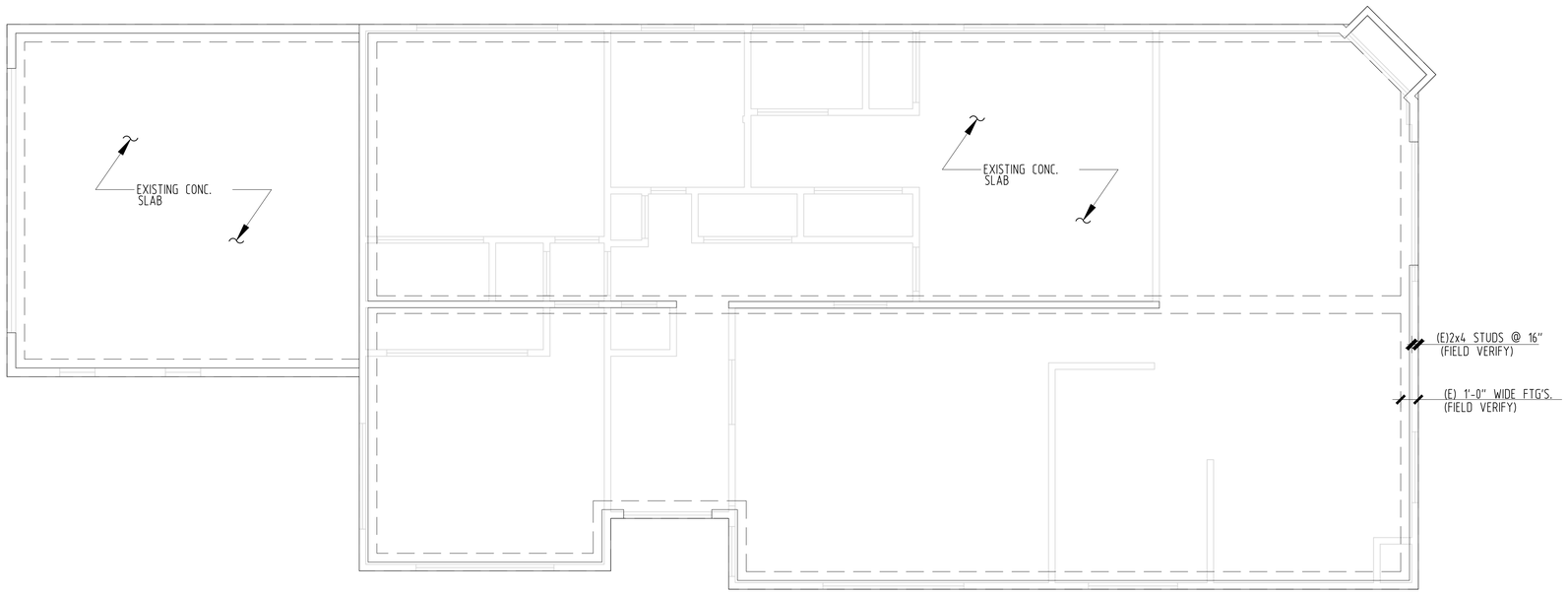
LEGEND

EXISTING CONC. FOOTING



1 (E) FOUNDATION PLAN

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

N

SPRUCE ENGINEERING SERVICES, PROFESSIONAL CORPORATION

5771 GLOUCESTER CIR., WESTMINSTER, CA 92683
TELE: (562) 204-6223
SPRUCEENGSERVICES.COM

CHECK AND VERIFY ALL DIMENSIONS BEFORE PROCEEDING WITH THE WORK. REPORT DISCREPANCIES TO THE ENGINEER. ALL CONSTRUCTION SHALL CONFORM TO THE C.B.C.

ENGINEER:

PROJECT:

AS-BUILT DRAWINGS

PROJECT ADDRESS:
3512 Maple Ave.,
Manhattan Beach, CA 90266

MARK	DATE	REVISIONS
1		
2		
3		

TITLE

EXISTING FOUNDATION PLAN

JOB NO.	25-103
DRAWN :	JMG
CHECKED :	JMG
DATE :	4/24/25

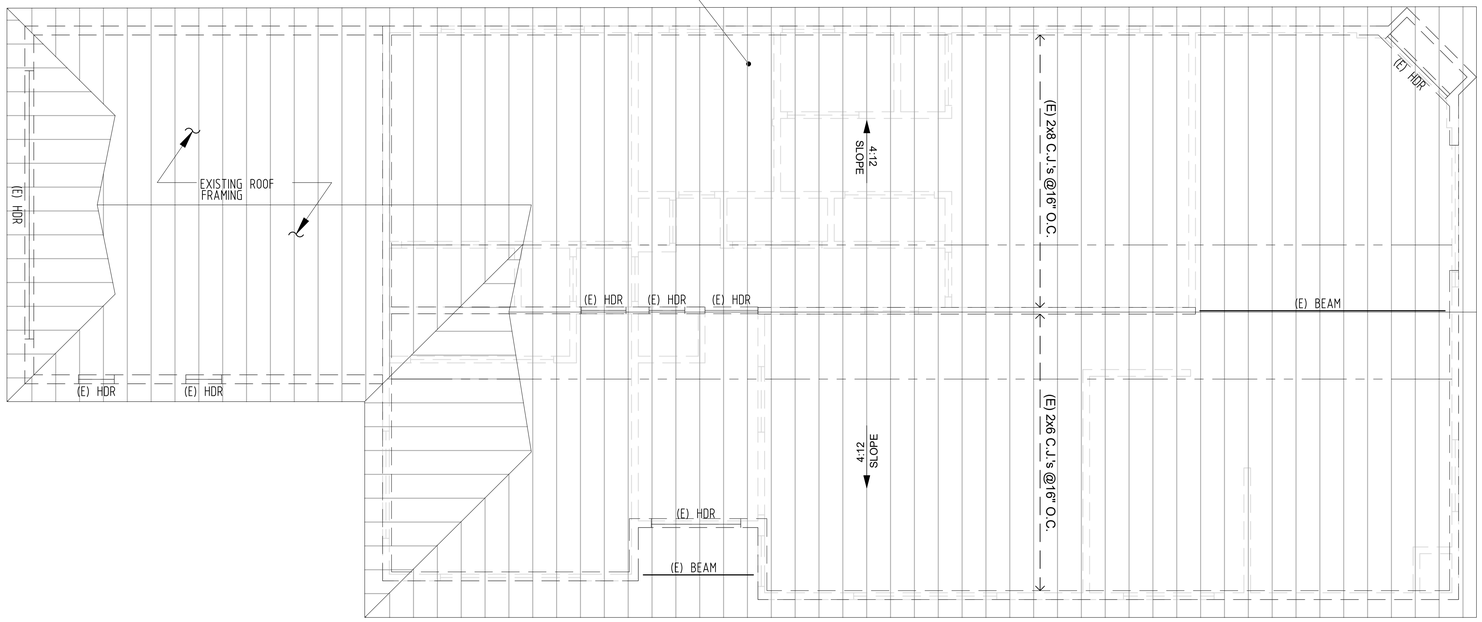
SHEET NUMBER

AB2.0
OF SHEETS

DUTCH GABLE FRAMING:
ASPHALT SHINGLES
SHIPLAP BOARDS
2x10 RIDGE
2x6 RAFTERS @ 24″O.C.
2x4 KICKERS (TO CTR. WALL) &
2x6 CONT. PURLINS
EA. SIDE @ 4'-00″ O.C.
TOP PL. 96″
HIGH CEILING (ON T.P. =96″)
LOW CEILING (DROPPED = 89-91″)

LEGEND

- EXISTING WALLS
- HEADER MEMBER. INSTALL MEMBER AT HEAD OF OPENING IN WALL BELOW. SEE DETAIL
- BEAM MEMBER INSTALLED DIRECTLY BELOW SHEATHING, U.O.N.
- C.J. — CEILING JOIST CLEAR SPAN, SEE DETAIL FOR CEILING JOIST SIZE AND SPACING. SUPPORT.



1 (E) ROOF FRAMING PLAN

SCALE: 1/4″ = 1'-0″

N

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CHECK AND VERIFY ALL DIMENSIONS BEFORE PROCEEDING WITH THE WORK. REPORT DISCREPANCIES TO THE ENGINEER. ALL CONSTRUCTION SHALL CONFORM TO THE C.B.C.

ENGINEER:

PROJECT:

AS-BUILT DRAWINGS

PROJECT ADDRESS:
3512 Maple Ave.,
Manhattan Beach, CA 90266

MARK	DATE	REVISIONS
1		
2		
3		

TITLE

EXISTING
ROOF
FRAMING PLAN

JOB NO. 25-103
DRAWN : JMG
CHECKED : JMG
DATE : 4/24/25

SHEET NUMBER

AB2.1
OF SHEETS

2022 CBC: TABLE NO. 2304.10.2: FASTENING SCHEDULE

DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER[a]	SPACING AND LOCATION
ROOF		
1. BLOCKING BETWEEN CEILING JOIST, RAFTERS OR TRUSSES TO TOP PLATE OR OTHER FRAMING BELOW	4-8d BOX (2 1/2"x 0.113"); OR 3-8d COMMON (2 1/2"x 0.131"); OR 3-10d BOX (3"x 0.128"); OR 3-3"x 0.131" NAILS; OR 3-3" 14 GAGE STAPLES 7/16" CROWN	EACH END, TOENAIL
BLOCKING BETWEEN RAFTERS OR TRUSS NOT AT THE WALL TOP PLATE, TO RAFTER OR TRUSS	2-8d COMMON (2 1/2"x 0.131") 2-3"x 0.131" NAILS 2-3" 14 GAGE STAPLES	EACH END, TOENAIL
	2-16d COMMON (3 1/2"x 0.162") 3-3"x 0.131" NAILS 3-3" 14 GAGE STAPLES	END NAIL
FLAT BLOCKING TO TRUSS AND WEB FILLER	16d COMMON (3 1/2"x 0.162") @ 6" O.C. 3"x 0.131" NAILS @ 6" O.C. 3"x 14 GAGE STAPLES @ 6" O.C.	FACE NAIL
2. CEILING JOISTS TO TOP PLATE	4-8d BOX (2 1/2"x 0.113"); OR 3-8d COMMON (2 1/2"x 0.131"); OR 3-10d BOX (3"x 0.128"); OR 3-3"x 0.131" NAILS; OR 3-3" 14 GAGE STAPLES 7/16" CROWN	EACH JOIST, TOENAIL
3. CEILING JOIST NOT ATTACHED TO PARALLEL RAFTER, LAPS OVER PARTITIONS (NO THRUST) (SEE SECTION 2308.7.3.1, TABLE 2308.7.3.1)	3-16d COMMON (3 1/2"x 0.162"); OR 4-10d BOX (3"x 0.128"); OR 4-3"x 0.131" NAILS; OR 4-3" 14 GAGE STAPLES 7/16" CROWN	FACE NAIL
4. CEILING JOIST ATTACHED TO PARALLEL RAFTER (HEEL JOINT)(SEE SECTION 2308.7.3.1 TABLE 2308.7.3.1)	PER TABLE 2308.7.3.1	FACE NAIL
5. COLLAR TIE TO RAFTER	3-10d COMMON (3"x 0.148"); OR 4-10d BOX (3"x 0.128"); OR 4-3"x 0.131" NAILS; OR 4-3" 14 GAGE STAPLES 7/16" CROWN	FACE NAIL
6. RAFTER OR ROOF TRUSS TO TOP PLATE (SEE SECTION 2308.7.5, TABLE 2308.7.5)	3-10d COMMON (3"x 0.148"); OR 3-16d BOX (3 1/2"x 0.135"); OR 4-10d BOX (3"x 0.128"); OR 4-3"x 0.131" NAILS; OR 4-3" 14 GAGE STAPLES 7/16" CROWN	2 TOENAILS ON ONE SIDE AND 1 TOENAIL ON OPPOSITE SIDE OF RAFTERS OR TRUSS
7. ROOF RAFTERS TO RIDGE VALLEY OR HIP RAFTERS; OR ROOF RAFTER TO 2-INCH RIDGE BEAM	2-16d COMMON (3 1/2"x 0.162"); OR 3-16d BOX (3 1/2"x 0.135"); OR 3-10d BOX (3"x 0.128"); OR 3-3"x 0.131" NAILS; OR 3-3" 14 GAGE STAPLES 7/16" CROWN OR	END NAIL
	3-10d COMMON (3"x 0.148"); OR 4-16d BOX (3 1/2"x 0.135"); OR 4-10d BOX (3"x 0.128"); OR 4-3"x 0.131" NAILS; OR 4-3" 14 GAGE STAPLES, 7/16" CROWN	TOENAIL
WALL		
8. STUD TO STUD (NOT AT BRACED WALL PANELS)	16d COMMON (3 1/2"x 0.162");	24" O.C. FACE NAIL
	10d BOX (3"x 0.128"); OR 3"x 0.131" NAILS OR 3-3" 14 GAGE STAPLES, 7/16" CROWN	16" O.C. FACE NAIL
9. STUD TO STUD AND ABUTTING STUDS AT INTERSECTING WALL CORNERS (AT BRACED WALL PANELS)	16d COMMON (3 1/2"x 0.162");	16" O.C. FACE NAIL
	16d BOX (3 1/2"x 0.135"); OR 3"x0.131" NAILS; OR 3-3" 14 GAGE STAPLES, 7/16" CROWN	12" O.C. FACE NAIL
10. BUILT-UP HEADER (2" TO 2" HEADER)	16d COMMON (3 1/2"x 0.162");	16"O.C. EA EDGE, FACE NAIL
	16d BOX (3 1/2"x 0.135")	12"O.C. EA EDGE, FACE NAIL
11. CONTINUOUS HEADER TO STUD	4-8d COMMON (2 1/2"x0.131"); OR 4-10d BOX (3"x0.128") 5-8d BOX (2 1/2"x0.113")	TOENAIL
12. TOP PLATE TO TOP PLATE	16d COMMON (3 1/2"x 0.162");	16" O.C. FACE NAIL
	10d BOX (3"x 0.128"); OR 3"x 0.131" NAILS OR 3" 14 GAGE STAPLES, 7/16" CROWN	12" O.C. FACE NAIL
13. TOP PLATE TO TOP PLATE, AT END JOINTS	8-16d COMMON (3 1/2"x 0.162"); OR 12-16d BOX (3 1/2"x 0.135"); OR 12-10d BOX (3"x 0.128"); OR 12-3"x 0.131" NAILS; OR 12-3" 14 GAGE STAPLES 7/16" CROWN	EACH SIDE OF END JOINT, FACE NAIL (MINIMUM 24" LAP SPLICE LENGTH EACH SIDE OF END JOINT)
14. BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST OR BLOCKING (NOT AT BRACED WALL PANELS)	16d COMMON (3 1/2"x 0.162");	16" O.C. FACE NAIL
	16d BOX (3 1/2"x 0.135"); OR 3"x 0.131" NAILS OR 3" 14 GAGE STAPLES, 7/16" CROWN	12" O.C. FACE NAIL
15. BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST OR BLOCKING AT BRACED WALL PANELS	2-16d COMMON (3 1/2"x 0.162"); OR 3-16d BOX (3 1/2"x 0.135"); OR 4-3"x 0.131" NAILS; OR 4-3" 14 GAGE STAPLES, 7/16" CROWN	16" O.C. FACE NAIL
16. STUD TO TOP OR BOTTOM PLATE	3-16d BOX (3 1/2"x 0.135"); OR 4-8d COMMON (2 1/2"x 0.131"); OR 4-10d BOX (3"x 0.128"); OR 4-3"x 0.131" NAILS; OR 4-8d BOX (2 1/2"x 0.113"); OR 4-3" 14 GAGE STAPLES, 7/16" CROWN OR	TOENAIL
	2-16d COMMON (3 1/2"x 0.162"); OR 3-16d BOX (3 1/2"x 0.135"); OR 3-10d BOX (3"x 0.128"); OR 3-3"x 0.131" NAILS; OR 3-3" 14 GAGE STAPLES, 7/16" CROWN	END NAIL
17. TOP PLATES, LAPS AT CORNERS AND INTERSECTIONS	2-16d COMMON (3 1/2"x 0.162"); OR 3-10d BOX (3"x 0.128"); OR 3-3"x 0.131" NAILS; OR 3-3" 14 GAGE STAPLES, 7/16" CROWN	FACE NAIL
18. 1" BRACE TO EACH STUD AND PLATE	3-8d BOX (2 1/2"x 0.113"); OR 2-8d COMMON (2 1/2"x 0.131"); OR 2-10d BOX (3"x 0.128"); OR 2-3"x 0.131" NAILS; OR 2-3" 14 GAGE STAPLES, 7/16" CROWN	FACE NAIL
19. 1"x6" SHEATHING TO EACH BEARING	3-8d BOX (2 1/2"x 0.113"); OR 2-8d COMMON (2 1/2"x 0.131"); OR 2-10d BOX (3"x 0.128"); OR 2-1 3/4" 16 GAGE STAPLES, 1" CROWN	FACE NAIL
20. 1"x8" AND WIDER SHEATHING TO EACH BEARING	3-8d COMMON (2 1/2"x 0.131"); OR 3-8d BOX (2 1/2"x 0.113"); OR 3-10d BOX (3"x 0.128"); OR 3-1 3/4" 16 GAGE STAPLES, 1" CROWN	FACE NAIL
	WIDER THAN 1"x8" 3-8d COMMON (2 1/2"x 0.131"); OR 4-8d BOX (2 1/2"x 0.113"); OR 3-10d BOX (3"x 0.128"); OR 4-1 3/4" 16 GAGE STAPLES, 1" CROWN	
FLOOR		
21. JOIST TO SILL, TOP PLATE, OR GIRDER	4-8d BOX (2 1/2"x 0.113"); OR 3-8d COMMON (2 1/2"x 0.131"); OR FLOOR 3-10d BOX (3"x 0.128"); OR 3-3"x 0.131" NAILS; OR 3-3" 14 GAGE STAPLES, 7/16" CROWN	TOENAIL
	8d BOX (2 1/2"x 0.131")	4" O.C. TOENAIL
22. RIM JOIST, BAND JOIST, OR BLOCKING TO TOP PLATE, SILL OR OTHER FRAMING BELOW	8d COMMON (2 1/2"x 0.131"); OR 10d BOX (3"x 0.128"); OR 3"x 0.131" NAILS; OR 3" 14 GAGE STAPLES, 7/16" CROWN	6" O.C. TOENAIL
23. 1"x6" SUBFLOOR OR LESS TO EACH JOIST	3-8d BOX (2 1/2"x 0.113"); OR 2-8d COMMON (2 1/2"x 0.131"); OR 3-10d BOX (3"x 0.128"); OR 2-1 3/4" 16 GAGE STAPLES, 1" CROWN	FACE NAIL
24. 2" SUBFLOOR TO JOIST OR GIRDER	3-16d BOX (3 1/2"x 0.135"); OR 2-16d COMMON (3 1/2"x 0.162")	BLIND AND FACE NAIL
25. 2" PLANKS (PLANK & BEAM-FLOOR & ROOF)	3-16d BOX (3 1/2"x 0.135"); OR 2-16d COMMON (3 1/2"x 0.162")	EACH BEARING, FACE NAIL
26. BUILT-UP GIRDERS AND BEAMS, 2" LUMBER LAYERS	20d COMMON (4"x0.192")	32"O.C.,FACE NAIL AT TOP & BOT. STAGG. ON OPP. SIDES
	10d BOX (3"x 0.128"); OR 3"x 0.131" NAILS; OR 3" 14 GAGE STAPLES, 7/16" CROWN	24"O.C.,FACE NAIL AT TOP & BOT. STAGG. ON OPP. SIDES
	AND: 2-20d COMMON (4"x 0.192"); OR 3-10d BOX (3"x 0.128"); OR 3-3"x 0.131" NAILS; OR 3-3" 14 GAGE STAPLES, 7/16" CROWN	ENDS AND AT EACH SPLICE, FACE NAIL
27. LEDGER STRIP SUPPORTING JOISTS OR RAFTERS	3-16d COMMON (3 1/2"x 0.162"); OR 4-16d BOX (3 1/2"x 0.135"); OR 4-10d BOX (3"x 0.128"); OR 4-3"x 0.131" NAILS; OR 4-3" 14 GAGE STAPLES, 7/16" CROWN	EACH JOIST OR RAFTER, FACE NAIL
28. JOIST TO BAND JOIST OR RIM JOIST	3-16d COMMON (3 1/2"x 0.162"); OR 4-10d BOX (3"x 0.128"); OR 4-3"x 0.131" NAILS; OR 4-3" 14 GAGE STAPLES, 7/16" CROWN	END NAIL
29. BRIDGING OR BLOCKING TO JOIST, RAFTER OR TRUSS	2-8d COMMON (2 1/2"x 0.131"); OR 2-10d BOX (3"x 0.128"); OR 2-3"x 0.131" NAILS; OR 2-3" 14 GAGE STAPLES, 7/16" CROWN	EACH END, TOENAIL

2022 CBC: TABLE NO. 2304.10.2: FASTENING SCHEDULE, CONT.

DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER	SPACING AND LOCATION	
		EDGES (INCHES)	INTERMEDIATE SUPPORTS (INCHES)
WOOD STRUCTURAL PANELS (WSP), SUBFLOOR, ROOF AND INTERIOR WALL SHEATHING TO FRAMING AND PARTICIBOARD WALL SHEATHING TO FRAMING			
30. 3/8" - 1/2"	6d COMMON OR DEFORMED (2"x0.113"); OR 2 3/8"x0.113" NAIL (SUBFLOOR AND WALL)	6	12
	8d BOX OR DEFORMED (2 1/2"x0.113"x 0.281" HEAD) (ROOF); OR RSRS-01 (2 3/8"x0.113") NAIL (ROOF)[d]	6[e]	6[e]
	1 3/4" 16 GAGE STAPLE, 7/16" CROWN (SUBFLOOR AND WALL)	4	8
	2 3/8"x0.113"x0.266 HEAD NAIL (ROOF)	3[f]	3[f]
	1 3/4" 16 GAGE STAPLE, 7/16" CROWN ROOF	3[f]	3[f]
31. 19/32" - 3/4"	8d COMMON (2 1/2"x0.131"); OR DEFORMED (2"x0.113") (SUBFLOOR AND WALL)	6	12
	8d COMMON OR DEFORMED (2 1/2"x0.131"x 0.281" HEAD) (ROOF) OR RSRS-01 (2 3/8"x0.113") NAIL (ROOF)[d]	6[e]	6[e]
	2 3/8"x0.113"x0.266" HEAD NAIL OR 2" 16 GAGE STAPLE, 7/16" CROWN	4	8
32. 7/8" - 1 1/4"	10d COMMON (3"x0.148"); OR DEFORMED (2 1/2"x0.131"x0.281" HEAD)	6	12
OTHER EXTERIOR WALL SHEATHING			
33. 1/2" FIBERBOARD SHEATHING[b]	1 1/2"X0.120 GALVANIZED ROOFING NAIL (7/16" HEAD DIAMETER); OR 1 1/4" 16 GAGE STAPLE WITH 7/16" OR 1" CROWN	3	6
34. 25/32" FIBERBOARD SHEATHING[b]	1 3/4"x0.120 GALVANIZED ROOFING NAIL (7/16" DIAMETER HEAD); OR 1 1/2" 16 GAGE STAPLE WITH 7/16" OR 1" CROWN	3	6
WOOD STRUCTURAL PANELS, COMBINATION SUBFLOOR UNDERLAYMENT TO FRAMING			
35. 3/4" AND LESS	8d COMMON (2 1/2"x0.131"); OR DEFORMED (2"x0.113"); OR DEFORMED (2"x0.120")	6	12
36. 7/8" - 1"	8d COMMON (2 1/2"x0.131"); OR DEFORMED (2 1/2"x0.131"); OR DEFORMED (2 1/2"x0.120")	6	12
37. 1 1/8" - 1 1/4"	10d COMMON (3"x0.148"); OR DEFORMED (2 1/2"x0.131"); OR DEFORMED (2 1/2"x0.120")	6	12
PANELS SIDING TO FRAMING			
38. 1/2" OR LESS	6d CORROSION-RESISTANT SIDING (1 7/8"x0.106"); OR 6d CORROSTION-RESISTANT CASING (2"x0.099")	6	12
39. 5/8"	8d CORROSION-RESISTANT SIDING (2 3/8"x0.128"); OR 8d CORROSION-RESISTANT CASING (2 1/2"x0.113")	6	12
INTERIOR PANELING			
40. 1/4"	4d CASING (1 1/2"x0.080"); OR 4d FINISH (1 1/2"x0.072")	6	12
41. 3/8"	6d CASING (2"x0.099"); OR 6d FINISH (2"x0.092"); OR (PANEL SUPPORTS AT 24 INCHES)	6	12

FOR SI: 1 INCH = 25.4 mm

a. NAILS SPACED AT 6 INCHES AT INTERMEDIATE SUPPORTS WHERE SPANS ARE 48 INCHES OR MORE. FOR NAILING OF WOOD STRUCTURAL PANEL AND PARTICLEBOARD DIAPHRAGMS AND SHEARWALLS, REFER TO SECTION 2305. NAILS FOR WALL SHEATHING ARE PERMITTED TO BE COMMON, BOX OR CASING.

b. SPACING SHALL BE 6 INCHES ON CENTER ON THE EDGE AND 12 INCHES ON CENTER AT INTERMEDIATE SUPPORTS FOR NONSTRUCTURAL APPLICATIONS. PANEL SUPPORTS AT 16 INCHES (20 INCHES IF STRENGTH AXIS IN THE LONG DIRECTION OF THE PANEL, UNLESS OTHERWISE MARKED).

c. WHERE A RAFTER IS FASTENED TO AND ADJACENT PARALLEL CEILING JOIST IN ACCORDANCE WITH THIS SCHEDULE AND THE CEILING JOIST IS FASTENED TO THE TOP PLATE IN ACCORDANCE WITH THIS SCHEDULE, THE NUMBER OF TOENAILS IN THE RAFTER SHALL BE PERMITTED TO BE REDUCED BY ON NAIL.

d. RSRS-01 IS A ROOF SHEATING RING SHANK NAIL MEETING THE SPECIFICATIONS IN ASTM F1667

e. TABULATE FASTENER REQUIREMENTS APPLY WHERE THE ULTIMATE DESING WIND SPEED IS LESS THAN 140 MPH. FOR WOOD STRUCTURAL PANEL ROOF SHEATING ATTACHED TO GABLE-END ROOF FRAMING AND TO INTERMEDIATE SUPPORTS WITHIN 48 INCHES OF ROOF EDGES AND RIDGES, NAILS SHALL BE SPACED AT 4 INCHES ON CENTER WHERE THE ULTIMATE DESING WIND SPEED IS GREATER THAN 130 MPH IN EXPOSURE B OR GREATER THAN 110 MPH IN EXPOSURE C. SPACING EXCEEDING 6 INCHES ON CENTER AT INTERMEDIATE SUPPORTS SHALL BE PERMITTED WHERE THE FASTENING IS DESIGNED PER THE AWC NDS.

f. FASTENING IS ONLY PERMITTED WHERE THE ULTIMATE DESIGN WIND SPEED IS LESS THAN OR EQUAL TO 110 MPH.

g. NAILS AND STAPLES ARE CARBON STEEL MEETING SPECIFICATIONS OF ASTM F1667. CONNECTIONS USING NAILS AND STAPLES OF OTHER MATERIALS, SUCH AS STAINLESS STEEL, SHALL BE DESIGNED BY ACCEPTABLE ENGINEERING PRACTICE OR APPROVED UNDER SECTION 104.11.

STRUCTURAL WOOD

1. ALL FRAMING LUMBER SHALL BE DOUGLAS FIR-LARCH GRADE MARKED BY A RECOGNIZED GRADING AGENCY (WCLIB 0R WWPA), VOLUNTARY STANDARD DOC PS20-25.

LIGHT FRAMING	CONSTRUCTION
JOISTS & PLANKS	No. 2
BEAMS & STRINGERS	No. 1
POST AND TIMBERS	No. 1
PARALLAM (PSL)	2.0E WS (2900 Fb)
PARALLAM (PSL)	2.2E WS (2900 Fb)
MICROLLAM (LVL)	2.0E WS (2900 Fb)
VERTICAL STUDS:	
2x4 STUDS, 8'-0" LONG	CONSTRUCTION GRADE
2x4 STUDS, 8'-1" TO 14'-0"	No. 1
2x6 STUDS	No. 2
ALL OTHER LUMBER	No. 1 STRUCTURAL LIGHT FRAMING

2. ALL SILL PLATES RESTING ON CONCRETE OR MASONRY, WHICH IS IN CONTACT WITH EARTH OR RESTING ON FOUNDATIONS SHALL BE PRESSURE TREATED DOUGLAS FIR (PT.D.F.). ALL FASTENERS SUCH AS NAILS, BOLTS, SCREWS, ANCHOR BOLTS, ETC., ATTACHING P.T.D.F. OR FIRE-RETARDANT TREADED WOOD SHALL BE HOT-DIPPED ZINC COATED GALVANIZED OR STAINLESS STEEL (ASTM A153).
3. WHERE STUD PARTITIONS JOIN CONCRETE OR MASONRY WALLS, THE END STUD WALL SHALL BE ANCHORED THERETO WITH $\frac{1}{2}$" (BOLTS NEAR THE TOP & BOTTOM AND AT EACH ROW OF TIRE BLOCKING. SUCH BOLTS SHALL BE EMBEDDED IN TH EWALL NOT LESS THAN $\frac{2}{3}$ OF THE WALL THICKNESS OR 8" MAX).
4. CUTTING, NOTCHING, OR BORING OF STUDS SHALL BE PERMITTED ONLY AS DETAILED OR APPROVED BY ENGINEER AND/OR PER 2022 CBC TABLE 2308.5.9 OR 2308.5.10.
5. ALL NAILING SHALL CONFORM TO 2022 CBC TABLE 2304.10.1, AND SHALL BE COMMON NAILS, UNLESS NOTED OTHERWISE ON PLANS AND DETAILS.
6. ALL BOLY HEADS AND NUTS BEARING ON WOOD SHALL HAVE STANDARD CUT WASHERS. HOLES FOR BOLTS SHALL BE BORED $\frac{1}{16}$" LARGER THAN THE NOMINAL DIAMETER. BOLTS IN THE WOOD SHALL NOT BE LESS THAN 7 DIAMETERS FROM THE END AND 4 DIAMETERS FROM THE EDGE OF THE MEMBER,
7. TOP PLATES OF ALL WOOD STUD WALLS TO BE 2-2x MINIMUM (SAME WIDTH AS STUDS), LAP 48" MIN. WITH NOT LESS THAN 6-16d NAILS AT EACH LAP AND NOT MORE THAN 12" BETWEEN NAILS.
8. PLYWOOD SHALL BE APA STRUCTURAL I RATED SHEATHING WITH EXTERIOR GLUE, PER DOC PS1 OR DOC PS2.
9. PROVIDE DOUBLED JOISTS UNDER ALL PARALLEL PARTITIONS.
10. ALL LAG SCREWS TO BE PREDRILLED, DRILL DIAMETER TO BE 40 TO 70 PERCENT OF THREADED SHANK DIAMETER AND FULL DIAMETER FOR SMOOTH SHANK PORTION.
11. RE-TIGHTEN ALL ANCHOR BOLTS JUST BEFORE CLOSING IN.
12. ALL FRAMING ANCHORS, POST CAPS, BASES, HANGERS, STRAPS, ETC. SHALL BE AS MANUFACTURED BY "SIMPSON COMPANY" OR ENGINEER APPROVED EQUAL.
13. PROVIDE BLOCKING OR BRIDGING PER 2021 NDS SECTION 4.4.1 & 2022 CBC SECTION 2308.4.6 AND SECTION 2308.5.7.
14. MOISTURE CONTENT OF WOOD AT TIME OF PLACING SHALL NOT EXCEED 19 PERCENT.
15. MACHINE BOLTS SHALL BE GRADE-A CONFORMING TO ASTM A307. ANCHOR BOLTS SHALL BE ASTM F1554, GRADE 36. NUTS FOR MACHINE BOLTS AND ANCHOR BOLTS SHALL CONFORM TO ASTM A563, HEX GRADE-A. THREADED RODS SHALL CONFORM TO ASTM A36. THREADED AND NUTTED ANCHOR BOLTS SHALL BE ASTM F1554, GRADE 36. ROUNDS WASHERS SHALL CONFORM TO ASTM F436.

CONCRETE

1. CEMENT SHALL CONFORM TO ASTM C150, TYPE II.
2. AGGREGATES FOR NORMAL WEIGHT CONCRETE SHALL CONFORM TO ASTM C33.
3. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2,500 PSI AT 28 DAYS: (4"MAX. SLUMP FOR FLATWORK).
   MIN. COMPRESSIVE STRENGTH FOR WALLS TO BE 3,000 PSI
   MIN. COMPRESSIVE STRENGTH FOR GRADE BEAMS TO BE 3,000 PSI
   MIN. COMPRESSIVE STRENGTH FOR CAISSON TO BE 3,000 PSI
4. ADMIXTURES MAY BE USED WITH PRIOR APPROVAL OF THE ENGINEER. ADMIXTURES SHALL COMPLY WITH ASTM C494 & C107 AND BE OF A TYPE THAT INCREASES THE WORKABILITY OF THE CONCRETE, BUT SHALL NOT BE CONSIDERED TO REDUCE THE SPECIFIED MINIMUM CEMENT CONTENT (CALCIUM CHLORIDE SHALL NOT BE USED).
5. NO CONDUIT PLACED IN A CONCRETE SLAB SHALL HAVE AN OUTSIDE DIAMETER GREATER THAN $\frac{1}{3}$ THE THICKNESS OF THE SLAB. NO CONDUIT SHALL BE EMBEDDED IN A SLAB THAT IS LESS THAN $3\frac{1}{2}$" THICK. EXCEPT FOR LOCAL OFFSETS, MINIMUM CLEAR DISTANCE BETWEEN CONDUITS SHALL BE THREE DIAMETERS ON CENTER (EXCEPT IF THE CONDUIT IS PASSING THROUGH).
6. PROJECTING CORNERS OF SLABS, BEAMS, WALLS, COLUMNS, ETC., SHALL BE FORMED WITH $\frac{3}{4}$" CHAMFERS.
7. REFER TO DRAWINGS OF OTHER DISCIPLINES FOR MOLDS, GROOVES, CLIPS, ORNAMENTS, OR GROUNDS REQUIRED TO BE CAST IN CONCRETE.
8. ALL SLABS ON GRADE SHALL HAVE CONTROL JOINTS INSTALLED TO PROVIDE APPROXIMATELY 15 FOOT SQUARES UNLESS DETAILED OTHERWISE ON THE PLANS. WHERE CONCRETE POURS ARE STOPPED, THE JOINTS SHALL BE FORMED. SEE "TYPICAL SLAB-ON-GRADE JOINT DETAIL".

FOUNDATION

1. SOILS INFORMATION:
   BEARING PRESSURE = 1000 PSF (⅓ INCREASE FOR WIND OR SEISMIC)
2. BOTTOM OF FOOTING SHALL BE AT LEAST 18 INCHES BELOW THE LOWEST ADJACENT FINISHED GRADE INTO COMPETENT SOIL.
3. REFER TO AND CHECK WITH ARCHITECTURAL DRAWINGS FOR VARIOUS FLOOR SLOPES, DROPPED SLABS, DEPRESSIONS, CURBS, STEPS, WALKS DRAINS, DEPRESSED FLOOR, ETC. & DIMENSIONS NOT SHOWN.
4. NO CONCRETE SHALL BE POURED IN ANY FOUNDATION UNTIL EXCAVATION HAS BEEN INSPECTED, EXCAVATION SHALL BE KEPT FREE OF LOOSE MATERIAL AND STANDING WATER.
5. ALL SLEEVES THROUGH FOUNDATION WALLS AND UNDER FOOTING TO BE INSTALLED PRIOR TO FOUNDATION POUR. SEE TYPICAL DETAILS.
6. NO SLEEVING OF ANY GRADE BEAM WILL BE PERMITTED UNLESS SHOWN ON STRUCTURAL DRAWINGS APPROVED BY THE ENGINEER.
7. THE ENGINEER HAS NO CONTROL OR RESPONSIBILITY FOR THE DESIGN OF TEMPORARY SHORING, SCAFFOLDING, FORMING, UNDERPINNING, ETC., NOT DETAILED ON THESE PLANS.
8. ALL EXCAVATIONS SHALL BE PROPERLY BACKFILLED. DO NOT PLACE BACKFILL BEHIND RETAINING WALLS BEFORE CONCRETE (OR GROUT) HAS OBTAINED FULL DESIGN STRENGTH. CONTRACTOR SHALL BRACE OR PROTECT ALL BUILDING AND PIT WALLS BELOW GRADE FROM LATERAL LOADS UNTIL ATTACHING FLOORS ARE COMPLETELY IN PLACE AND HAVE ATTAINED FULL STRENGTH. CONTRACTOR SHALL PROVIDE FOR DESIGN, PERMITS, AND INSTALLATION OF SUCH BRACING.
9. CONTRACTOR SHALL COORDINATE ALL DIMENSIONS AND ELEVATIONS WITH ARCHITECTURAL DRAWINGS. NOTIFY STRUCTURAL ENGINEER, PRIOR TO FABRICATION OR ERECTION, WHEN DISCREPANCIES ARE FOUND.

GENERAL NOTES

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

DESIGN CRITERIA

1. VERTICAL LOADS (GRAVITY):

a) DEAD LOADS:

ROOF	15 PSF
EXTERIOR WALLS	16 PSF
LOW CEILING/SOFFIT	5 PSF
INTERIOR SHEAR WALLS	10 PSF
PARTITION WALLS	8 PSF

b) LIVE LOADS (REDUCIBLE UNLESS NOTED OTHERWISE):

ROOF	20 PSF
LOW CEILING/SOFFIT	10 PSF

2. LATERAL LOADS:

a) EARTHQUAKE DESIGN DATA:

V = 0.210 W (ASD) (INCLUDES RHO = 1.3)	
SEISMIC IMPORTANCE FACTOR	=1
RISK CATEGORY	=II
MAPPED SPECTRAL RESPONSE ACCELERATIONS	
S_S	1.878
S_1	0.663
SITE CLASS	D - DEFAULT
SEISMIC DESIGN CATEGORY	D
SPECTRAL RESPONSE COEFFICIENTS	
S_{DS}	1.502
S_{M5}	2.254
RESPONSE MODIFICATION FACTOR	
PLYWOOD SHEARWALLS	
R	6.5
SEISMIC RESPONSE COEFFICIENT	
Cs	0.23
ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE PROCEDURE	

b) WIND:

BASIC WIND SPEED	94 MPH
SITE EXPOSURE	C
IMPORTANCE FACTOR	1.0

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ENGINEER OF RECORD:

REGISTERED PROFESSIONAL ENGINEER
JONATHAN M. GOBER
No. C-95662
Exp. 03-31-26
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STATE OF CALIFORNIA

Jonathan Gober
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LEIKARTS RESIDENCE

REMODEL

PROJECT ADDRESS:
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REVISIONS			
No.	DATE	SHEET	APPROVAL
1			
2			
3			

DESIGNED BY: JR	DESIGN CHECK BY: JMG
DRAWN BY: JWG	DRAFTING CHECK BY: JMG

SHEET TITLE
STRUCTURAL NOTES

DRAWING REF. S1.0

PROJECT NUMBER 25-103

SHEET

SPECIAL INSPECTION

1. SPECIAL INSPECTION SHALL MEET THE REQUIREMENTS OF THE 2022 CBC SECTION 1704 & 1705.
2. SPECIAL INSPECTOR SHALL:

A. BE UNDER THE SUPERVISION OF A CALIFORNIA REGISTERED ENGINEER.

B. OBSERVE THE WORK ASSIGNED FOR CONFORMANCE WITH APPROVED DRAWINGS AND SPECIFICATIONS.

B. FURNISH INSPECTION REPORTS TO THE ENGINEER AND BUILDING DEPARTMENT. DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION; THEN IF NOT CORRECTED, TO THE ENGINEER AND BUILDING DEPARTMENT.

C. SUBMIT TO THE ENGINEER AND BUILDING DEPARTMENT A FINAL REPORT, SIGNED BY A CALIFORNIA REGISTERED CIVIL ENGINEER, STATING THAT THE WORK WAS IN CONFORMANCE WITH THE APPROVED DRAWINGS AND SPECIFICATIONS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE CBC.

3. INSPECTION NOTES:

A. CONSTRUCTION INSPECTIONS LISTED ARE IN ADDITION TO THE CALLED INSPECTIONS REQUIRED BY THE 2022 CBC SECTION 110. SPECIAL INSPECTION IS NOT A SUBSTITUTE FOR INSPECTION NY A BUILDING OFFICIAL, SPECIALLY INSPECTED WORK WHICH IS INSTALLED OR COVERED WITHOUT THE APPROVAL OF THE BUILDING OFFICIAL IS SUBJECT TO REMOVAL FOR EXPOSURE.

B. CONTINUOUS INSPECTION IS ALWAYS REQUIRED DURING PERFORMANCE OF THE WORK UNLESS SPECIFICALLY NOTED.

C. SPECIAL INSPECTORS MUST BE CERTIFIED BY THE BUILDING DEPARTMENT TO PERFORM THE TYPES OF INSPECTIONS SPECIFIED.

D. IT IS THE RESPONSIBILITY OF THE OWNER TO INFORM THE SPECIAL INSPECTOR OR INSPECTION AGENCY AT LEAST ONE WORKING DAY BEFORE PERFORMING ANY WORK THAT REQUIRED SPECIAL INSPECTION. ALL WORK PERFORMED WITHOUT REQUIRED SPECIAL INSPECTION IS SUBJECT TO REMOVAL.

SPECIAL INSPECTION REQUIRED

1. ANCHORS, ANCHOR BOLTS, & DOWELS

A. VERIFY MANUFACTURERS INSTALLATION REQUIREMENTS (AND TESTING) OF EPOXIED DOWELS IN CONCRETE AT (HOLDOWNS) (EXISTING FOOTINGS) (CONCRETE REPAIRS).

B. VERIFY MANUFACTURERS INSTALLATION REQUIREMENTS OF WEDGE AND SLEEVE ANCHORS (WHERE INDICATED).

2. SHEAR WALLS

A. 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.

B. SPECIAL INSPECTION BY A DEPUTY INSPECTOR IS REQUIRED WHERE THE FASTENING SPACING OF THE SHEATHING IS 4 INCHES ON CENTER OR LESS.

STRUCTURAL ABBREVATIONS

A.B.	ANCHOR BOLT	JT.	JOINT
ABV.	ABOVE	K	KIPS (1000)
ADD'L	ADDITIONAL	LAT.	LATERAL
ADJ.	ADJACENT	LB(#)	POUNDS
ALUM.	ALUMINUM	L.B.	LAG BOLTS
ALT.	ALTERNATE	LDGR.	LEDGER
APPRX.	APPROXIMATE(LY)	L.F.	LINEAL FEET(FOOT)
ARCH.	ARCHITECT(URAL)	LG.	LONG(ITUDINAL)
&	AND	LGTH	LENGTH
@	AT	LLH	LONG LEG HORIZ.
BEL.	BELOW	LLV	LONG LEG VERT.
B.B.	BRACED FRAME	LT.WT.	LIGTH WEIGHT
BLDG.	BUILDING	MAS.	MASONRY
BLK.	BLOCK	MAT'L.	MATERIAL
BLKG.	BLOCKING	MAX.	MAXIMUM
BM.	BEAM	M.B.	MACHINE BOLT
B.N.	BOUNDARY NAILING	MECH.	MECHANICAL
BNDRY.	BOUNDARY	MEZZ.	MEZZANINE
B.O.F.	BOTTOM OF FOOTING	MFR.	MANUFACTURER
BRDG.	BRIDGE (ING)	MISC.	MISCELLANEOUS
BRG.	BEARING	MIN.	MINIMUM
BTM.	BOTTOM	MLB	MINI-LAM-BM.
BTWN.	BETWEEN	MTL.	METAL
CAMB.(C)	CAMBER(ED)	N	NEW
CANT.	CANTILEVERED	NO.(#)	NUMBER
C.F.	CUBIC FEET(FOOT)	N.S.	NEAR SIDE
C.G.	CENTER OF GRAVITY	N.S.G.	NON-SHRINK GROUT
C.I.P.	CAST IN PLACE	N.T.S.	NOT TO SCALE
C.J.	CONSTRUCTION JOINT	O.C.	ON CENTER
CL.	CENTER LINE	O.D.	OUTSIDE DIAMETER
CLG.	CEILING	O.D.	OUTSIDE DIAMETER
CLR.	CLEAR	O.F.	OUTSIDE FACE
CMU	CONC. MASONRY UNIT	O.H.	OPPOSITE HAND
COL.	COLUMN	OPNG.	OPENING
CONC.	CONCRETE	ORNT.	ORIENTATE(ION)
CONN.	CONNECTION	OWJ.	OPEN WEB JOISTS
CONST.	CONSTRUCTION	PAR.(//)	PARALLEL
CONT.	CONTINUOUS	P/C	PRECAST CONCRETE
CTSK.	COUNTERSINK	PERP.(⊥)	PERPENDICULAR
CTR.	CENTER(ED)	PL.(PL.)	PLATE
C.Y.	CUBIC YARD	PLAM.	PURLAM BEAM
d	PENNY(NAILS)	PLY.	PLYWOOD
DBL.	DOUBLE	P.S.F.	POUNDS PER SQUARE FOOT
DEPT.	DEPARTMENT	P.S.I.	POUNDS PER SQUARE INCH
D.F.	DOUGLAS FIR	P.T.	PRESSURE TREATED
DIA. (Φ)	DIAMETER	P/T	POSTTENSIONED
DIA.	DIAGONAL		(PRESTRESSED)
DIAPH.	DIAPHRAGM	QTY.	QUANTITY
DIM.	DIMENSION	RAD.(R)	RADIUS
DN.	DOWN	R.C.P	REINFORCED CONCRETE PIPE
do	DITTO(REPEAT)	REF.	REFERENCE
DP (D)	DEEP (DEPTH)	REINF.	REINFORCEMENT(ING)
DWG.	DRAWING(S)	REQ'D.	REQUIRED
DWL.	DOWEL(S)	R.F.	RIGID FRAME
EA.	EACH	R.O.	ROUGH OPENING
E.F.	EACH FACE	R.B.	RIDGE BOARD
E.J.	EXPANSION JOINT	SCHED.	SCHEDULE
EL.	ELEVATION	SCHED.	SHEET
ELEC.	ELECTICAL	SHTG.	SHEATHING
ELEV.	ELEVATOR	SIM.	SIMILAR
EMBD.	EMBED(MENT)	SKW.	SKEW(ED)
E.N.	EDGE NAIL /SCREWS	SPC.	SPACE(S)(ING)
ENG.	ENGINEER	SPEC.	SPECIFICATION(S)
ES.	EDGE SCREWS	SQ.	SQUARE
EQ.	EQUAL	SS	SELECT STRUCTURAL
EQPT.	EQUIPMENT EXP.	STD.	STANDARD
EXST.	EXPANSION	STGR.	STAGGER(ED)
(E)	EXISTING	STIFF.	STIFFENER(S)
EXT.	EXTERIOR	STIR.	STIRRUP(S)
FAB.	FABRICATION	STL.	STEEL
FND.	FOUNDATION	STRUC.	STRUCTURAL
FIN.	FINISH(ED)	SUSP.	SUSPENDED(TION)
FLG.	FLANGE	SYMM.	SYMMETRICAL
FLR.	FLOOR	(T)	TOP
F.N.	FIELD(FACE)NAIL	T&B	TOP AND BOTTON
F.O.C.	FACE OF CONCRETE	TEMP.	TEMPERATURE
F.O.M.	FACE OF MASONRY	T&G	TONGUE AND GROOVE
F.O.S.	FACE OF STUD	THK.	THICK(NESS)
F.O.W.	FACE OF WALL	THRD.	THREADED
FRM.	FRAME(ING)	TMPRY.	TEMPORARY
F.S.	FAR SIDE	T.N.	TOE NAIL
FT.(')	FOOT(FEET)	T.O.A.	TOP OF SHEATHING
FTG.	FOOTING	T.O.W.	TOP OF WALL
GA.	GAUGE	TRANSV.	TRANSVERSE
GALV.	GALVANIZED	T.S.	TOP OF STEEL
GB	GRADE BEAM	TYP.	TYPICAL
GLB	GLUED LAMINATED BEAM	UBC	UNIFORM BUILDING CODE
GRD.	GRADE	U.O.N.	UNLESS OTHERWISE NOTED
GYPDB.	GYPSUM WALLBOARD	VERT.	VERTICAL
HD	HOLD DOWN	VIF	VERIFY IN FIELD
HDR.	HEADER	(W)	WIDE(WIDTH)
HGR.	HANGER	w/	WITH
HORZ.(H)	HORIZONTAL	WD.	WOOD
HSB	HIGH STRENGTH	W.P.	WORK POINT
HT.	HEIGHT	WPJ	WEAKENED PLANE JOINT
I.D.	INSIDE DIAMETER	W.S.	WELDED STUD(S)
I.E.	INVERT ELEVATION	WT	WEIGHT
I.F.	INSIDE FACE	WWF	WELDED WIRE FABRIC
IN.(")	INCH(S)	X-STG	EXTRA STRONG
I.G.	INTERIOR	XX-STG	DOUBLE EXTRA STRONG
JST.	JOIST	YD	YARD

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ENGINEER OF RECORD:

REGISTERED PROFESSIONAL ENGINEER
JONATHAN M. GOBER
No. C-95662
Exp. 03-31-26
CIVIL
STATE OF CALIFORNIA

Jonathan Gober, PE

LEIKARTS RESIDENCE

REMODEL

PROJECT ADDRESS:
3512 MAPLE AVE.,
MANHATTAN BEACH, CA 90266

REVISIONS			
No.	DATE	SHEET	APPROVAL
1			
2			
3			

DESIGNED BY: JR	DESIGN CHECK BY: JMG
DRAWN BY: JWG	DRAFTING CHECK BY: JMG

SHEET TITLE
STRUCTURAL NOTES

DRAWING REF. S1.1

PROJECT NUMBER 25-103

SHEET

PLAN NOTES

1. REFER TO STRUCTURAL NOTES ON SHEET S1.0 AND TYPICAL DETAILS ON SHEETS S3.0-S3.3. THESE NOTES AND DETAILS SHALL BE USED WHERE APPLICABLE WHETHER SPECIFICALLY REFERENCED ON PLANS OR NOT.
2. CONTRACTOR SHALL COORDINATE THE WORK OF ALL TRADES WITH STRUCTURAL REQUIREMENTS INDICATED. REFER TO ARCHITECTURAL, CIVIL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS.
3. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS.
4. NON-STRUCTURAL ELEMENTS IN NATURE SUCH AS DRAINS, SUMPS, EXTERIOR HARDSCAPE, MECHANICAL UNITS, ETC., ARE TO BE DESIGNED BY OTHERS.
5. STRUCTURAL WALLS ARE WALLS THAT RESIST GRAVITY, WIND, AND/OR SEISMIC LOADS. ALL EXTERIOR WOOD FRAMED WALLS ARE STRUCTURAL WALLS. WALLS OR PORTIONS NOT INDICATED ON THE STRUCTURAL DRAWINGS ARE PARTITION WALLS. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION AND EXTENT OF PARTITION WALLS.
6. FOUNDATION SILLS SHALL BE NATURALLY DURABLE OR PRESERVATIVE-TREATED WOOD. FIELD-CUT ENDS, NOTCHED, AND BORINGS SHALL BE FIELD-TREATED. FASTENERS IN TREATED WOOD SHALL BE APPROVED SILICON BRONZE/COPPER, STAINLESS STEEL, OR HOT-DIPPED ZINC COATED STEEL.
7. ALL WOOD FRAMED STRUCTURAL WALLS ARE TO BE 2x4 STUDS @ 16" O.C., U.O.N. (USE 2x6 STUDS @ 16" O,C, AT PLUMBING WALLS).
8. ANCHOR BOLTS SHALL BE EMBEDDED AT LEAST 7" MIN. INTO CONCRETE OR MASONRY FOUNDATION SPACED NO MORE THAN 48" AND PROVIDE A PLATE WASHER WITH MINIMUM SIZE OF 0.299"x3"x3".
9. ANCHOR BOLTS AND HOLDOWN ANCHORS, SHALL BE TIED IN PLACE PRIOR TO FOUNDATION INSPECTION. ON RAISED FLOOR HOLDOWN THAT USE 7/8" OR GRATER DIA., STEMP WALL WITH MIN. OF 8"DURING $4x_{le}$ LENGTH FROM MIDDLE.
10. SHEAR WALL SHEATHING SHOWN ON ONE SIDE MAY ALTERNATIVELY BE SHEATHED ON THE OPPOSITE SIDE OF THE WALL.
11. IF ADVERSE SOILS CONDITIONS ARE ENCOUNTERED, A SOILS INVESTIGATION MAY BE REQUIRED.
12. EXTREME CARE SHOULD BE TAKEN WHEN DOING FOUNDATION WORK WITH POST-TENSIONED SLABS (WHERE APPLICABLE). NO TENDONS SHALL BE DAMAGED OR CUT. NOTIFY THE ENGINEER OF RECORD PRIOR TO ANY DRILLING, CORING, SAQ-CUTTING, ETC. USE NON-DESTRUCTIVE METHODS TO LOCATE TENDONS PRIOR TO ANY WORK.

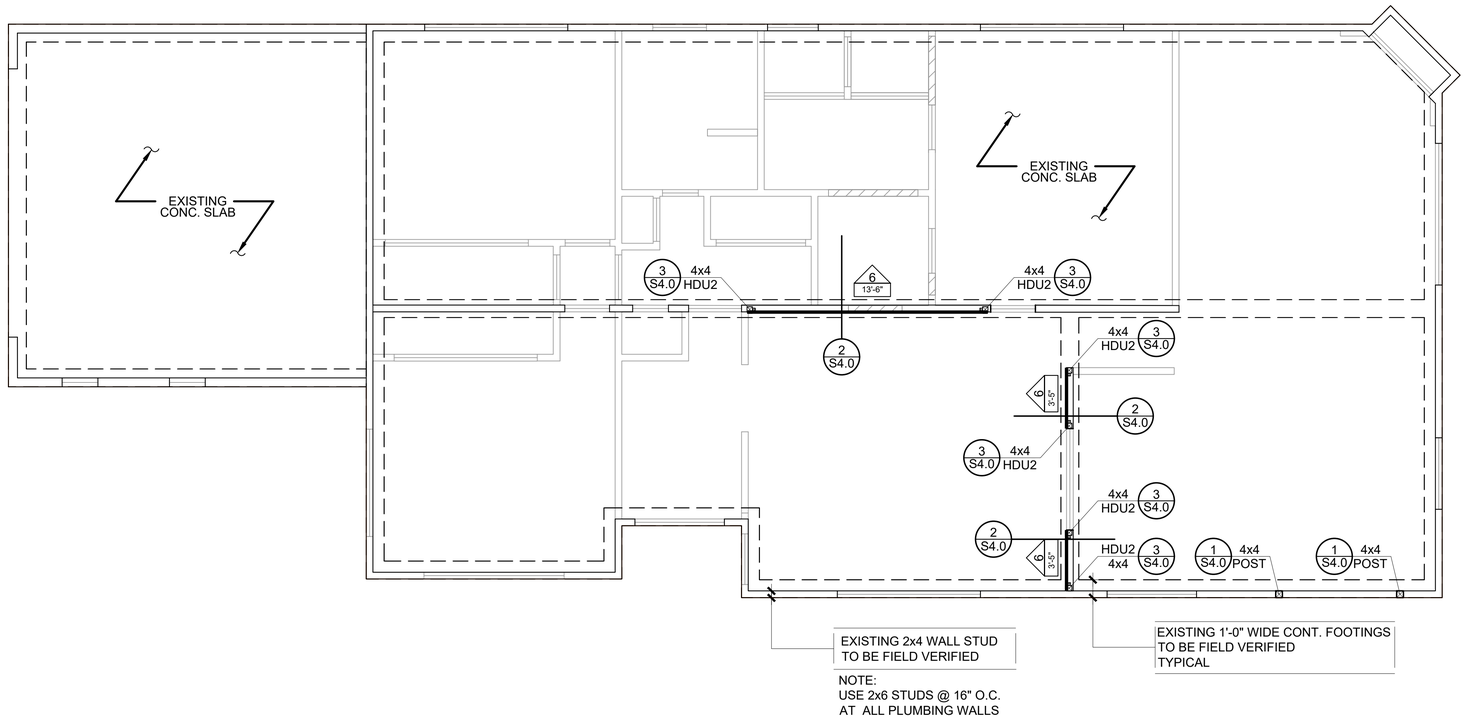
LEGEND

4x4 POST	WOOD POST SIZE. MARK IS INDICATED AT THE BASE OF THE POST
4x4 HDU2	SHEAR WALL POST AND HARDWARE MODEL SEE DETAIL 9/S3.1 FOR INSTALLATION DETAILS.
6 0'-00"	WOOD SHEARWALL. SEE SHEARWALL SCHEDULE ON S2.0 FOR ASSEMBLY AND DETAIL REFERENCES. SHEARWALLS STARTS AT FOUNDATION AND CONTINUES UP TO ROOF LEVEL
	(E) CONCRETE FOOTING, INDICATED WITH DASHED LINES

SHEARWALL SCHEDULE

TYPE[1]	SHEATHING[2]	NAIL SIZE[3]	EDGE NAIL[4]	FIELD NAIL	SILL PLATE CONN. WOOD	SILL PLATE CONN. CONCRETE 2x	SILL PLATE CONN. CONCRETE 3x	SHEAR CLIPS[5 6]	ALLOW SHEAR (PLF)
6 0'-00"	15/32 STRUC 1 O.S.	10d	6"	12"	SDS 1/4"x6" @ 16"	5/8" DIA. A.B. @32"	5/8" DIA. A.B. @48"	A35 @ 16"	312

NOTES:
1. SEE DETAIL 5/S3.1 & 7/S3.1 FOR ALL SHEARWALL ASSEMBLIES BASED ON SHEAR WALL TYPE:
   TYPE I 6 | TYPE II 4, 3 & 2 | TYPE III 4D | TYPE IV 3D & 2D
2. O.S. INDICATES SHEATHING ON ONE SIDE OF THE WALL & D.S. INDICATES SHEATHING ON BOTH SIDES OF THE WALL.
3. USE COMMON WIRE NAILS FOR ALL STRUC 1 SHEATHING
4. USE MIN. 8d COMMON NAILS MIN. FOR NAILS FOR LTP4 INSTALLED OVER SHEATHING
5. USE A35 @ 6" O.C. ON SIMPSON STRONG WALL



NOTE:
USE 2x6 STUDS @ 16" O.C.
AT ALL PLUMBING WALLS

FOUNDATION PLAN

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

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ENGINEER OF RECORD:

REGISTERED PROFESSIONAL ENGINEER JONATHAN M. GOBER No. C-95662 Exp. 03-31-26 CIVIL STATE OF CALIFORNIA

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REVISIONS			
No.	DATE	SHEET	APPROVAL
1			
2			
3			

DESIGNED BY: JR	DESIGN CHECK BY: JMG
DRAWN BY: JWG	DRAFTING CHECK BY: JMG

SHEET TITLE: FOUNDATION PLAN
DRAWING REF.: S2.0
PROJECT NUMBER: 25-103
SHEET:

PLAN NOTES

1. REFER TO STRUCTURAL NOTES ON SHEET S1.0 AND TYPICAL DETAILS ON SHEETS S3.0-S3.2. THESE NOTES AND DETAILS SHALL BE USED WHERE APPLICABLE WHETHER SPECIFICALLY REFERENCED ON PLANS OR NOT.
2. CONTRACTOR SHALL COORDINATE THE WORK OF ALL TRADES WITH STRUCTURAL REQUIREMENTS INDICATED. REFER TO ARCHITECTURAL, CIVIL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS.
3. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS.
4. STRUCTURAL WALLS ARE WALLS THAT RESIST GRAVITY, WIND, AND/OR SEISMIC LOADS. ALL EXTERIOR WOOD FRAMED WALLS ARE STRUCTURAL WALLS. WALLS OR PORTIONS NOT INDICATED ON THE STRUCTURAL DRAWINGS ARE PARTITION WALLS. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION AND EXTENT OF
5. NOMINAL ROOF LINE VARIES, REFER TO ARCHITECTURAL.
6. WALLS BELOW ROOF SHEATHING ARE INDICATED BY DASHED LINES. WALLS ABOVE ROOF SHEATHING ARE INDICATED BY SOLID LINES.
7. BEAMS IN CONTACT WITH ROOF SHEATHING OR DIRECTLY BELOW ROOF FRAMING ARE INDICATED WITH SOLID LINES, ANY OTHER BEAM AT A LOWER LEVEL IS INDICATED WITH DASHED LINES.
8. SIZE AND LOCATION OF ALL MECHANICAL EQUIPMENT TO BE REVIEWED AND APPROVED BY THE E.O.R. PRIOR TO PLACEMENT.
9. FOR SIZE AND LOCATION OF ROOF OPENINGS FOR PIPES AND DUCTS, REFER TO MECHANICAL AND PLUMBING DRAWINGS.
10. ALL WOOD EXPOSED TO WEATHER TO BE TREATED WOOD, REDWOOD, OR OTHER SPECIES NATURALLY RESISTANT TO DECAY AND JOIST HANGERS, STRAPS, TIES, ETC. SHALL BE GALVANIZED (G185 COATING). FASTENERS SHALL BE STAINLESS STEEL OR APPROVED EQUAL.

LEGEND

FRAMING MEMBER BEARING ON TOP OF TOP PLATES

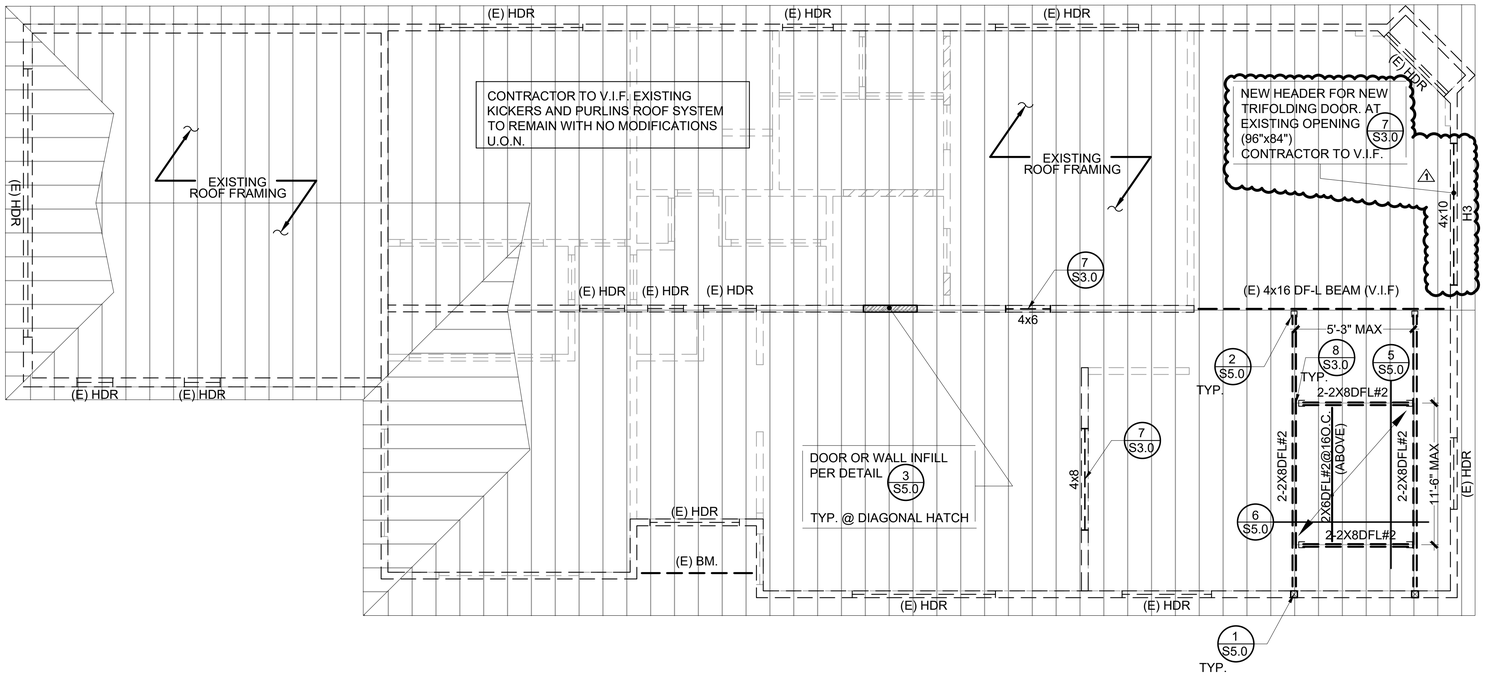
FRAMING MEMBER HUNG AT IT'S SUPPORT, SEE 12/S3.2

4x4 — HEADER MEMBER INSTALLED PER DETAIL 5/S3.2

6 — REQUIRED TOP PLATE SPLICE. SEE SCHEDULE ON 2/S3.2 FOR ALL REQUIREMENTS. THE MARKED SPLICE SHALL APPLY FOR THE FULL LENGTH OF THE WALL. USE TYPE 6 SPLICE MIN., UNLESS OTHERWISE NOTED.

2x6 RAFTERS @ 16" O.C. — RAFTER END INDICATED BY THE STRAIGHT LINE. THE ARROWS INDICATE THE AREA TO COVER

2x6 C.J. @16" O.C. — CEILING JOIST END INDICATED BY THE ARROWS INDICATE THE AREA TO COVER. SEE DETAIL 6/S3.2



ROOF FRAMING PLAN

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

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TELE: (562) 204-6223
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ENGINEER OF RECORD:

REGISTERED PROFESSIONAL ENGINEER — JONATHAN M. GOBER — No. C-95662 Exp. 03-31-26 — CIVIL — STATE OF CALIFORNIA

Jonathan Gober, PE

LEIKARTS RESIDENCE
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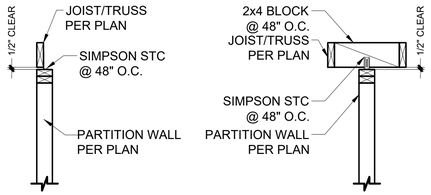
PROJECT ADDRESS:
3512 MAPLE AVE.,
MANHATTAN BEACH, CA 90266

REVISIONS			
No.	DATE	SHEET	APPROVAL
1	8/25/2025		JMG
2			
3			

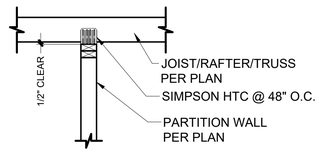
DESIGNED BY: JR	DESIGN CHECK BY: JMG
DRAWN BY: JWG	DRAFTING CHECK BY: JMG

SHEET TITLE: ROOF PLAN
DRAWING REF.: S2.1
PROJECT NUMBER: 25-103
SHEET:

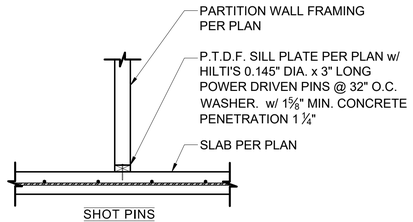
PARTITION TOP CONNECTION & PARTITION WALL ANCHORAGE — 3



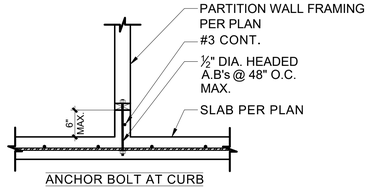
PARALLEL TO JOIST/TRUSS



PERP. TO JOIST/TRUSS

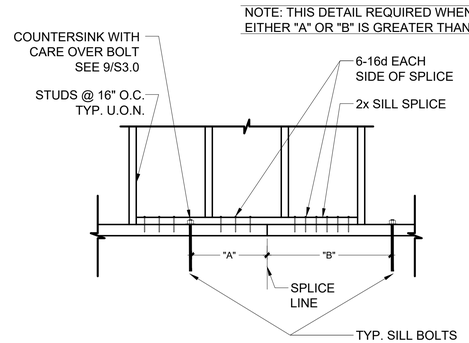


SHOT PINS



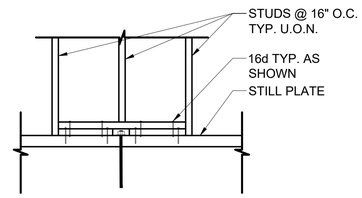
ANCHOR BOLT AT CURB

PLATE SPLICE FIX DETAIL — 2



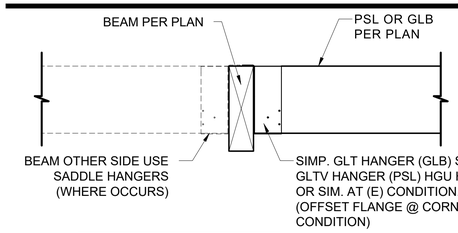
ELEVATION

STUD OCCURS OVER BOLT — 1

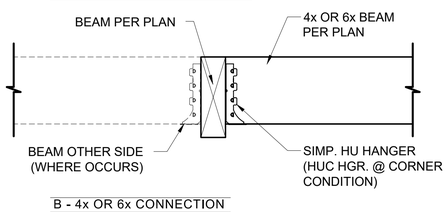


INSTALL 2x FILLER PIECES AS SHOWN TO BRIDGE BOLT HEAD

BEAM TO BEAM HANGER CONN. — 8

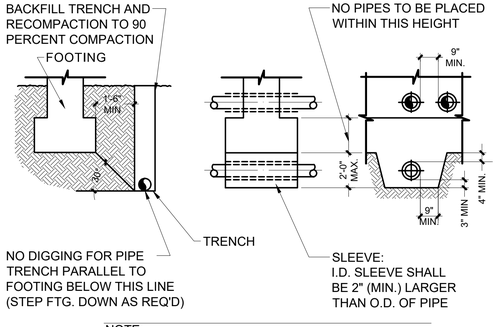


A - PSL OR GLB CONNECTION



B - 4x OR 6x CONNECTION

FOOTING AT PIPE/CONDUIT — 12



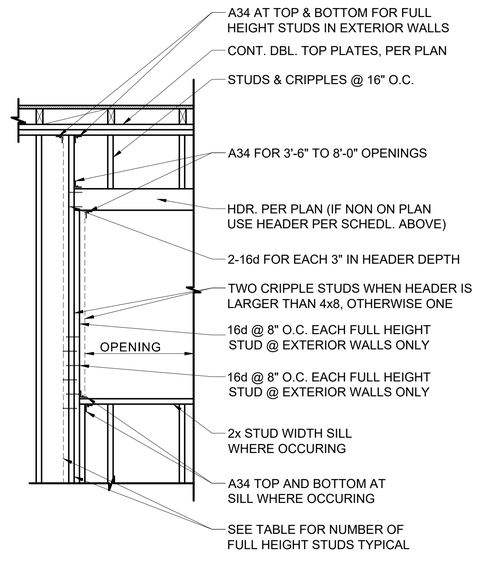
NOTE:
1. PLACE CONCRETE FILL AROUND SLEEVES BEFORE POURING FOOTING PADS. FILL SHALL BE SAME WIDTH AS FOOTING AND FULL DEPTH OF PIPE TRENCH.
2. WHERE PIPES ARE MORE THAN 2'-0" BELOW OF FOOTING. STEP FOOTING DOWN PER TYPICAL FOOTING STEP DETAIL

HEADER DETAIL — 7

HEADER SCHEDULE

BEARING AND EXTERIOR WALLS		NON-BEARING WALLS	
OPENING WIDTH	HEADER SIZE	OPENING WIDTH	HEADER SIZE
6'-0" OR LESS	4x6	8'-0" OR LESS	4x6
6'-1" TO 8'-0"	4x8	8'-1" TO 12'-0"	4x8
8'-1" TO 10'-0"	4x10		

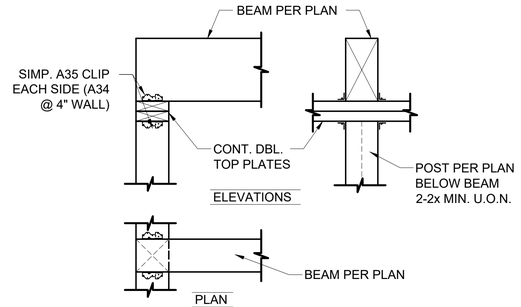
NOTE: USE 6x LINTEL MEMBERS IN 2x6 STUD WALLS.



OPENING WIDTH	NUMBER OF FULL HEIGHT STUDS		
	ALL EXTERIOR WALLS	INTERIOR BRG. WALLS	INTERIOR NON-BEARING WALLS
7'-0" OR LESS	2	2	1
7'-1" TO 10'-0"	3	2	1
OVER 10'-0"	4	2	1

NOTE: OMIT FULL HEIGHT STUDS WHERE POST FOR HOLDOWN ANCHOR OCCURS. SEE PLAN AND TYPICAL HOLDOWN DETAIL.

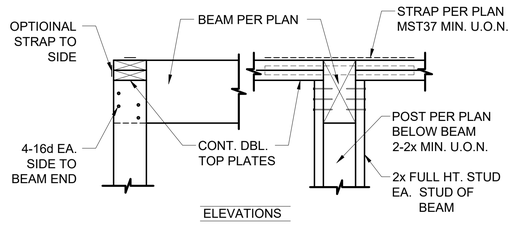
BEAM PERP. TO WALL — 6



ELEVATIONS

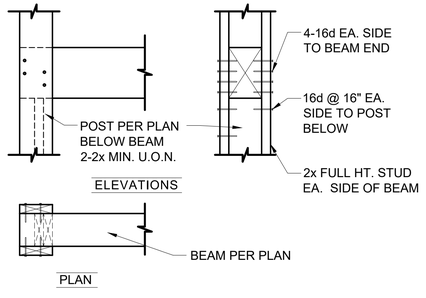
PLAN

A - BEAM ON TOP PLATES



ELEVATIONS

B - BEAM FLUSH w/ TOP PLATES



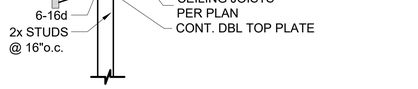
ELEVATIONS

PLAN

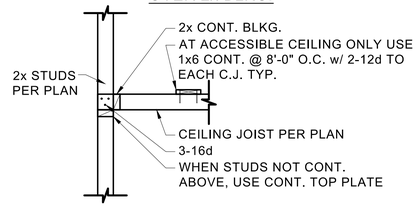
C - BEAM BELOW TOP PLATES

CEILING JOIST DETAIL — 5

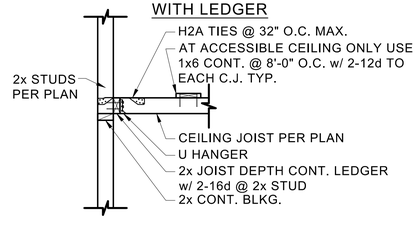
AT ROOF



OVER 2x BLKG.



WITH LEDGER



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DESIGNED BY: JR	DESIGN CHECK BY: JMG
DRAWN BY: JWG	DRAFTING CHECK BY: JMG

SHEET TITLE: TYPICAL DETAILS

DRAWING REF.: S3.0

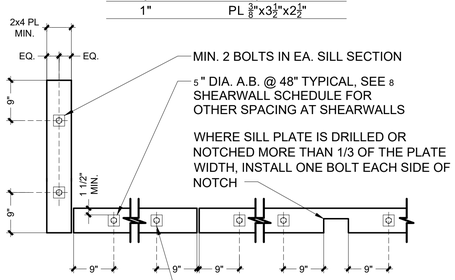
PROJECT NUMBER: 25-103

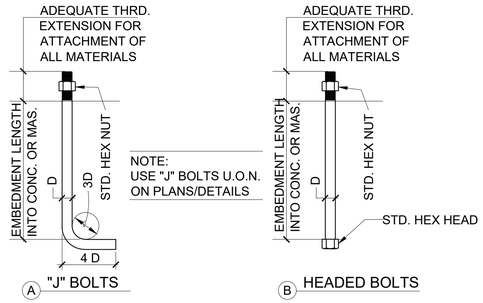
SHEET:

TYP. PLATE BOLTING & ANCHOR BOLTS

3

BOLT SIZE	PLATE WASHER SIZE
1/2"	PL.229x3x3
5/8"	PL .229x3x3
3/4"	PL .229x3x3
7/8"	PL 3/16"x3x3
1"	PL 3/8"x3 1/2"x2 1/2"

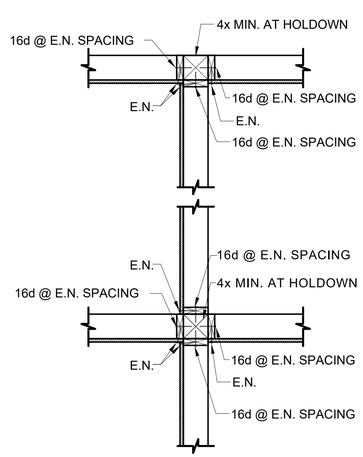




BOLT DIA. "D"	MINIMUM EMBEDMENT	
	VERT. ANCHOR BOLTS	HORIZ. ANCHOR BOLTS
1/2"	7"	5"
5/8"	7"	5"
3/4"	7"	5"
7/8"	8"	6"
1"	9"	7"
1 1/8"	10"	8"

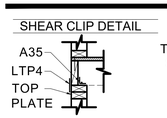
SHEARWALL INTERSECTIONS

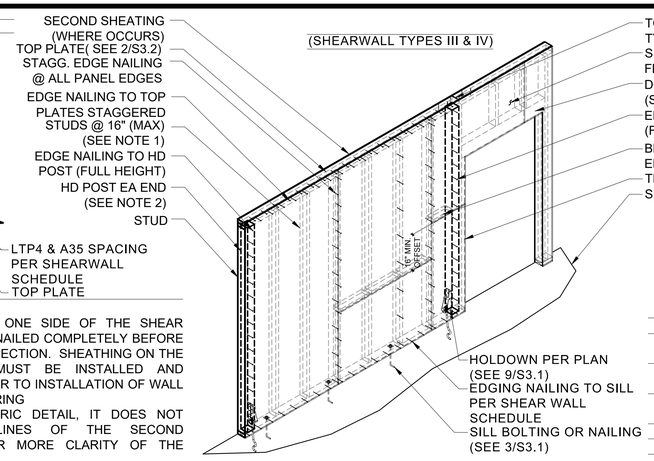
1

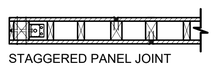


SHEARWALL ASSEMBLY w/ SHEATHING ON BOTH SIDES

7





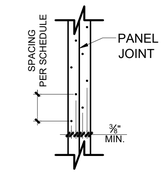


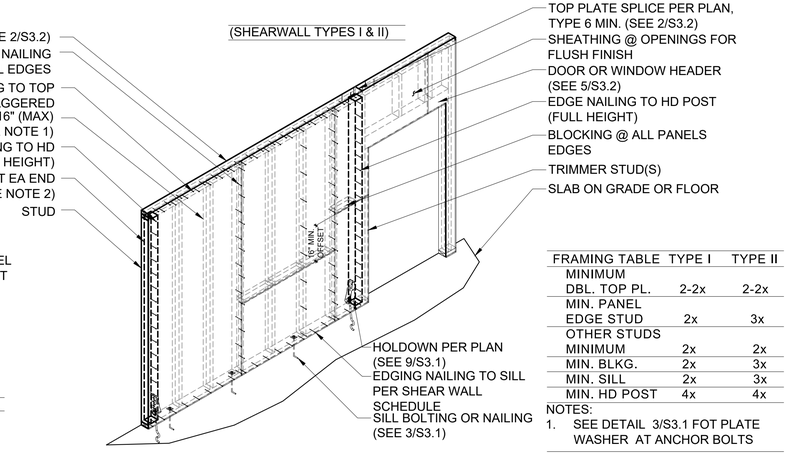
FRAMING TABLE	TYPE III	TYPE IV
MINIMUM DBL. TOP PL.	2-2x	2-3x6
MIN. PANEL EDGE STUD	3x	4x6
OTHER STUDS MINIMUM	2x	2x6
MIN. BLKG.	3x	4x6
MIN. SILL	3x	3x6
MIN. HD POST	4x	4x6

NOTES:
1. SHEATHING ON ONE SIDE OF THE SHEAR WALL MUST BE NAILED COMPLETELY BEFORE THE FRAME INSPECTION. SHEATHING ON THE OTHER SIDE MUST BE INSTALLED AND INSPECTED PRIOR TO INSTALLATION OF WALL SURFACE COVERING
2. IN THE ISOMETRIC DETAIL, IT DOES NOT SHOW THE LINES OF THE SECOND SHEATHING FOR MORE CLARITY OF THE DRAWING

SHEARWALL ASSEMBLY w/ SHEATHING ON ONE SIDE

5





FRAMING TABLE	TYPE I	TYPE II
MINIMUM DBL. TOP PL.	2-2x	2-2x
MIN. PANEL EDGE STUD	2x	3x
OTHER STUDS MINIMUM	2x	2x
MIN. BLKG.	2x	3x
MIN. SILL	2x	3x
MIN. HD POST	4x	4x

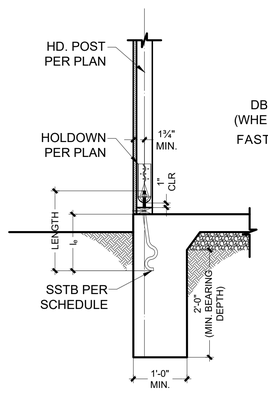
NOTES:
1. SEE DETAIL 3/S3.1 FOT PLATE WASHER AT ANCHOR BOLTS

HOLDOWN AND SSTB ANCHOR

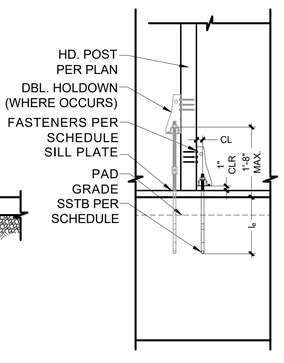
9

MARK	MIN. HD POST (WALL 2x4 OR 2x6)	NO. OF SDS ¼"x3 SCRES	CL	SIMPSON STRONGTIE ANCHOR BOLT	ANCHOR DIA.	MIN. ANCHOR EMBED l_e	ALLOW TENSION KIPS (LA CITY)	
							MINDWALL	CORNER
HDU2	4x4 OR 4x6	6	1 5/16"	SSTB20	5/8"	16 5/8"	3.075 (2.306)	2.960 (2.220)
HDU4	4x4 OR 4x6	10	1 5/16"	SSTB24	5/8"	20 5/8"	3.740 (2.805)	3.325 (2.494)
HDU8	4x6 OR 4x6	20	1 3/8"	SSTB28	7/8"	24 7/8"	6.970 (5.228)	6.970 (5.228)
HDU11	4x6 OR 4x6	30	1 3/8"	SB1x30	1"	24"	9.535 (7.151)	8.315 (6.236)
HDU14	4x8 OR 6x6	36	1 9/16"	SB1x30	1"	24"	11.470 (8.603)	-
2-HDU11	4x8 OR 6x6	30	1 3/8"	2-SB1x30	2-1"	24"	19.070 (14.303)	16.630 (12.473)
2-HDU14	4x8 OR 6x6	36	1 9/16"	2-SB1x30	2-1"	24"	22.940 (17.205)	-

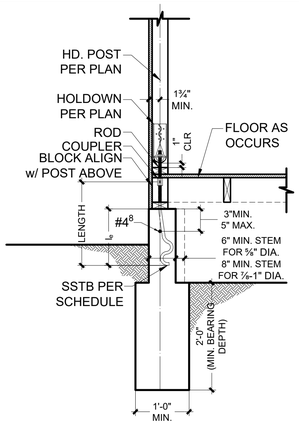
1) ALL HOLDOWN ANCHOR BOLTS SHALL BE SECURELY FASTENED IN PLACE PRIOR TO PLACING CONCRETE.
2) MINIMUM END DISTANCES FOR SSTB & SB BOLTS ARE AS SHOWN IN GRAPHICS.
3) MIDWALL LOADS APPLY WHEN ANCHOR IS 1.5 l_e OR GREATER FROM THE END. FOR BOLTS ACTING IN TENSION SIMULTANEOUSLY, THE MINIMUM BOLT CENTER-TO-CENTER SPACING IS 3 l_e.
4) ON CORNER APLICATION THE STEMP WALL NEED TO HAVE 16" MIN. RETURN OF WALL.
5) PLACE SSTB & SB ARROW DIAGONAL IN CORNER APPLICATION
6) FOOTING, SLAB, FLOOR FRAMING & SHEATING ARE NOT SHOWN FOR CLARITY ON ELEVATIONS (CORNER & MINDWALL).
7) MIN. DISTNACE FOR SLAB IS 4" & FOR STEMP IS 5".
8) REBAR IS REQUIRED AT THE TOP OF STEM WALL FOUNDATIONS, BUT IS NOT REQUIRED FOR SLAB-ON-GRADE EDGE AND GARAGE CURB, OR STEM WALL GARAGE FRONT INSTALLATIONS.
9) ON GARAGE USE A ROD & COUPLER AS SHOWN ALTERNATIVE ON SLAB DETAIL



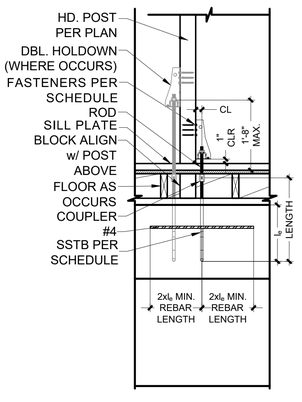
SLAB DETAIL



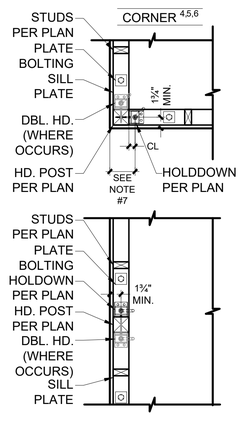
SLAB FRONT



RAISED DETAIL



RAISED FRONT



MINDWALL 3

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No.	DATE	SHEET	APPROVAL
1			
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DESIGNED BY: JR	DESIGN CHECK BY: JMG
DRAWN BY: JWG	DRAFTING CHECK BY: JMG

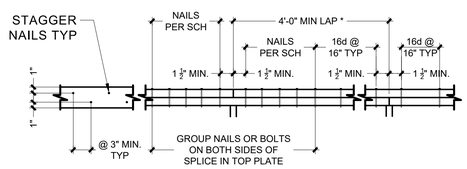
SHEET TITLE
TYPICAL DETAILS

DRAWING REF. S3.1

PROJECT NUMBER 25-103

SHEET

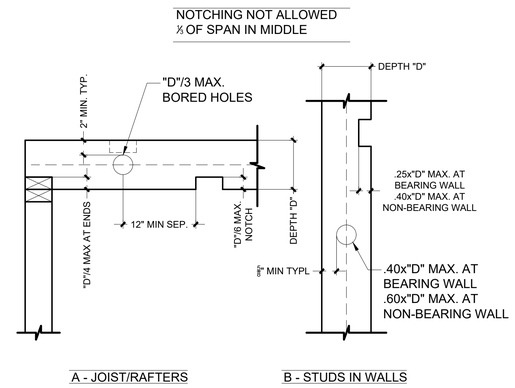
TOP PLATE SPLICE



MARK	MIN. PL. THK.	NAILS	DESIGN LOAD
6	2x4	6-16d	1250#
8	2x4	8-16d	1670#
10	2x4	10-16d	2090#
12	2x4	12-16d	2510#
14	2x4	14-16d	2920#
16	2x4	16-16d	3340#
18	2x4	18-16d	3760#
20	2x6	20-16d	(1)3780#/4180#

* = 6'-0" MIN. LAP LENGTH AT SPLCE 20

BORING AND NOTCHING



A - JOIST/RAFTERS

B - STUDS IN WALLS

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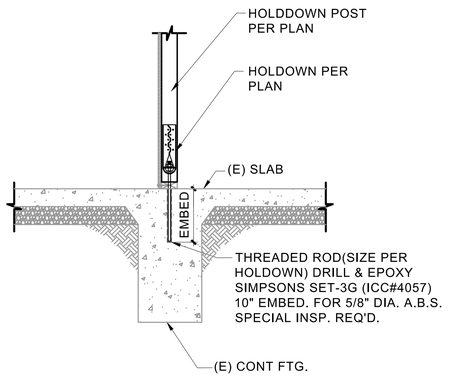
DESIGNED BY: JR	DESIGN CHECK BY: JMG
DRAWN BY: JWG	DRAFTING CHECK BY: JMG

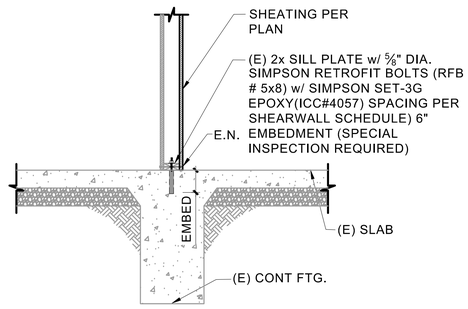
SHEET TITLE: TYPICAL DETAILS

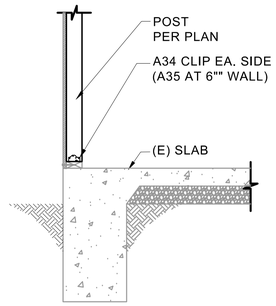
DRAWING REF.: S3.2

PROJECT NUMBER: 25-103

SHEET:







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LEIKARTS RESIDENCE

REMODEL

PROJECT ADDRESS:
3512 MAPLE AVE.,
MANHATTAN BEACH, CA 90266

REVISIONS			
No.	DATE	SHEET	APPROVAL
1			
2			
3			

DESIGNED BY: JR	DESIGN CHECK BY: JMG
DRAWN BY: JWG	DRAFTING CHECK BY: JMG

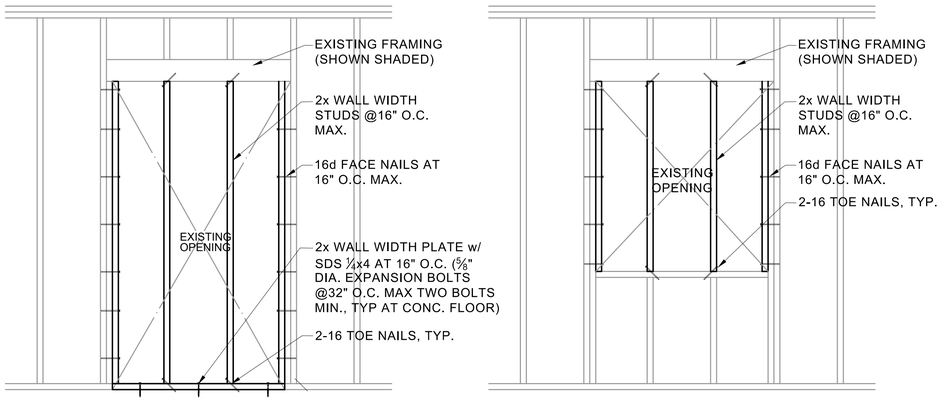
SHEET TITLE
FOUNDATION DETAILS

DRAWING REF. S4.0

PROJECT NUMBER 25-103

SHEET

3 TYP. EXIST. DOOR OR WINDOW OPENING CLOSURE



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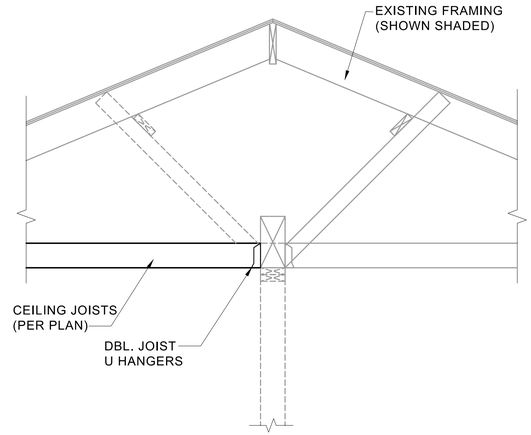

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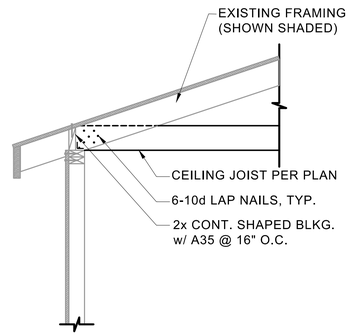

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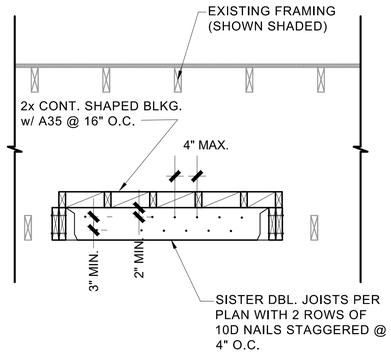

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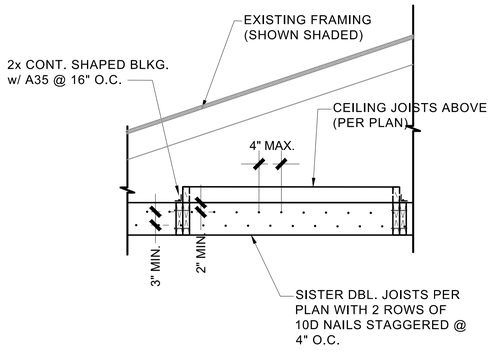

12

11

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SPRUCE ENGINEERING SERVICES, PROFESSIONAL CORPORATION
5771 GLOUCESTER CIR., WESTMINSTER, CA 92683
TELE: (562) 204-6223
SPRUCEENGSERVICES.COM

CHECK AND VERIFY ALL DIMENSIONS BEFORE PROCEEDING WITH THE WORK. REPORT DISCREPANCIES TO THE ENGINEER. ALL CONSTRUCTION SHALL CONFORM TO THE C.B.C.

ENGINEER OF RECORD:

REGISTERED PROFESSIONAL ENGINEER JONATHAN W. GOBER No. C-95662 Exp. 03-31-26 CIVIL STATE OF CALIFORNIA

Jonathan Gober, PE

LEIKARTS RESIDENCE

REMODEL

PROJECT ADDRESS:
3512 MAPLE AVE.,
MANHATTAN BEACH, CA 90266

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No.	DATE	SHEET	APPROVAL
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DESIGNED BY: JR	DESIGN CHECK BY: JMG
DRAWN BY: JWG	DRAFTING CHECK BY: JMG

SHEET TITLE
ROOF FRAMING DETAILS

DRAWING REF. S5.0

PROJECT NUMBER 25-103

SHEET