C5. SOURCE ENERGY RESULTS FOR NON-REGULATED COMPONENTS[1]

Non-Regulated Energy Component	Standard Design (SOURCE)	Proposed Design (SOURCE)	Compliance Margin (SOURCE)[1]
Receptacle	4.68	4.68	---
Process	4.91	4.9	0.01
Other Ltg	0.81	0.81	---
Process Motors	---	---	---
TOTAL (TOTAL COMPLIANCE + NON-REGULATED COMPONENTS)	12.41	11.91	0.52 (4.2%)

[1] *Notes: This table is not used for Energy Code Compliance.*

C6. 'ABOVE CODE' QUALIFICATIONS

☐ This project is pursuing CalGreen Tier 1 ☐ This project is pursuing CalGreen Tier 2

C7. ENERGY USE SUMMARY

Energy Component	Standard Design Site (kWh/y)	Proposed Design Site (kWh/y)	Margin (kWh)	Standard Design Site (MBtu)	Proposed Design Site (MBtu)	Margin (MBtu)
Space Heating	0.2	0.3	-0.1	---	---	---
Space Cooling	1.3	1.2	0.1	---	---	---
Indoor Fans	0.8	0.8	0	---	---	---
Heat Rejection	---	---	---	---	---	---
Pumps & Misc.	0.1	0.1	0	---	---	---
Domestic Hot Water	1.8	1.5	0.3	---	---	---
Indoor Lighting	---	---	---	---	---	---
Flexibility	---	---	---	---	---	---
EFFICIENCY TOTAL	**4.2**	**3.9**	**0.3**	**0**	**0**	**0**
Photovoltaics	-7	-8.7	1.7	---	---	---
Batteries	---	---	---	---	---	---
ENERGY USE SUBTOTAL	**-2.8**	**-4.8**	**2**	**0**	**0**	**0**
Receptacle	4.1	4.1	0	---	---	---
Process	3.6	1.6	0	8.8	8.8	0
Other Ltg	0.6	0.6	0	---	---	---
Process Motors	---	---	---	---	---	---
ENERGY USE TOTAL	**3.5**	**1.5**	**2**	**8.8**	**8.8**	**0**

C8. ENERGY USE INTENSITY (EUI)

	Standard Design (kBtu/ft² / yr)	Proposed Design (kBtu/ft² / yr)	Margin (kBtu/ft² / yr)	Margin Percentage
GROSS EUI[1]	19.07	18.63	0.44	2.31
NET EUI[2]	8.86	5.95	2.91	32.84

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

D2. MULTIFAMILY REQUIRED SPECIAL FEATURES

- Indoor air quality, balanced fan
- Cool roof
- Non-standard duct location (any location other than attic)
- Northwest Energy Efficiency Alliance (NEEA) rated heat pump water heater; specific brand/model, or equivalent, must be installed

E1. HERS VERIFICATION SUMMARY

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

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

Cooling System Verifications:
- Minimum Airflow
- Verified Refrigerant Charge
- Fan Efficacy Watts/CFM

Heating System Verifications:
- Verified heat pump rated heating capacity

HVAC Distribution System Verifications:
- Duct leakage testing
- Ducts located entirely in conditioned space confirmed by duct leakage testing

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

F1. 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 (%)
5	n/a	Standard [14-17%]	Fixed	none	false	180	Degrees	22	4.85	96	100

F3. DWELLING UNIT INFORMATION

01	02	03
Dwelling Unit Name	Dwelling Unit Type	Dwelling Unit Type
DDU-1-(1/1)	DU-1	1-1-UNITX201
DDU-2-(1/1)	DU-2	1-2-UNITX202

F4. DWELLING UNIT TYPES

01 Name	02 CFA (ft²)	03 Number of Bedrooms	04 Number in Building	05 Space Conditioning Systems Assigned	06 DHW System Name	07 IAQ Vent Fan Name
DU-1	1170	3	1	DU-1 | 1Heat Pump System 1:Air Distribution System 1:HVAC Fan 1:2:3	MFD-Rheem HPLD40-1RH (40 gal1	Default Minimum Balanced IAQ Fan
DU-2	1170	3	1	DU-2 | 1Heat Pump System 2:Air Distribution System 2:HVAC Fan 2:2:3	MFD-Rheem HPLD40-1RH (40 gal1	Default Minimum Balanced IAQ Fan

G1. ENVELOPE GENERAL INFORMATION (conditioned spaces only)

1 Opaque Surfaces & Orientation	2 Total Gross Surface Area (ft²)	3 Total Fenestration Area (ft²)	4 Window to Wall Ratio (%)

G1. ENVELOPE GENERAL INFORMATION (conditioned spaces only)

North-Facing[1]	602	170	28.24
East-Facing[2]	771	140	18.16
South-Facing[3]	802	96	11.97
West-Facing[4]	270	0	0
Total	**2445**	**406**	**16.61**
Roof	1260	0	0

Notes
[1]*North-Facing is oriented to within 45 degrees of true north, including 45 00'00" east of north (NE), but excluding 45 00'00" west of north (NW),*
[2]*East-Facing is oriented to within 45 degrees of true east, including 45 00'00" south of east (SE), but excluding 45 00'00" north of east (NE),*
[3]*South-Facing is oriented to within 45 degrees of true south, including 45 00'00" west of south (SW), but excluding 45 00'00" east of south (SE),*
[4]*West-Facing is oriented to within 45 degrees of true west, including 45 00'00" north of west (NW), but excluding 45 00'00" south of west (SW).*

G2B. ROOFING PRODUCT SUMMARY (MULTIFAMILY AND COMMON AREAS)

01	02	03	04	05	06
Roof	Low slope	0	0.65	0.9	N/A
Roof 2	Low slope	0	0.65	0.9	N/A

G5. OPAQUE SURFACE ASSEMBLY SUMMARY

01 Surface Name	02	03 Area (ft²)	04 Framing Type	05 Cavity R-Value	06 Continuous R-Value Interior	06 Continuous R-Value Exterior	07 Units	08 Value	09 Description of Assembly Layers	10 Status[1]
R-21 Wall	Exterior Walls	2,445	Wood Framed Wall	21	0	0	U-factor	0.0686	Inside Finish: Gypsum Board Cavity / Frame: R-21 / 2x6 Exterior Finish: 3 Coat Stucco	
R-19 Floor No Crawlspace	Interior Floors	2,170	Wood Framed Floor	19	0	0	U-factor	0.0449	Floor Surface: Carpeted Floor Deck: Wood Siding/sheathing/decking Cavity / Frame: R-19 / 2x10 Ceiling Below Finish: Gypsum Board	
R-30 Roof No Attic	Cathedral Ceilings	1,260	Wood Framed Ceiling	30	0	0	U-factor	0.0356	Roofing: Light Roof (Asphalt Shingle) Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: R-30 / 2x12 Inside Finish: Gypsum Board	

[1] *Status: N - New, A - Altered, E - Existing*

G7B. FENESTRATION SUMMARY (MULTIFAMILY AND COMMON AREAS)

01 Fenestration Name	02 Fenestration Type/ Product Type / Frame Type	03 Parent Surface	04 Azimuth	05 Multiplier	06 Area (ft²)	07 Overall U-factor	08 U-factor Source	09 Overall SHGC	10 SHGC Source	11 Overall VT	12 Exterior Shading	13 Status[1]
Window-A	Vertical fenestration Architectural Window - Operable (Multifamily only) N/A	SOUTH WEST	225	1	16	NFRC	0.2	NFRC	N/A	Standard bug screens	N
Window-A 2	Vertical fenestration Architectural Window - Operable (Multifamily only) N/A	SOUTH WEST	225	1	16	0.3	NFRC	0.2	NFRC	N/A	Standard bug screens	N
Window-A 3	Vertical fenestration Architectural Window - Operable (Multifamily only) N/A	SOUTH WEST 2	225	1	16	0.3	NFRC	0.2	NFRC	N/A	Standard bug screens	N
SLIDING DOOR-03	Vertical fenestration Architectural Window - Operable (Multifamily only) N/A	SE	135	1	35	0.3	NFRC	0.2	NFRC	N/A	Standard bug screens	N
Window-A 4	Vertical fenestration Architectural Window - Operable (Multifamily only) N/A	SOUTH WEST 4	225	1	16	0.3	NFRC	0.2	NFRC	N/A	Standard bug screens	N
Window-A 5	Vertical fenestration Architectural Window - Operable (Multifamily only) N/A	SOUTH WEST	225	1	16	0.3	NFRC	0.2	NFRC	N/A	Standard bug screens	N
Window-A 6	Vertical fenestration Architectural Window - Operable (Multifamily only) N/A	SOUTH WEST 5	225	1	16	0.3	NFRC	0.2	NFRC	N/A	Standard bug screens	N

G7B. FENESTRATION SUMMARY (MULTIFAMILY AND COMMON AREAS)

01 Fenestration Name	02 Fenestration Type/ Product Type / Frame Type	03 Parent Surface	04 Azimuth	05 Multiplier	06 Area (ft²)	07 Overall U-factor	08 U-factor Source	09 Overall SHGC	10 SHGC Source	11 Overall VT	12 Exterior Shading	13 Status[1]
SLIDING DOOR-03 2	Vertical fenestration Architectural Window - Operable (Multifamily only) N/A	SOUTH EAST	135	1	35	0.3	NFRC	0.2	NFRC	N/A	Standard bug screens	N
Window-A 7	Vertical fenestration Architectural Window - Operable (Multifamily only) N/A	NORTH EAST	45	1	16	0.3	NFRC	0.2	NFRC	N/A	Standard bug screens	N
Window-A 8	Vertical fenestration Architectural Window - Operable (Multifamily only) N/A	NORTH EAST	45	1	16	0.3	NFRC	0.2	NFRC	N/A	Standard bug screens	N
Window-B	Vertical fenestration Architectural Window - Operable (Multifamily only) N/A	NORTH EAST 2	45	1	45	0.3	NFRC	0.2	NFRC	N/A	Standard bug screens	N
Window-A 9	Vertical fenestration Architectural Window - Operable (Multifamily only) N/A	NORTH EAST 2	45	1	16	0.3	NFRC	0.2	NFRC	N/A	Standard bug screens	N
SLIDING DOOR-03 3	Vertical fenestration Architectural Window - Operable (Multifamily only) N/A	SE 2	135	1	35	0.3	NFRC	0.2	NFRC	N/A	Standard bug screens	N
Window-A 10	Vertical fenestration Architectural Window - Operable (Multifamily only) N/A	NORTH EAST 4	45	1	16	0.3	NFRC	0.2	NFRC	N/A	Standard bug screens	N

G7B. FENESTRATION SUMMARY (MULTIFAMILY AND COMMON AREAS)

01 Fenestration Name	02 Fenestration Type/ Product Type / Frame Type	03 Parent Surface	04 Azimuth	05 Multiplier	06 Area (ft²)	07 Overall U-factor	08 U-factor Source	09 Overall SHGC	10 SHGC Source	11 Overall VT	12 Exterior Shading	13 Status[1]
Window-A 11	Vertical fenestration Architectural Window - Operable (Multifamily only) N/A	NORTH EAST 4	45	1	16	0.3	NFRC	0.2	NFRC	N/A	Standard bug screens	N
Window-B 2	Vertical fenestration Architectural Window - Operable (Multifamily only) N/A	NORTH EAST 5	45	1	45	0.3	NFRC	0.2	NFRC	N/A	Standard bug screens	N
SLIDING DOOR-03 4	Vertical fenestration Architectural Window - Operable (Multifamily only) N/A	SE 3	135	1	35	0.3	NFRC	0.2	NFRC	N/A	Standard bug screens	N

H2. DWELLING UNIT HVAC HEATING AND COOLING SYSTEMS

01 Dwelling Unit Type Name	02 Equipment Name	03 Equipment Type	04 Quantity	05 Air Distribution System Name	06 Fan System name	07 Heating Heat Output at 47	08 Heating Heat Output at 17	09 Heating Efficiency Unit	10 Heating Efficiency	11 Cooling Total Cooling Output	12 Cooling Efficiency Unit/Efficiency Unit	13 Cooling Efficiency
DU-1	Heat Pump System 1	N/A SplitHeatPump N/A		Air Distribution System 1	HVAC Fan 1	42,000	38,500	HSPF2	8.4	N/A	SEER2 EER2	14 12.2
DU-2	Heat Pump System 2	N/A SplitHeatPump N/A	1	Air Distribution System 2	HVAC Fan 2	42,000	38,500	HSPF2	8.4	N/A	SEER2 EER2	14 12.2

H3. NONRESIDENTIAL / COMMON USE AREA FAN SYSTEMS SUMMARY

01 Name or Item Tag	02 Qty	03 Design OA CFM	04 Supply Fan CFM	05 Supply Fan Power	06 Supply Fan Power Units	07 Supply Fan Control	08 Return / Relief Fan Fan Type	09 Return / Relief Fan CFM	10 Return / Relief Fan Power	11 Return / Relief Fan Power Units	12 Return / Relief Fan Control	13 Status[1]

[1] *Status: N - New, A - Altered, E - Existing*

H3a. MULTIFAMILY / COMMON USE AREA FAN SYSTEMS SUMMARY

01 Name	02 Type	03 Power	04 Power Units	05 Status
HVAC Fan 1	Fixed speed	0.45	W/cfm	N/A
HVAC Fan 2	Fixed speed	0.45	W/cfm	N/A

H4. MULTIFAMILY HVAC DISTRIBUTION

01 Name	02 Type	03 Duct Ins. R-value Supply	04 Duct Ins. R-value Return	05 Duct Location Supply	06 Duct Location Return	07 Verified Duct Design Surface Area Supply	08 Verified Duct Design Surface Area Return
Air Distribution System 1	Conditioned space-entirely (Non-Verified)	R-6	R-6	Conditioned Zone	Conditioned Zone	n/a	n/a
Air Distribution System 2	Conditioned space-entirely (Non-Verified)	R-6	R-6	Conditioned Zone	Conditioned Zone	n/a	n/a

H10. MULTIFAMILY DWELLING UNIT TYPE CENTRAL / INDIVIDUAL VENTILATION

01 Dwelling Unit Type Name	02 IAQ Option	03 Central Fan (If applicable) IAQ Fan Type Type	04 Central Fan (If applicable) Supply Airflow CFM	05 Central Fan (If applicable) Supply Fan Efficacy W/CFM	06 Central Fan (If applicable) Exhaust CFM	07 Central Fan (If applicable) Exhust Fan Efficacy W/CFM	08 Individual Fan (If applicable) IAQ Fan Type	09 Individual Fan (If applicable) Count	10 Individual Fan (If applicable) Airflow CFM	11 Individual Fan (If applicable) Fan Efficacy W/CFM	12 Recovery Efficiency SRE	13 Recovery Efficiency ASRE
DU-1	Default Minimum Balanced IAQ Fan	N/A	N/A	N/A	N/A	N/A	N/A	N/A	65.1	N/A	N/A	N/A
DU-2	Default Minimum Balanced IAQ Fan	N/A	N/A	N/A	N/A	N/A	N/A	N/A	65.1	N/A	N/A	N/A

I1. WATER HEATER EQUIPMENT SUMMARY

01 Name	02 Heater Element Type	03 Tank Type	04 Qty	05 Tank Vol (gal)	06 Rated Input (kW)	07 Rated Input Unit	08 Efficiency	09 Efficiency Unit	10 Tank Insulation R-value ini/Est	11 Standby Loss Fraction	12 1st Hr. Rating or Flow Rate (gal)	13 Heat Pump Type	14 Tank Location or Ambient Condition
Rheem HPLD40-1RH (40 gal10	Heat Pump	N/A	1	40	12	kW	kW	EF	0	0	N/A	Residential (NEEA RATED) pRODUCT	Outside

I2. MULTI-FAMILY WATER HEATING SYSTEM DETAIL

01 System Name	02 Configuration	03 Type	04 Qty In System	05 Dwelling Unit Distribution Type	06 Water Heater Name	07 Solar Heating System	08
MFD-Rheem HPLD40-1RH (40 gal1	Domestic Hot Water (DHW)	Unitary	1	Standard Distribution System	Rheem HPLD40-1RH (40 gal10	N/A	NotCompact

Documentation Author's Declaration Statement

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

Documentation Author Name:	Documentation Author Signature:
Company:	Signature Date:
Address:	CEA/HERS Certification Identification (if applicable):
City/State/Zip:	Phone:

Responsible Person's Declaration statement

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

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. 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.
5. I understand that a registered copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections, and I will schedule necessary steps to accomplish this requirement.
6. I understand that a registered copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy, and I will take the necessary steps to accomplish these requirements.

ENTHALPY ENGINEERING GROUP
MEP & ENERGY CONSULTING
6320 Topanga canyon blvd.,Ste 1630 #501
Woodland Hills, CA 91367
(818) 233 - 1996
Michael@enthalpyeng.com

MAPLE 4-UNITS
APARTMENT BLDG.
2808 S MAPLE AVE
LOS ANGELES, CA 90011

Revision		
#	REV:	Date

SHEET
ENERGY FORMS
DATE:01/30/2022
SHEET
T24-3

TWO DUPLEX UNITS

2808 S. MAPLE AVE, LOS ANGELES, CA 90011

GENERAL NOTES

1. PERFORM CONSTRUCTION AND WORKMANSHIP IN COMPLIANCE WITH CONTRACT DOCUMENTS, CALIFORNIA BUILDING CODE (CBC), INTERNATIONAL BUILDING CODE (IBC), AND ANY OTHER GOVERNING AUTHORITY.
2. STRUCTURAL DRAWINGS, AS PART OF CONTRACT DOCUMENTS, INDICATE INFORMATION SUFFICIENT TO CONVEY DESIGN INTENT. IF ERRORS, INCONSISTENCIES OR OMISSIONS ARE DISCOVERED, PROMPTLY NOTIFY ARCHITECT (STRUCTURAL ENGINEER) BEFORE PROCEEDING WITH WORK.
3. NO PORTION OF STRUCTURAL RELATED WORK, INCLUDING SHOP DRAWING DEVELOPMENT SHALL BE PERFORMED WITHOUT CONSIDERING REQUIREMENTS OF CONTRACT DOCUMENTS IN THEIR ENTIRETY. FOR EXAMPLE, REFER TO ARCHITECTURAL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR SIZE AND LOCATION OF OPENINGS, PENETRATIONS AND EMBODIMENTS FOR DUCTS, PIPING, VENTS, CONDUITS AND OTHER ITEMS TO BE INCORPORATED IN STRUCTURAL WORK.
4. CONTRACTOR SHALL NOTIFY THE ARCHITECT (STRUCTURAL ENGINEER) OF ANY DISCREPANCIES BETWEEN THE STRUCTURAL DOCUMENTS AND THE ARCHITECTURAL DOCUMENTS, OR WITH ANY OTHER DISCIPLINES.
5. CONTRACTOR SHALL CONSIDER THE STRUCTURAL DRAWINGS IN THEIR ENTIRETY, INCLUDING(BUT NOT LIMITED TO)ANY NOTES, TYPICAL DETAILS, SPECIAL DETAILS, SCHEDULES, AND LEGENDS, AS THE CONTRACT DOCUMENT IN THEIR WORK.
6. DETAILS AND SCHEDULES INDICATED AS "TYPICAL" MAY NOT BE SPECIFICALLY REFERENCED ON DRAWINGS. DETERMINE WHERE EACH TYPICAL DETAIL OR SCHEDULE APPLIES BEFORE PROCEEDING WITH WORK. IF CONDITIONS ARE FOUND WHICH ARE NOT SPECIFICALLY DETAILED AND NO TYPICAL DETAIL OR SCHEDULE APPLIES, PROMPTLY NOTIFY ARCHITECT (STRUCTURAL ENGINEER).
7. CONTRACTOR SHALL REVIEW THE STRUCTURAL DOCUMENTS FOR COMPLETENESS AND FEASIBILITY BEFORE COMMENCING CONSTRUCTION.
8. CONDITIONS SHOWN OR NOTED AS EXISTING ARE BASED ON BEST INFORMATION CURRENTLY AVAILABLE WHEN DRAWINGS WERE PREPARED. NO WARRANTY IS IMPLIED AS TO ACCURACY OF THESE EXISTING CONDITIONS.
9. TAKE FIELD MEASUREMENTS AND VERIFY FIELD CONDITIONS AND COMPARE SUCH MEASUREMENTS AND CONDITIONS WITH CONTRACT DOCUMENTS. IF ERRORS, INCONSISTENCIES OR OMISSIONS ARE DISCOVERED, PROMPTLY NOTIFY ARCHITECT MEASUREMENTS AND CONDITIONS WITH CONTRACT DOCUMENTS. IF ERRORS, (STRUCTURAL ENGINEER) BEFORE PROCEEDING WITH WORK.
10. CONTRACT DOCUMENTS REPRESENT THE FINISHED STRUCTURE. UNLESS OTHERWISE SHOWN, THEY DO NOT INDICATE CONSTRUCTION METHOD. PROVIDE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AS REQUIRED.PROVIDE ADEQUATE EXCAVATION PROCEDURES, SHORING,BRACING AND ERECTION PROCEDURES COMPLYING WITH NATIONAL, STATE, AND LOCAL SAFETY ORDINANCES.
11. OBSERVATION VISITS TO SITE BY FIELD REPRESENTATIVES OF ARCHITECT (STRUCTURAL OBSERVATIONS PER FORMED BY ARCHITECT (STRUCTURAL ENGINEER)DURING CONSTRUCTION ARE NOT CONTINUOUS AND DETAILED INSPECTION SERVICES WHICH ARE PER FORMED BY OTHERS.OBSERVATIONS PERFORMED BY ARCHITECT(STRUCTURAL ENGINEER) ARE PER FORMED SOLELY FOR THE PURPOSE OF DETERMINING IF CONTRACTOR UNDER STANDS DESIGN INTENT CONVEYED IN CONTRACT DOCUMENTS. OBSERVATIONS DO NOT GUARANTEE CONTRACTOR'S PERFORMANCE AND ARE NOT TO BE CONSTRUED AS SUPERVISION OF CONSTRUCTION.
12. MODIFICATIONS OR SUBSTITUTION:DESIGN,MATERIALS,EQUIPMENT AND PRODUCTS OTHER THAN THOSE INDICATED OR SPECIFIED MAY BE CONSIDERED FOR USE PROVIDED A WRITTEN REQUEST, SUBJECT TO REVIEW,SUBMITTED TO OWNER, ARCHITECT (STRUCTURAL ENGINEER) AND GOVERNING CODE AUTHORITY PRIOR TO ITS USE OR INCLUSION ON ANY SHOP DRAWING.
13. BRACE PIPING AND DUCTS COMPLYING WITH LATEST EDITION OF "GUIDELINES FOR SEISMIC RESTRAINTS OF MECHANICAL SYSTEMS "BY THE SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION.
14. THE CAD DRAWING FILES ARE THE PROPERTY OF THE STRUCTURAL ENGINEER AND WILL NOT BE RELEASED TO THE CONTRACTOR OF SUBCONTRACTOR FOR THEIR USE.

SPECIAL INSPECTION [REFER TO SHEET S-1.1]

1. THE CONSTRUCTION INSPECTIONS LISTED ARE IN ADDITION TO THE CALLED INSPECTIONS REQUIRED BY CBC SECTION 109. SPECIAL INSPECTION IS NOT A SUBSTITUTE FOR INSPECTION BY A CITY INSPECTOR. SPECIALLY INSPECTED WORK WHICH IS INSTALLED OR COVERED WITHOUT THE APPROVAL OF THE CITY INSPECTOR IS SUBJECT TO REMOVAL OR EXPOSURE.
2. CONTINUOUS INSPECTION IS ALWAYS REQUIRED DURING THE PERFORMANCE OF THE WORK UNLESS OTHERWISE SPECIFIED.
3. THE SPECIAL INSPECTORS MUST BE CERTIFIED BY THE CITY TO PERFORM THE TYPES OF INSPECTION SPECIFIED.
4. IT IS THE RESPONSIBILITY OF THE OWNER OR CONTRACTOR TO NOTIFY THE SPECIAL INSPECTOR OR INSPECTION AGENCY AT LEAST ONE WORKING DAY PRIOR TO PERFORMING ANY WORK THAT REQUIRES SPECIAL INSPECTION. ALL WORK PERFORMED WITHOUT SPECIAL INSPECTION IS SUBJECT TO REMOVAL.
5. A CERTIFICATE OF SATISFACTORY COMPLETION OF WORK REQUIRING SPECIAL INSPECTION MUST BE COMPLETED & SUBMITTED TO THE FIELD INSPECTION DIVISION.

DESIGN PARAMETERS

STRUCTURAL ENGINEERING DESIGN AND DETAILING ARE BASED ON THE 2019 CALIFORNIA BUILDING CODE, 2018 INTERNATIONAL BUILDING CODE, AND ASCE-7-16. THE FOLLOWING ARE THE DESIGN CRITERIA USED:

WIND:

BASIC WIND SPEED	V = 95 MPH
EXPOSURE CATEGORY	C
IMPORTANCE FACTOR	Iw = 1.00

SEISMIC:

IMPORTANCE FACTOR	I = 1.00
SITE COEFFICIENT	Ss = 1.890
SITE COEFFICIENT	S1 = 0.670
SITE SOIL CLASSIFICATION	D-DEFAULT
SEISMIC DESIGN CATEGORY	D

WALL BEARING WOOD SHEATHING SHEAR WALLS
BASE SHEAR = 116,160 LBS
Cs = 0.233
R = 6.5 WOOD SHEARWALLS
R = 2.5 CANTILEVER COLUMN
EQUIVALENT LATERAL DESIGN
REDUNDANCY FACTOR = 1.30

ALLOWABLE SOIL BEARING PRESSURES: (PER CBC TABLE 1806A.2)

SPREAD/CONTINOUS FOOTING	1500 PSF	D + L
	2000 PSF	D + L + SEISMIC OR WIND LOAD
PASSIVE PRESSURE	100 PCF	
COEFFICIENT OF FRICTION	0.25	

DEAD LOADS

ROOF	= 15.0 LB/SQ.FT
2ND FLOOR	= 15.0 LB/SQ.FT
FLOOR	= 22.0 LB/SQ.FT

LIVE LOADS

ROOF	= 20.0 LB/SQ.FT
FLOOR	= 40.0 LB/SQ.FT

CONCRETE

1. PROVIDE NORMAL WEIGHT AGGREGATES OF NATURAL SAND AND ROCK COMPLYING WITH ACI 318 AND ASTM C33.
2. PROVIDE NORMAL WEIGHT CONCRETE (145 PCF) AT A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS UNLESS NOTED OTHERWISE.
3. ALL CONCRETE MIXES SHALL HAVE A MINIMUM CEMENT CONTENT OF 5.25 SACKS OF CEMENT PER CUBIC YARD OF MIX. ALL CONCRETE MIXES SHALL BE CERTIFIED BY A CONCRETE TESTING LABORATORY AND SIGNED BY A CALIFORNIA REGISTERED CIVIL ENGINEER. USELESS NOTED OTHERWISE, USE PORTLAND CEMENT TYPE II, OR TYPE V IF REQUIRED BY THE GEOTECHNICAL REPORT, CONFORMING TO ASTM C150. SHRINKAGE CHARACTERISTICS SHALL BE LESS THAN 0.050%, WATER-TO-CEMENT
4. RATIO SHALL NOT EXCEED 0.52.
5. SLUMP NOT TO EXCEED 4 INCHES.
6. DO NOT USE CONCRETE OR GROUT CONTAINING CHLORIDES.
7. DO NOT EMBED CONDUITS, PIPES, OR SLEEVES SMALLER IN STRUCTURAL CONCRETE, INCLUDING SLABS ON METAL DECK,EXCEPT WHERE SPECIFICALLY DETAILED OR ACCEPTED BY ARCHITECT (STRUCTURAL ENGINEER). LOCATE ELECTRICAL CONDUIT 3 INCHES APART MINIMUM AND WITHIN MIDDLE THIRD OF MEMBER.
8. FORM EXPOSED CORNERS OF COLUMNS, BEAMS, WALLS, ETC., WITH 3/4 INCH CHAMFERS UNLESS DETAILED OTHERWISE.
9. PROVIDE KEYS IN CONSTRUCTION JOINTS UNLESS DETAILED OTHERWISE. THOROUGHLY CLEAN, REMOVE LATENCIES AND THOROUGHLY WET AND REMOVE STANDING WATER IN CONSTRUCTION JOINTS BEFORE PLACING NEW CONCRETE. AT VERTICAL JOINTS, SLUSH WITH A COAT OF NEAT CEMENT BEFORE PLACING NEW CONCRETE.
10. ROUGHEN CONCRETE SURFACE TO A FULL AMPLITUDE OF 1/16 INCH WHERE MASONRY WALLS INTERSECT CONCRETE.
11. ROUGHEN EXISTING CONCRETE SURFACE TO A FULL AMPLITUDE OF 1/16 INCH WHERE EXISTING CONCRETE ABUTS NEW CONCRETE.
12. PERFORM CONCRETE WORK IN COMPLIANCE WITH ACI 301, SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS.
13. MAINTAIN CONCRETE ABOVE 50 DEGREES FAHRENHEIT AND IN A MOIST CONDITION FOR A MINIMUM OF 7 DAYS AFTER PLACEMENT UNLESS OTHERWISE ACCEPTED BY ARCHITECT (STRUCTURAL ENGINEER).
14. ALL TOPPING SLABS TO RECEIVE 6x6-W2.9 WELDED WIRE FABRIC UNLESS NOTED OTHERWISE. PLACE FABRIC IN CENTER OF SLAB OR A MAXIMUM OF 2 INCHES CLEAR FROM THE TOP OF CONCRETE, WHICH EVER IS LESS.
15. UNLESS NOTED OTHERWISE, SLABS ON GRADE TO RECEIVE #4 @ 16 INCH ON CENTER EACH WAY, PLACED IN CENTER OF SLAB OR A MAXIMUM OF 2 INCHES CLEAR FROM THE TOP OF CONCRETE, WHICH EVER IS LESS.
16. PROVIDE LIGHTWEIGHT CONCRETE (112 PCF) WHERE SPECIFICALLY INDICATED, ATTAINING A MINIMUM COMPRESSIVE STRENGTH OF 2500 PSI AT 28 DAYS. PROVIDE LIGHTWEIGHT AGGREGATE OF THE EXPANDED SHALE TYPE COMPLYING WITH ASTM C330. MAXIMUM SIZE IS 3/8 INCH.
17. SIDES OF FOOTING PADS MAY BE POURED AGAINST STABLE EARTH.
18. TROWEL AND RESTORE SLAB FOR SMOOTH FINISH WITH NO TROWEL MARKS SHOWING WHEREVER CONCRETE FLOOR IS EXPOSED.
19. SEE ARCHITECTURAL SERIES FOR COLORED OR TEXTURED CONCRETE.
20. CONCRETE FORM-WORK TOLERANCES SHALL BE IN ACCORDANCE WITH ACI STANDARDS.
21. ALL STEEL REINFORCING,ANCHOR BOLTS, DOWELS AND OTHER INSERTS SHALL BE SECURED IN POSITION AND INSPECTED BY THE LOCAL BUILDING DEPARTMENT INSPECTOR PRIOR TO PLACING OF CONCRETE.
22. ALL NECESSARY BRACES, STRONG BACKS, PICK-UP INSERTS, BOLTS, ETC. FOR PRECAST CONCRETE PANELS SHALL BE DESIGNED BY OTHERS FOR SAFE ERECTION OF THE PANELS.
23. WHERE REQUIRED, SOUND INSULATING CELLULAR CONCRETE SHALL BE 100 PCF (13PSF AT 1-1/2 INCH THICKNESS) FOR SECOND FLOOR FILL OVER PLYWOOD SHEATHING. ALL AREAS ARE TO BE TROWEL TO SMOOTH FLAT FINISH SUITABLE FOR INTERIOR COVERINGS. PROVIDE WATERPROOFING PAPER AND MESH
24. NO FLY ASH SHALL BE USED IN ANY CONCRETE.NO CALCIUM CHLORIDE SHALL BE USED IN ANY CONCRETE.
25. ALL CONCRETE TO BE CURED FOR A MINIMUM OF 3 DAYS.
26. TOP OF SLAB FOOTING UNDER COLUMN BASE PLATES SHALL BE FINISHED SMOOTH AND LEVEL FOR FULL BEARING.
27. PLACING OF ANY CONCRETE WITH 28 DAY STRENGTH GREATER THEN 2500 PSI SHALL BE CONTINUOUSLY INSPECTED BY A REGISTERED DEPUTY INSPECTOR PAID FOR BY THE OWNER.

STRUCTURAL STEEL:

MEMBERS:
A LADBS LICENSED FABRICATOR IS REQUIRED FOR ALL STRUCTURAL STEEL, INCLUDING SHOP WELDS. DETAIL, FABRICATE, AND ERECT STRUCTURAL STEEL IN ACCORDANCE WITH THE FOURTEENTH EDITION OF THE AISC "STEEL CONSTRUCTION MANUAL".

MATERIAL SPECIFICATIONS:
- WIDE FLANGE SECTIONS SHALL CONFORM TO ASTM A992
- HSS TUBES SECTIONS SHALL CONFORM TO ASTM A500 GRADE B
- PIPE SECTIONS SHALL CONFORM TO ASTM A53 GRADE B
- CHANNELS, ANGLES, & PLATES SHALL CONFORM TO ASTM A36
- BOLTS SHALL CONFORM TO ASTM A307 GR. A OR ASTM A36
- WELDING ELECTRODE SHALL BE AWS E70XX SERIES

WELDING:
ALL FIELD WELDS SHALL BE DONE BY LADBS CERTIFIED WELDER.
ALL SHOP WELD SHALL BE PERFORMED BY LADBS LICENSED FABRICATOR'S SHOP

MATERIALS:

PROVIDE MATERIALS AS NOTED BELOW, SUBSTITUTIONS SHALL COMPLY WITH THE LOS ANGELES RESEARCH REPORT, A COPY OF WHICH SHALL BE MADE AVAILABLE AT THE JOB SITE. THE FOLLOWING SHALL COMPLY WITH THE LOS ANGELES RESEARCH REPORT:
1- EPOXY, 2-STRAPS, 3- CONNECTORS

REINFORCING STEEL

1. PROVIDE REINFORCING STEEL COMPLYING WITH ASTM A615,GRADE 60. PROVIDE REINFORCING STEEL TO BE WELDED COMPLYING WITH ASTM A706, GRADE 60.
2. PROVIDE REINFORCING STEEL COMPLYING WITH ASTM A615, GRADE 40 FOR ALL TIES AND DOWELS.
3. IF REQUIRED, PROVIDE SMOOTH WELDED WIRE FABRIC COMPLYING WITH ASTM A185. LAP FABRIC 1-1/2 SPACES, 12 INCHES MINIMUM.
4. SPLICE REINFORCING STEEL WHERE INDICATED. IF SPLICE LOCATIONS ARE NOT SPECIFICALLY SHOWN OR INDICATED, VERIFY SPLICE LOCATIONS WITH ARCHITECT (STRUCTURAL ENGINEER) PRIOR TO DEVELOPING REINFORCING STEEL SHOP DRAWINGS.
5. LAP REINFORCING STEEL AT SPLICES TO LENGTHS INDICATED.
6. REINFORCEMENT MARKED CONTINUOUS MAY BE SPLICED BY LAPPING 42 BAR DIAMETERS IN CONCRETE AND 48 BAR DIAMETER IN MASONRY, WITH 24 INCHES MINIMUM LAP UNLESS OTHERWISE NOTED ON PLANS.
7. MINIMUM CLEAR DISTANCES BETWEEN REINFORCING STEEL, INCLUDING SPLICED REINFORCING STEEL, SHALL BE 1 IN OR 1 BAR DIAMETER, WHICHEVER IS GREATER. MINIMUM CLEAR DISTANCE AT COLUMNS SHALL BE 1-1/2 INCH OR 1-1/2 BAR DIAMETERS,WHICHEVER IS GREATER. FOR BUNDLED BARS, MINIMUM CLEAR DISTANCES BETWEEN UNITS OF BUNDLES BARS SHALL BE SAME AS SINGLE BARS EXCEPT BAR DIAMETERS DERIVED FROM EQUIVALENT TOTAL AREA OF BUNDLE.
8. MINIMUM CONCRETE COVERAGE:MAINTAIN THE FOLLOWING MINIMUM CLEAR DISTANCES BETWEEN REINFORCING STEEL AND FACE OF CONCRETE UNLESS NOTED OTHERWISE:

CONCRETE BELOW GRADE, FORMED	2 IN
CONCRETE BELOW GRADE, UNFORMED	3 IN
WALLS ABOVE GRADE EXPOSED	2 IN
WALLS ABOVE GRADE NOT EXPOSED	1 IN
COLUMNS	1-1/2 IN
BEAMS	1-1/2 IN
STRUCTURAL SLAB (TOP & BOTTOM)	1 IN
SLAB ON GRADE	ON CENTER

9. CHAIRS OR SPACERS FOR REINFORCING SHALL BE PLASTIC OR PLASTIC COATED WHERE RESTING ON EXPOSED SURFACES.
10. PROVIDE DOWELS FOR WALLS AND COLUMNS MATCHING VERTICAL REINFORCING SIZE AND SPACING, UNLESS NOTED OTHERWISE.
11. WELD REINFORCING STEEL COMPLYING WITH AWS D1.4. DO NOT WELD REINFORCING STEEL OTHER THAN THOSE CONFORMING TO ASTM A706. IF WELDING OF REINFORCING STEEL OTHER THAN A706 IS DESIRED, SUBMIT PROPOSED PROCEDURE INDICATING CONFORMANCE TO CODE AND REQUIREMENTS OF GOVERNING CODE AUTHORITY TO ARCHITECT (STRUCTURAL ENGINEER) FOR ACCEPTANCE AND TO GOVERNING CODE . AUTHORITY FOR APPROVAL PRIOR TO EXECUTION.
12. WELDERS SHALL BE CERTIFIED AS REQUIRED BY GOVERNING CODE AUTHORITY.
13. BEND REINFORCING STEEL COLD UNLESS OTHERWISE ACCEPTED BY ARCHITECT (STRUCTURAL ENGINEER). PROVIDE SPECIAL INSPECTION OF ALL COLD BENT REINFORCING. SECURELY TIE ANCHOR BOLTS,REINFORCING STEEL, INSERTS, ETC., IN-PLACE PRIOR TO POURING CONCRETE OR GROUT.
14. FOR STRUCTURAL CONCRETE SLAB FLOORS, SUBMIT REINFORCING STEEL SHOP DRAWINGS INDICATING REINFORCING PLACEMENT, INCLUDING SPLICE LOCATIONS AND LENGTHS, TO ENGINEER OF RECORD FOR REVIEW AND ACCEPTANCE. PROMPTLY NOTIFY ENGINEER OF RECORD PRIOR TO DEVELOPING REINFORCING STEEL SHOP DRAWINGS IF INSUFFICIENT CLEAR DISTANCES BETWEEN REINFORCING STEEL OR OTHER CONGESTION IS ENCOUNTERED. PREPARE SHOP DRAWINGS IN COMPLIANCE WITH ACI 318. SHOP DRAWINGS ARE NOT REQUIRED FOR FOUNDATIONS AND SLAB ON GRADE.
15. ADDITIONAL REINFORCING REQUIRED FOR ERECTION OF PRECAST CONCRETE SHALL BE ADDED BY THE CONTRACTOR.

FOUNDATION

1. WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES, SAFETY REGULATIONS AND UNLESS OTHERWISE NOTED, THE LATEST REVISION OF ACI 318, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE". PROCEDURES FOR THE PROTECTION OF EXCAVATIONS, EXISTING CONSTRUCTION AND UTILITIES SHALL BE ESTABLISHED PRIOR TO FOUNDATION INSTALLATION.
2. THE CONTRACTOR SHALL BE RESPONSIBLE TO LOCATE ALL EXISTING ABOVE AND UNDER GROUND PIPELINES, CONDUIT, UTILITIES, ETC., AND TO PROTECT AGAINST ANY DAMAGE. THE CONTRACTOR SHALL COMPLY WITH ALL OSHA, STATE AND LOCAL SAFETY REGULATIONS TO ENSURE SAFE PRACTICES DURING ALL WORK PHASES.
3. FOUNDATION DESIGN IS BASED ON THE LOAD-BEARING VALUES PROVIDED BY BY THE 2016 CALIFORNIA BUILDING CODE, SECTION, 1806.2. LATERAL SOIL LOAD IS BASED ON 2016 CBC, SECTION 1610.1.
4. FOUNDATION AND BUILDING SLAB-ON-GRADE SHALL BE PLACED ON COMPACTED FILL MATERIAL WHERE FILL 12 INCHES OR LESS IN DEPTH NEED NOT TO COMPLY WITH AN APPROVED REPORT, UNLESS OTHERWISE REQUIRED BY LOCAL JURISDICTION. THE PROVIDED IN-PLACE DRY DENSITY SHALL BE A MINIMUM 90% COMPACTION. SEE SOILS REPORT FOR RECOMMENDATIONS.
5. FOUNDATION EXCAVATIONS ARE TO BE OBSERVED BY AND ACCEPTABLE TO BUILDING DEPARTMENT OR ANY OTHER GOVERNING BUILDING AUTHORITY PRIOR TO PLACEMENT OF FILL, REINFORCING STEEL, OR CONCRETE.
6. PROTECT THE TOP OF EXCAVATIONS FROM HEAVY SURCHARGE LOADS AND EROSION FROM RAINFALL AND SURFACE RUN-OFF DURING THE CONSTRUCTION PERIOD.
7. FOUNDATION SHALL BE PLACED A MINIMUM OF 18 INCHES BELOW ADJACENT GRADE OR FINISH FLOOR, WHICH EVER IS LOWER.
8. CONCRETE SHALL BE PLACED AGAINST UNDISTURBED SOIL EXCEPT FOR PIERS OF PIER AND PAD FOUNDATIONS. FORMS FOR PIERS SHALL BE REMOVED PRIOR TO PLACING STRUCTURAL BACKFILL.
9. UNLESS OTHERWISE NOTED. SPLICES IN REINFORCEMENT SHALL NOT BE ALLOWED UNLESS OTHERWISE INDICATED.
10. REINFORCING CAGES SHALL BE BRACED TO RETAIN PROPER DIMENSIONS DURING HANDLING AND THROUGHOUT PLACEMENT OF CONCRETE.
11. WELDING IS PROHIBITED ON REINFORCING STEEL AND EMBODIMENTS.
12. MINIMUM CONCRETE COVER FOR REINFORCEMENT SHALL BE 3 INCHES (76mm) UNLESS OTHERWISE NOTED. APPROVED SPACERS SHALL BE USED TO INSURE A 3 INCH (76mm) MINIMUM COVER ON REINFORCEMENT.
13. SPACERS SHALL BE ATTACHED INTERMITTENTLY THROUGHOUT THE ENTIRE LENGTH OF VERTICAL REINFORCING CAGES TO INSURE CONCENTRIC PLACEMENT OF CAGES IN EXCAVATIONS.
14. LOOSE MATERIAL SHALL BE REMOVED FROM BOTTOM OF EXCAVATION PRIOR TO CONCRETE PLACEMENT. SIDES OF EXCAVATION SHALL BE ROUGH AND FREE OF LOOSE CUTTINGS.
15. CONCRETE SHALL BE PLACED IN A MANNER THAT WILL PREVENT SEGREGATION OF CONCRETE MATERIALS AND OTHER OCCURRENCES WHICH MAY DECREASE THE STRENGTH OR DURABILITY OF THE FOUNDATION.
16. EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 3/4" X 3/4" (19mm X 19mm) MINIMUM.

LUMBER

1. PROVIDE GRADE MARKED DOUGLAS FIR (OR HEM FIR FOR EXPOSED) STRUCTURAL LUMBER OF THE FOLLOWING CLASSIFICATIONS COMPLYING WITH WESTERN WOOD PRODUCTS ASSOCIATIONS(WWPA) GRADING SPECIFICATIONS,UNLESS NOTED OTHERWISE ON PLANS:

ROOF RAFTERS & JOISTS	NO. 2
2x STUDS & PLATES	NO. 2
BEAMS, HEADERS, & STRINGERS	NO. 1
POSTS	NO. 1
ENGINEERED WOOD [ESR 1387] (BY TRUSS JOIST OR EQUIVALENT)	LSL TIMBERSTRAND (1.55E) LVL MICROLAM (2.0E) PSL PARALLAM (2.2E)

2. USE DFPA GRADE STAMPED, TYPE STRUCTURAL I, OR CDX(24/0), PLYWOOD 15/32" AND 19/32"THICK SHEATHING SHALL HAVE INDEX NO. 32/16. 23/32" SHEATHING SHALL HAVE INDEX NO. 48/24.
3. ROOF FRAMING SHEATHING, AND NAILING SHALL BE INSPECTED PRIOR TO PLACING OF ROOFING MATERIALS.
4. PROVIDE METAL WASHERS FOR ALL BOLTS AND NUTS BEARING ON WOOD.
5. ALL BOLT HOLES IN WOOD MEMBERS SHALL BE A MINIMUM OF 1/32 INCH TO MAXIMUM OF 1/16 INCH LARGER THAN THE BOLT DIAMETER. PROVIDE A307 BOLTS, UNLESS NOTED OTHERWISE, WITH STANDARD CUT WASHER UNDER BOLT HEAD AND NUT. PROVIDE STANDARD WASHERS UNDER HEADS OF LAG SCREWS. WOOD MEMBERS NOT MEETING THIS CRITERIA SHALL BE REMOVED AND REPLACED BY THE CONTRACTOR AT ITS OWN EXPENSE.
6. LUMBER IN CONTACT WITH CONCRETE OR MASONRY SHALL BE REDWOOD OR APPROVED PRESSURE TREATED WOOD.PROVIDE HOT DIPPED GALVANIZED OR STAINLESS STEEL FASTENERS AND HARDWARE CONNECTORS AT PRESSURE TREATED STRUCTURAL LUMBER.
7. ALL NAILS, UNLESS INDICATED OTHERWISE, ARE COMMON NAILS WITH DIMENSIONAL PROPERTIES COMPLYING WITH CBC CHAPTER 23.
8. PROVIDE WOOD HARDWARE CONNECTORS AS MANUFACTURED BY SIMPSON STRONG-TIE COMPANY, INC. COMPLYING WITH CURRENT IBC ,ESR, AND LARR REPORTS.
9. INDIVIDUAL SHEET OF SHEATHING SHALL NOT BE LESS THAN 2'-0" IN THEIR LEAST PLAN DIMENSION NOR LESS THAN 8 SQ.FT. IN AREA.
10. DO NOT SUSPEND CEILINGS, SOFFITS, SPRINKLERS, PIPING, MECHANICAL DUCTS, NOR ANY OTHER ELEMENT FROM 2x4 ROOF FRAMING UNLESS SPECIFICALLY DETAILED.
11. RE-TIGHTEN BOLTS PRIOR TO APPLICATION OF SHEATHING, PLASTER, ETC.
12. PROVIDE LATERAL SUPPORT FOR BEAMS,RAFTERS,AND JOISTS AS DESCRIBE IN CBC CHAPTER 23.
13. WOOD STUDS:
- TOP PLATE OF STUD WALLS SHALL BE 2 PIECES SAME WIDTH AS STUDS. SPLICE AS INDICATED.
- PROVIDE STUD WALL BRACING IN COMPLIANCE WITH CBC CHAPTER 23 IN STUD WALLS NOT PLYWOOD SHEATHED.
- NOTCH OR BORE HOLES IN WOOD STUDS IN COMPLIANCE WITH CBC CHAPTER 23
- PROVIDE DOUBLE JOISTS UNDER PARTITIONS WHICH ARE PARALLEL TO JOISTS AND PROVIDE SOLID FULL DEPTH BLOCKING UNDER PARTITIONS WHICH ARE PERPENDICULAR TO JOISTS.

LA DBS — Los Angeles Regional Uniform Code Program
Committee I-3: Structural Observation

STRUCTURAL OBSERVATION PROGRAM
AND DESIGNATION OF THE
STRUCTURAL OBSERVER

PROJECT ADDRESS: 2808 S. Maple Ave. PERMIT APPL. NO.: _____
Description of Work: Two 3-story Duplex
Owner: _____ Architect: Remon Hanna Engineer: John F. Hanna

STRUCTURAL OBSERVATION
(only checked items are required)

Firm or Individual to be responsible for the Structural Observation:
Name: JOHN F. HANNA Phone: (818)238-7167 Calif. Registration: C7506

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
☐ Step'g/Retain'g Foundation, Hillside Special Anchors	☐ Others:	☑ Others: Steel Moment Columns	☐ 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 _____ 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 firm or individual is designated by me to be responsible for the Structural Observation.

John Hanna Signature — C71506 License No. — 1/25/2023 Date

INFO-rm.08 [Part 2] (Rev. 08/19/17)

CIVIL AND STRUCTURAL
DESIGN - CONSULTANT

1938 KLECK RD
PASO ROBLES, CA 93446
818.238.7167
john@jhannaengineering.com
www.jhannaengineering.com

TWO DUPLEX UNITS
2808 S. MAPLE AVE, LOS ANGELES, CA 90011

PROJECT ADDRESS:

SHEET TITLE: GENERAL NOTES

NOT FOR CONSTRUCTION - PROGRESS PRINT

PROJECT NO:	
DATE:	01-25-2023
DRAWN BY:	JH
SHEET:	S001
SCALE:	AS NOTED

STRUCTURAL OBSERVATION (IF REQUIRED)

1. STRUCTURAL OBSERVATION IS REQUIRED FOR THE STRUCTURAL SYSTEM IN ACCORDANCE WITH CBC SECTION 17. STRUCTURAL OBSERVATION IS THE VISUAL OBSERVATION OF THE ELEMENTS AND CONNECTIONS OF THE STRUCTURAL SYSTEM AT SIGNIFICANT CONSTRUCTION STAGES AND THE COMPLETED STRUCTURE FOR GENERAL CONFORMANCE TO THE APPROVED PLANS AND SPECIFICATIONS.STRUCTURAL OBSERVATION DOES NOT WAIVE THE RESPONSIBILITY OF THE INSPECTIONS REQUIRED OF THE BUILDING INSPECTOR OF THE DEPUTY INSPECTOR.

2. THE OWNER SHALL EMPLOY A CIVIL OR STRUCTURAL ENGINEER TO PERFORM THE STRUCTURAL OBSERVATION.THE ENGINEER SHALL BE REGISTERED OR LICENSED IN THE STATE OF CALIFORNIA.THE DEPARTMENT OF BUILDING AND SAFETY RECOMMENDS THE USE OF THE ENGINEER RESPONSIBLE FOR THE STRUCTURAL DESIGN WHEN THEY ARE INDEPENDENT OF THE CONTRACTOR.

3. THE STRUCTURAL OBSERVER SHALL PROVIDE EVIDENCE OF EMPLOYMENT BY THE OWNER.A LETTER FROM THE OWNER OR A COPY OF THE AGREEMENT FOR SERVICES SHALL BE SENT TO THE BUILDING INSPECTOR BEFORE THE FIRST SITE VISIT. THE STRUCTURAL OBSERVER SHALL ALSO INFORM THE OWNER OF THE REQUIREMENTS FOR A PRE-CONSTRUCTION MEETING AND SHALL PRESIDE OVER THIS MEETING.

4. THE OWNER OR OWNER S REPRESENTATIVE SHALL COORDINATE AND CALL FOR A MEETING BETWEEN THE ENGINEER OR ARCHITECT RESPONSIBLE FOR THE STRUCTURAL DESIGN, STRUCTURAL OBSERVER, CONTRACTOR, AFFECTED SUBCONTRACTORS, AND DEPUTY INSPECTORS. THE PURPOSE OF THE MEETING SHALL BE TO IDENTIFY THE MAJOR STRUCTURAL ELEMENTS AND CONNECTIONS THAT AFFECT THE VERTICAL AND LATERAL LOAD SYSTEMS OF THE STRUCTURE AND TO REVIEW SCHEDULING OF THE REQUIRED OBSERVATIONS.A RECORD OF THE MEETING SHALL BE INCLUDED IN THE FIRST OBSERVATION REPORT SUBMITTED TO THE BUILDING INSPECTOR.

5. THE STRUCTURAL OBSERVER SHALL PERFORM SITE VISITS AT THOSE STEP IN THE PROGRESS OF THE WORK THAT ALLOW FOR CORRECTION OF THE DEFICIENCIES WITHOUT SUBSTANTIAL EFFORT OR UNCOVERING THE WORK INVOLVED. AT A MINIMUM, THE FOLLOWING SIGNIFICANT CONSTRUCTION STAGES REQUIRE A SITE VISIT AND AN OBSERVATION REPORT FROM THE STRUCTURAL OBSERVER: ELEMENT TO BE OBSERVED PLYWOOD SHEAR WALLS PLYWOOD NAILING AT FIRST SHEAR WALL.

6. THE STRUCTURAL OBSERVER SHALL PREPARE A REPORT FOR EACH SIGNIFICANT STAGE OF CONSTRUCTION OBSERVED.THE ORIGINAL OF THE OBSERVATION REPORT SHALL BE SENT TO THE BUILDING INSPECTOR S OFFICE AND SHALL BE SIGNED AND SEALED (WET' STAMP) BY THE RESPONSIBLE STRUCTURAL OBSERVER.ONE COPY OF THE OBSERVATION REPORT SHALL BE ATTACHED TO THE APPROVED PLANS.THE COPY ATTACHED TO THE PLANS NEED NOT BE SEALED BUT SHALL BE SIGNED BY THE RESPONSIBLE STRUCTURAL OBSERVER OR THEIR DESIGNEE. COPIES OF THE REPORT SHALL ALSO BE GIVEN TO THE OWNER,CONTRACTOR,AND DEPUTY INSPECTOR.

7. A FINAL OBSERVATION REPORT MUST BE SUBMITTED WHICH SHOWS THAT ALL OBSERVED DEFICIENCIES WERE RESOLVED AND THE STRUCTURAL SYSTEM GENERALLY CONFORMS WITH THE APPROVED PLANS AND SPECIFICATIONS.THE DEPARTMENT OF BUILDING AND SAFETY WILL NOT ACCEPT THE STRUCTURAL WORK WITHOUT THIS FINAL OBSERVATION REPORT AND THE CORRECTION OF THE SPECIFIC DEFICIENCIES NOTED DURING NORMAL BUILDING AND DEPUTY INSPECTION. THE ENGINEER OR ARCHITECT OF RECORD SHALL DEVELOP ALL CHANGES RELATING TO THE STRUCTURAL SYSTEMS.

8. THE BUILDING DEPARTMENT SHALL REVIEW AND APPROVE ALL CHANGES TO THE APPROVED PLANS AND SPECIFICATIONS.

SPECIAL INSPECTIONS:

SPECIAL INSPECTIONS DESCRIBED BELOW WILL BE PERFORMED UNDER SEPARATE CONTRACT BY AGENCIES RETAINED BY THE PROJECT OWNER. THE CONTRACTOR IS RESPONSIBLE FOR KEEPING THE ENGINEER APPRISED OF WORK PROGRESS AS IT PERTAINS TO SPECIAL INSPECTIONS AND ENSURE THAT NO WORK REQUIRING SPECIAL INSPECTIONS IS CONCEALED BEFORE SPECIAL INSPECTIONS OCCUR. THE CONTRACTOR SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE LADBS INSPECTORS AND THE OWNER PRIOR TO COMMENCEMENT OF WORK OF ITEMS LISTED IN THE STATEMENT OF SPECIAL INSPECTIONS. ALL SPECIAL INSPECTIONS SHALL MEET THE REQUIREMENTS OF IBC CHAPTER 17 AS FOLLOWS:

(C) CONTINUOUS INSPECTION, (P) PERIODIC INSPECTION, AND (√) INDICATES APPLICABLE

TABLE 1705.6 - SOILS

INSPECTION AND VERIFICATION ITEM			DURATION	REQUIRED
1.	VERIFY MATERIALS BELOW FOOTINGS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.		(P)	
2.	VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.		(P)	
3.	PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.		(P)	
4.	VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESS DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.		(C)	
5.	PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY		(P)	√

TABLE 1705.3 - CONCRETE CONSTRUCTION

INSPECTION AND VERIFICATION ITEM			DURATION	REQUIRED
1.	INSPECTION OF REINFORCING STEEL, INCLUDING PRESTRESSING TENDONS AND PLACEMENT.		(P)	√
2.	INSPECTION OF REINFORCING STEEL WELDING IN ACCORDNCE WITH WITH TABLE 1704.3 ITEM 5.B.		(P)	
3.	INSPECT BOLTS TO BE INSTALLED IN CONCRETE PRIOR TO AND DURING PLACEMENT OF CONCRETE WHERE ALLOWABLE LOADS HAVE BEEN INCREASED OR WHERE STRENGTH DESIGN IS USED.		(P)	√
4.	INSPECTION OF POST INSTALLED ANCHORS.		(P)	
5.	VERIFY USE OF REQUIRED MIX.		(P)	
6.	AT THE TIME FRESH CONCRETE IS SAMPLED TO FABRICATE SPECIMENS FOR STRENGHT TESTS, PERFORM SLUMP AND AIR CONTENT TESTS AND DETERMINE THE TEMPERATURE OF THE CONCRETE.		(C)	√
7.	INSPECTION OF CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.		(C)	
8.	INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.		(P)	
9.	INSPECTION OF PRESTRESSED CONCRETE		(P)	
	A.	APPLICATION OF PRESTRESSING FORCES	(P)	
	B.	GROUTING OF BONDED PRESTRESSING TENDONS IN THE SEISMIC FORCE-RESISTING SYSTEM.	(P)	
10.	INSPECT FORMWORK FOR SHAPE, LOCATION, AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.		(P)	

TABLE 1705A.2.1 - STEEL CONSCTRUCTION

INSPECTION AND VERIFICATION ITEM			DURATION	REQUIRED
1.	MATERIAL VERIFICATION OF HIGH STRENGTH BOLTS, NUTS, AND WASHERS:			
	A.	IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.	(P)	√
	B	MANUFACURER'S CERTIFICATE OF COMPLIANCE.	(P)	√
2.	INSPECTION OF HIGH STRENGTH BOLTING:			
	A.	SNUG-TIGHT JOINTS	(P)	
	B.	PRETENSIONED AND SLIP-CRITICAL JOINTS USING TURN-OF-NUT WITH MATCHMARKING, TWIST-OFF-BOLT OR DIRECT TENSION INDICATOR METHODS OF INSTALLATION.	(P)	
	C.	PRETENSIONED AND SLIP-CRITICAL JOINTS USING TURN-OF-NUT WITHOUT MATCHMARKING OR CALIBRATED WRENCH METHODS OF INSTALLATION.	(C)	
3.	MATERIAL VERIFICATION OF STRUCTURAL STEEL AND COLD FORMED STEEL DECK:			
	A.	FOR STRUCTURAL STEEL, IDENTIFICATION MARKINGS TO CONFORM TO AISC 360.	(P)	
	B.	IDENTIOFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.	(P)	
	C.	MANUFACTURER'S MILL TEST REPORTS.	(P)	
4.	MATERIAL VERIFICATION OF WELD FILLER MATERIALS:			
	A.	IDENTIFICATION MARKINGS TO CONFORM TO AWS SPECIFICATION IN THE APPROVED CONSTRUCTION DOCUMENTS.	(P)	
	B.	MANUFACTURER'S CERIFICATE OF COMPLIANCE.	(P)	
5.	INSPECTION OF WELDING:			
	A.	STRUCTURAL STEEL AND COLD FORMED STEEL DECK:		
		1) COMPLETE AND PARTIAL PENETRATION GROVE WELDS.	(C)	√
		2) MULTIPASS FILLET WELDS.	(C)	√
		3) SINGLE PASS FILLET WELDS THICKER THAN 5/16".	(C)	√
		4) PLUG AND SLOT WELDS.	(C)	√
		5) SINGLE PASS FILLET WELDS THINNER OR EQUAL TO 5/16".	(P)	√
		6) FLOOR AND ROOF DECK WELDS.	(P)	
	B.	REINFORCING STEEL:		
		1) VERIFICATION OF WELDABILITY OF REINDFORCING STEEL OTHER THAN ASTM A706	(P)	√
		2) REINFORVING STEEL RESISTING FLEXURAL AND AXIAL FORCES IN INTERMEDIATE AND SPECIAL MOMENT FRAMES, AND BOUNDARY ELEMENTS OF SPECIAL STRUCTURAL WALLS OF CONCRETE, AND SHEAR REINFORCEMENT.	(C)	√
		3) SHEAR REINFORCEMENT.	(C)	√
		4) OTHER REINFORCING STEEL	(P)	√
6.	INSPECTION OF STEEL FRAME JOINT DETAILS FOR COMPLIANCE WITH APPROVED CONSTRUCTION DOCUMENTS.		(P)	√
	A.	DETAILS SUCH AS BRACING AND STIFFENING	(P)	
	B.	MEMBER LOCATIONS	(P)	
	C.	APPLICATION OF JOINT DETAILS AT EACH CONNECTION	(P)	

WOOD CONSTRUCTION

INSPECTION AND VERIFICATION ITEM			DURATION	REQUIRED
9.	CONNECTORS			
	A.	STRAPS, CLIPS, HOLDOWNS, AND SCREWS	(P)	√

TABLE R602.3(1) FASTENING SCHEDULE

ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER[a,b,c]	SPACING AND LOCATION
ROOF			
1	Blocking between ceiling joists or rafters to top plate	4-8d box (2 1/2" × 0.113") or 3-8d common (2 1/2" × 0.131"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails	Toe nail
2	Ceiling joists to top plate	4-8d box (2 1/2" × 0.113") or 3-8d common (2 1/2" × 0.131"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails	Per joist, toe nail
3	Ceiling joist not attached to parallel rafter, laps over partitions [see Sections R802.3.1, R802.3.2 and Table R802.5.1(9)]	4-10d box (3" × 0.128"); or 3-16d common (3 1/2" × 0.162"); or 4-3" × 0.131" nails	Face nail
4	Ceiling joist attached to parallel rafter (heel joint) [see Sections R802.3.1 and R802.3.2 and Table R802.5.1(9)]	Table R802.5.1(9)	Face nail
5	Collar tie to rafter, face nail or 11/4" × 20 ga. ridge strap to rafter	4-10d box (3" × 0.128"); or 3-10d common (3" × 0.148"); or 4-3" × 0.131" nails	Face nail
6	Rafter or roof truss to plate	3-16d box nails (3 1/2" × 0.135"); or 3-10d common nails (3" × 0.148"); or 4-10d box (3" × 0.128"); or 4-3" × 0.131" nails	Face nail Each Rafter
7	Roof rafters to ridge, valley or hip rafters or roof rafter to minimum 2" ridge beam	4-16d (3 1/2" × 0.135"); or 3-10d common (31/2" × 0.148"); or 4-10d box (3" × 0.128"); or 4-3" × 0.131" nails	Toe nail
		3-16d box 3 1/2" × 0.135"); or 2-16d common (3 1/2" × 0.162"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails	End nail
Wall			
8	Stud to stud (not at braced wall panels)	16d common (3 1/2" × 0.162")	24" O.C. Face nail
		10d box (3" × 0.128"); or 3" × 0.131" nails	16" O.C. Face nail
9	Stud to stud and abutting studs at intersecting wall corners (at braced wall panels)	16d box (3 1/2" × 0.135"); or 3" × 0.131" nails	12" O.C. Face nail
10	Built-up header (2" to 2" header with 1/2" spacer)	16d common (3 1/2" × 0.162")	16" O.C. Face nail
		16d common (3 1/2" × 0.162")	16 " o.c. each edge face nail
		16d box (3 1/2" × 0.135")	12 " o.c. each edge face nail
11	Continuous header to stud	5-8d box (21/2" × 0.113"); or 4-8d common (2 1/2" × 0.131"); or 4-10d box (3" × 0.128")	Toe nail
12	Top plate to top plate	16d common (3 1/2" × 0.162")	16" O.C. Face nail
		10d box (3" × 0.128"); or 3" × 0.131" nails	12" O.C. Face nail
13	Double top plate splice for SDCs A-D2 with seismic braced wall line spacing < 25'	8-16d common (3 1/2" × 0.162"); or 12-16d box (3 1/2" × 0.135"); or 12-10d box (3" × 0.128"); or 12-3" × 0.131" nails	Face nail on each side of end joint (minimum 24" lap splice length each side of end joint)
	Double top plate splice SDCs D0, D1, or D2; and braced wall line spacing ≥ 25'	16d common (3 1/2" × 0.162")	
14	Bottom plate to joist, rim joist, band joist or blocking (not at braced wall panels)	16d common (3 1/2" × 0.162")	16" O.C. Face nail
		16d box (3 1/2" × 0.135"); or 3" × 0.131" nails	12" O.C. Face nail
15	Bottom plate to joist, rim joist, band joist or blocking (at braced wall panel)	3-16d box (3 1/2" × 0.135"); or 2-16d common (3 1/2" × 0.162"); or 4-3" × 0.131" nails	3 each 16" o.c. face nail 2 each 16" o.c. face nail 4 each 16" o.c. face nail
16	Top or bottom plate to stud	4-8d box (2 1/2" × 0.113"); or 3-16d box (3 1/2" × 0.135"); or 4-8d common (2 1/2" × 0.131"); or 4-10d box (3" × 0.128"); or 4-3" × 0.131" nail	Toe nail
		3-16d box (3 1/2" × 0.135"); or 2-16d common (3 1/2" × 0.162"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails	End nail
17	Top plates, laps at corners and intersections	3-10d box (3" × 0.128"); or 2-16d common (3 1/2" × 0.162"); or 3-3" × 0.131" nails	Face nail
18	1" brace to each stud and plate	3-8d box (2 1/2" × 0.113"); or 2-8d common (2 1/2" × 0.131"); or 2-10d box (3" × 0.128"); or 2 staples 1 3/4"	Face nail
19	1" × 6" sheathing to each bearing	3-8d box (2 1/2" × 0.113"); or 2-8d common (2 1/2" × 0.131"); or 2-10d box (3" × 0.128"); or 2 staples, 1" crown, 16 ga., 1 3/4" long	Face nail
20	Top or bottom plate to stud	3-8d box (2 1/2" × 0.113"); or 3-8d common (2 1/2" × 0.131"); or 3-10d box (3" × 0.128"); or 3 staples, 1" crown, 16 ga., 1 3/4" long	Face nail
		Wider than 1" × 8" 4-8d box (2 1/2" × 0.113"); or 3-8d common (2 1/2" × 0.131"); or 3-10d box (3" × 0.128"); or 4 staples, 1" crown, 16 ga., 1 3/4" long	
Floor			
21	Rim joist, band joist or blocking to sill or top plate (roof applications also)	4-8d box (2 1/2" × 0.113"); or 3-8d common (2 1/2" × 0.131"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nail	Toe nail
22	Rim joist, band joist or blocking to sill or top plate (roof applications also)	8d box (2 1/2" × 0.113")	4" o.c. Toe nail
		8d common (2 1/2" × 0.131"); or 10d box (3" × 0.128"); or 3" × 0.131" nails	6" o.c. Toe nail
23	1" × 6" subfloor or less to each joist	3-8d box (2 1/2" × 0.113"); or 2-8d common (2 1/2" × 0.131"); or 3-10d box (3" × 0.128"); or 2 staples, 1" crown, 16 ga., 1 3/4" long	Face nail
24	2" subfloor to joist or girder	3-16d box (3 1/2" × 0.135"); or 2-16d common (3 1/2" × 0.162")	Blind and face nail
25	2" planks (plank & beam—floor & roof)	3-16d box (3 1/2" × 0.135"); or 2-16d common (3 1/2" × 0.162")	At Each Bearing, face nail
26	Band or rim joist to joist	3-16d common (3 1/2" × 0.162") 4-10 box (3" × 0.128"), or 4-3" × 0.131" nails; or 4-3" × 14 ga. staples, 7/16" crown	End nail
27	Built-up girders and beams, 2-inch lumber layers	20d common (4" × 0.192"); or	Nail each layer as follows: 32" o.c. at top and bottom and staggered.
		10d box (3" × 0.128"); or 3" × 0.131" nails	24" o.c. face nail at top and bottom staggered on opposite sides
		And: 2-20d common (4" × 0.192"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails	Face nail at ends and at each splice
28	Ledger strip supporting joists or rafters	4-16d box (3 1/2" × 0.135"); or 3-16d common (3 1/2" × 0.162"); or 4-10d box (3" × 0.128"); or 4-3" × 0.131" nails	At each joist or rafter, face nail
29	Bridging to joist	2-10d (3" × 0.128")	Each end, toe nail

APPROVAL REPORTS ICC-ES ESR AND LARR NUMBERS

MANUFACTURE PRODUCT ESR/LARR

SIMPSON CS	ESR 2105/LARR 25713
SIMPSON SET-XP	ESR 2508/LARR 25744 (SPECIAL INSPECTION REQUIRED)
SIMPSON A35, LTP4, LTPS	ESR 2523/LARR 25814, 25910, 25489
SIMPSON HDU HOLDOWN	ESR 2330/LARR 25720
SIMPSON HU HANGERS	ESR 2549/LARR 25807

ADDITIONAL NOTES:

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. (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 AND 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'S 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 2018 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 (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.

CIVIL AND STRUCTURAL
DESIGN - CONSULTANT

1938 KLECK RD
PASO ROBLES, CA 93446
818.238.7167
john@jhannaengineering.com
www.jhannaengineering.com

TWO DUPLEX UNITS
2808 S. MAPLE AVE, LOS ANGELES, CA 90011

PROJECT ADDRESS:

SHEET TITLE: GENERAL NOTES

NOT FOR CONSTRUCTION - PROGRESS PRINT

PROJECT NO:	
DATE:	01-25-2023
DRAWN BY:	JH
SHEET:	S002
SCALE:	AS NOTED

LEGENDS

- (E) WALL TO REMAIN
- (E) WALL ABOVE
- (N) 2 x WALL
- (N) 2 x WALL ABOVE
- ⊠ (N) POST
- ROOF RAFTERS
- FLOOR JOIST
- CEILING JOIST
- SLAB ON GRADE REBAR
- F.. PAD FOOTING I.D.

CONTRACTOR NOTE:
CONTRACTOR TO FIELD VERIFY EXISTING CONDITION AND DIMENSIONS AGAINST PLANS AND NOTIFY ENGINEER OF RECORD OF ANY DISCRIPANCY

FOUNDATION NOTES:

1. CONCRETE STRENGTH FOR FOUNDATIONS SHALL BE 2,500 PSI MIN., U.N.O. (CRC R402.2 TABLE R402.2).
2. MINIMUM FOOTING REINFORCEMENT SHALL BE ONE #4 BAR TOP AND BOTTOM (CRC R403.1.3).
3. MINIMUM ANCHOR BOLT SIZE AND SPACING SHALL BE ⅝" DIA. AB @ 72" OC., WITH 7" EMBEDMENT, AND 3"x3"x ¼" PLATE WASHER. ANCHOR BOLTS SHALL BE LOCATED A MAXIMUM OF 12" AND 4 ½" MINIMUM FROM THE END OF THE PLATE (CRC R403.1.6, R602.11.1).
4. FOR PENETRATIONS THROUGH THE FOOTINGS, REFER TO DETAIL 9/SD-1

FOOTING SCHEDULE

FOOTING I.D.	SIZE	REBAR
F1	4'-6"Wx4'-6"Wx 24"H	(5) #5 EACH WAY AT TOP & BOTTOM
F2	5'-6"Wx5'-6"Wx 24"H	(4) #5 EACH WAY AT TOP & BOTTOM

HOLDOWN SCHEDULE

	HOLDOWN I.D.	TYPE	CONNECTION TO POST	CONNECTION TO FTG.	END POST
2506 LBS	H1	SIMPSON HDU2	W/ 6 - SDS¼" x 2½"	SSTB24	4X4 OR 4x6
4254 LBS	H2	SIMPSON HDU5	W/ 14 - SDS¼" x 2½"	SSTB24	4X4 OR 4X6
6922 LBS	H3	SIMPSON HDQ8-SDS5	W/ 20 - SDS¼" x 3"	SSTB28	6X6

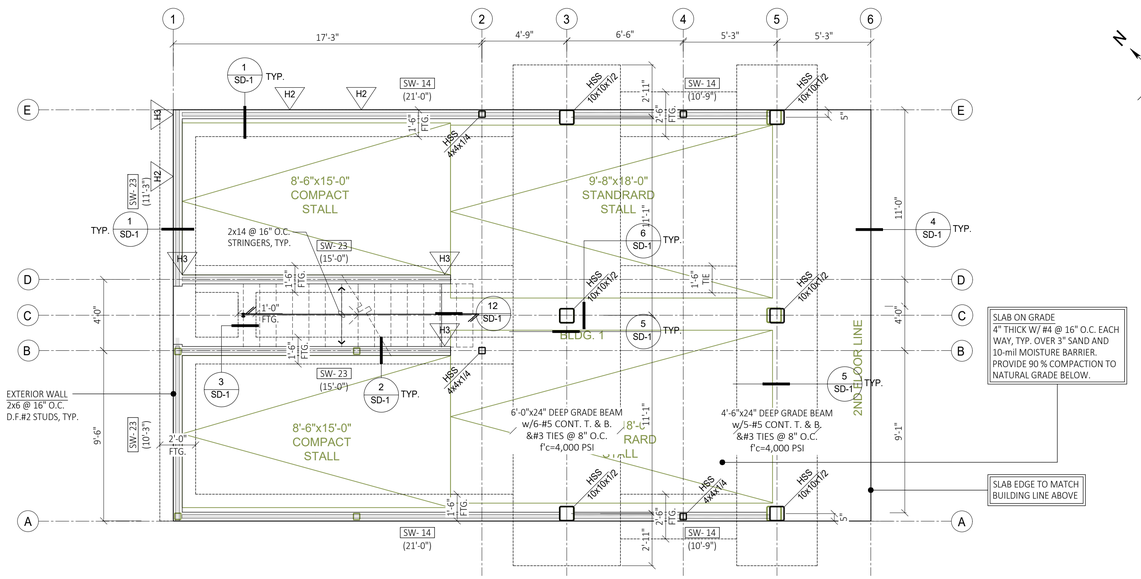
NO. OF SIDES OF PLYWOOD SHEATHING
SW-12
EDGE NAILING SPACING O.C.

SHEAR WALL SCHEDULE

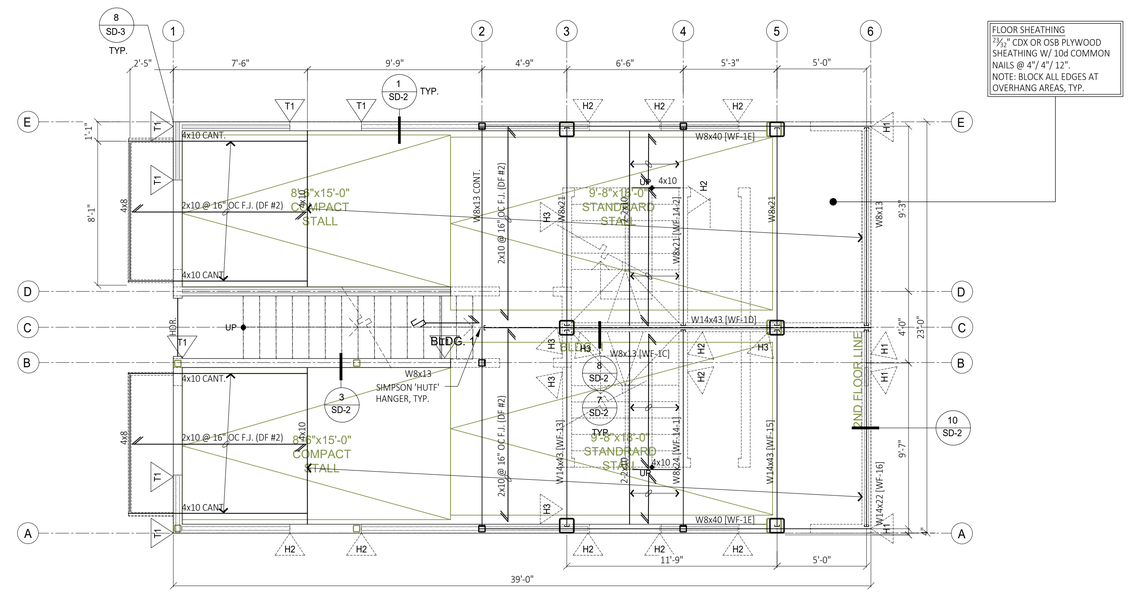
SHEAR WALL I.D.	PLYWOOD	NAILING	TOP CONNECTION	BOTTOM CONNECTION TO WOOD	BOTTOM CONNECTION TO CONCRETE
SW-16	15/32" THICK STRUCTURAL I	10d COMMON NAILS @ 6-12	SIMPSON A35 OR LTP4 @ 24" O.C.	16d NAIL @ 6" O.C.	2X SILL PLATE w/ 5/8" Ø A.B. @ 48" O.C. (MIN. 2-A.B. PER WALL) 8" MIN. EMBED.
SW-14	15/32" THICK STRUCTURAL I	10d COMMON NAILS @ 4-12	SIMPSON A35 OR LTP4 @ 16" O.C.	16d NAIL @ 4" O.C. OR ⅝"x6" LAGS @ 9"	2X SILL PLATE w/ 5/8" Ø A.B. @ 32" O.C. (MIN. 3-A.B. PER WALL) 8" MIN. EMBED.
SW-15	15/32" THICK STRUCTURAL I	10d COMMON NAILS @ 3-12	SIMPSON A35 OR LTP4 @ 16" O.C.	½"x6" LAGS @ 6" OR SIMPSON LTP4 @ 16" O.C.	3X SILL PLATE w/ 5/8" Ø A.B. @ 32" O.C. (MIN. 3-A.B. PER WALL) 8" MIN. EMBED.
SW-12	15/32" THICK STRUCTURAL I	10d COMMON NAILS @ 2-12	SIMPSON A35 OR LTP4 @ 12" O.C.	½"x6" LAGS @ 9" OR SIMPSON LTP4 @ 12" O.C.	3X SILL PLATE w/ 5/8" Ø A.B. @ 24" O.C. (MIN. 3-A.B. PER WALL) 8" MIN. EMBED.
SW-24	BOTH SIDES 15/32" THICK STRUCTURAL I	BOTH SIDES 10d COMMON NAILS @ 4-12	SIMPSON A35 OR LTP4 @ 8" O.C.	½"x6" LAGS @ 9" OR SIMPSON LTP4 @ 8" O.C.	5X SILL PLATE w/ 5/8" Ø A.B. @ 16" O.C. (MIN. 5-A.B. PER WALL) 8" MIN. EMBED.
SW-25	BOTH SIDES 15/32" THICK STRUCTURAL I	BOTH SIDES 10d COMMON NAILS @ 3-12	SIMPSON A35 OR LTP4 @ 6" O.C.	½"x6" LAGS @ 6" OR SIMPSON LTP4 @ 6" O.C.	5X SILL PLATE w/ 5/8" Ø A.B. @ 12" O.C. (MIN. 5-A.B. PER WALL) 8" MIN. EMBED.
SW-22	BOTH SIDES 15/32" THICK STRUCTURAL I	BOTH SIDES 10d COMMON NAILS @ 2-12	SIMPSON A35 OR LTP4 @ 6" O.C.	½"x6" LAGS @ 6" OR SIMPSON LTP4 @ 6" O.C.	5X SILL PLATE w/ 5/4" Ø A.B. @ 16" O.C. (MIN. 5-A.B. PER WALL) 8" MIN. EMBED.

SHEARWALL NOTES:

1. DOUGLAS-FIR (S.G. 0.49 MINIMUM). ALL PANEL EDGES FASTENED TO FRAMING
2. ALL PANEL EDGES BACKED WITH 2" NOMINAL OR WIDER FRAMING. PLYWOOD INSTALLED EITHER HORIZONTALLY OR VERTICALLY
3. ALL PLYWOOD SHEATHING SHALL BE 4 OR 5 PLY
4. NAIL SPACING ALONG INTERMEDIATE SUPPORTS 12" O.C.
5. WHERE PLYWOOD IS APPLIED ON BOTH FACES OF A WALL AND NAIL SPACING IS LESS THAN 6" O.C. ON EITHER SIDE, PANEL JOINTS SHALL BE OFFSET TO FALL ON DIFFERENT FRAMING MEMBERS OR FRAMING SHALL BE 3" NOMINAL OR THICKER AND NAILS ON EACH SIDE SHALL BE STAGGERED
6. FRAMING AT ADJOINING PANEL EDGES SHALL BE 3" NOMINAL OR WIDER. NAILS SHALL BE STAGGERED IN TWO LINES ALONG PANEL EDGES WHEN NAIL SPACING IS 2" O.C. OR WHEN 10d COMMON NAIL ARE SPACED 3" O.C. PENETRATE FRAMING MORE THAN 1-5/8".
7. USE SIMPSON STRAP AT TOP PLATE SPLICES PER DETAIL SHEET
8. NAILS SHALL BE PLACED AT LEAST ⅜" FROM PANEL EDGES AND AT LEAST ¼" FROM THE EDGE OF THE CONNECTING MEMBER FOR SHEARWALLS
9. ALL SHEAR WALL SHEATHING NAILS SHALL UTILIZE COMMON NAILS OR GALVANIZED BOX
10. FASTENERS FOR PRESERVATIVE-TREATED AND FIRE-RETARDANT- TREATED WOOD SHOULD BE OF HOT-DIPPED ZINC COATED GALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZE, OR COPPER. THE COATING WEIGHTS FOR ZINC-COATED FASTENERS SHALL BE IN ACCORDANCE WITH ASTM A153. FASTENINGS FOR WOOD FOUNDATIONS SHOULD BE AS REQUIRED IN AF&PA TECHNICAL REPORT NO.7
11. ANCHOR BOLTS EMBEDDED INTO CONCRETE SHALL HAVE 3"X 3"X 0.229" PLATE WASHER
12. HOLD-DOWN CONNECTOR BOLTS INTO WOOD FRAMING REQUIRE PLATE WASHER ON THE POST AT OPPOSITE SIDE OF THE ANCHORAGE DEVICE, PLATE WASHER SHALL BE 3"X3"X0.229"
13. HOLD-DOWNS SHALL BE TIGHTENED TO FINGER TIGHT PLUS ONE-HALF WRENCH TURN JUST PRIOR TO COVERING THE WALL FRAMING
14. HOLD-DOWN HARDWARE MUST BE SECURED IN PLACE PRIOR TO FOUNDATION INSPECTION
15. ALL BOLT HOLES SHALL BE DRILLED 1/32" TO 1/16" OVERSIZED
16. THE HOLE IN THE PLATE WASHER IS PERMITTED TO BE DIAGONALLY SLOTTED WITH A WIDTH OF UP TO 3/16" LARGER THAN THE BOLT DIAMETER AND A SLOT LENGTH NOT TO EXCEED 1 ¾" PROVIDED A STANDARD CUT WASHER IS PLACED BETWEEN THE PLATE WASHER AND THE NUT



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



1st FLOOR FRAMING PLAN - BLDG 1
SCALE: 1/4" = 1'-0"

CIVIL AND STRUCTURAL DESIGN - CONSULTANT
1938 KLECK RD
PASO ROBLES, CA 93446
818.238.7167
john@jhannaengineering.com
www.jhannaengineering.com

TWO DUPLEX UNITS
2808 S. MAPLE AVE, LOS ANGELES, CA 90011

PROJECT ADDRESS:

SHEET TITLE: FOUNDATION AND FIRST FLOOR PLANS

NOT FOR CONSTRUCTION - PROGRESS PRINT

PROJECT NO:
DATE: 01-25-2023
DRAWN BY: JH
SHEET: S101
SCALE: AS NOTED

EGENDS

(E) WALL TO REMAIN

(E) WALL ABOVE

(N) 2 x WALL

(N) 2 x WALL ABOVE

(N) POST

ROOF RAFTERS

FLOOR JOIST

CEILING JOIST

SLAB ON GRADE REBAR

F.. PAD FOOTING I.D.

CONTRACTOR NOTE:
CONTRACTOR TO FIELD VERIFY EXISTING CONDITION AND DIMENSIONS AGAINST PLANS AND NOTIFY ENGINEER OF RECORD OF ANY DISCRIPANCY

FOUNDATION NOTES:

1. CONCRETE STRENGTH FOR FOUNDATIONS SHALL BE 2,500 PSI MIN., U.N.O. (CRC R402.2 TABLE R402.2).
2. MINIMUM FOOTING REINFORCEMENT SHALL BE ONE #4 BAR TOP AND BOTTOM (CRC R403.1.3).
3. MINIMUM ANCHOR BOLT SIZE AND SPACING SHALL BE ⅝" DIA. AB @ 72" OC., WITH 7" EMBEDMENT, AND 3"x3"x ¼" PLATE WASHER. ANCHOR BOLTS SHALL BE LOCATED A MAXIMUM OF 12" AND 4 ½" MINIMUM FROM THE END OF THE PLATE (CRC R403.1.6, R602.11.1).
4. FOR PENETRATIONS THROUGH THE FOOTINGS, REFER TO DETAIL 9/SD-1

HOLDOWN SCHEDULE

	HOLDOWN I.D.	TYPE	CONNECTION TO POST	CONNECTION TO FTG.	END POST
2506 LBS	H1	SIMPSON HDU2	W/ 6 - SDS¼" x 2½"	SSTB24	4x6
4254 LBS	H2	SIMPSON HDU5	W/ 14 - SDS¼" x 2½"	SSTB24	4X6
6922 LBS	H3	SIMPSON HDQ8-SDS5	W/ 20 - SDS¼" x 3"	SSTB28	6X6

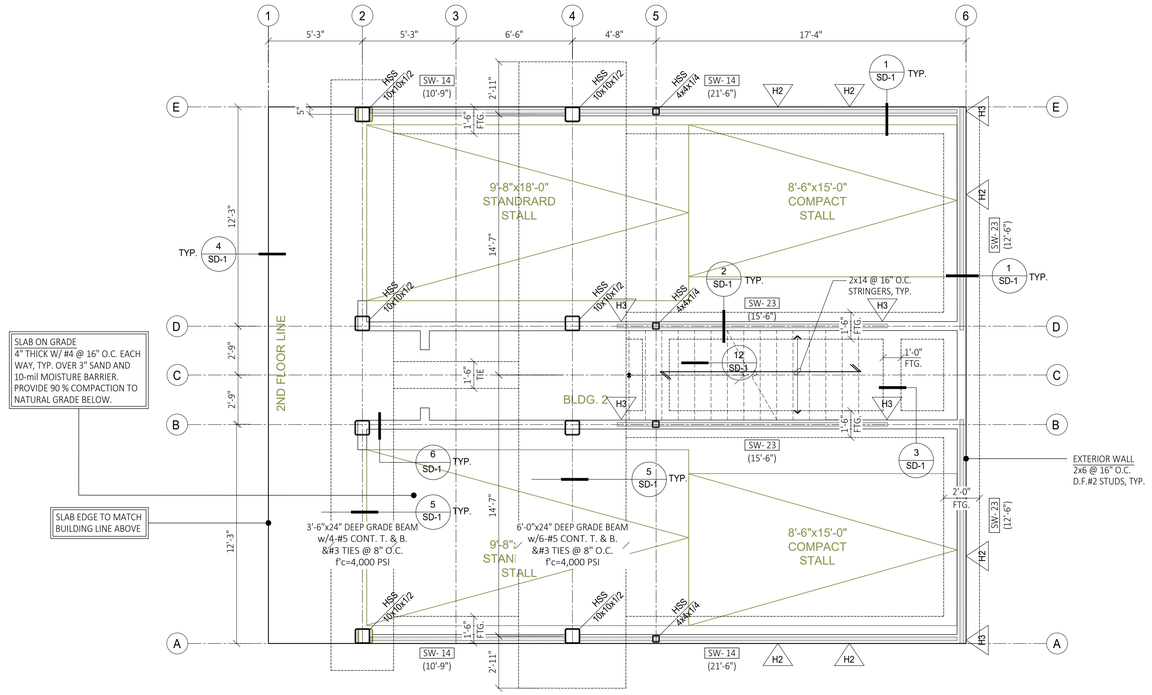
NO. OF SIDES OF PLYWOOD SHEATHING
SW-2
EDGE NAILING SPACING O.C.

SHEAR WALL SCHEDULE

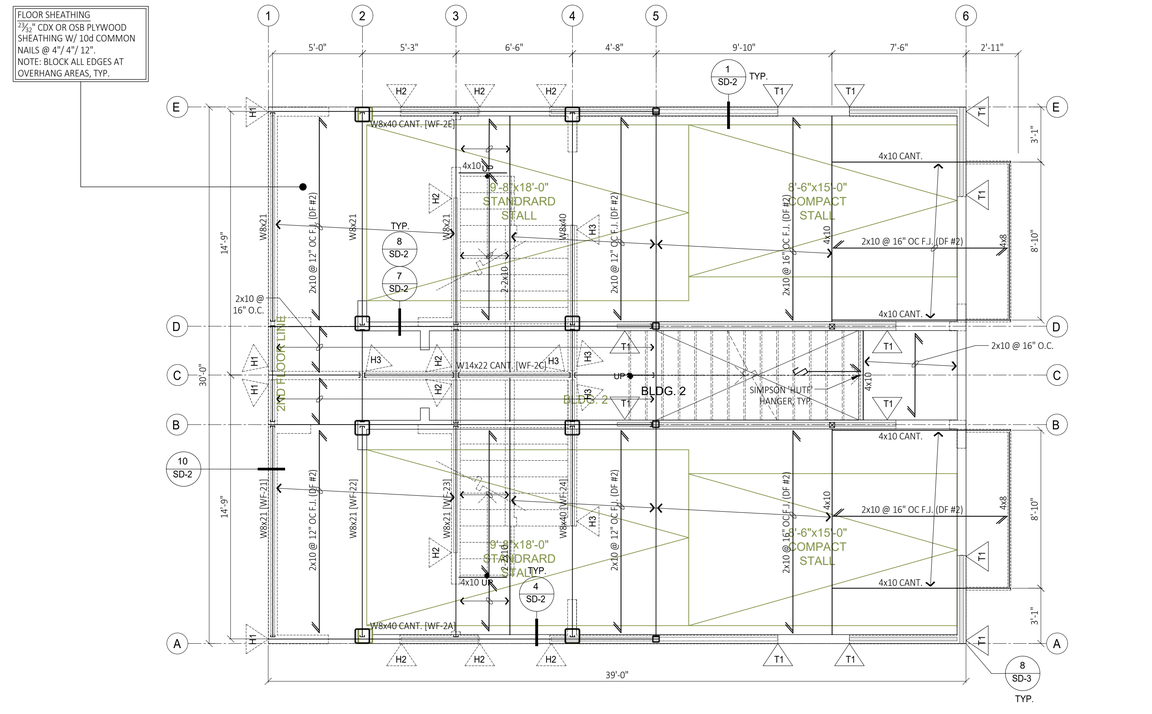
SHEAR WALL I.D.	PLYWOOD	NAILING	TOP CONNECTION	BOTTOM CONNECTION TO WOOD	BOTTOM CONNECTION TO CONCRETE
SW-16	15/32" THICK STRUCTURAL I	10d COMMON NAILS @ 6-12	SIMPSON A35 OR LTP4 @ 24" O.C.	16d NAIL @ 6" O.C.	2X SILL PLATE w/ ⅝"Ø B". @ 48" O.C. (MIN. 2-A.B. PER WALL) 8" MIN. EMBED.
SW-14	15/32" THICK STRUCTURAL I	10d COMMON NAILS @ 4-12	SIMPSON A35 OR LTP4 @ 16" O.C.	16d NAIL @ 4" O.C. OR ⅝"ø LAGS @ 9"	2X SILL PLATE w/ ⅝"Ø B". @ 32" O.C. (MIN. 2-A.B. PER WALL) 8" MIN. EMBED.
SW-15	15/32" THICK STRUCTURAL I	10d COMMON NAILS @ 3-12	SIMPSON A35 OR LTP4 @ 16" O.C.	⅝"ø LAGS @ 6" OR SIMPSON LTP4 @ 16" O.C.	3X SILL PLATE w/ ⅝"Ø B". @ 32" O.C. (MIN. 3-A.B. PER WALL) 8" MIN. EMBED.
SW-12	15/32" THICK STRUCTURAL I	10d COMMON NAILS @ 2-12	SIMPSON A35 OR LTP4 @ 12" O.C.	⅝"ø LAGS @ 9" OR SIMPSON LTP4 @ 12" O.C.	3X SILL PLATE w/ ⅝"Ø B". @ 24" O.C. (MIN. 3-A.B. PER WALL) 8" MIN. EMBED.
SW-24	BOTH SIDES 15/32" THICK STRUCTURAL I	BOTH SIDES 10d COMMON NAILS @ 4-12	SIMPSON A35 OR LTP4 @ 8" O.C.	⅝"ø LAGS @ 9" OR SIMPSON LTP4 @ 8" O.C.	3X SILL PLATE w/ ⅝"Ø B". @ 16" O.C. (MIN. 3-A.B. PER WALL) 8" MIN. EMBED.
SW-25	BOTH SIDES 15/32" THICK STRUCTURAL I	BOTH SIDES 10d COMMON NAILS @ 3-12	SIMPSON A35 OR LTP4 @ 6" O.C.	⅝"ø LAGS @ 6" OR SIMPSON LTP4 @ 6" O.C.	3X SILL PLATE w/ ⅝"Ø B". @ 12" O.C. (MIN. 3-A.B. PER WALL) 8" MIN. EMBED.
SW-22	BOTH SIDES 15/32" THICK STRUCTURAL I	BOTH SIDES 10d COMMON NAILS @ 2-12	SIMPSON A35 OR LTP4 @ 6" O.C.	⅝"ø LAGS @ 6" OR SIMPSON LTP4 @ 6" O.C.	3X SILL PLATE w/ 3/4" Ø A.B. @ 16" O.C. (MIN. 3-A.B. PER WALL) 8" MIN. EMBED.

SHEARWALL NOTES:

1. DOUGLAS-FIR (S.G. 0.49 MINIMUM). ALL PANEL EDGES FASTENED TO FRAMING
2. ALL PANEL EDGES BACKED WITH 2" NOMINAL OR WIDER FRAMING. PLYWOOD INSTALLED EITHER HORIZONTALLY OR VERTICALLY
3. ALL PLYWOOD SHEATHING SHALL BE 4 OR 5 PLY
4. NAIL SPACING ALONG INTERMEDIATE SUPPORTS 12" O.C.
5. WHERE PLYWOOD IS APPLIED ON BOTH FACES OF A WALL AND NAIL SPACING IS LESS THAN 6" O.C. ON EITHER SIDE, PANEL JOINTS SHALL BE OFFSET TO FALL ON DIFFERENT FRAMING MEMBERS OR FRAMING SHALL BE 3" NOMINAL OR THICKER AND NAILS ON EACH SIDE SHALL BE STAGGERED
6. FRAMING AT ADJOINING PANEL EDGES SHALL BE 3" NOMINAL OR WIDER. NAILS SHALL BE STAGGERED IN TWO LINES ALONG PANEL EDGES WHEN NAIL SPACING IS 2" O.C. OR WHEN 10d COMMON NAIL ARE SPACED 3" O.C. PENETRATE FRAMING MORE THAN 1-5/8".
7. USE SIMPSON STRAP AT TOP PLATE SPLICES PER DETAIL SHEET
8. NAILS SHALL BE PLACED AT LEAST ⅜" FROM PANEL EDGES AND AT LEAST ¼" FROM THE EDGE OF THE CONNECTING MEMBER FOR SHEARWALLS
9. ALL SHEAR WALL SHEATHING NAILS SHALL UTILIZE COMMON NAILS OR GALVANIZED BOX
10. FASTENERS FOR PRESERVATIVE-TREATED AND FIRE-RETARDANT- TREATED WOOD SHOULD BE OF HOT-DIPPED ZINC COATED GALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZE, OR COPPER. THE COATING WEIGHTS FOR ZINC-COATED FASTENERS SHALL BE IN ACCORDANCE WITH ASTM A153. FASTENINGS FOR WOOD FOUNDATIONS SHOULD BE AS REQUIRED IN AF&PA TECHNICAL REPORT NO.7
11. ANCHOR BOLTS EMBEDDED INTO CONCRETE SHALL HAVE 3"X 3"X 0.229" PLATE WASHER
12. HOLD-DOWN CONNECTOR BOLTS INTO WOOD FRAMING REQUIRE PLATE WASHER ON THE POST AT OPPOSITE SIDE OF THE ANCHORAGE DEVICE, PLATE WASHER SHALL BE 3"X3"X0.229"
13. HOLD-DOWNS SHALL BE TIGHTENED TO FINGER TIGHT PLUS ONE-HALF WRENCH TURN JUST PRIOR TO COVERING THE WALL FRAMING
14. HOLD-DOWN HARDWARE MUST BE SECURED IN PLACE PRIOR TO FOUNDATION INSPECTION
15. ALL BOLT HOLES SHALL BE DRILLED 1/32" TO 1/16" OVERSIZED
16. THE HOLE IN THE PLATE WASHER IS PERMITTED TO BE DIAGONALLY SLOTTED WITH A WIDTH OF UP TO 3/16" LARGER THAN THE BOLT DIAMETER AND A SLOT LENGTH NOT TO EXCEED 1 ¾" PROVIDED A STANDARD CUT WASHER IS PLACED BETWEEN THE PLATE WASHER AND THE NUT



FOUNDATION PLAN - BLDG 2
SCALE: 1/4" = 1'-0"



1st FLOOR FRAMING PLAN - BLDG 2
SCALE: 1/4" = 1'-0"

CIVIL AND STRUCTURAL DESIGN - CONSULTANT
1938 KLECK RD
PASO ROBLES, CA 93446
818.238.7167
john@jhannaengineering.com
www.jhannaengineering.com

TWO DUPLEX UNITS
2808 S. MAPLE AVE, LOS ANGELES, CA 90011

PROJECT ADDRESS:

SHEET TITLE: FLOOR AND ROOF FRAMING PLANS

NOT FOR CONSTRUCTION - PROGRESS PRINT

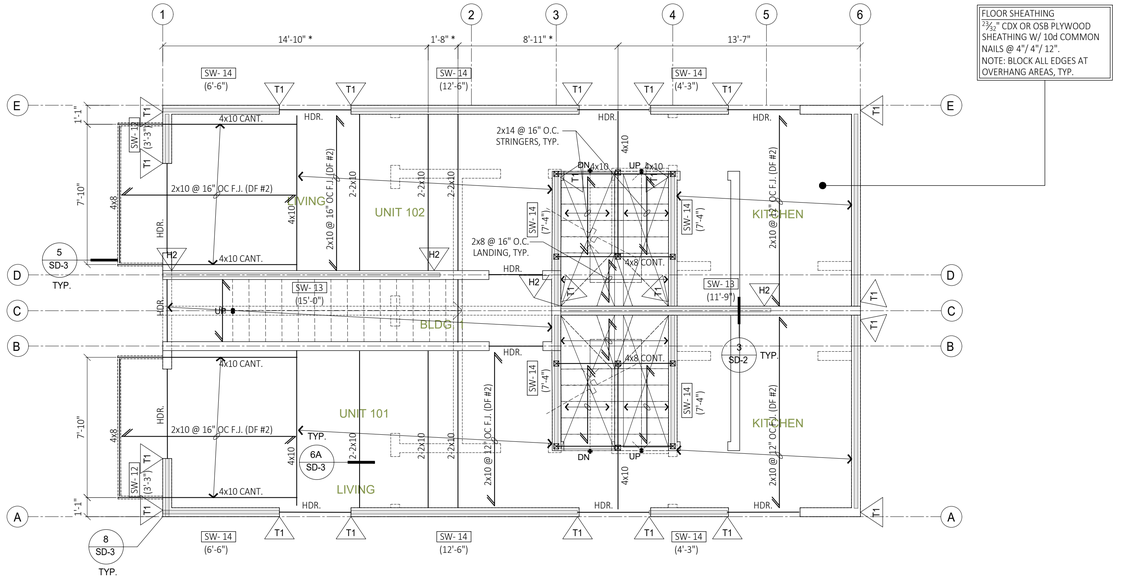
PROJECT NO:
DATE: 01-25-2023
DRAWN BY: JH
SHEET: S102
SCALE: AS NOTED

HOLDOWN SCHEDULE					
	HOLDOWN I.D.	TYPE	CONNECTION TO POST	CONNECTION TO FTG.	END POST
2506 LBS	H1	SIMPSON HDU2	W/ 6 - SDS¼" x 2½"	SSTB24	4X4 OR 4x6
4254 LBS	H2	SIMPSON HDU5	W/ 14 - SDS¼" x 2½"	SSTB24	4X4 OR 4X6
6922 LBS	H3	SIMPSON HDQ8-SDS5	W/ 20 - SDS¼" x 3"	SSTB28	6X6

DESIGN VALUES PER ESR-2330 LABC AND LARC SUPPLEMENT

TIE STRAP SCHEDULE				
	HOLDOWN I.D.	TYPE	CONNECTION TO POST	END POST
3640 LBS	T1	CMSTA	18 - 10d NAILS EA. END	4x6

HEADER SCHEDULE	
SPAN	SIZE
UP TO 4'	6x6
4'-8'	6x8
8'-12'	6x10

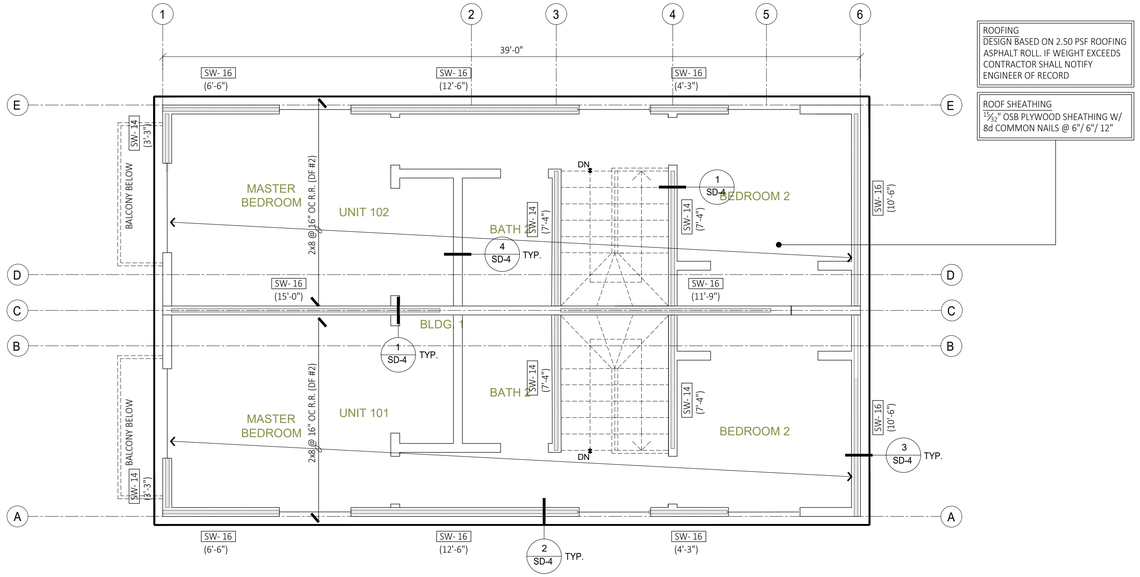


2nd FLOOR FRAMING PLAN - BLDG 1

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

DIAPHRAGM NOTES:

1. 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)
2. ALL DIAPHRAGM AND SHEAR WALL NAILING SHALL UTILIZE COMMON NAILS OR GALVANIZED BOX



ROOF FRAMING PLAN - BLDG 1

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

NOT FOR CONSTRUCTION - PROGRESS PRINT

CIVIL AND STRUCTURAL
DESIGN - CONSULTANT

1938 KLECK RD
PASO ROBLES, CA 93446
818.238.7167
john@jhannaengineering.com
www.jhannaengineering.com

TWO DUPLEX UNITS
2808 S. MAPLE AVE, LOS ANGELES, CA 90011

PROJECT ADDRESS:

SHEET TITLE:
FLOOR AND ROOF FRAMING PLANS

PROJECT NO:	
DATE:	01-25-2023
DRAWN BY:	JH
SHEET:	S201
SCALE:	AS NOTED

HOLDOWN SCHEDULE					
	HOLDOWN I.D.	TYPE	CONNECTION TO POST	CONNECTION TO FTG.	END POST
2506 LBS	H1	SIMPSON HDU2	W/ 6 - SDS¼" x 2½"	SSTB24	4X4 OR 4x6
4254 LBS	H2	SIMPSON HDU5	W/ 14 - SDS¼" x 2½"	SSTB24	4X4 OR 4X6
6922 LBS	H5	SIMPSON HDQ8-SDS5	W/ 20 - SDS¼" x 3"	SSTB28	6X6

DESIGN VALUES PER ESR-2330 LABC AND LARC SUPPLEMENT

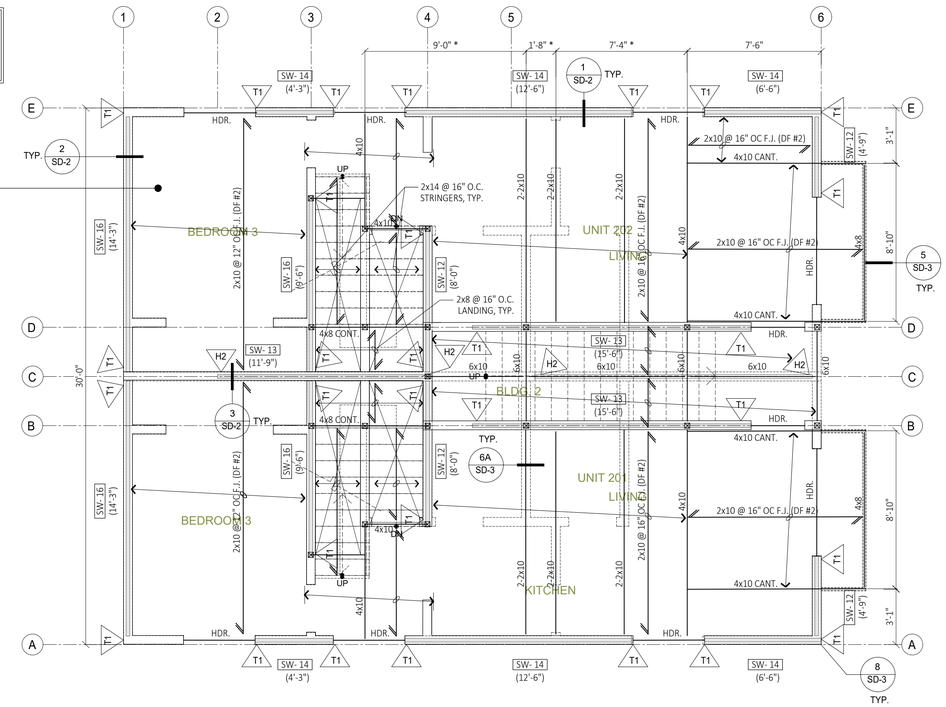
TIE STRAP SCHEDULE				
	HOLDOWN I.D.	TYPE	CONNECTION TO POST	END POST
3640 LBS	T1	CMST14	18 - 10d NAILS EA. END	4x6

DIAPHRAGM NOTES:

1. 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)
2. ALL DIAPHRAGM AND SHEAR WALL NAILING SHALL UTILIZE COMMON NAILS OR GALVANIZED BOX

FLOOR SHEATHING
23/32" CDX OR OSB PLYWOOD SHEATHING W/ 10d COMMON NAILS @ 4"/ 4"/ 12".
NOTE: BLOCK ALL EDGES AT OVERHANG AREAS, TYP.

HEADER SCHEDULE	
SPAN	SIZE
UP TO 4'	6x6
4'-8'	6x8
8'-12'	6x10

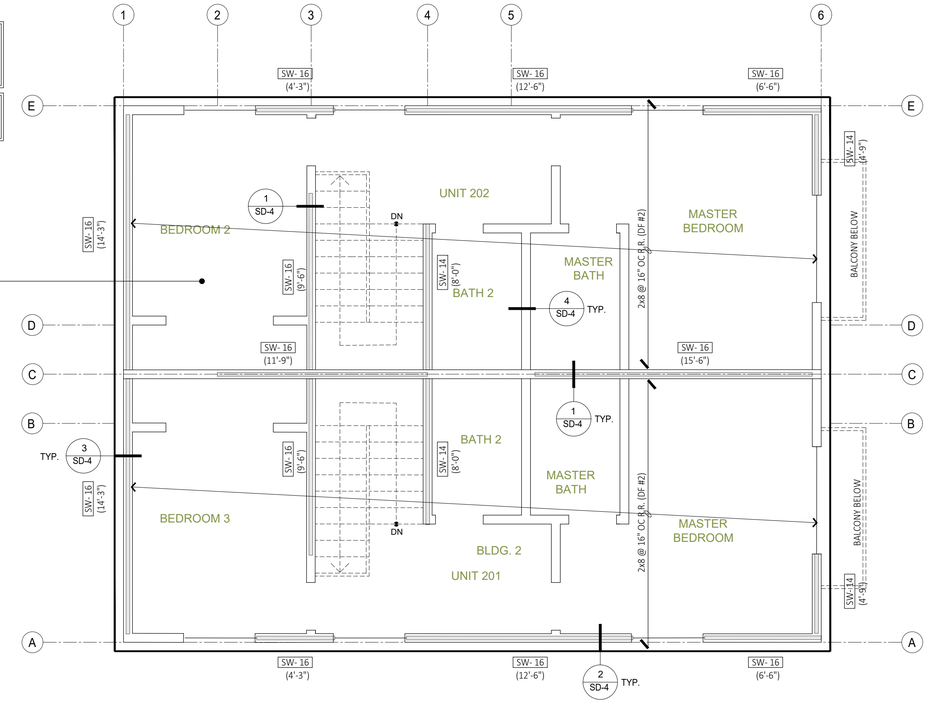


2nd FLOOR FRAMING PLAN - BLDG 2

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

ROOFING
DESIGN BASED ON 2.50 PSF ROOFING ASPHALT ROLL. IF WEIGHT EXCEEDS CONTRACTOR SHALL NOTIFY ENGINEER OF RECORD

ROOF SHEATHING
15/32" OSB PLYWOOD SHEATHING W/ 8d COMMON NAILS @ 6"/ 6"/ 12"



ROOF FRAMING PLAN - BLDG 2

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

CIVIL AND STRUCTURAL DESIGN - CONSULTANT

1938 KLECK RD
PASO ROBLES, CA 93446
818.238.7167
john@jhannaengineering.com
www.jhannaengineering.com

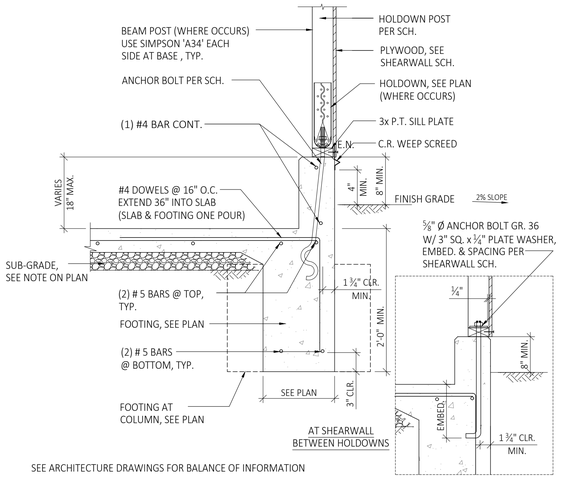
TWO DUPLEX UNITS
2808 S. MAPLE AVE, LOS ANGELES, CA 90011

PROJECT ADDRESS:

SHEET TITLE:
FLOOR AND ROOF FRAMING PLANS

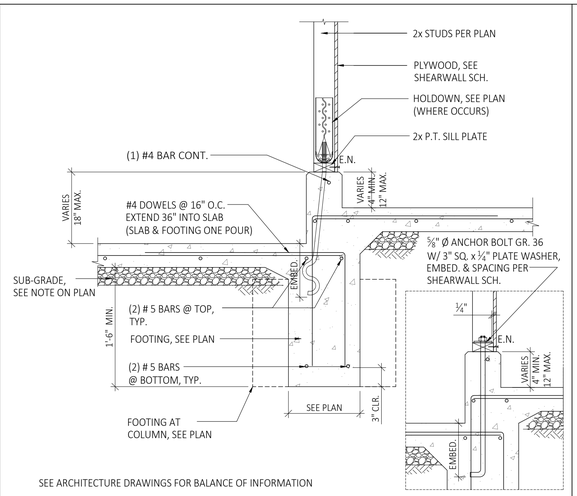
NOT FOR CONSTRUCTION - PROGRESS PRINT

PROJECT NO:
DATE: 01-25-2023
DRAWN BY: JH
SHEET:
S202
SCALE: AS NOTED



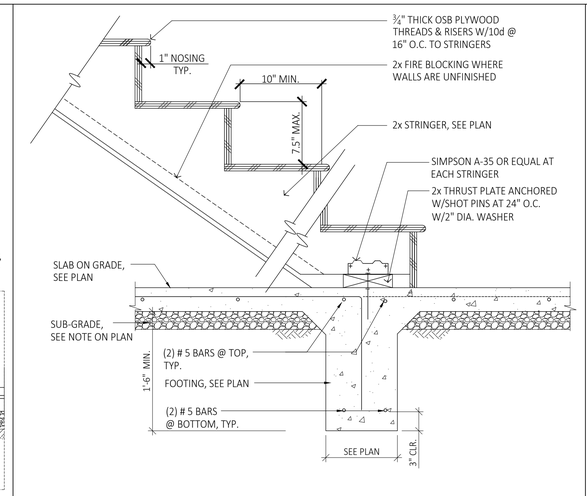
SEE ARCHITECTURE DRAWINGS FOR BALANCE OF INFORMATION

1 EXTERIOR FOOTING AT SHEARWALLS

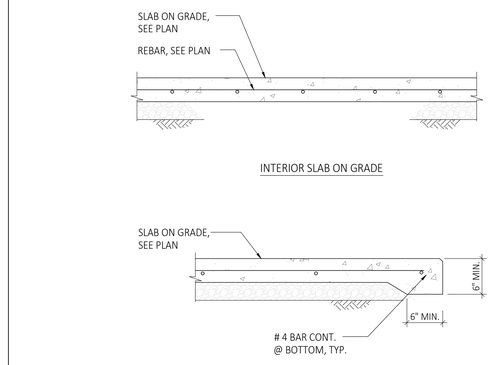


SEE ARCHITECTURE DRAWINGS FOR BALANCE OF INFORMATION

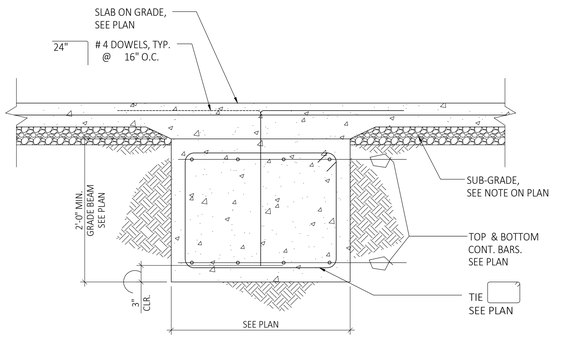
2 INTERIOR FOOTING



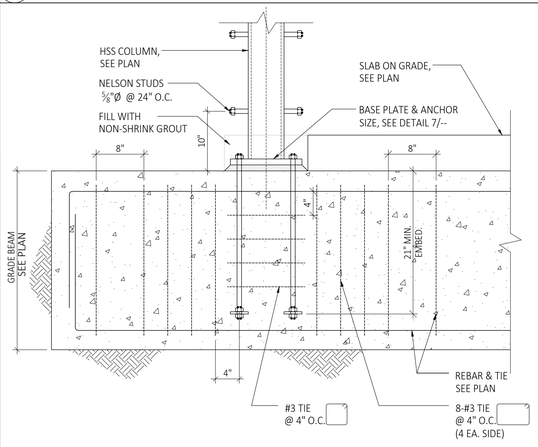
3 STAIR DETAIL



4 SLAB ON GRADE

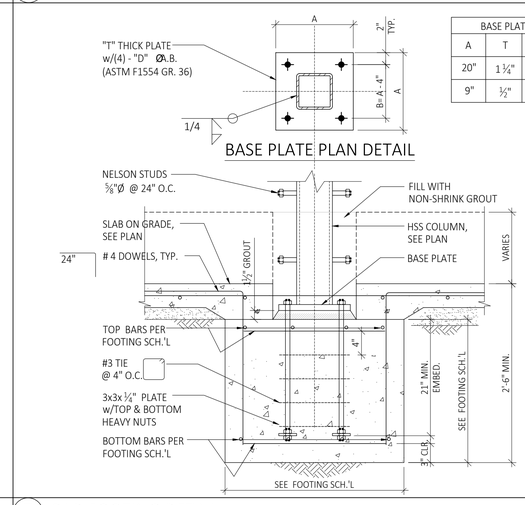


5 GRADE BEAM SECTION



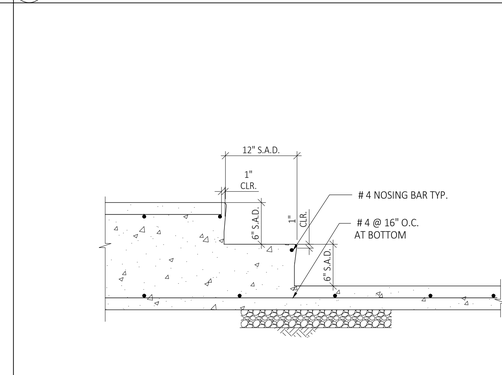
SEE DETAIL 7/-- FOR BALANCE OF INFORMATION

6 STEEL COLUMN TO GRADE BEAM



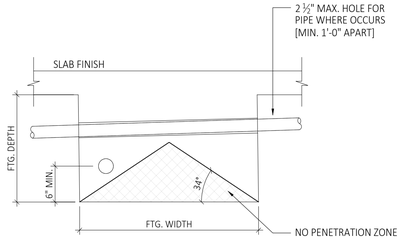
BASE PLATE		
A	T	D
20"	1¼"	1¼"
9"	½"	⅝"

7 PAD FOOTING DETAIL



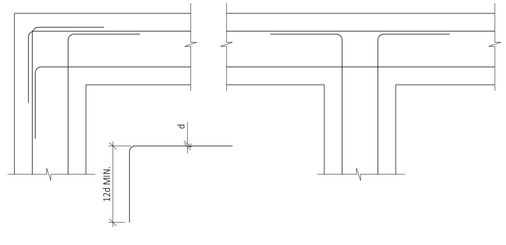
S.A.D. = SEE ARCHITECTURAL DRAWINGS

8 CONCRETE STAIR DETAIL



NOTE: PIPES TO BE LOCATED ABOVE 1.5H TO 1V LINES DRAWN FROM LOWER CORNER OF FOOTING AND FORMING A PRISM TO THE INSIDE.

9 PENETRATIONS THROUGH FOOTING

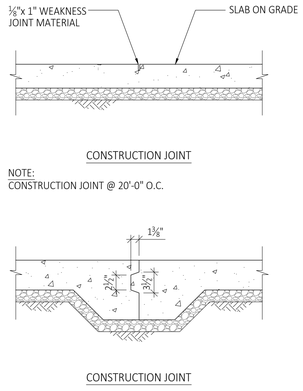


TYPICAL REBAR INTERSECTION AT FOOTINGS

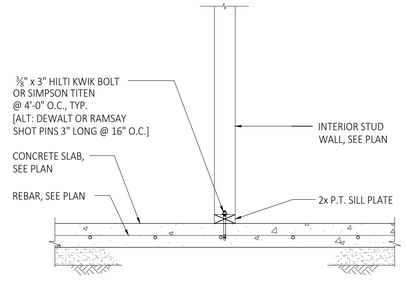
TYPICAL REBAR SPLICE

REBAR LAP	
SIZE	LAP (IN)
#4,#5	32
#6	37
#7	54
#8	62

10 TYPICAL REBAR BENDING



11 TYPICAL SLAB ON GRADE C.J. DETAIL



12 INTERIOR NON-BEARING WALL TO SLAB

CIVIL AND STRUCTURAL
DESIGN - CONSULTANT

1938 KLECK RD
PASO ROBLES, CA 93446
818.238.7167
john@jhannaengineering.com
www.jhannaengineering.com

TWO DUPLEX UNITS
2808 S. MAPLE AVE, LOS ANGELES, CA 90011

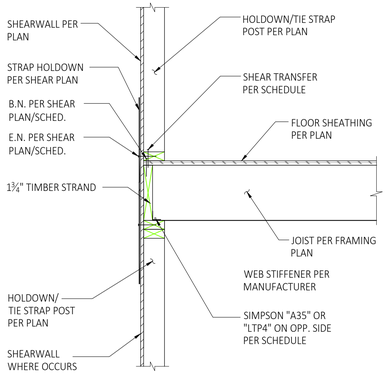
DETAILS

PROJECT ADDRESS:

SHEET TITLE:

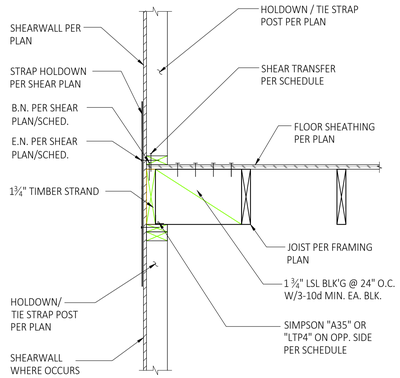
NOT FOR CONSTRUCTION - PROGRESS PRINT

PROJECT NO:
DATE: 01-25-2023
DRAWN BY: JH
SHEET:
SD-1
SCALE: AS NOTED



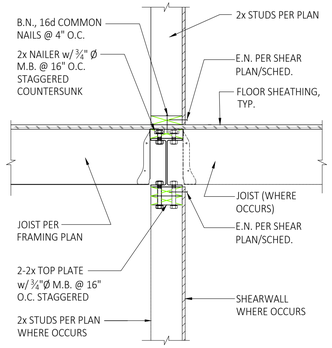
SEE DETAIL 8/SD-3 FOR TIE STRAP NAILING PATTERN

1 EXTERIOR SHEARWALL AT PERPENDICULAR FLOOR JOIST

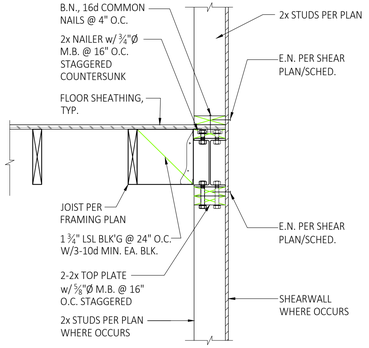


SEE DETAIL 8/SD-3 FOR TIE STRAP NAILING PATTERN

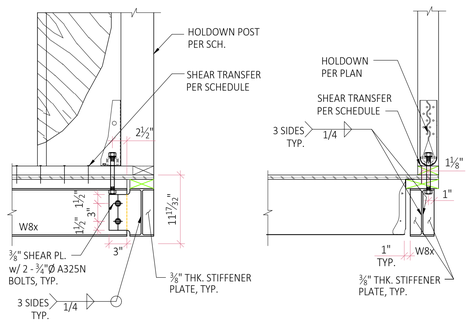
2 EXTERIOR SHEARWALL - PARRALLE FLOOR JOIST



3 INTERIOR SHEARWALL AT PERPENDICULAR FLOOR JOIST



4 EXTERIOR SHEARWALL AT PERPENDICULAR FLOOR JOIST

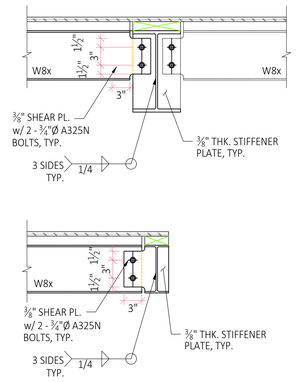


SHEARWALL HOLDOWN AT CORNER

SHEARWALL HOLDOWN TO STEEL BEAM

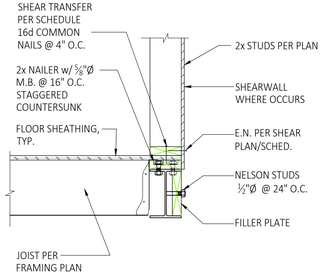
NOTES:
- NOT ALL FLOOR JOIST ARE SHOWN FOR CLARITY
- SEE DETAIL 3 & 4 FOR BALANCE OF INFORMATION

7 HOLDOWN TO STEEL BEAM

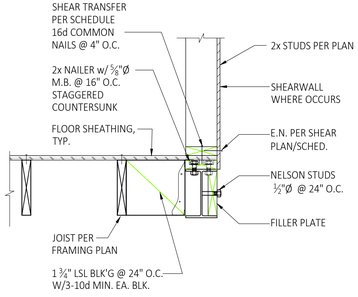


SEE DETAIL 3 FOR BALANCE OF INFORMATION

8 STEEL BEAMS CONECTION DETAIL

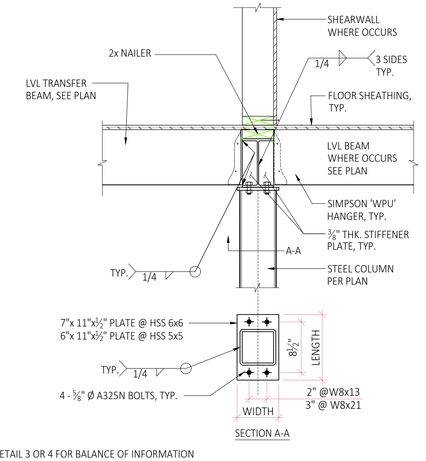


9 EXTERIOR SHEARWALL - PERPENDICULAR FLOOR JOIST



SEE DETAIL 10N FOR LVL TRANSFER BEAM CONNECTION TO STEEL COLUMN

10 EXTERIOR SHEARWALL - PARRALLE FLOOR JOIST



SEE DETAIL 3 OR 4 FOR BALANCE OF INFORMATION

12 NEW STEEL BEAM TO COLUMN

NOT FOR CONSTRUCTION - PROGRESS PRINT

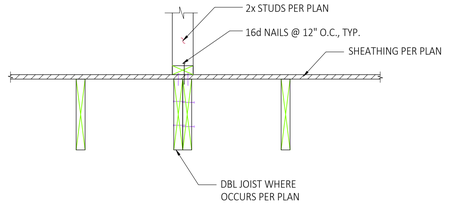
CIVIL AND STRUCTURAL DESIGN - CONSULTANT
1938 KLECK RD
PASO ROBLES, CA 93446
818.238.7167
john@jhannaengineering.com
www.jhannaengineering.com

TWO DUPLEX UNITS
2808 S. MAPLE AVE, LOS ANGELES, CA 90011

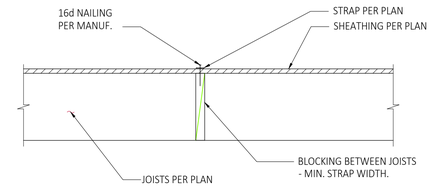
PROJECT ADDRESS:

SHEET TITLE: DETAILS

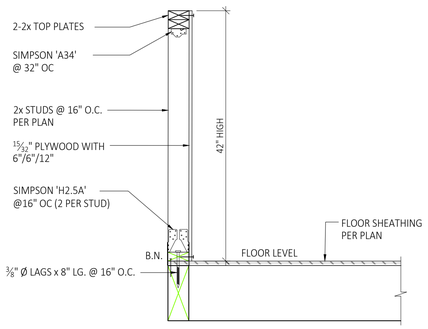
PROJECT NO:	
DATE:	01-25-2023
DRAWN BY:	JH
SHEET:	SD-2
SCALE:	AS NOTED



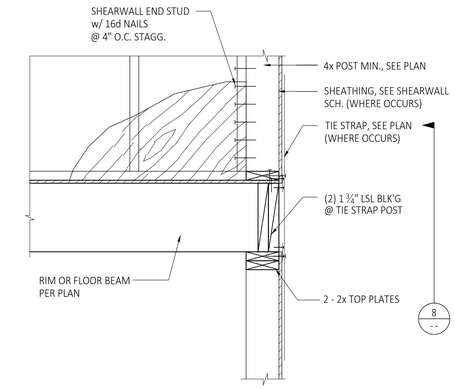
6A TYPICAL DOUBLE JOISTS DETAIL



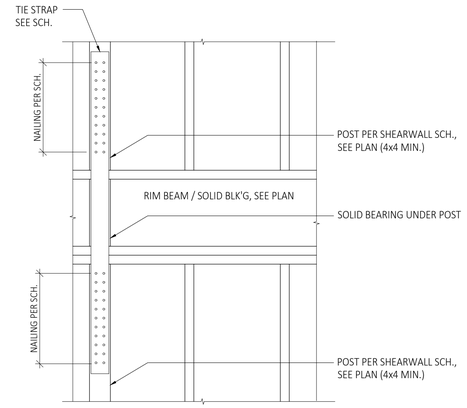
6 FLOOR DRAG TIE DETAIL



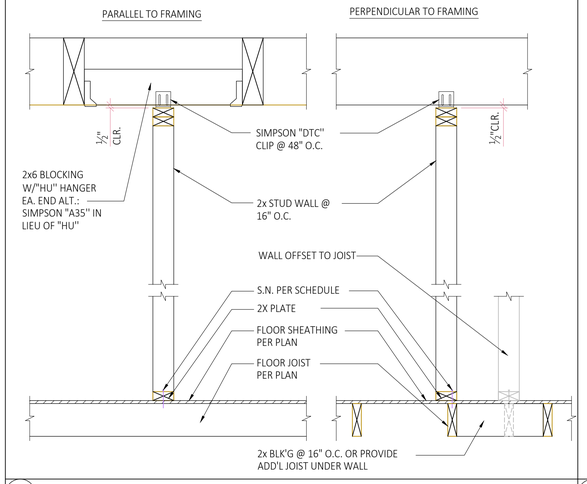
5 BALCONY/STAIR GUARDRAIL DETAIL



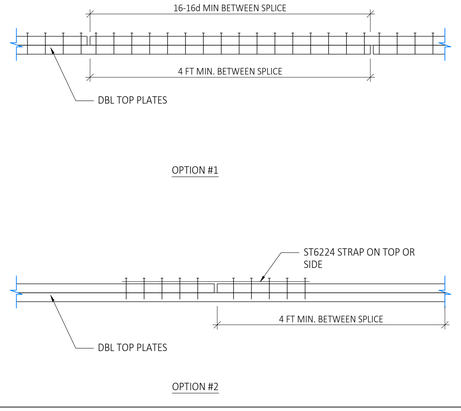
7 BEAM SUPPORTING SHEARWALL



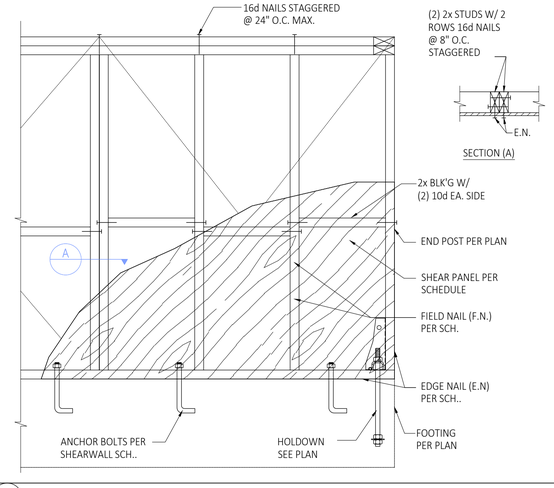
8 TIE STRAP TYPICAL DETAIL



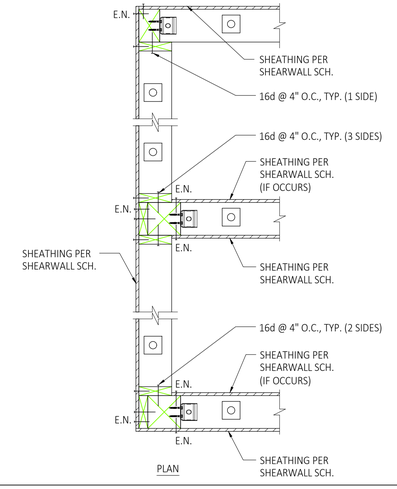
9 NON LOAD BEARING WALL TOP & BOTTOM CONN.



10 TYPICAL SPLICE DETAIL AT TOP PLATE



11 SHEARWALL TYPICAL DETAIL



12 TYPICAL STUD WALL INTERSECTION

CIVIL AND STRUCTURAL
DESIGN - CONSULTANT

1938 KLECK RD
PASO ROBLES, CA 93446
818.238.7167
john@jhannaengineering.com
www.jhannaengineering.com

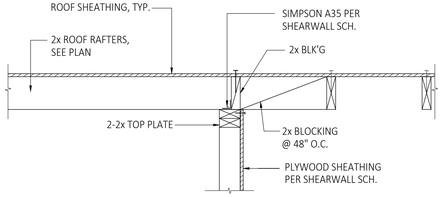
TWO DUPLEX UNITS
2808 S. MAPLE AVE, LOS ANGELES, CA 90011

PROJECT ADDRESS:

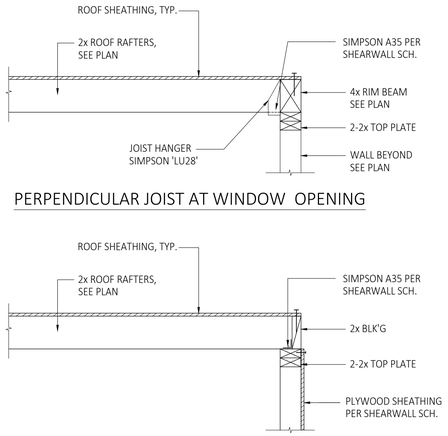
SHEET TITLE: DETAILS

NOT FOR CONSTRUCTION - PROGRESS PRINT

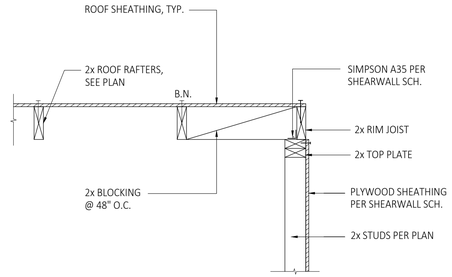
PROJECT NO:
DATE: 01-25-2023
DRAWN BY: JH
SHEET: SD-3
SCALE: AS NOTED



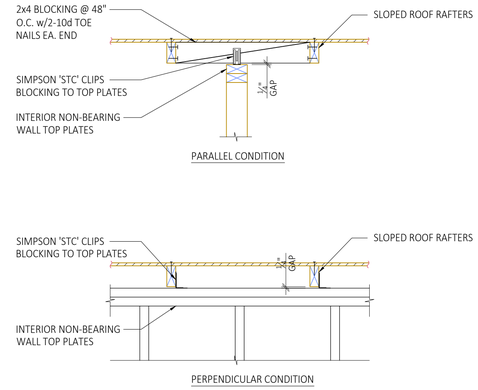
1 SHEARWALL WALL - INTERIOR CONDITION



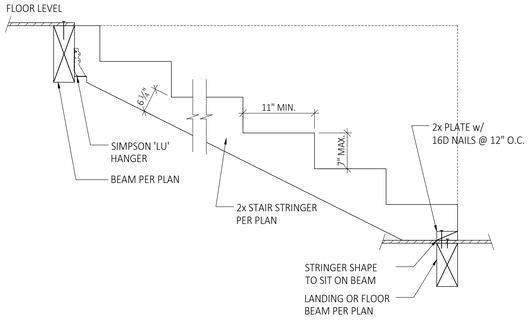
2 SHEARWALL WALL - PERPENDICULAR JOIST



3 SHEARWALL - PARALLEL JOIST



4 INTERIOR NON-BEARING WALL TO ROOF RAFTER DETAIL



5 INTERIOR STAIR DETAIL

NOT FOR CONSTRUCTION - PROGRESS PRINT

CIVIL AND STRUCTURAL DESIGN - CONSULTANT
1938 KLECK RD
PASO ROBLES, CA 93446
818.238.7167
john@jhannaengineering.com
www.jhannaengineering.com

TWO DUPLEX UNITS
2808 S. MAPLE AVE, LOS ANGELES, CA 90011

PROJECT ADDRESS:

SHEET TITLE: DETAILS

PROJECT NO:	
DATE:	01-25-2023
DRAWN BY:	JH
SHEET:	SD-4
SCALE:	AS NOTED