHANK DIAMETER (FOR ALL DOUG-FIR LARCH MEMBERS). LAG SCREWS ARE TO BE INSTALLED WITH THE TURN OF A WRENCH. DRIVING, AS WITH A HAMMER, IS NOT PERMITTED.

21) MINIMUM NAILING SHALL BE PER THR 2022 C.B.C.

22) ALL CONNECTORS AND METAL HARDWARE IN CONTACT WITH PRESSURE TREATED TIMBER SHALL HAVE CORROSION RESISTANT COATINGS OR PROTECTION, SUCH AS "ZMAX", HOT DIPPED GALVANIZED, OR BE STAINLESS STEEL IN ACCORDANCE WITH ASTM A 153.

23. FOUNDATION SILLS SHALL BE NATURALLY DURABLE OR PRESERVATIVE-TREATED WOOD. FIELD-CUT ENDS, NOTCHES AND DILLD HOLES OF PRESERVATTIVE TRATED WOOD SHALL BE FIELD TREATED PER AWPA M4.

N. PARALLAM

1) THE PARALLAM BEAMS ARE TO BE FABRICATED IN THE SHOP OF A LICENSED FABRICATOR.

2) THE MANUFACTURERS LOGO TO BE IMPRINTED ON THE SIDE OF THE PARALLAM BEAM.

3) THE PARALLAM BEAMS ARE TO BE LOAD TESTED BY THE MANUFACTURER AND THE TEST RESULTS SUBMITTED TO THE BUILDING INSPECTOR.

4) TRUSS JOIST MANUFACTURES THE PARALLAM BEAMS (ESR 1153).

5) "E" MODULUS OF ELASTICITY OF PARALLAM IS 2,000,000 PSI.

O. STRUCTURAL STEEL

1) ALL STRUCTURAL STEEL SHALL CONFORM TO 2022 CBC:
W-WIDE FLANGE SHAPES ASTM A992, Fy = 50-65 KSI
PLATES, ANGLES, CHANNELS: ASTM A36, Fy = 36 KSI
HOLLOW TUBE SHAPES: ASTM A500, GRADE B, Fy = 46 KSI
ROUND PIPE SHAPES: ASTM A53, GRADE B, Fy = 35 KSI

2) ALL STRUCTURAL STEEL SHALL BE FABRICATED IN A SHOP APPROVED BY THE LOCAL MUNICIPAL BUILDING DEPARTMENT.

3) STRUCTURAL SHOP DRAWINGS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW PRIOR TO FABRICATION.

4) ALL STRUCTURAL STEEL SHALL BE IDENTIFIED PER 2022 CBC. DESIGN OF STEEL MEMBERS SHALL BE PER ASD PROVISIONS IN THE 2022 CBC.

5) STRUCTURAL STEEL SHALL HAVE A SHOP COAT OF RED-OXIDE PRIMER.

6) AFTER ERECTION, ALL FIELD CONNECTIONS, BOLTS, WELDS, AND ALL ABRADED PLACES ON THE SHOP PAINT SHALL BE TOUCHED UP WITH THE SAME TYPE OF PAINT AS THE SHOP COAT.

7) FIELD AND SHOP WELDING SHALL BE DONE BY A DULY CERTIFIED WELDER USING LOW-HYDROGEN E70-T6 ELECTRODE RODS, UNLESS NOTED OTHERWISE. CONTINUOUS INSPECTION BY A REGISTERED INSPECTOR IS REQUIRED FOR FIELD WELDING. ALL WELDING SHALL BE PER AWS, LATEST EDITION, AND AISC SPECIFICATIONS.

8) BOLTS SHALL BE OF A307 QUALITY WITH WASHERS, UNLESS OTHERWISE SPECIFIED ON PLANS. ANY HIGH STRENGTH A325 OR A490 BOLTS SHALL HAVE SPECIAL INSPECTION, UNLESS NOTED OTHERWISE.

9) STEEL ERECTOR SHALL PROVIDE ALL ERECTION BRACING REQUIRED TO MAINTAIN STRUCTURE PLUMB AND PROPERLY BRACED DURING CONSTRUCTION.

P. FOUNDATION

1) CONCRETE SHALL HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF 2500 PSI AT 28 DAYS FOR POURED-IN-PLACE CONTINUOUS AND SPREAD FOOTINGS, AND 3000 PSI (SPECIAL INSP. REQ.'D) AT 28 DAYS FOR GRADE BEAMS.

2) PORTLAND CEMENT SHALL BE TYPE 11 PER ASTM C 150. AGGREGRATES SHALL BE PER ASTM C33 WITH MAXIMUM SIZE OF 11/2" FOR FOOTINGS AND 1" FOR ALL OTHER WORK.

3) REINFORCING STEEL SHALL BE ASTM A615, GRADE 60, CLEAN AND RUST FREE. LAPS AT SPLICES AND POUR LINES TO BE 40 BAR DIAMETERS (2'-0" MINIMUM) UNLESS NOTED OTHERWISE ON PLANS.

4) U.N.O., SLABS ON GRADE SHALL BE 4" THICK WITH #4 BARS @ 16" o.c. EACH WAY WITH 2 INCH COVER AT BOTTOM. 4" CLEAN SAND SHALL BE PLACED BELOW THE SLAB WITH A 6 MIL PLASTIC VAPOR BARRIER PLACED AT MID-HEIGHT. BARS SHALL BE LAPPED 20". SEE SOILS REPORT (IF AVAILABLE) FOR OTHER REQUIREMENTS.

5) ALL NEW SILL PLATE ANCHOR BOLTS TO BE INSTALLED IN FRESH CONCRETE SHALL BE 5/8" DIAMETER A307 "L" BOLTS SPACED PER PLAN AND SHEARWALL SCHEDULE WITH MINIMUM 7" EMBEDMENT. MAXIMUM ANCHOR BOLT SPACING SHALL BE 4'-0" o.c. ANCHOR BOLTS AT ENDS OF WALL PANELS SHALL BE LOCATED WITHIN 12" AND GREATER THAN 7 BOLT DIAMETERS FROM THE END OF SILL PLATE. THERE SHALL BE A MINIMUM OF TWO ANCHOR BOLTS PER WALL PANEL. (ANCHOR BOLTS TO EXISTING FOOTINGS PER NOTE #13 BELOW). PLATE WASHERS A MINIMUM 3"x3"x0.229" THICK SHALL BE USED ON EACH BOLT.

6) IF NO SOILS REPORT IS PROVIDED, ASSUMED ALLOWABLE SOIL BEARING PRESSURE (ASBP) SHALL BE 1500 PSF (PER SOIL SITE CLASS D) & EMBED FOOTINGS A MINIMUM OF 12" INTO COMPETENT SOIL.

7) REINFORCEMENT CLEARANCES FOR FOOTINGS AND GRADE BEAMS, (U.N.O.):
A) POURED AGAINST EARTH - 3"
B) FORMED SURFACE - 2"

8) REMOVAL OF FORMS:
A) SUPPORTING VERTICAL SURFACES - 2 DAYS MINIMUM
B) SUPPORTING BEAMS & GIRDERS - 15 DAYS MINIMUM

9) REINFORCING SHALL BE CONTINUOUS AROUND CORNERS AND THROUGH INTERSECTIONS.

10) DOWEL ANY NEW FOOTINGS TO EXISTING FOOTINGS WITH (2) #4 x 2'-0" BARS TOP AND BOTTOM WITH 6" EMBEDMENT IN 11/2" DIAMETER CORED HOLES IN APPROVED NON-SHRINK GROUT MATERIAL (e.g. EMBECO 636, POR-ROK, etc.).

11) ALL HOLD DOWNS INTO EXISTING FOOTINGS TO BE INSTALLED WITH SIMPSON SET ADHESIVE EPOXY, ICC-ESR-1772/LARR#25279. CONTRACTOR TO INSTALL PER MANUFACTURER'S SPECIFICATIONS AND OBTAIN DEPUTY INSPECTOR.

12) UNLESS NOTED OTHERWISE, DOWEL ANY NEW SLABS TO EXISTING FOOTINGS WITH (1)-#4 x 2'-0" BARS SPACED @ 36" O.C. WITH 6" EMBEDMENT IN 5/8" DIAMETER CORED HOLES IN SIMPSON SET EPOXY (ICBO. ICC-ESR-1772 / LARR# 25279).

13) ALL NEW SILL PLATE ANCHOR BOLTS TO BE INSTALLED INTO EXISTING FOOTINGS SHALL BE SIMPSON TITAN HD ANCHOR (ICC-ES-ESER-1056/LARR# 25560)

14) CONSTRUCTION JOINTS SHALL BE PREPARED BY WIRE BRUSHING, CLEANING AND BRUSHING IN A PASTE OF NEAT CEMENT MORTAR IMMEDIATELY PRIOR TO POURING. LOCATION OF CONSTRUCTION JOINT SHALL BE APPROVED BY THE PROJECT STRUCTURAL ENGINEER.

15) ALL CONNECTORS AND METAL HARDWARE IN CONTACT WITH PRESSURE TREATED TIMBER SHALL HAVE CORROSION RESISTANT COATINGS OR PROTECTION, SUCH AS "ZMAX", HOT DIPPED GALVANIZED, OR BE STAINLESS STEEL.

16) PRIOR TO POURING INTERIOR CONCRETE FLOOR SLABS, ALL SOIL BELOW FLOOR SHALL BE COMPACTED TO REQUIRED DENSITY AND MOISTENED TO A DEPTH NOT LESS THAN 18" OR PER SOILS REPORT.

17) DEEPEN NEW FOOTINGS AS NECESSARY TO OBTAIN REQUIRED EMBEDMENT FOR ALL NEW HOLD DOWN BOLTS. ALL HOLD DOWN BOLTS TO HAVE A MINIMUM OF 3" OF CONCRETE COVER TO SOIL @ BOTTOM.

Q. EXPANSIVE SOIL REQUIREMENTS:

A) IF SOIL IS FOUND TO BE EXPANSIVE, THE FOOTINGS MUST MEET THE FOLLOWING MINIMUM REQUIREMENTS.

B) DEPTH OF FOOTINGS BELOW THE NATURAL AND FINISH GRADES SHALL NOT BE LESS THAN 24 INCHES FOR EXTERIOR AND 18 INCHES FOR INTERIOR FOOTINGS.

C) EXTERIOR WALLS AND INTERIOR BEARING WALLS SHALL BE SUPPORTED ON CONTINUOUS FOOTINGS.

D) FOOTINGS SHALL BE REINFORCED WITH MINIMUM FOUR 1/2-INCH DIAMETER DEFORMED REINFORCING BARS. TWO BARS SHALL BE PLACE 4 INCHES OF THE BOTTOM OF THE FOOTING AND TWO BARS WITHIN 4 INCHES OF THE TOP OF THE FOOTINGS.

E) THE SOIL BELOW AN INTERIOR CONCRETE SLAB SHALL BE SATURATED WITH MOISTURE TO A DEPTH OF 18 INCHES PRIOR TO PLACING THE CONCRETE.

F) CONCRETE SLABS ON GRADE SHALL BE PLACED ON A 4-INCH FILL OF COARSE AGGREGATE OF ON 2" SAND BED COVERED MOISTURE BARRIER MEMBRANE. THE SLABS SHALL BE AT LEAST 3-1/2 INCHES THICK AND SHALL BE REINFORCED WITH #4 BARS SPACED AT INTERVALS NOT EXCEEDING 16 INCHES EACH WAY.

R. REINFORCING STEEL

ALL PRIMARY REINFORCEMENT SHALL CONFORM TO A.S.T.M. A- 615, GRADE 60 K.S.I. STEEL.

ALL TIES AND STIRRUPS SHALL CONFORM TO A.S.T.M. A-615, GRADE 40 K.S.I. STEEL.

SPLICES OF REINFORCING SHALL BE LAPPED A MINIMUM OF 40 BAR DIAMETERS UNLESS SPECIFIED ON PLANS AND SECURELY WIRED TOGETHER, USING A MINIMUM OF 16 GA. WIRE. SPLICES OF ADJACENT REINFORCING BARS SHALL BE STAGGERED WHEREVER POSSIBLE.

R. CONCRETE

1) ALL PHASES OF WORK PERTAINING TO CONCRETE CONSTRUCTION SHALL CONFORM TO 2022 CBC. FOR REINFORCED CONCRETE.

2) MINIMUM ULTIMATE COMPRESSIVE CONCRETE STRENGTHS (f'c) SHALL BE:
SLAB ON GRADE . . . . 2500 PSI @ 28 DAYS
FOOTINGS . . . . 2500 PSI @ 28 DAYS
CONCRETE/GRADE BEAMS . . . . . 3000 PSI @ 28 DAYS

3) CONTINUOUS INSPECTION BY AN APPROVED DEPUTY INSPECTOR IS REQUIRED FOR CAISSONS, GRADE BEAMS, STRUCTURAL SLABS, AND OTHER CONCRETE MEMBERS WHERE DESIGN COMPRESSIVE STRENGTH VALUE EXCEEDS 2500 PSI.

4) CEMENT SHALL BE TYPE II, LOW ALKALI, CONFORMING TO A.S.T.M. C-150.

5) ALL PRIMARY REINFORCEMENT SHALL BE PER ASTM A-615, GRADE 60 ksi STEEL. ALL TIES AND STIRRUPS SHALL CONFORM TO A.S.T.M. A-615, GRADE 40 ksi STEEL.

6) UNLESS NOTED OTHERWISE, SPLICES OF REINFORCING SHALL BE LAPPED A MINIMUM OF 40 BAR DIAMETERS AND SECURELY WIRED TOGETHER, USING A MINIMUM OF 16 GA. WIRE. SPLICES OF ADJACENT REINFORCING BARS SHALL BE STAGGERED WHEREVER POSSIBLE. WHERE SPECIFICALLY CALLED OUT, WELDING OF REINFORCING BARS SHALL BE PERFORMED BY A CERTIFIED WELDER USING E90 SERIES ELECTRODES PER AWS, LATEST EDITION.

7) INTERIOR CONCRETE SLABS ON GRADE SHALL HAVE A STEEL TROWEL FINISH. DRIVEWAYS, WALKS, AND GARAGE SLABS SHALL HAVE A BROOM FINISH AND SHALL BE PITCHED TO SHED WATER.

8) PRIOR TO POURING INTERIOR CONCRETE FLOOR SLABS, ALL SOIL BELOW FLOOR SHALL BE COMPACTED TO REQUIRED DENSITY AND MOISTENED TO A DEPTH NOT LESS THAN 18" OR PER SOILS REPORT.

9) CLEAR COVERAGE OF CONCRETE OVER REINFORCING BARS, ANCHOR BOLTS, AND ALL OTHER CONCRETE INSERTS, UNLESS OTHERWISE SPECIFIED, SHALL BE AS FOLLOWS:
POURED AGAINST EARTH . . .. 3" CLEAR
FORMED CONCRETE . . . . 2" CLEAR

10) FORMS FOR CONCRETE SHALL BE LAID OUT AND CONSTRUCTED TO PROVIDE THE SPECIFIED CAMBERS SHOWN ON THE DRAWINGS. DECK CAMBERING SHOWN ON PLANS IS INTENDED TO PROVIDE A LEVEL DECK. ANY SLOPING FOR DRAINAGE SHALL BE ADDED OR SUBTRACTED FROM CAMBERING AS APPROPRIATE. THE DECK THICKNESS SHALL NOT BE REDUCED IN ORDER TO ACHIEVE DECK SLOPES.

11) DRYPACK UNDER BASEPLATES, SILL PLATES, AND WHERE OTHERWISE NOTED ON DRAWINGS SHALL CONSIST OF APPROVED NON-SHRINK HIGH STRENGTH GROUT. WHEN SPACE BETWEEN TWO SURFACES REQUIRES DRYPACK, IT SHALL BE PACKED BY TAMPING OR RAMMING WITH A BAR OR ROD UNTIL THE VOIDS ARE COMPLETELY FILLED.

12) PLACEMENT OF CONCRETE SHALL CONFORM TO A.C.I. LATEST STANDARD AND PROJECT SPECIFICATIONS. WIRE BRUSH OR SANDBLAST ALL CONCRETE SURFACES AGAINST WHICH CONCRETE IS TO BE PLACED.

13) IF COLUMNS AND WALLS ARE PLACED WITH FLOORS, MINIMUM TIME OF TWO HOURS MUST ELAPSE BETWEEN END OF COLUMN OR WALL POUR AND BEGINNING OF FLOOR POUR.

14) PROVIDE SLEEVES FOR PLUMBING AND ELECTRICAL OPENINGS IN CONCRETE BEFORE PLACING. DO NOT CUT ANY REINFORCING WHICH MAY CONFLICT. COPING IN CONCRETE IS NOT PERMITTED, EXCEPT AS SHOWN. NOTIFY THE PROJECT STRUCTURAL ENGINEER IN ADVANCE OF CONDITIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS.

15) COVER TO BEAM REINFORCEMENT TO BE 2" MINIMUM FORMED CONCRETE & 3" MINIMUM AGAINST EARTH, UNLESS NOTED OTHERWISE.

16) ARCHITECTURAL DRAWINGS TO BE REFERRED TO FOR DECK SLOPES, DRAINAGE, PLUMBING, FRAMING AND ELECTRICAL HARDWARE & ALL DIMENSIONS.

17) REINFORCEMENT CALLED OUT IN DETAILS SHALL BE IN ADDITION TO THAT SHOWN ON PLANS (U.N.O). REINFORCING METHODS SHOWN IN DETAILS SHALL BE USED AS APPLICABLE.

18) WHEN A MONOLITHIC POUR IS NOT POSSIBLE, CONSTRUCTION JOINTS SHALL BE APPROVED BY THE PROJECT STRUCTURAL ENGINEER.

19) SHORING SHALL NOT BE REMOVED UNTIL CONCRETE HAS ACHIEVED MINIMUM 28 DAY COMPRESSIVE STRENGTH. FIFTEEN DAYS AFTER CONCRETE POUR IS COMPLETED THE PROJECT STRUCTURAL ENGINEER MAY DETERMINE, BASED ON COMPRESSION TESTS, IF SHORING MAY BE REMOVED.

20) ALL DECK SURFACES EXPOSED TO WEATHER SHALL BE WATERPROOFED. SEE ARCHITECTURAL DOCUMENTS FOR SPECIFICATIONS.

21) CONCRETE SHALL BE THOROUGHLY CONSOLIDATED IN A MANNER THAT WILL ENCASE THE REINFORCEMENT AND INSERTS, FILL THE FORMS, AND PRODUCE A SURFACE OF UNIFORM TEXTURE FREE OF ROCK POCKETS AND EXCESSIVE VOIDS. CONCRETE SHALL BE CONSOLIDATED BY MEANS OF HIGH FREQUENCY INTERNAL VIBRATORS WITHOUT CAUSING WATER OR CEMENT PASTE TO FLUSH TO THE SURFACE. INTERNAL VIBRATOR TYPE, SIZE, AND NUMBER SHALL BE APPROVED BY THE ENGINEER.

22) CONCRETE MIXING COMPANY SHALL PROVIDE TEST RECORDS AND STANDARD DEVIATION PER 2022 CBC.

REVISIONS	BY
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LICENSED PROFESSIONAL ENGINEER
MARTIN H SANDOVAL
C 56905
EXP. 06/30/25
CIVIL
STATE OF CALIFORNIA

STAMP

WR DESIGN GROUP
CIVIL & STRUCTURAL ENGINEERING
9900 LAKEWOOD BLVD, SUITE 109
DOWNEY CA. 90240
(562) 314-5500

SHEET TITLE:
NOTES & SPECIFICATIONS

PROJECT INFO:
TITLE
2637 S. LONGWOOD AVE
LOS ANGELES, CA 90016

DRAWN: DE
CHECKED: M.D. / W.R.
DATE: APRIL 23, 2025
SCALE: N.T.S.
JOB NO.: 256-24
SHEET: SN1

A. FRAMING

ROOF DIAPHRAGM:

1. 15/32" CDX SHEATHING (MIN.), EXPOSURE 1, 24/0 MAX. SPAN RATING, WITH 8d COMMON NAILS @ 6"o.c. AT BOUNDARY & PANEL EDGE NAILING (E.N.), AND 12" O.C. AT INTERMEDIATE FRAMING MEMBERS

FLOOR DIAPHRAGM:

2. 23/32" CDX, EXPOSURE 1, TONGUE AND GROOVE, w/ 10d COMMON NAILS @ 6" o.c. AT BOUNDARY & PANEL EDGE NAILING (E.N.), AND 12" o.c. AT INTERMEDIATE FRAMING MEMBERS

FRAMING:

3. BUILT-UP WOOD FRAMING MEMBERS MAY NOT BE SUBSTITUTED FOR 4x AND WIDER BEAMS UNLESS NOTED BY ENGINEER

4. ALL (2) 2x ROOF & FLOOR FRAMING TO HAVE MIN. 16d AT 12" O.C. T&B, STAGGERED

5. ALL (3) 2x FRAMING TO HAVE MIN. 1/2" DIAMETER BOLTS AT 18" O.C. T&B, STAGGERED

6. 2x SOLID BLOCKING REQUIRED AT POINTS OF SUPPORT FOR ALL HORIZONTAL FRAMING MEMBERS. IN ADDITION, ALL 2x10 AND LARGER MEMBERS SHALL HAVE SOLID FULL DEPTH BLOCKING OR BRIDGING AT MAX. 8'-0" o.c.

7. ALL WOOD POSTS AT UPPER FLOORS TO CONTINUE TO BEAM OR FOUNDATION

8. UNLESS DETAILED OTHERWISE, ALL RIDGE / HIP / VALLEY CONNECTIONS TO HAVE A SIMPSON A35 CONNECTOR AT EACH CORNER WITH A 2x KICKER TO BEARING WALL

9. ALL NEW TO EXISTING TOP PLATES TO HAVE SIMPSON ST6236 STRAP

10. AT ROOF-TO-WALL FRAMING, PROVIDE A35 FRAMING ANCHORS PER SHEARWALL SCHEDULE OR AT MAX. 48" O.C. FROM PLATES TO RAFTERS AND RAFTER BLOCKING AROUND PERIMETER OF BUILDING AND AT DRAG LINES AS INDICATED ON PLANS (SEE PLANS WHERE OTHER REQUIREMENTS MAY OCCUR)

11. AT FIRST FLOOR AND SUBTERRANEAN LEVEL PROVIDE A35'S PER SHEARWALL SCHEDULE OR AT 32" O.C. MAX. FROM PLATES TO FLOOR JOISTS AND BLOCKING AROUND PERIMETER OF BUILDING AND AT DRAG LINES AS INDICATED ON PLANS (SEE PLANS WHERE OTHER REQUIREMENTS MAY OCCUR)

12. PROVIDE DOUBLE JOISTS UNDER ALL PARALLEL WALLS, U.N.O.

13. WHEN SHEAR WALLS ARE SUPPORTED BY WOOD JOISTS THAT ARE PERPENDICULAR TO THE SHEAR WALL, ATTACH SOLID 4x BLOCKING UNDER SHEAR WALLS BETWEEN JOISTS. PROVIDE 2x SOLID BLOCKING UNDER NON-SHEAR WALLS PERPENDICULAR TO FLOOR JOISTS. SEE PLANS AND DETAILS FOR ANY ADDITIONAL REQUIREMENTS.

14. ATTACH MIN. 2x SOLID BLOCKING AND EDGE NAIL THE PERIMETER OF ALL OPENINGS OVER 10" IN WIDTH OR LENGTH IN ALL SHEAR PANELS AND DIAPHRAGMS. SEE DETAILS WHERE OTHER REQUIREMENTS MAY OCCUR.

15. PROVIDE A MINIMUM 3x4 OR 2x6 @ 16" FOR ALL STUD WALLS SUPPORTING TWO OR THREE FLOORS WITH 10' MAX PLATE HEIGHTS.

16. ALL CONNECTORS AND METAL HARDWARE IN CONTACT WITH PRESSURE TREATED TIMBER SHALL HAVE CORROSION RESISTANT COATINGS OR PROTECTION, SUCH AS "ZMAX", HOT DIPPED GALVANIZED, OR BE STAINLESS STEEL.

B. SHEAR WALL

1) ONLY COMMON NAILS SHALL BE PERMITTED FOR REQUIRED NAILING AT VERTICAL SHEAR PANELS AND HORIZONTAL DIAPHRAGMS (ROOF AND FLOOR).

2) ALL SHEARWALLS WITH AN ALLOWABLE SHEAR CAPACITY GREATER THAN 350 plf REQUIRE 3x MEMBERS AT THE FOUNDATION SILL PLATE AND AT ADJACENT PANEL EDGES. A MINIMUM OF 1/2" EDGE DISTANCE FROM THE PANEL EDGE TO THE CENTER OF THE NAIL IS REQUIRED FOR THESE 3x MEMBERS.

3) ALL HOLD DOWN CONNECTORS SHALL BE TIGHTENED JUST PRIOR TO COVERING THE WALL FRAMING. BOLT HOLES FOR HOLD DOWN CONNECTION TO POST SHALL BE 1/16" (MAX.) OVERSIZED. INSPECTOR TO VERIFY HOLD DOWN CONNECTIONS.

4) PROVIDE MINIMUM 4x4 POSTS FOR ALL HOLD DOWNS ENDS OF SHEARWALL.

5) APPROVED PLATE WASHERS SHALL BE PROVIDED FOR ALL WOOD STRUCTURAL PANEL SHEAR WALL ANCHOR BOLTS AND FOR ALL HOLD DOWN CONNECTOR BOLTS TO POSTS.

BOLT DIAMETER	PLATE SIZE
5/8"	0.229" x 3" x 3"
3/4"	5/16" x 3" x 3"
7/8"	5/16" x 3" x 3"
1"	3/8" x 3 1/2" x 3 1/2"

6) DRAG LINE DL

7) DRAG LINE: SIMPSON ST6236 @ ALL BREAKS AND DIAPHRAGM EDGE NAILING.

8) @ ROOF: SHEAR WALL TO CONTINUE UP TO ROOF FRAMING, EDGE NAIL, AND INSTALL A35 PER SHEAR WALL SCHEDULE.

9) @ FLOOR: SHEAR WALL TO CONTINUE UP TO DBL TOP PL. MINIMUM, EDGE NAIL, AND INSTALL A35 PER SHEAR WALL SCHEDULE.

TABLE 2304.9.1-FASTENING SCHEDULE

CONNECTION & LOCATION	FASTENING[a,m]
1. JOIST TO SILL OR GIRDER, TOENAIL	3-8d (2 1/2"x 0.131")
2. BRIDGING TO JOIST, TOENAIL EACH END	2-8d (2 1/2"x 0.131")
3. 1"X6" SUBFLOOR OR LESS TO EACH JOIST, FACE NAIL	2-8d (2 1/2"x 0.131")
4. WIDER THAN 1"X6" SUBFLOOR TO EACH JOIST, FACE NAIL	3-8d (2 1/2"x 0.131")
5. 2" SUBFLOOR TO JOIST OR GIRDER, BLIND AND FACE NAIL	2-16d (3 1/2"x 0.162")
6. SOLE PLATE TO JOIST OR BLOCKING, TYPICAL FACE NAIL SOLE PLATE TO JOIST OR BLOCKING, AT BRACED WALL PANELS	16d AT 16" (0.135") O.C. 3"-16d AT 16" O.C. (0.135")
7. TOP PLATE TO STUD, END NAIL	2-16d (3 1/2"x 0.162")
8. STUD TO SOLE PLATE, TOE NAIL END NAIL	4-8d (2 1/2"x 0.131") 2-12d (3 1/2"x 0.162")
9. DOUBLE STUDS, FACE NAIL	16d AT 24" (0.135") O.C.
10. DOUBLE TOP PLATES, TYPICAL FACE NAIL DOUBLE TOP PLATES, LAP SPLICE	16d AT16" (0.135") O.C. 8-16d COMMON (3 1/2" x 0.162")
11. BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE	3-8d COMMON (2 1/2" x 0.131") AT 6" O.C.
12. RIM JOIST TO TOP PLATE, TOE NAIL	8d AT 6" (0.131") O.C.
13. TOP PLATES, LAPS AND INTERSECTIONS, FACE NAILS	2-16d COMMON (3 1/2" x 0.162")
14. CONTINOUS HEADER, TWO PIECES	16d AT 16" (3 1/2"x 0.162") O.C. ALONG EACH EDGE
15. CEILING JOIST TO PLATE, TOE NAIL	3-8d COMMON (2 1/2" x 0.131")
16. CONTINOUS HEADER TO STUD, TOE NAIL	4-8d COMMON (2 1/2" x 0.131")
17. CEILING JOIST, LAPS OVER PARTITIONS, FACE NAIL	3-16d COMMON (3 1/2" x 0.162") MIN.
18. CEILING JOISTS TO PARALLEL RAFTERS, FACE NAIL	3-16d COMMON (3 1/2"x 0.162") MIN.
19. RAFTER TO PLATE, TOE NAIL	3-8d COMMON (2 1/2" x 0.131")
20. 1" (25mm) BRACE TO EACH STUD AND PLATE, FACE NAIL	2-8d COMMON (2 1/2" x 0.131")
21. 1"x8" SHEATHING TO EACH BEARING, FACE NAIL	3-8d COMMON (2 1/2"x 0.131")
22. WIDER THAN 1" x 8" SHEATHING TO EACH BEARING, FACE NAIL	3-8d COMMON (2 1/2" x0.131")
23. BUILT-UP CORNERS STUDS	16d AT 24" O.C. (3 1/2"x 0.162")
24. BUILT-UP GIRDER AND BEAMS	20d AT 32" (4" x 0.192") O.C. AT TOP AND BOTTOM AND STAGGERED ON OPPOSITE SIDES 2-20d COMMON (4"x 0.192") FACE NAIL AT EACH SPLICE
25. 2" PLANKS	16d COMMON (3 1/2" x 0.162) AT EACH BEARING
26. COLLAR TIE TO RAFTER, FACE NAIL	3-10d COMMON (3" x 0.148)
27. JACK RAFTER TO HIP, TOE NAIL FACE NAIL	3-10d COMMON (3" x 0.148) 2-16d COMMON (3 1/2" x 0.162)
28. ROOF RAFTER TO 2-BY RIDGE BEAM, TOE NAIL FACE NAIL	2-16d COMMON (3 1/2" x 0.162) 2-16d COMMON (3 1/2" x 0.162)
29. JOIST TO BAND JOIST	3-16d COMMON (3 1/2" x 0.162)
30. LEDGER STRIP, FACE NAIL	3-16d COMMON (3 1/2" x 0.162)
31. WOOD STRUCTURAL PANELS AND PARTICLE BOARD:[b] SUBFLOOR, ROOF AND WALL SHEATHING (TO FRAMING): 1/2" AND LESS 19/32"-3/4" 7/8"-1" 1 1/8"-1 1/4" SINGLE FLOOR (COMBINATION SUBFLOOR-UNDERLAYMENT TO FRAMING): 3/4" AND LESS 7/8"-1" 1 1/8"-1 1/4"	16d COMMON (3 1/2" x 0.162) AT EACH BEARING 6d[c,j] 8d[d] OR 8d[e] 8d[c] 10d[d] OR 8d[d] 6d[e] 8d[e] 10d[d] OR 8d[e]
32. PANEL SIDING (TO FRAMING : 1/2" OR LESS 25/32"	 6d[f] 8d[f]
33. FIREBOARD SHEATHING:[g] 1/2" 25/32" 	 NO. 11 GA.ROOFING NAIL[h] 6d COMMON NAIL (2" x 0.113") NO. 16 GA.STAPLE[i] NO. 11 GA.ROOFING NAIL[h] 8d COMMON NAIL (2 1/2" x 0.131") NO. 16 GA.STAPLE[i]
34. INTERIOR PANELING 1/4" 3/8"	 4d[j] 6d[k]

FOR SI: 1 inch = 25.4mm.

a. COMMON OR BOX NAILS MAY BE USED EXCEPT WHERE OTHERWISE STATED
b. NAILS SPACED AT 6 INCHES ON CENTER AT EDGES, 12 INCHES AT INTERMEDIATE SUPPORTS WHERE SPANS ARE48 INCHES OR MORE. FOR NAILING OF WOOD STRUCTURAL PANEL AND PARTICLEBOARD DIAPHRAGMS AND SHEARWALLS; REFER TO SECTIONS 2305. NAILS FOR WALL SHEATHING MAY BE COMMON, BOX OR CASING.
c. COMMON OR DEFORMED SHANK (6d - 2"x0.113"; 8d - 2 1/2" x 0.131"; 10d- 3"x 0.148")
d. COMMON (6d - 2"x0.113"; 8d - 2 1/2" x 0.131"; 10d- 3"x 0.148")
e. DEFORMED SHANK (6d - 2"x0.113"; 8d - 2 1/2" x 0.131"; 10d- 3"x 0.148")
f. CORROSION-RESISTANT SIDING (6d - 1 7/8"x0.106"; 8d - 2 3/8" x 0.128") OR CASING (6d- 2"x 0.099"; 8d- 2 1/2" x 0.113") NAIL.
g. FASTENERS SPACED 3 INCHES ON CENTER AT EXTERIOR EDGES AND 6 INCHES ON CENTER AT INTERMEDIATE SUPPORTS.WHEN USED AS STRUCTURAL SHEATHING. SPACING SHALL BE 6 INCHES ON CENTER ON THE EDGES AND 12 INCHES ON CENTER AT INTERMEDIATE SUPPORTS FOR NON-STRUCTURAL APPLICATIONS.
h. CORROSION-RESISTANT ROOFING NAILS WITH 7/16-INCH-DIAMETER HEAD AND 1 1/2-INCH LENGTH FOR 1/2" SHEATHING AND 1 3/4"-INCH LENGTH FOR 25/32-INCH SHEATHING.
i. CORROSION-RESISTANT STAPLES WITH NOMINAL 7/16"-INCH CROWN AND 1 1/8-INCH LENGTH FOR 1/2" SHEATHING AND 1 3/4"-INCH LENGTH FOR 25/32-INCH SHEATHING.
j. CASING (1 1/2"x 0.080") OR FINISH (1 1/2"x 0.072") NAILS SPACED 6" ON PANEL EDGES, 12" AT INTERMEDIATE SUPPORTS.
k. PANEL SUPPORTS AT 24-INCHES. CASING OR FINISH NAILS SPACED 6 INCHES ON PANEL EDGES, 12 INCHES AT INTERMEDIATE SUPPORTS.
l. FOR ROOF SHEATHING APPLICATION, 8d NAILS (2 1/2"x 0.113") ARE THE MINIMUM REQUIRED FOR WOOD STRUCTURAL PANELS.
m. STAPLES SHALL HAVE A MINIMUM CROWN WIDTH OF 7/16 INCH.
n. FOR ROOF SHEATHING APPLICATION, FASTENERS SPACED AT 4 INCHES ON CENTER AT EDGES, 8 INCHES AT INTERMEDIATE SUPPORTS.
o. FASTENERS SPACED AT 4 INCHES ON CENTER AT EDGES, 8 INCHES AT INTERMEDIATE SUPPORTS FOR SUBFLOOR AND WALL SHEATHING AND 3 INCHES ON CENTER AT EDGES, 6 INCHES AT INTERMEDIATE SUPPORTS FOR ROOF SHEATHING.
p. FASTENERS SPACED AT 4 INCHES ON CENTER AT EDGES, 8 INCHES AT INTERMEDIATE SUPPORTS.

STRUCTURAL OBSERVATION PROGRAM AND DESIGNATION OF THE STRUCTURAL OBSERVER

PROJECT ADDRESS: 2637 S. Longwood Avenue PERMIT APPL. NO.: _____

Description of Work: ONE 3-STORY DUPLEX & ONE 2 STROY ADU

Owner: DANTE GUEMBES Architect: _____ Engineer: WR DESIGN GROUP

STRUCTURAL OBSERVATION
(only checked items are required)

Firm or Individual to be responsible for the Structural Observation:

Name: MARTIN H. SANDOVAL, P.E. Phone: (562) 314-5500 Calif. Registration: C 56905

FOUNDATION	WALL	FRAME	DIAPHRAGM
☒ Footing, Stem Walls, Piers	☐ Concrete	☐ Steel Moment Frame	☐ Concrete
☐ Mat Foundation	☐ Masonry	☐ Steel Braced Frame	☐ Steel Deck
☐ Caisson, Piles, Grade Beams	☒ Wood	☐ Concrete Moment Frame	☒ Wood
☐ Stepp 'g/Retain 'g Foundation, Hillside Special Anchors	☒ Others:	☐ Masonry Wall Frame	☐ Others:
☐ Others:		☐ Others:	

DECLARATION BY OWNER

I, the Owner of the project, declare that the above listed firm or individual is hired **by me** to be the Structural Observer.

Signature 4/20/25 Date

DECLARATION BY ARCHITECT OR ENGINEER OF RECORD (required if the Structural Observer is different from the Architect or Engineer of Record)

I, the Architect or Engineer of record for the project, declare that the above listed individual firm or individual is designated by m to be responsible for the Structural Observation

Signature License No. Date

SPECIAL INSPECTION SCHEDULE

MATERIALS, SYSTEMS, COMPONENTS, AND WORK THAT REQUIRE SPECIAL INSPECTION	CONTINUOUS	PERIODIC
EPOXY CONNECTION	☒	☐
GRADE BEAMS & FOOTING WITH 3,000 PSI CONCRETE	☒	☐
SPECIALLY REINFORCED CONCRETE SHEAR WALL: 3000 PSI CONCRETE	☐	☐
REINFORCED MASONRY	☐	☐
STEEL MOMENT FRAMES	☐	☐
HIGH LOAD PLYWOOD SHEAR WALLS	☐	☒
HIGH LOAD PLYWOOD DIAPHRAGMS	☐	☐
MANUFACTURED SHEAR WALLS (HFX PANELS)	☐	☒
WEDGE BOLT ANCHORS	☐	☐
HIGH STRENGTH BOLTS: A325	☐	☐
HIGH LIFT GROUT	☐	☐
FIELD WELDS	☐	☐

CITY OF LOS ANGELES
CALIFORNIA

BOARD OF BUILDING AND SAFETY COMMISSIONERS
JAVIER NUNEZ, PRESIDENT
JACOB STEVENS, VICE PRESIDENT
MOISES ROSALES
NANCY YAP

KAREN BASS
MAYOR

DEPARTMENT OF BUILDING AND SAFETY
201 NORTH FIGUEROA STREET
LOS ANGELES, CA 90012
OSAMA YOUNAN, P.E., GENERAL MANAGER, SUPERINTENDENT OF BUILDING
JOHN WEIGHT, EXECUTIVE OFFICER

SOILS REPORT APPROVAL LETTER

November 22, 2024

LOG # 133011
SOILS/GEOLOGY FILE - 2
LIQ

Dante Guembes
2637 S. Longwood Ave.
Los Angeles, CA 90016

TRACT: TR 1601
LOT(S): 7
LOCATION: 2637 S LONGWOOD AVE.

CURRENT REFERENCE REPORT/LETTER(S)	REPORT No.	DATE OF DOCUMENT	PREPARED BY
Soils Report	24-1414P	10/28/2024	Geo Environ

The Grading Division of the Department of Building and Safety has reviewed the referenced report that provides recommendations for the proposed 3-story duplex and ADUs. The earth materials at the subsurface exploration locations consist of clayey silt, sand, sandy clay and silty clay. The consultants recommend to support the proposed structures on conventional foundations bearing on native undisturbed soils.

The site is located in a designated liquefaction hazard zone as shown on the Seismic Hazard Zones map issued by the State of California. The Liquefaction study included as a part of the report demonstrates that the site does not possess a liquefaction potential. This satisfies the requirement of the 2023 Los Angeles City Building Code Section 1803.5.12.

The referenced report is acceptable, provided the following conditions are complied with during site development:

(Note: Numbers in parenthesis ( ) refer to applicable sections of the 2023 City of LA Building Code. P/BC numbers refer to the applicable Information Bulletin. Information Bulletins can be accessed on the internet at LADBS.ORG.)

1. The soils engineer shall review and approve the detailed plans prior to issuance of any permit. This approval shall be by signature on the plans that clearly indicates the soils engineer has reviewed the plans prepared by the design engineer; and, that the plans included the recommendations contained in their reports (7006.1).

LADBS G-8 (Rev 11/1/2023) AN EQUAL EMPLOYMENT OPPORTUNITY - AFFIRMATIVE ACTION EMPLOYER

This plan has been reviewed and conforms to recommendations of soils engineering/ geologic reports dated 10/28/24 by GEO ENVIRON ENG CONSULTS, INC.
Signature _____
Fahad Masud, RCE: 92662
Date 4/24/25

2. All recommendations of the report that are in addition to or more restrictive than the conditions contained herein shall be incorporated into the plans.
3. A copy of the subject and appropriate referenced reports and this approval letter shall be attached to the District Office and field set of plans (7006.1). Submit one copy of the above reports to the Building Department Plan Checker prior to issuance of the permit.
4. A grading permit shall be obtained for all structural fill and retaining wall backfill (106.1.2).
5. All man-made fill shall be compacted to a minimum 90 percent of the maximum dry density of the fill material per the latest version of ASTM D 1557. Where cohesionless soil having less than 15 percent finer than 0.005 millimeters is used for fill, it shall be compacted to a minimum of 95 percent relative compaction based on maximum dry density. Placement of gravel in lieu of compacted fill is only allowed if complying with LAMC Section 91.7011.3.
6. Existing uncertified fill shall not be used for support of footings, concrete slabs or new fill (1809.2, 7011.3).
7. Drainage in conformance with the provisions of the Code shall be maintained during and subsequent to construction (7013.12).
8. The applicant is advised that the approval of this report does not waive the requirements for excavations contained in the General Safety Orders of the California Department of Industrial Relations (3301.1).
9. Excavations shall not remove lateral support from a public way, adjacent property or an existing structure. Note: Lateral support shall be considered to be removed when the excavation extends below a plane projected downward at an angle of 45 degrees from the bottom of a footing of an existing structure, from the edge of the public way or an adjacent property. (3307.3.1)
10. Prior to the issuance of any permit that authorizes an excavation where the excavation is to be of a greater depth than are the walls or foundation of any adjoining building or structure and located closer to the property line than the depth of the excavation, the owner of the subject site shall provide the Department with evidence that the adjacent property owner has been given a 30-day written notice of such intent to make an excavation (3307.1).
11. Prior to the issuance of the permits, the soils engineer and/or the structural designer shall evaluate the surcharge loads used in the report calculations for the design of the retaining walls and shoring. If the surcharge loads used in the calculations do not conform to the actual surcharge loads, the soil engineer shall submit a supplementary report with revised recommendations to the Department for approval.
12. Unsurcharged temporary excavations over 5 feet exposing soil shall be trimmed back at a gradient not exceeding 1:1, as recommended.
13. All foundations shall derive entire support from native undisturbed soils, as recommended and shall be approved by the geologist and soils engineer by inspection.

14. Footings supported on approved compacted fill or expansive soil shall be reinforced with a minimum of four (4), ½-inch diameter (#4) deformed reinforcing bars. Two (2) bars shall be placed near the bottom and two (2) bars placed near the top of the footing.
15. The foundation/slab design shall satisfy all requirements of the Information Bulletin P/BC 2017-116 "Foundation Design for Expansive Soils" (1803.5.3).
16. Slabs placed on approved compacted fill shall be at least 4 inches thick and shall be reinforced with ½-inch diameter (#4) reinforcing bars spaced a maximum of 16 inches on center each way.
17. Concrete floor slabs placed on expansive soil shall be placed on a 4-inch fill of coarse aggregate or on a moisture barrier membrane.
18. The seismic design shall be based on a Site Class D, as recommended. All other seismic design parameters shall be reviewed by LADBS building plan check.
19. Retaining walls shall be designed for the lateral earth pressures specified in the section titled "Retaining Wall Recommendations" starting on page 11 of the referenced report. All surcharge loads shall be included into the design.
20. All retaining walls shall be provided with a standard surface backdrain system and all drainage shall be conducted in a non-erosive device to the street in an acceptable manner (7013.11).
21. With the exception of retaining walls designed for hydrostatic pressure, all retaining walls shall be provided with a subdrain system to prevent possible hydrostatic pressure behind the wall. Prior to issuance of any permit, the retaining wall subdrain system recommended in the soils report shall be incorporated into the foundation plan which shall be reviewed and approved by the soils engineer of record (1805.4).
22. Installation of the subdrain system shall be inspected and approved by the soils engineer of record and the City grading/building inspector (108.9).
23. The use of acceptable prefabricated drainage composites (also known as geosynthetic subdrain systems), as an alternative to traditionally accepted methods of draining retained earth, shall be determined during structural plan check.
24. The structure shall be connected to the public sewer system per P/BC 2020-027.
25. All roof, pad and deck drainage shall be conducted to the street in an acceptable manner in non-erosive devices or other approved location in a manner that is acceptable to the LADBS and the Department of Public Works (7013.10).
26. All concentrated drainage shall be conducted in an approved device and disposed of in a manner approved by the LADBS (7013.10).
27. The soils engineer shall inspect all excavations to determine that conditions anticipated in the report have been encountered and to provide recommendations for the correction of hazards found during grading (7008, 1705.6 & 1705.8).

28. Prior to pouring concrete, a representative of the consulting soils engineer shall inspect and approve the footing excavations. The representative shall post a notice on the job site for the LADBS Inspector and the Contractor stating that the work inspected meets the conditions of the report. No concrete shall be poured until the LADBS Inspector has also inspected and approved the footing excavations. A written certification to this effect shall be filed with the Grading Division of the Department upon completion of the work. (108.9 & 7008.2)
29. Prior to excavation an initial inspection shall be called with the LADBS Inspector. During the initial inspection, the sequence of construction; [shoring; ABC slot cuts; underpinning; pile installation;] protection fences; and, dust and traffic control will be scheduled (108.9.1).
30. Prior to the placing of compacted fill, a representative of the soils engineer shall inspect andapprove the bottom excavations. The representative shall post a notice on the job site for the LADBS Inspector and the Contractor stating that the soil inspected meets the conditions of the report. No fill shall be placed until the LADBS Inspector has also inspected and approved the bottom excavations. A written certification to this effect shall be included in the final compaction report filed with the Grading Division of the Department. All fill shall be placed under the inspection and approval of the soils engineer. A compaction report together with the approved soil report and Department approval letter shall be submitted to the Grading Division of the Department upon completion of the compaction. In addition, an Engineer's Certificate of Compliance with the legal description as indicated in the grading permit and the permit number shall be included (7011.3).
31. No footing/slab shall be poured until the compaction report is submitted and approved by the Grading Division of the Department.

YING LIU
Geotechnical Engineer II

Log No. 133011
213-482-0480

cc: Applicant
Geo Environ, Project Consultant
LA District Office

REVISIONS	BY

LICENSED PROFESSIONAL ENGINEER
MARTIN H SANDOVAL
C 56905
EXP. 06/30/25
CIVIL
STATE OF CALIFORNIA

STAMP

WR DESIGN GROUP
CIVIL & STRUCTURAL ENGINEERING
9900 LAKEWOOD BLVD, SUITE 109
DOWNEY CA. 90240
(562) 314-5500

SHEET TITLE: NOTES & SPECIFICATIONS

PROJECT INFO: TITLE
2637 S. LONGWOOD AVE
LOS ANGELES, CA 90016

DRAWN	DE
CHECKED	M.D. / W.R.
DATE	APRIL 23, 2025
SCALE	N.T.S.
JOB NO.	256-24
SHEET	SN2
OF	9 SHEETS

GENERAL INFORMATION					
01	Project Name	Longwood Ave., Unit A			
02	Run Title	Title 24 Analysis			
03	Project Location	2637 S Longwood Ave.			
04	City	Los Angeles	05	Standards Version	2022
06	Zip code	90016	07	Software Version	EnergyPro 9.3
08	Climate Zone	9	09	Front Orientation (deg/ Cardinal)	135
10	Building Type	Single family	11	Number of Dwelling Units	1
12	Project Scope	Newly Constructed	13	Number of Bedrooms	3
14	Addition Cond. Floor Area (ft²)	0	15	Number of Stories	3
16	Existing Cond. Floor Area (ft²)	n/a	17	Fenestration Average U-factor	0.42
18	Total Cond. Floor Area (ft²)	1320	19	Glazing Percentage (%)	13.12%
20	ADU Bedroom Count	n/a	21	ADU Conditioned Floor Area	n/a
22	Fuel Type	All electric	23	No Dwelling Unit:	No

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

ENERGY DESIGN RATINGS	Energy Design Ratings			Compliance Margins		
	Source Energy (EDR1)	Efficiency[1] EDR (EDR2efficiency)	Total[2] EDR (EDR2total)	Source Energy (EDR1)	Efficiency[1] EDR (EDR2efficiency)	Total[2] EDR (EDR2total)
Standard Design	31.8	38.4	31.3			
Proposed Design	30.1	34.5	28	1.7	3.9	3.3
RESULT[3]: PASS						

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

- Standard Design PV Capacity: 2.38 kWdc
- PV System resized to 2.38 kWdc (a factor of 2.380) to achieve 'Standard Design PV' PV scaling

ENERGY USE SUMMARY						
Energy Use	Standard Design Source Energy (EDR1) (kBtu/ft² -yr)	Standard Design TDV Energy (EDR2) (kTDV/ft² -yr)	Proposed Design Source Energy (EDR1) (kBtu/ft² -yr)	Proposed Design TDV Energy (EDR2) (kTDV/ft² -yr)	Compliance Margin (EDR1)	Compliance Margin (EDR2)
Space Heating	0.42	1.98	1.01	7.4	-0.59	-5.42
Space Cooling	0.92	23.05	0.51	18.15	0.41	4.9
IAQ Ventilation	0.4	4.16	0.4	4.16	0	0
Water Heating	1.67	17.45	1.08	12.2	0.59	5.25
Self Utilization/Flexibility Credit			0	0	0	0
Efficiency Compliance Total	**3.41**	**46.64**	**3**	**41.91**	**0.41**	**4.73**
Photovoltaics	-2.04	-60.35	-2.11	-63.11		
Battery			0	0		
Flexibility			0			
Indoor Lighting	0.78	7.39	0.78	7.39		
Appl. & Cooking	3.05	36.67	3.02	36.37		
Plug Loads	4.15	42.18	4.15	42.18		
Outdoor Lighting	0.19	1.7	0.19	1.7		
TOTAL COMPLIANCE	**9.54**	**74.23**	**9.03**	**66.44**		

ENERGY USE INTENSITY	Standard Design (kBtu/ft² - yr)	Proposed Design (kBtu/ft² - yr)	Compliance Margin (kBtu/ft² - yr)	Margin Percentage
Gross EUI[1]	15.94	14.97	0.97	6.09
Net EUI[2]	5.44	4.04	1.4	25.74

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

REQUIRED PV SYSTEMS											
01	02	03	04	05	06	07	08	09	10	11	12
DC System Size (kWdc)	Exception	Module Type	Array Type	Power Electronics	CFI	Azimuth (deg)	Tilt Input	Array Angle (deg)	Tilt: (x in 12)	Inverter Eff. (%)	Annual Solar Access (%)
2.38	NA	Standard (14-17%)	Fixed	none	false	180	Degrees	22	4.85	96	100

REQUIRED SPECIAL FEATURES
The following are features that must be installed as condition for meeting the modeled energy performance for this computer analysis.
• Window overhangs and/or fins • Non-standard duct location (any location other than attic) • Compact distribution system basic credit • 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
• Quality insulation installation (QII) • Indoor air quality ventilation • Minimum Airflow • Verified EER/EER2 • Verified SEER/SEER2 • Verified Refrigerant Charge • Fan Efficacy Watts/CFM • Verified HSPF2 • Verified heat pump rated heating capacity • Duct leakage testing • Ducts located entirely in conditioned space confirmed by duct leakage testing

BUILDING - FEATURES INFORMATION						
01	02	03	04	05	06	07
Project Name	Conditioned Floor Area (ft²)	Number of Dwelling Units	Number of Bedrooms	Number of Zones	Number of Ventilation Cooling Systems	Number of Water Heating Systems
Longwood Ave., Unit A	1320	1	3	1	0	1

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	Status
Unit A	Conditioned	FC-1	1320	8.5	DHW Sys 1	New

OPAQUE SURFACES							
01	02	03	04	05	06	07	08
Name	Zone	Construction	Azimuth	Orientation	Gross Area (ft²)	Window and Door Area (ft2)	Tilt (deg)
NE Wall	Unit A	R-19 Wall	45	Right	190	12.5	90
SE Wall	Unit A	R-19 Wall	135	Front	135	31.2374	90
SW Wall	Unit A	R-19 Wall	225	Left	193	11	90

OPAQUE SURFACES							
01	02	03	04	05	06	07	08
Name	Zone	Construction	Azimuth	Orientation	Gross Area (ft²)	Window and Door Area (ft2)	Tilt (deg)
NW Wall	Unit A	R-19 Wall	315	Back	15	0	90
NE Wall 2	Unit A	R-19 Wall	45	Right	190	11	90
SE Wall 2	Unit A	R-19 Wall	135	Front	189	35	90
SW Wall 2	Unit A	R-19 Wall	225	Left	193	11	90
NW Wall 2	Unit A	R-19 Wall	315	Back	15	0	90
NE Wall 3	Unit A	R-19 Wall	45	Right	190	21	90
SE Wall 3	Unit A	R-19 Wall	135	Front	189	35	90
SW Wall 3	Unit A	R-19 Wall	225	Left	193	5.5	90
NW Wall 3	Unit A	R-19 Wall	315	Back	15	0	90
Interior Surface	Unit A	R-0 Floor No Crawlspace	n/a	n/a	484	n/a	n/a
Interior Surface 2	Unit A	R-0 Floor No Crawlspace	n/a	n/a	484	n/a	n/a

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	Unit A	R 30 Roof (Flat Roof)	0	n/a	484	0	0	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 (ft²)	U-factor	U-factor Source	SHGC	SHGC Source	Exterior Shading
Window	Window	NE Wall	Right	45	1.25	10	1	12.5	0.42	NFRC	0.26	NFRC	Bug Screen
Window 2	Window	SE Wall	Front	135	3.13	10	0	31.24	0.42	NFRC	0.26	NFRC	Bug Screen

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 3	Window	SW Wall	Left	225	1.1	10	1	11	0.42	NFRC	0.26	NFRC	Bug Screen
Window 4	Window	NE Wall 2	Right	45	1.1	10	1	11	0.42	NFRC	0.26	NFRC	Bug Screen
Window 5	Window	SE Wall 2	Front	135	3.5	10	1	35	0.42	NFRC	0.26	NFRC	Bug Screen
Window 6	Window	SW Wall 2	Left	225	1.1	10	1	11	0.42	NFRC	0.26	NFRC	Bug Screen
Window 7	Window	NE Wall 3	Right	45	2.1	10	1	21	0.42	NFRC	0.26	NFRC	Bug Screen
Window 8	Window	SE Wall 3	Front	135	3.5	10	1	35	0.42	NFRC	0.26	NFRC	Bug Screen
Window 9	Window	SW Wall 3	Left	225	0.55	10	1	5.5	0.42	NFRC	0.26	NFRC	Bug Screen

OVERHANGS AND FINS													
01	02	03	04	05	06	07	08	09	10	11	12	13	14
Window	Overhang					Left Fin				Right Fin			
	Depth	Dist Up	Left Extent	Right Extent	Flap Ht.	Depth	Top Up	Dist L	Bot Up	Depth	Top Up	Dist R	Bot Up
Window	10	0.1	10	10	0	0	0	0	0	0	0	0	0
Window 2	10	0.1	10	10	0	0	0	0	0	0	0	0	0
Window 3	10	0.1	10	10	0	0	0	0	0	0	0	0	0
Window 4	10	0.1	10	10	0	0	0	0	0	0	0	0	0
Window 5	10	0.1	10	10	0	0	0	0	0	0	0	0	0
Window 6	10	0.1	10	10	0	0	0	0	0	0	0	0	0
Window 7	10	0.1	10	10	0	0	0	0	0	0	0	0	0

OVERHANGS AND FINS													
01	02	03	04	05	06	07	08	09	10	11	12	13	14
Window	Overhang					Left Fin				Right Fin			
	Depth	Dist Up	Left Extent	Right Extent	Flap Ht.	Depth	Top Up	Dist L	Bot Up	Depth	Top Up	Dist R	Bot Up
Window 8	10	0.1	10	10	0	0	0	0	0	0	0	0	0
Window 9	10	0.1	10	10	0	0	0	0	0	0	0	0	0

SLAB FLOORS							
01	02	03	04	05	06	07	08
Name	Zone	Area (ft²)	Perimeter (ft)	Edge Insul. R-value and Depth	Edge Insul. R-value and Depth	Carpeted Fraction	Heated
Slab-on-Grade	Unit A	352	0.1	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-19 Wall	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
R-30 Roof (Flat Roof)	Cathedral Ceilings	Wood Framed Ceiling	2x10 @ 16 in. O. C.	R-30	None / None	0.037	Roofing: Light Roof (Asphalt Shingle) Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: R-30 / 2x10 Inside Finish: Gypsum Board

REGISTERED PROFESSIONAL ENGINEER
PEYMAN TOUFIGHI
No. 31480
EXP. 12-31-24
MECHANICAL
STATE OF CALIFORNIA

AG ENGINEERING
HVAC, PLUMBING, ELECTRICAL
FIREPROTECTION & ENERGY
CONSULTING ENGINEERS
28001 SMYTH DRIVE, SUITE 104 TEL. (818) 713-1292
VALENCIA, CALIFORNIA, 91355 FAX. (818) 456-1811

PROJECT:

2637 S Longwood Ave.
Los Angeles, CA 90016

NO.	REVISIONE

SHEET TITLE

TITLE 24 COMPLIANCE FORMS & MANDATORY MEASURES

SCALE: NONE
DRAWN
START DATE:
JOB #
SHEET

T-24A

OPAQUE SURFACE CONSTRUCTIONS

01	02	03	04	05	06	07	08
Construction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Interior / Exterior Continuous R-value	U-factor	Assembly Layers
R-0 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

BUILDING ENVELOPE - HERS VERIFICATION

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

WATER HEATING SYSTEMS

01	02	03	04	05	06	07	08	09
Name	System Type	Distribution Type	Water Heater Name	Number of Units	Solar Heating System	Compact Distribution	HERS Verification	Water Heater Name (#)
DHW Sys 1	Domestic Hot Water (DHW)	Standard	DHW Heater 1	1	n/a	Basic	n/a	DHW Heater 1 (1)

WATER HEATERS - NEEA HEAT PUMP

01	02	03	04	05	06	07	08
Name	# of Units	Tank Vol. (gal)	NEEA Heat Pump Brand	NEEA Heat Pump Model	Tank Location	Duct Inlet Air Source	Duct Outlet Air Source
DHW Heater 1	1	65	Rheem	XE65T10H45U0 (65 gal, JA13)	Outside	Unit A	Unit A

WATER HEATING - COMPACT DISTRIBUTION

01	02	03	04	05	06	07
Dwelling Unit type	Water Heating System Name	Master Bath distance of furthest fixture to Water Heater (ft)	Kitchen distance of furthest fixture to Water Heater (ft)	Furthest Third furthest fixture to Water Heater (ft)	Compactness Factor	HERS Verification
Dwelling	DHW Sys 1	n/a	n/a	n/a	0.7	n/a

WATER HEATING - HERS VERIFICATION

01	02	03	04	05	06	07
Name	Pipe Insulation	Parallel Piping	Compact Distribution	Compact Distribution Type	Recirculation Control	Shower Drain Water Heat Recovery
DHW Sys 1 - 1/1	Not Required	Not Required	Not Required	Basic	Not Required	Not Required

SPACE CONDITIONING SYSTEMS

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

HVAC - HEAT PUMPS

01	02	03	04	05	06	07	08	09	10	11	12	13
			Heating				Cooling					
Name	System Type	Number of Units	Heating Efficiency Type	HSPF/HSPF2/COP	Cap 47	Cap 17	Cooling Efficiency Type	SEER/SEER2	EER/EER2/CEER	Zonally Controlled	Compressor Type	HERS Verification
Heat Pump System 1	Central split HP	1	HSPF2	9.7	36000	26000	EER2SEER2	15	12	Not Zonal	Single Speed	Heat Pump System 1-hers-htpump

HVAC HEAT PUMPS - HERS VERIFICATION

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

HVAC - DISTRIBUTION SYSTEMS

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

HVAC DISTRIBUTION - HERS VERIFICATION

01	02	03	04	05	06	07	08	09
Name	Duct Leakage Verification	Duct Leakage Target (%)	Verified Duct Location	Verified Duct Design	Buried Ducts	Deeply Buried Ducts	Low-leakage Air Handler	Low Leakage Ducts Entirely in Conditioned Space
Air Distribution System 1-hers-dist	Yes	5.0	Required	Not Required	Not Required	Credit not taken	Required	No

HVAC - FAN SYSTEMS

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

HVAC FAN SYSTEMS - HERS VERIFICATION

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

INDOOR AIR QUALITY (IAQ) FANS

01	02	03	04	05	06	07	08	09
Dwelling Unit	Airflow (CFM)	Fan Efficacy (W/CFM)	IAQ Fan Type	Includes Heat/Energy Recovery?	IAQ Recovery Effectiveness - SRE/ASRE	Includes Fault Indicator Display?	HERS Verification	Status
SFam IAQVentRpt	67	0.35	Exhaust	No	n/a / n/a	No	Yes	

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

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

Documentation Author Name: Pejman Toufighi	Documentation Author Signature: Pejman Toufighi
Company: AC ENGINEERING	Signature Date: 11/06/2024
Address: 22346 BARCOTTA DR.,	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: SANTA CLARITA, CA 91350	Phone: 8185547496

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: Pejman Toufighi	Responsible Designer Signature: Pejman Toufighi
Company: AC ENGINEERING	Date Signed: 11/06/2024
Address: 22346 BARCOTTA DR.,	License:
City/State/Zip: SANTA CLARITA, CA 91350	Phone: 8185547496

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

GENERAL INFORMATION

01	Project Name	Longwood Ave., Unit B			
02	Run Title	Title 24 Analysis			
03	Project Location	2637 S Longwood Ave.			
04	City	Los Angeles	05	Standards Version	2022
06	Zip code	90016	07	Software Version	EnergyPro 9.3
08	Climate Zone	9	09	Front Orientation (deg/ Cardinal)	135
10	Building Type	Single family	11	Number of Dwelling Units	1
12	Project Scope	Newly Constructed	13	Number of Bedrooms	4
14	Addition Cond. Floor Area (ft^2)	0	15	Number of Stories	3
16	Existing Cond. Floor Area (ft^2)	n/a	17	Fenestration Average U-factor	0.42
18	Total Cond. Floor Area (ft^2)	1620	19	Glazing Percentage (%)	8.52%
20	ADU Bedroom Count	n/a	21	ADU Conditioned Floor Area	n/a
22	Fuel Type	All electric	23	No Dwelling Unit:	No

COMPLIANCE RESULTS

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

ENERGY DESIGN RATINGS

	Energy Design Ratings			Compliance Margins		
	Source Energy (EDR1)	Efficiency[1] EDR (EDR2efficiency)	Total[2] EDR (EDR2total)	Source Energy (EDR1)	Efficiency[1] EDR (EDR2efficiency)	Total[2] EDR (EDR2total)
Standard Design	32.7	39.5	31.3			
Proposed Design	30.7	36.5	28.5	2	3	2.8
RESULT[3]: PASS						

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

- Standard Design PV Capacity: 2.70 kWdc
- PV System resized to 2.70 kWdc (a factor of 2.698) to achieve 'Standard Design PV' PV scaling

ENERGY USE SUMMARY

Energy Use	Standard Design Source Energy (EDR1) (kBtu/ft^2-yr)	Standard Design TDV Energy (EDR2) (kTDV/ft^2-yr)	Proposed Design Source Energy (EDR1) (kBtu/ft^2-yr)	Proposed Design TDV Energy (EDR2) (kTDV/ft^2-yr)	Compliance Margin (EDR1)	Compliance Margin (EDR2)
Space Heating	0.44	2.05	1.02	7.76	-0.58	-5.71
Space Cooling	0.81	19.61	0.48	15.93	0.33	3.68
IAQ Ventilation	0.4	4.2	0.4	4.2	0	0
Water Heating	1.57	16.04	0.89	10.83	0.68	5.21
Self Utilization/Flexibility Credit			0	0	0	0
Efficiency Compliance Total	**3.22**	**41.9**	**2.79**	**38.72**	**0.43**	**3.18**
Photovoltaics	-1.88	-55.71	-1.94	-58.39		
Battery			0	0		
Flexibility			0			
Indoor Lighting	0.74	6.98	0.74	6.98		
Appl. & Cooking	2.64	31.9	2.61	31.62		
Plug Loads	3.95	40.22	3.95	40.22		
Outdoor Lighting	0.19	1.66	0.19	1.66		
TOTAL COMPLIANCE	**8.86**	**66.95**	**8.34**	**60.81**		



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28001 SMYTH DRIVE, SUITE 104 TEL. (818) 713-1292
VALENCIA, CALIFORNIA, 91355 FAX. (818) 456-1811

PROJECT:

2637 S Longwood Ave.
Los Angeles, CA 90016

NO.	REVISIONE

SHEET TITLE

TITLE 24 COMPLIANCE FORMS & MANDATORY MEASURES

SCALE: NONE
DRAWN
START DATE:
JOB #
SHEET

T-24B

ENERGY USE INTENSITY

	Standard Design (kBtu/ft² - yr)	Proposed Design (kBtu/ft² - yr)	Compliance Margin (kBtu/ft² - yr)	Margin Percentage
Gross EUI[1]	14.71	13.88	0.83	5.64
Net EUI[2]	5.02	3.79	1.23	24.5

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

REQUIRED PV SYSTEMS

01	02	03	04	05	06	07	08	09	10	11	12
DC System Size (kWdc)	Exception	Module Type	Array Type	Power Electronics	CFI	Azimuth (deg)	Tilt Input	Array Angle (deg)	Tilt: (x in 12)	Inverter Eff. (%)	Annual Solar Access (%)
2.7	NA	Standard (14-17%)	Fixed	none	false	180	Degrees	22	4.85	96	100

REQUIRED SPECIAL FEATURES

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

- Window overhangs and/or fins
- Non-standard duct location (any location other than attic)
- Compact distribution system basic credit
- 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

- Quality insulation installation (QII)
- Indoor air quality ventilation
- Minimum Airflow
- Verified EER/EER2
- Verified SEER/SEER2
- Verified Refrigerant Charge
- Fan Efficacy Watts/CFM
- Verified HSPF2
- Verified heat pump rated heating capacity
- Duct leakage testing
- Ducts located entirely in conditioned space confirmed by duct leakage testing

BUILDING - FEATURES INFORMATION

01	02	03	04	05	06	07
Project Name	Conditioned Floor Area (ft²)	Number of Dwelling Units	Number of Bedrooms	Number of Zones	Number of Ventilation Cooling Systems	Number of Water Heating Systems
Longwood Ave., Unit B	1620	1	4	1	0	1

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	Status
Unit B	Conditioned	FC-1	1620	8.5	DHW Sys 1	New

OPAQUE SURFACES

01	02	03	04	05	06	07	08
Name	Zone	Construction	Azimuth	Orientation	Gross Area (ft²)	Window and Door Area (ft2)	Tilt (deg)
NE Wall	Unit B	R-19 Wall	45	Right	31	5.5	90
SE Wall	Unit B	R-19 Wall	135	Front	67	14.5	90
SW Wall	Unit B	R-19 Wall	225	Left	193	5.5	90

OPAQUE SURFACES

01	02	03	04	05	06	07	08
Name	Zone	Construction	Azimuth	Orientation	Gross Area (ft²)	Window and Door Area (ft2)	Tilt (deg)
NW Wall	Unit B	R-19 Wall	315	Back	123	17	90
NE Wall 2	Unit B	R-19 Wall	45	Right	231	14	90
SE Wall 2	Unit B	R-19 Wall	135	Front	15	0	90
SW Wall 2	Unit B	R-19 Wall	225	Left	231	17	90
NW Wall 2	Unit B	R-19 Wall	315	Back	207	21	90
NE Wall 3	Unit B	R-19 Wall	45	Right	231	17	90
SE Wall 3	Unit B	R-19 Wall	135	Front	15	0	90
SW Wall 3	Unit B	R-19 Wall	225	Left	231	5.5	90
NW Wall 3	Unit B	R-19 Wall	315	Back	207	21	90
Interior Surface	Unit B	R-0 Floor No Crawlspace	n/a	n/a	636	n/a	n/a
Interior Surface 2	Unit B	R-0 Floor No Crawlspace	n/a	n/a	636	n/a	n/a

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	Unit B	R-30 Roof (Flat Roof)	0	n/a	636	0	0	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 (ft²)	U-factor	U-factor Source	SHGC	SHGC Source	Exterior Shading
Window	Window	NE Wall	Right	45	0.55	10	1	5.5	0.42	NFRC	0.26	NFRC	Bug Screen
Window 2	Window	SE Wall	Front	135	1.45	10	1	14.5	0.42	NFRC	0.26	NFRC	Bug Screen

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 3	Window	SW Wall	Left	225	0.55	10	1	5.5	0.42	NFRC	0.26	NFRC	Bug Screen
Window 4	Window	NW Wall	Back	315	1.7	10	1	17	0.42	NFRC	0.26	NFRC	Bug Screen
Window 5	Window	NE Wall 2	Right	45	1.4	10	1	14	0.42	NFRC	0.26	NFRC	Bug Screen
Window 6	Window	SW Wall 2	Left	225	1.7	10	1	17	0.42	NFRC	0.26	NFRC	Bug Screen
Window 7	Window	NW Wall 2	Back	315	2.1	10	1	21	0.42	NFRC	0.26	NFRC	Bug Screen
Window 8	Window	NE Wall 3	Right	45	1.7	10	1	17	0.42	NFRC	0.26	NFRC	Bug Screen
Window 9	Window	SW Wall 3	Left	225	0.55	10	1	5.5	0.42	NFRC	0.26	NFRC	Bug Screen
Window 10	Window	NW Wall 3	Back	315	2.1	10	1	21	0.42	NFRC	0.26	NFRC	Bug Screen

OVERHANGS AND FINS

01	02	03	04	05	06	07	08	09	10	11	12	13	14
Window	Overhang					Left Fin				Right Fin			
	Depth	Dist Up	Left Extent	Right Extent	Flap Ht.	Depth	Top Up	Dist L	Bot Up	Depth	Top Up	Dist R	Bot Up
Window	10	0.1	10	10	0	0	0	0	0	0	0	0	0
Window 2	10	0.1	10	10	0	0	0	0	0	0	0	0	0
Window 3	10	0.1	10	10	0	0	0	0	0	0	0	0	0
Window 4	10	0.1	10	10	0	0	0	0	0	0	0	0	0
Window 5	10	0.1	10	10	0	0	0	0	0	0	0	0	0
Window 6	10	0.1	10	10	0	0	0	0	0	0	0	0	0

OVERHANGS AND FINS

01	02	03	04	05	06	07	08	09	10	11	12	13	14
Window	Overhang					Left Fin				Right Fin			
	Depth	Dist Up	Left Extent	Right Extent	Flap Ht.	Depth	Top Up	Dist L	Bot Up	Depth	Top Up	Dist R	Bot Up
Window 7	10	0.1	10	10	0	0	0	0	0	0	0	0	0
Window 8	10	0.1	10	10	0	0	0	0	0	0	0	0	0
Window 9	10	0.1	10	10	0	0	0	0	0	0	0	0	0
Window 10	10	0.1	10	10	0	0	0	0	0	0	0	0	0

SLAB FLOORS

01	02	03	04	05	06	07	08
Name	Zone	Area (ft²)	Perimeter (ft)	Edge Insul. R-value and Depth	Edge Insul. R-value and Depth	Carpeted Fraction	Heated
Slab-on-Grade	Unit B	348	0.1	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-19 Wall	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
R-30 Roof (Flat Roof)	Cathedral Ceilings	Wood Framed Ceiling	2x10 @ 16 in. O. C.	R-30	None / None	0.037	Roofing: Light Roof (Asphalt Shingle) Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: R-30 / 2x10 Inside Finish: Gypsum Board

OPAQUE SURFACE CONSTRUCTIONS

01	02	03	04	05	06	07	08
Construction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Interior / Exterior Continuous R-value	U-factor	Assembly Layers
R-0 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

BUILDING ENVELOPE - HERS VERIFICATION

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

WATER HEATING SYSTEMS

01	02	03	04	05	06	07	08	09
Name	System Type	Distribution Type	Water Heater Name	Number of Units	Solar Heating System	Compact Distribution	HERS Verification	Water Heater Name (#)
DHW Sys 1	Domestic Hot Water (DHW)	Standard	DHW Heater 1	1	n/a	Basic	n/a	DHW Heater 1 (1)

WATER HEATERS - NEEA HEAT PUMP

01	02	03	04	05	06	07	08
Name	# of Units	Tank Vol. (gal)	NEEA Heat Pump Brand	NEEA Heat Pump Model	Tank Location	Duct Inlet Air Source	Duct Outlet Air Source
DHW Heater 1	1	80	Rheem	XE80T10HS45U0 (80 gal, JA13)	Outside	Unit B	Unit B

WATER HEATING - COMPACT DISTRIBUTION

01	02	03	04	05	06	07
Dwelling Unit type	Water Heating System Name	Master Bath distance of furthest fixture to Water Heater (ft)	Kitchen distance of furthest fixture to Water Heater (ft)	Furthest Third furthest fixture to Water Heater (ft)	Compactness Factor	HERS Verification
Dwelling	DHW Sys 1	n/a	n/a	n/a	0.7	n/a

WATER HEATING - HERS VERIFICATION

01	02	03	04	05	06	07
Name	Pipe Insulation	Parallel Piping	Compact Distribution	Compact Distribution Type	Recirculation Control	Shower Drain Water Heat Recovery
DHW Sys 1 - 1/1	Not Required	Not Required	Not Required	Basic	Not Required	Not Required

SPACE CONDITIONING SYSTEMS

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

HVAC - HEAT PUMPS

01	02	03	04	05	06	07	08	09	10	11	12	13
Name	System Type	Number of Units	Heating				Cooling			Zonally Controlled	Compressor Type	HERS Verification
			Heating Efficiency Type	HSPF/HSPF2/COP	Cap 47	Cap 17	Cooling Efficiency Type	SEER/SEER2	EER/EER2/CEER			
Heat Pump System 1	Central split HP	1	HSPF2	9.7	48000	30000	EER2SEER2	15	12	Not Zonal	Single Speed	Heat Pump System 1-hers-htpump

HVAC HEAT PUMPS - HERS VERIFICATION

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

HVAC - DISTRIBUTION SYSTEMS

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

HVAC DISTRIBUTION - HERS VERIFICATION

01	02	03	04	05	06	07	08	09
Name	Duct Leakage Verification	Duct Leakage Target (%)	Verified Duct Location	Verified Duct Design	Buried Ducts	Deeply Buried Ducts	Low-leakage Air Handler	Low Leakage Ducts Entirely in Conditioned Space
Air Distribution System 1-hers-dist	Yes	5.0	Required	Not Required	Not Required	Credit not taken	Required	No

HVAC - FAN SYSTEMS

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

REGISTERED PROFESSIONAL ENGINEER
PEHMAN TOUFIGHI
No. 31480
EXP. 12-31-24
MECHANICAL
STATE OF CALIFORNIA

AG ENGINEERING
HVAC, PLUMBING, ELECTRICAL
FIRE PROTECTION & ENERGY
CONSULTING ENGINEERS
28001 SMYTH DRIVE, SUITE 104 TEL.(818)713-1292
VALENCIA, CALIFORNIA, 91355 FAX.(818)456-1811

PROJECT:

2637 S Longwood Ave.
Los Angeles, CA 90016

NO.	REVISIONE

SHEET TITLE

TITLE 24 COMPLIANCE FORMS & MANDATORY MEASURES

SCALE: NONE
DRAWN
START DATE:
JOB #
SHEET

T-24C

HVAC FAN SYSTEMS - HERS VERIFICATION

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

INDOOR AIR QUALITY (IAQ) FANS

01	02	03	04	05	06	07	08	09
Dwelling Unit	Airflow (CFM)	Fan Efficacy (W/CFM)	IAQ Fan Type	Includes Heat/Energy Recovery?	IAQ Recovery Effectiveness - SRE/ASRE	Includes Fault Indicator Display?	HERS Verification	Status
SFam IAQVentRpt	83	0.35	Exhaust	No	n/a / n/a	No	Yes	

ENERGY DESIGN RATINGS

	Energy Design Ratings			Compliance Margins		
	Source Energy (EDR1)	Efficiency[1] EDR (EDR2efficiency)	Total[2] EDR (EDR2total)	Source Energy (EDR1)	Efficiency[1] EDR (EDR2efficiency)	Total[2] EDR (EDR2total)
Standard Design	34.2	42.1	33.9			
Proposed Design	32.1	36.7	29.8	2.1	5.4	4.1

RESULT[3]: PASS

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

- Standard Design PV Capacity: 2.33 kWdc
- PV System resized to 2.33 kWdc (a factor of 2.335) to achieve 'Standard Design PV' PV scaling

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

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

Documentation Author Name: Pejman Toufighi	Documentation Author Signature: Pejman Toufighi
Company: AC ENGINEERING	Signature Date: 11/06/2024
Address: 22346 BARCOTTA DR.,	CEA/ HERS Certification Identification (If applicable):
City/State/Zip: SANTA CLARITA, CA 91350	Phone: 8185547496

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: Pejman Toufighi	Responsible Designer Signature: Pejman Toufighi
Company: AC ENGINEERING	Date Signed: 11/06/2024
Address: 22346 BARCOTTA DR.,	License:
City/State/Zip: SANTA CLARITA, CA 91350	Phone: 8185547496

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

ENERGY USE SUMMARY

Energy Use	Standard Design Source Energy (EDR1) (kBtu/ft^2 -yr)	Standard Design TDV Energy (EDR2) (kTDV/ft^2 -yr)	Proposed Design Source Energy (EDR1) (kBtu/ft^2 -yr)	Proposed Design TDV Energy (EDR2) (kTDV/ft^2 -yr)	Compliance Margin (EDR1)	Compliance Margin (EDR2)
Space Heating	0.03	0.23	0.68	5.07	-0.65	-4.84
Space Cooling	1.28	26.19	0.73	20.84	0.55	5.35
IAQ Ventilation	0.45	4.75	0.45	4.75	0	0
Water Heating	2.05	21.6	1.36	15.36	0.69	6.24
Self Utilization/Flexibility Credit			0	0	0	0
Efficiency Compliance Total	**3.81**	**52.77**	**3.22**	**46.02**	**0.59**	**6.75**
Photovoltaics	-2.57	-76.25	-2.66	-79.77		
Battery			0	0		
Flexibility			0			
Indoor Lighting	0.85	8.03	0.85	8.03		
Appl. & Cooking	3.97	47.62	3.91	47.03		
Plug Loads	5.34	54.32	5.34	54.32		
Outdoor Lighting	0.2	1.75	0.2	1.75		
TOTAL COMPLIANCE	**11.6**	**88.24**	**10.86**	**77.38**		

GENERAL INFORMATION

01	Project Name	Longwood Ave., Unit C			
02	Run Title	Title 24 Analysis			
03	Project Location	2637 S Longwood Ave.			
04	City	Los Angeles	05	Standards Version	2022
06	Zip code	90016	07	Software Version	EnergyPro 9.3
08	Climate Zone	9	09	Front Orientation (deg/ Cardinal)	135
10	Building Type	Single family	11	Number of Dwelling Units	1
12	Project Scope	Newly Constructed	13	Number of Bedrooms	3
14	Addition Cond. Floor Area (ft^2)	0	15	Number of Stories	2
16	Existing Cond. Floor Area (ft^2)	n/a	17	Fenestration Average U-factor	0.42
18	Total Cond. Floor Area (ft^2)	1025	19	Glazing Percentage (%)	8.41%
20	ADU Bedroom Count	n/a	21	ADU Conditioned Floor Area	n/a
22	Fuel Type	All electric	23	No Dwelling Unit:	No

COMPLIANCE RESULTS

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

ENERGY USE INTENSITY

	Standard Design (kBtu/ft^2 - yr)	Proposed Design (kBtu/ft^2 - yr)	Compliance Margin (kBtu/ft^2 - yr)	Margin Percentage
Gross EUI[1]	19.63	18.53	1.1	5.6
Net EUI[2]	6.37	4.72	1.65	25.9

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

REQUIRED PV SYSTEMS

01	02	03	04	05	06	07	08	09	10	11	12
DC System Size (kWdc)	Exception	Module Type	Array Type	Power Electronics	CFI	Azimuth (deg)	Tilt Input	Array Angle (deg)	Tilt: (x in 12)	Inverter Eff. (%)	Annual Solar Access (%)
2.33	NA	Standard (14-17%)	Fixed	none	false	180	Degrees	22	4.85	96	100

REQUIRED SPECIAL FEATURES

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

- Window overhangs and/or fins
- Non-standard duct location (any location other than attic)
- Compact distribution system basic credit
- 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

- Quality insulation installation (QII)
- Indoor air quality ventilation
- Minimum Airflow
- Verified EER/EER2
- Verified SEER/SEER2
- Verified Refrigerant Charge
- Fan Efficacy Watts/CFM
- Verified HSPF2
- Verified heat pump rated heating capacity
- Duct leakage testing
- Ducts located entirely in conditioned space confirmed by duct leakage testing

BUILDING - FEATURES INFORMATION

01	02	03	04	05	06	07
Project Name	Conditioned Floor Area (ft^2)	Number of Dwelling Units	Number of Bedrooms	Number of Zones	Number of Ventilation Cooling Systems	Number of Water Heating Systems
Longwood Ave., Unit C	1025	1	3	1	0	1

ZONE INFORMATION

01	02	03	04	05	06	07
Zone Name	Zone Type	HVAC System Name	Zone Floor Area (ft^2)	Avg. Ceiling Height	Water Heating System 1	Status
Unit C	Conditioned	FC-1	1025	8.5	DHW Sys 1	New

OPAQUE SURFACES

01	02	03	04	05	06	07	08
Name	Zone	Construction	Azimuth	Orientation	Gross Area (ft^2)	Window and Door Area (ft2)	Tilt (deg)
NE Wall	Unit C	R-19 Wall	45	Right	15	0	90
SE Wall	Unit C	R-19 Wall	135	Front	135	31.2374	90
SW Wall	Unit C	R-19 Wall	225	Left	158	5.5	90

OPAQUE SURFACES

01	02	03	04	05	06	07	08
Name	Zone	Construction	Azimuth	Orientation	Gross Area (ft^2)	Window and Door Area (ft2)	Tilt (deg)
NW Wall	Unit C	R-19 Wall	315	Back	15	0	90
NE Wall 2	Unit C	R-19 Wall	45	Right	141	33	90
SE Wall 2	Unit C	R-19 Wall	135	Front	261	11	90
SW Wall 2	Unit C	R-19 Wall	225	Left	141	5.5	90
NW Wall 2	Unit C	R-19 Wall	315	Back	15	0	90
Interior Surface	Unit C	R-0 Floor No Crawlspace	n/a	n/a	730	n/a	n/a

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	Unit C	R-30 Roof (Flat Roof)	0	n/a	730	0	0	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	SE Wall	Front	135	3.13	10	0	31.24	0.42	NFRC	0.26	NFRC	Bug Screen
Window 2	Window	SW Wall	Left	225	0.55	10	1	5.5	0.42	NFRC	0.26	NFRC	Bug Screen
Window 3	Window	NE Wall 2	Right	45	3.3	10	1	33	0.42	NFRC	0.26	NFRC	Bug Screen
Window 4	Window	SE Wall 2	Front	135	1.1	10	1	11	0.42	NFRC	0.26	NFRC	Bug Screen
Window 5	Window	SW Wall 2	Left	225	0.55	10	1	5.5	0.42	NFRC	0.26	NFRC	Bug Screen

REGISTERED PROFESSIONAL ENGINEER
PEJMAN TOUFIGHI
No. 31480
EXP. 12-31-24
MECHANICAL
STATE OF CALIFORNIA

AC ENGINEERING
HVAC, PLUMBING, ELECTRICAL
FIREPROTECTION & ENERGY
CONSULTING ENGINEERS
28001 SMYTH DRIVE, SUITE 104 TEL. (818) 713-1292
VALENCIA, CALIFORNIA, 91355 FAX. (818) 456-1811

PROJECT:

2637 S Longwood Ave.
Los Angeles, CA 90016

NO.	REVISIONE

SHEET TITLE

TITLE 24 COMPLIANCE FORMS & MANDATORY MEASURES

SCALE: NONE
DRAWN
START DATE:
JOB #
SHEET

T-24D

OVERHANGS AND FINS

01	02	03	04	05	06	07	08	09	10	11	12	13	14
Window	Overhang					Left Fin				Right Fin			
	Depth	Dist Up	Left Extent	Right Extent	Flap Ht.	Depth	Top Up	Dist L	Bot Up	Depth	Top Up	Dist R	Bot Up
Window	10	0.1	10	10	0	0	0	0	0	0	0	0	0
Window 2	10	0.1	10	10	0	0	0	0	0	0	0	0	0
Window 3	10	0.1	10	10	0	0	0	0	0	0	0	0	0
Window 4	10	0.1	10	10	0	0	0	0	0	0	0	0	0
Window 5	10	0.1	10	10	0	0	0	0	0	0	0	0	0

SLAB FLOORS

01	02	03	04	05	06	07	08
Name	Zone	Area (ft^2)	Perimeter (ft)	Edge Insul. R-value and Depth	Edge Insul. R-value and Depth	Carpeted Fraction	Heated
Slab-on-Grade	Unit C	295	0.1	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-19 Wall	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

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 (Flat Roof)	Cathedral Ceilings	Wood Framed Ceiling	2x10 @ 16 in. O. C.	R-30	None / None	0.037	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

BUILDING ENVELOPE - HERS VERIFICATION

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

WATER HEATING SYSTEMS

01	02	03	04	05	06	07	08	09
Name	System Type	Distribution Type	Water Heater Name	Number of Units	Solar Heating System	Compact Distribution	HERS Verification	Water Heater Name (#)
DHW Sys 1	Domestic Hot Water (DHW)	Standard	DHW Heater 1	1	n/a	Basic	n/a	DHW Heater 1 (1)

WATER HEATERS - NEEA HEAT PUMP

01	02	03	04	05	06	07	08
Name	# of Units	Tank Vol. (gal)	NEEA Heat Pump Brand	NEEA Heat Pump Model	Tank Location	Duct Inlet Air Source	Duct Outlet Air Source
DHW Heater 1	1	65	Rheem	XE65T10HS45U0 (65 gal, JA13)	Outside	Unit C	Unit C

WATER HEATING - COMPACT DISTRIBUTION

01	02	03	04	05	06	07
Dwelling Unit type	Water Heating System Name	Master Bath distance of furthest fixture to Water Heater (ft)	Kitchen distance of furthest fixture to Water Heater (ft)	Furthest Third furthest fixture to Water Heater (ft)	Compactness Factor	HERS Verification
Dwelling	DHW Sys 1	n/a	n/a	n/a	0.7	n/a

WATER HEATING - HERS VERIFICATION

01	02	03	04	05	06	07
Name	Pipe Insulation	Parallel Piping	Compact Distribution	Compact Distribution Type	Recirculation Control	Shower Drain Water Heat Recovery
DHW Sys 1 - 1/1	Not Required	Not Required	Not Required	Basic	Not Required	Not Required

SPACE CONDITIONING SYSTEMS

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

HVAC - HEAT PUMPS

01	02	03	04	05	06	07	08	09	10	11	12	13
Name	System Type	Number of Units	Heating				Cooling			Zonally Controlled	Compressor Type	HERS Verification
			Heating Efficiency Type	HSPF/HSPF2/COP	Cap 47	Cap 17	Cooling Efficiency Type	SEER/SEER2	EER/EER2/CEER			
Heat Pump System 1	Central split HP	1	HSPF2	9.7	36000	26000	EER2SEER2	15	12	Not Zonal	Single Speed	Heat Pump System 1-hers-htpump

HVAC HEAT PUMPS - HERS VERIFICATION

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

HVAC - DISTRIBUTION SYSTEMS

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

HVAC DISTRIBUTION - HERS VERIFICATION

01	02	03	04	05	06	07	08	09
Name	Duct Leakage Verification	Duct Leakage Target (%)	Verified Duct Location	Verified Duct Design	Buried Ducts	Deeply Buried Ducts	Low-leakage Air Handler	Low Leakage Ducts Entirely in Conditioned Space
Air Distribution System 1-hers-dist	Yes	5.0	Required	Not Required	Not Required	Credit not taken	Required	No

HVAC - FAN SYSTEMS

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

HVAC FAN SYSTEMS - HERS VERIFICATION

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

INDOOR AIR QUALITY (IAQ) FANS

01	02	03	04	05	06	07	08	09
Dwelling Unit	Airflow (CFM)	Fan Efficacy (W/CFM)	IAQ Fan Type	Includes Heat/Energy Recovery?	IAQ Recovery Effectiveness - SRE/ASRE	Includes Fault Indicator Display?	HERS Verification	Status
SFam IAQVentRpt	60	0.35	Exhaust	No	n/a / n/a	No	Yes	

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

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

Documentation Author Name: Pejman Toufighi	Documentation Author Signature: Pejman Toufighi
Company: AC ENGINEERING	Signature Date: 11/06/2024
Address: 22346 BARCOTTA DR.,	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: SANTA CLARITA, CA 91350	Phone: 8185547496

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Company: AC ENGINEERING	Date Signed: 11/06/2024
Address: 22346 BARCOTTA DR.,	License:
City/State/Zip: SANTA CLARITA, CA 91350	Phone: 8185547496

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

GENERAL INFORMATION

01	Project Name	Longwood Ave., Unit D			
02	Run Title	Title 24 Analysis			
03	Project Location	2637 S Longwood Ave.			
04	City	Los Angeles	05	Standards Version	2022
06	Zip code	90016	07	Software Version	EnergyPro 9.3
08	Climate Zone	9	09	Front Orientation (deg/ Cardinal)	135
10	Building Type	Single family	11	Number of Dwelling Units	1
12	Project Scope	Newly Constructed	13	Number of Bedrooms	3
14	Addition Cond. Floor Area (ft^2)	0	15	Number of Stories	2
16	Existing Cond. Floor Area (ft^2)	n/a	17	Fenestration Average U-factor	0.42
18	Total Cond. Floor Area (ft^2)	990	19	Glazing Percentage (%)	11.41%
20	ADU Bedroom Count	n/a	21	ADU Conditioned Floor Area	n/a
22	Fuel Type	All electric	23	No Dwelling Unit:	No

COMPLIANCE RESULTS

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

ENERGY DESIGN RATINGS

	Energy Design Ratings			Compliance Margins		
	Source Energy (EDR1)	Efficiency[1] EDR (EDR2efficiency)	Total[2] EDR (EDR2total)	Source Energy (EDR1)	Efficiency[1] EDR (EDR2efficiency)	Total[2] EDR (EDR2total)
Standard Design	33.7	40.7	33.8			
Proposed Design	32.4	36.5	30.2	1.3	4.2	3.6
RESULT[3]: PASS						

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

- Standard Design PV Capacity: 2.30 kWdc
- PV System resized to 2.30 kWdc (a factor of 2.304) to achieve 'Standard Design PV' PV scaling

REGISTERED PROFESSIONAL ENGINEER
PEJMAN TOUFIGHI
No. 31480
EXP. 12-31-24
MECHANICAL
STATE OF CALIFORNIA

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28001 SMYTH DRIVE, SUITE 104 TEL. (818) 713-1292
VALENCIA, CALIFORNIA, 91355 FAX. (818) 456-1811

PROJECT:

2637 S Longwood Ave.
Los Angeles, CA 90016

NO.	REVISIONE

SHEET TITLE

TITLE 24 COMPLIANCE FORMS & MANDATORY MEASURES

SCALE: NONE
DRAWN
START DATE:
JOB #
SHEET

T-24E

ENERGY USE SUMMARY

Energy Use	Standard Design Source Energy (EDR1) (kBtu/ft² -yr)	Standard Design TDV Energy (EDR2) (kTDV/ft² -yr)	Proposed Design Source Energy (EDR1) (kBtu/ft² -yr)	Proposed Design TDV Energy (EDR2) (kTDV/ft² -yr)	Compliance Margin (EDR1)	Compliance Margin (EDR2)
Space Heating	0.06	0.35	1.07	8.12	-1.01	-7.77
Space Cooling	1.19	26.42	0.62	19.49	0.57	6.93
IAQ Ventilation	0.46	4.83	0.46	4.83	0	0
Water Heating	2.13	22.45	1.41	16.01	0.72	6.44
Self Utilization/Flexibility Credit			0	0	0	0
Efficiency Compliance Total	**3.84**	**54.05**	**3.56**	**48.45**	**0.28**	**5.6**
Photovoltaics	-2.63	-77.95	-2.72	-81.47		
Battery			0	0		
Flexibility			0			
Indoor Lighting	0.86	8.13	0.86	8.13		
Appl. & Cooking	4.1	49.16	4.03	48.5		
Plug Loads	5.53	56.24	5.53	56.24		
Outdoor Lighting	0.2	1.75	0.2	1.75		
TOTAL COMPLIANCE	**11.9**	**91.38**	**11.46**	**81.6**		

ENERGY USE INTENSITY

	Standard Design (kBtu/ft² - yr)	Proposed Design (kBtu/ft² - yr)	Compliance Margin (kBtu/ft² - yr)	Margin Percentage
Gross EUI[1]	20.14	19.21	0.93	4.62
Net EUI[2]	6.6	5.1	1.5	22.73

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

REQUIRED PV SYSTEMS

01 DC System Size (kWdc)	02 Exception	03 Module Type	04 Array Type	05 Power Electronics	06 CFI	07 Azimuth (deg)	08 Tilt Input	09 Array Angle (deg)	10 Tilt: (x in 12)	11 Inverter Eff. (%)	12 Annual Solar Access (%)
2.3	NA	Standard (14-17%)	Fixed	none	false	180	Degrees	22	4.85	96	100

REQUIRED SPECIAL FEATURES

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

- Window overhangs and/or fins
- Non-standard duct location (any location other than attic)
- Compact distribution system basic credit
- 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

- Quality insulation installation (QII)
- Indoor air quality ventilation
- Minimum Airflow
- Verified EER/EER2
- Verified SEER/SEER2
- Verified Refrigerant Charge
- Fan Efficacy Watts/CFM
- Verified HSPF2
- Verified heat pump rated heating capacity
- Duct leakage testing
- Ducts located entirely in conditioned space confirmed by duct leakage testing

BUILDING - FEATURES INFORMATION

01 Project Name	02 Conditioned Floor Area (ft²)	03 Number of Dwelling Units	04 Number of Bedrooms	05 Number of Zones	06 Number of Ventilation Cooling Systems	07 Number of Water Heating Systems
Longwood Ave., Unit D	990	1	3	1	0	1

ZONE INFORMATION

01 Zone Name	02 Zone Type	03 HVAC System Name	04 Zone Floor Area (ft²)	05 Avg. Ceiling Height	06 Water Heating System 1	07 Status
Unit D	Conditioned	FC-1	990	8.5	DHW Sys 1	New

OPAQUE SURFACES

01 Name	02 Zone	03 Construction	04 Azimuth	05 Orientation	06 Gross Area (ft²)	07 Window and Door Area (ft2)	08 Tilt (deg)
NE Wall	Unit D	R-19 Wall	45	Right	151	21	90
SE Wall	Unit D	R-19 Wall	135	Front	15	0	90
SW Wall	Unit D	R-19 Wall	225	Left	151	19	90

OPAQUE SURFACES

01 Name	02 Zone	03 Construction	04 Azimuth	05 Orientation	06 Gross Area (ft²)	07 Window and Door Area (ft2)	08 Tilt (deg)
NW Wall	Unit D	R-19 Wall	315	Back	225	21	90
NE Wall 2	Unit D	R-19 Wall	45	Right	148	14	90
SE Wall 2	Unit D	R-19 Wall	135	Front	15	0	90
SW Wall 2	Unit D	R-19 Wall	225	Left	148	17	90
NW Wall 2	Unit D	R-19 Wall	315	Back	261	21	90
Interior Surface	Unit D	R-0 Floor No Crawlspace	n/a	n/a	530	n/a	n/a

OPAQUE SURFACES - CATHEDRAL CEILINGS

01 Name	02 Zone	03 Construction	04 Azimuth	05 Orientation	06 Area (ft²)	07 Skylight Area (ft²)	08 Roof Rise (x in 12)	09 Roof Reflectance	10 Roof Emittance	11 Cool Roof
Roof	Unit D	R-30 Roof (Flat Roof)	0	n/a	530	0	0	0.1	0.85	No

FENESTRATION / GLAZING

01 Name	02 Type	03 Surface	04 Orientation	05 Azimuth	06 Width (ft)	07 Height (ft)	08 Mult.	09 Area (ft²)	10 U-factor	11 U-factor Source	12 SHGC	13 SHGC Source	14 Exterior Shading
Window	Window	NE Wall	Right	45	2.1	10	1	21	0.42	NFRC	0.26	NFRC	Bug Screen
Window 2	Window	SW Wall	Left	225	1.9	10	1	19	0.42	NFRC	0.26	NFRC	Bug Screen
Window 3	Window	NW Wall	Back	315	2.1	10	1	21	0.42	NFRC	0.26	NFRC	Bug Screen
Window 4	Window	NE Wall 2	Right	45	1.4	10	1	14	0.42	NFRC	0.26	NFRC	Bug Screen
Window 5	Window	SW Wall 2	Left	225	1.7	10	1	17	0.42	NFRC	0.26	NFRC	Bug Screen
Window 6	Window	NW Wall 2	Back	315	2.1	10	1	21	0.42	NFRC	0.26	NFRC	Bug Screen

OVERHANGS AND FINS

01 Window	02 Overhang Depth	03 Overhang Dist Up	04 Overhang Left Extent	05 Overhang Right Extent	06 Overhang Flap Ht.	07 Left Fin Depth	08 Left Fin Top Up	09 Left Fin Dist L	10 Left Fin Bot Up	11 Right Fin Depth	12 Right Fin Top Up	13 Right Fin Dist R	14 Right Fin Bot Up
Window	10	0.1	10	10	0	0	0	0	0	0	0	0	0
Window 2	10	0.1	10	10	0	0	0	0	0	0	0	0	0
Window 3	10	0.1	10	10	0	0	0	0	0	0	0	0	0
Window 4	10	0.1	10	10	0	0	0	0	0	0	0	0	0
Window 5	10	0.1	10	10	0	0	0	0	0	0	0	0	0
Window 6	10	0.1	10	10	0	0	0	0	0	0	0	0	0

SLAB FLOORS

01 Name	02 Zone	03 Area (ft²)	04 Perimeter (ft)	05 Edge Insul. R-value and Depth	06 Edge Insul. R-value and Depth	07 Carpeted Fraction	08 Heated
Slab-on-Grade	Unit D	460	0.1	none	0	80%	No

OPAQUE SURFACE CONSTRUCTIONS

01 Construction Name	02 Surface Type	03 Construction Type	04 Framing	05 Total Cavity R-value	06 Interior / Exterior Continuous R-value	07 U-factor	08 Assembly Layers
R-19 Wall	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

OPAQUE SURFACE CONSTRUCTIONS

01 Construction Name	02 Surface Type	03 Construction Type	04 Framing	05 Total Cavity R-value	06 Interior / Exterior Continuous R-value	07 U-factor	08 Assembly Layers
R-30 Roof (Flat Roof)	Cathedral Ceilings	Wood Framed Ceiling	2x10 @ 16 in. O. C.	R-30	None / None	0.037	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

BUILDING ENVELOPE - HERS VERIFICATION

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

WATER HEATING SYSTEMS

01 Name	02 System Type	03 Distribution Type	04 Water Heater Name	05 Number of Units	06 Solar Heating System	07 Compact Distribution	08 HERS Verification	09 Water Heater Name (#)
DHW Sys 1	Domestic Hot Water (DHW)	Standard	DHW Heater 1	1	n/a	Basic	n/a	DHW Heater 1 (1)

WATER HEATERS - NEEA HEAT PUMP

01 Name	02 # of Units	03 Tank Vol. (gal)	04 NEEA Heat Pump Brand	05 NEEA Heat Pump Model	06 Tank Location	07 Duct Inlet Air Source	08 Duct Outlet Air Source
DHW Heater 1	1	65	Rheem	XE65T10HS45U0 (65 gal, JA13)	Outside	Unit D	Unit D

WATER HEATING - COMPACT DISTRIBUTION

01 Dwelling Unit type	02 Water Heating System Name	03 Master Bath distance of furthest fixture to Water Heater (ft)	04 Kitchen distance of furthest fixture to Water Heater (ft)	05 Furthest Third furthest fixture to Water Heater (ft)	06 Compactness Factor	07 HERS Verification
Dwelling	DHW Sys 1	n/a	n/a	n/a	0.7	n/a

WATER HEATING - HERS VERIFICATION

01 Name	02 Pipe Insulation	03 Parallel Piping	04 Compact Distribution	05 Compact Distribution Type	06 Recirculation Control	07 Shower Drain Water Heat Recovery
DHW Sys 1 - 1/1	Not Required	Not Required	Not Required	Basic	Not Required	Not Required

SPACE CONDITIONING SYSTEMS

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

HVAC - HEAT PUMPS

01 Name	02 System Type	03 Number of Units	04 Heating Efficiency Type	05 HSPF/HSPF2/COP	06 Cap 47	07 Cap 17	08 Cooling Efficiency Type	09 SEER/SEER2	10 EER/EER2/CEER	11 Zonally Controlled	12 Compressor Type	13 HERS Verification
Heat Pump System 1	Central split HP	1	HSPF2	9.7	42000	34000	EER2SEER2	15	12	Not Zonal	Single Speed	Heat Pump System 1-hers-htpump

HVAC HEAT PUMPS - HERS VERIFICATION

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

HVAC - DISTRIBUTION SYSTEMS

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

REGISTERED PROFESSIONAL ENGINEER
PEJMAN TOUFIGH
No. 31480
EXP. 12-31-24
MECHANICAL
STATE OF CALIFORNIA

AG ENGINEERING
HVAC, PLUMBING, ELECTRICAL
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CONSULTING ENGINEERS
28001 SMYTH DRIVE, SUITE 104 TEL. (818) 713-1292
VALENCIA, CALIFORNIA, 91355 FAX. (818) 456-1811

PROJECT:

2637 S Longwood Ave.
Los Angeles, CA 90016

NO.	REVISIONE

SHEET TITLE

TITLE 24 COMPLIANCE FORMS & MANDATORY MEASURES

SCALE: NONE
DRAWN
START DATE:
JOB #
SHEET

T-24F

2022 Single-Family Residential Mandatory Requirements Summary

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

Building Envelope:

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

Fireplaces, Decorative Gas Appliances, and Gas Log:

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

Space Conditioning, Water Heating, and Plumbing System:

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

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2022 Single-Family Residential Mandatory Requirements Summary

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

Ducts and Fans:

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

5/6/22

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

Project Name: Longwood Ave., Unit D — **Calculation Date/Time:** 2024-11-06T16:45:59+03:30 — **(Page 11 of 12)**

Calculation Description: Title 24 Analysis — **Input File Name:** 2637 S Longwood Ave Duplex A Unit D.ribd22x

HVAC DISTRIBUTION - HERS VERIFICATION

01	02	03	04	05	06	07	08	09
Name	Duct Leakage Verification	Duct Leakage Target (%)	Verified Duct Location	Verified Duct Design	Buried Ducts	Deeply Buried Ducts	Low-leakage Air Handler	Low Leakage Ducts Entirely in Conditioned Space
Air Distribution System 1-hers-dist	Yes	5.0	Required	Not Required	Not Required	Credit not taken	Required	No

HVAC - FAN SYSTEMS

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

HVAC FAN SYSTEMS - HERS VERIFICATION

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

INDOOR AIR QUALITY (IAQ) FANS

01	02	03	04	05	06	07	08	09
Dwelling Unit	Airflow (CFM)	Fan Efficacy (W/CFM)	IAQ Fan Type	Includes Heat/Energy Recovery?	IAQ Recovery Effectiveness - SRE/ASRE	Includes Fault Indicator Display?	HERS Verification	Status
5Fam IAQVentRpt	59	0.35	Exhaust	No	n/a / n/a	No	Yes	

Registration Number: 424-P010273128A-000-000-0000000-0000 — Registration Date/Time: 11/06/2024 09:47 — HERS Provider: CHEERS

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CA Building Energy Efficiency Standards - 2022 Residential Compliance — Report Version: 2022.0.000 — Schema Version: rev 20220901 — Report Generated: 2024-11-06 05:16:22

2022 Single-Family Residential Mandatory Requirements Summary

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

Ventilation and Indoor Air Quality:

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

Pool and Spa Systems and Equipment:

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

Lighting:

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

5/6/22

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

Project Name: Longwood Ave., Unit D — **Calculation Date/Time:** 2024-11-06T16:45:59+03:30 — **(Page 12 of 12)**

Calculation Description: Title 24 Analysis — **Input File Name:** 2637 S Longwood Ave Duplex A Unit D.ribd22x

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

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

Documentation Author Name: Pejman Toufighi	Documentation Author Signature: *Pejman Toufighi*
Company: AC ENGINEERING	Signature Date: 11/06/2024
Address: 22346 BARCOTTA DR.,	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: SANTA CLARITA, CA 91350	Phone: 8185547496

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: Pejman Toufighi	Responsible Designer Signature: *Pejman Toufighi*
Company: AC ENGINEERING	Date Signed: 11/06/2024
Address: 22346 BARCOTTA DR.,	License:
City/State/Zip: SANTA CLARITA, CA 91350	Phone: 8185547496

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

Registration Number: 424-P010273128A-000-000-0000000-0000 — Registration Date/Time: 11/06/2024 09:47 — HERS Provider: CHEERS

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CA Building Energy Efficiency Standards - 2022 Residential Compliance — Report Version: 2022.0.000 — Schema Version: rev 20220901 — Report Generated: 2024-11-06 05:16:22

2022 Single-Family Residential Mandatory Requirements Summary

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

Solar Readiness:

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

Electric and Energy Storage Ready:

5/6/22

2022 Single-Family Residential Mandatory Requirements Summary

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

*Exceptions may apply.

5/6/22

PROJECT:

2637 S Longwood Ave.
Los Angeles, CA 90016

NO.	REVISIONE

SHEET TITLE

TITLE 24 COMPLIANCE FORMS & MANDATORY MEASURES

SCALE: NONE

DRAWN

START DATE:

JOB #

SHEET

T-24G

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