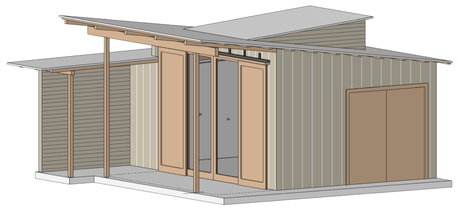
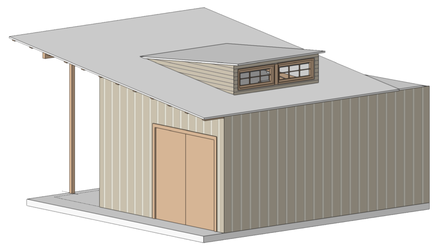
MODEL PHOTO: VIEW FROM NW

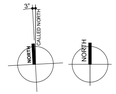


MODEL PHOTO: VIEW FROM SW



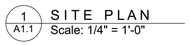
SYMBOL LEGEND

NORTH ARROWS



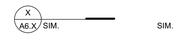
REVISION NUMBER

DRAWING TITLE



SECTION REFERENCE

DETAIL REFERENCE



SIM.

INTERIOR & EXTERIOR ELEVATION REFERENCES

WINDOW TAG

DOOR TAG

CENTERLINE

BATT INSULATION

INSULATION AS NOTED

ROOM TAG

Room Name

ROOM NUMBER

100

ELEVATION MARKER

ROOF SLOPE

ELEVATION BENCH MARK

FLOOR LINE

STRUCTURAL GRID

ABBREVIATIONS

>	Angle	FHWS	Flat Head Wood Screw	R.	Riser
℄	Centerline	FIN	Finish	RAD.	Radius
Ø	Diameter	FLASH	Flashing	RCP	Reflected Ceiling Plan
@	At	FLR	Floor	RWD	Redwood
A.B.	Anchor Bolt	F.O.C.	Face of Concrete	REINF.	Reinforcement
ABV	Above	F.O.F.	Face of Framing	REQ'D	Required
AC	Air Conditioning	F.O.M.	Face of Masonry	R.O.	Rough Opening
ADD'L	Additional	F.O.S.	Face of Stud	R.S.	Roof Structure
ADJ.	Adjacent	FRMG	Framing	S.A.D.	See Architectural Drawings
AFF	Above Finished Floor	FTG	Footing	S.C.D.	See Civil Drawings
AFS	Above Finished Slab	GA	Gauge	SF	Square Footage
ALUM	Aluminum	GALV	Galvanized	SHT.	Sheet
APPROX	Approximate	GL	Glu Lam	SHT'G	Sheathing
BASE	Baseboard	GLB	Glu Lam Beam	SIM.	Similar
BD	Board	GSM	Galv. Sheet Metal	SL.	Slope
BIT.	Bituthane	GYP.BD.	Gypsum Board	S.L.D.	See Landscape Drawings
BLDG	Building	GYP	Gypsum	S.O.G.	Slab on Grade
BLK	Block	HB	Hose bib	SPEC	Specifications
BLKG	Blocking	HDR	Header	SS	Stainless Steel
BM	Beam	HGT	Height	SSCO	Sanitary Sewer Clean Out
B.N.	Boundary Nailing	HORIZ	Horizontal	S.S.D.	See Structural Drawings
B.O.	Bottom Of	HT	Height	S.S.W.	Simpson Shear Wall
B.O.	By Owner or by Others	HVAC	Heating, Ventilation & AC	STD	Standard
BOT	Bottom	I.D.	Inside Diameter	STL	Steel
B.P.	Building Paper	INT	Interior	STRUCT.	Structural
BRG	Bearing	J.H.	Joist Hanger	T.	Tread
BTW.	Between	JT.	Joint	T.B.D.	To Be Determined
CJ	Control Joint	LAM	Laminate	T&B	Top and Bottom
CLR	Clear	MAX	Maximum	T&G	Tongue and Groove
CMU	Concrete Masonry Unit	M.B.	Machine Bolt	T.G.	Tempered Glass
CNTR	Center	MFR	Manufacturer	THK	Thick
COL	Column	MIN	Minimum	T.O.	Top of
COMP	Composition	MTL	Metal	T.O.B.	Top of Beam
CONC.	Concrete	(N)	New	T.O.C.	Top of Concrete
CONT	Continuous	NAT.	Natural	T.O.F.F.	Top of Finished Floor
COTG	Clean Out to Grade	N.I.C.	Not in Contract	T.O.PL.	Top of Plate
CSK	Countersink	NO. or #	Number	T.O.R.S.	Top of Roof Structure
(D)	Demolish	N.T.S.	Not to Scale	T.O.S.	Top of Slab
DBL	Double	Or	Over	T.O.S.F.	Top of Subfloor
DF	Douglas Fir	O.C.	On Center	T.O.W.	Top of Wall
DIA	Diameter	O.D.	Outside Diameter	TYP	Typical
DIM	Dimension	O.H.	Overhang	U.O.N.	Unless Otherwise Noted
DN	Down	O.F.O.	Outside Face of	VAR.	Varies
DS	Down spout	OPNG.	Opening	VER.	Verify
DWG	Drawing	OPP.	Opposite	VERT.	Vertical
(E)	Existing	OPP. HD.	Opposite Hand	VGDF	Vertical Grain Douglas Fir
EA	Each	OZ.	Ounce	V.I.F.	Verify in Field
EL.	Elevation	PEN.	Penetration	W/	With
ELEV.	Elevation	P.E.N.	Plywood Edge Nailing	WD	Wood
EMBED	Embedded	PISE	Pneumatically Impacted Stabilized Earth	WDW	Window
E.N.	Edge Nailing			WP	Waterproof
E.T.R.	Existing to Remain	PL	Plate	W.R.	Water Resistant
EQ	Equal	P.L.	Property Line	W.S.	Wood Screws
EW	Each Way	PT	Pressure Treated	W.S.P.	Wood Sheathing Panel
EXT.	Exterior	PLYWD	Plywood		
FAU	Forced Air Unit	PTD	Painted		
F.D.	Floor Drain	PV	Photovoltaic		
FDN	Foundation	PWD	Plywood		
F.F.	Finish Floor				

GENERAL NOTES

1. All work shall conform to the 2019 editions of the California Building Code, California Residential Code, California Mechanical Code, California Plumbing Code, California Electrical Code, California Fire Code, California Energy Code, and California Green Building Standards Code, as minimum requirements, in addition to all applicable local amendments.

2. The Contractor shall guarantee workmanship and materials for a period of one year after substantial completion, inspection and acceptance of his/her work.

3. The Contractor shall be responsible for coordination of all building systems including but not limited to: architectural, structural, landscape/drainage, plumbing, mechanical, and electrical, and fire suppression systems, with particular attention paid to the coordination of framing with electrical & mechanical systems.

4. Coordinate construction phasing with Owner, as necessary.

5. The General Contractor shall call for all architectural, structural and governmental inspections as required, and as in these Specifications. Provide 10 day min. notice for all site reviews by Architect/Engineer.

6. Observation by the Structural Engineer is required for structural conformance to the approved plans. Refer to Structural Engineering drawings and specifications. See Spec Div. 1C – Structural General Notes.

7. Special Inspections are/are not anticipated for this project. Refer to Structural Engineering drawings and specifications, Spec Div. 1C – Structural General Notes [, and Special Inspection Testing Form, dated. xx.xx.xx,] for required Special Inspections.

8. All manufactured materials and equipment shall be installed per manufacturer's instructions and as described in the Specifications. Substitutions of materials or equipment for those designated may be made only upon approval of the Architect.

9. The Contractor shall inspect the existing premises and take note of existing conditions prior to submitting prices. No claim for additional fees will be allowed for difficulties encountered, which could have reasonably been inferred from such an examination. Drawings of existing site conditions are to be used as guidelines.

10. Any errors, omissions or conflicts found in various parts of the construction drawing set shall be brought to the Architect's attention prior to proceeding with construction.

11. Written dimensions and notes take precedence over scaled dimensions and line drawings. DO NOT SCALE DRAWINGS. Call the Architect for additional dimensions. All dimensions are to face of framing, or face of plaster if strawbale, or top of bearing, U.O.N. Contractor to verify all specified dimensions in the field. Discrepancies shall be brought to the immediate attention of the Architect.

12. Where details are not specifically indicated, similar details (or description) shall apply.

13. The Contractor shall remove all construction debris at the end of the job and dispose of it legally, clean all new windows, and leave the job broom clean. Contractor shall reduce construction waste and dispose of waste materials per Spec. Div. 2.

14. When staking by a Licensed Land Surveyor is not required by the Authority Having Jurisdiction, Contractor shall provide construction staking prior to construction to establish foundation location and verify foundation location accurately reflects site plan requirements. [ALT per jurisdiction requirements: Contractor shall provide construction staking by a Licensed Land Surveyor to establish property lines and foundation location prior to construction. At the time of foundation inspection, provide corner stakes established by the Licensed Surveyor, as required by the Building Inspector, to verify foundation location accurately reflects site plan requirements.]

15. Refer to the Geotechnical Report, Project SCR-0323, dated August 21, 2008, prepared by Dees & Associates, Inc. Geotechnical Engineers of Santa Cruz, CA. All work to conform to the site work, drainage and foundation recommendations of the Geotechnical Report.

16. Typ. door rough opening dimension from adjacent wall is 3" U.O.N.

PROJECT DATA

LOCATION:	513 SAN CARLOS AVE ALBANY, CA 94706
ASSESSOR PARCEL NUMBER:	67-2863-12
ZONING:	R-1
OCCUPANCY:	R-3 / U
CONSTRUCTION TYPE:	VB
SEISMIC DESIGN CATEGORY:	D
LOT AREA:	3,600 SF
EXISTING REAR YARD COVERAGE:	13%
PROPOSED REAR YARD COVERAGE:	20%
ALLOWABLE REAR YARD COVERAGE:	30%
MAXIMUM PROPOSED BUILDING HEIGHT :	12'-0"
PARKING SPACES:	2 (1 WITHIN GARAGE, 1 IN FRONT OF GARAGE)

FLOOR AREA CALCULATIONS

PROGRAM	EXISTING	PROPOSED
PORCH	5 SF	35 SF
INTERIOR STAIRS	69.6 SF	69.6 SF
LOWER / BASEMENT	N/A	N/A
MAIN LEVEL	930 SF	930 SF
SECOND-FLOOR	940.6 SF	940.6 SF
ACCESSORY STRUCTURE	183.8 SF	**280 SF**
TOTAL	2,159 SF	2,255.2 SF
DEDUCTIONS	-60 SF (STAIR) - 183.8 SF (GARAGE)	- 60 SF (STAIR) -220 SF (GARAGE)
TOTAL	1,915.2 SF	1,975.2 SF
LOT SIZE	3,600 SF	
FLOOR AREA RATIO	53.2 %	**54.86 %** (55% MAX - 1,980 SF)

PROJECT DESCRIPTION

DEMOLITION AND REBUILD OF REAR YARD ACCESSORY BUILDING (GARAGE) ALONG WITH NEW DRIVEWAY PAVING.

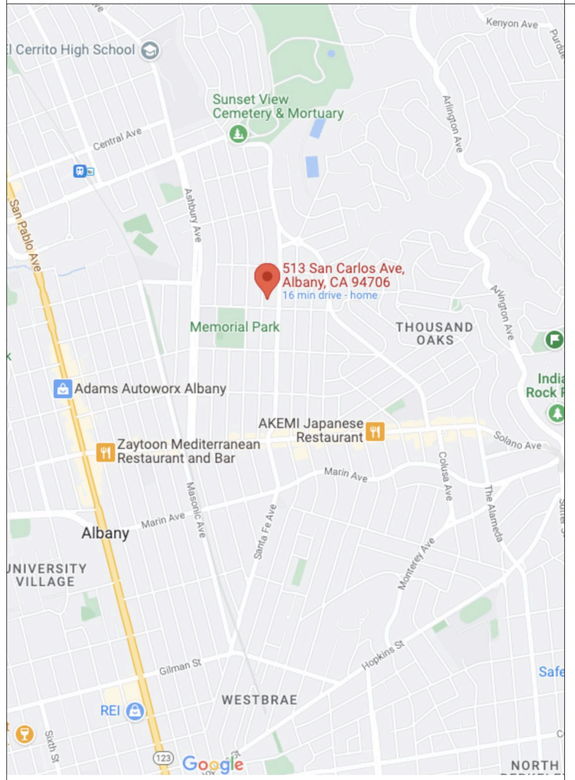
PROJECT DIRECTORY

OWNER
Patricia O'Regan and Mike Frauenfelder
513 San Carlos Ave
Albany, CA 94706
T: (510) 207-4033
E: poregan@sbcglobal.net

ARCHITECT
Arkin Tilt Architects
1101 Eighth Street, Suite 180
Berkeley, CA 94710
E: david@arkintilt.com
T: (510) 528-9830

STRUCTURAL ENGINEER
Verdant Structural Engineers
1101 Eighth Street, Suite 180
Berkeley, California 94710
T: 510.428.9237
E: kelsey@verdantstructural.com

DRAWING INDEX

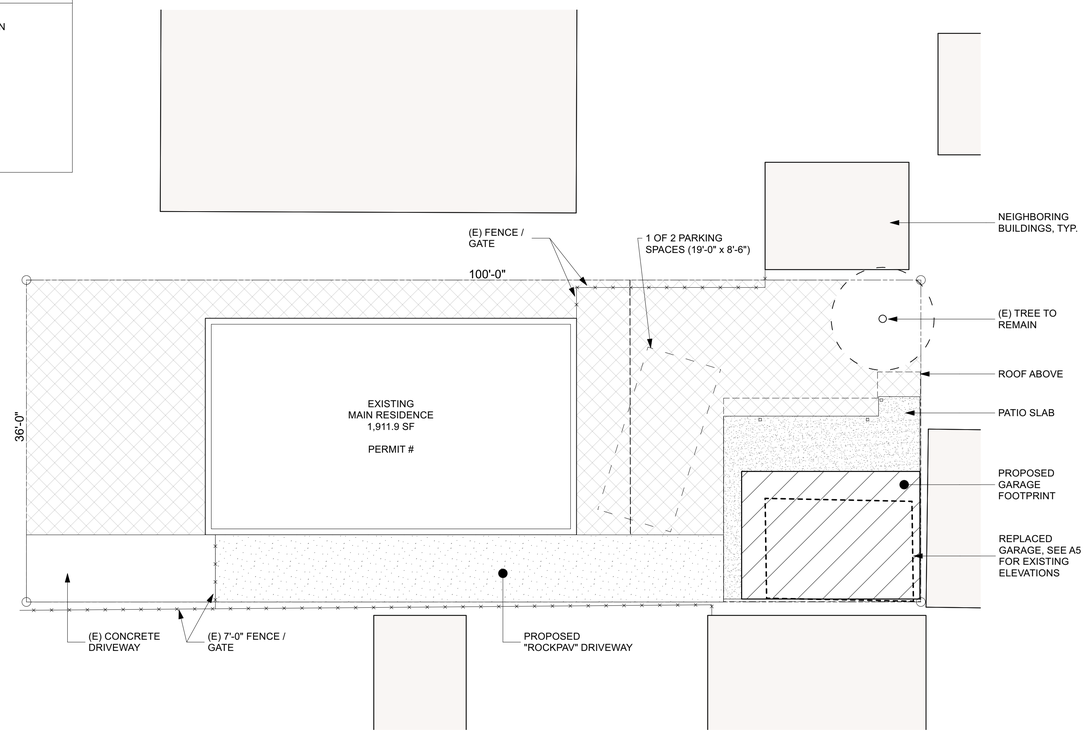


NORTH

2 A 1 VICINITY MAP
SCALE: N.T.S.

SITE PLAN LEGEND & NOTES

SURVEY INFORMATION FROM MORAN ENGINEERING (9/25/2009)



3 A 1 SITE & ROOF PLAN
SCALE: 1/8" = 1'-0"

0 4 8

Revision Date	I.D.

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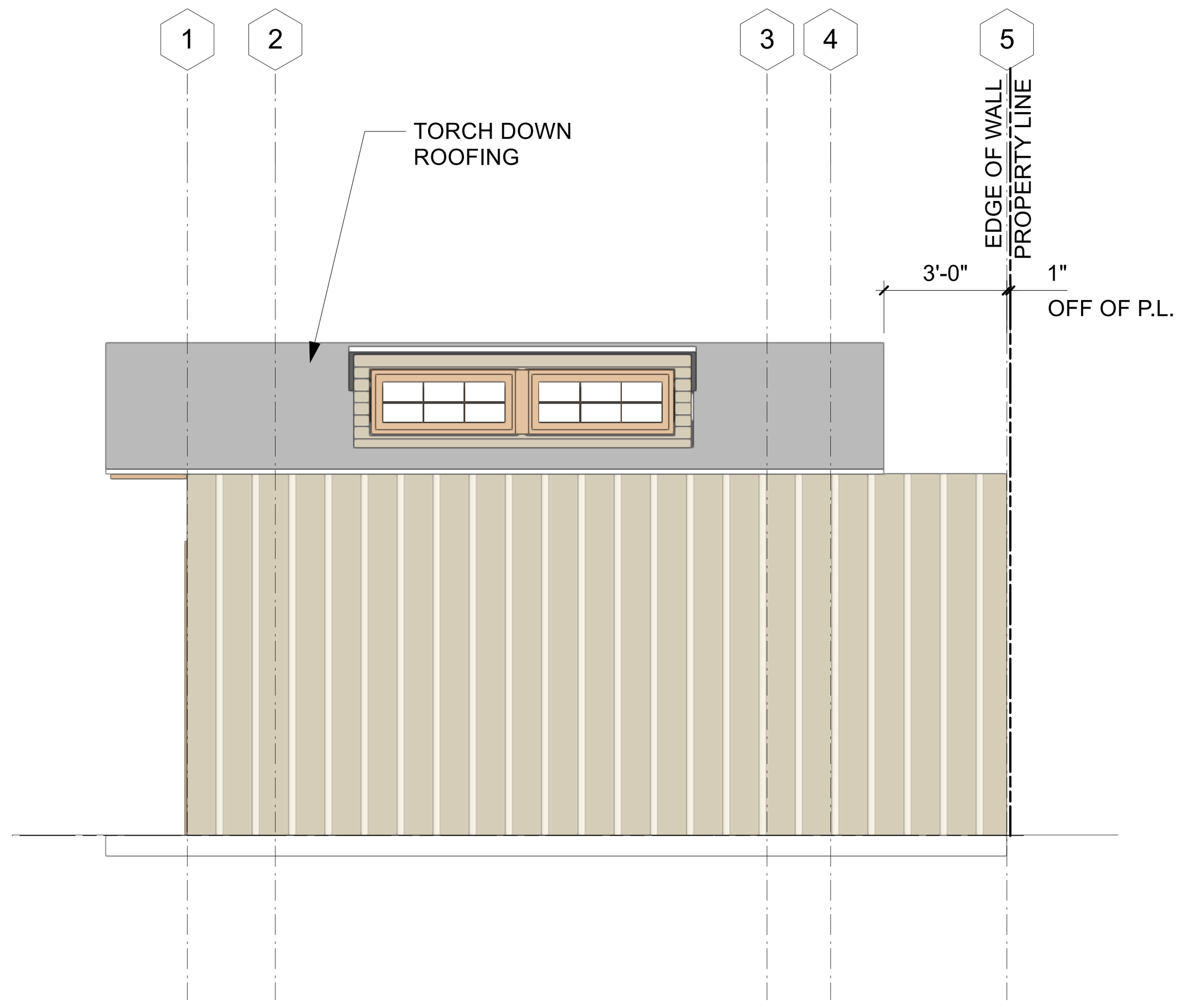
www.arkintilt.com

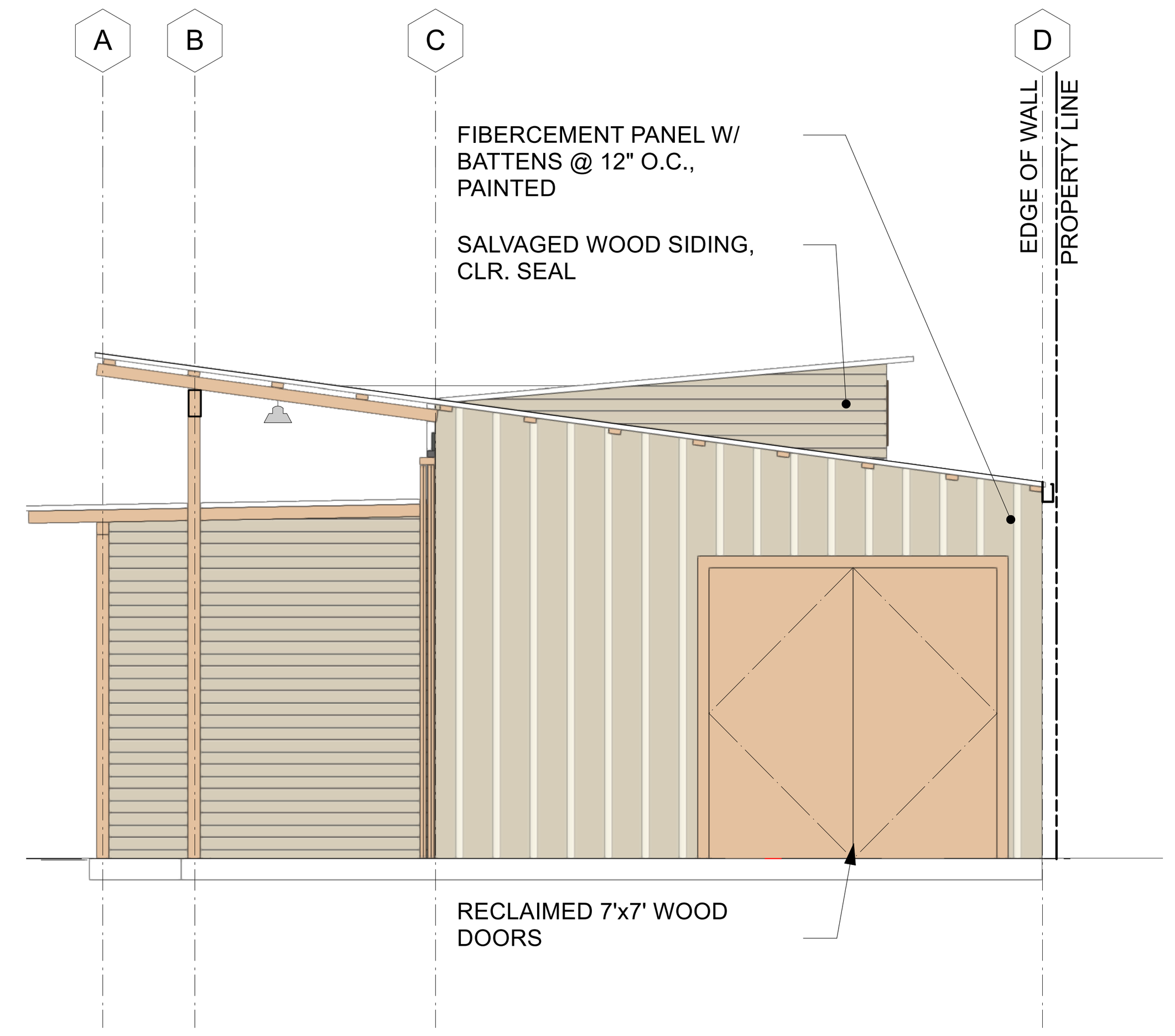
Garage Rebuild for the :
O'Regan and Frauenfelder Home
513 San Carlos Ave, Albany CA 94706
APN # 67-2863-12

Coversheet & Site Plan

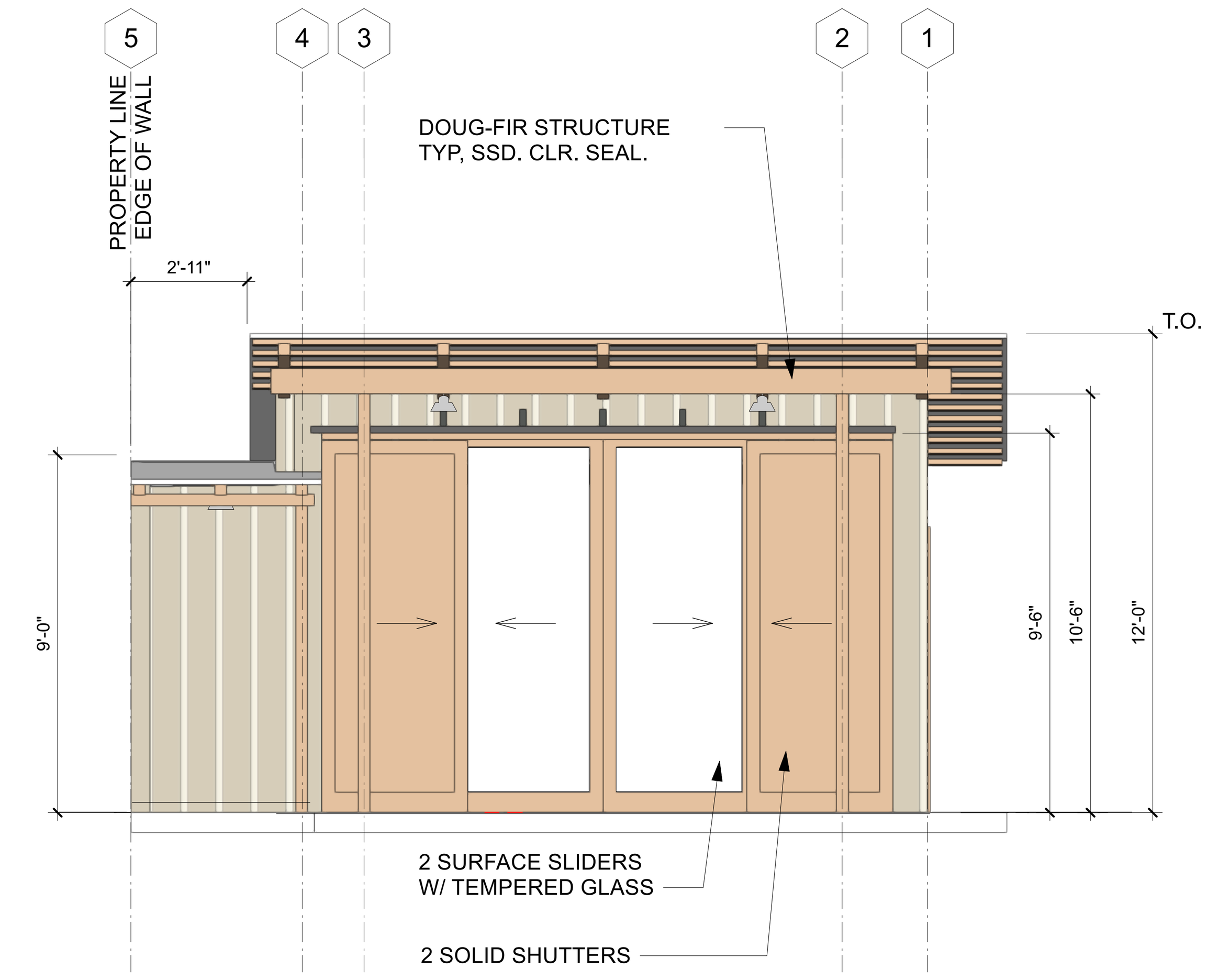
DATE: 10/26/2022
JOB: ORS
SCALE: AS NOTED
DRAWN: KY
SHEET: A 1



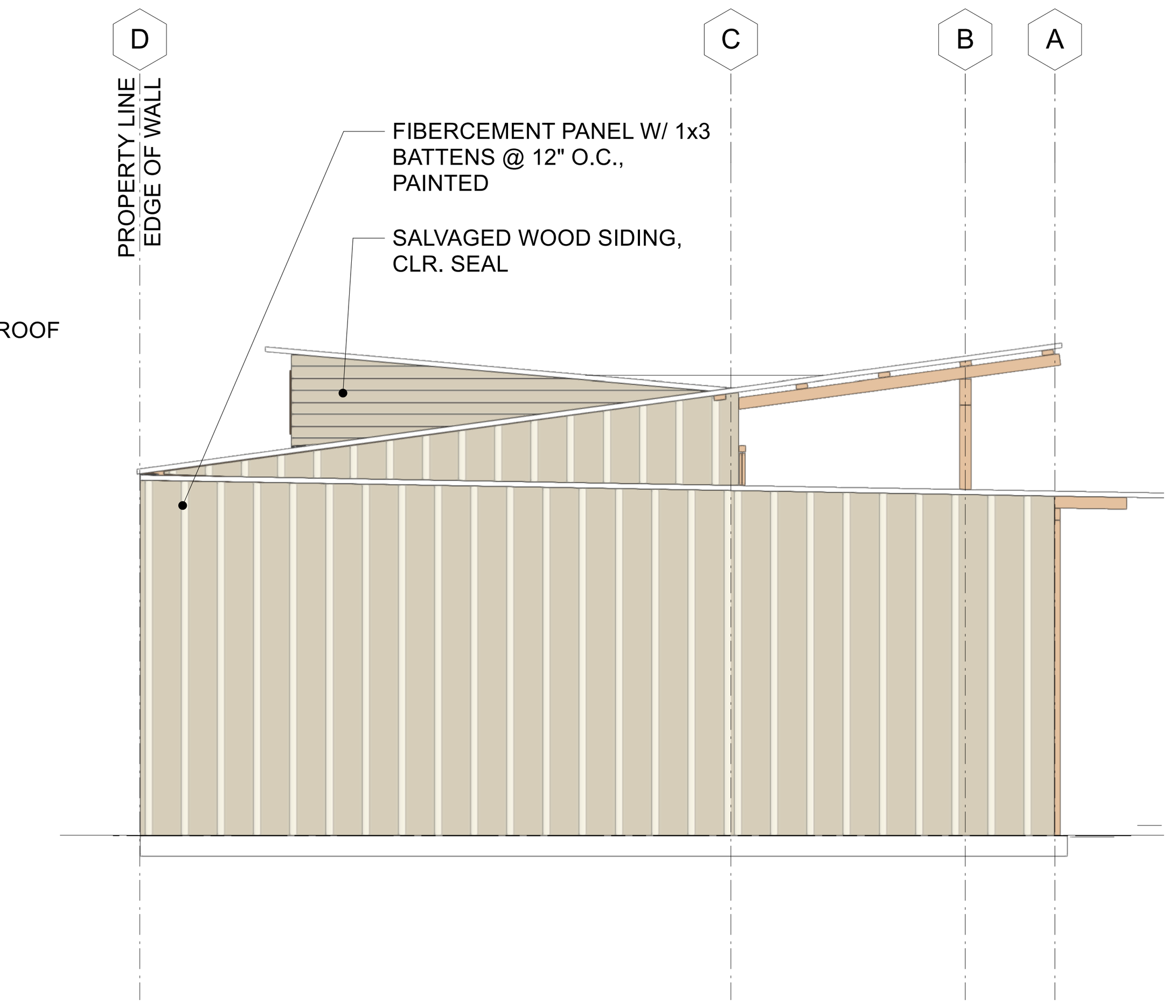
4 A2 SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



5 A2 EAST ELEVATION
SCALE: 1/4" = 1'-0"



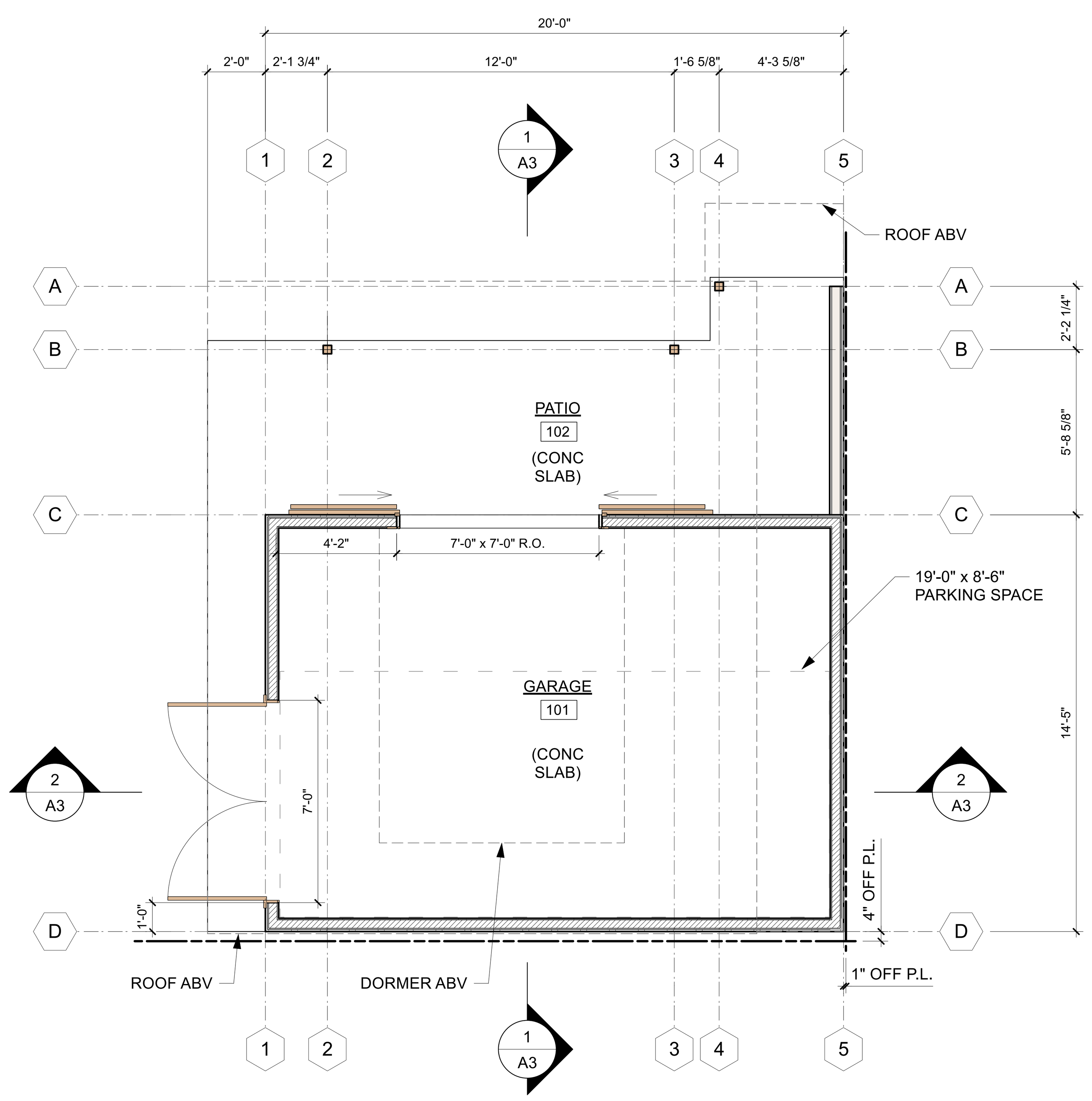
6 A2 NORTH ELEVATION
SCALE: 1/4" = 1'-0"



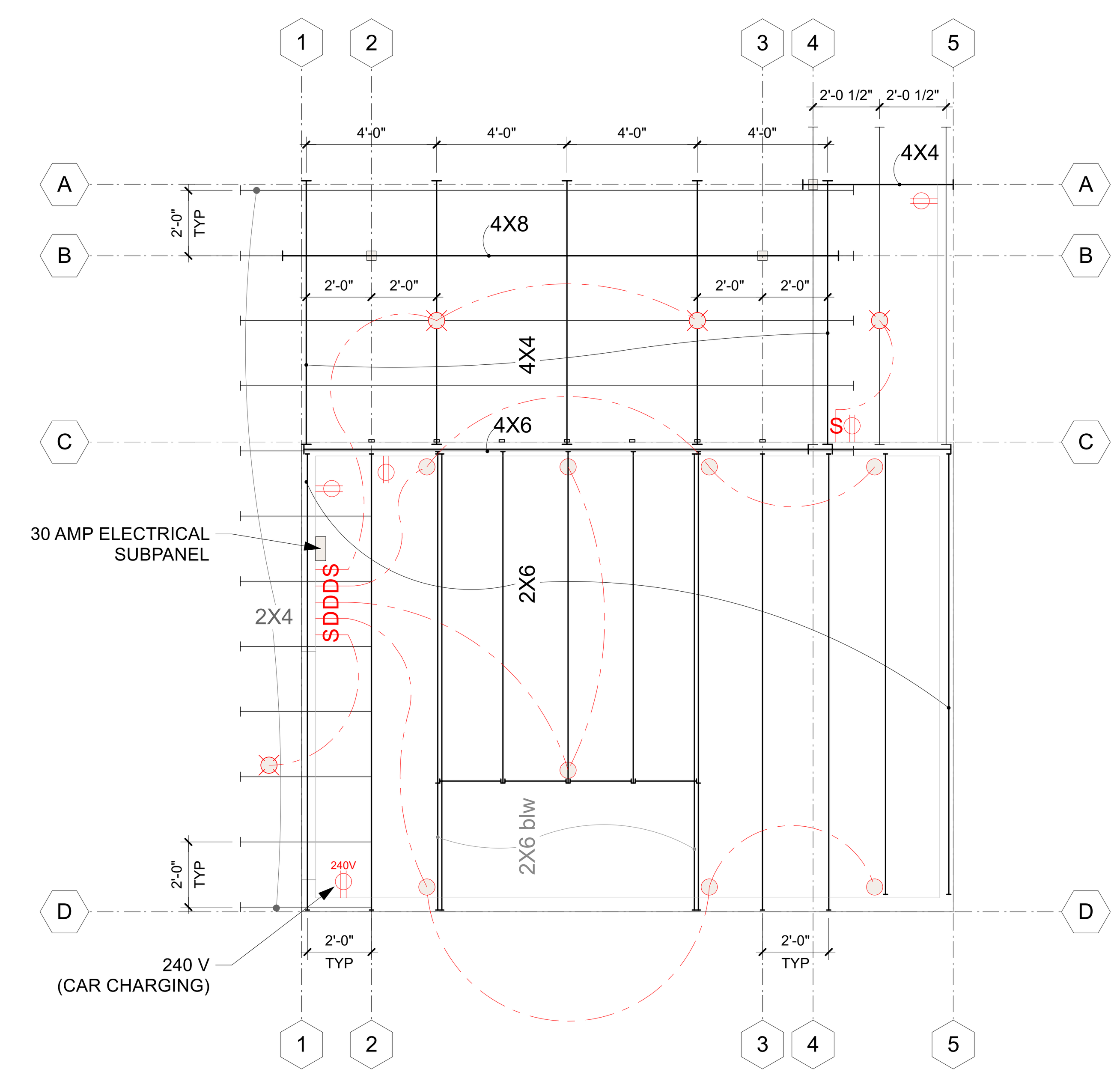
7 A2 WEST ELEVATION
SCALE: 1/4" = 1'-0"

LEGEND

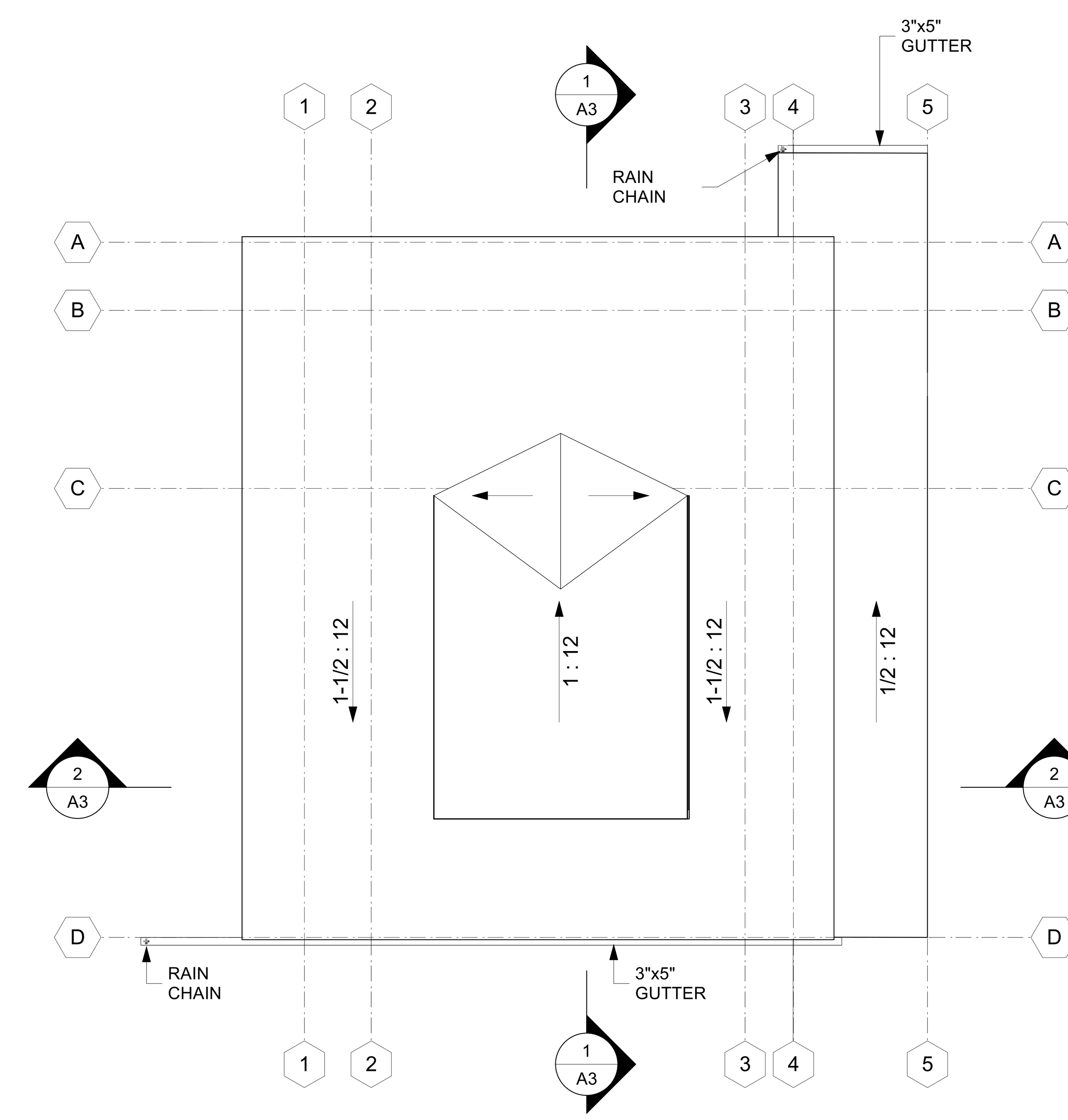
INSULATED 2X4 STUD WALL	SWITCH
WALL MOUNT UP LIGHT	SWITCH W/ DIMMER
PENDANT LIGHT	OUTLET (120V UNO)
	WIRING



1 A2 FLOOR PLAN
SCALE: 1/4" = 1'-0"



2 A2 REFLECTED CEILING PLAN
SCALE: 1/4" = 1'-0"



3 A2 ROOF PLAN
SCALE: 1/4" = 1'-0"

Revision Date	I.D.

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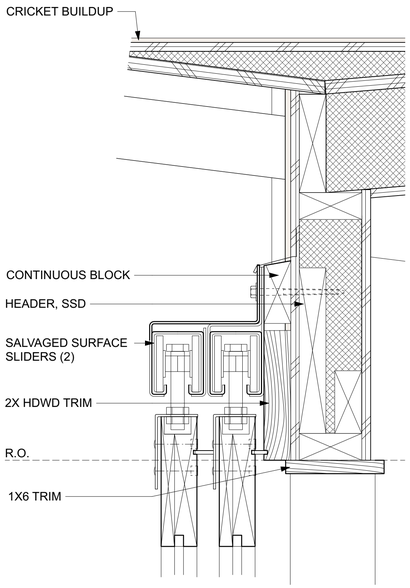
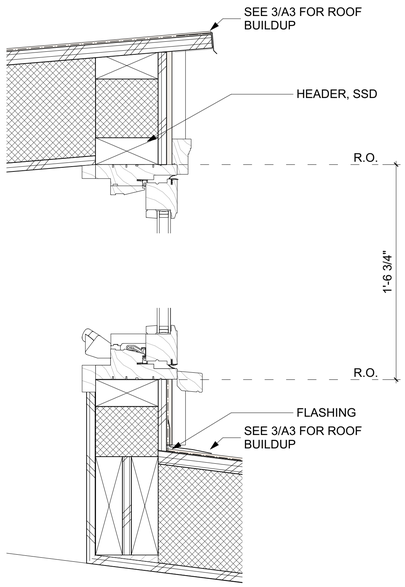
Garage Rebuild for the :
O'Regan and Frauenfelder Home
513 San Carlos Ave, Albany CA 94706
APN # 67-2863-12

Floor, Framing, Roof Plan & Elevations

DATE: 10/26/2022
JOB: ORS
SCALE: AS NOTED
DRAWN: KY
SHEET: A2



7	VALLEY AND TOP OF DOOR
A 3	SCALE: 3" = 1'-0"

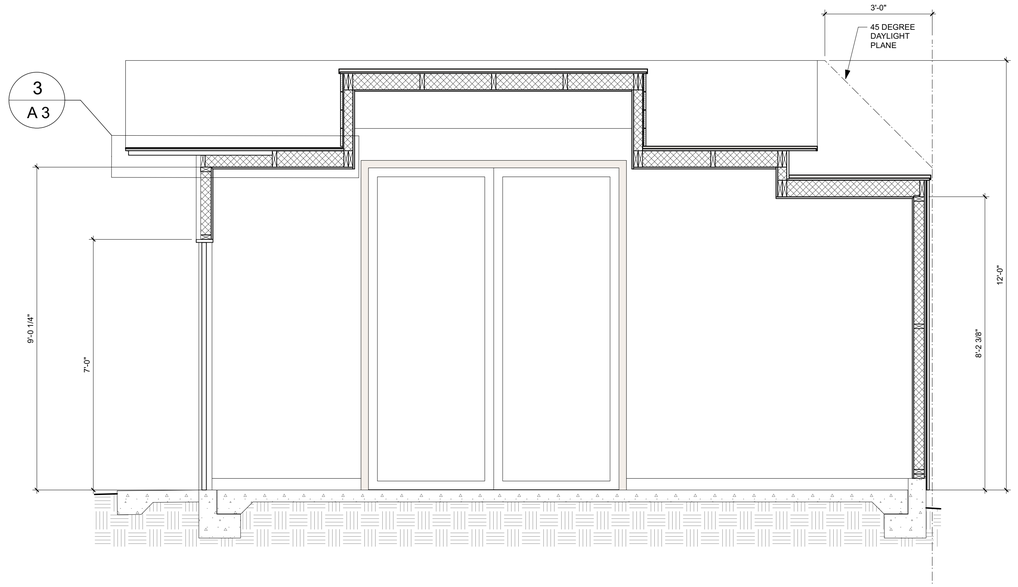


6	EAVE AND TOP OF WINDOW
A 3	SCALE: 3" = 1'-0"

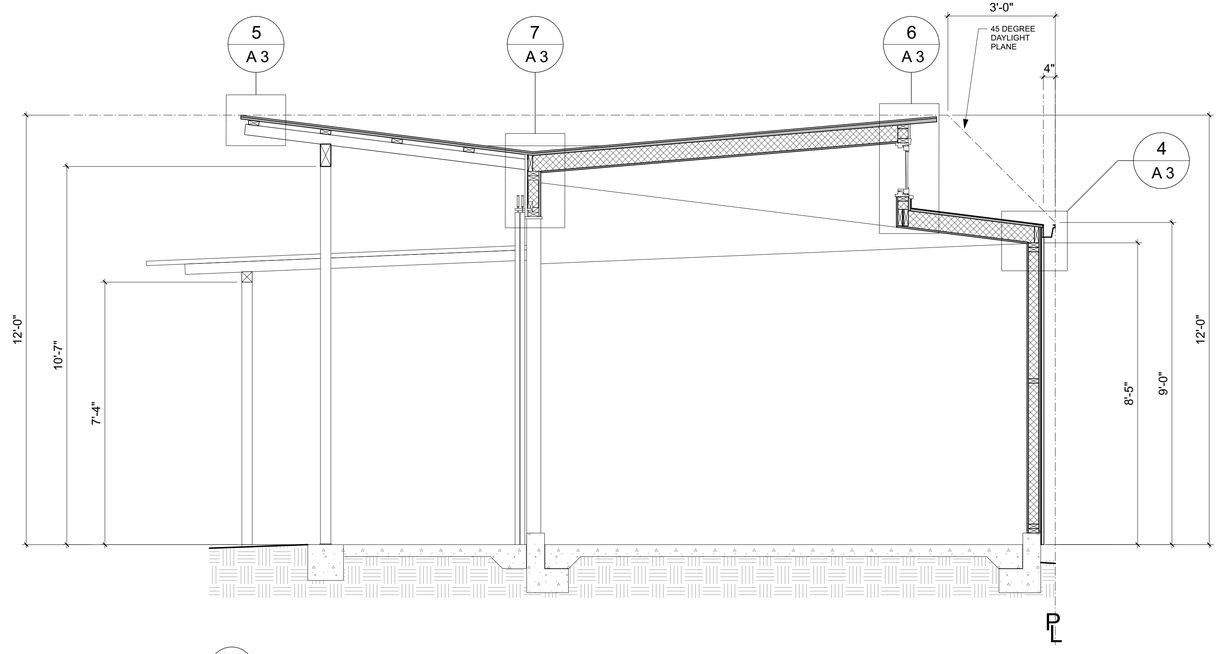
5	EAVE AT PATIO
A 3	SCALE: 3" = 1'-0"

4	RAKE AND GUTTER
A 3	SCALE: 3" = 1'-0"

3	OVERHANG TO DORMER FRAMING
A 3	SCALE: 3" = 1'-0"



2 A 3 SECTION 2
SCALE: 1/2" = 1'-0"



1 A 3 SECTION 1
SCALE: 1/2" = 1'-0"

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Revision Date	I.D.

Garage Rebuild for the :
O'Regan and Frauenfelder Home
513 San Carlos Ave, Albany CA 94706
APN # 67-2863-12

Sections & Details

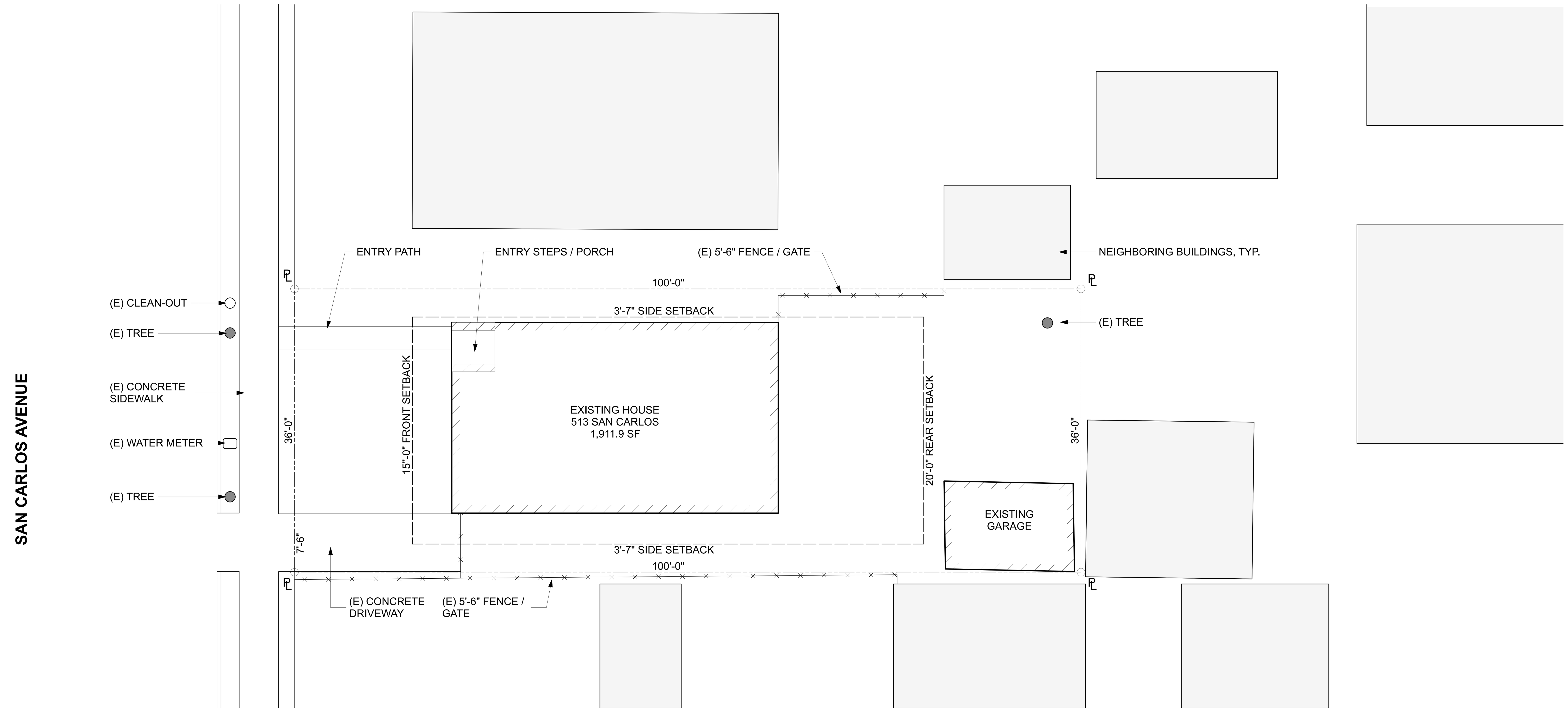
DATE:	10/26/2022
JOB:	ORS
SCALE:	AS NOTED
DRAWN:	KY
SHEET:	A 3

BUILDING LOCATION SURVEY

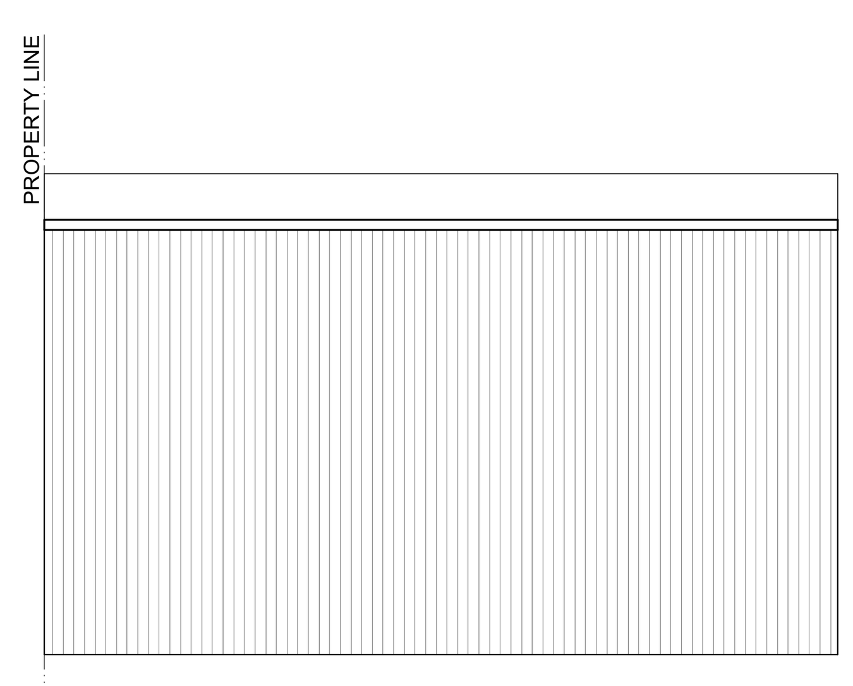
LOT 50 A / BLOCK
LOCATION AT 513 SAN CARLOS
CITY OF ALBANY, COUNTY OF ALAMEDA, CALIFORNIA

SCALE: 1" = 8'

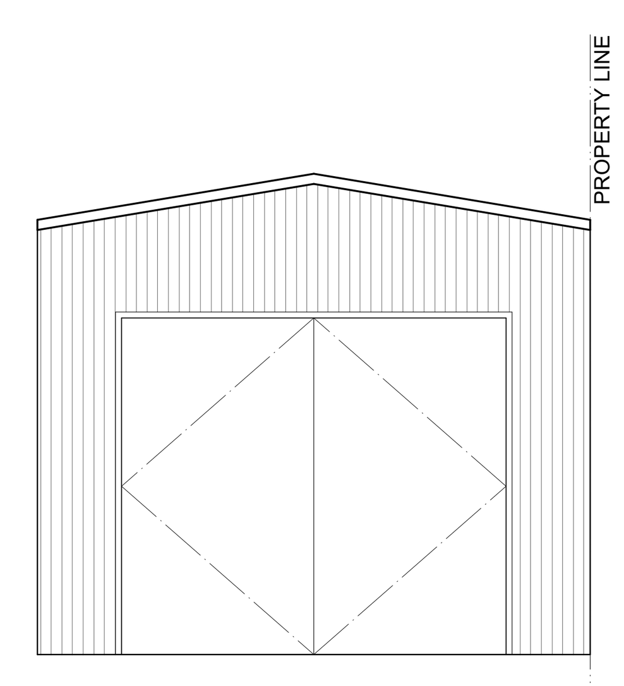
SURVEY INFORMATION FROM MORAN ENGINEERING ON SEPTEMBER 25, 2009



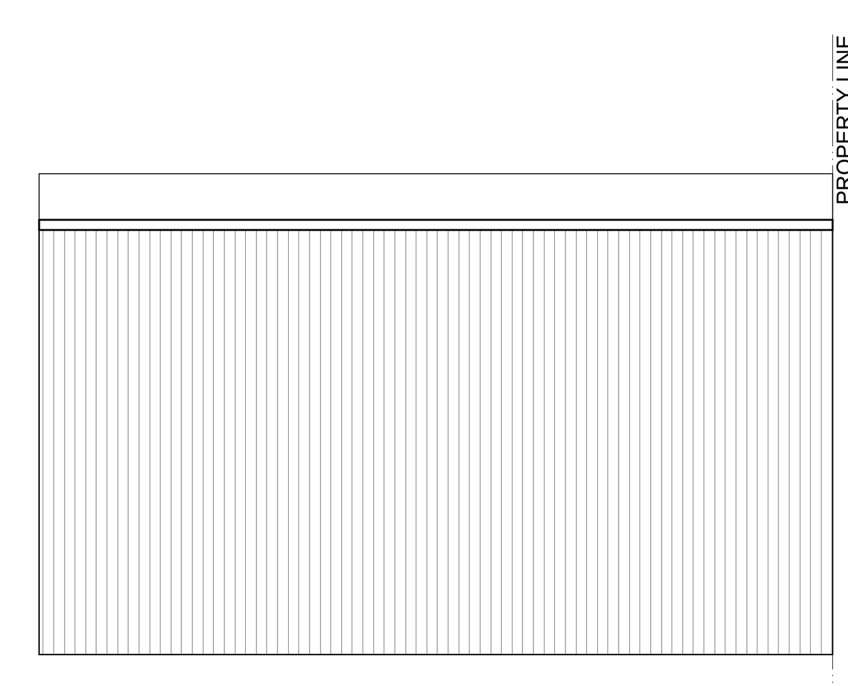
1 / A 5 EXISTING SITE SURVEY (INFORMATION FROM MORAN ENGINEERING SEPTEMBER 25, 2009)
SCALE: 1/8" = 1'-0"



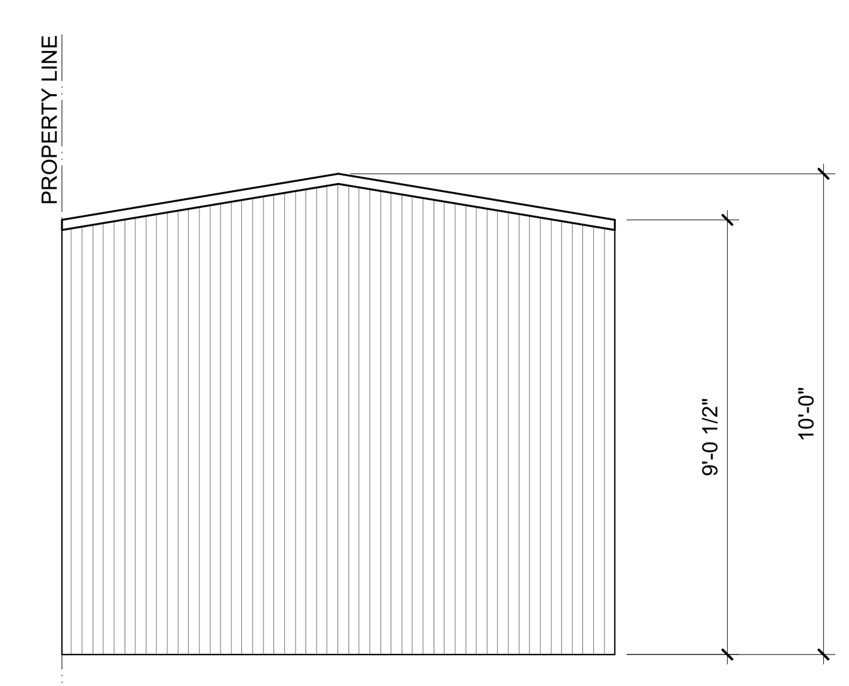
2 / A 5 NORTH ELEVATION
SCALE: 1/4" = 1'-0"



5 / A 5 EAST ELEVATION
SCALE: 1/4" = 1'-0"



4 / A 5 SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



5 / A 5 EAST ELEVATION
SCALE: 1/4" = 1'-0"

ELEVATIONS OF EXISTING GARAGE TO BE DEMOLISHED AND REPLACED WITH NEW GARAGE, SEE A1-A3

Revision Date	I.D.

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APN # 67-2863-12

Site Survey

DATE: 10/26/2022
JOB: ORS
SCALE: AS NOTED
DRAWN: KY
SHEET: A 5

GENERAL NOTES

SCOPE

THE SCOPE OF WORK INCLUDES A GARAGE REMODEL.

COORDINATION

CONTRACTOR IS TO CONTACT THE ENGINEER AT THE START OF THEIR INVOLVEMENT TO REVIEW PROJECT DETAILING AND TO ENSURE THE MOST EFFICIENT CONSTRUCTION PROCESS.

ALL FEATURES OF CONSTRUCTION NOT FULLY SHOWN SHALL BE OF THE SAME TYPE AND CHARACTER AS SHOWN FOR SIMILAR CONDITIONS. ALL SITE CONDITIONS, DIMENSIONS, ELEVATIONS, ETC. SHALL BE VERIFIED BEFORE STARTING WORK. ANY DISCREPANCIES SHALL BE REPORTED TO THE STRUCTURAL ENGINEER BEFORE PROCEEDING. IN THE EVENT OF ANY DISCREPANCIES BETWEEN STRUCTURAL DRAWINGS AND ARCHITECTURAL, MECHANICAL, OR PLUMBING DRAWINGS, NOTIFY THE ARCHITECT BEFORE PROCEEDING.

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ADEQUATE BRACING, SHORING, AND SUPPORT OF ALL TEMPORARY CONSTRUCTION, TEMPORARY EXCAVATION, AND PARTIALLY COMPLETED PORTIONS OF THE BUILDING; SUCH BRACING, SHORING AND SUPPORT MUST INSURE THE SAFETY OF THE ADJACENT PROPERTY AND OF ANY PERSONS WHO MAY COME IN CONTACT WITH THE PROJECT.

CODES AND STANDARDS

DESIGN IS BASED ON THE CALIFORNIA BUILDING CODE, 2019 EDITION. ALL CONSTRUCTION SHALL CONFORM TO APPLICABLE SECTIONS OF THIS CODE.

LIVE LOADS

ROOF LIVE 20 PSF

SEISMIC DESIGN

Ie	1.0
Ss	2.191
S1	0.845
SITE CLASS	D
Sds	1.752
Sd1	0.958
SEISMIC DESIGN CATEGORY	E
Cs	0.245
R	6.5 (BEARING WALL, LIGHT FRAMED W/ WOOD STRUCTURAL PANELS)
ANALYSIS PROCEDURE	EQUIVALENT LATERAL FORCE
REDUNDANCY FACTOR	1.3

WIND DESIGN

BASIC WIND SPEED, V	92 MPH
Iw	1.0 (CATEGORY II)
EXPOSURE	B (URBAN, CLOSELY SPACED CONSTRUCTION)
MAIN WIND-FORCE RESISTING SYSTEMS	
ANALYSIS PROCEDURE	ASCE 7-16, CHAPTER 27
COMPONENTS & CLADDING	
ANALYSIS PROCEDURE	ASCE 7-16, CHAPTER 30

SUBMITTALS

THE FOLLOWING SHALL BE SUBMITTED TO THE ENGINEERS FOR REVIEW:

CONTRACTOR PROPOSED CHANGES IN PRODUCTS, MATERIALS, EQUIPMENT, AND METHODS OF CONSTRUCTION FROM THOSE SPECIFIED ON THE STRUCTURAL DRAWINGS.
CONCRETE MIX DESIGN TWO WEEKS PRIOR TO CONCRETE POUR
CONCRETE REINFORCING STEEL PLACEMENT DRAWINGS

STRUCTURAL OBSERVATION

STRUCTURAL OBSERVATION WILL BE PROVIDED BY VSE IN ACCORDANCE WITH CBC 2019, CHAPTER 17. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST 48 HOURS IN ADVANCE OF TIME WHEN WORK THAT REQUIRES STRUCTURAL OBSERVATION WILL BE COMPLETED.

THE FOLLOWING STRUCTURAL OBSERVATIONS SHALL BE PERFORMED:

- REINFORCING STEEL AND EMBEDDED ANCHORS BEFORE PLACEMENT OF CONCRETE
- WOOD FRAMING BEFORE FINISHES ARE APPLIED:
  - GENERAL WOOD FRAMING
  - SHEAR WALLS, DIAPHRAGMS, AND CONNECTIONS

SPECIAL INSPECTION

SPECIAL INSPECTION SHALL BE PROVIDED IN ACCORDANCE WITH CBC 2019, CHAPTER 17. A SPECIAL INSPECTOR SHALL BE ENGAGED TO PROVIDE SPECIAL INSPECTIONS. UNLESS OTHERWISE SPECIFICALLY INDICATED, THE ENGINEERS SHALL NOT PROVIDE SPECIAL INSPECTION.

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE FEASIBILITY OF PERFORMING SPECIAL INSPECTIONS PRIOR TO THE SCHEDULING OF ANY INSPECTIONS. ANY DISCREPANCIES SHALL BE REPORTED TO THE STRUCTURAL ENGINEER.

THE FOLLOWING SPECIAL INSPECTIONS SHALL BE PERFORMED:

- WOOD FRAMING (CBC 1705.12)
  - PERIODIC INSPECTION OF SHEAR WALLS [VSE or BY OTHERS]

FOUNDATIONS

SPREAD FOOTINGS SHALL BEAR ON UNDISTURBED SOIL, ENGINEERED FILL, OR ROCK. FOOTING DESIGN IS BASED ON A MAXIMUM ALLOWABLE SOIL BEARING PRESSURE OF 1500 PSF DEAD PLUS LIVE, AND 2000 PSF TOTAL LOADS, INCLUDING WIND OR SEISMIC.

CONCRETE SLAB ON GRADE (SOG) SHALL BE UNDERLAIN BY CLEAN CRUSHED ROCK, NO FINES. A VAPOR BARRIER OF 10-MIL MIN THICKNESS SHALL BE PLACED ON TOP OF THE GRAVEL.

WATERPROOFING

WHERE STRUCTURAL DETAILS INDICATE ANY WATERPROOFING OR VENTILATION ITEMS, THEY ARE SCHEMATIC ONLY AND FOR THE PURPOSE OF ASSISTING IN SHOWING A COMPLETE STRUCTURAL DETAIL. REFER ONLY TO ARCHITECTURAL PLANS AND SPECIFICATIONS FOR THE COMPLETE DESCRIPTION OF ALL REQUIRED WATERPROOFING AND VENTILATION SYSTEMS.

CONCRETE

CONCRETE WORK SHALL CONFORM TO THE REQUIREMENTS OF ACI 301-19. CONCRETE SHALL BE NORMAL WEIGHT AND SHALL BE REINFORCED UNLESS OTHERWISE NOTED.

CONSTRUCTION JOINTS ARE PERMITTED EXCEPT WHERE LAP-SPLICES OCCUR, UON.

CONSULT ENGINEER FOR ACCEPTABLE THERMAL BREAK LOCATIONS.

ALL CONCRETE SHALL BE CONSOLIDATED WITH A MECHANICAL VIBRATOR.

A SLUMP OF 3 TO 4 INCHES IS REQUIRED.

MIX DESIGN

THE FOLLOWING INFORMATION IS SHARED TO PRODUCE A MIX DESIGN THAT MEETS THE STRUCTURAL REQUIREMENTS OF THE PROJECT AND REDUCES THE POUNDS OF CEMENT PER YARD AS MUCH A POSSIBLE.

FINES AND AGGREGATES MAY INCLUDE ENGINEERED PRODUCTS SUCH AS ORCA, RECYCLED CONCRETE AGGREGATE (RCA), RETURNED FRESH CONCRETE (RFC), CRUSHED CONCRETE AGGREGATE (CCA) OR EQUIVALENT. CONSULT ENGINEER OR CONCRETE SUPPLIER TO CONFIRM WHERE THESE MIXES ARE APPLICABLE.

CONCRETE SUPPLIER TO SUBMIT ENVIRONMENTAL PRODUCT DECLARATION (EPD) ALONG WITH CONCRETE MIX PROVIDED, IF AVAILABLE. CONCRETE MIX WITH EPD RECOMMENDED.

CONCRETE SUPPLIER WITH NRMCA GREEN-STAR PLANT CERTIFICATION IS RECOMMENDED.

STRENGTH & CURE TIME

MINIMUM CONCRETE COMPRESSIVE STRENGTHS ARE:
DRILLED PIERS: 2500 PSI COMPRESSIVE STRENGTH @ 84 DAYS
FOOTINGS & GRADE BEAMS: 2500 PSI COMPRESSIVE STRENGTH @ 56 DAYS
RETAINING WALLS: 2500 PSI COMPRESSIVE STRENGTH @ 14 DAYS
SLABS: 2500 PSI COMPRESSIVE STRENGTH @ 56 DAYS
SHOTCRETE (IF USED): 2500 PSI COMPRESSIVE STRENGTH @ 14 DAYS

CONSULT VSE IF FAST CURE TIMES ARE ANTICIPATED FOR HEAVILY LOADED AREAS. MATURITY TESTING (SMART CONCRETE SENSORS) MAY BE USED TO MONITOR STRENGTH.

SUPPLEMENTAL CEMENTITIOUS MATERIAL (SCM)

A MINIMUM SCM OF 50% REQUIRED AND UP TO 90% SCM ALLOWED. SCM'S MAY INCLUDE BUT ARE NOT LIMITED TO CARBON CURE, SLAG, FLY ASH, NATURAL GLASS POZZOLANS ETC. CONSULT ENGINEER FOR MORE INFO.

CONCRETE TO COMPLY TO REDUCED CARBON CONCRETE LIMITS. ALL MIXES OF THE FOLLOWING STRENGTHS SHALL BE LIMITED TO THE FOLLOWING CEMENT CONTENT (NOTE: THE ASSOCIATED CURE TIMES FOR THESE STRENGTHS AS THEY RELATE TO SPECIFIC STRUCTURAL ELEMENTS ARE LISTED ABOVE):

MINIMUM SPECIFIED COMPRESSIVE STRENGTH, F'C (PSI)	**MAXIMUM ORDINARY PORTLAND CEMENT CONTENT, (LBS/YD3)**	
	REQUIRED	RECOMMENDED
UP TO 2500	362	GENERAL: 100-150 SLABS: 150-250

OUR REQUIREMENTS DO NOT CERTIFY ANY AESTHETIC OR WORKABILITY OUTCOME OF THE MIX BEYOND STRUCTURAL PERFORMANCE. THIS IS THE RESPONSIBILITY OF THE CONTRACTOR.

HOSE SIZE

IT IS RECOMMENCED TO USE LARGER $\frac{3}{4}$" & 1" AGGREGATES INSTEAD OF PEA GRAVEL. THE LARGER AGGREGATES CAN REDUCE THE POUNDS OF CEMENT PER YARD OF CONCRETE. USE A HOSE SIZE ADEQUATE FOR THE LARGER AGGREGATE WHEN POSSIBLE.

REINFORCING STEEL

REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60.

REINFORCING BARS NOTED OR SHOWN AS CONTINUOUS SHALL RUN IN AS LONG LENGTHS AS PRACTICAL. IN SLAB AND BEAMS LOCATE TOP BAR SPLICES MIDWAY BETWEEN SUPPORTS, BOTTOM BAR SPLICES AT SUPPORTS. BEND AND SPLICE BARS AS NOTED IN THE DETAILS.

WELDING OF REINFORCEMENT BARS SHALL COMPLY WITH AWS D1.4 STRUCTURAL WELDING CODE-REINFORCING STEEL. USE GRADE A706 UNLESS SHOWN OTHERWISE.

UNLESS OTHERWISE NOTED, THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCEMENT:

CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH:	3"
CONCRETE EXPOSED TO EARTH OR WEATHER:	2"
CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND	
SLABS AND WALLS:	1"
BEAMS AND COLUMNS:	1½"

CAST-IN-PLACE ANCHORS IN NEW CONCRETE

FOR ALL SHEAR WALL SILL ANCHORS INTO NEW CONCRETE USE 5/8" DIAMETER ANCHOR BOLTS WITH 7" MIN EMBEDMENT, UON SPACE ANCHORS PER SHEAR WALL SCHEDULE. PROVIDE MIN 4D CLEARANCE BETWEEN ANCHOR BOLTS AND EDGE OF CONCRETE.

FOR ALL SHEAR WALL TIE-DOWN ANCHORS INTO NEW CONCRETE SEE TIE-DOWN SCHEDULE FOR ANCHOR TYPE, DIAMETER, AND EMBEDMENT.

ADHESIVE DOWELS TO EXISTING CONCRETE

PER MANUFACTURER, ADHESIVE ANCHORS SHALL BE INSTALLED IN CONCRETE HAVING A MINIMUM AGE OF 7 DAYS AT TIME OF ANCHOR INSTALLATION AND 21 DAYS BEFORE FULL LOADING. FOR INSTALLATIONS SOONER THAN 7 DAYS CONSULT ADHESIVE MANUFACTURER.

ADHESIVE ANCHORS SHALL BE ONE OF THE FOLLOWING:

- "SET-3G" ADHESIVE SYSTEM BY SIMPSON STRONG-TIE COMPANY, INC. INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS AND ICC EVALUATION REPORT ESR-4057. CONTACT ENGINEER FOR "SET-XP".
-

MINIMUM HOLE SIZE AND EMBEDMENT SHALL BE AS FOLLOWS, U.O.N. ON THE DRAWINGS. HOLE SIZE SHALL BE 1/8" GREATER THAN DIAMETER OF DOWEL/ ALL-THREAD-ROD. REMOVE DUST FROM HOLE WITH COMPRESSED AIR AND A NYLON BRUSH IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS.

FOR ALL SHEAR WALL SILL ANCHORS INTO EXISTING CONCRETE USE 5/8" DIAMETER ALL-THREAD-ROD WITH 7" MIN EMBEDMENT, UON SPACE ANCHORS PER SHEAR WALL SCHEDULE.

FOR ALL SHEAR WALL HOLDOWN ANCHORS INTO EXISTING CONCRETE SEE HOLDOWN SCHEDULE FOR ANCHOR TYPE, DIAMETER, AND EMBEDMENT.

STRUCTURAL STEEL

DETAILS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE LATEST AISC STANDARD SPECIFICATIONS.

STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING:
MISCELLANEOUS CHANNELS, ANGLES, AND PLATE: ASTM A36

STEEL NOT RECEIVING FIREPROOFING OR STEEL EXPOSED TO WEATHER SHALL HAVE ONE COAT OF SHOP PRIMER. STEEL EXPOSED TO WEATHER SHALL BE HOT DIPPED GALVANIZED OR HAVE OTHER APPROVED PROTECTIVE COATING.

BOLTS AND ROD SHALL CONFORM TO THE FOLLOWING:
COMMON BOLTS: ASTM A307 USE U.O.N.
HIGH STRENGTH BOLTS (H.S.B.): ASTM A325 TYPE N
ANCHOR RODS: ASTM F1554 GR. 36
THREADED ROD: ASTM A36

CARPENTRY

IT IS STRONGLY ENCOURAGED THAT ALL LUMBER PRODUCTS ARE EITHER RECLAIMED OR SALVAGED AND CERTIFIED BY THE FOREST STEWARDSHIP COUNCIL (BEARING FSC STAMP) OR THE SUSTAINABLE FORESTRY INITIATIVE (SFI) OR FROM LOCALLY SUSTAINABLE HARVESTED SOURCES. CONSULT ENGINEER IF CLARITY IS DESIRED.

PROVIDE 4X6 OR 6X6 HEADERS OVER ALL EXTERIOR WALL DOOR AND WINDOW OPENINGS UON (6'-0" MAX.). PROVIDE 4X6 OR 6X6 MIN. HEADERS OVER ALL DOOR AND OTHER OPENINGS (6'-0" MAX.) ELSEWHERE UON PROVIDE 2X4 (OR 2X6) CRIPPLE AND FULL HEIGHT STUD AT EACH JAMB.

PROVIDE FULL DEPTH SOLID BLOCKING BETWEEN STUDS @ 10'-0" OC MAX AND BETWEEN JOISTS @ 12'-0" OC MAX.

ALL 2X6 STUDS SHALL BE SPACED AT 2'-0" U.O.N. AT 1'-4" WHEN SUPPORTING TWO FLOORS PLUS A ROOF CEILING OR A HABITABLE A ATTIC: CRC TABLE R602.3(5). THIS REQUIREMENT MAY CHANGE IF STRAW INSULATION IS USED. CONSULT ENGINEER.

ALL 2X4 STUDS SHALL BE SPACED AT 2'-0" U.O.N. AT 1'-4" WHEN SUPPORTING ONE FLOOR PLUS A ROOF CEILING OR A HABITABLE A ATTIC: CRC TABLE R602.3(5). THIS REQUIREMENT MAY CHANGE IF STRAW INSULATION IS USED. CONSULT ENGINEER.

MOISTURE CONTENT AND PROTECTION

ALL FRAMING SHALL HAVE A MOISTURE CONTENT BELOW 19% MAXIMUM UPON INSTALLATION.

MATERIALS SHALL BE PROPERLY STORED ON THE JOB SITE. MATERIALS SHALL BE STORED OFF OF THE GROUND, AND PROTECTED FROM EXPOSURE TO THE ELEMENTS.

PRESERVATIVE TREATMENT

FRAMING MEMBERS EXPOSED TO WEATHER OR IN CONTACT WITH CONCRETE, BUT NOT IN CONTACT WITH THE GROUND SHALL BE PRESSURE TREATED IN ACCORDANCE WITH AWPA STANDARD U1 & M4.

PER CBC 2304.12.2, PRESERVATIVE-TREATED WOOD USED IN INTERIOR LOCATIONS SHALL BE PROTECTED WITH TWO COATS OF URETHANE, SHELLAC, LATEX EPOXY, OR VARNISH UNLESS WATERBORNE PRESERVATIVES ARE USED. PRIOR TO THE APPLICATION OF THE PROTECTIVE FINISH, THE WOOD SHALL BE DRIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

DIMENSIONAL LUMBER

DIMENSIONAL LUMBER SHALL CONFORM TO THE FOLLOWING MINIMUM GRADES AND SHALL BE DOUGLAS FIR, UON, AS FOLLOWS:
-SILLS AND LEDGERS ON CONCRETE OR CONCRETE BLOCK - DOUGLAS FIR - PRESSURE TREATED WITH AN APPROVED PRESERVATIVE OR REDWOOD
-RAFTERS, JOISTS, STUDS, PLATES, BLOCKING, ETC. - NO.2 OR BETTER, UON
-BEAMS AND POSTS 4X AND WIDER - NO.1, UON

MANUFACTURED LUMBER

TJI'S, PARALLAMS (PSL'S), MICROLLAMS (LVL'S), AND TIMBERSTRAND (LSL) ARE MANUFACTURED BY ILEVEL WEYERHAEUSER. UON USE:
-BEAMS- 2.2E PARALLAM PSL
-RAFTERS AND JOISTS- 2.0E MICROLLAM LVL
-POSTS- 1.8E PARALLAM PSL

SHEATHING

WOOD SHTG PANELS SHALL CONFORM TO PS 1-19 OR PS 2-18, EXPOSURE 1 (OR EXTERIOR GRADE PER ARCHITECTURAL REQUIREMENTS), WHICH CAN INCLUDE PWD AND OSB. FLOOR AND ROOF SHEATHING SHALL BE PLACED WITH LONG AXIS OF PANELS PERPENDICULAR TO SUPPORTS AND WITH STAGGERED END JOINTS.

ROOF - $\frac{19}{32}$" 40/20 APA RATED SHEATHING WITH T&G EDGES (UNBLOCKED, UON), (OR WHEN $\frac{15}{32}$" 40/20 APA RATED SHEATHING WITH T&G EDGES IS PREFERRED USE ONE PLYCLIP PER JOIST SPACE AT ALL UNSUPPORTED EDGES IF JOIST SPACING EXCEEDS 1'-4"). NAIL ALL SUPPORTED EDGES WITH 10d" @ 6"; ALL OTHER INTERMEDIATE BEARINGS WITH 10d" @ 12". OFFSET PANEL GRID IN ONE DIRECTION. WHERE DIAPHRAGMS ARE BLOCKED NAIL ALL PANEL EDGES W/ MIN 10d" @ 6", UON.

FLOORS - $\frac{23}{32}$" 24 O.C. APA RATED STURD-I-FLOOR WITH T&G EDGES (UNBLOCKED, UON). NAIL ALL SUPPORTED EDGES WITH 10d" @ 6"; ALL OTHER INTERMEDIATE BEARINGS WITH 10d" @ 12". OFFSET PANEL GRID IN ONE DIRECTION. WHERE DIAPHRAGMS ARE BLOCKED NAIL ALL PANEL EDGES W/ MIN 10d" @ 6", UON.

WALLS - (WHERE SHOWN ON PLANS) $\frac{15}{32}$" 32/16 APA RATED SHEATHING. BLOCK EDGES. NAIL ALL PANEL EDGES PER SHEAR WALL SCHEDULE WHERE INDICATED OR WITH 10d" @ 6" UON; NAIL ALL OTHER INTERMEDIATE BEARINGS WITH 10d" @ 12".

FASTENERS

ALL WOOD CONNECTIONS SHALL BE IN ACCORDANCE WITH TABLE 2304.10.1 OF THE 2019 CBC. NAILS SHALL BE COMMON WIRE NAILS U.O.N. BOLTS AND LAG SCREWS BEARING ON WOOD SHALL HAVE WASHERS. SILLS OR PLATES SHALL BE BOLTED TO CONCRETE WITH 5/8" DIAMETER BOLTS WITH 3X3X1/4" WASHERS, EMBEDDED 7" MINIMUM AT 4'-0" MAXIMUM ON CENTER, UON.

FASTENERS FOR INTERIOR APPLICATIONS PENETRATING PRESSURE-TREATED LUMBER, OR FASTENERS EXPOSED TO WEATHER INCLUDING EXTERIOR APPLICATIONS OF PRESSURE-TREATED LUMBER SHALL BE HOT DIPPED ZINC-COATING GALVANIZED WITH A MINIMUM ASTM A 653 TYPE G185 COATING OR STAINLESS STEEL.

METAL FRAMING ANCHORS SHALL BE MANUFACTURED BY SIMPSON STRONG-TIE COMPANY OR EQUAL. JOIST HANGERS SHALL BE "LUS" SERIES UON ON DRAWINGS. JOIST HANGERS SHALL BE "HU" SERIES WHERE JOISTS ARE SLOPED OR SKEWED, OR WHERE THE HANGER IS TO BE WELDED ONTO THE CARRYING MEMBER.

POST CAPS/BASES ARE NOT REQUIRED UNLESS SPECIFICALLY CALLED OUT ON DRAWINGS. FASTEN BEAM WITH (4) 10d COMMON NAILS TOENAILED TO POST.

SHEET LIST

MATERIAL LEGEND

(N) CONCRETE
(E) CONCRETE
(N) FOOTING
(E) FOOTING
WOOD SHEAR WALL
HDU4 — TIEDOWN
WALL BELOW
(N) WOOD BEAM
(N) RAFTER OR JOIST
(E) MEMBER
WOOD POST ABOVE DBL STUD OR 4X, U.O.N.
WOOD POST BELOW DBL STUD OR 4X, U.O.N.
WOOD POST ABV & BLW DBL STUD OR 4X, U.O.N.
STRAP
HANGER

ABBREVIATIONS

AB	ANCHOR BOLT
ABV	ABOVE
ADDL	ADDITIONAL
APPROX	APPROXIMATE
ALT	ALTERNATE
ARCH	ARCHITECT
ATR	ALL-THREAD ROD
BLW	BELOW
BLDG	BUILDING
BLKG	BLOCKING
BM	BEAM
BN	BOUNDARY NAIL
BTWN	BETWEEN
BOT	BOTTOM
BP	BEARING PLATE
CBC	CALIFORNIA BUILDING CODE
CJ	CONSTRUCTION JOINT; CONTROL JOINT
CL	CENTER LINE
CLR	CLEAR
CMU	CONCRETE MASONRY UNITS
CSK	COUNTERSINK
COL	COLUMN
CONC	CONCRETE
CONT	CONTINUOUS
D	PENNY (NAIL SIZE)
DIA	DIAMETER
DIMS	DIMENSIONS
DBL	DOUBLE
DET	DETAIL
DF	DOUGLAS FIR
DTP	DOUBLE TOP PLATE
DWG	DRAWING
(E)	EXISTING
EA	EACH
EB	EXPANSION BOLT
EF	EACH FACE
EJ	EXPANSION JOINT
EL	ELEVATION
EN	EDGE NAIL
ENGR	ENGINEER
EO	EVERY OTHER
EQ	EQUAL
ES	EACH SIDE
EW	EACH WAY
EXT	EXTERIOR
FDN	FOUNDATION
FIN	FINISH
FN	FIELD NAIL
FOC	FACE OF CONCRETE
FOS	FACE OF STUD
FS	FAR SIDE
FTAO	FORCE TRANSFER AROUND OPENING
FTG	FOOTING
GA	GAUGE
GALV	GALVANIZED
GB	GRADE BEAM
GLT	GLUED-LAMINATED TIMBER
GYP BD	GYPSUM WALL BOARD
HDG	HOT DIP GALVANIZED
HDR	HEADER
HF	HARDY FRAME
HGR	HANGER
HORZ	HORIZONTAL
HSB	HIGH STRENGTH BOLTS
HSS	HOLLOW STRUCTURAL SECTION
HT	HEIGHT
ID	INSIDE DIAMETER
INT	INTERIOR
JST	JOIST
L	ANGLE SECTION
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LONG	LONGITUDINAL
LSL	LAMINATED STRAND LUMBER
LVL	LAMINATED VENEER LUMBER
MANUF	MANUFACTURER
MAX	MAXIMUM
MB	MACHINE BOLT
MIN	MINIMUM
(N)	NEW
N/A	NOT APPLICABLE
NO	NUMBER
NS	NEAR SIDE
NTS	NOT TO SCALE
O/	OVER
OC	ON CENTER
OD	OUTSIDE DIAMETER
OH	OPPOSITE HAND
OPNG	OPENING
OSB	ORIENTED STRAND BOARD
PAF	POWDER ACTUATED FASTENERS
PEN	PENETRATION
PERF	PERFORATED
PERP	PERPENDICULAR
PL	PLATE
PSL	PARALLEL STRAND LUMBER
PSWS	PER SHEAR WALL SCHEDULE
PT	PRESSURE TREATED
PVC	POLYVINYL CHLORIDE
PWD	PLYWOOD
RDWD	REDWOOD
REINF	REINFORCEMENT
RFT	RAFTER
REQD	REQUIRED
RET	RETAINING
RO	ROUGH OPENING
SAD	SEE ARCHITECTURAL DRAWINGS
SCD	SEE CIVIL DRAWINGS
SCHED	SCHEDULE
SLD	SEE LANDSCAPE DRAWINGS
SMD	SEE MECHANICAL DRAWINGS
SHT	SHEET
SHTG	SHEATHING
SIM	SIMILAR
SOG	SLAB ON GRADE
SQ	SQUARE
SS	SELECT STRUCTURAL; STAINLESS STEEL
STD	STANDARD
STL	STEEL
STIFF	STIFFENER
SW	SHEAR WALL
SYM	SYMMETRICAL
T&B	TOP AND BOTTOM
TD	TIE-DOWN
T&G	TONGUE AND GROOVE
THRD	THREADED
TN	TOE-NAIL
TOS	TOP OF SLAB; TOP OF STEEL
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
VB	VAPOR BARRIER
VERT	VERTICAL
VIF	VERIFY IN FIELD
W	WIDE FLANGE SECTION
W/	WITH
WP	WORKING POINT
WPM	WATERPROOF MEMBRANE
WS	WOOD SCREW
WWR	WELDED WIRE REINFORCEMENT
#	SIZE OF REINFORCING BAR
@	AT (SPACING)

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No. C 84568
Exp. 9/30/23

O'REGAN AND FRAUENFELDER
GARAGE REBUILD
513 San Carlos, Albany CA

Revision:

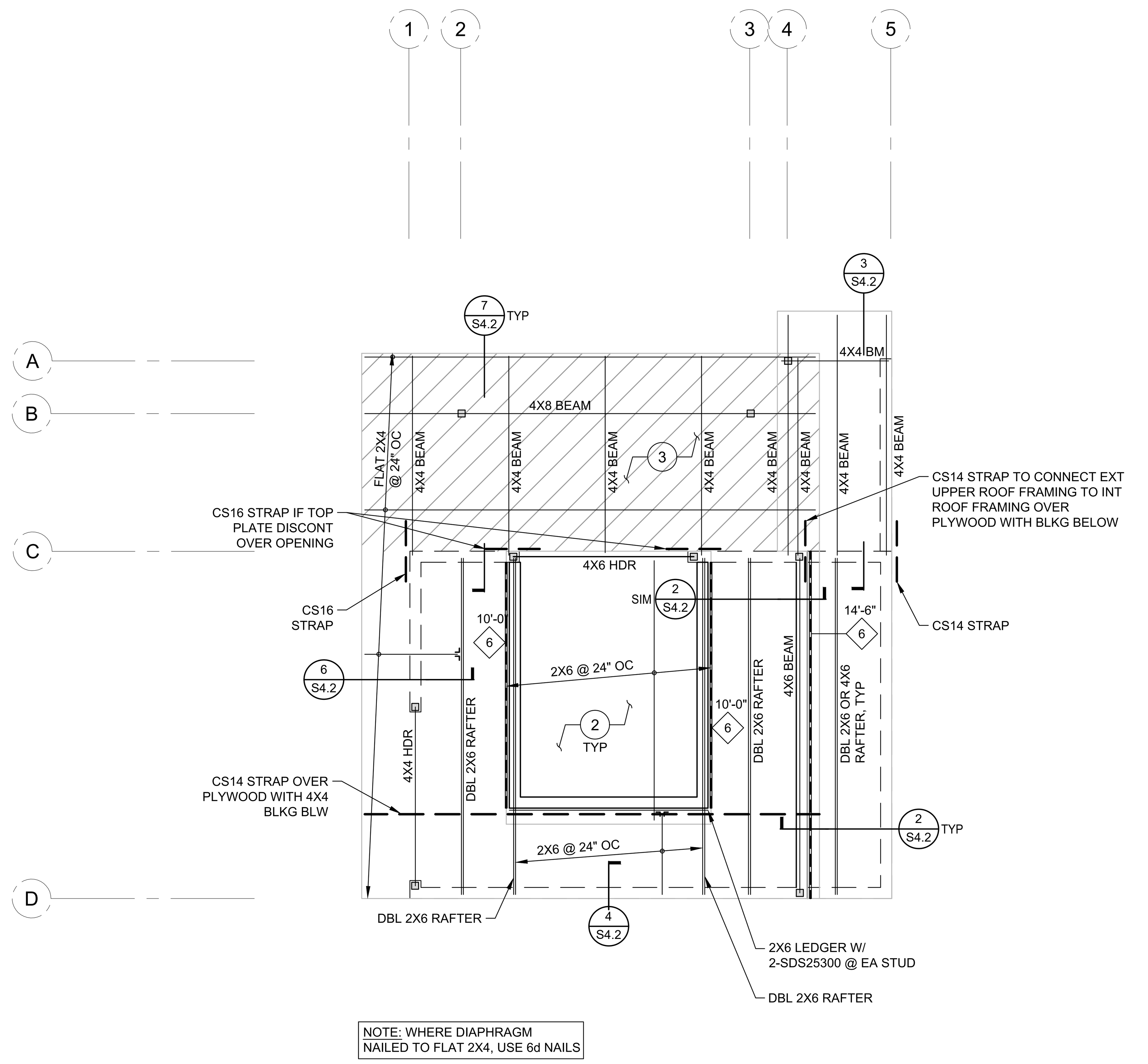
Date: 10/26/2022
Scale: AS NOTED
Drawn: RTW
Job: 22061

GENERAL NOTES, SHEET LIST, & ABBREVIATIONS

Sheet:
S0.0

SHEET NOTES

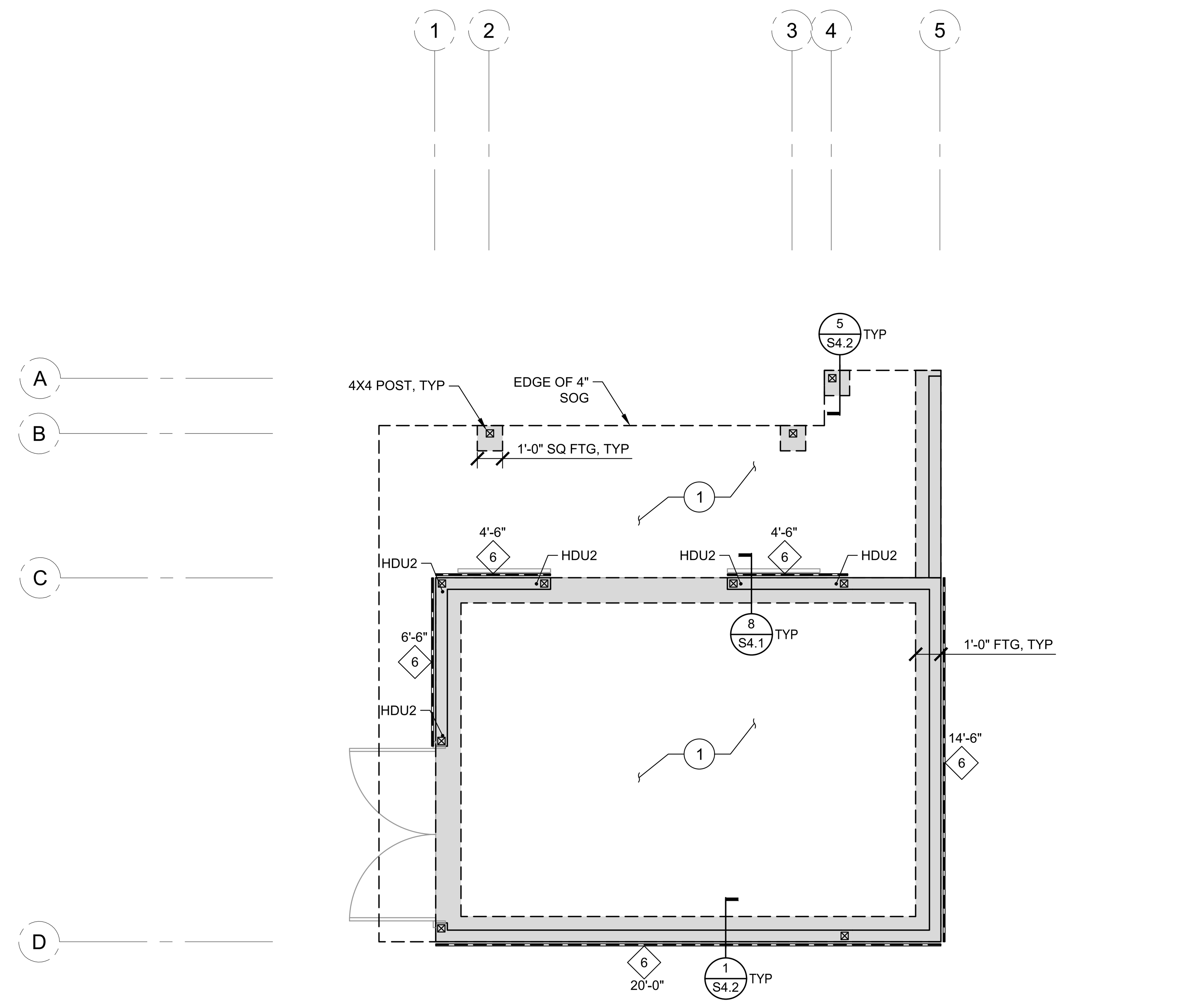
1	4" SLAB ON GRADE	5/S4.0
2	ROOF SHEATHING, SEE GENERAL NOTES. CONTINUOUS PANEL JOINTS PERPENDICULAR TO FRAMING	8/S4.2
3	ROOF SHEATHING, SEE GENERAL NOTES. CONTINUOUS PANEL JOINTS PERPENDICULAR AND PARALLEL TO FRAMING	9/S4.2



UPPER AND LOWER ROOF FRAMING PLAN

¼" = 1'-0"   0 2' 4' 8' 12'

REF NORTH



FOUNDATION PLAN

¼" = 1'-0"   0 2' 4' 8' 12'

REF NORTH

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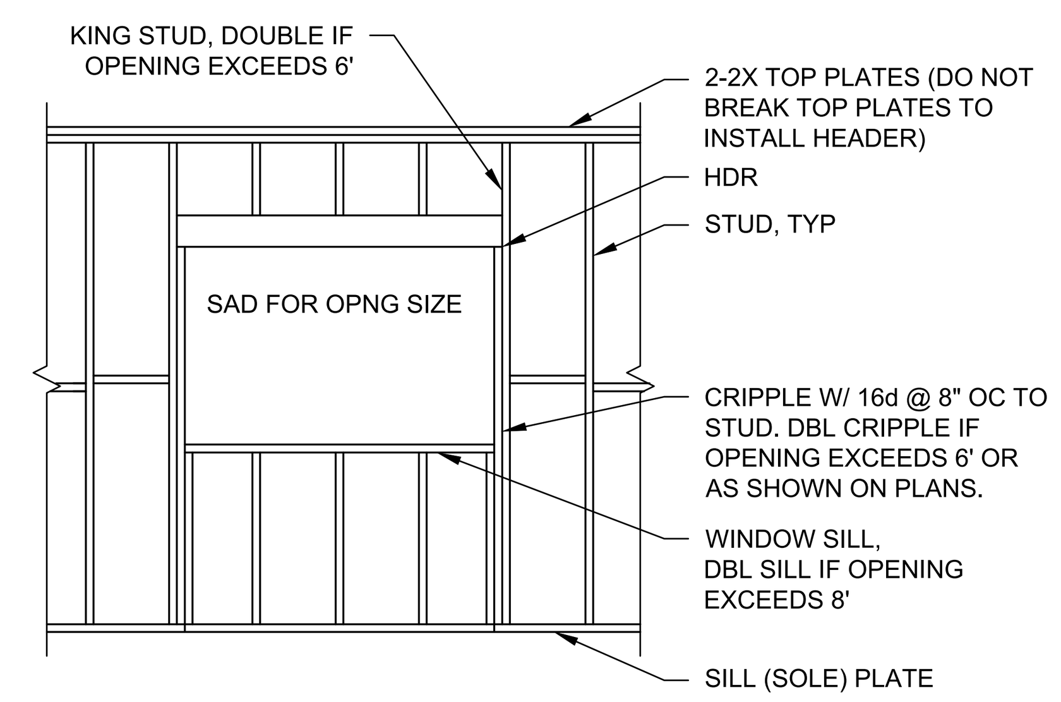
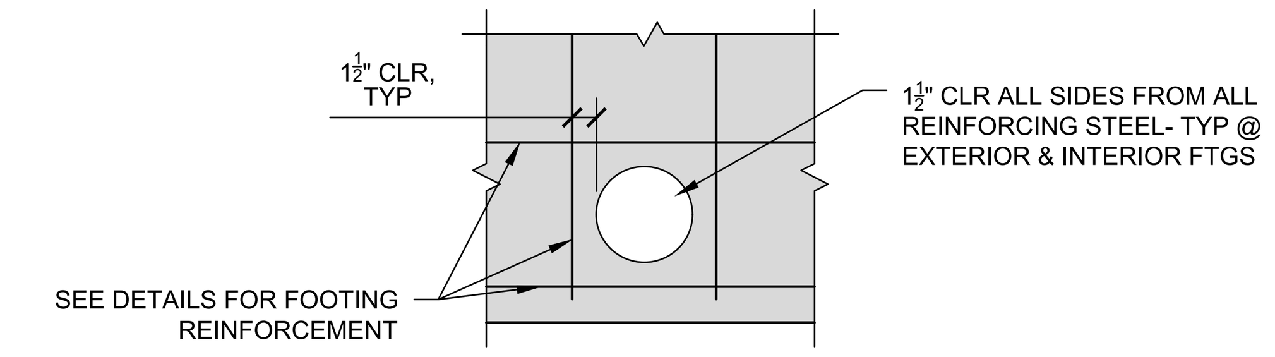
FOUNDATION & UPPER AND LOWER ROOF FRAMING PLANS

Sheet:

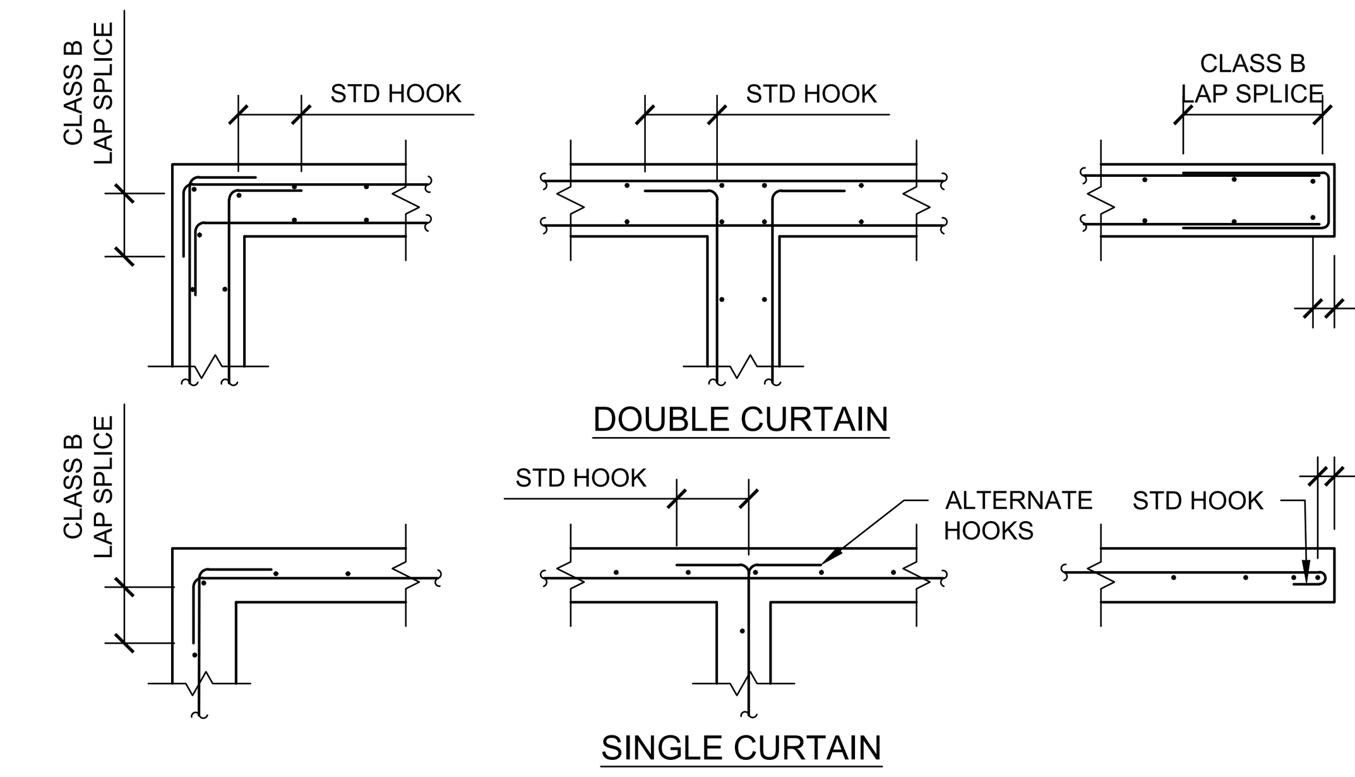
S2.0



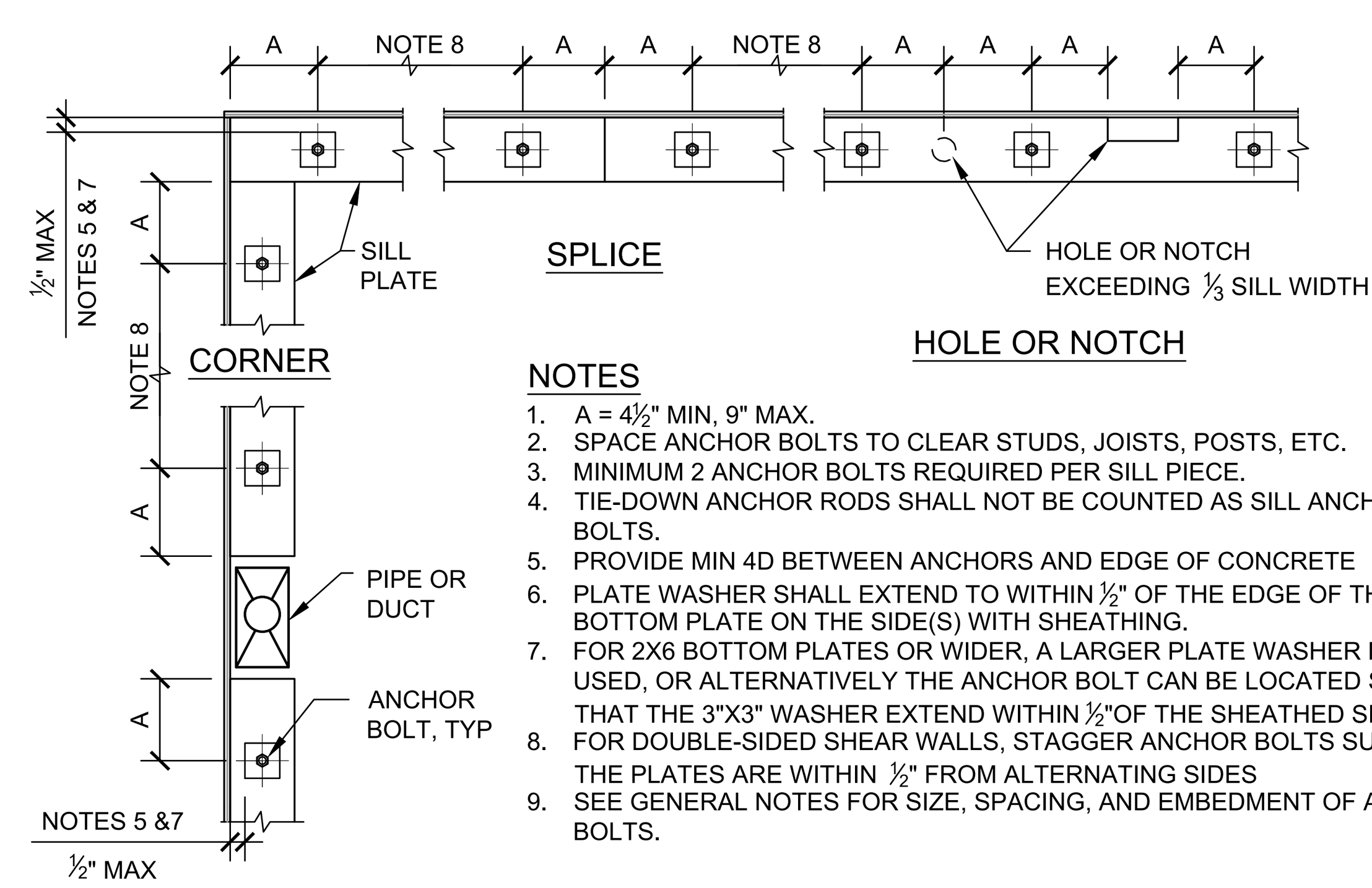
13 / S4.0 WOOD HEADER FRAMING
NOT TO SCALE



8 / S4.0 PERPENDICULAR PENETRATION THROUGH FOOTINGS
3/4" = 1'-0"

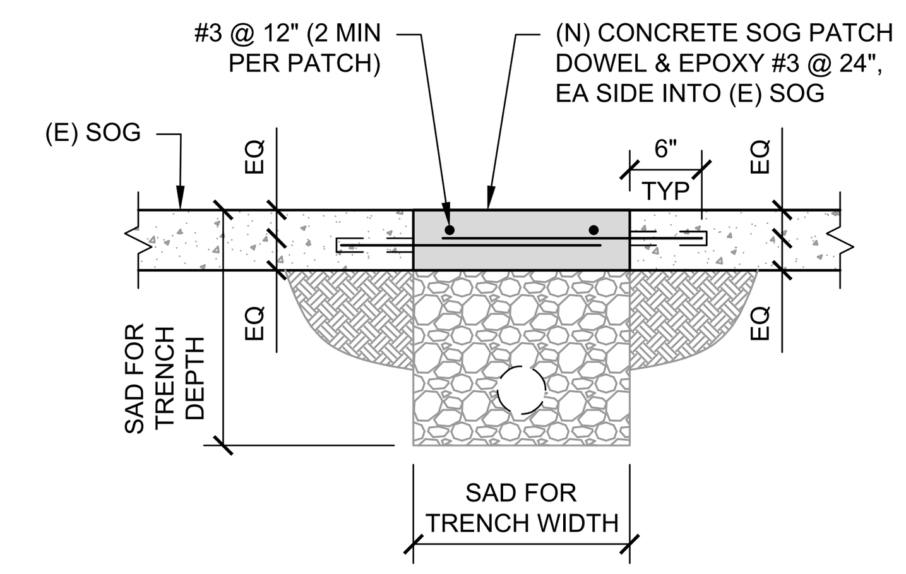


4 / S4.0 CONC REINF AT CORNERS & INTERSECTIONS
NOT TO SCALE



NOTES
1. A = 4½" MIN, 9" MAX.
2. SPACE ANCHOR BOLTS TO CLEAR STUDS, JOISTS, POSTS, ETC.
3. MINIMUM 2 ANCHOR BOLTS REQUIRED PER SILL PIECE.
4. TIE-DOWN ANCHOR RODS SHALL NOT BE COUNTED AS SILL ANCHOR BOLTS.
5. PROVIDE MIN 4D BETWEEN ANCHORS AND EDGE OF CONCRETE
6. PLATE WASHER SHALL EXTEND TO WITHIN ½" OF THE EDGE OF THE BOTTOM PLATE ON THE SIDE(S) WITH SHEATHING.
7. FOR 2X6 BOTTOM PLATES OR WIDER, A LARGER PLATE WASHER MAY BE USED, OR ALTERNATIVELY THE ANCHOR BOLT CAN BE LOCATED SUCH THAT THE 3"X3" WASHER EXTEND WITHIN ½"OF THE SHEATHED SIZE.
8. FOR DOUBLE-SIDED SHEAR WALLS, STAGGER ANCHOR BOLTS SUCH THAT THE PLATES ARE WITHIN ½" FROM ALTERNATING SIDES
9. SEE GENERAL NOTES FOR SIZE, SPACING, AND EMBEDMENT OF ANCHOR BOLTS.

12 / S4.0 SILL PLATE BOLTING PLAN
NOT TO SCALE



7 / S4.0 SLAB REPAIR AT TRENCH
3/4" = 1'-0"

BAR SIZE	CLASS B SPLICE (in)		CLASS A SPLICE (ld) (in)	
	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS
F'c = 2500psi				
#3	31	24	24	18
#4	41	32	32	24
#5	51	39	39	30
#6	61	47	47	36
#7	71	55	55	42
#8	82	63	63	48
F'c = 3000psi				
#3	28	22	22	17
#4	37	29	29	22
#5	47	36	36	28
#6	56	43	43	33
#7	65	50	50	39
#8	74	57	57	44

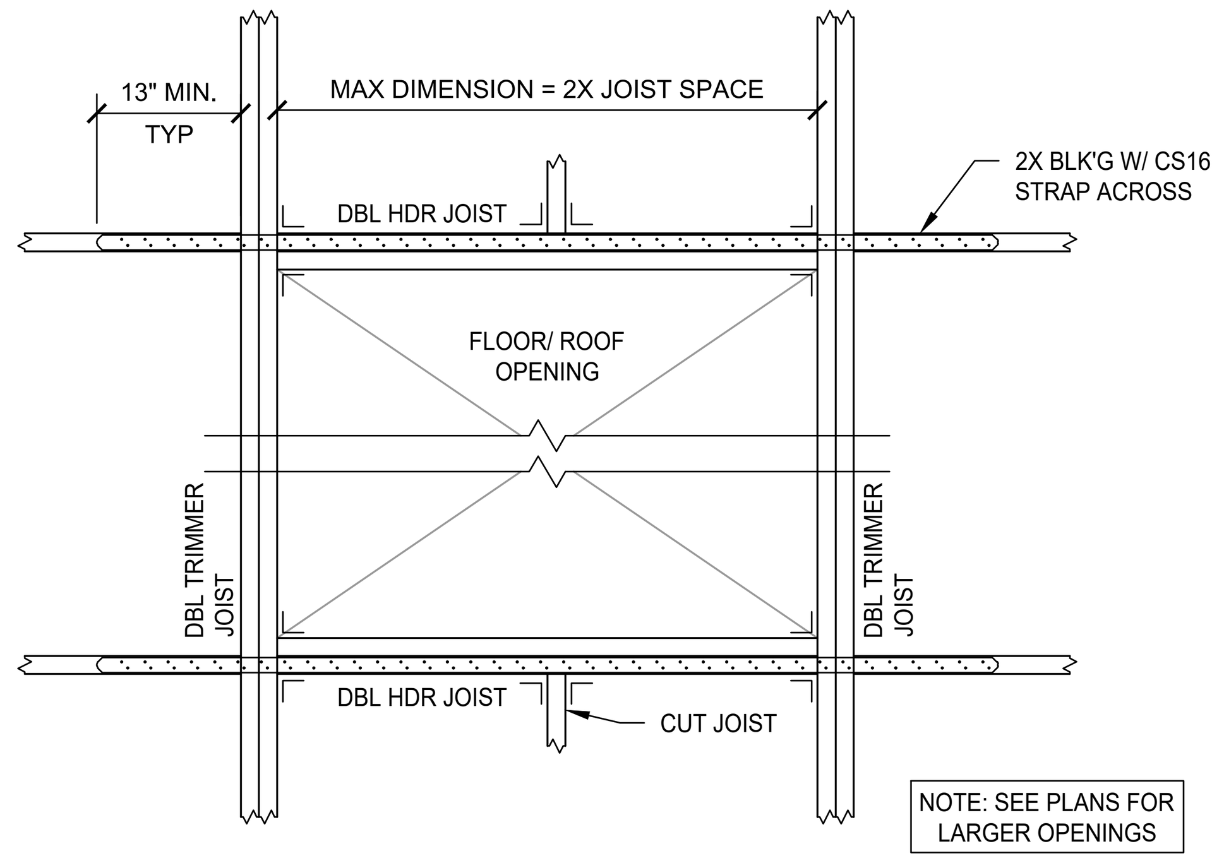
NOTES:

1. LAP SPLICE LENGTHS ARE BASED ON ACI 318-14 25.4.2.2, GR. 60 STEEL AND NORMAL WEIGHT AGGREGATE. CLEAR SPACING OF BARS BEING DEVELOPED OR SPLICED NOT LESS THAN 2db AND CLEAR COVER NOT LESS THAN db.

2. CLASS A SPLICES ARE LIMITED TO CASES WHERE ONE-HALF OR LESS OF THE TOTAL REINFORCEMENT IS SPLICED WITHIN THE REQUIRED LAP LENGTH (STAGGERED SPLICE). SEE ACI COMMENTARY FIGURE R25.5.2.1 FOR CLASS A TENSION LAP SPLICE ILLUSTRATION. FOR WALLS THE SPLICES SHALL ALSO BE STAGGERED WITH RESPECT TO THE OPPOSITE CURTAIN.

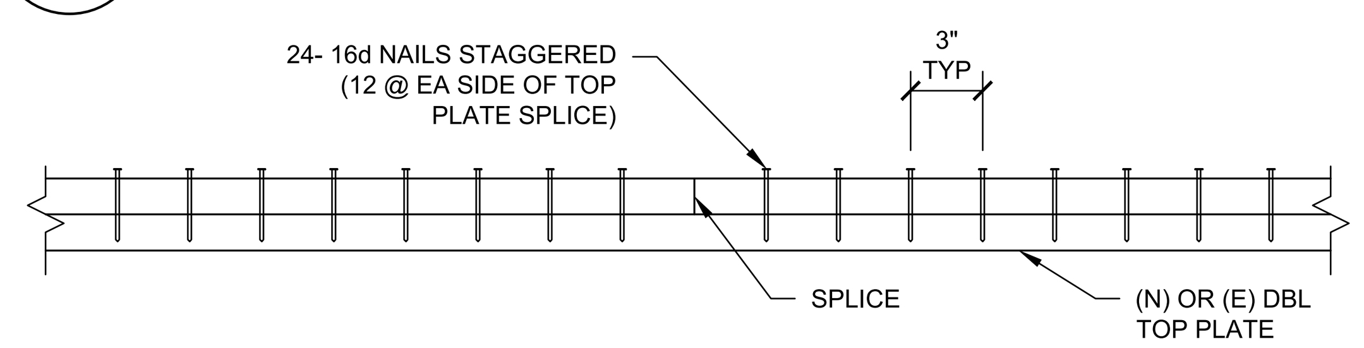
3. TOP BARS ARE BARS WITH MORE THAN 12" OF CONCRETE POURED BELOW THE BARS.

3 / S4.0 TENSION LAP SPLICES
NOT TO SCALE



NOTE: SEE PLANS FOR LARGER OPENINGS

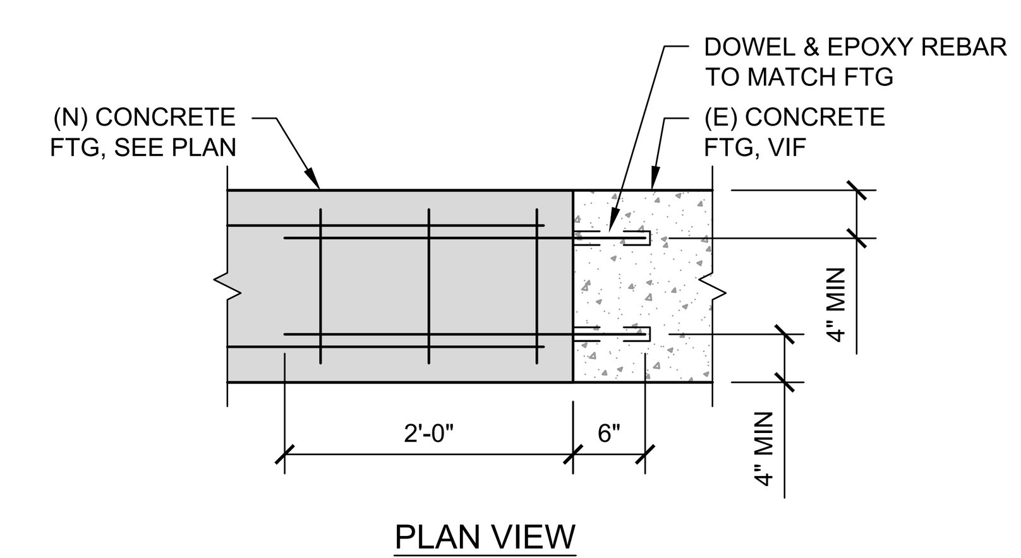
15 / S4.0 TYPICAL FRAMING AT OPENING IN FLOOR OR ROOF
NOT TO SCALE



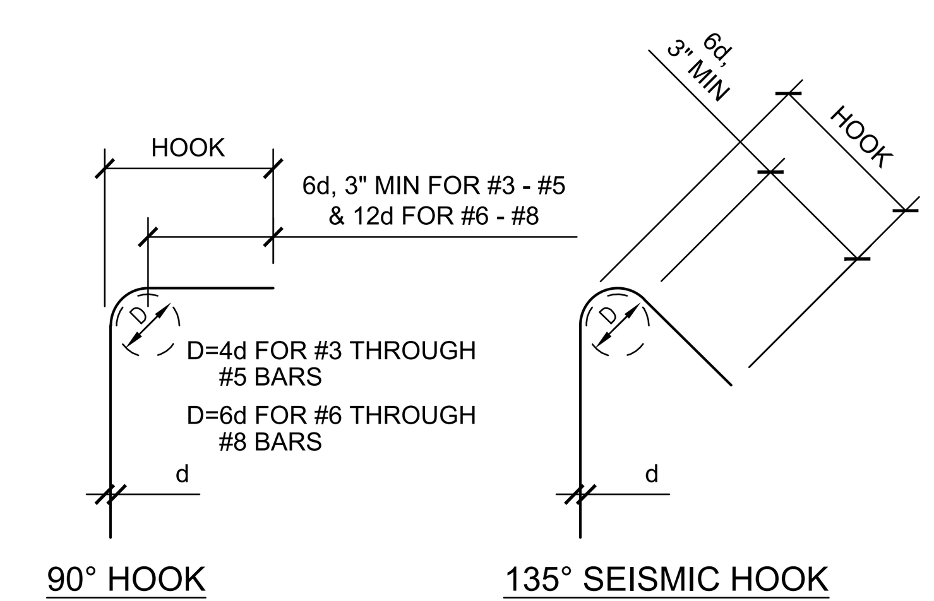
11 / S4.0 TOP PLATE SPLICE
NOT TO SCALE

SPECIFIED COMMON NAIL	WIRE GAGE	WIRE DIAMETER	MIN. PENETRATION INTO HOLDING MEMBER
8d	10 1/4	0.131"	1 1/2"
10d	9	0.148"	1 3/4"
12d	9	0.148"	1 3/4"
16d	8	0.162"	2"
20d	6	0.192"	2 3/8"
30d	5	0.207"	2 1/2"

10 / S4.0 NAIL SCHEDULE
NOT TO SCALE



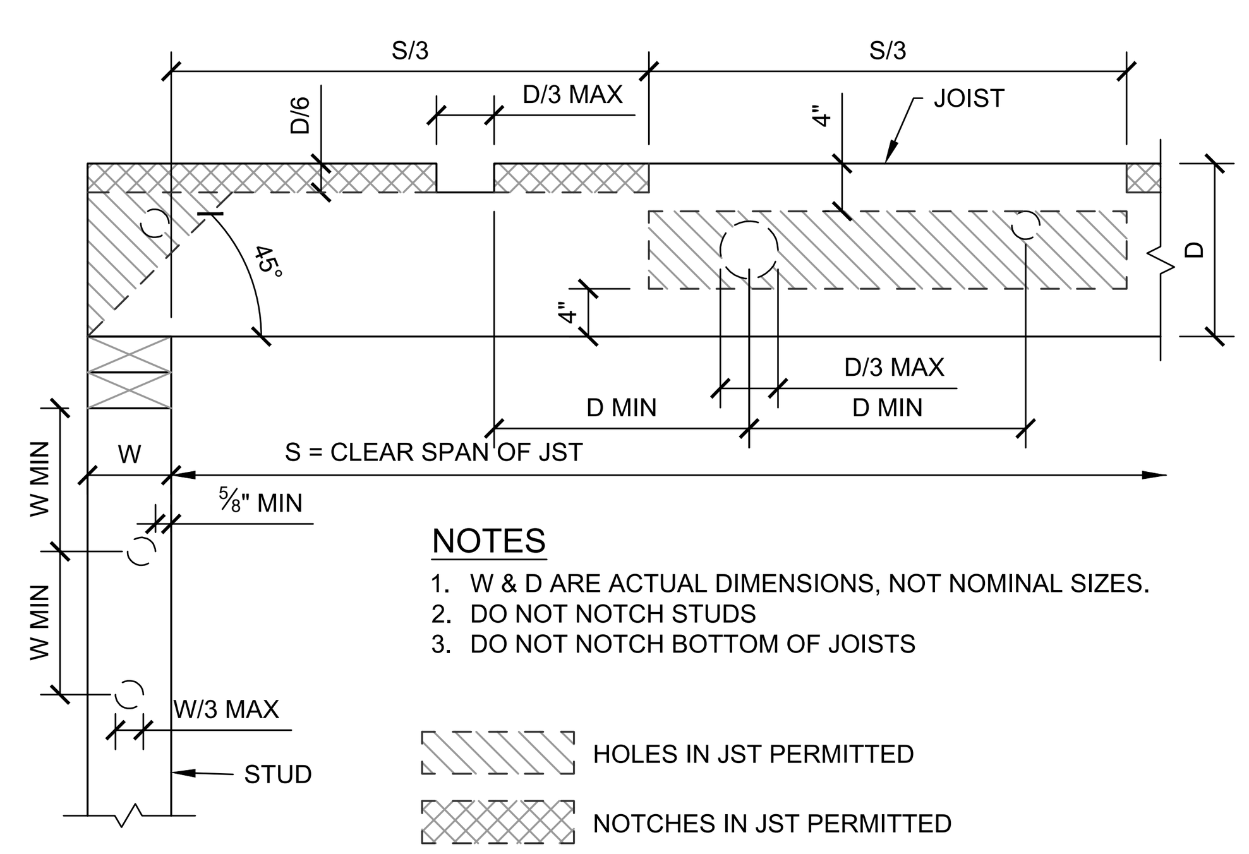
6 / S4.0 (N) TO (E) FOOTING DOWEL CONN
3/4" = 1'-0"



BAR SIZE	D	HOOK	
		90°	135°
#3	1½"	4"	4"
#4	2"	4½"	4½"
#5	2½"	6"	6"
#6	4½"	1'-0"	7½"
#7	5¼"	1'-2"	8¾"
#8	6"	1'-4"	10"

NOTE:
1. MINIMUM INSIDE BEND DIAMTERS & STANDARD HOOK GEOMETRY ARE BASED ON ACI 318-14 TABLE 25.3.2.

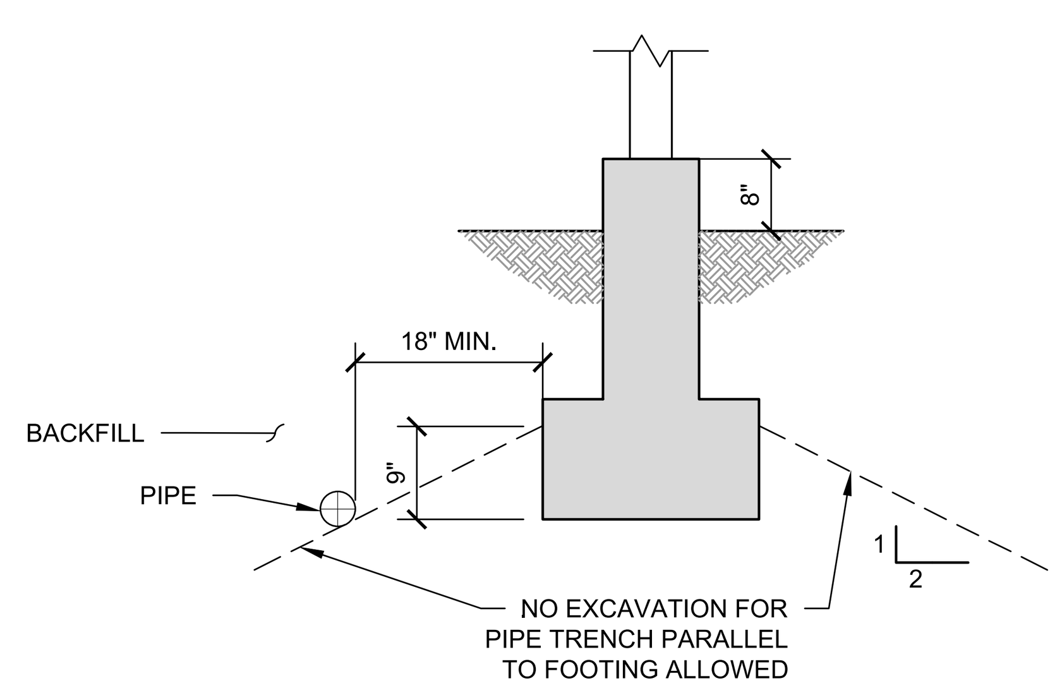
2 / S4.0 STIRRUPS & TIE HOOKS
NOT TO SCALE



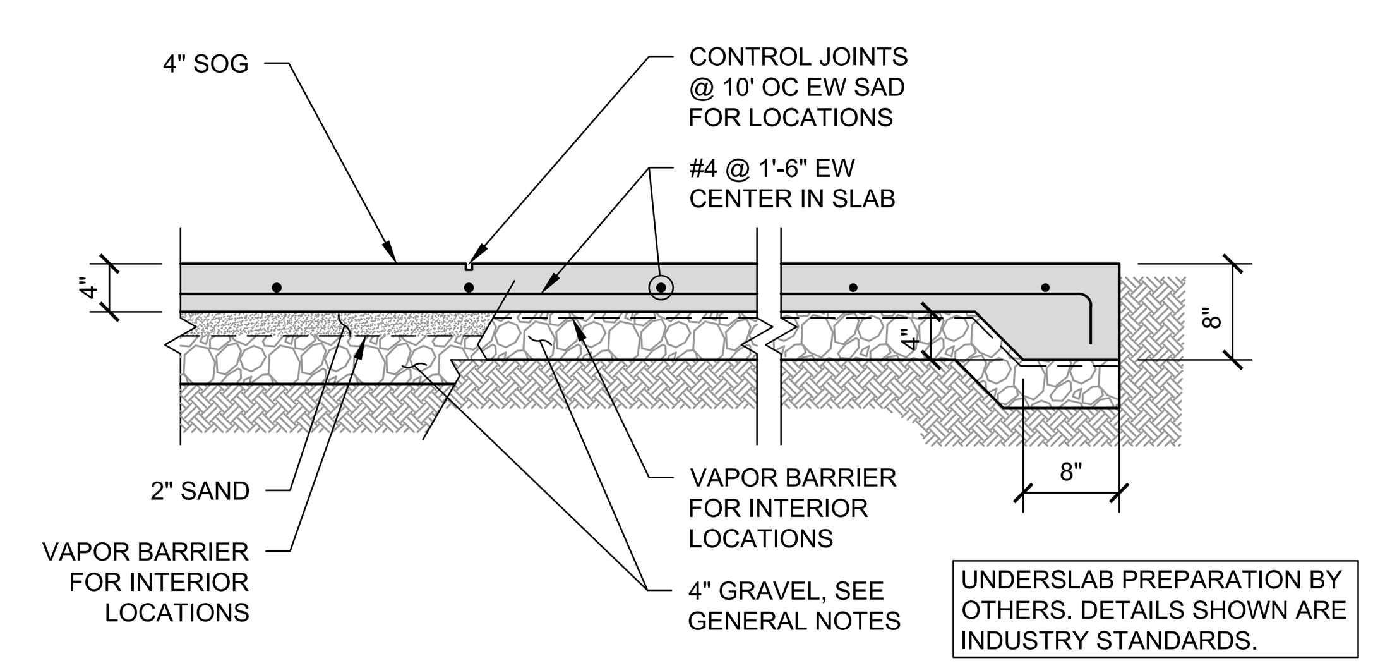
NOTES
1. W & D ARE ACTUAL DIMENSIONS, NOT NOMINAL SIZES.
2. DO NOT NOTCH STUDS
3. DO NOT NOTCH BOTTOM OF JOISTS

HOLES IN JST PERMITTED
NOTCHES IN JST PERMITTED

14 / S4.0 HOLES & NOTCHES IN SAWN LUMBER
NOT TO SCALE

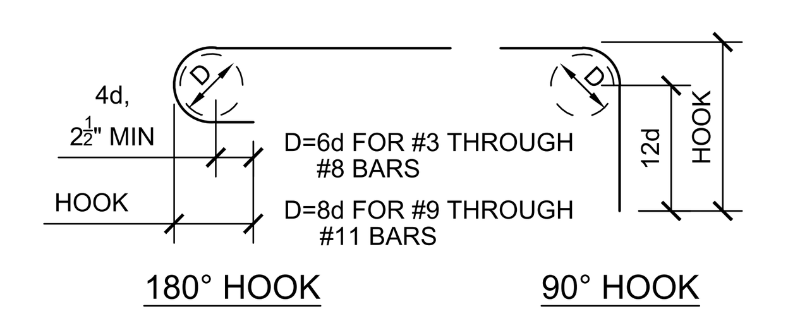


9 / S4.0 PIPE PARALLEL TO FOOTING
3/4" = 1'-0"



UNDERSLAB PREPARATION BY OTHERS. DETAILS SHOWN ARE INDUSTRY STANDARDS.

5 / S4.0 TYP 4" SLAB ON GRADE
3/4" = 1'-0"



BAR SIZE	D	HOOK	
		180°	90°
#3	2¼"	4"	6"
#4	3"	4½"	8"
#5	3¾"	5"	10"
#6	4½"	6"	1'-0"
#7	5¼"	7"	1'-2"
#8	6"	8"	1'-4"
#9	9¼"	10½"	1'-7"

NOTE:
1. STANDARD HOOK GEOMETRY FOR DEVELOPMENT OF DEFORMED BARS ARE BASED ON ACI 318-14 TABLE 25.3.1.

1 / S4.0 STANDARD HOOKS
NOT TO SCALE

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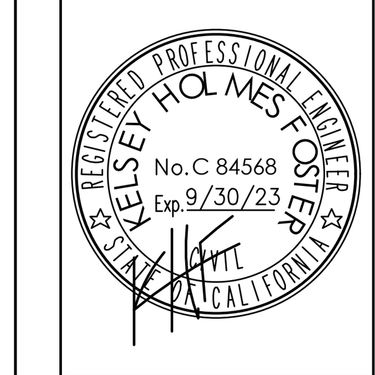

O'REGAN AND FRAUENFELDER GARAGE REBUILD
513 San Carlos, Albany CA

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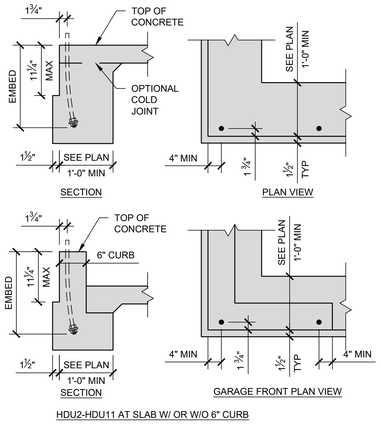


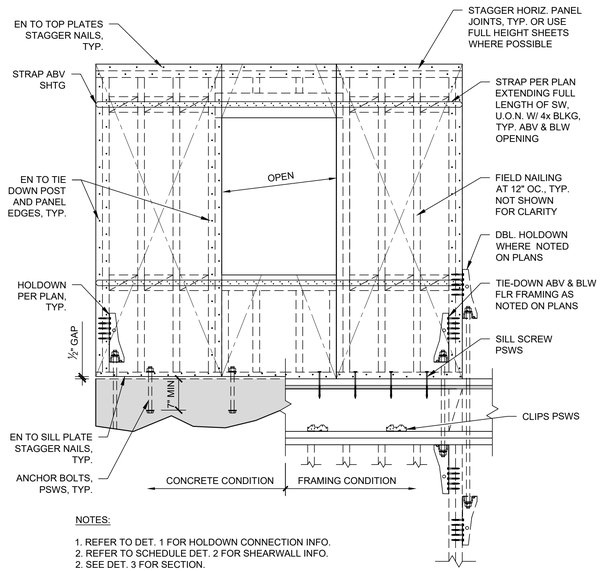
HDU2-HDU11 AT SLAB W/ OR W/O 6" CURB

TIE- DOWN (1)	MINIMUM POST SIZE	FASTENERS TO POST (1)	SIMPSON ANCHOR (1)	EMBEDMENT TO (N) CONC	MIN STEMWALL WIDTH	EMBEDMENT TO (E) CONC
HDU2	2-2x OR 4x	6-SDS¼"x2½"	SB⅝X24 SSTB24	SB = 18" SSTB = 20 ⅛"	6"	12"
HDU4	2-2x OR 4x	10-SDS¼"x2½"	SB⅝X24	18"	6"	12"

NOTES:
1. SIMPSON STRONG-TIE COMPANY OR EQUIVALENT.
2. 2-2X FASTENED TOGETHER WITH 2 ROWS 16d @4", STAGGERED.
3. SSTB ANCHORS SHALL NOT BE USED AS A SUBSTITUTE FOR SB ANCHORS U.O.N.
4. ANCHOR STEEL GRADE SHALL BE F1554 GR 36, U.O.N.
5. FOR TIE-DOWN EMBEDDED INTO (E) CONCRETE, SEE PLAN FOR PULL TEST VALUES.

8 / S4.1 TIE-DOWN SCHEDULE
STEMWALL FOOTING

NOT TO SCALE

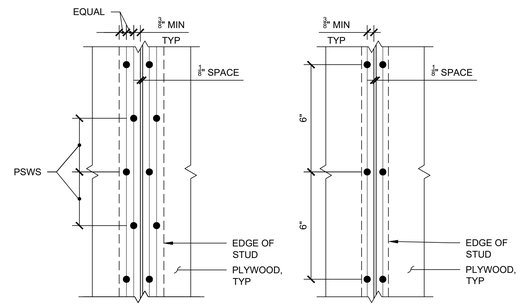


NOTES:
1. REFER TO DET. 1 FOR HOLDOWN CONNECTION INFO.
2. REFER TO SCHEDULE DET. 2 FOR SHEARWALL INFO.
2. SEE DET. 3 FOR SECTION.

4 / S4.1 FORCE TRANSFER SHEAR WALL

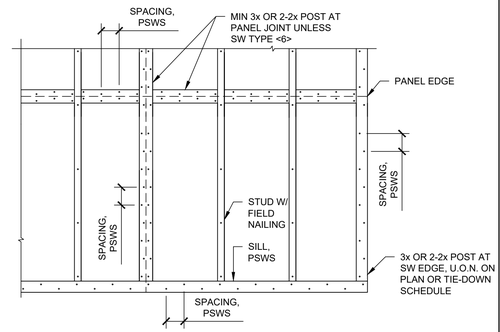
NOT TO SCALE

IF NAILS ARE NOT STAGGERED PER DETAIL B, CONTRACTOR MUST REMOVE & REINSTALL SHEAR WALL NAILING, SHEATHING & STUDS IN COMPLIANCE WITH DETAIL B



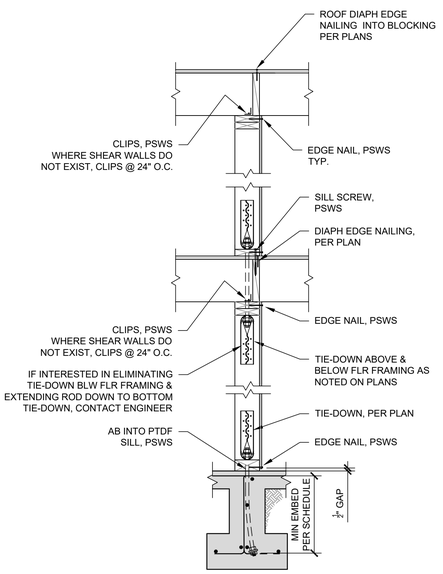
B / - TYPE ◇2, ◇3, ◇4 WALL
STAGGERED SINGLE ROW, 3X OR 2-2X STUDS

A / - TYPE ◇6 WALL
SINGLE ROW, 2X STUD



2 / S4.1 SHEAR WALL NAILING

NOT TO SCALE



7 / S4.1 TYPICAL SHEAR WALL TRANSFER DETAIL

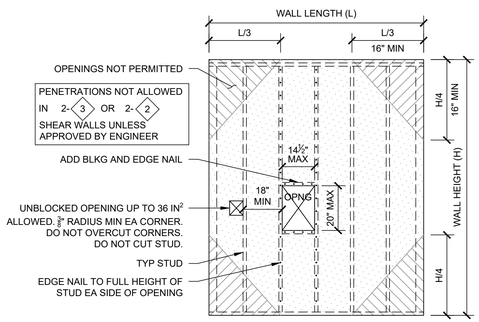
NOT TO SCALE

SW SYMBOL	SHTG	PANEL EDGE NAILING (1) (2)	MIN STUD/BLKG AT PANEL JOINT (3)	ANCHOR BOLT SPACING (4)	FNDN SILL	FLR SILL CONN TO 2X RIM (5) (6)	SILL AT UPPER FLR	CLIPS TO RIM/BLKG (5)(7)
◇6	15/32" SHTG (ONE SIDE)	10d @6"	2x	48"	2x	SDWSX6" @16" O.C.	2x	A35 @24" OR LTP4 @24"
◇4		10d @4"	3x OR 2-2x SPLICED	32"	3x	SDWSX6" @12" O.C.	2x	A35 @16" OR LTP4 @16"

NOTES:
1. FLAT BLK'G TO BE PROVIDED AT UNSUPPORTED PANEL EDGES, 2x4 FOR 1 ROW & 2x6 FOR 2 ROWS OF NAILING.
2. FOR ALL EXCEPT TYPE <6>WALLS, THE PANEL JOINT AND SILL PLATE NAILING SHALL BE STAGGERED PER STAGGERED SHEAR WALL NAILING DETAIL.
3. 2-2X STUDS MAY BE USED IN PLACE OF 3x STUD. FASTEN TOGETHER WITH 2 ROWS 16d @4" STAGGERED.
4. 5/8" DIAMETER BOLTS WITH 3X3X1/4" WASHERS, EMBEDDED 7" MINIMUM AT 4'-0" MAXIMUM ON CENTER, U.O.N.
5. SIMPSON STRONG-TIE COMPANY OR EQUIVALENT.
6. MIN 2" PENETRATION INTO 2X RIM JOIST.
7. CLIPS SHALL BE ORIENTED HORIZONTALLY

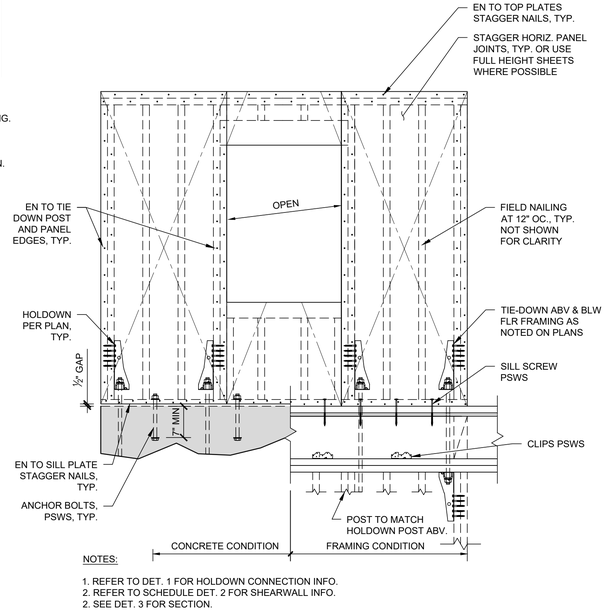
6 / S4.1 SHEAR WALL SCHEDULE

NOT TO SCALE



5 / S4.1 TYPICAL SMALL SHEAR WALL OPENING

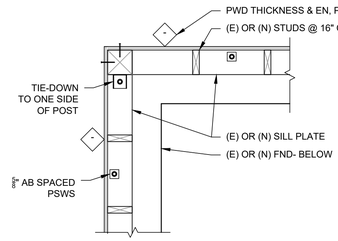
3/4" = 1'-0"



NOTES:
1. REFER TO DET. 1 FOR HOLDOWN CONNECTION INFO.
2. REFER TO SCHEDULE DET. 2 FOR SHEARWALL INFO.
2. SEE DET. 3 FOR SECTION.

3 / S4.1 SEGMENTED SHEAR WALL

NOT TO SCALE



1 / S4.1 SHEAR WALL SILL PLATE PLAN

NOT TO SCALE

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O'REGAN AND FRAUENFELDER GARAGE REBUILD

513 San Carlos, Albany CA

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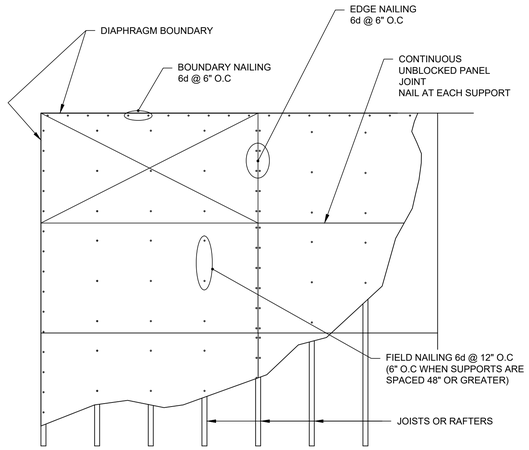
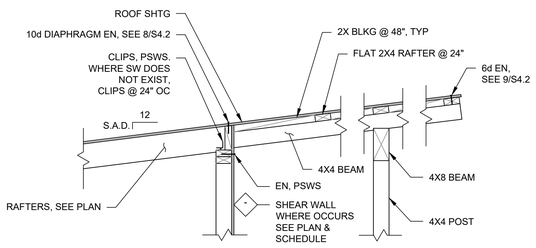
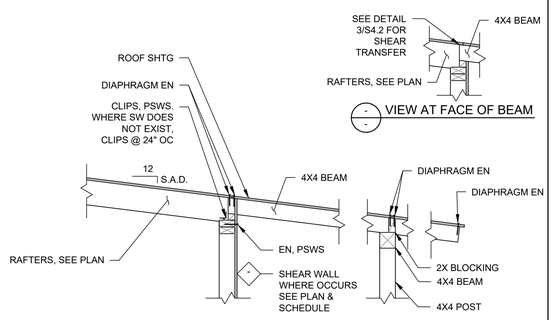


NOTES:
1. LOCATE ALL NAILS ⅜" MIN. FROM PANEL EDGES AND ENDS.
2. PANELS NOT LESS THAN 4'x8' EXCEPT AS NOTED.

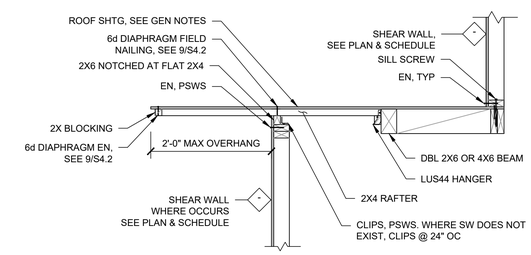
9 / S4.2 UNBLOCKED DIAPHRAGM
CONT JOINTS PERP & PARALLEL TO FRAMING N.T.S.



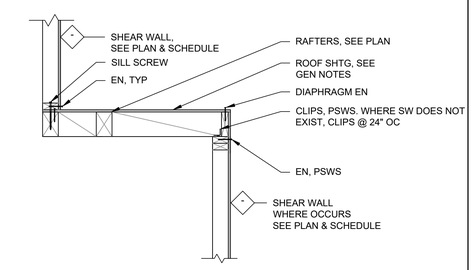
7 / S4.2 ROOF FRAMING SECTION AT OVERHANG
AT UPPER ROOF 3/4" = 1'-0"



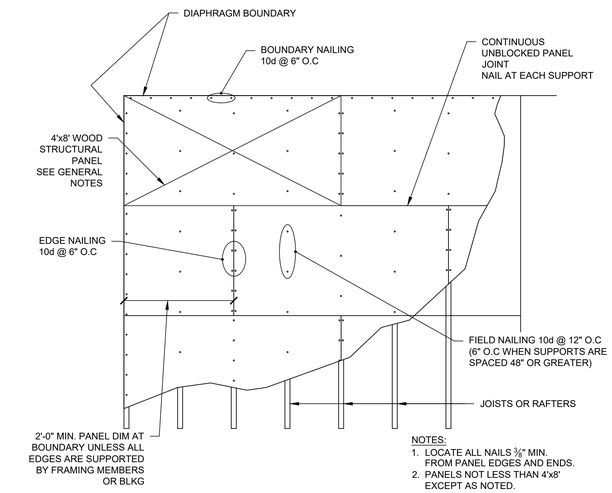
3 / S4.2 ROOF FRAMING SECTION AT OVERHANG
AT LOWER ROOF 3/4" = 1'-0"



6 / S4.2 LOAD TRANSFER
AT UPPER ROOF RAKE 3/4" = 1'-0"

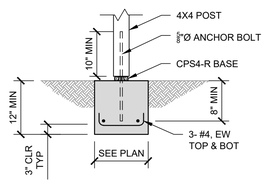


2 / S4.2 LOAD TRANSFER
AT LOWER ROOF RAKE 3/4" = 1'-0"

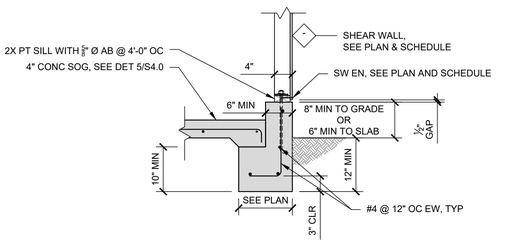


NOTES:
1. LOCATE ALL NAILS ⅜" MIN. FROM PANEL EDGES AND ENDS.
2. PANELS NOT LESS THAN 4'x8' EXCEPT AS NOTED.

8 / S4.2 UNBLOCKED DIAPHRAGM
CONT PANEL JOINTS PERP TO FRAMING N.T.S.



5 / S4.2 EXTERIOR ISOLATED FOOTING
3/4" = 1'-0"



1 / S4.2 TYPICAL EXTERIOR SHEAR WALL
3/4" = 1'-0"

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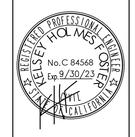

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