MAUI RESIDENCE

ROGER WORTHINGTON

BUILDING CODE SUMMARY

PROJECT DESCRIPTION:
BUILDING JURISDICTION: COUNTY OF MAUI

APPLICABLE CODES:
INTERNATIONAL RESIDENTIAL CODE 2018

DESIGN CRITERIA:
SNOW LOAD:
WIND EXPOSURE:
SEISMIC SITE CLASS:
DESIGN CATEGORY:
RISK CATEGORY:
FOR ADDITIONAL INFO SEE STRUCTURAL DRAWINGS

BUILDING INFORMATION:
CONSTRUCTION TYPE (SEC. 602) : V-B

FIRE SPRINKLERS: **(NO)**

CONDITIONED BUILDING AREA
2,880 SF

BUILDING PLANNING (CHAPTER 3)

R302: FIRE-RESISTANT CONSTRUCTION

THERE NO FIRE-RATED BARRIERS OR PARTITIONS REQUIRED.

R302.9 FLAME SPREAD INDEX FOR FINISHES

FLAME SPREAD INDEX: NOT GREATER THAN 200
SMOKE DEVELOPED INDEX: NOT GREATER THAN 450

R302.10 FLAME SPREAD INDEX FOR INSULATION

FLAME SPREAD INDEX: NOT GREATER THAN 25
SMOKE DEVELOPED INDEX: NOT GREATER THAN 450

R302.11 FIREBLOCKING

FIRE BLOCKING SHALL BE PROVIDED IN WOOD-FRAMED CONSTRUCTION IN THE FOLLOWING LOCATIONS:
1. IN CONCEALED SPACES OF STUD WALLS AND PARTITIONS:
   A. VERTICALLY AT THE CEILING AND FLOOR LEVELS
   B. HORIZONTALLY AT INTERVALS NOT EXCEEDING 10 FEET
2. AT INTERCONNECTIONS BETWEEN CONCEALED VERTICAL AND HORIZONTAL SPACES SUCH AS OCCUR AT SOFFITS, DROP CEILINGS, AND COVE CEILINGS.
3. NOT APPLICABLE (NO STAIRS IN PROJECT)
4. AT OPENINGS AROUND VENTS, PIPES, DUCTS, CABLES, AND WIRES AT CEILING AND FLOOR LEVEL...
5. NOT APPLICABLE (NO CHIMNEYS OR FIREPLACES)
6. NO APPLICABLE (NOT A TWO-FAMILY DWELLING)

R302.12 DRAFTSTOPPING

DRAFTSTOPPING IS NOT REQUIRED.

R302.13 FIRE PROTECTION OF FLOORS

NOT APPLICABLE DUE TO:
EXCEPTION 2: FLOOR ASSEMBLIES LOCATED DIRECTLY OVER A CRAWL SPACE NOT INTENDED FOR STORAGE OR FOR THE INSTALLATION OF FUEL-FIRED OR ELECTRIC-POWERED HEATING APPLIANCES.

EXCEPTION 4: WOOD FLOOR ASSEMBLIES USING DIMENSIONAL LUMBER OR STRUCTURAL COMPOSITE LUMBER EQUAL OR GREATER THAN 2X10 NOMINAL...

R302.14 COMBUSTIBLE INSULATION CLEARANCE

COMBUSTIBLE INSULATION SHALL BE SEPARATED NOT LESS THAN 3 INCHES FROM RECESSED LUMINARIES, FAN MOTORS, AND OTHER HEAT PRODUCING DEVICES.

EXCEPTION: WHERE HEAT-PRODUCING DEVICES ARE LISTED FOR LESSER CLEARANCES, COMBUSTIBLE INSULATION COMPLYING WITH THE LISTING REQUIREMENTS SHALL BE SEPARATED IN ACCORDANCE WITH THE CONDITIONS STIPULATED IN THE LISTING.

R303: LIGHT, VENTILATION, AND HEATING

R303.1 HABITABLE ROOMS

HABITABLE ROOMS SHALL HAVE AN AGGREGATE GLAZING AREA OF NOT LESS THAN 8 PERCENT OF THE FLOOR AREA OF SUCH ROOMS. NATURAL VENTILATION SHALL BE THROUGH WINDOWS, SKYLIGHTS, DOORS, LOUVERS OR OTHER APPROVED OPENINGS TO THE OUTDOOR AIR. SUCH OPENINGS SHALL BE PROVIDED WITH READY ACCESS OR SHALL OTHERWISE BE READILY CONTROLLABLE BY THE BUILDING OCCUPANTS. THE OPERABLE AREA TO THE OUTDOORS SHALL BE NOT LESS THAN 4 PERCENT OF THE FLOOR AREA BEING VENTILATED.

R303.3 BATHROOMS

BATHROOMS, WATER CLOSET COMPARTMENTS AND OTHER SIMILAR ROOMS SHALL BE PROVIDED WITH AGGREGATE GLAZING AREA IN WINDOWS OF NOT LESS THAN 3 SQUARE FEET (0.3 M2), ONE-HALF OF WHICH SHALL BE OPERABLE.

EXCEPTION: THE GLAZED AREAS SHALL NOT BE REQUIRED WHERE ARTIFICIAL LIGHT AND A LOCAL EXHAUST SYSTEM ARE PROVIDED. THE MINIMUM LOCAL EXHAUST RATES SHALL BE DETERMINED IN ACCORDANCE WITH SECTION M1505. EXHAUST AIR FROM THE SPACE SHALL BE EXHAUSTED DIRECTLY TO THE OUTDOORS.

R303.5 OPENING LOCATION

R303.5.1 INTAKE OPENINGS
MECHANICAL AND GRAVITY OUTDOOR AIR INTAKE OPENINGS SHALL BE LOCATED NOT LESS THAN 10 FEET (3048 MM) FROM ANY HAZARDOUS OR NOXIOUS CONTAMINANT, SUCH AS VENTS, CHIMNEYS, PLUMBING VENTS, STREETS, ALLEYS, PARKING LOTS AND LOADING DOCKS.
FOR THE PURPOSE OF THIS SECTION, THE EXHAUST FROM DWELLING UNIT TOILET ROOMS, BATHROOMS AND KITCHENS SHALL NOT BE CONSIDERED AS HAZARDOUS OR NOXIOUS.

EXCEPTIONS:

1. THE 10-FOOT (3048 MM) SEPARATION IS NOT REQUIRED WHERE THE INTAKE OPENING IS LOCATED 3 FEET (914 MM) OR GREATER BELOW THE CONTAMINANT SOURCE.
2. VENTS AND CHIMNEYS SERVING FUEL-BURNING APPLIANCES SHALL BE TERMINATED IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF CHAPTERS 18 AND 24.
3. CLOTHES DRYER EXHAUST DUCTS SHALL BE TERMINATED IN ACCORDANCE WITH SECTION M1502.3.

R303.5.2 EXHAUST OPENINGS
EXHAUST AIR SHALL NOT BE DIRECTED ONTO WALKWAYS

R303.6 OUTSIDE OPENING PROTECTION
AIR EXHAUST AND INTAKE OPENINGS THAT TERMINATE OUTDOORS SHALL BE PROTECTED WITH CORROSION-RESISTANT SCREENS, LOUVERS OR GRILLES HAVING AN OPENING SIZE OF NOT LESS THAN 1/4 INCH (6 MM) AND A MAXIMUM OPENING SIZE OF 1/2 INCH (13 MM), IN ANY DIMENSION. OPENINGS SHALL BE PROTECTED AGAINST LOCAL WEATHER CONDITIONS.

R303.8 EXTERIOR STAIRWAY ILLUMINATION
EXTERIOR STAIRWAYS SHALL BE PROVIDED WITH AN ARTIFICIAL LIGHTING SOURCE LOCATED AT THE TOP LANDING OF THE STAIRWAY.

R308 GLAZING

R308.3 HUMAN IMPACT LOADS

INDIVIDUAL GLAZED AREAS, INCLUDING GLASS MIRRORS IN HAZARDOUS LOCATIONS SUCH AS THOSE INDICATED AS DEFINED IN SECTION R308.4, SHALL PASS THE TEST REQUIREMENTS OF SECTION R308.3.1

R308.3.1 IMPACT TEST

WHERE REQUIRED BY OTHER SECTIONS OF THE CODE, GLAZING SHALL BE TESTED IN ACCORDANCE WITH CPSC 16 CFR 1201. GLAZING SHALL COMPLY WITH THE TEST CRITERIA FOR CATEGORY II UNLESS OTHERWISE INDICATED IN TABLE R308.3.1(1).

R308.4 HAZARDOUS LOCATIONS

R308.4.1 GLAZING IN DOORS

R308.4.2 GLAZING ADJACENT TO DOORS
WHERE THE BOTTOM EDGE OF THE GLAZING IS LESS THAN 60 INCHES ABOVE THE FLOOR AND:
1. WHERE THE GLAZING IS WITHIN 24 INCHES OF EITHER SIDE OF THE DOOR IN THE PLANE OF THE DOOR IN THE CLOSED POSITION
2. WHERE THE GLAZING IS ON A WALL LESS THAN 180 DEGREES FROM THE PLAN OF THE DOOR IN A CLOSED POSITION AND WITHIN 24 INCHES OF THE HINGE SIDE OF AN IN-SWINGING DOOR.

R308.4.3 GLAZING IN WINDOWS
GLAZING IN AN INDIVIDUAL FIXED OR OPERABLE PANEL THAT MEETS ALL OF THE FOLLOWING CONDITIONS:
1. THE EXPOSED AREA OF A PANE IS LARGER THAN 9SF
2. THE BOTTOM EDGE OF THE GLAZING IS LESS THAN 18 INCHES ABOVE THE FLOOR.
3. THE TOP EDGE OF THE GLAZING IS MORE THAN 36 INCHES ABOVE THE FLOOR
4. ONE OR MORE WALKING SURFACES ARE WITHIN 36 INCHES OF THE GLAZING.

R308.4.4 GLAZING IN GUARDS AND RAILINGS
GLAZING IN GUARDS AND RAILINGS, INCLUDING STRUCTURAL BALUSTER PANELS AND NONSTRUCTURAL IN-FILL PANELS, REGARDLESS OF AREA OR HEIGHT ABOVE A WALKING SURFACE SHALL BE CONSIDERED TO BE A HAZARDOUS LOCATION.

R308.4.5 GLAZING AND WET SURFACES
GLAZING IN WALLS CONTAINING OR FACING HOT TUBS, SPAS, WHIRLPOOLS, SAUNAS, STEAM ROOMS, BATHTUBS, SHOWERS AND INDOOR OR OUTDOOR SWIMMING POOLS WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 60 INCHES MEASURED VERTICALLY ABOVE ANY STANDING OR WALKING SURFACE SHALL BE CONSIDERED TO BE A HAZARDOUS LOCATION.

R310 EMERGENCY ESCAPE AND RESCUE OPENINGS

BASEMENTS, HABITABLE ATTICS, AND EVERY SLEEPING ROOM SHALL HAVE NOT LESS THAN ONE OPERABLE EMERGENCY ESCAPE AND RESCUE OPENING.

R310.2.1 MINIMUM OPENING AREA
EMERGENCY ESCAPE AND RESCUE OPENINGS SHALL HAVE A CLEAR NET OPENING OF NOT LESS THAN 5.7 SF... THE NET CLEAR HEIGHT OF THE OPENING SHALL BE NOT LESS THAN 24 INCHES AND THE NET CLEAR WIDTH SHALL BE NOT LESS THAN 20 INCHES.

EXCEPTION: GRADE FLOOR OPENINGS SHALL HAVE A NET CLEAR OPENING AREA OF NOT LESS THAN 5 SF.

R310.2.2 WINDOW SILL HEIGHT
WHERE A WINDOW IS PROVIDED AS THE EMERGENCY ESCAPE AND RESCUE OPENING, IT SHALL HAVE A SILL HEIGHT OF NOT MORE THAN 44 INCHES ABOVE THE FLOOR...

R310.3 EMERGENCY ESCAPE AND RESCUE DOORS
WHERE A DOOR IS PROVIDED AS THE REQUIRED EMERGENCY ESCAPE AND RESCUE OPENING, IT SHALL BE A SIDE-HINGED OR A SLIDER.

R313 AUTOMATIC FIRE SPRINKLER SYSTEMS

AN AUTOMATIC RESIDENTIAL FIRE SPRINKLER SYSTEM SHALL BE INSTALLED IN ONE- AND TWO-FAMILY DWELLINGS.

EXCEPTION: AN AUTOMATIC RESIDENTIAL FIRE SPRINKLER SYSTEM SHALL NOT BE REQUIRED FOR ADDITIONS OR ALTERATIONS TO EXISTING BUILDINGS THAT ARE NOT ALREADY PROVIDED WITH AN AUTOMATIC RESIDENTIAL SPRINKLER SYSTEM. IN ACCORDANCE WITH HRS 46-19.8 FIRE SPRINKLERS; RESIDENCES, UNTIL JUNE 30, 2027 NO COUNTY SHALL REQUIRE THE INSTALLATION OR RETROFITTING OF AUTOMATIC FIRE SPRINKLERS OR AN AUTOMATIC FIRE SPRINKLER SYSTEM IN:

1. ANY NEW OR EXISTING DETACHED ONE- OR TWO-FAMILY DWELLING UNIT IN A STRUCTURE USED ONLY FOR RESIDENTIAL PURPOSES; AND
2. NOT APPLICABLE

PROVIDED THAT THIS SECTION SHALL NOT APPLY TO NEW HOMES THAT REQUIRE A VARIANCE FROM ACCESS ROAD OR FIREFIGHTING WATER SUPPLY REQUIREMENTS.

R314 SMOKE ALARMS

SMOKE ALARMS SHALL BE INSTALLED IN THE FOLLOWING LOCATIONS:

1. IN EACH SLEEPING ROOM.
2. OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS.
3. ON EACH ADDITIONAL STORY OF THE DWELLING, INCLUDING BASEMENTS AND HABITABLE ATTICS AND NOT INCLUDING CRAWL SPACES AND UNINHABITABLE ATTICS. IN DWELLINGS OR DWELLING UNITS WITH SPLIT LEVELS AND WITHOUT AN INTERVENING DOOR BETWEEN THE ADJACENT LEVELS, A SMOKE ALARM INSTALLED ON THE UPPER LEVEL SHALL SUFFICE FOR THE ADJACENT LOWER LEVEL PROVIDED THAT THE LOWER LEVEL IS LESS THAN ONE FULL STORY BELOW THE UPPER LEVEL.
4. SMOKE ALARMS SHALL BE INSTALLED NOT LESS THAN 3 FEET (914 MM) HORIZONTALLY FROM THE DOOR OR OPENING OF A BATHROOM THAT CONTAINS A BATHTUB OR SHOWER UNLESS THIS WOULD PREVENT PLACEMENT OF A SMOKE ALARM REQUIRED BY THIS SECTION.

SMOKE ALARMS SHALL NOT BE INSTALLED IN THE FOLLOWING LOCATIONS UNLESS THIS WOULD PREVENT PLACEMENT OF A SMOKE ALARM IN A LOCATION REQUIRED BY SECTION R314.3.

1. IONIZATION SMOKE ALARMS SHALL NOT BE INSTALLED LESS THAN 20 FEET (6096 MM) HORIZONTALLY FROM A PERMANENTLY INSTALLED COOKING APPLIANCE.
2. IONIZATION SMOKE ALARMS WITH AN ALARM-SILENCING SWITCH SHALL NOT BE INSTALLED LESS THAN 10 FEET (3048 MM) HORIZONTALLY FROM A PERMANENTLY INSTALLED COOKING APPLIANCE.
3. PHOTOELECTRIC SMOKE ALARMS SHALL NOT BE INSTALLED LESS THAN 6 FEET (1828 MM) HORIZONTALLY FROM A PERMANENTLY INSTALLED COOKING APPLIANCE.

R315 CARBON MONOXIDE ALARMS

CARBON MONOXIDE ALARMS IN DWELLING UNITS SHALL BE INSTALLED OUTSIDE OF EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS. WHERE A FUEL-BURNING APPLIANCE IS LOCATED WITHIN A BEDROOM OR ITS ATTACHED BATHROOM, A CARBON MONOXIDE ALARM SHALL BE INSTALLED WITHIN THE BEDROOM.

COMBINATION CARBON MONOXIDE AND SMOKE ALARMS SHALL BE PERMITTED TO BE USED IN LIEU OF CARBON MONOXIDE ALARMS.

R317 PROTECTION OF WOOD AND WOOD-BASED PRODUCTS AGAINST DECAY

R317.1 LOCATION REQUIRED

1. WOOD JOISTS OR THE BOTTOM OF A WOOD STRUCTURAL FLOOR WHERE CLOSER THAN 18 INCHES (457 MM) OR WOOD GIRDERS WHERE CLOSER THAN 12 INCHES (305 MM) TO THE EXPOSED GROUND IN CRAWL SPACES OR UNEXCAVATED AREA LOCATED WITHIN THE PERIPHERY OF THE BUILDING FOUNDATION.
2. WOOD FRAMING MEMBERS THAT REST ON CONCRETE OR MASONRY EXTERIOR FOUNDATION WALLS AND ARE LESS THAN 8 INCHES (203 MM) FROM THE EXPOSED GROUND.
3. SILLS AND SLEEPERS ON A CONCRETE OR MASONRY SLAB THAT IS IN DIRECT CONTACT WITH THE GROUND UNLESS SEPARATED FROM SUCH SLAB BY AN IMPERVIOUS MOISTURE BARRIER.
4. THE ENDS OF WOOD GIRDERS ENTERING EXTERIOR MASONRY OR CONCRETE WALLS HAVING CLEARANCES OF LESS THAN 1/2 INCH (12.7 MM) ON TOPS, SIDES AND ENDS.
5. WOOD SIDING, SHEATHING AND WALL FRAMING ON THE EXTERIOR OF A BUILDING HAVING A CLEARANCE OF LESS THAN 6 INCHES (152 MM) FROM THE GROUND OR LESS THAN 2 INCHES (51 MM) MEASURED VERTICALLY FROM CONCRETE STEPS, PORCH SLABS, PATIO SLABS AND SIMILAR HORIZONTAL SURFACES EXPOSED TO THE WEATHER.
6. WOOD STRUCTURAL MEMBERS SUPPORTING MOISTURE-PERMEABLE FLOORS OR ROOFS THAT ARE EXPOSED TO THE WEATHER, SUCH AS CONCRETE OR MASONRY SLABS, UNLESS SEPARATED FROM SUCH FLOORS OR ROOFS BY AN IMPERVIOUS MOISTURE BARRIER.
7. WOOD FURRING STRIPS OR OTHER WOOD FRAMING MEMBERS ATTACHED DIRECTLY TO THE INTERIOR OF EXTERIOR MASONRY WALLS OR CONCRETE WALLS BELOW GRADE EXCEPT WHERE AN APPROVED VAPOR RETARDER IS APPLIED BETWEEN THE WALL AND THE FURRING STRIPS OR FRAMING MEMBERS.

R318 PROTECTION AGAINST SUBTERRANEAN TERMITES

R318.1 SUBTERRANEAN TERMITE CONTROL METHODS

METHODS OF PROTECTION SHALL BE ONE OF ITEMS 1, 2 OR 3 AND ONE OF ITEMS 4, 5 OR 6.

1. CHEMICAL TERMITICIDE, AS PROVIDED IN SECTION R318.2.
2. TERMITE-BAITING SYSTEM INSTALLED AND MAINTAINED ACCORDING TO THE LABEL.
3. PHYSICAL BARRIERS, AS PROVIDED IN SECTION R318.3 AND USED IN LOCATIONS AS SPECIFIED IN SECTION R317.1
4. PRESSURE-PRESERVATIVE-TREATED STRUCTURAL WOOD IN ACCORDANCE WITH SECTION R317.1
5. COLD-FORMED STEEL FRAMING IN ACCORDANCE WITH SECTIONS R505.2.1 AND R603.2.1.
6. NATURALLY DURABLE TERMITE-RESISTANT WOOD AS APPROVED BY THE BUILDING OFFICIAL.

ENERGY CODE COMPLIANCE
(INTERNATIONAL ENERGY CODE 2018 - RESIDENTIAL PROVISIONS)

PROJECT IS LOCATED IN CLIMATE ZONE 1A

THIS PROJECT CHOOSES TO COMPLY WITH THE TROPICAL CLIMATE REGION OPTION

R401.2.4 TROPICAL CLIMATE REGION OPTION
THE TROPICAL CLIMATE REGION OPTION REQUIRES COMPLIANCE WITH SECTION R407.

R407 TROPICAL CLIMATE REGION COMPLIANCE PATH
1. NOT MORE THAN ONE-HALF OF THE DWELLING UNIT IS AIR CONDITIONED.
2. THE OCCUPIED SPACE IS NOT HEATED.
3. SOLAR, WIND, OR OTHER RENEWABLE ENERGY SOURCE SUPPLIES NOT LESS THAN 90% OF THE ENERGY FOR SERVICE WATER HEATING.
4. GLAZING IN HABITABLE SPACES HAS A SHGC OF LESS THAN OR EQUAL TO 0.25 OR HAS AN OVERHANG WITH A PROJECTION FACTOR EQUAL TO 0.30.
5. PERMANENTLY INSTALLED LIGHTING IS IN ACCORDANCE WITH SECTION R404.
6. THE EXTERIOR ROOF SURFACE... HAS AN INSULATION R-VALUE OF R-15 OR GREATER.
7. ROOF SURFACES HAVE A MINIMUM SLOPE OF 1/4 INCH PER FOOT OF RUN. THE FINISHED ROOF DOES NOT HAVE WATER ACCUMULATION AREAS.
8. OPERABLE FENESTRATION PROVIDES VENTILATION AREA EQUAL TO NOT LESS THAN 14% OF THE FLOOR AREA IN EACH ROOM.
9. BEDROOMS WITH EXTERIOR WALLS FACING TWO DIFFERENT DIRECTIONS HAVE OPERABLE FENESTRATION FACING TWO DIFFERENT DIRECTIONS.
10. INTERIOR DOORS TO BEDROOMS ARE CAPABLE OF BEING SECURED IN THE OPEN POSITION.
11. A CEILING FAN, OR CEILING FAN ROUGH-IN, IS PROVIDED FOR BEDROOMS AND THE LARGEST SPACE THAT IS NOT USED AS A BEDROOM.
12. WALLS, FLOORS, AND CEILINGS SEPARATING AIR-CONDITIONED SPACES FROM NON-AIR-CONDITIONED SPACES SHALL BE CONSTRUCTED TO LIMIT AIR LEAKAGE IN ACCORDANCE WITH THE REQUIREMENTS IN R402.4.1.1.

R407.3 GENERAL
ABOVE-GRADE WALLS AND ROOF/CEILING ASSEMBLIES ARE PERMITTED TO COMPLY WITH THE POINTS OPTION AS AN ALTERNATIVE TO COMPLYING WITH SECTION R401.2.L AND R402.2.

R407.4 REQUIREMENTS
THREE OR MORE EFFICIENCY MEASURES SHALL BE SELECTED FOR ROOF/CEILING AND ABOVE-GRADE WALL SYSTEMS FROM TABLE R407.1 THAT CUMULATIVELY EQUAL OR EXCEED 2 (TWO) POINTS.

AS AN ALTERNATIVE, ABOVE-GRADE WALLS AND ROOF/CEILINGS ARE PERMITTED TO COMPLY SEPARATELY BY SCORING 2 (TWO) POINTS OR GREATER

THE PROJECT PROPOSES COMPLIANCE VIA THE POINT OPTIONS IN TABLE R407.1 NOTED BELOW:
R-30 ROOF-CEILING INSULATION = 1 POINT
R-13 WALL INSULATION + HIGH REFLECTANCE WALLS = 1 POINT
> 2,500 SF = -1 POINT
ENERGY STAR FANS = 1 POINT

OTHER CODE COMPLIANCE

HAWAII REVISED STATUTES SECTION 196-6.5
A SOLAR WATER HEATER SYSTEM IS REQUIRED FOR ALL NEW SINGLE FAMILY DWELLINGS.

INDEX OF DRAWINGS

DRAWING INDEX

COUNTY OF MAUI
MAUI COUNTY CODE, CHAPTER 16.16B ENERGY CODE
RESIDENTIAL PROVISIONS

COMPLIANCE METHOD
Check applicable method

☐	R401.2(1) R401.3 through R404 (Prescriptive)
☐	R401.2(2) R405, R401 through R404 labeled Mandatory (Simulated Performance Alternative)
☐	R401.2(3) R406 (Energy Rating Index Compliance Alternative)
☒	R401.2(4) R401.2.1 (Tropical Zone)
☐	R102.1 (Alternative)

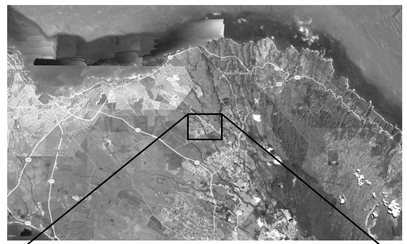
To the best of my knowledge, this project's design substantially conforms to the Energy Code.

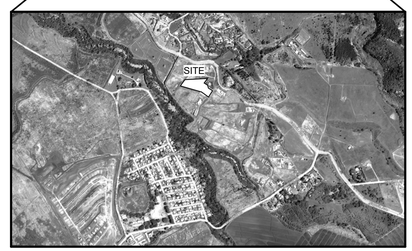
Signature: _____ Date: 11/26/2025
Name: SETH ANDERSON
Title: ARCHITECT
License No.: 21421

PROJECT DATA

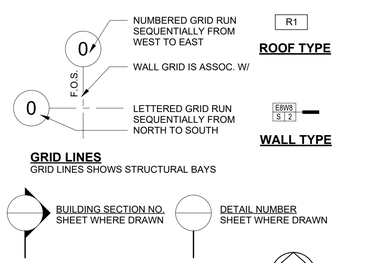
PROJECT ADDRESS	2362 BALDWIN AVE, UNIT A MAKAWAO, HI 96779
TAX MAP KEY	(2)2-5-003:040
GOVERNING CODE	INTERNATIONAL RESIDENTIAL CODE 2018
BUILDING USE	RESIDENTIAL SINGLE FAMILY
TYPE OF CONSTRUCTION	LIGHT FRAME WOOD CONSTRUCTION

VICINITY MAP





ARCHITECTURAL SYMBOLS



BEND
2863 NW Crossing Dr.
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Tel: 541-330-6869

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Boise, Idaho 83702
Tel: 541-330-6869

WALKER
STRUCTURAL ENGINEERING LLC.

SETH ERIC ANDERSON
LICENSED PROFESSIONAL ARCHITECT
NO. 21421
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

Seth E Anderson — 4/30/2026
Signature — Expiration Date of the License

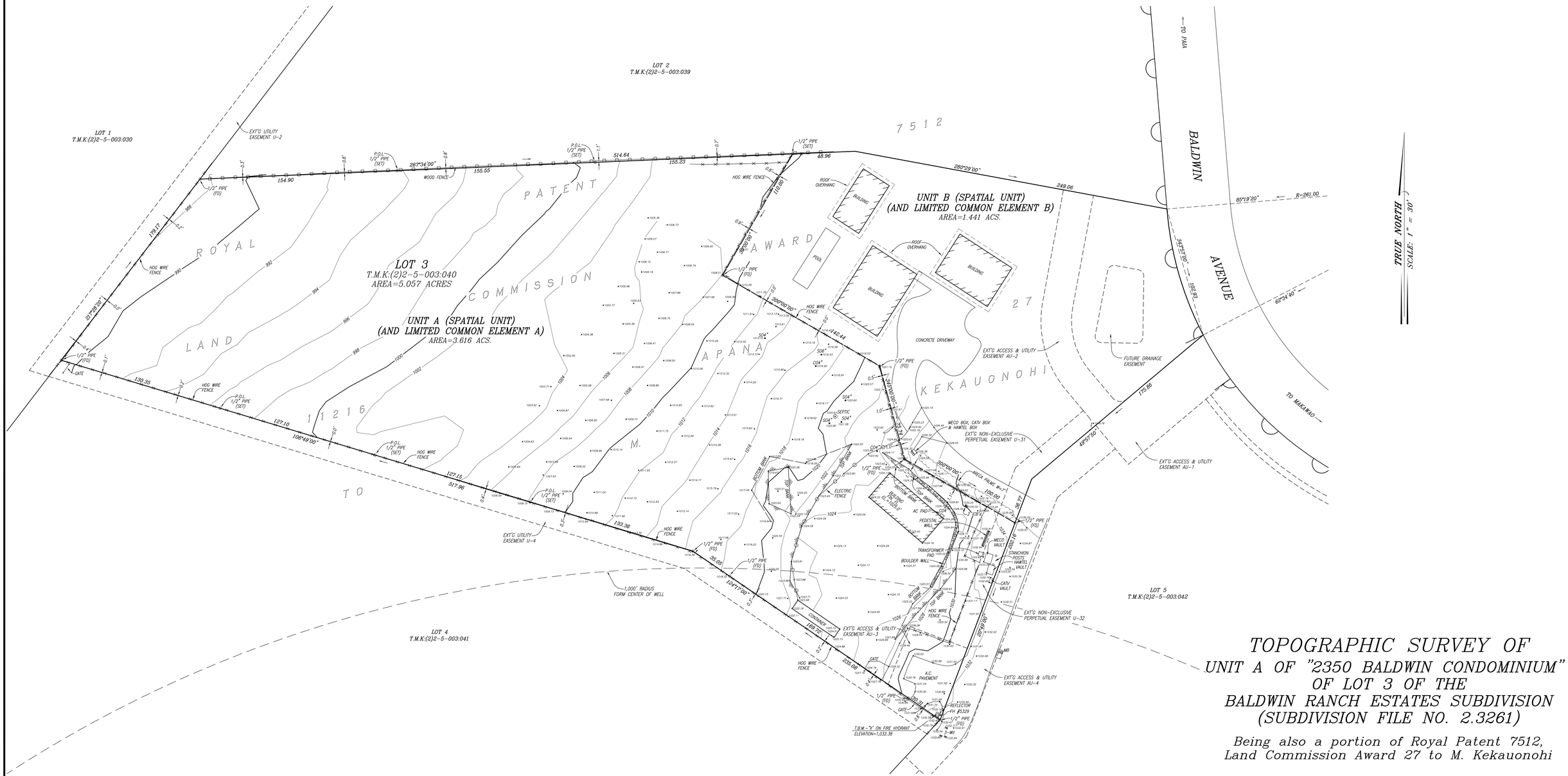
DRAWING REVISIONS

#	Date	Description
1	05/10/2024	PERMIT REVISIONS
2	08/20/2025	PERMIT REVISIONS
3	12/31/2025	PERMIT REVISIONS

WORTHINGTON MAUI HOUSE
ROGER WORTHINGTON
PERMIT SET

Drawing Title: DATA SHEET
Drawn By: Author
Date: 08/20/2025
Project No.
Revised:
Sheet No.
G0.1

12/31/2025 10:27:28 AM



TOPOGRAPHIC SURVEY OF
UNIT A OF "2350 BALDWIN CONDOMINIUM" OF LOT 3 OF THE BALDWIN RANCH ESTATES SUBDIVISION (SUBDIVISION FILE NO. 2.3261)

Being also a portion of Royal Patent 7512, Land Commission Award 27 to M. Kekauonohi

SITUATE AT
HALIIMAILE, MAKAWAO, MAUI, HAWAII

DATE: JULY 31, 2025 SCALE: 1" = 30'

AKAMAI LAND SURVEYING, INC.
P.O. BOX 1748
MAKAWAO, MAUI, HAWAII 96768
(808)876-0177

NOTES:

1. TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED ON AN ACTUAL FIELD SURVEY PERFORMED ON MARCH 22, 2023. & AGAIN ON JULY 25, 2025.
2. AZIMUTHS AND COORDINATES SHOWN HEREON REFER TO GOVERNMENT SURVEY TRIANGULATION STATION "AHUPAI".
3. ELEVATIONS SHOWN HEREON ARE BASED ON A BRASS DISK @ SAINT JOSEPH CHURCH, ON STEPS FRONTING MAKAWAO AVE. ELEVATION TAKEN AS 1,638.52 FEET M.S.L.-L.T.D.

LEGEND

MECO	MAUI ELECTRIC CO. BOX
HAWTEL	HAWAIIAN TELEPHONE CO. BOX
CATV	CABLE TELEVISION BOX
FH	FIRE HYDRANT
MB	MAILBOX
WV	WATER VALVE
ICB	IRRIGATION CONTROL BOX
C04"	CLEANOUT & DIAMETER
S04"	UTILITY STUBOUT & DIAMETER

T.M.K: (2) 2-5-003: 040

PROPERTY OWNER & ADDRESS:

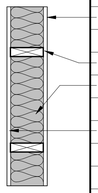
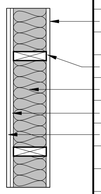
2350 BALDWIN CONDO
2350 BALDWIN AVENUE
MAKAWAO, HI 96779

SHERMAN DUDLEY DEPONTE * LICENSED PROFESSIONAL LAND SURVEYOR * No. 6960 * HAWAII, U.S.A.

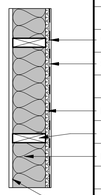
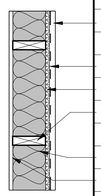
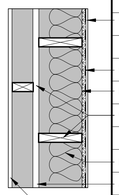
THIS WORK WAS DONE BY ME OR UNDER MY DIRECT SUPERVISION.
05 AUGUST 2025
SHERMAN DUDLEY DEPONTE
LICENSED PROFESSIONAL LAND SURVEYOR
STATE OF HAWAII CERTIFICATE NO. 6960
EXPIRATION DATE: 30 APRIL 2026

JOB NO. 225093-ASBLT-TOPO-31JUL25

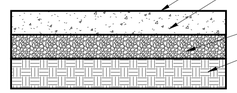
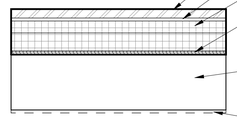
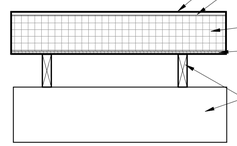
INTERIOR WALL ASSEMBLIES (PLAN VIEW)

WALL TYPE	ASSEMBLY	DESCRIPTION
4W2 / 6W2		(1) LAYER 5/8" GYPSUM WALLBOARD WOOD STUD FRAMING PER STRUCTURAL SOUND ATTENUATING BATT INSULATION, WHERE INDICATED (1) LAYER 5/8" GYPSUM WALLBOARD
4W3 / 6W3		(1) LAYER 5/8" GYPSUM WALLBOARD WOOD STUD FRAMING PER STRUCTURAL SOUND ATTENUATING BATT INSULATION, WHERE INDICATED 1/2" RESILIENT CHANNEL (1) LAYER 5/8" GYPSUM WALLBOARD

EXTERIOR WALL ASSEMBLIES (PLAN VIEW)

WALL TYPE	ASSEMBLY	DESCRIPTION
E6W1		WOOD SIDING (BASIS OF DESIGN = KOA WOOD) SAM AIR BARRIER (VAPOR PERMEABLE) PLYWOOD SHEATHING PER STRUCTURAL WOOD STUD FRAMING PER STRUCTURAL R-13 MIN. THERMAL BATT INSULATION (1) LAYER 5/8" GYPSUM WALLBOARD
E6W2		STUCCO SIDING STANDARD ASSEMBLY SAM AIR BARRIER (VAPOR PERMEABLE) PLYWOOD SHEATHING PER STRUCTURAL WOOD STUD FRAMING PER STRUCTURAL R-13 MIN. THERMAL BATT INSULATION (1) LAYER 5/8" GYPSUM WALLBOARD
E6W3		WOOD SIDING (PER E6W1) SAM AIR BARRIER (VAPOR PERMEABLE) PLYWOOD SHEATHING PER STRUCTURAL WOOD STUD FRAMING PER STRUCTURAL (ADDITIONAL FRAMING TO PROVIDE THICKNESS FOR OPENING) R-13 MIN. THERMAL BATT INSULATION AIR GAP (COORDINATE SIZE W/ SLIDING DOOR THICKNESS) (1) LAYER 5/8" GYPSUM WALLBOARD

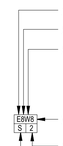
FLOOR & ROOF ASSEMBLIES (SECTION VIEW)

FLOOR TYPE	ASSEMBLY	DESCRIPTION
F1		FLOOR FINISH PER FINISH PLANS CONCRETE SLAB PER STRUCTURAL GRAVEL BASE/DRAINAGE LAYER COMPACTED FILL/SOIL
R1		STANDING SEAM METAL ROOFING - DARK BRONZE FINISH COVERBOARD AND UNDERLAYMENT AS RECOMMENDED BY METAL ROOFING MFR R-30 MIN ABOVE DECK RIGID BOARD INSULATION PLYWOOD DECKING PER STRUCTURAL WOOD FRAMING PER STRUCTURAL FINISH CEILING PER RCPS
R2		SINGLE PLY PVC ROOFING COVERBOARD AND UNDERLAYMENT PER PVC ROOFING MFR RIGID BOARD INSULATION SLOPED TO PROVIDE DRAINAGE PER ROOF PLAN PLYWOOD DECKING PER STRUCTURAL FRAMING PER STRUCTURAL

ASSEMBLY GENERAL NOTES

A. TOILET ROOMS SHALL HAVE TILE BACKER BOARD (093000) BEHIND CERAMIC WALL TILE (WHERE OCCURS) & MOISTURE RESISTANT GWB AT ALL OTHER SURFACES.
B. PROVIDE MOISTURE RESISTANT GWB AT THE FOLLOWING LOCATIONS: BEHIND COOLER/FREEZERS, WALLS ADJACENT TO SINKS, WALLS ADJACENT TO DRINKING FOUNTAINS, ANY WET/EXTREME COLD AREAS.
C. FINISHES TO BE COORDINATE WITH OWNER.
D. PROVIDE SOLID BLOCKING FOR ALL WALL-MOUNTED CABINETS, EQUIPMENT, WAINSCOTTING & FURNITURE ARTWORK (COORDINATE WITH OWNER FOR LOCATIONS).
E. SEE STRUCTURAL DRAWINGS FOR STUD SPACING, WALL BRACING, FOOTING AND STEM WALL SIZING, ETC.
F. STRUCTURAL DRAWINGS TAKE PRECEDENCE OVER FRAMING & PLYWOOD THICKNESS SHOWN ON ARCHITECTURAL WALL TYPES.
G. SEE STRUCTURAL DRAWINGS FOR LOCATIONS, TYPES, AND THICKNESSES OF SHEAR WALL PANELS.
H. PROVIDE ACOUSTICAL INSULATION AT ALL INTERIOR WALLS AND EXTEND UP TO BOTTOM OF DECK. PROVIDE SLIP CHANNEL TO ALLOW FOR ROOF DEFLECTION.
I. AT EXTERIOR WALLS: CARRY GYP BOARD UP TO THE STRUCTURAL DECK ABOVE.
J. PROVIDE ALL NECESSARY FRAMING TO EXTEND FINISHES TO DECK WHERE REQUIRED, INCLUDING AROUND INTERSECTING STRUCTURE.
K. PROVIDE ACOUSTICAL CAULK AT ALL GWB-TO-FLOOR & GWB-TO-DECK INTERSECTIONS.
L. SEAL ALL WALLS, ROOF & SLAB PENETRATIONS WITH SEALANT. TAPE ALL PENETRATIONS THROUGH VAPOR RETARDERS AND AIR BARRIERS w/ MANUFACTURER'S TAPE. TYPICAL AT WALLS, ROOFS & SLABS.
M. CONTRACTOR TO PROVIDE PHYSICAL BARRIERS APPROVED BY THE BUILDING CODE FOR TERMITE PROTECTION AT THE LOCATIONS REFERENCED IN THE HAWAII RESIDENTIAL CODE 2018 SECTION R317.1 (REFERENCE G0.1)
N. CONTRACTOR TO PRESSURE-PRESERVATIVE-TREATED STRUCTURAL WOOD IN ACCORDANCE WITH THE HAWAII RESIDENTIAL CODE 2018 SECTION R317.1 (REFERENCE G0.1)

ASSEMBLY TAG LEGEND



"E" INDICATES EXTERIOR WALL TYPE

STRUCTURAL MATERIAL SIZE

STRUCTURAL MATERIAL:
C - CONCRETE WALL
CH - METAL CH STUD
RC - RESILIENT CHANNEL
S - STEEL STUD
W - WOOD STUD

WALL ASSEMBLY TYPE

FIRE RATING
1 - 1-HR RATED
2 - 2-HR RATED
3 - 3-HR RATED
S - SMOKE PARTITION

MODIFIER
A - ACOUSTICAL
P - PARTIAL HEIGHT
S - SHEAR
T - THERMAL
- - NONE

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DRAWING REVISIONS

#	Description	Date

WORTHINGTON MAUI HOUSE

ROGER WORTHINGTON

PERMIT SET

Drawing Title: ASSEMBLY TYPES

Drawn By : Author

Project No.

Date : 08/20/2025

Revised :

Sheet No.

A0.1

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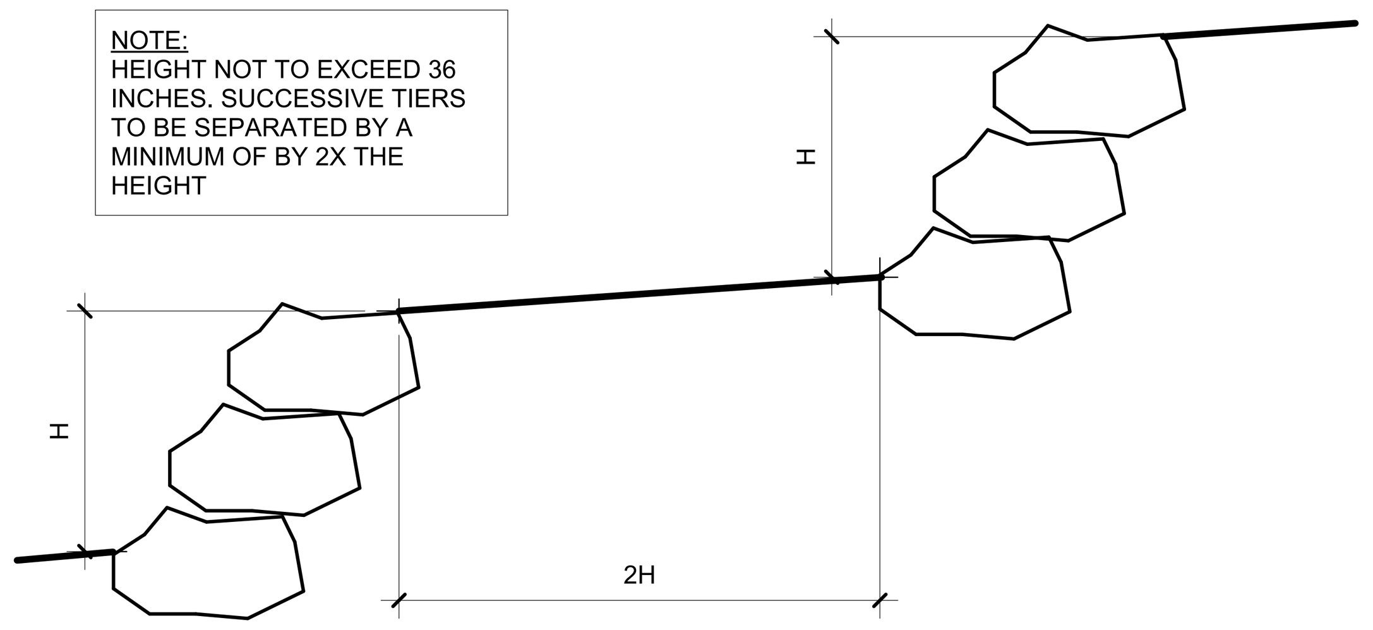
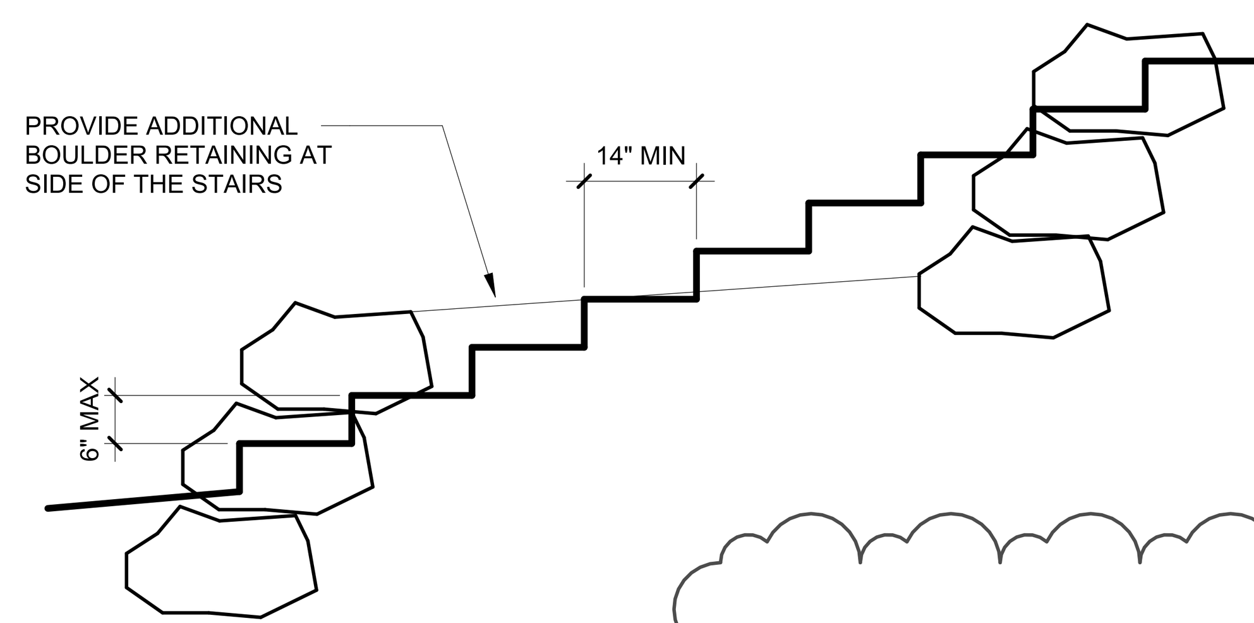


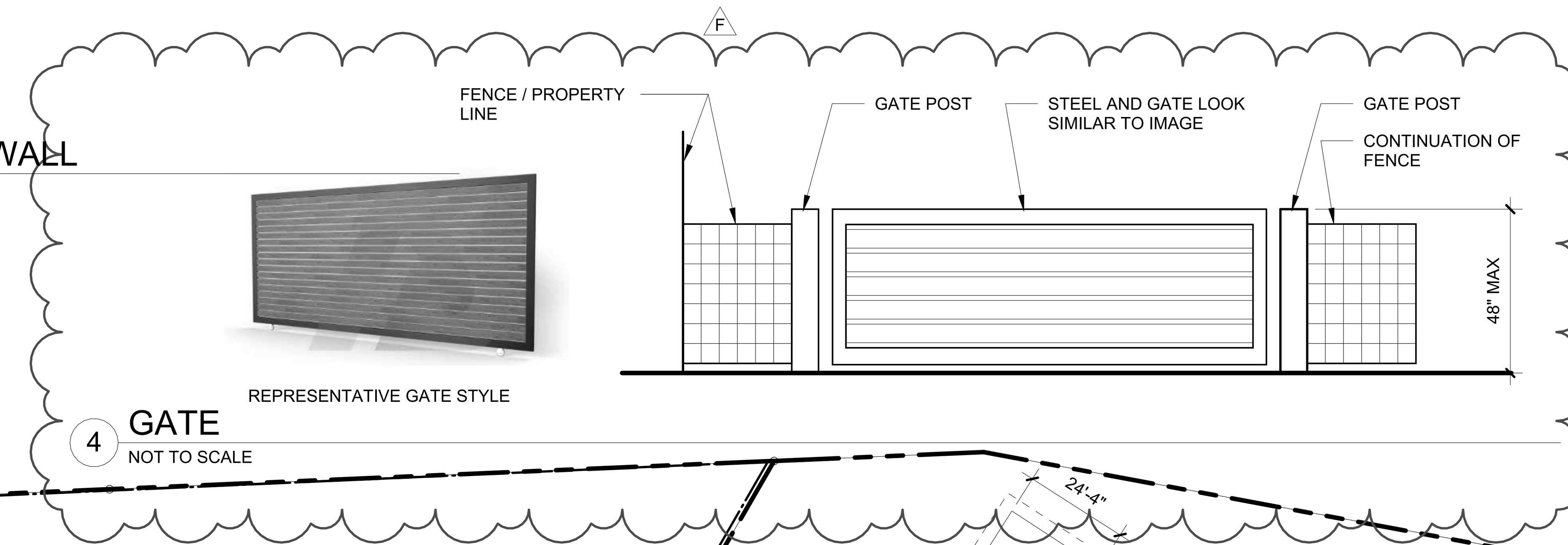
2 BOULDER WALL SECTION
1/2" = 1'-0" @ FULL SIZE



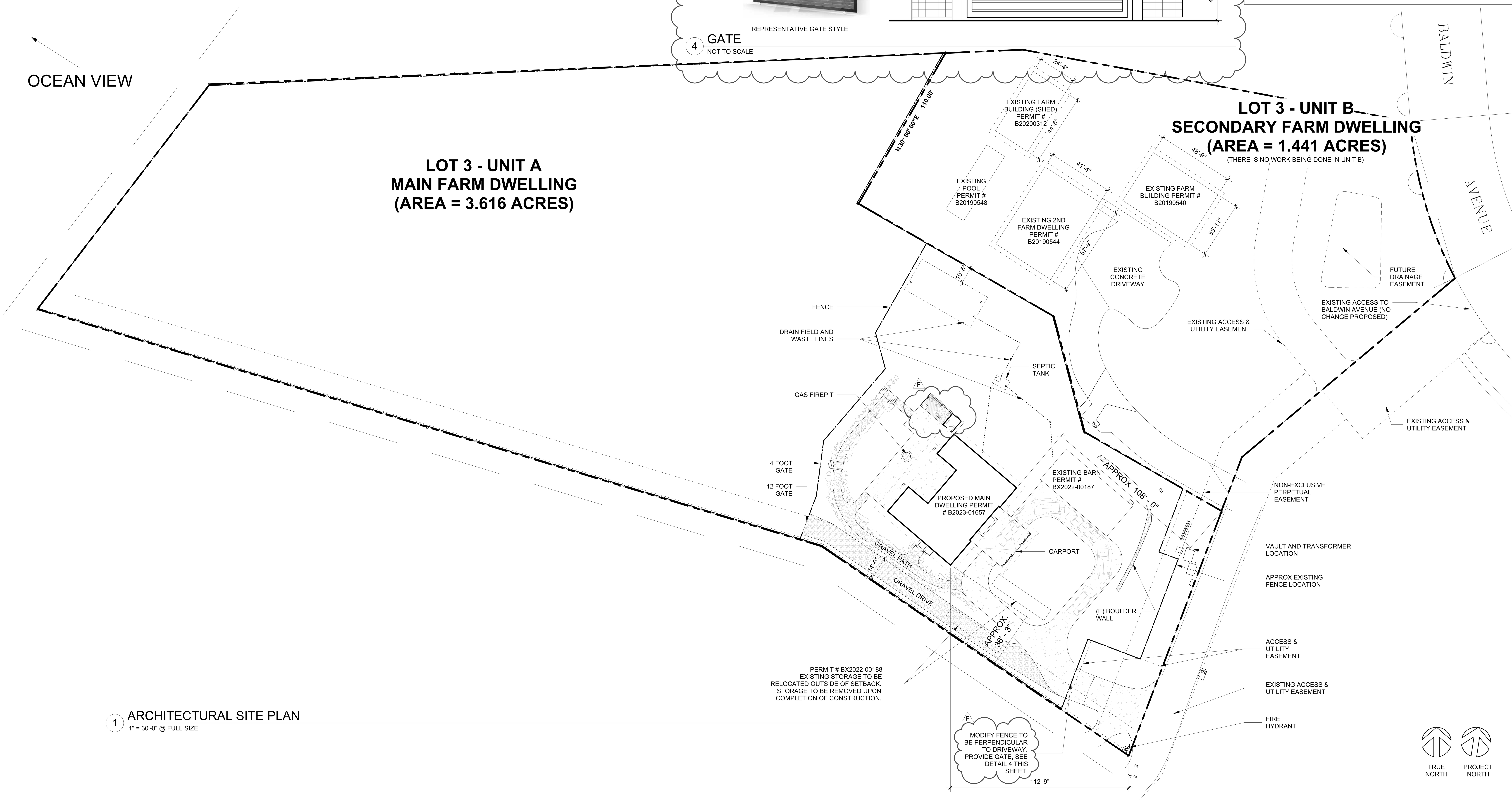
3 STAIRS AT BOULDER WALL
1/2" = 1'-0" @ FULL SIZE

SITE PLAN GENERAL NOTES

A. GRADING AND FINISH FLOOR ELEVATION ARE BASED ON TOPOGRAPHIC SURVEY FROM AKAMAI LAND SURVEYING, INC., DATED APRIL 16, 2023.
B. BARN AND STORAGE CONTAINER ARE SHOWN APPROXIMATE DUE TO CONSTRUCTION IN PROGRESS UNDER SEPARATE PERMIT. SPECIFIC BARN LOCATION TO BE VERIFIED BY CONTRACTOR.
C. PROPOSED CONTOUR LINES ARE SHOWN FOR BASIS OF DESIGN ONLY. CONTRACTOR TO COORDINATE FINAL GRADES. GRADING SHALL SLOPE AND DRAIN AWAY FROM BUILDING, TYP.
D. CONTRACTOR TO COORDINATE AND PROVIDE SOLAR HOT WATER HEATER SYSTEM PER HRS 196-6.6.



4 GATE
NOT TO SCALE



1 ARCHITECTURAL SITE PLAN
1" = 30'-0" @ FULL SIZE

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DRAWING REVISIONS

#	Date	Description
B	05/27/2024	PLANNING REVISIONS
D	08/20/2025	PERMIT REVISIONS
E	11/26/2025	PERMIT REVISIONS
F	12/31/2025	PERMIT REVISIONS

WORTHINGTON MAUI HOUSE

ROGER WORTHINGTON

PERMIT SET

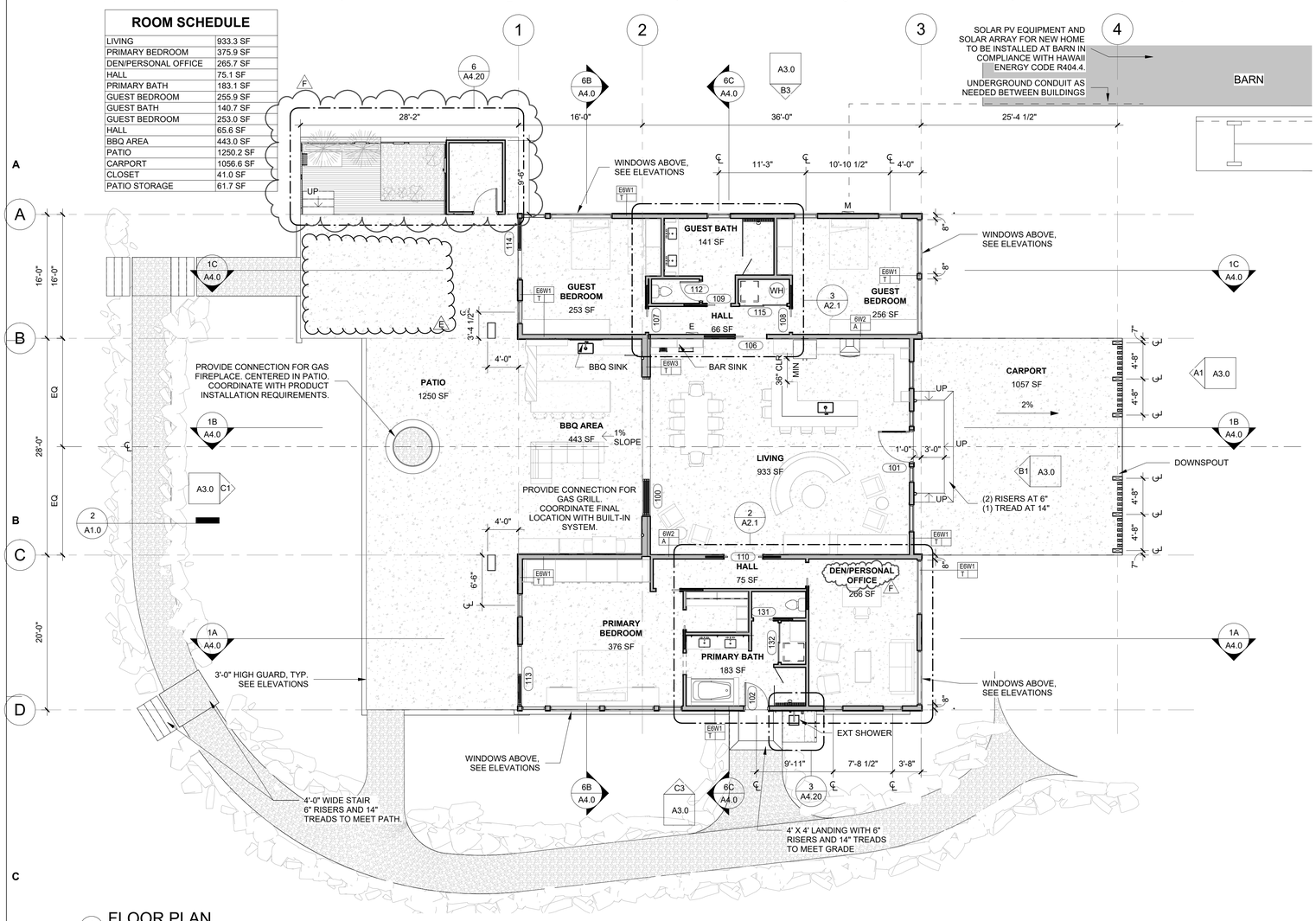
Drawing Title:
ARCHITECTURAL SITE PLAN

Date : 08/20/2025
Drawn By : Author
Revised :
Project No.

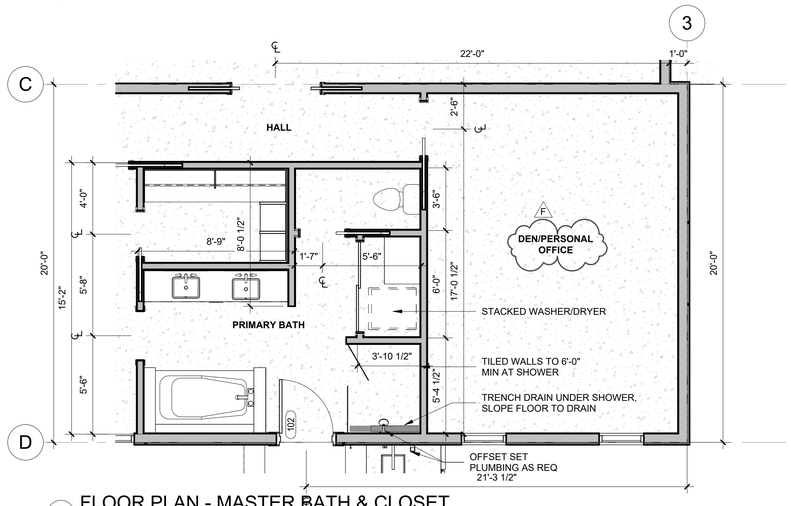
Sheet No.
A1.0

ROOM SCHEDULE

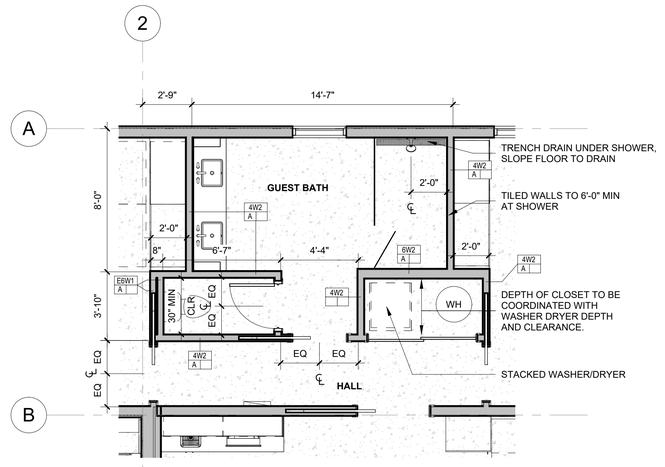
LIVING	933.3 SF
PRIMARY BEDROOM	375.9 SF
DEN/PERSONAL OFFICE	265.7 SF
HALL	75.1 SF
PRIMARY BATH	183.1 SF
GUEST BEDROOM	255.9 SF
GUEST BATH	140.7 SF
GUEST BEDROOM	253.0 SF
HALL	65.6 SF
BBQ AREA	443.0 SF
PATIO	1250.2 SF
CARPORT	1056.6 SF
CLOSET	41.0 SF
PATIO STORAGE	61.7 SF



1 FLOOR PLAN
1/8" = 1'-0" @ FULL SIZE



2 FLOOR PLAN - MASTER BATH & CLOSET
1/4" = 1'-0" @ FULL SIZE



3 FLOOR PLAN - GUEST BATH
1/4" = 1'-0" @ FULL SIZE

FLOOR PLAN GENERAL NOTES

A. PROVIDE BACKING FOR ALL WALL-MOUNTED CASEWORK, FURNISHING, AND EQUIPMENT. VERIFY WEIGHTS AND LOCATIONS WITH OWNER.
B. COORDINATE ALL CASEWORK WITH MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS
C. SEE DIMENSION FLOOR PLANS FOR ADDITIONAL INFORMATION INCLUDING DIMENSIONS AND WALL TYPES.
D. SEE STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION ON FRAMING AND SLABS. COORDINATE WITH ARCHITECTURAL DRAWINGS.
E. PROVIDE SHOP DRAWINGS (DELEGATED DESIGN) FOR CASEWORK/CLOSETS/CABINETRY TO BE REVIEWED BY OWNER PRIOR TO FABRICATION
F. SEE BUILDING ELEVATIONS FOR WINDOW INFORMATION (INCLUDING SIZES) NOT SHOWN ON PLAN.
G. PER TROPICAL CLIMATE REGION COMPLIANCE PATH (SEE CODE SUMMARY):
   a. NO MORE THAN 50% OF THE DWELLING UNIT CAN BE AIR CONDITIONED.
   b. NO HEATING SHALL BE INSTALLED IN OCCUPIED SPACES.
   c. PROVIDE SOLAR HOT WATER HEATING FOR NOT LESS THAN 90% OF SERVICE WATER NEEDS.

FLOOR PLAN LEGEND

M — ELECTRICAL SERVICE METER AND DISCONNECT

E — RECESSED ELECTRICAL PANEL. PROVIDE SUFFICIENT RESERVED SPACE TO ACCOMODATE A MIN 5 KW PHOTOVOLTAIC SYSTEM.

WH — WATER HEATER

DOOR SCHEDULE

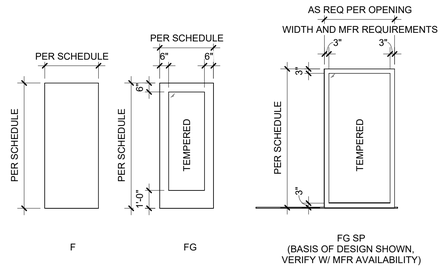
	DOOR			DOOR PANEL			DOOR FRAME			
MARK	WIDTH	HEIGHT	TYPE	MATERIAL	FINISH	TYPE	MATERIAL	FINISH	COMMENTS
100	18'-0"	10'-0"	FG SP	PER MFR	WD	PER MFR	PER MFR	BRZ	BASIS OF DESGN: ANDERSEN MULTIGLIDE; ALUMINUM CLAD, (4) PANEL; ONE DIRECTIONAL STACKING
101	4'-0"	8'-0"	FG	WD	ST	F1	WD	ST	
102	3'-0"	8'-0"	F	FG	PT	F1	FG	PT	
106	4'-0"	8'-0"	F	WD	ST	F3	WD	ST	
107	3'-0"	8'-0"	F	WD	ST	F3	WD	ST	
108	3'-0"	8'-0"	F	WD	ST	F3	WD	ST	
109	3'-0"	8'-0"	F	WD	ST	F3	WD	ST	
110	5'-0"	8'-0"	F	WD	ST	F4	WD	ST	
112	2'-6"	8'-0"	F	WD	ST	F1	WD	ST	
113	8'-0"	8'-0"	FG SP	PER MFR	WD	PER MFR	PER MFR	BRZ	BASIS OF DESGN: ANDERSEN MULTIGLIDE; ALUMINUM CLAD, (4) PANEL; ONE DIRECTIONAL STACKING
114	8'-0"	8'-0"	FG SP	PER MFR	WD	PER MFR	PER MFR	BRZ	BASIS OF DESGN: ANDERSEN MULTIGLIDE; ALUMINUM CLAD, (4) PANEL; ONE DIRECTIONAL STACKING
115	6'-0"	8'-0"	F	WD	ST	F5	WD	ST	
131	2'-6"	8'-0"				F3			
132	5'-0"	8'-0"	H	HCW	PT		WD	PT	
135	2'-8"	8'-0"				F3			
137	3'-0"	7'-0"	F	HM	PT	F1	HM	PT	
138	3'-0"	8'-0"				F3			
139	3'-0"	8'-0"				F3			
140	2'-8"	8'-0"				F2			

OPENING TYPES NOTES

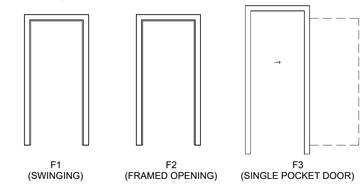
A. ALL INTERIOR GLAZING IS SINGLE-GLAZED 1/4" TEMPERED GLAZING, UON.
B. ALL EXTERIOR GLAZING IS DOUBLE-GLAZED 1" INSULATED TEMPERED GLAZING, UON.
C. FOR EXTERIOR GLAZING TYPES GL-1 THROUGH GL-7, SEE SPECIFICATION SECTION ON 088000 GLAZING AND LEGEND BELOW.
D. ALL WINDOW FRAME FINISHES ARE TO BE STAINED TO MATCH DOOR FRAMES

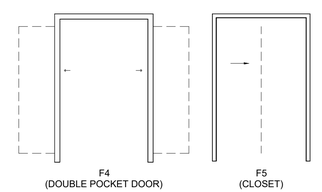
MATERIAL TYPES LEGEND

WD = WOOD
ST = STAINED
FG = FIBERGLASS
PT = PAINTED
NA = NOT APPLICABLE
BRZ = DARK BRONZE



DOOR TYPE LEGEND
1/4" = 1'-0" @ FULL SIZE





FRAME TYPE LEGEND
1/4" = 1'-0" @ FULL SIZE

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#	Date	Description
A.	05/10/2024	PERMIT REVISIONS
B.	08/20/2025	PERMIT REVISIONS
C.	11/20/2025	PERMIT REVISIONS
D.	12/31/2025	PERMIT REVISIONS

WORTHINGTON MAUI HOUSE

ROGER WORTHINGTON

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Drawing Title: FLOOR PLAN

Drawn By : Author
Project No.
Date : 08/20/2025
Revised :

Sheet No.
A2.1

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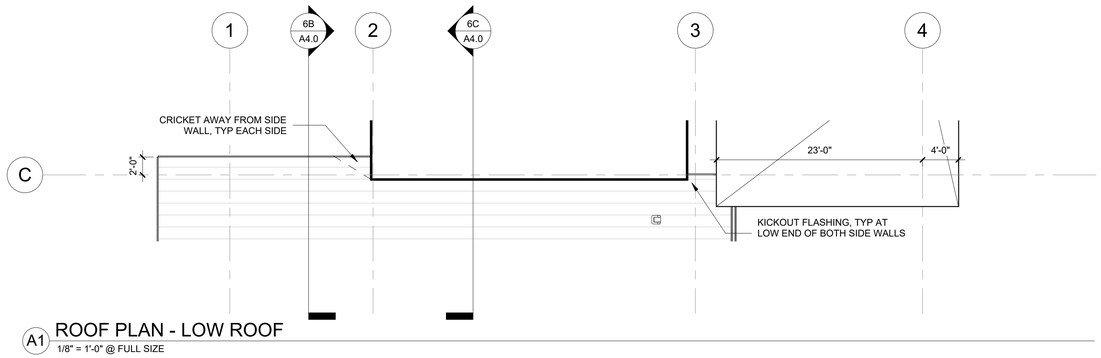
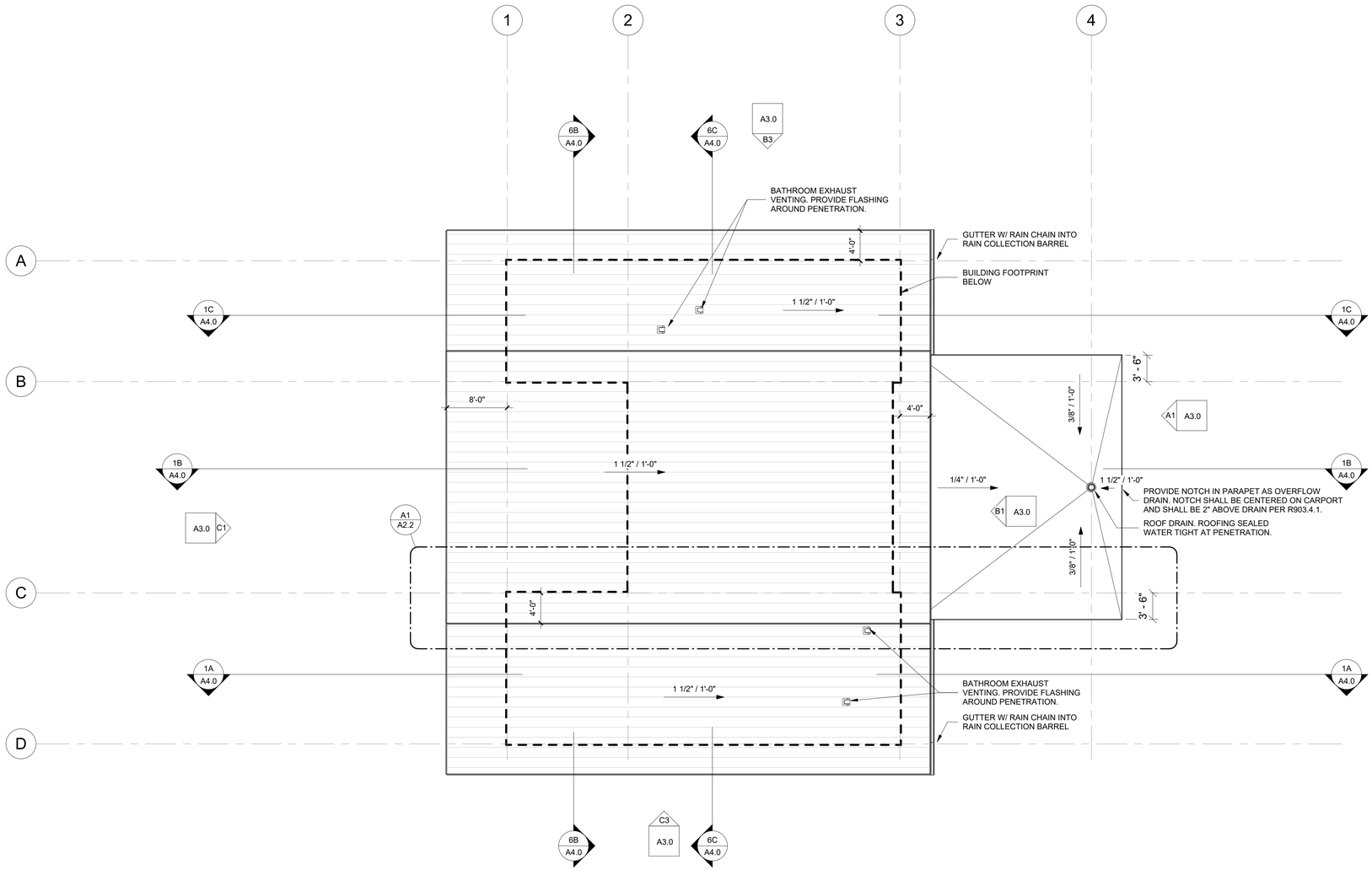


A1 ROOF PLAN - LOW ROOF

1/8" = 1'-0" @ FULL SIZE



D1 ROOF PLAN

1/8" = 1'-0" @ FULL SIZE

ROOF PLAN NOTES

A. ALL DIMENSIONS TO END OF STRUCTURAL ROOF JOIST.
B. SEE ASSEMBLY TYPES FOR COMPLETE ROOF ASSEMBLIES
C. ANY VENTS, PENETRATIONS, ETC. THAT ARE REQUIRED SHALL BE FINISED TO MATCH ROOF.
D. COORDINATE ROOF ASSEMBLY AND ROOF INSTALLATION WITH METAL ROOFING MFR INSTALLATION INSTRUCTIONS AND RECCOMENDATIONS.

ROOF PLAN LEGEND

- BUILDING EDGE BELOW ROOF
- R1 - SINGLE PLY ROOFING
- R2 - STANDING SEAM METAL ROOF WITH UNDERLAYMENT PER SECTION R905.1.1
- X" / 1' - 0" DIRECTION OF ROOF SLOPE

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ROGER WORTHINGTON

PERMIT SET

Drawing Title: ROOF PLAN

Drawn By : Author

Project No.

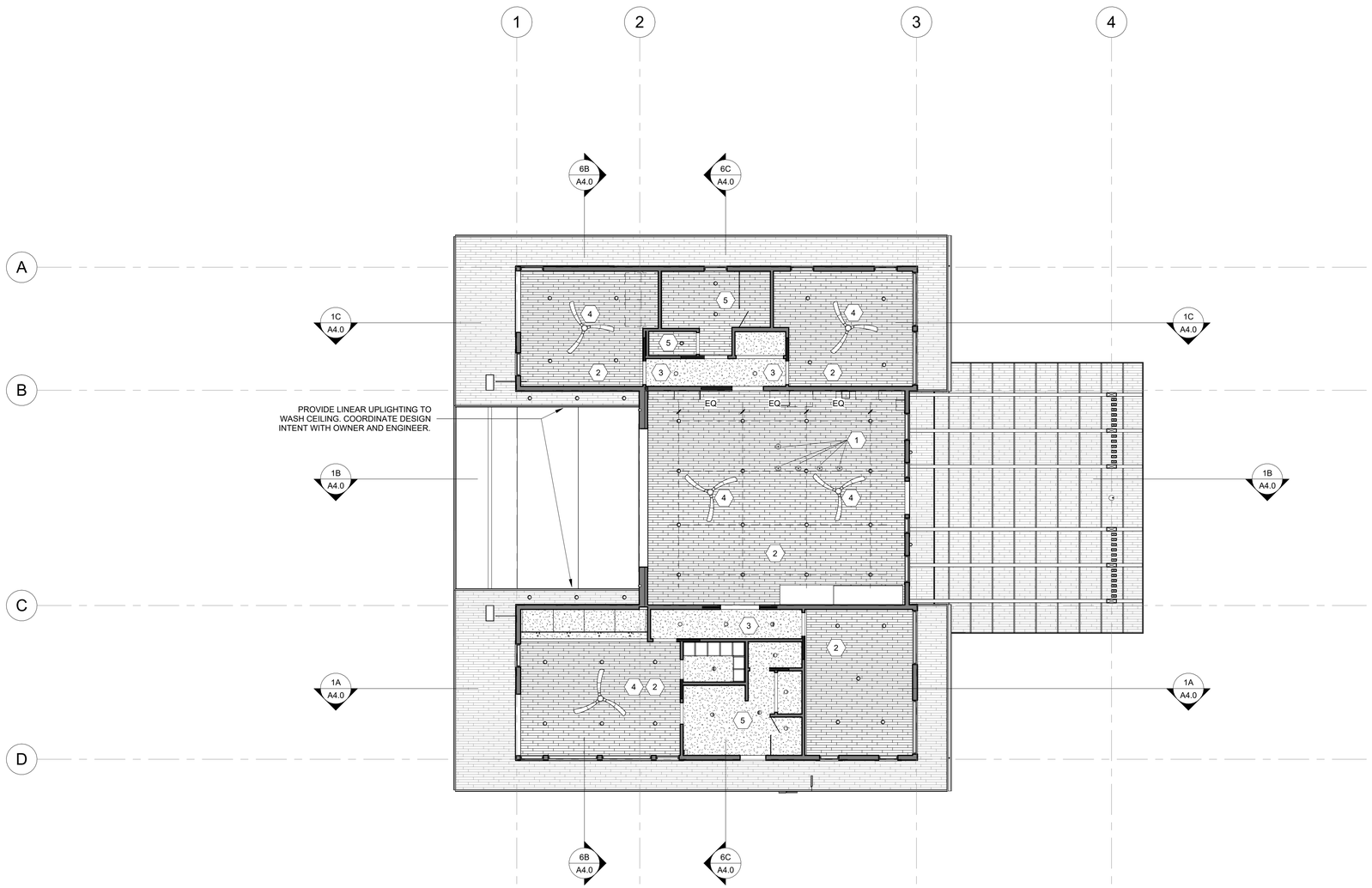
Date : 08/20/2025

Revised :

Sheet No.

A2.2

12/31/2025 10:27:36 AM



REFLECTED CEILING PLAN NOTES

A. CONTRACTOR TO VERIFY ALL LIGHTING AND DEVICE LOCATIONS IN THE FIELD.
B. LIGHT FIXTURES SHOWN FOR QUANTITY AND LOCATION ONLY. CONTRACTOR TO VERIFY FIXTURE TYPE/DESIGN WITH OWNER AND ENGINEER PRIOR TO PURCHASING AND INSTALLING.

REFLECTED CEILING PLAN LEGEND

- GWB
- WOOD TONGUE AND GROOVE APPLIED TO CEILING
- RECESSED DOWNLIGHT
- RECESSED ACCENT LIGHT @ CABINETRY

SHEET KEYNOTES - REFLECTED CEILING PLAN	
#	DESCRIPTION
1	DECORATIVE PENDANTS. COORDINATE FIXTURE SELECTION WITH OWNER/ENGINEER
2	PROVIDE SMOKE ALARM.
3	PROVIDE COMBINATION SMOKE ALARM AND CARBON MONOXIDE ALARM.
4	PROVIDE ENERGY STAR RATED FANS
5	BATH EXHAUST FAN. 50 CFM INTERMITTENT OR 20 CFM CONTINUOUS.

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Drawing Title: REFLECTED CEILING PLAN

Drawn By: Author

Project No.

Date: 08/20/2025

Revised:

Sheet No.

A2.3

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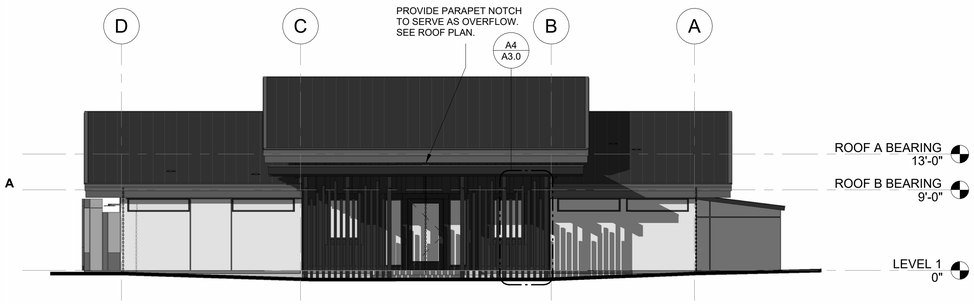
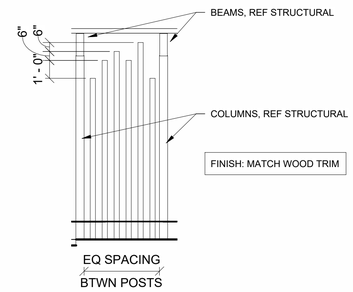


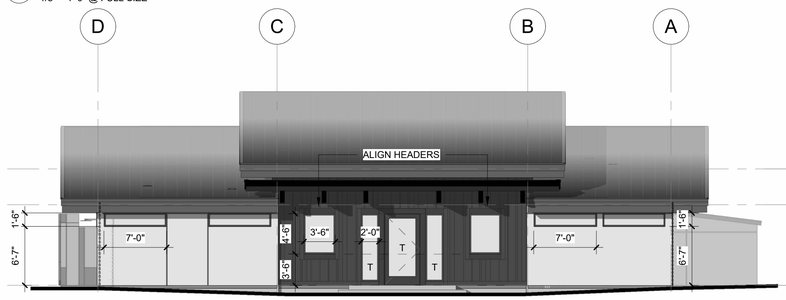
A1 OVERALL EXTERIOR ELEVATION - EAST

1/8" = 1'-0" @ FULL SIZE



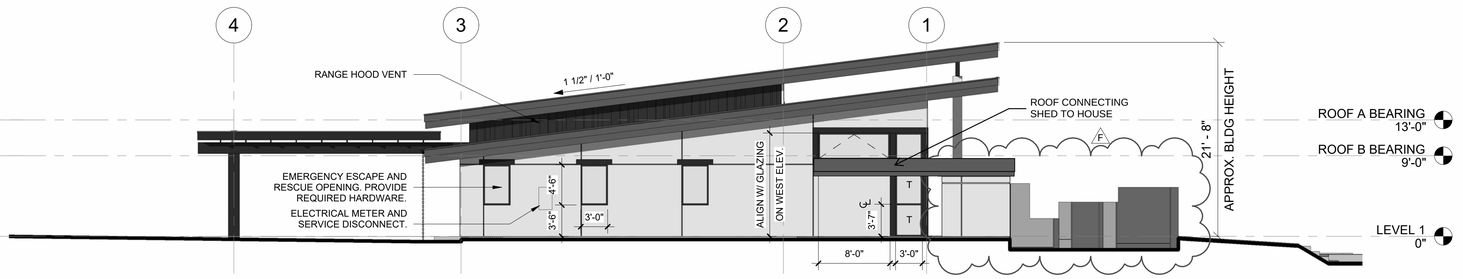
A4 WOOD SLATS AT PORTO

1/4" = 1'-0" @ FULL SIZE



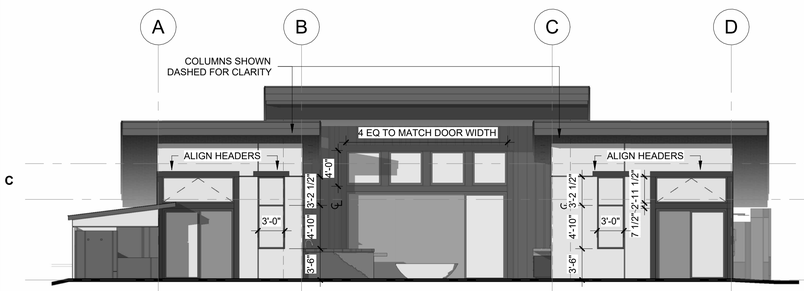
B1 OVERALL EXTERIOR ELEVATION - EAST

1/8" = 1'-0" @ FULL SIZE



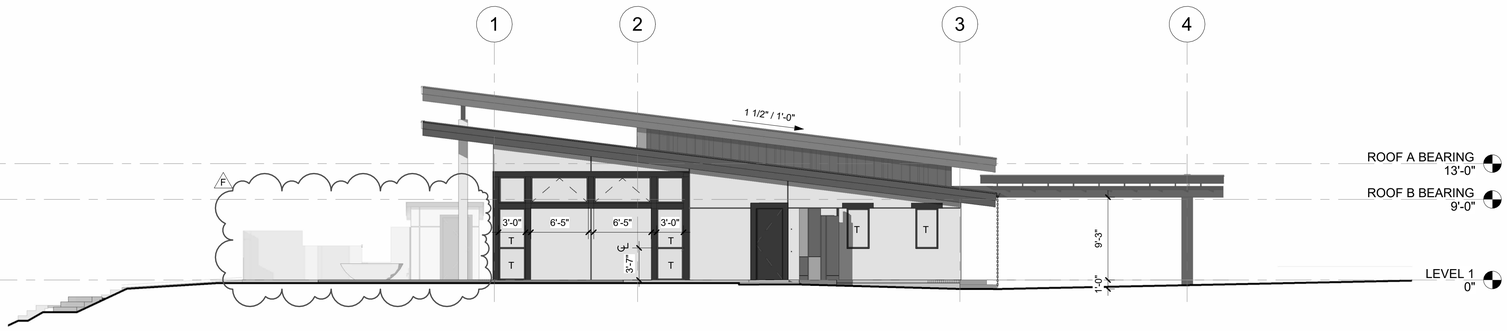
B3 OVERALL EXTERIOR ELEVATION - NORTH

1/8" = 1'-0" @ FULL SIZE



C1 OVERALL EXTERIOR ELEVATION - WEST

1/8" = 1'-0" @ FULL SIZE



C3 OVERALL EXTERIOR ELEVATION - SOUTH

1/8" = 1'-0" @ FULL SIZE

EXTERIOR ELEVATION NOTES

A. COORDINATE RO SIZE WITH OPENING SCHEDULE AND WINDOW MFR PRIOR TO FRAMING WINDOW OPENINGS.
B. WHERE WINDOWS ARE LOCATED NEXT TO DOORS COORDIATE RO AND FRAME TO ALIGN HEADERS, TYP.
C. TRIM IS SHOWN TO BE 8x WIDTHS, UNO.
D. ALL GLAZING IN DOOR PANELS, OR WHERE THE NEAREST EDGE OF THE GLAZING IS WITHIN 24" OF THE DOOR OPENING, SHALL BE TEMPERED.
E. ALL GLAZING SHALL BE TEMPERED WHERE ALL OF THE FOLLOWING ARE MET:
   a. THE EXPOSED AREA OF A GLAZED PANE IS 9 SF OR LARGER
   b. THE BOTTOM EDGE OF GLAZING IS LOWER THAN 18 IN AFF.
   c. THE TOP EDGE OF THE GLAZING IS HIGHER THAN 36 IN AFF
   d. THERE IS A WALKING SURFACE WITHIN 36 IN OF THE GLAZING.
F. ALL GLAZING IN RAILINGS OR GUARDRAILS SHALL BE TEMPERED.
G. WALL FIXTURES SHOWN FOR REFERENCE ONLY. CONTRACTOR TO COORDINATE FIXTURE WITH OWNER/ENGINEER PRIOR TO PURCHASE.
H. PER TROPICAL CLIMATE REGION COMPLIANCE PATH (SEE CODE SUMMARY):
   a. GLAZING SHALL HAVE A SOLAR HEAT GAIN COEFFICIENT OF 0.25 OR LESS.
   b. FINISHED EXTERIOR WALLS SHALL HAVE AN SRI OF 0.40 OR GREATER.

EXTERIOR ELEVATION LEGEND

- STUCCO — BASIS OF DESIGN -
- WOOD SIDING — BASIS OF DESIGN - KOA
- WOOD TRIM — BASIS OF DESIGN - KOA
- OPERABLE AWNING WINDOW
- OPERABLE CASEMENT WINDOW
- T — TEMPERED SAFETY GLAZING

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Signature 4/30/2026 Expiration Date of the License

DRAWING REVISIONS

#	Date	Description
A	12/31/2025	PERMIT REVISIONS

WORTHINGTON MAUI HOUSE

ROGER WORTHINGTON

PERMIT SET

Drawing Title: EXTERIOR ELEVATIONS

Drawn By : Author

Project No.

Date : 08/20/2025

Revised :

Sheet No.

A3.0

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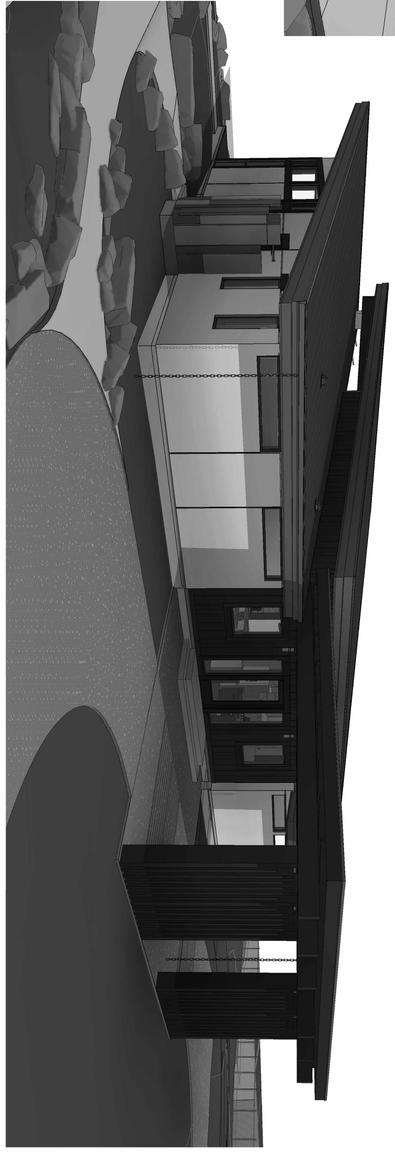

Sheet No.
A3.1

Drawing Title:
PERSPECTIVES

Date : 08/20/2025
Drawn By : Author
Revised :
Project No.

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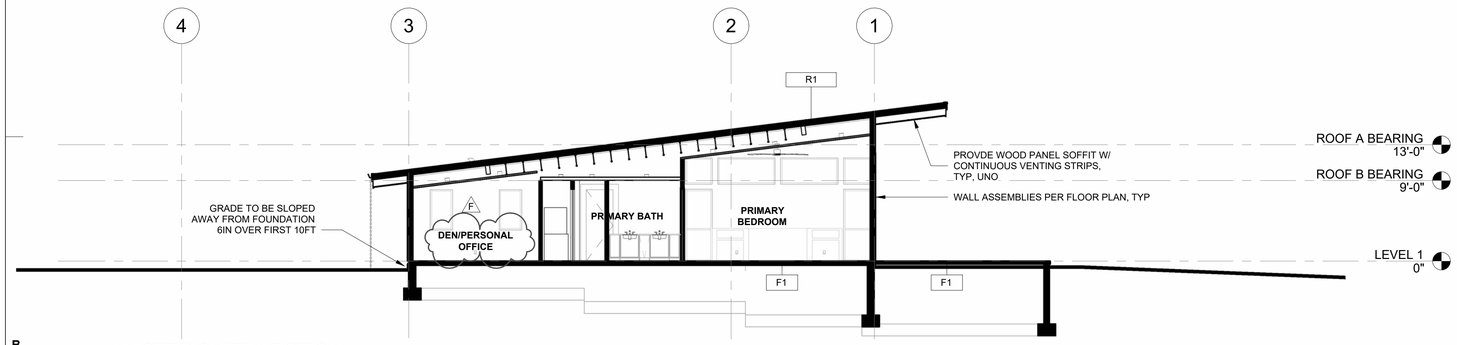
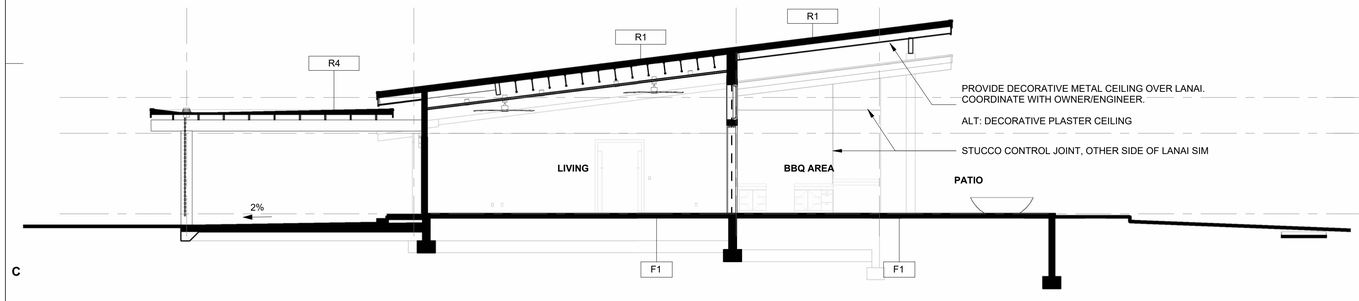


1A MASTER SUITE SECTION
1/8" = 1'-0" @ FULL SIZE



1B LIVING AREA SECTION
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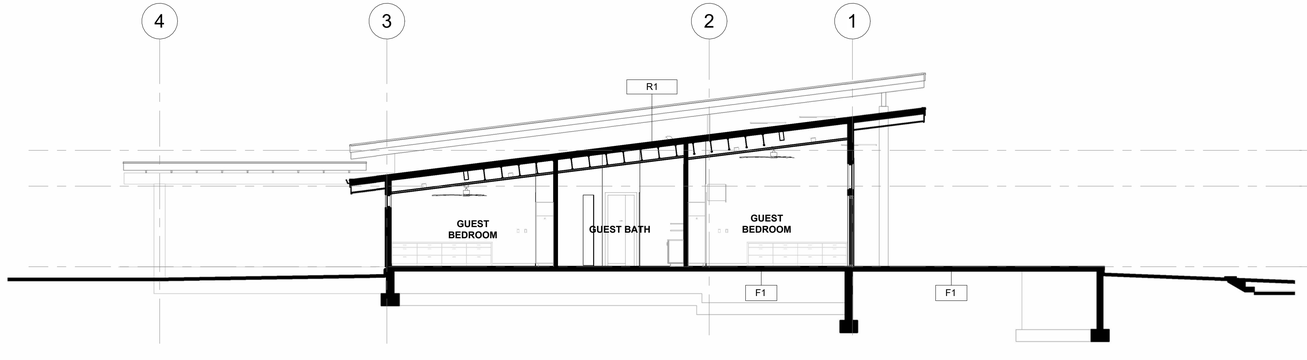
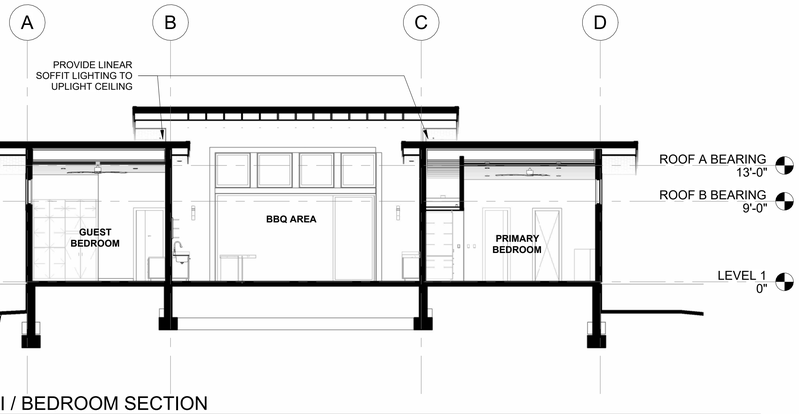
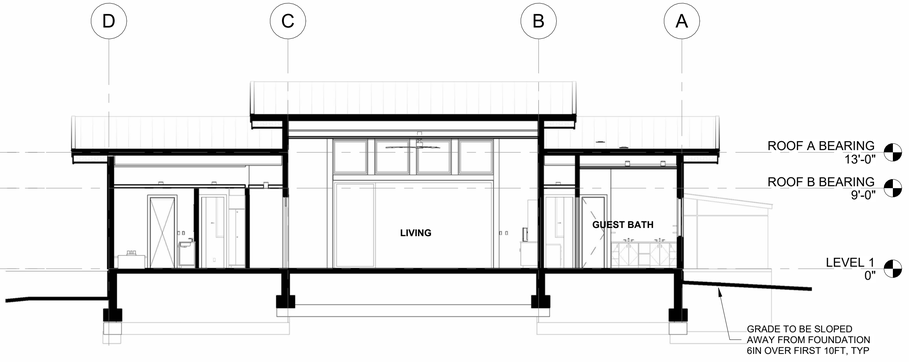


1C GUEST SUITE SECTION
1/8" = 1'-0" @ FULL SIZE



6B LANAI / BEDROOM SECTION
1/8" = 1'-0" @ FULL SIZE



6C LIVING AREA CROSS-SECTION
1/8" = 1'-0" @ FULL SIZE

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Seth E Anderson — 4/30/2026
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#	Date	Description
1	12/31/2025	PERMIT REVISIONS

WORTHINGTON MAUI HOUSE

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PERMIT SET

Drawing Title: BUILDING SECTIONS

Drawn By :

Project No.

Date : 08/20/2025

Revised :

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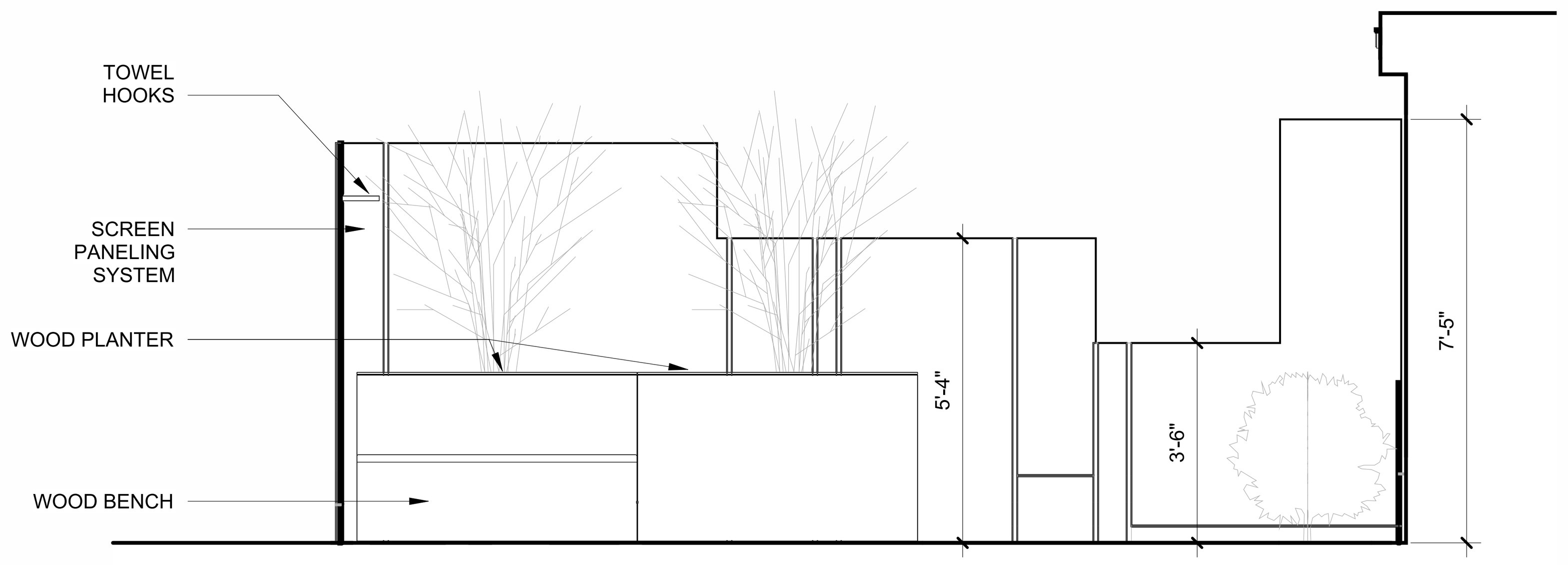
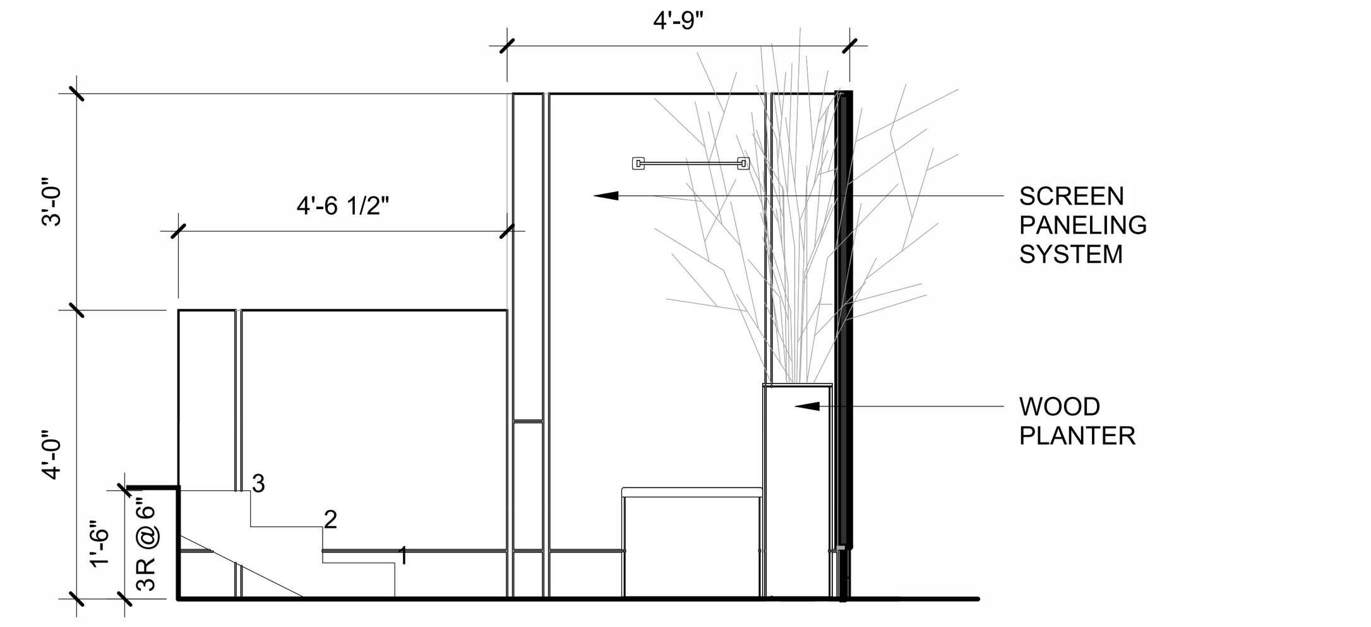
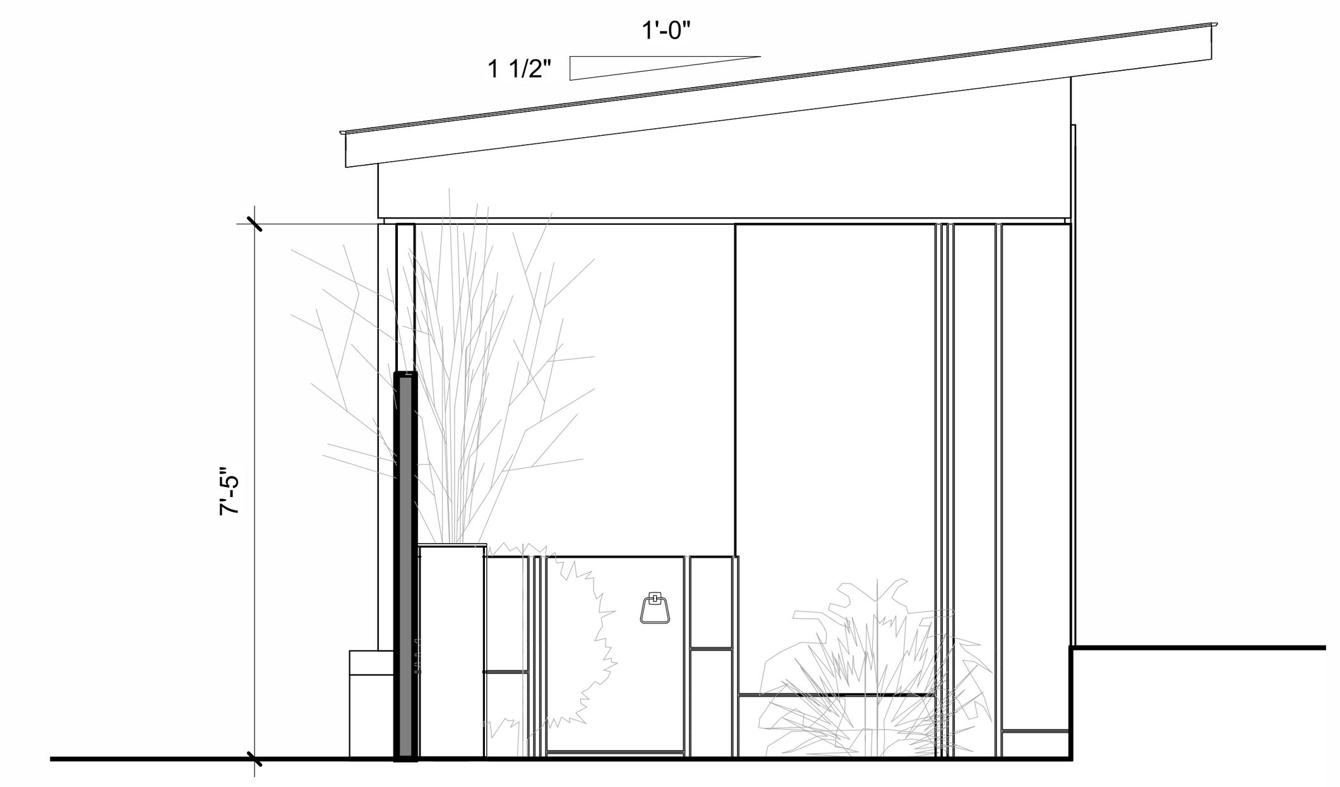


9 ELEVATION@PANEL SCREEN SYSTEM - NORTH
3/8" = 1'-0" @ FULL SIZE



8 ELEVATION@PANEL SCREEN SYSTEM - WEST
3/8" = 1'-0" @ FULL SIZE



7 ELEVATION@PANEL SCREEN SYSTEM - EAST
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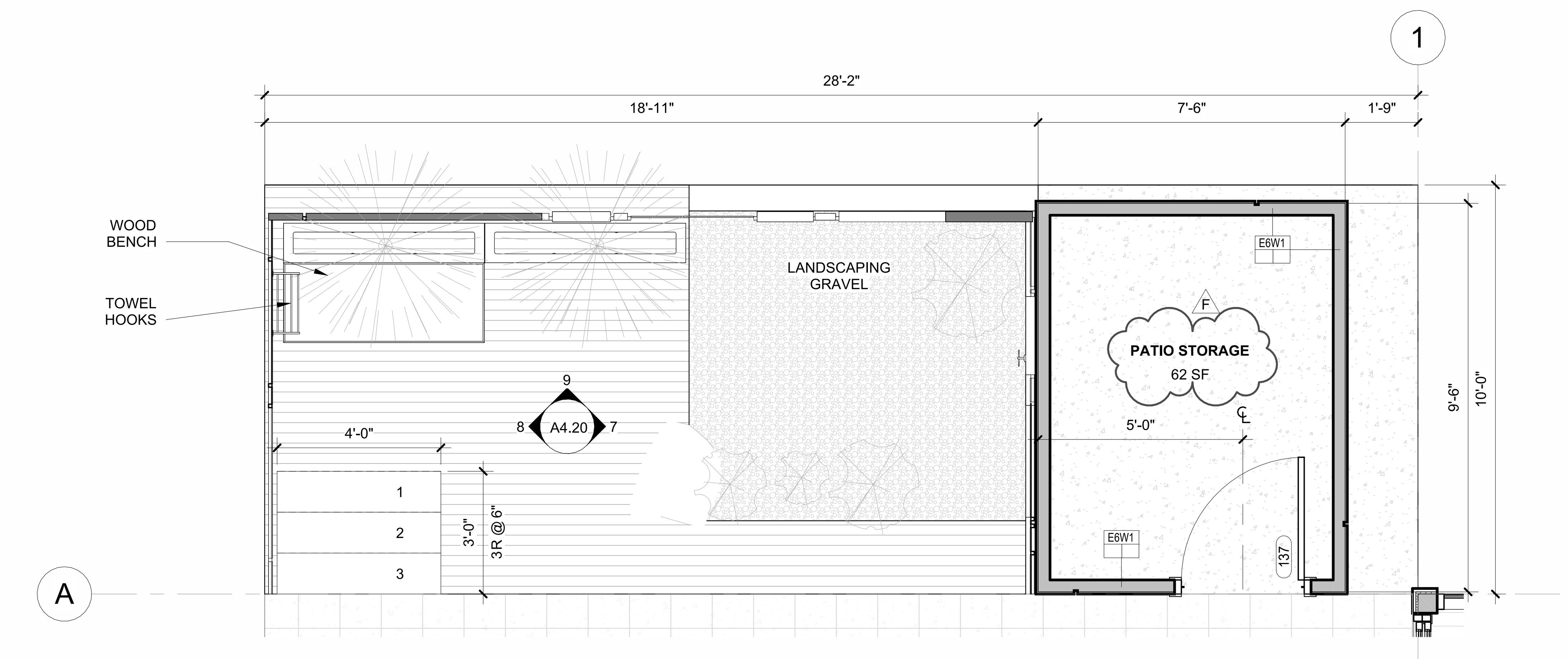
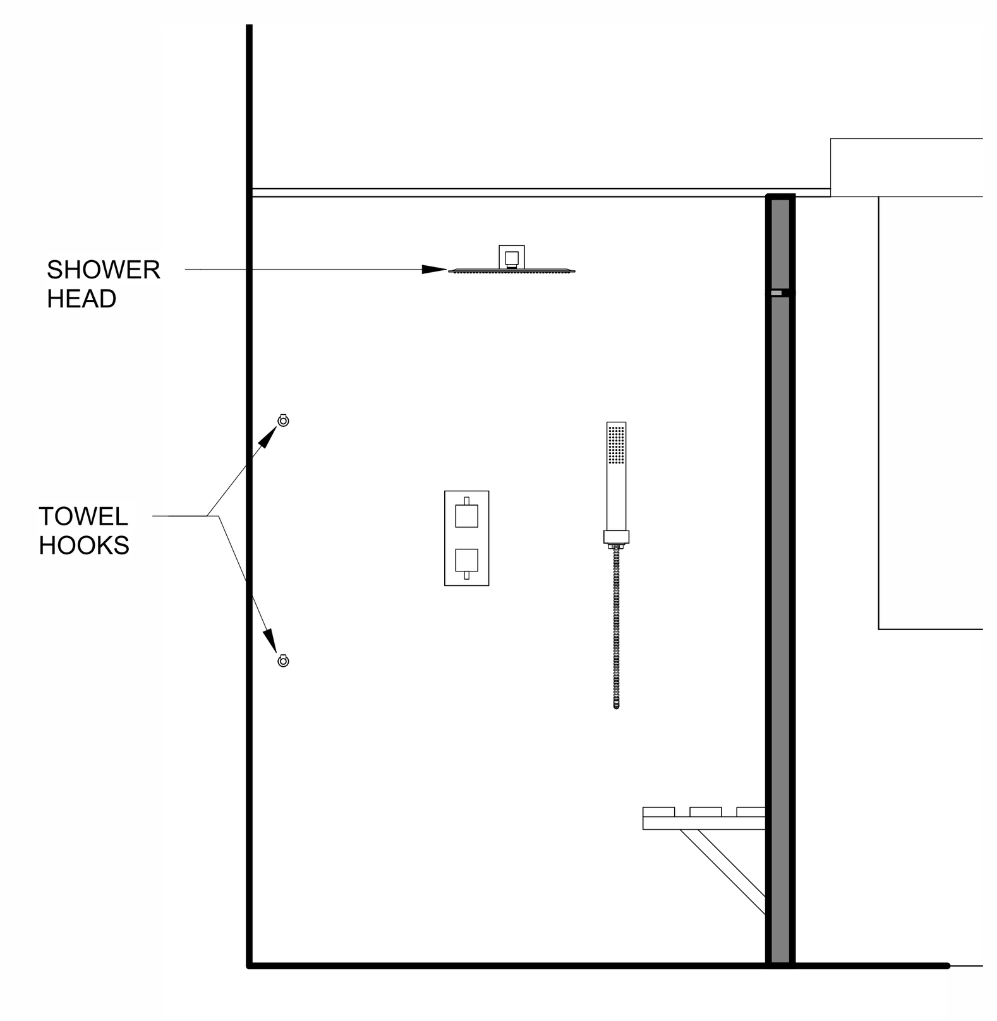
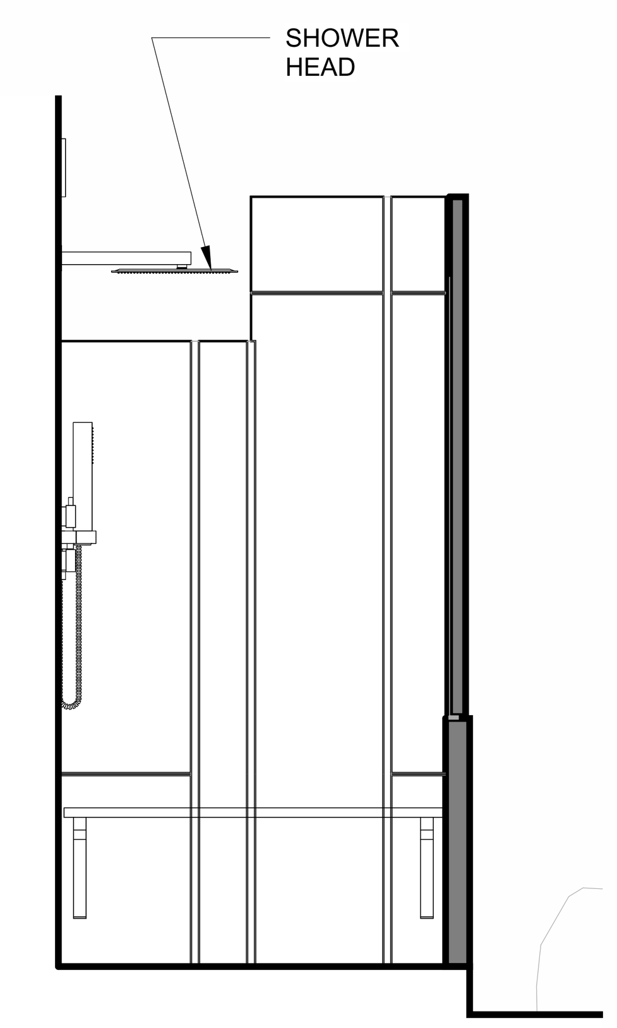


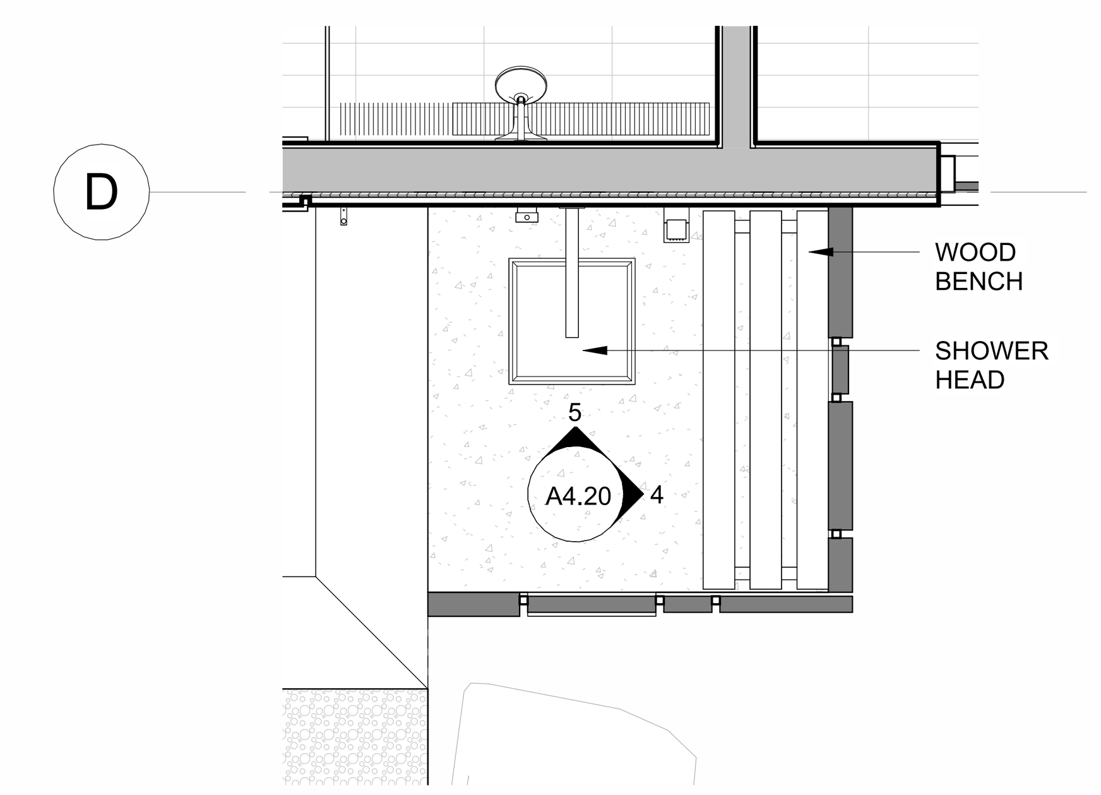
6 FLOOR PLAN
3/8" = 1'-0" @ FULL SIZE



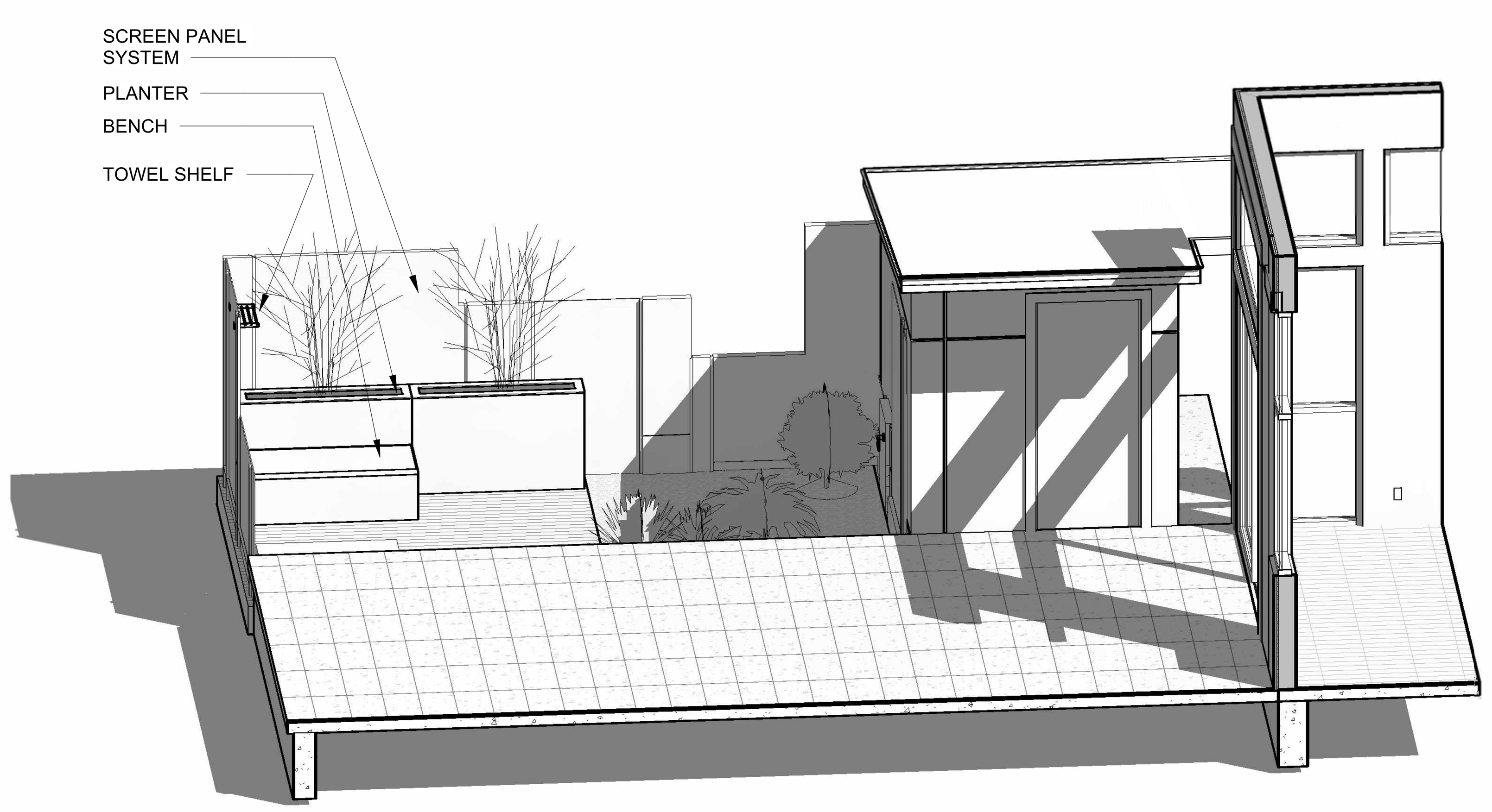
5 EXT. SHOWER-NORTH
1/2" = 1'-0" @ FULL SIZE



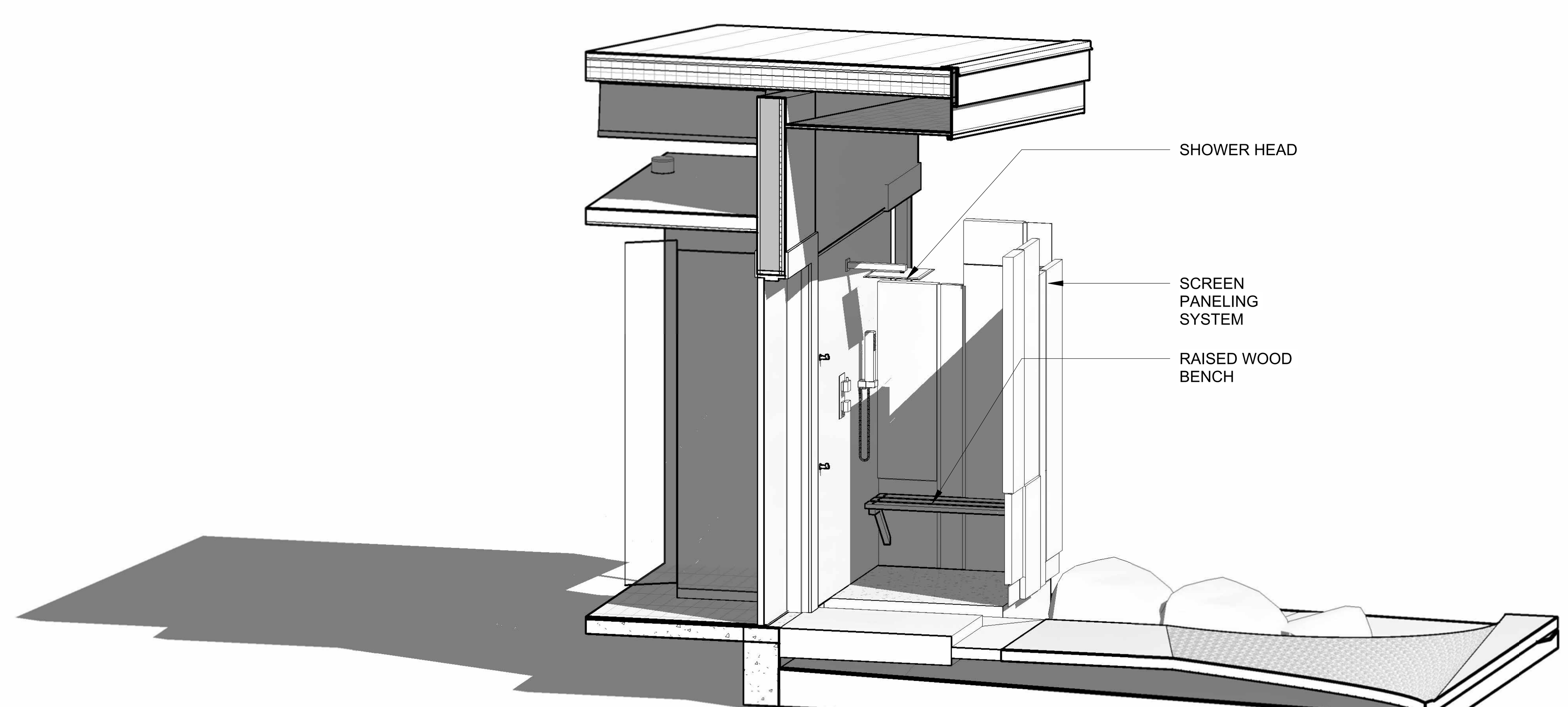
4 EXT. SHOWER-EAST
1/2" = 1'-0" @ FULL SIZE



3 EXT - SHOWER
1/2" = 1'-0" @ FULL SIZE



2 ISOMETRIC - SERENITY GARDEN
@ FULL SIZE



1 ISOMETRIC - EXTERNAL SHOWER
@ FULL SIZE

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E	11/26/2025	PERMIT REVISIONS
F	12/31/2025	PERMIT REVISIONS

WORTHINGTON MAUI HOUSE
ROGER WORTHINGTON
PERMIT SET

Drawing Title: ENLARGED - OUTDOOR AREAS
Date : 08/20/2025
Drawn By : Author
Project No.
Revised :
Sheet No. F
A4.20

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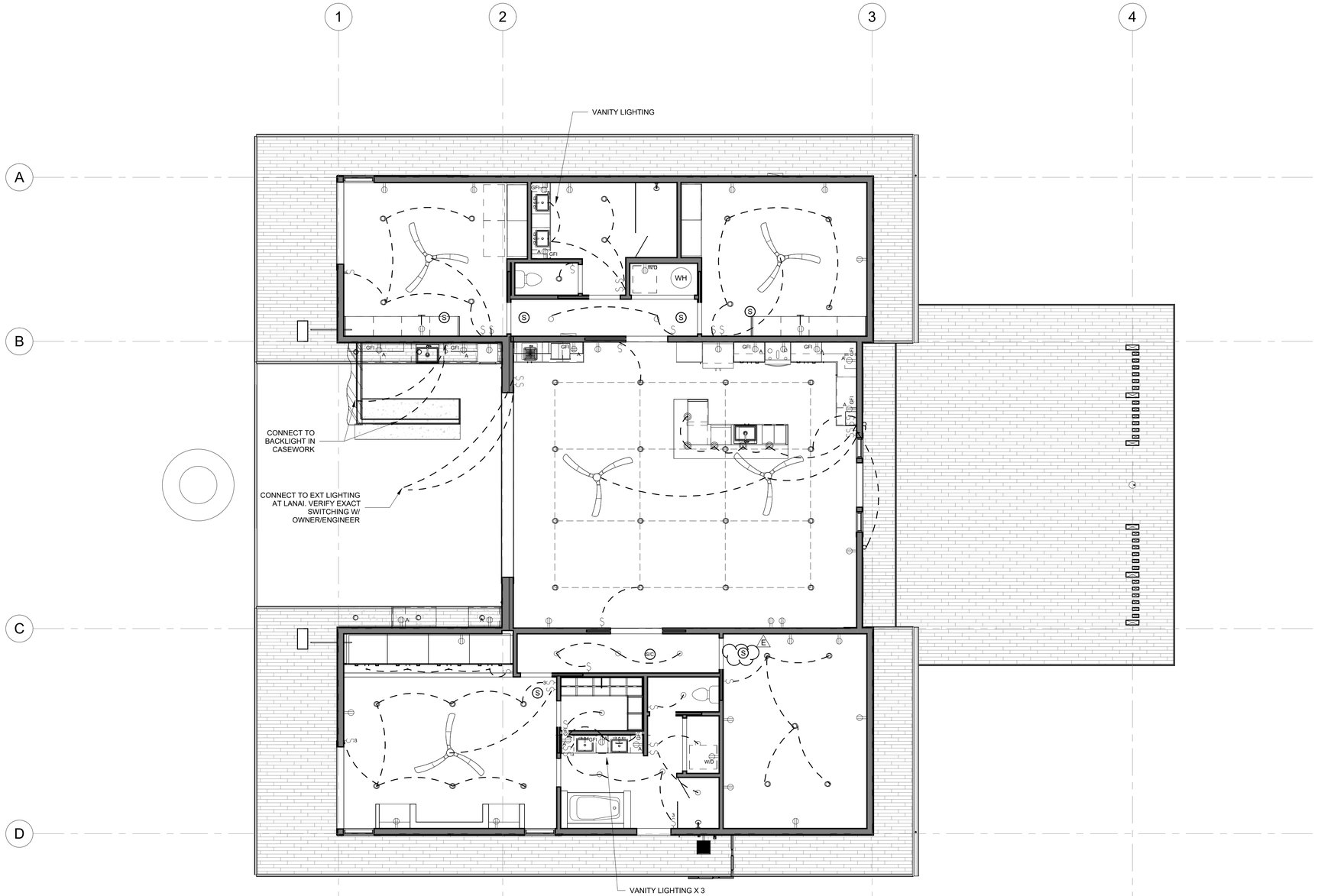

1 ELECTRICAL PLAN
3/16" = 1'-0" @ FULL SIZE

ELECTRICAL PLAN GENERAL NOTES

A. COORDINATE ALL EQUIPMENT WITH POWER LOCATIONS SHOWN.
B. PROVIDE SWITCH FOR EXHAUST FANS WHERE REQRUIRED. FANS SHALL BE ON THEIR OWN DEDICATED TIMED SWITCH.
C. ALL LIGHTING SHALL BE INSTALLED WITH A DIMMER OR AN OCCUPANT SENSOR CONTROL EXCEPT HALLWAYS AND EXTERIOR LIGHTING FIXTURES.
D. IF TOTAL INSTALLED EXTERIOR LIGHITNG POWER EXCEEDS 30 WATTS THEN THE LIGHTING SHALL COMPLY WITH THE FOLLOWING:
   a. LIGHTING SHALL BE CONTROLED BY A MANUAL ON AND OFF SWITCH WHICH PERMITS AUTOMATIC SHUT-OFF ACTIONS.
   b. LIGHTING SHALL BE AUTOMATICLALY SHUT OFF WHEN DAYLIGHT IS PRESENT AND SATISFIES THE LIGHTING NEEDS.
   c. CONTROLS THAT OVERRIDE AUTOMATIC SHUT-OFF ACTIONS SHALL NOT BE ALLOWED UNLESS THE OVERRIDE AUTOMATICALLY RETURNS AUTOMATIC CONTROL TO ITS NORMAL OPERATION WITHIN 24 HOURS.
E. KITCHEN SINK DISPOSAL SHALL BE ON ITS OWN DEDICATED SWITCH MOUNTED ON ISLAND.
F. "A" INDICATES ABOVE COUNTER OUTLETS.
G. AT POWER LOCATIONS BEHIND CABINETRY, LOCATE OUTLET WITHIN TOE KICK.

ELECTRICAL PLAN LEGEND

- RECESSED CEILING CAN LIGHT FIXTURE
  EXTERIOR RATED WHERE LOCATED OUTSIDE
- DECORATIVE PENDANT LIGHT FIXTURE - KITCHEN
- DECORATIVE PENDANT LIGHT FIXTURE - VANITY
- DUPLEX - POWER RECEPTACLE (W/ GFI WHERE INDICATED)
  A = ABOVE COUNTER
  W/D = WASHER / DRYER OUTLET
- QUAD - POWER RECEPTACLE (W/ GFI WHERE INDICATED)
  A = ABOVE COUNTER
- SWITCH
- 3-WAY SWITCH
- SMOKE ALARM (PROVIDE COMBINATION SMOKE AND CARBON DIOXIDE MONITORING AT LOCATIONS IN HALLWAYS OUTSIDE BEDROOMS)
- CEILING FAN

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#	Date	Description
A.	05/27/2024	PLANNING REVISIONS
B.	08/20/2024	PERMIT REVISIONS
C.	11/26/2025	PERMIT REVISIONS
D.		
E.		

WORTHINGTON MAUI HOUSE

ROGER WORTHINGTON

PERMIT SET

Drawing Title: ELECTRICAL PLAN

Drawn By : Author

Project No.

Date : 08/20/2025

Revised :

Sheet No.

E2.1

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DRAWING INDEX

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WALKER
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SIGNATURE 04/30/26 EXPIRATION DATE

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#	Date	Description
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Worthington Residence (Maui)

MAUI, HAWAII

PERMIT SET

Drawing Title: COVER SHEET

Date : 08/20/2025

Drawn By : TF

Revised :

Project No. WSE JOB #23110

Sheet No.

S0.01

WSE Structural

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GENERAL STRUCTURAL NOTES

GENERAL NOTES:

1. ALL CONSTRUCTION AND DESIGN SHALL CONFORM TO THE 2018 INTERNATIONAL BUILDING CODE AS AMENDED BY THE HAWAII STATE BUILDING CODE.
2. THE STRUCTURAL DRAWINGS SHALL BE UTILIZED IN CONJUNCTION WITH OTHER DESIGN CONSULTANT'S DRAWINGS (ARCHITECTURAL, MECHANICAL, ETC.). IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE THE REQUIREMENTS OF THE DRAWINGS INTO THEIR SHOP DRAWINGS AND CONSTRUCTION.
3. THE GENERAL STRUCTURAL NOTES ARE INTENDED FOR USE IN CONJUNCTION WITH THE PROJECT SPECIFICATIONS. IN THE EVENT OF A CONFLICT BETWEEN THE TWO, THE GENERAL STRUCTURAL NOTES SHALL SUPERSEDE THE PROJECT SPECIFICATIONS. ANY DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER.
4. CONSTRUCTION SEQUENCE AND METHODS:
   A. THE STRUCTURAL DRAWINGS ARE INTENDED FOR THE STRUCTURE TO ACT AS A WHOLE ONCE CONSTRUCTION IS COMPLETE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE SAFETY AND STABILITY (I.E. TEMPORARY BRACING IF REQUIRED) DURING CONSTRUCTION AS A RESULT OF CONSTRUCTION METHODS AND SEQUENCES.
   B. THE CONTRACTOR SHALL TAKE INTO ACCOUNT COLD WEATHER CONSTRUCTION AND THE EFFECTS OF THERMAL MOVEMENT DURING THE CONSTRUCTION SCHEDULE.
   C. NON-CANTILEVERED OR RESTRAINED RETAINING WALLS SHALL NOT BE BACKFILLED UNTIL THE WALL HAS BEEN TIED INTO THE LOWER AND UPPER SLAB SUPPORTS UNLESS ADEQUATE ENGINEERED BRACING HAS BEEN APPROVED.
5. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS. THE ARCHITECT AND/OR ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCY BETWEEN THE EXISTING CONDITIONS AND CONSTRUCTION DOCUMENTS.
6. SUBMITTALS:
   A. SUBMITTALS OF SHOP DRAWINGS, MILL TEST REPORTS, PRODUCT DATA FOR ITEMS AND BIDDER DESIGN ITEMS SHALL BE MADE TO THE ARCHITECT/ ENGINEER PRIOR TO FABRICATION AND CONSTRUCTION. BEFORE SUBMISSION TO THE ARCHITECT/ ENGINEER, THE CONTRACTOR SHALL REVIEW THE SUBMITTALS FOR COMPLETENESS. VERIFICATION OF DIMENSIONS AND QUANTITIES IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL MARK THE SHOP DRAWING WITH ALL NECESSARY COMMENTS AND DETAILER REQUESTED INFO BEFORE FORWARDING TO THE ARCHITECT/ ENGINEER. SUBMITTALS SHALL BE MADE IN TIME TO PROVIDE A MINIMUM OF TWO WEEKS FOR REVIEW BY THE ARCHITECT/ ENGINEER.

   B. SHOP DRAWINGS FOR ALL STRUCTURAL ITEMS SHALL BE SUBMITTED TO THE ARCHITECT/ ENGINEER PRIOR TO FABRICATION AND CONSTRUCTION. SUCH ITEMS INCLUDE:

      CONCRETE MIX DESIGNS, CONCRETE REINFORCEMENT (INCLUDING MILL TEST REPORTS), EMBEDDED STEEL ITEMS, STRUCTURAL STEEL (INCLUDING MILL TEST REPORTS), GLUED-LAMINATED MEMBERS, PRE-MANUFACTURED ROOF TRUSSES, OPEN WEB WOOD JOISTS AND WOOD I-JOISTS.

      SHOP DRAWINGS OR CONTRACTOR ENGINEERED DETAILS SHALL BEAR THE SEAL AND SIGNATURE OF A REGISTERED STRUCTURAL ENGINEER IN THE STATE OF OREGON IF IT DIFFERS FROM THE DESIGN OF THE STRUCTURAL DRAWINGS. ANY REVISION FROM THE STRUCTURAL DRAWINGS SHALL BE SUBMITTED ALONG WITH SUPPORTING CALCULATIONS BEARING THE SEAL AND SIGNATURE OF A REGISTERED STRUCTURAL ENGINEER IN THE STATE OF OREGON TO THE ARCHITECT/ ENGINEER FOR REVIEW AND ACCEPTANCE.

   C. CALCULATIONS, DESIGN DRAWINGS, AND SHOP DRAWINGS FOR THE DESIGN, FABRICATION AND CONSTRUCTION OF THE BIDDER DESIGN ITEMS SHALL BEAR THE SEAL AND SIGNATURE OF A REGISTERED STRUCTURAL ENGINEER IN THE STATE OF OREGON AND SHALL BE SUBMITTED TO THE ARCHITECT/ ENGINEER PRIOR TO FABRICATION. BIDDER DESIGN ITEMS FOR THIS PROJECT INCLUDE:

      PRECAST CONCRETE, STAIRS, SUNSHADES/ PREMANUFACTURED AWNINGS, SKYLIGHTS, WINDOW WALLS, AND ALL OTHER GLAZING SYSTEMS.

   CALCULATIONS AND BIDDER DESIGN DRAWINGS SHALL INCLUDE THE DESIGN, CONNECTION TO THE STRUCTURE, AND ACCOUNTING OF ANY LOCALIZED EFFECTS THE CONNECTIONS OR SYSTEMS MAY INDUCE ON THE STRUCTURE. ALL SUCH BIDDER DESIGNED ITEMS SHALL BE BASED ON THE DESIGN REQUIREMENTS AS SPECIFIED IN THE GENERAL STRUCTURAL NOTES.
7. DESIGN CRITERIA:

   A. CODE: 2018 INTERNATIONAL BUILDING CODE AS AMENDED BY THE HAWAII STATE BUILDING CODE .
   B. LOADS AND DESIGN CRITERIA: THE FOLLOWING LIVE LOADS AND CRITERIA WERE USED IN ADDITION TO THE DEAD LOAD OF THE STRUCTURE.

LIVE LOADS:
ROOF
- GROUND SNOW LOAD........ NONE
- SNOW EXPOSURE FACTOR........ NA
- SNOW IMPORTANCE FACTOR........ NA
- THERMAL FACTOR........ Ct = 1.0
- ROOF SNOW LOAD (SLOPES < 1:12)........ 0 PSF (PLUS ADDED SNOW DRIFT IF SHOWN ON PLANS)

SOIL CRITERIA: (NO REPORT, USE ASSUMED VALUES)
- FOOTING (FROST) DEPTH........ NA
- ALLOWABLE SOIL BEARING VALUES
  - ON ENGINEERED FILL OR NATIVE SOILS........ 1,500 PSF (W/ ⅓ INCREASE FOR SHORT TERM LATERAL LOADS)
- RETAINING WALLS
  - ACTIVE - UNRESTRAINED........ 35 PCF (LEVEL BACKFILL)
  - ACTIVE - RESTRAINED........ 50 PCF (LEVEL BACKFILL)
  - PASSIVE........ 250 PSF/FT. BELOW NATURAL GRADE (ENGINEERED FILL OR NATIVE SOILS)
  - FRICTION COEFFICIENT........ 0.35 (ENGINEERED FILL OR NATIVE SOILS)

LATERAL CRITERIA:
- RISK CATEGORY........ II
- WIND (DIRECTIONAL DESIGN PROCEDURE PER 2019 OSSC) (A)
  - ULT. DESIGN WIND SPEED, Vult (3-SEC GUST)........ 121 MPH
  - WIND EXPOSURE........ C
  - INTERNAL PRESSURE COEFFICIENT........ ± 0.18
  - COMPONENTS AND CLADDING DESIGN PRESSURE NOTES:
    1. LOADS APPLIED IN EITHER DIRECTION NORMAL TO SURFACE
    2. REFER TO FIGURE 30.4-1 ASCE 7-16 FOR ZONES
    3. FLAT, HT.=30', ADJ. FACTOR = 1.4

ULT. NET DESIGN WIND PRESSURE (PSF) FOR 10 ft²		
ROOF (PSF)	ZONE 1	+20.8/ -75.9
	ZONE 1'	+20.8/ -43.6
	ZONE 2	+20.8/ -100
	ZONE 3	+20.8/ -136
WALL (PSF)	ZONE 4	+51.2/ -51.6
	ZONE 5	+51.2/ -63.7

SEISMIC (EQUIVALENT LATERAL FORCE PROCEDURE)
- IMPORTANCE FACTOR (SEISMIC)........ Ie= 1.0
- SITE CLASS........ D
- SPECTRAL RESPONSE ACCELERATIONS........ Ss= 1.027, S1= 0.263
- SPECTRAL RESPONSE COEFFICIENTS........ Sds= 0.822, Sd1= 0.364
- SEISMIC DESIGN CATEGORY........ D
- BOTH DIRECTIONS:
  - RESPONSE MODIFICATION COEFFICIENT........ R= 6.5 (LIGHT FRAMED PLYWOOD S.W.'S)
  - SEISMIC RESPONSE COEFFICIENT........ Cs= 0.126
  - DESIGN BASE SHEAR (ULT)........ V= 15.77 KIPS (rho=1.0)

CONCRETE AND REINFORCING STEEL:

1. CONCRETE CONSTRUCTION SHALL CONFORM TO ACI 318-14 AND THE 2018 INTERNATIONAL BUILDING CODE AS AMENDED BY THE HAWAII STATE BUILDING CODE.
2. THE MINIMUM 28 DAY CONCRETE STRENGTHS SHALL BE AS FOLLOWS:
   F'c = 3000 PSI........FOR ALL USES UNLESS NOTED OTHERWISE.
   (NOTE: FOOTINGS / STEM WALLS DESIGNED FOR F'c=2500 PSI, CONCRETE SPECIAL INSPECTION NOT REQUIRED FOR FOOTINGS / STEM WALLS).
3. CONCRETE MIX DESIGNS, ALONG WITH TEST DATA AS REQUIRED, BY ACI 318-14, SECTION 26.4, SHALL BE SUBMITTED TO THE ARCHITECT/ ENGINEER FOR REVIEW A MINIMUM OF TWO WEEKS PRIOR TO CONCRETE POURS.
4. SPECIFIED CONCRETE STRENGTHS SHALL BE VERIFIED BY STANDARD 28-DAY CYLINDER TESTS PER ASTM C39, WHEN AND WHERE SPECIAL INSPECTION IS REQUIRED.
5. A 20% MAXIMUM OF THE CEMENT CONTENT MAY BY SUBSTITUTED WITH FLYASH CONFORMING TO ASTM C618, TYPE F OR C. HIGHER PERCENTAGES OF FLYASH MAY BE UTILIZED WITH ACCEPTANCE AND APPROVAL BY THE STRUCTURAL ENGINEER. ANY CONCRETE MIX UTILIZING FLYASH SHALL BE VERIFIED WITH TEST DATA.
6. ADDITIONAL WATER SHALL NOT BE ADDED TO THE CONCRETE MIX AT THE JOBSITE. WATER REDUCING ADMIXTURES CONFORMING TO ASTM C494 MAY BE UTILIZED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
7. IF CONCRETE IS TO BE POURED AGAINST AN EXISTING CONCRETE SURFACE, THE EXISTING SURFACE SHALL BE CLEANED AND ROUGHENED TO A MIN. 1/4" AMPLITUDE.
8. SLEEVES, OPENINGS, CONDUITS, AND OTHER EMBEDDED ITEMS NOT SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE APPROVED BY THE STRUCTURAL ENGINEER BEFORE POURING. CONDUITS EMBEDDED IN SLABS SHALL NOT BE LARGER IN OUTSIDE DIAMETER THAN ONE THIRD THE THICKNESS OF THE SLAB AND SHALL NOT BE SPACED CLOSER THAN THREE DIAMETERS ON CENTER. PROVIDE 3/4" CHAMFERS ON ALL EXPOSED CONCRETE EDGES UNLESS NOTED OTHERWISE.
9. SHORING AND RESHORING:
   SHORING AND RESHORING SHALL CONFORM TO ACI347.2 R-17. SHORING AND SUPPORTING FORMWORK SHALL NOT BE REMOVED FROM HORIZONTAL MEMBERS BEFORE CONCRETE STRENGTH IS AT LEAST 70 PERCENT OF DESIGN STRENGTH, AS DETERMINED BY FIELD CURED CYLINDERS. IN ADDITION, SHORING SHALL NOT BE REMOVED SOONER THAN RECOMMENDED BY ACI 347.2R-17. FORMWORK SHALL NOT BE REMOVED IN LESS THAN (10) DAYS.
10. REINFORCING STEEL:
    A. REINFORCING STEEL SHALL BE DETAILED, FABRICATED, AND INSTALLED ACCORDING TO THE "MANUAL OF STANDARD PRACTICE OF REINFORCED CONCRETE CONSTRUCTION" BY THE CONCRETE REINFORCING STEEL INSTITUTE (CRSI).
    B. REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60.
    C. SMOOTH BARS OR WELDED WIRE FABRIC SHALL CONFORM TO ASTM A1064.
    D. REINFORCING STEEL REQUIRING WELDING OR PLACED WITHIN A SPECIFIED BOUNDARY ELEMENT OR MOMENT FRAME ELEMENT SHALL CONFORM TO WELDABLE ASTM A706.
    E. ALL LAP SPLICES OF REINFORCEMENT SHALL CONFORM TO CLASS B LAPS AS SHOWN ON THE LAP SPLICE SCHEDULE, UNLESS NOTED OTHERWISE.
    F. ANY MECHANICAL BAR SPLICES SHOWN SHALL BE MADE WITH DAYTON BAR-GRIP COUPLERS OR WITH AN APPROVED PRODUCT SUBMITTED TO THE ENGINEER OF RECORD WITH AN ICBO REPORT.
    G. UNLESS NOTED OTHERWISE, REINFORCING STEEL SHALL HAVE THE MINIMUM COVER OR PROTECTION FOR THE FOLLOWING USES AS NOTED BELOW:

BEAMS, JOISTS, AND COLUMNS	1-1/2" (TO TIES OR STIRRUPS)
SLABS	1"
WALLS	
INTERIOR FACES	3/4"
EXPOSED TO EARTH OR WEATHER	1-1/2" (#5 BARS AND SMALLER) 2" (#6 BARS AND LARGER)
FOOTINGS	3"

11. CONCRETE WALLS:
    A. PROVIDE THE MINIMUM WALL REINFORCING AS SHOWN BELOW UNLESS NOTED OTHERWISE ON PLANS OR DETAILS:

WALL THICKNESS	REINFORCING
6"	#4 VERT. @ 18" O.C. & #4 HORIZ. @ 16" O.C. @ ℄ OF WALL
8"	#4 VERT. @ 18" O.C. & #4 HORIZ. @ 12" O.C. @ ℄ OF WALL

    B. HOOKED DOWELS FROM FOUNDATIONS SHALL BE PROVIDED TO MATCH VERTICAL WALL REINFORCING.
    C. PROVIDE HOOKED DOWELS MATCHING SLAB REINFORCING FROM WALLS TO SLABS OR HOOK SLAB REINFORCEMENT INTO WALLS.
    D. UNLESS NOTED OTHERWISE, PLACE (2) #5 BARS IN WALLS W/ (2) LAYERS OF REINF. IN BOTH DIRECTIONS & (1) #5 BAR IN WALLS HAVING SINGLE LAYER OF REINF. IN BOTH DIRECTIONS, ON ALL SIDES OF SLAB AND WALL OPENINGS EXTENDED 36" BEYOND OPENING. PROVIDE (1) OR (2) 4'-8" LONG DIAGONAL #5 BARS AT EACH CORNER OF THE OPENING MATCHING THE LAYERS OF REINFORCING.
12. ADDITIONAL CONCRETE ITEMS:
    A. HEADED SHEAR STUDS AND DEFORMED BAR ANCHORS SHALL BE AN APPROVED NELSON PRODUCT OR APPROVED EQUAL.
    B. WEDGE ANCHORS OR EXPANSION BOLTS SHALL BE HILTI KWIK BOLT-TZ OR AN APPROVED EQUAL SUBMITTED WITH ICBO REPORTS TO THE ENGINEER FOR REVIEW.
    C. EPOXY ANCHORS OR DOWELS SHALL BE INSTALLED WITH HILTI HIT-RE 500-V3 EPOXY ADHESIVE. AN APPROVED EQUAL IN CRACKED OR UNCRACKED CONCRETE WITH ICC REPORTS MAY BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
    D. UNLESS NOTED OTHERWISE, PERMANENTLY EXPOSED EMBEDDED PLATE AND ANGLE ASSEMBLIES SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION. WELDS OR LOADS SHALL NOT BE PLACED ON THE EMBEDDED ASSEMBLIES FOR A MINIMUM OF (7) DAYS AFTER CASTING IN CONCRETE.
13. REINFORCEMENT SHALL BE SECURED IN FORMS WITH SUITABLE TIES AND ANCHORAGE TO PREVENT DISPLACEMENT. BARS ADJACENT TO EARTH SHALL BE SUPPORTED BY CEMENT MORTAR CUBES.
14. REINFORCING STEEL SHALL NOT BE DISPLACED FOR THE CONVENIENCE OF OTHER TRADES UNLESS APPROVED BY THE STRUCTURAL ENGINEER OF RECORD.
15. "WET SETTING" OF REINFORCEMENT, ANCHOR BOLTS AND INSERTS IS NOT PERMITTED.

CONCRETE REINFORCING LAP SPLICE SCHEDULE

f'c = 3,000 psi

BAR SIZE	TOP BARS CASE 1	TOP BARS CASE 2	OTHER BARS CASE 1	OTHER BARS CASE 2
#3	28	42	22	32
#4	37	56	29	43
#5	47	70	36	54
#6	56	84	43	64
#7	81	122	63	94
#8	93	139	72	107
#9	105	157	81	121
#10	118	177	91	136
#11	131	196	101	151

LAP SPLICE SCHEDULE NOTES:
1. LAP LENGTHS ARE IN INCHES AND ARE BASED ON GRADE 60 REINFORCING STEEL AND NORMAL WEIGHT CONCRETE.
2. WHERE CLASS A LAP SPLICES ARE NOTED IN THE PLANS OR DETAILS, DIVIDE THE TABULATED VALUES BY 1.3
3. FOR LIGHTWEIGHT AGGREGATE CONCRETE, MULTIPLY THE TABULATED VALUES BY 1.3.
4. TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12 INCHES OF CONCRETE CAST BELOW THE BARS.
5. CASES 1 AND 2 ARE DEFINED AS FOLLOWS:
   BEAMS OR COLUMNS:
   CASE 1: COVER AT LEAST 1.0 DB AND C.C. SPACING AT LEAST 2.0 DB (WHERE DB = BAR DIAMETER).
   CASE 2: COVER LESS THAN 1.0 DB OR C.C. SPACING LESS THAN 2.0 DB.
   ALL OTHERS:
   CASE 1: COVER AT LEAST 1.0 DB AND C.C. SPACING AT LEAST 3.0 DB.
   CASE 2: COVER LESS THAN 1.0 DB OR C.C. SPACING LESS THAN 3.0 DB.

STRUCTURAL STEEL:

1. STEEL DESIGN, FABRICATION, AND ERECTION SHALL CONFORM WITH "AISC SPECIFICATION FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS" AND THE "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES".
2. THE GRADE AND SPECIFICATION OF THE STEEL MEMBERS SHALL BE AS FOLLOWS:

WIDE FLANGE SHAPES, BRACED FRAME GUSSET PLATES	ASTM A572 GRADE 50 OR ASTM A992 GRADE 50
WIDE FLANGE SHAPES SPECIFIED AS PART OF THE LATERAL FORCE RESISTING SYSTEM	ASTM A992 GRADE 50
CHANNELS, PLATES, BARS AND ANGLES (U.N.O.)	ASTM A36
HOLLOW STRUCTURAL SECTIONS (TUBES)	ASTM A500 GRADE B (FY=46 KSI)
HOLLOW STRUCTURAL SECTIONS (PIPES)	ASTM A53 GRADE B (FY=35 KSI)
HIGH STRENGTH BOLTS	ASTM A325/ F1852, TYPE 1, PLAIN
NUTS	ASTM A563
WASHERS (REQ'D @ SLOTTED & OVERSIZE HOLES)	ASTM F436
ANCHOR BOLTS	ASTM F1554, GRADE 36
THREADED RODS	ASTM A36

3. BOLTS SHALL CONFORM TO ASTM SPECIFICATIONS FOR HIGH STRENGTH A325 BOLTS, UNLESS NOTED OTHERWISE. ALL BOLTS SHALL BE INSTALLED SNUG TIGHT UNLESS NOTED OTHERWISE ON PLANS. WHERE SLIP CRITICAL IS SPECIFIED ON PLANS, ALL FAYING SURFACES SHALL BE PREPARED AS REQUIRED FOR CLASS A OR BETTER SLIP-CRITICAL JOINTS. ALL BOLTS SPECIFIED AS SLIP CRITICAL AND UTILIZED IN SEISMIC RESISTING ELEMENTS SHALL BE FULLY TENSIONED.
4. WELDING SHALL CONFORM TO THE AWS CODES FOR BUILDING CONSTRUCTION. WELDING SHALL BE PERFORMED IN ACCORDANCE WITH A WELDING PROCEDURE SPECIFICATION (WPS) AS REQUIRED IN AWS D1.1 AND APPROVED BY THE ENGINEER OF RECORD. THE WPS VARIABLES SHALL BE WITHIN THE PARAMETERS ESTABLISHED BY THE FILLER-METAL MANUFACTURER.
5. ALL COMPLETE JOINT PENETRATION WELDS USED IN THE SEISMIC RESISTING SYSTEM SHALL BE MADE WITH A FILLER METAL THAT HAS A MINIMUM CVN TOUGHNESS OF 20 FT-LBS AT MINUS 20° F, AS DETERMINED BY AWS CLASSIFICATION OR MANUFACTURER CERTIFICATION. ALL COMPLETE JOINT PENETRATION WELDS FOR NON-SEISMIC RESISTING SYSTEMS SHALL BE MADE WITH A FILLER METAL THAT HAS A MINIMUM CVN TOUGHNESS OF 20 FT-LBS AT 60° F.
6. FOR MEMBERS AND CONNECTIONS THAT ARE PART OF THE SEISMIC RESISTING SYSTEM, DISCONTINUITIES CREATED BY ERRORS OR BY FABRICATION OR ERECTION OPERATIONS, SUCH AS TACK WELDS, ERECTION AIDS, AIR-ARC GOUGING, AND FLAME CUTTING, SHALL BE REPAIRED AS REQUIRED BY THE ENGINEER OF RECORD.
7. WELDS SHALL UTILIZE E70XX ELECTRODES AND SHALL BE A MINIMUM OF 3/16" IN SIZE UNLESS NOTED OTHERWISE.
8. ALL STEEL EXPOSED TO SOIL, MOISTURE OR WEATHER SHALL BE HOT DIPPED GALVANIZED PER ASTM A123 OR HAVE ANOTHER APPROVED PROTECTIVE COATING.
9. HEADED SHEAR STUDS, DEFORMED BAR ANCHORS AND THREADED STUDS SHALL BE NELSON PRODUCT OR APPROVED EQUAL. STUDS/ D.B.A.'S SHALL BE WELDED WITH AUTOMATICALLY TIMED STUD WELDING MACHINE PER AWS D1.1 SECTIONS 7 & 7.8.1.

SAWN LUMBER:

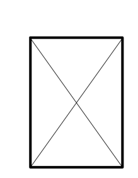
1. ALL STRUCTURAL LUMBER SHALL BE:
   A. TREATED IN ACCORDANCE WITH AWPA STANDARD U1 (UC1 THRU UC4b) FOR AWPA STANDARDIZED PRESERVATIVES. ALL MARKED OR BRANDED AND MONITORED BY APPROVING AGENCY. INCISING IS NOT REQUIRED PROVIDED THAT THE RETENTION AND PENETRATION REQUIREMENTS OF THESE STANDARDS ARE MET.
   B. FOR SBX DISODIUM OCTOBORATE TETRAHYDRATE (DOT), RETENTION SHALL BE NOT LESS THAN 0.42 PCF DOT. ALL SUCH LUMBER SHALL BE PROTECTED FROM DIRECT WEATHER EXPOSURE AS DIRECTED BY AWPA UC1 AND UC2.
2. ALL SAWN LUMBER SHALL CONFORM TO THE WESTERN WOOD PRODUCTS ASSOCIATION OR THE WEST COAST LUMBER INSPECTION BUREAU GRADING RULES. LUMBER SHALL BE OF THE SPECIES AND GRADE SHOWN BELOW:

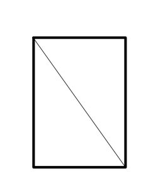
MEMBER	GRADE
2X & 4X FRAMING	DOUGLAS FIR-LARCH NO. 2
5X & GREATER BEAMS	DOUGLAS FIR-LARCH NO. 1
POSTS/ COLUMNS	DOUGLAS FIR-LARCH NO. 1
T&G DECKING	DOUGLAS FIR-COMMERCIAL DEX

3. ALL LUMBER IN CONTACT WITH THE GROUND, CONCRETE OR CMU SHALL BE PRESSURE TREATED. CONTRACTOR MAY SUBMIT FOR APPROVAL, A MOISTURE BARRIER IN-LIEU OF THE PRESSURE TREATED WOOD.
4. ALL METAL HARDWARE AND FRAMING ACCESSORIES SHALL BE MANUFACTURED BY SIMPSON STRONG-TIE COMPANY OR AN APPROVED EQUAL. SUBSTITUTION OF AN APPROVED EQUAL SHALL NOT BE MADE WITHOUT THE APPROVAL OF THE ENGINEER. THE SUBMITTAL SHALL INCLUDE DOCUMENTATION SHOWING THE ALLOWABLE LOADS OF THE SPECIFIED SIMPSON ITEM ALONG WITH TABULATED ALLOWABLE LOADS FOR THE SUBSTITUTED ITEMS. ALL ITEMS SHALL BE INSTALLED PER THE MANUFACTURERS INSTALLATION REQUIREMENTS. ALL NAIL HOLES SHALL BE FILLED WITH THE RECOMMENDED FASTENER UNLESS NOTED OTHERWISE ON THE DRAWINGS.
5. WHERE FRAMING HANGERS ARE REQUIRED BUT ARE NOT SPECIFICALLY SIZED, THE FOLLOWING SIZES SHALL BE USED. SLOPE, SKEW, TURN IN FLANGES AND PROVIDE TOP FLANGE HANGERS AS REQUIRED FOR THE SPECIFIC CONDITIONS AT THE END OF THE MEMBER.

MEMBER	HANGER
2X & 3X MEMBERS	U TYPE HANGERS
4X MEMBERS	HU TYPE HANGERS
6X MEMBERS	HUTF TYPE HANGERS
I-JOIST MEMBERS	MIT HANGERS
GLU-LAM MEMBERS	LEG HANGERS

6. ALL WALLS SHALL HAVE DOUBLE TOP PLATES AND SHALL BE SPLICED PER THE TYPICAL TOP PLATE SPLICE DETAIL, UNLESS NOTED OTHERWISE. TOP PLATES AT WALL INTERSECTIONS SHALL BE LAPPED AND NAILED WITH (3) 16D NAILS.
7. HOLES FOR BOLTS SHALL BE DRILLED WITH A BIT OF THE SAME NOMINAL DIAMETER AS THE BOLT + 1/16".
8. ALL BOLTS, CARRIAGE BOLTS, LAG SCREWS, EXPANSION BOLTS AND EPOXY BOLTS SHALL BE INSTALLED WITH STANDARD CUT WASHERS UNDER THE BOLT HEADS AND NUTS THAT BEAR DIRECTLY ON THE WOOD. ALL NUTS SHALL BE TIGHTENED AT THE TIME OF INSTALLATION AND RE-TIGHTENED IF NECESSARY, DUE TO WOOD SHRINKAGE, PRIOR TO CLOSE-IN OR AT THE COMPLETION OF THE PROJECT. BOLTS AND LAG SCREWS SHALL CONFORM TO ANSI/ASME STANDARD B18.2.1-2012.
9. DRILLING, CUTTING AND NOTCHING OF JOISTS SHALL BE IN CONFORMANCE WITH 2018 IBC 2308.4.2.4 CUTS/ NOTCHES IN THE TOP AND BOTTOM SHALL NOT BE DEEPER THAN ONE-SIXTH THE JOIST DEPTH AND SHALL NOT BE LOCATED IN THE MIDDLE ONE-THIRD OF THE SPAN. HOLES BORED IN JOISTS SHALL NOT BE WITHIN 2 INCHES OF THE TOP OR BOTTOM OF JOISTS, AND THE DIAMETER OF ANY SUCH HOLE SHALL NOT EXCEED ONE-THIRD THE JOIST DEPTH. DRILLING, CUTTING AND NOTCHING IN EXCESS OF THESE LIMITS IS PROHIBITED WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
10. DRILLING/ CUTTING AND NOTCHING OF STUDS SHALL BE IN CONFORMANCE WITH 2018 IBC AND 2308.5.9 AND 2308.5.10 CUTS/ NOTCHES SHALL NOT EXCEED 25% THE WIDTH OF THE STUD. HOLES BORED IN STUDS SHALL NOT EXCEED 40% THE WIDTH OF THE STUD. DRILLING, CUTTING AND NOTCHING IN EXCESS OF THESE LIMITS IS PROHIBITED WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
11. WOOD SYMBOLS:


CONTINUOUS


BLOCKING

12. ALL NAILS FOR STRUCTURAL WORK SHALL BE COMMON WIRE NAILS. HOLES SHALL BE PRE-DRILLED WHERE NECESSARY TO PREVENT SPLITTING. NAILING NOT SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE PER THE NAILING SCHEDULE BELOW:

NAIL TYPE	SHANK DIAMETER	MINIMUM PENETRATION - INCHES
6D	0.113	1.13
8D	0.131	1.31
10D	0.148	1.48
16D	0.162	1.62

NAILING SCHEDULE

A. JOIST SITTING ON SILL OR GIRDER	(3) 8D TOENAILS, EA. SIDE
B. BRIDGING TO JOIST	(2)8D TOENAILS, EA. SIDE, EA. END
C. TOP PLATE TO STUD	(2) 16D
D. STUD TO SILL PLATE	(2) 16D END NAILS OR (4) 8D TOENAILS
E. DOUBLE STUDS	16D @ 24" O.C.
F. DOUBLE TOP PLATES - BETWEEN SPLICE NAILING	16D @ 16" O.C.
G. DOUBLE TOP PLATES - EACH SIDE OF SPLICED PLATE	(8) 16D
H. BLOCKING TO TOP PLATE	(3) 8D TOENAILS EACH SIDE
I. RIM JOIST TO TOP PLATE OR SILL PLATE	8D TOENAILS @ 6" O.C.
J. CONTINUOUS (2) & (3) PIECE HEADERS	16D @ 16" O.C. ALONG EA. EDGE
K. CEILING JOIST LAPS OVER PARTITIONS	(3) 16D FACE NAILS
L. RAFTER TO TOP PLATE OR SILL PLATE	(3) 8D TOENAILS EA. SIDE
M. BUILT-UP CORNER STUDS	16D @ 24" O.C.
N. TONGUE & GROOVE DECKING	(2) 16D @ EA. BEARING
O. CROSS BRIDGING	(2) 10D EA. END

WOOD STRUCTURAL PANELS:

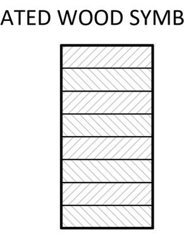
1. STRUCTURAL WOOD PANELS SHALL CONFORM TO THE REQUIREMENTS OF ONE OF THE FOLLOWING STANDARDS AND PUBLICATIONS:
   A. U.S. PRODUCT STANDARD PS 1 FOR CONSTRUCTION AND INDUSTRIAL PLYWOOD.
   B. U.S. PRODUCT STANDARD PS 2 PERFORMANCE STANDARD FOR WOOD BASED STRUCTURAL USE PANELS.
   C. APA PRP-108 PERFORMANCE STANDARDS.
   D. ANY CODE-APPROVED STANDARD OR PUBLICATION. APPROVAL MUST BE OBTAINED FROM W.S.E. STRUCTURAL ENGINEERS.
2. ROOF PANELS SHALL BE $\frac{5}{8}$" APA RATED 40/20, EXPOSURE 1 SHEATHING, UNLESS NOTED OTHERWISE ON THE DRAWINGS.
3. WALL PANELS SHALL BE $\frac{7}{16}$" APA RATED 24/16, EXPOSURE 1 SHEATHING, UNLESS NOTED OTHERWISE ON THE DRAWINGS.
4. ALL ROOF AND FLOOR SHEATHING SHALL BE INSTALLED WITH THE FACE GRAIN PERPENDICULAR TO THE SUPPORTS AND A $\frac{1}{8}$" GAP AT ALL PANEL EDGES UNLESS RECOMMENDED OTHERWISE BY THE PANEL MANUFACTURER.
5. WHERE BLOCKING IS NOT SPECIFICALLY REQUIRED FOR THE ROOF SHEATHING, PLY CLIPS OR TONGUE AND GROOVE PLYWOOD SHALL BE USED.
6. SUB-FLOOR SHEATHING SHALL BE UNBLOCKED UNLESS NOTED OTHERWISE ON THE STRUCTURAL DRAWINGS. SUB-FLOOR SHEATHING SHALL BE GLUED DOWN TO THE SUPPORTING MEMBERS AND GLUED AT THE TONGUE AND GROOVE JOINT WHEN PROVIDED.
7. ALL NAILS SHALL BE COMMON NAILS EXCEPT AT ROOF SHEATHING WHERE RING SHANK NAILS SHALL BE USED. GALVANIZED NAILS SHALL BE USED AT PERMANENTLY EXPOSED EXTERIOR AREAS. GALVANIZED NAILS SHALL BE HOT DIPPED OR TUMBLED ONLY.
8. ALL NAILS AT FIRE-TREATED SHEATHING SHALL BE HOT-DIPPED ZINC-COATED GALVANIZED, UNLESS OTHERWISE SPECIFIED BY MANUFACTURER.

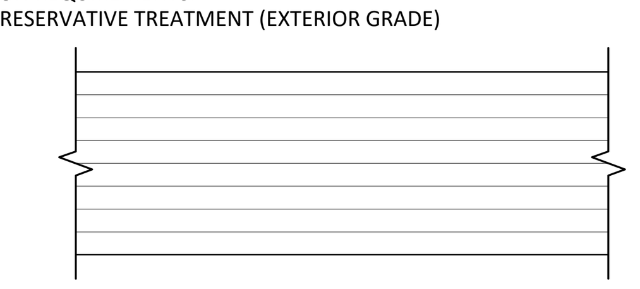
GLUED LAMINATED MEMBERS:

1. GLUED LAMINATED MEMBERS SHALL CONFORM TO THE REQUIREMENTS OF ONE OF THE FOLLOWING STANDARDS AND PUBLICATIONS:
   A. AMERICAN NATIONAL STANDARD FOR STRUCTURAL GLUED LAMINATED TIMBER.
   B. ANSI STANDARD A190.1.
   C. ANY CODE-APPROVED STANDARD OR PUBLICATION. APPROVAL MUST BE OBTAINED FROM W.S.E.
2. THE MINIMUM GLUE LAMINATED MEMBER GRADES SHALL BE AS FOLLOWS:

MEMBER	GRADE
SIMPLE SPAN	24F-V4
CONTINUOUS/ CANTILEVER	24F-V8

3. APPEARANCE SHALL BE FRAMING INDUSTRIAL FOR HIDDEN MEMBERS AND ARCHITECTURAL FOR EXPOSED MEMBERS UNLESS NOTED OTHERWISE ON THE DRAWINGS.
4. ALL BEAMS SHALL HAVE A 3500 FOOT RADIUS CAMBER UP UNLESS OTHERWISE NOTED ON THE DRAWINGS.
5. NO NOTCHING OR BORING OF HOLES IN BEAMS IS ALLOWED WITHOUT APPROVAL BY W.S.E.
6. GLUE SHALL BE WET-USE EXTERIOR WATERPROOF GLUE.
7. WHERE HANGERS ARE REQUIRED BUT NOT SPECIFICALLY SIZED, SIMPSON GLT HANGERS SHALL BE USED. SUBSTITUTION OF HARDWARE IS NOT ALLOWED WITHOUT APPROVAL OF W.S.E. THE SUBSTITUTION SUBMITTAL SHALL INCLUDE DOCUMENTATION SHOWING THE ALLOWABLE LOADS OF THE SPECIFIED HARDWARE ALONG WITH TABULATED ALLOWABLE LOADS FOR THE SUBSTITUTED ITEMS. ALL ITEMS SHALL BE INSTALLED PER THE MANUFACTURERS INSTALLATION REQUIREMENTS.
8. ALL EXTERIOR GLULAMS TO BE TREATED WITH A PRESERVATIVE TREATMENT (EXTERIOR GRADE)
9. GLUED LAMINATED WOOD SYMBOLS:


GLUED LAMINATED BEAM


GLUED LAMINATED BEAM ELEVATION

MANUFACTURED WOOD I-JOISTS:

1. IT IS THE CONTRACTORS RESPONSIBILITY TO OBTAIN ENGINEERING FOR THE MANUFACTURED WOOD I-JOISTS/ OPEN WEB JOISTS. THE DESIGN SHALL BE SUBMITTED TO THE ARCHITECT/ ENGINEER FOR APPROVAL. THE JOISTS SHALL BE OF THE SAME SIZE AND TYPE AS SHOWN ON THE DRAWINGS. THE JOISTS SHALL BE MANUFACTURED IN CONFORMANCE WITH APA EWS STANDARD PRI-400, PERFORMANCE STANDARD FOR APA EWS I-JOISTS.
2. BRIDGING, BLOCKING, HANGERS AND OTHER ACCESSORIES REQUIRED FOR PROPER INSTALLATION AND FUNCTION OF THE JOISTS SHALL BE PROVIDED IN CONFORMANCE WITH THE MANUFACTURERS RECOMMENDATIONS.
3. ALL ROOF, FLOOR JOISTS AND BRIDGING SHALL BE DESIGNED TO RESIST THE GRAVITY FORCES SHOWN BELOW:

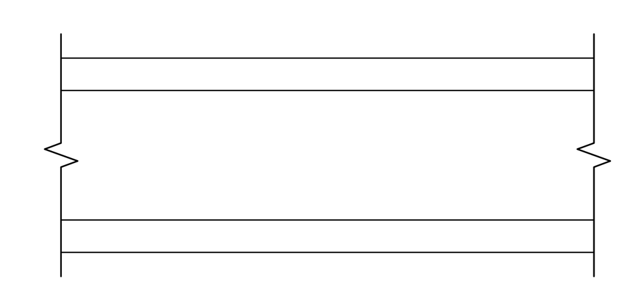
ROOF	
ROOF SNOW LOAD	25 PSF (PLUS ADDED DRIFT SNOW LOADS IF SHOWN ON PLANS)
ROOF DEAD LOAD	38 PSF (ROCK BALLAST)
ROOF NET UPLIFT (WIND)	REF. DESIGN CRITERIA; COMPONENTS & CLADDING PRESSURE TABLES
FLOOR	
FLOOR LIVE LOAD	40 PSF (RESIDENTIAL)
FLOOR DEAD LOAD	14 PSF

4. JOISTS SHALL BE DESIGNED TO MEET THE FOLLOWING DEFLECTION CRITERIA:

LOADING	DEFLECTION LIMIT
ROOF LIVE LOAD	L /240
ROOF TOTAL LOAD	L/180
FLOOR LIVE LOAD	L/480
FLOOR TOTAL LOAD	L/360

5. CONTRACTOR SHALL VERIFY ALL WEIGHTS AND LOCATIONS OF LOADS DUE TO ROOF TOP MECHANICAL EQUIPMENT, PIPING, ELECTRICAL UNITS, AND OTHER ADDITIONAL LOADS PRIOR TO JOIST FABRICATION.
6. DO NOT DRILL OR NOTCH JOIST MEMBERS WITHOUT WRITTEN APPROVAL OF THE JOIST MANUFACTURER AND THEIR ENGINEER.
7. THE CONTRACTOR/ JOIST MANUFACTURE SHALL PROVIDE SHOP DRAWING WITH THE FOLLOWING INFORMATION:
   A. JOIST LAYOUT, SIZE, SPACING, AND GRADE OF ALL MEMBERS ALONG WITH ANY DETAILING REQUIRED FOR THE TRUSS CONNECTIONS OR CONNECTIONS TO THE SUPPORTING STRUCTURE.
   B. SUPPORTING CALCULATIONS FOR THE TRUSS SHOP DRAWINGS. BOTH THE SHOP DRAWINGS AND THE CALCULATIONS SHALL BEAR THE SEAL OF AN ENGINEER REGISTERED IN THE STATE OF OREGON.
8. WHERE JOIST HANGERS ARE REQUIRED BUT NOT SPECIFICALLY IDENTIFIED ON THE DRAWINGS, IUS TYPE HANGERS SHALL BE USED AT FACE MOUNT CONDITIONS AND ITS TYPE HANGERS AT TOP FLANGE ONLY CONDITIONS.
9. IF ANOTHER I-JOIST/ OPEN WEB JOIST PRODUCT IS TO BE SUBSTITUTED, THE SUBSTITUTED PRODUCT MUST BE EQUAL OR BETTER IN STRENGTH, STIFFNESS, AND PERFORMANCE AS THE PRODUCT SPECIFIED FOR THIS PROJECT. THE SUPPLIER SHALL BE RESPONSIBLE FOR THE STRUCTURAL PLANS OR DETAILS DUE TO THE SUBSTITUTION OF THEIR PRODUCT.
10. ALTERNATIVE PRODUCTS AND DESIGN MUST BE APPROVED BY THE STRUCTURAL ENGINEER OF RECORD PRIOR TO BID
11. I-JOIST/ OPEN WEB SYMBOLS:

I-JOIST

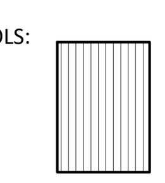

I-JOIST ELEVATION

COMPOSITE WOODS

1. COMPOSITE WOODS SHALL BE OF THE TYPE AND SIZE AS SHOWN ON THE DRAWINGS. THE MATERIAL TYPE AND GRADE SHALL BE AS SHOWN BELOW:

TYPE	GRADE
LSL	E = 1,550,000 PSI, FB = 2,325 PSI
LVL	E = 1,900,000 PSI, FB = 2,600 PSI
PSL (BEAMS)	E = 2,000,000 PSI, FB = 2,900 PSI
PSL (COLUMNS)	E = 1,800,000 PSI, FB = 2,400 PSI

2. COMPOSITE WOOD SYMBOLS:


COMPOSITE MEMBER

BEND
2863 NW Crossing Dr.
Suite 201
Bend, Oregon 97703
Tel: 541-330-6869

BOISE
950 Bannock St.
Suite 1100
Boise, Idaho 83702
Tel: 541-330-6869

WALKER STRUCTURAL ENGINEERING LLC.

Stamp: JON L. WALKER, LICENSED PROFESSIONAL ENGINEER No. 14440-S, HAWAII U.S.A.
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.
SIGNATURE — EXPIRATION DATE 04/30/26

DRAWING REVISIONS

#	Date	Description
A	05/10/2024	PERMIT REVISIONS

WORTHINGTON MAUI HOUSE
BALDWIN AVENUE
HALIIMAILE, MAKAWAO, MAUI, HAWAII
ROGER WORTHINGTON
PERMIT SET

Drawing Title: GENERAL STRUCTURAL NOTES
Date : 08/20/2025
Drawn By : MS/CED
Revised : -
Project No. WSE JOB #23110
Sheet No. S0.02

SPECIAL INSPECTIONS:

1. THE ITEMS NOTED SHALL BE INSPECTED IN ACCORDANCE WITH 2018 IBC CHAPTER 17 BY A CERTIFIED SPECIAL INSPECTION FROM AN ESTABLISHED TESTING AGENCY. FOR MATERIAL SAMPLING AND TESTING REQUIREMENTS, REFER TO THE MATERIAL SAMPLING AND TESTING SECTION, THE PROJECT SPECIFICATIONS, AND THE SPECIFIC GENERAL NOTES SECTIONS. THE TESTING AGENCY SHALL SEND COPIES OF ALL STRUCTURAL TESTING AND INSPECTION REPORTS DIRECTLY TO THE ARCHITECT, ENGINEER, CONTRACTOR, AND BUILDING OFFICIAL. ANY MATERIALS WHICH FAIL TO MEET THE PROJECT SPECIFICATIONS SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
2. SPECIAL INSPECTION TESTING REQUIREMENTS APPLY EQUALLY TO ALL BIDDER DESIGNED COMPONENTS. SPECIAL INSPECTION IS NOT REQUIRED FOR WORK PERFORMED BY AN APPROVED FABRICATOR PER 2018 IBC SECTION 1704.2.5.1.
3. CONTINUOUS SPECIAL INSPECTION MEANS THAT THE SPECIAL INSPECTOR IS ON SITE AT ALL TIMES OBSERVING THE WORK REQUIRING SPECIAL INSPECTION PER 2018 IBC 17, PERIODIC SPECIAL INSPECTION MEANS THAT THE SPECIAL INSPECTOR IS ON SITE AT TIME INTERVALS NECESSARY TO CONFIRM THAT ALL WORK REQUIRING SPECIAL INSPECTION IS IN COMPLIANCE.
4. THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION, SCHEDULING AND TIMELY NOTIFICATION OF THE DESIGNATED SPECIAL INSPECTOR PRIOR TO ALL WORK REQUIRING SPECIAL INSPECTION.

TABLE 2

REQUIRED STRUCTURAL SPECIAL INSPECTIONS

SYSTEM or MATERIAL	INSPECTION				REMARKS
	IBC CODE REFERENCE	CODE or STANDARD REFERENCE	FREQUENCY		
			Continuous	Periodic	
FABRICATORS					
FABRICATORS	1704.2.5			X	SPECIAL INSPECTIONS APPLY TO VERIFICATION OF DETAILED FABRICATION AND QUALITY CONTROL PROCEDURES INCLUDING REVIEW FOR COMPLETENESS AND ADEQUACY RELATIVE TO THE CODE REQUIREMENTS
STEEL					
FABRICATION OF STRUCTURAL ELEMENTS	1704.2.5			X	REFER TO INSPECTION OF FABRICATOR REQUIREMENTS
MATERIAL VERIFICATION OF STRUCTURAL STEEL AND COLD FORMED STEEL DECK	1705.2 2203.1	ASTM A6 ASTM STANDARDS SPECIFIED IN CONSTRUCTION DOCUMENTS AISC 360 A3.1 AISC 360 M5.5		X	CERTIFIED MILL TEST REPORTS
MATERIAL VERIFICATION OF HIGH STRENGTH BOLTS, NUTS, AND WASHERS	1705.2.1.1	ASTM STANDARDS SPECIFIED IN CONSTRUCTION DOCUMENTS RCSC 2.1		X	MANUFACTURER'S CERTIFIED TEST REPORTS
MATERIAL VERIFICATION OF ANCHOR BOLTS AND THREADED RODS	1705.2	AISC 360 A3.4 ASTM STANDARDS SPECIFIED IN CONSTRUCTION DOCUMENTS		X	MANUFACTURER'S CERTIFIED TEST REPORTS
MATERIAL VERIFICATION OF WELD FILLER METALS	1705.2.2.1	AISC 360 A3.5 APPLICABLE AWS A5 DOCUMENTS		X	MANUFACTURER'S CERTIFIED TEST REPORTS
VERIFYING USE OF PROPER WPS'S				X	COPY OF WELDING PROCEDURE SPECIFICATIONS
VERIFYING WELDER QUALIFICATIONS				X	COPY OF QUALIFICATION CARDS
SINGLE PASS FILLET WELDS LESS THAN OR EQUAL TO 5/16"	1705.2.2.1 TABLE 1705.2	AWS D1.1, SECTION 6		X	ALL WELDS VISUALLY INSPECTED PER AWS D1.1 6.9
WELDING STAIR AND RAILING SYSTEMS	TABLE 1705.2	AWS D1.1 SECTION 6		X	ALL WELDS VISUALLY INSPECTED PER AWS D1.1 6.9
POST INSTALLED CONCRETE ANCHORS					
INSPECTION OF ANCHORS INSTALLED IN HARDENED CONCRETE	1909.1	ICC EVALUATION REPORT ACI 318: 3.8.6, 8.1.3, 21.1.8		X	SPECIAL INSPECTIONS APPLY TO ANCHOR PRODUCT NAME, TYPE, AND DIMENSIONS, HOLE DIMENSIONS, COMPLIANCE WITH DRILL BIT REQUIREMENTS, CLEANLINESS OF THE HOLE AND ANCHOR, ADHESIVE EXPIRATION DATE, ANCHOR/ADHESIVE INSTALLATION, ANCHOR EMBEDMENT, AND TIGHTENING TORQUE

SPECIAL INSPECTIONS FOR WIND RESISTANCE

PER AMENDED 2018 IBC 1705.11.1 - COMPLETE LOAD PATH AND UPLIFT TIES

SPECIAL INSPECTION IS REQUIRED FOR METAL CONNECTORS, ANCHORS, OR FASTENERS FOR WOOD AND COLD-FORMED STEEL CONSTRUCTION AT THE FOLLOWING LOCATIONS: ROOF RIDGES, ROOF RAFTERS TO BEAM OR WALL SUPPORTS, BEAMS TO POSTS, POSTS OR WALLS TO FLOOR FRAMING OR FOUNDATION BELOW, GROUND ANCHORS, AND ALL OTHER CONNECTIONS THAT ARE PART OF THE LOAD PATH TO RESIST UPLIFT FORCES.

CONTINUOUS SPECIAL INSPECTION IS REQUIRED DURING FIELD GLUING OPERATIONS OF ELEMENTS OF THE MAIN WINDFORCE-RESISTING SYSTEM.

THE SPECIAL INSPECTOR NEED NOT BE PRESENT DURING THE INSTALLATION OF ALL OF THE CONNECTORS, PROVIDED THAT THE SPECIAL INSPECTOR VERIFIES THAT ALL OF THE CONNECTORS ARE INSTALLED IN CONFORMANCE WITH THE REQUIREMENTS OF THIS CODE.

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Stamp

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04/30/26
SIGNATURE EXPIRATION DATE

DRAWING REVISIONS

#	Date	Description
1	05/10/2024	PERMIT REVISIONS

WORTHINGTON MAUI HOUSE
BALDWIN AVENUE
HALIIMAILE, MAKAWAO, MAUI, HAWAII
ROGER WORTHINGTON
PERMIT SET

Drawing Title: SPECIAL INSPECTION

Date : 08/20/2025

Drawn By : MS/CED

Revised : -

Project No. WSE JOB #23110

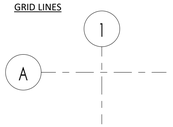
Sheet No.

S0.03

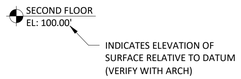
WSE Structural

ANNOTATION SYMBOLS

GRID LINES

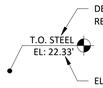


ELEVATION LINE



INDICATES ELEVATION OF SURFACE RELATIVE TO DATUM (VERIFY WITH ARCH)

REFERENCED ELEVATION



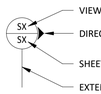
DESCRIPTION OF REFERENCED POINT

ELEVATION OF POINT ABOVE DATUM (VERIFY WITH ARCH)

REVISION

REVISION NUMBER, REFER TO REVISION HISTORY ON TITLE BLOCK OF EACH SHEET

DETAIL SECTION CUT



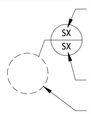
VIEW REFERENCE

DIRECTION OF VIEW

SHEET REFERENCE

EXTENT OF SECTION CUT

DETAIL PLAN VIEW

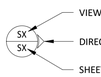


VIEW REFERENCE

SHEET REFERENCE

EXTENT OF DETAIL

ELEVATION



VIEW REFERENCE

DIRECTION OF VIEW

SHEET REFERENCE

FOUNDATIONS

S - - - - - - - - S — INDICATES APPROXIMATE LOCATION OF STEP IN FOOTING. REFER TO 7/S5.01.

C.J. — INDICATES CONTROL/CONSTRUCTION JOINTS IN SLABS OR WALLS. REFER 3 & 5/S7.01 FOR CMU WALL CONTROL JOINT.

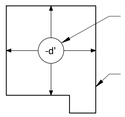
(x.xx') — INDICATES TOP OF FOOTING ELEVATION RELATIVE TO ELEVATION = 0.00'.

X — INDICATES FOOTING TYPE REFER TO FOOTING SCHEDULE.

WORK POINT

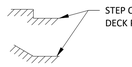
WORK POINT OF CONNECTION: POINT WHERE FORCES ARE RESOLVED.

SLAB DEPRESSIONS (PLAN)



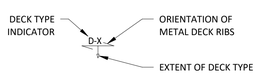
DEPTH OF DEPRESSION IN SLAB. CONSTRUCT DEPRESSION PER 11/S5.01

BOUNDARY OF DEPRESSION IN SLAB, REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS, U.O.N.



STEP OR SLOPE IN SLAB OR DECK PER 11/S5.01

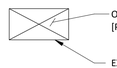
METAL DECK ORIENTATION (PLAN)



ORIENTATION OF METAL DECK RIBS

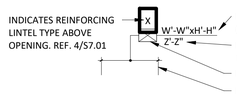
EXTENT OF DECK TYPE

OPENING (PLAN OR ELEVATION)



OPENING IN FLOOR SLAB [PLAN] OR WALL [ELEVATION]

EXTENT OF OPENING



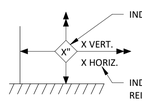
INDICATES MAX ALLOWABLE WIDTH OR DIAMETER (W) & HEIGHT (H) OF DUCT PENETRATION

INDICATES MINIMUM ELEVATION OF RELATIVE TO EL= 0.00' TO BOTTOM OF OPENING

INDICATES RELATIVE SHAPE OF PENETRATION

INDICATES ALLOWABLE LOCATION OF CENTER OF PENETRATION. COORDINATE WITH MEP DRAWINGS.

SHEAR WALL (ELEVATION)



INDICATES WALL THICKNESS

INDICATES WALL REINFORCEMENT

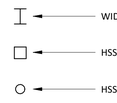
MEMBER LOADING

INDICATES SNOW DRIFT/LOADS IN ADDITION TO BASE SNOW LOAD.

INDICATES SNOW SLIDING LOADS IN ADDITION TO BASE SNOW LOADS.

X# — INDICATES MECH. UNIT WITH WEIGHT. REFERENCE MECH. DRAWINGS TO VERIFY LOCATION AND FOR ADDITIONAL INFORMATION.

COLUMNS (PLAN)

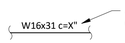


WIDE FLANGE COLUMN

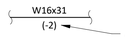
HSS COLUMN

HSS OR PIPE COLUMN

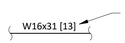
BEAM DESIGNATIONS (PLAN)



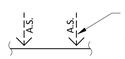
AMOUNT OF BEAM CAMBER AT MID-SPAN



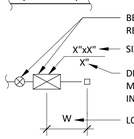
ADDITIONAL INCREASE OR DECREASE IN TOP OF STEEL ELEVATION



NUMBER OF EQUALLY SPACED SHEAR STUD CONNECTORS, REFER TO METAL DECK DETAILS



BOTTOM FLANGE ANGLE STRUT BRACES @ EQ. SPACING ALONG LENGTH OF BEAM, UNO



BEAM PENETRATION, REFER TO STEEL DETAILS

SIZE OF BEAM OPENING

DISTANCE OF CL OF OPENING TO MID-DEPTH OF BEAM, NO VALUE INDICATES A DISTANCE OF ZERO (0")

LOCATION OF CL OF OPENING

(X) INDICATES BOLTED BEAM SHEAR PLATE CONNECTION TYPE. REFER TO 1/S6.01.

F INDICATES FULL-DEPTH STIFFENER CONNECTION. REFER TO 6/6.01.

W INDICATES WELDED BEAM CONNECTION. REFER TO S/S6.01.

MOMENT RESISTING CONNECTIONS (PLAN)

BEAM-TO-BEAM MOMENT CONNECTION, REFER TO STEEL DETAILS

MOMENT-RESISTING BEAM-TO-COLUMN CONNECTION, REFER TO STEEL DETAILS, CANTILEVER MEMBER MATCHES BACK SPAN MEMBER, U.O.N.

ABBREVIATIONS

#	NUMBER OR POUNDS
&	AND
@	AT
AB	ANCHOR BOLT
ADD'L	ADDITIONAL
ADJ	ADJACENT
ALT	ALTERNATE
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
AOR	ARCHITECT OF RECORD
APPROX	APPROXIMATE
ARCH	ARCHITECTURAL DOCUMENTS
ASC	AREA OF STEEL CORE
ASTM	AMERICAN SOCIETY FOR TESTING & MATERIALS
AWG	AMERICAN WIRE GAUGE
AWS	AMERICAN WELDING SOCIETY
BF	BRACED FRAME
BLDG	BUILDING
BLKG	BLOCKING
BM	BEAM
BO	BOTTOM OF
BTM	BOTTOM
BRB	BUCKLING RESTRAINED BRACE
BRBF	BUCKLING RESTRAINED BRACED FRAME
C	CHANNEL (AMERICAN STANDARD)
CDF	CONTROLLED DENSITY FILL
CG	CENTER OF GRAVITY
CIP	CAST-IN-PLACE
CJ	CONSTRUCTION JOINT OR CONTROL JOINT
CJP	COMPLETE JOINT PENETRATION
CL	CENTERLINE
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONT	CONTINUOUS
CP	COMPLETE PENETRATION
d	PENNY (NAIL SIZE) or REINFORCING BAR DIAMETER
DBA	DEFORMED BAR ANCHOR
DBL	DOUBLE
DEMO	DEMOLITION or DEMOLISH
DIA	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DIST	DISTANCE
DN	DOWN
do	DITTO OR REPEAT
(E)	EXISTING
EA	EACH
EF	EACH FACE
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRICAL
ELEV	ELEVATOR
EMBED	EMBEDMENT
EOR	ENGINEER OF RECORD
EQ	EQUAL
EQUIP	EQUIPMENT
ES	EACH SIDE
EW	EACH WAY
EXP	EXPANSION
EXT	EXTERIOR
FF	FAR FACE
FIN	FINISH(ED)
FL or FLR	FLOOR
F.O.	FACE OF
F.OC	FACE OF CONCRETE
F.O.M.	FACE OF MASONRY
F.O.S.	FACE OF STUDS
FRP	FIBER REINFORCED POLYMER
FS	FAR SIDE
FT	FOOT or FEET
GA	GAUGE
GALV	GALVANIZED
GB	GRADE BEAM
GL	GLUED-LAMINATED MEMBER
HORIZ	HORIZONTAL
HP	HIGH POINT
HP	BEARING PILE
H.S.B.	HIGH STRENGTH BOLTS
HSS	HOLLOW STRUCTURAL SECTION
HT	HEAVY TIMBER
ID	INSIDE DIAMETER
INFO	INFORMATION
K	KIP, KIPS
KO	KNOCK-OUT
KSI	KIPS PER SQUARE INCH

(CONTINUED ==>)

L OR 2L	ANGLE OR DOUBLE ANGLE
LB	CELLULAR BEAM
LD	DEVELOPMENT LENGTH
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LOC	LOCATION
LONG	LONGITUDINAL
LP	LOW POINT
LS	LAP SPLICE
LSH	LONG SIDE HORIZONTAL
LSV	LONG SIDE VERTICAL
LSL	LAMINATED STRAND LUMBER (TIMBER STRAND)
LT	LIGHT
LVF	LOW-VELOCITY FASTENER
LVL	LAMINATED VENEER LUMBER (MICROLAM)
M	MISCELLANEOUS SHAPE
MAX	MAXIMUM
MB	MACHINE BOLT
MC	CHANNEL (OTHER THAN AMERICAN STANDARD)
MECH	MECHANICAL
MEP	MECHANICAL, ELECTRICAL, PLUMBING DOCUMENTS
MF	MOMENT FRAME
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
M.O.	MASONRY OPENING
MTL	METAL
N	NORTH
(N)	NEW
N.F.	NEAR FACE
NIC	NOT IN CONTRACT
NO	NUMBER
NOM	NOMINAL DIAMETER
NS	NEAR SIDE
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER (DIM.)
OPP	OPPOSITE HAND
OWJ	OPEN WEB JOIST
PAF	POWDER ACTUATED FASTENER
PC, PCS	PIECE, PIECES
PDF	POWDER DRIVEN FASTENER
PERP	PERPENDICULAR
PL	PLATE
PLF	POUNDS PER LINEAR FOOT
PP	PARTIAL PENETRATION
PR	PAIR
PSI	POUNDS PER SQUARE FOOT
PSF	POUNDS PER SQUARE INCH
PSL	PARALLEL STRAND LUMBER (PARALLAM)
PNT	POINT
PT	PRESSURE-TREATED or POST TENSIONED
R or RAD	RADIUS
R.A.D.	REF. ARCH. DOCUMENTS
REBAR	REINFORCING BAR
REF	REFER TO, REFERENCE
REINF	REINFORCEMENT
REQ'D	REQUIRED
RET	RETURN
REV	REVISE or REVISION
RO	ROUGH OPENING
SC	SLIP CRITICAL
SIM	SIMILAR
SMS	SHEET METAL SCREW
SOG	SLAB-ON-GRADE
SOMD	SLAB-ON-METAL DECK
SPEC	SPECIFICATION
SQ	SQUARE
SS or SST	STAINLESS STEEL
STD	STANDARD
STL	STEEL
STRUCT	STRUCTURAL
T	TON, TONS
T&B	TOP AND BOTTOM
T&G	TONGUE AND GROOVE
THRU	THROUGH
T.O.	TOP OF
T.OC	TOP OF CONCRETE
T.O.M.	TOP OF MASONRY
T.O.S.	TOP OF STEEL
T.O. SLAB	TOP OF STRUCTURAL SLAB
TRANS	TRANSVERSE
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
URM	UNREINFORCED MASONRY
VERT	VERTICAL
VIF	VERIFY IN FIELD
W or WF	WIDE FLANGE
W/	WITH
W/O	WITHOUT
WD	WOOD
WP	WORK POINT
WSE	WALKER STRUCTURAL ENGINEERING
WT	STRUCTURAL TEE (CUT FROM WIDE FLANGE)
WWF	WELDED WIRE FABRIC
XS	EXTRA STRONG (STRUCTURAL PIPE)
XXS	DOUBLE-EXTRA STRONG (STRUCTURAL PIPE)

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HAWAII, U.S.A.

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SIGNATURE 04/30/26 EXPIRATION DATE

DRAWING REVISIONS

#	Date	Description
D	08/20/2025	PERMIT REVISIONS

Worthington Residence (Maui)

MAUI, HAWAII

PERMIT SET

Drawing Title: ABBREVIATIONS & SYMBOLS

Drawn By: TF

Project No. WSE JOB #23110

Date: 08/20/2025

Revised:

Sheet No.

S0.04

WSE Structural

8/27/2025 4:36:00 PM

LEGEND - FOUNDATION PLAN

- INDICATES CONCRETE STEMWALL PER PLAN WITH BEARING WALL, 2x6 STUDS @ 16" OC, AT WALL HEIGHTS UP TO 12'-6" TALL, USE 1-3/4x5-1/2 LVL STUDS @ 16" OC FOR WALL HEIGHT EXCEEDING 12'-6", UNO
- INDICATES INTERIOR BEARING WALL, 1-3/4x5-1/2 LVL STUDS @ 16" OC, UNO
- INDICATES INTERIOR NON-BEARING WALL PER ARCHITECT.
- INDICATES SHEAR WALL LOCATION. REFERENCE SHEAR WALL PLAN FOR ADDITIONAL INFORMATION (INCLUDING ANCHOR BOLT SPACING REQUIREMENTS).
- 1 / S0.00 — INDICATES STRUCTURAL FRAMING DETAIL. REFERENCE STRUCTURAL DETAIL SHEET.
- (X) — INDICATES FOOTING TYPE, REFERENCE FOOTING SCHEDULE.
- ☒ — TYPICAL HEADER SUPPORT TO BE: (1) 2x TRIMMER & (2) 2x KING AT OPENING LESS THAN 6'-0" AND (2) 2x TRIMMERS & (3) 2x KINGS AT OPENINGS GREATER THAN 6'-0", UNO

FOUNDATION PLAN NOTES

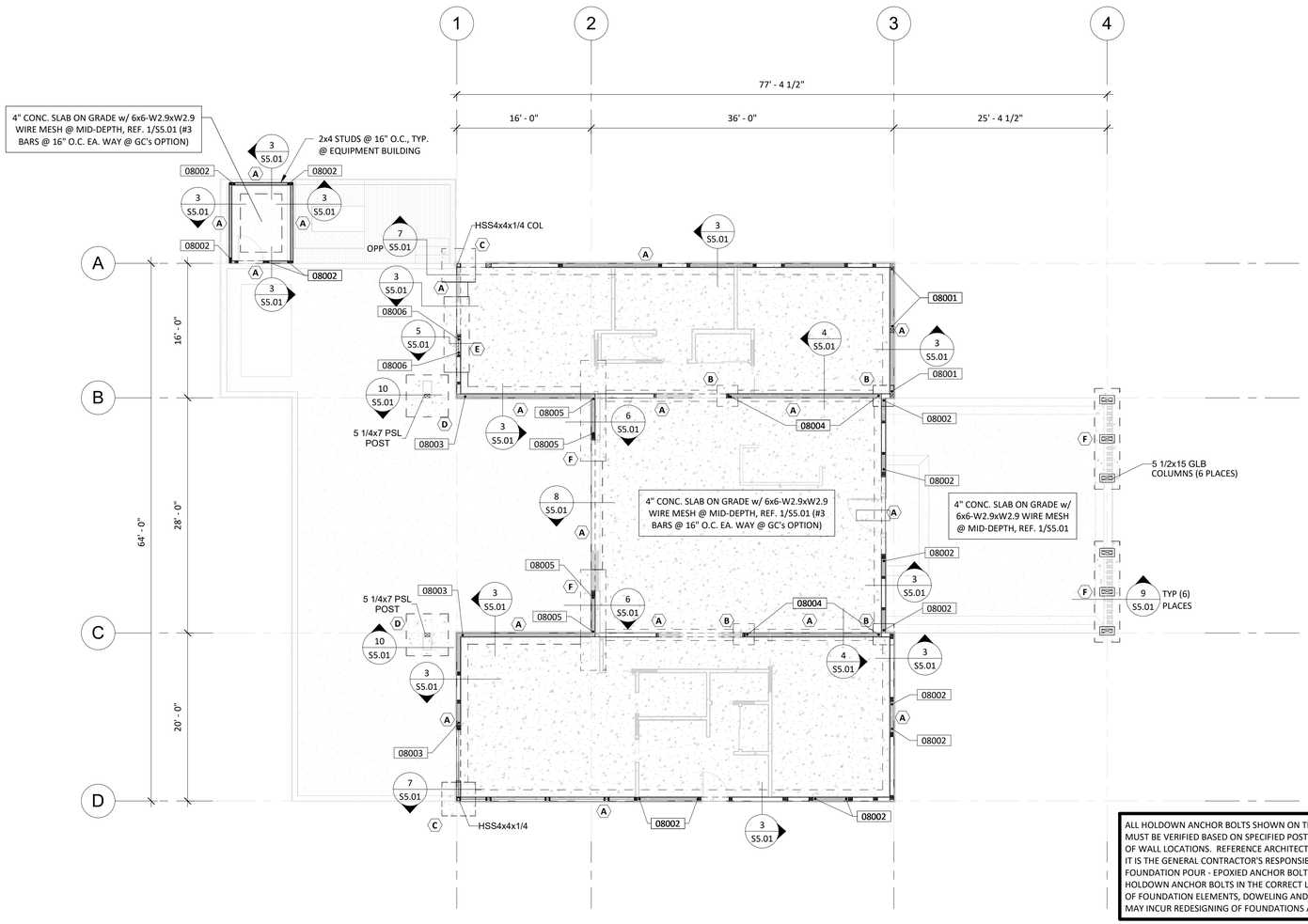
1. DO NOT USE STRUCTURAL DRAWINGS ALONE FOR BUILDING LAYOUT. DO NOT SCALE THESE DRAWINGS MANUALLY OR ELECTRONICALLY. COORDINATE LOCATIONS OF ALL STRUCTURAL ELEMENTS, INCLUDING BUT NOT LIMITED TO, COLUMNS, WALLS, SLAB EDGES, DEPRESSIONS AND OPENINGS WITH ARCHITECTURAL DRAWINGS AND RESOLVE ANY CONFLICTS BETWEEN DRAWINGS OR ELEMENTS PRIOR TO CONSTRUCTION. A REGISTERED SURVEYOR SHALL PERFORM BUILDING LAYOUT AND LOCATION OF ALL STRUCTURAL ELEMENTS AT ALL LEVELS. REF. ARCH. DRAWINGS FOR ALL DIMENSIONS/ ELEVATIONS NOT SHOWN. CONTRACTOR IS RESPONSIBLE FOR CROSS REFERENCING ALL DIMENSIONS/ ELEVATIONS SHOWN WITH ARCHITECTURAL DRAWINGS NOTIFY ARCHITECT / ENGINEER OF RECORD IF THERE ARE ANY DISCREPANCIES.
2. WHERE PIPES, CONDUITS, ETC. EXTEND BELOW/ THROUGH CONCRETE FOOTINGS/ STEMWALLS, REFERENCE DETAIL FOR ACCEPTABLE LOCATIONS & STRUCTURAL REQUIREMENTS. PIPES, CONDUITS, ETC. SHALL BE ROUTED TO AVOID AREAS BELOW COLUMNS & PAD FOOTINGS.

FOOTING SCHEDULE

MARK (X)	SIZE (WIDTH x LENGTH)	"T"	REINFORCING
(A)	1'-4" x CONT	12"	(2) #4 CONT, BTM
(B)	2'-6" x 2'-6"	12"	(3) #4 EA WAY, BTM
(C)	4'-0" x 4'-0"	12"	(6) #4 EA WAY, BTM
(D)	5'-0" x 5'-0"	12"	(6) #5 EA WAY, BTM
(E)	3'-0" x 9'-0" (CENTER BELOW SW)	18"	#4 @ 10" OC EA WAY, TOP & BTM
(F)	3'-0" x 12'-0"	18"	#4 @ 10" OC EA WAY, TOP & BTM

KEYNOTES IN-USE

08001	HDU2 ON POST W/ SB5/8x24
08002	HDU2 ON (2) KING STUDS W/ SB5/8x24
08003	HDU4 ON (2) KING STUDS W/ SB5/8x24
08004	HDU4 ON (2) KING STUDS W/ SB5/8x24
08005	HDU14 ON (3) KING STUDS W/ PAB8 W/ 10" EMBED BELOW TOP OF SPREAD FOOTING
08006	WSWH-AB1 ANCHOR BOLT THRU STEM WALL W/ 12" EMBED BELOW TOP OF FOOTING. USE ANCHOR BOLT TEMPLATE & ENCLOSE BOLTS W/ (2) #3 TIES AT TOP OF STEM WALL (REF SIMPSON CATALOG C-L-WSW21)



ALL HOLDOWN ANCHOR BOLTS SHOWN ON THE PLAN REPRESENT A GENERAL LOCATION AND MUST BE VERIFIED BASED ON SPECIFIED POST SIZE WITH RELATION TO THE ROUGH OPENING/EDGE OF WALL LOCATIONS. REFERENCE ARCHITECTURAL DRAWINGS FOR DIMENSIONAL VERIFICATION. IT IS THE GENERAL CONTRACTOR'S RESPONSIBILITY TO ENSURE THESE ARE PLACED PRIOR TO THE FOUNDATION POUR - EPOXIED ANCHOR BOLTS ARE NOT AN EQUAL SUBSTITUTE. FAILURE TO PLACE HOLDOWN ANCHOR BOLTS IN THE CORRECT LOCATION WILL LIKELY RESULT IN CUTTING/REMOVAL OF FOUNDATION ELEMENTS, DOWELING AND REPOUR OF AREAS REMOVED. ADDITIONAL FEES MAY INCUR REDESIGNING OF FOUNDATIONS AND REPLACEMENT HOLDOWNS.

1 / S2.11 STRUCTURAL FOUNDATION PLAN

1/8" = 1'-0"

BEND
2863 NW Crossing Dr.
Suite 201
Bend, Oregon 97703
Tel: 541-330-6869

BOISE
950 Bannock St.
Suite 1100
Boise, Idaho 83702
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WALKER
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Stamp

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SIGNATURE 04/30/26 EXPIRATION DATE

DRAWING REVISIONS

#	Date	Description
D.	08/20/2025	PERMIT REVISIONS

Worthington Residence (Maui)

MAUI, HAWAII

PERMIT SET

Drawing Title: FOUNDATION/FLOOR PLAN

Date : 08/20/2025

Drawn By : TF

Project No. WSE JOB #23110

Revised :

Sheet No. S2.11

WSE Structural

8/27/2025 4:18:11 PM

LEGEND - ROOF FRAMING

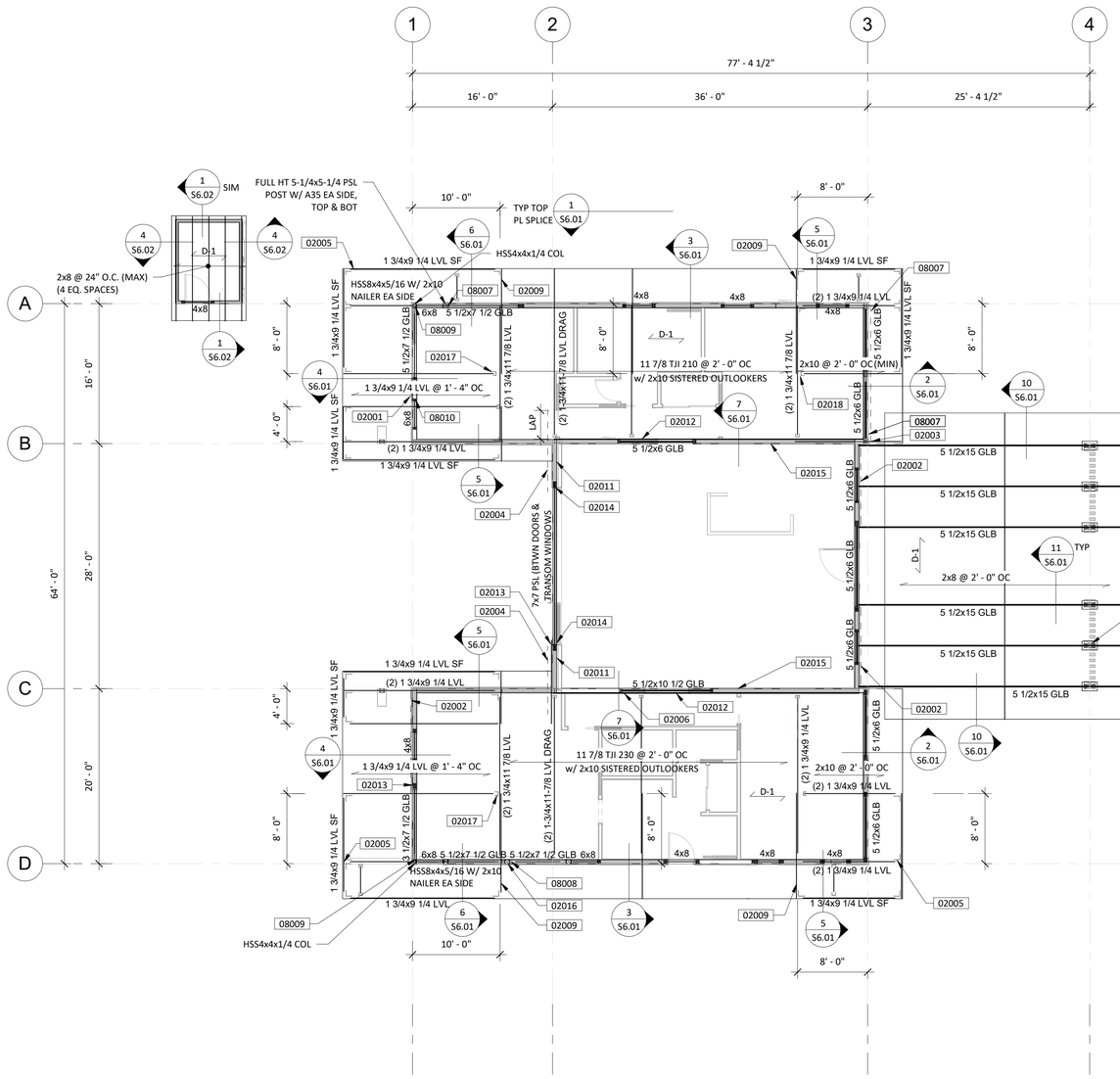
- INDICATES BEARING / SHEAR WALL, 2x6 STUDS @ 16" OC, AT WALL HEIGHTS UP TO 12'-6" TALL, USE 1-3/4x5-1/2 LVL STUDS @ 16" OC FOR WALL HEIGHT EXCEEDING 12'-6", UNO
- INDICATES INTERIOR BEARING WALL BELOW, 1-3/4x5-1/2 LVL STUDS @ 16" OC UNO
- INDICATES INTERIOR NON-BEARING WALL PER ARCHITECT.
- 1 / S0.00 — INDICATES STRUCTURAL FRAMING DETAIL. REFERENCE STRUCTURAL DETAIL SHEET.
- D-1 — INDICATES SPAN DIRECTION OF 5/8" APA SHEATHING (APA INDEX 48/24). ATTACH TO ROOF FRAMING WITH 8d NAILS @ 6" OC @ ALL PANEL EDGES AND 12" OC @ INTERMEDIATE FRAMING MEMBERS. EDGE NAIL @ ALL BLOCKING AND DRAG STRUTS.
- INDICATES SHEAR WALL. REFERENCE SHEAR WALL PLANS FOR ADDITION INFORMATION.

ROOF FRAMING PLAN NOTES

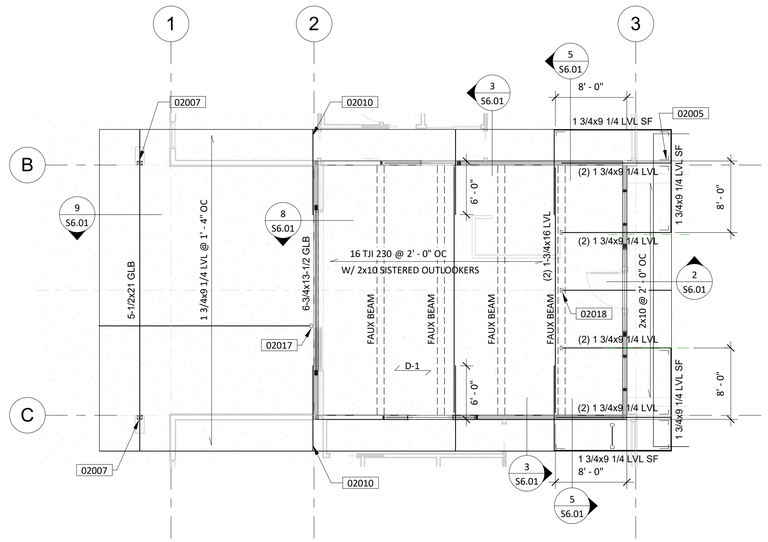
1. DO NOT USE STRUCTURAL DRAWINGS ALONE FOR BUILDING LAYOUT. DO NOT SCALE THESE DRAWINGS MANUALLY OR ELECTRONICALLY. COORDINATE LOCATIONS OF ALL STRUCTURAL ELEMENTS, INCLUDING BUT NOT LIMITED TO, COLUMNS, WALLS, SLAB EDGES, DEPRESSIONS AND OPENINGS WITH ARCHITECTURAL DRAWINGS AND RESOLVE ANY CONFLICTS BETWEEN DRAWINGS OR ELEMENTS PRIOR TO CONSTRUCTION. A REGISTERED SURVEYOR SHALL PERFORM BUILDING LAYOUT AND LOCATION OF ALL STRUCTURAL ELEMENTS AT ALL LEVELS. REF. ARCH. DRAWINGS FOR ALL DIMENSIONS/ ELEVATIONS NOT SHOWN. CONTRACTOR IS RESPONSIBLE FOR CROSS REFERENCING ALL DIMENSIONS/ ELEVATIONS SHOWN WITH ARCHITECTURAL DRAWINGS NOTIFY ARCHITECT / ENGINEER OF RECORD IF THERE ARE ANY DISCREPANCIES.
2. TYPICAL HEADER SUPPORT TO BE: (1) 2x TRIMMER & (1) 2x KING AT OPENING LESS THAN 6'-0" AND (2) 2x TRIMMERS & (2) 2x KINGS AT OPENINGS GREATER THAN 6'-0", UNO
3. PROVIDE SOLID 2x STUDS AT ALL BEAM & GIRDER TRUSS BEARING POINTS UNLESS DETAILED OR NOTED OTHERWISE. FOR BEAMS FRAMING INTO WALLS, FORM BEAM POCKET WITH ADDITIONAL STUDS ALONG SIDE OF BEAM AND FACE NAIL WITH (5) 16d NAILS ON EACH SIDE (MINIMUM).

KEYNOTES IN-USE

02001	SIMPSON WSWH24 SHEAR WALL (TRIM HEIGHT TO FIT). ATTACH TO DBL TOP PL W/ STANDARD OR ALTERNATE TOP CONNECTION PER MANUF SPECS (REF SIMPSON CATALOG C-L-WSW21 & DETAIL 10/S3.02)
02002	CS16 STRAP ON FLAT 4x6 BLK'G BTWN WALL STUDS, ABOVE & BELOW OPENING
02003	CS16 STRAP FULL LENGTH OF WALL, ABOVE & BELOW OPENING
02004	CMSTC16 STRAP ON FLAT 4x6 BLK'G BTWN WALL STUDS, LAP 24" MIN TO DRAG
02005	INDICATES ML28 W/ SDS SCREWS, APPLY ON EA SIDE WHERE SHOWN, TYP
02006	IUS HANGER TYP
02007	5-1/4x7 PSL POST W/ CCQ CAP
02008	5-1/2x15 GLC W/ CBTZ TIE, TYP (6) PLACES
02009	1-3/4x9-1/4 LVL SISTERED TO JOIST
02010	1-3/4x9-1/4 LVL SISTERED TO RIM JOIST
02011	1-3/4x7-1/4 LSL STUDS @ 16" OC
02012	1-3/4x11-7/8 LVL LEDGER W/ (3) 1/4"x4 1/2" SDS SCREWS @ 16" OC TO WALL STUDS
02013	(2) 1 3/4x5 1/2 LSL TRIMMERS & (3) 1 3/4x5 1/2 LSL KING STUDS
02014	ATTACH PSL TO KING STUDS W/ ML26 TOP & BTM USING SDS SCREWS
02015	BALLOON FRAME 1 3/4x5 1/2 LSL STUDS @ 16" OC
02016	FULL HT 5-1/4x5-1/4 PSL POST W/A35 EA SIDE,TOP & BTM,TYP (3) PLACES
02017	HUS1.81/10 HANGER, TYP
02018	LUS210 HANGER TYP
08007	HUC68 TO POST TYP (2) PLACES, REF DETAIL 3/S6.02
08008	HUC68 TO POST TYP (6) PLACES, REF DETAIL 3/S6.02
08009	KNIFE PL TO COL (2) PLACES, REF DETAIL 2/S6.02
08010	HUC68 TO (2) KING STUDS TYP (2) PLACES



1 / S2.21 LOWER ROOF FRAMING PLAN
1/8" = 1'-0"



2 / S2.21 UPPER ROOF FRAMING PLAN
1/8" = 1'-0"

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DRAWING REVISIONS

#	Date	Description
D	08/20/2025	PERMIT REVISIONS

Worthington Residence (Maui)

MAUI, HAWAII

PERMIT SET

Drawing Title: ROOF FRAMING PLAN

Drawn By: TF

Project No. WSE JOB #23110

Date : 08/20/2025

Revised :

Sheet No.

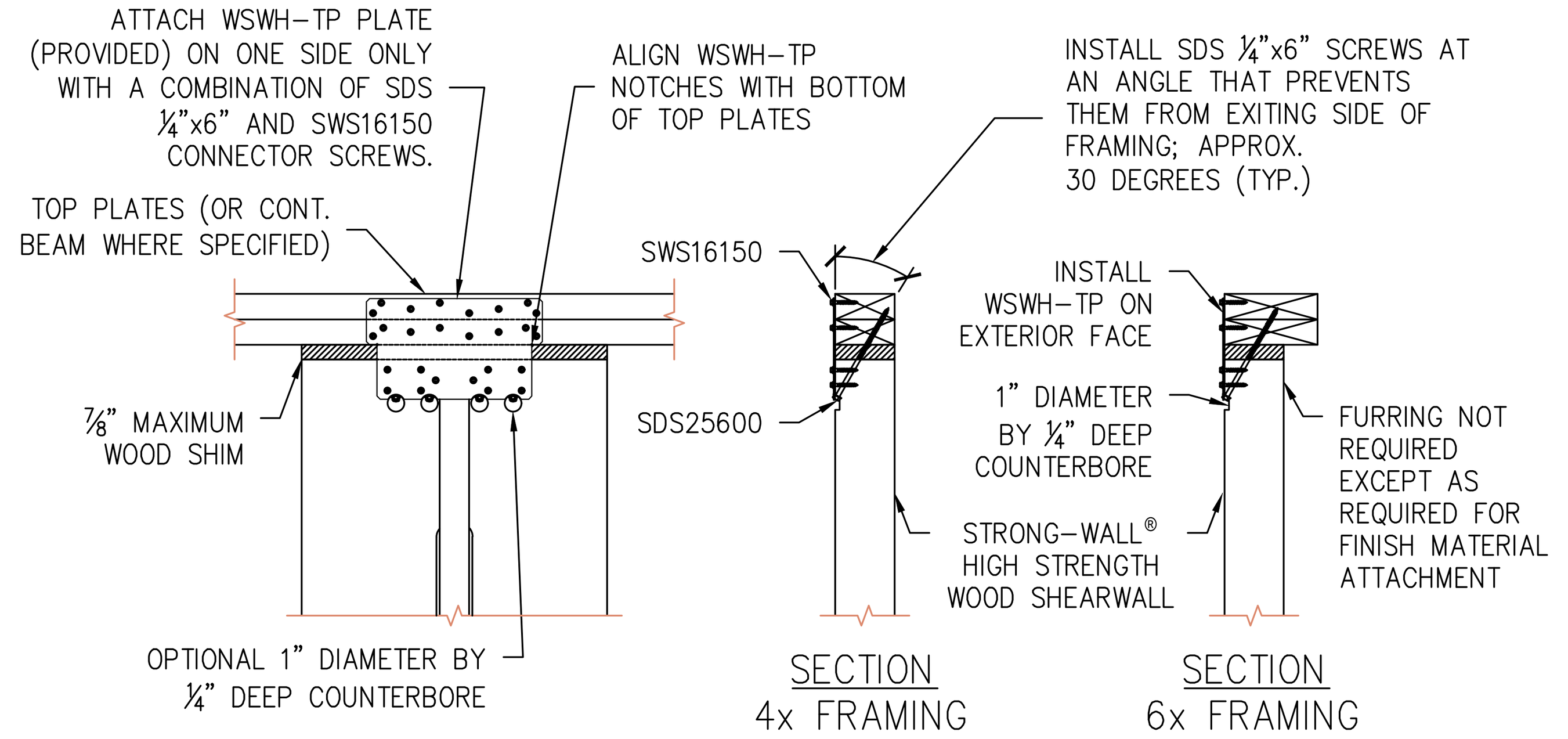
S2.21

WSE Structural

8/27/2025 4:18:11 PM

WSWH-TP CONNECTION		
MODEL NO.	FASTENER QUANTITY	
	SWS16150	SDS25600
WSWH-TP12	14	2
WSWH-TP18	26	4
WSWH-TP24	46	8

DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.



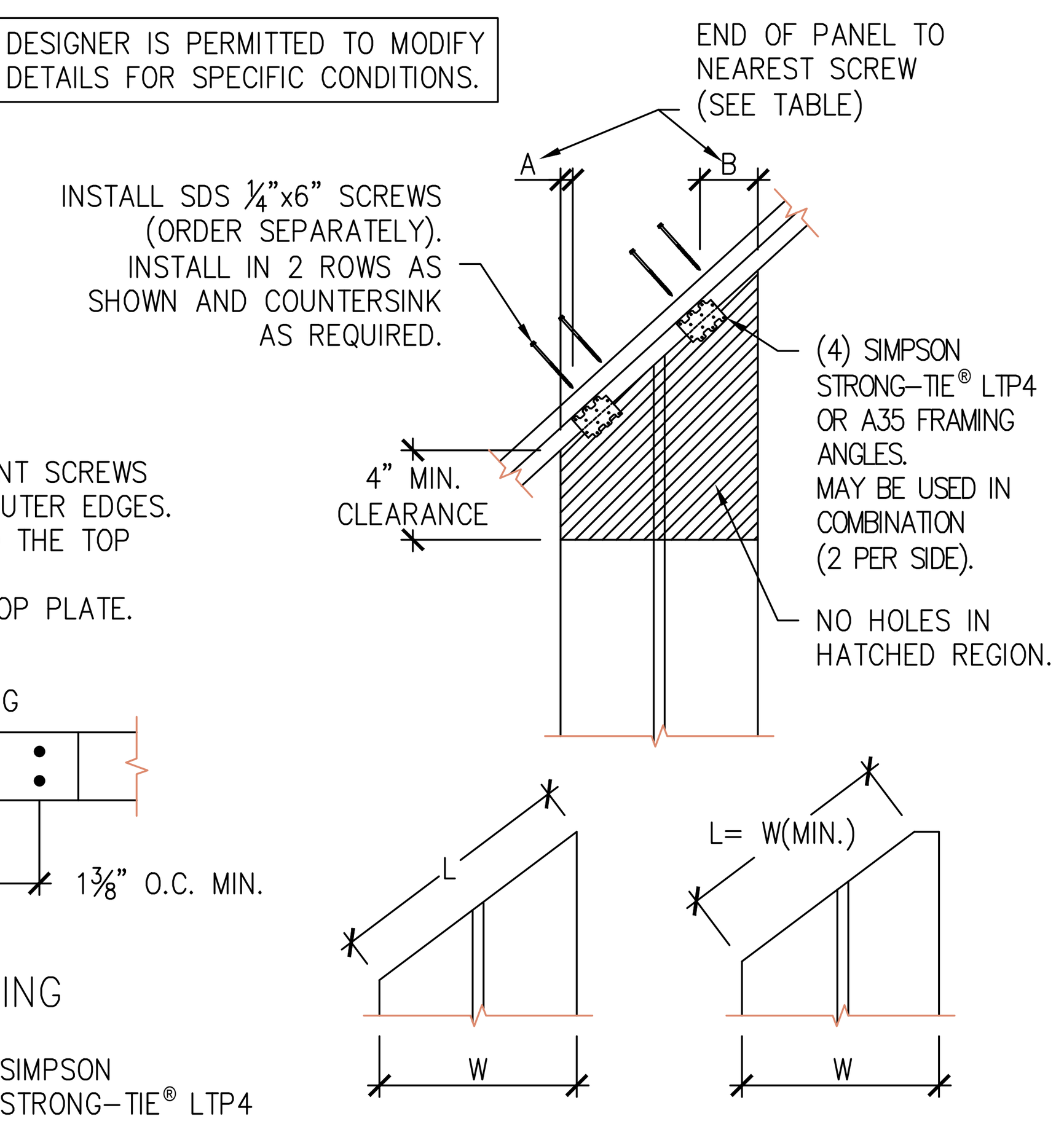
9 S3.02 SIMPSON WSWH TOP CONNECTION
SCALE: 1"=1'-0"

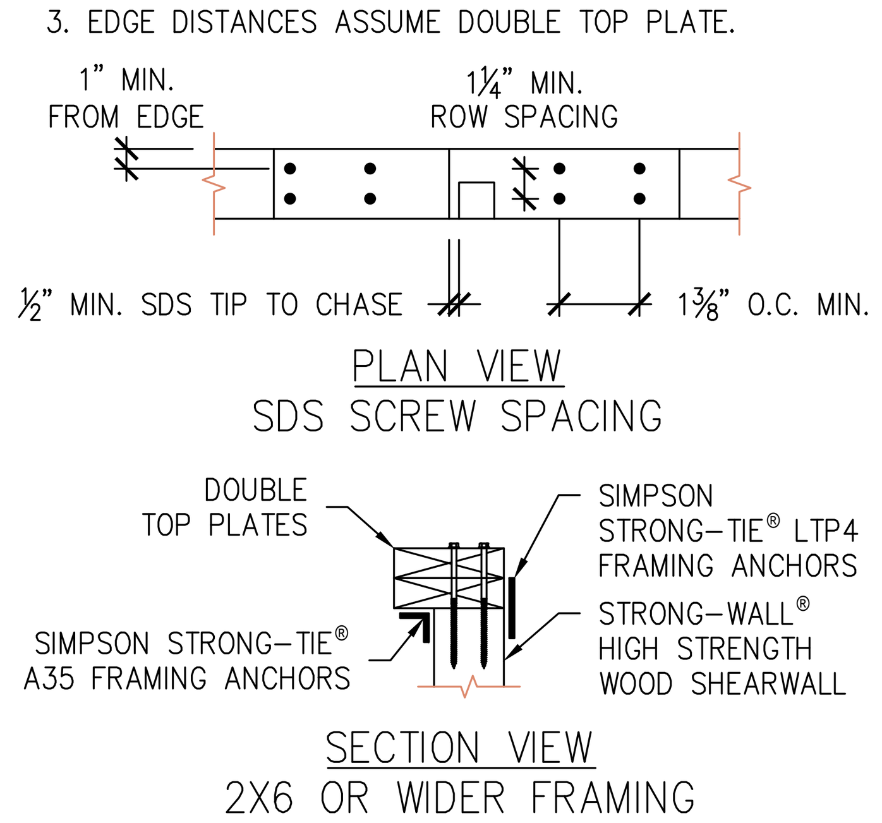
QTY. OF SDS¼"x6" SCREWS REQ'D.	
WSWH12	4
WSWH18	8
WSWH24	16

DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

EDGE DISTANCE FOR SCREWS		
SLOPE	A (in.)	B (in.)
0:12–4:12	2	3
5:12–8:12	1½	4½
9:12–12:12	1½	5½

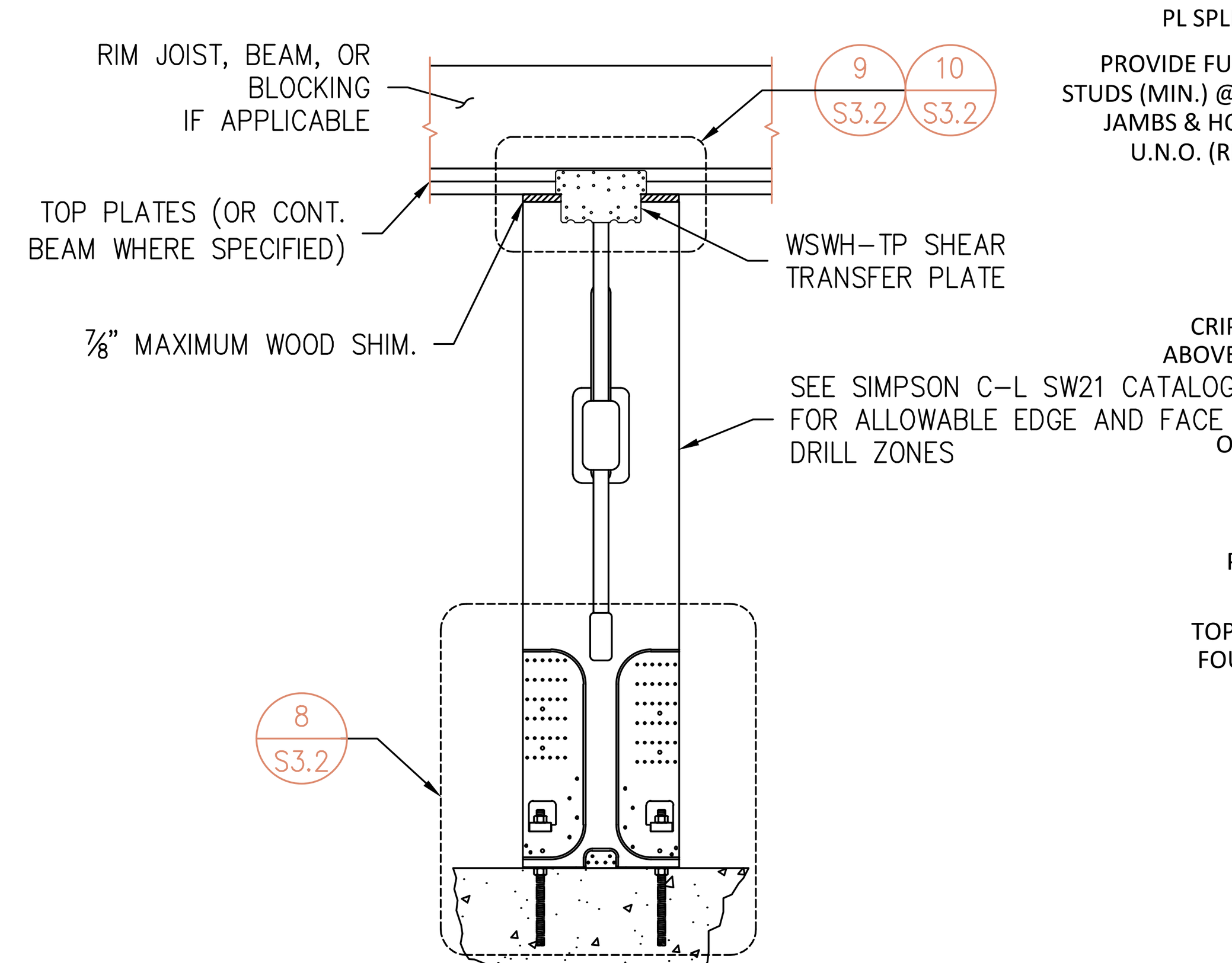
NOTES :
1. MAINTAIN END DISTANCES TO PREVENT SCREWS FROM PENETRATING THROUGH THE OUTER EDGES.
2. INSTALL SCREWS PERPENDICULAR TO THE TOP PLATE.
3. EDGE DISTANCES ASSUME DOUBLE TOP PLATE.



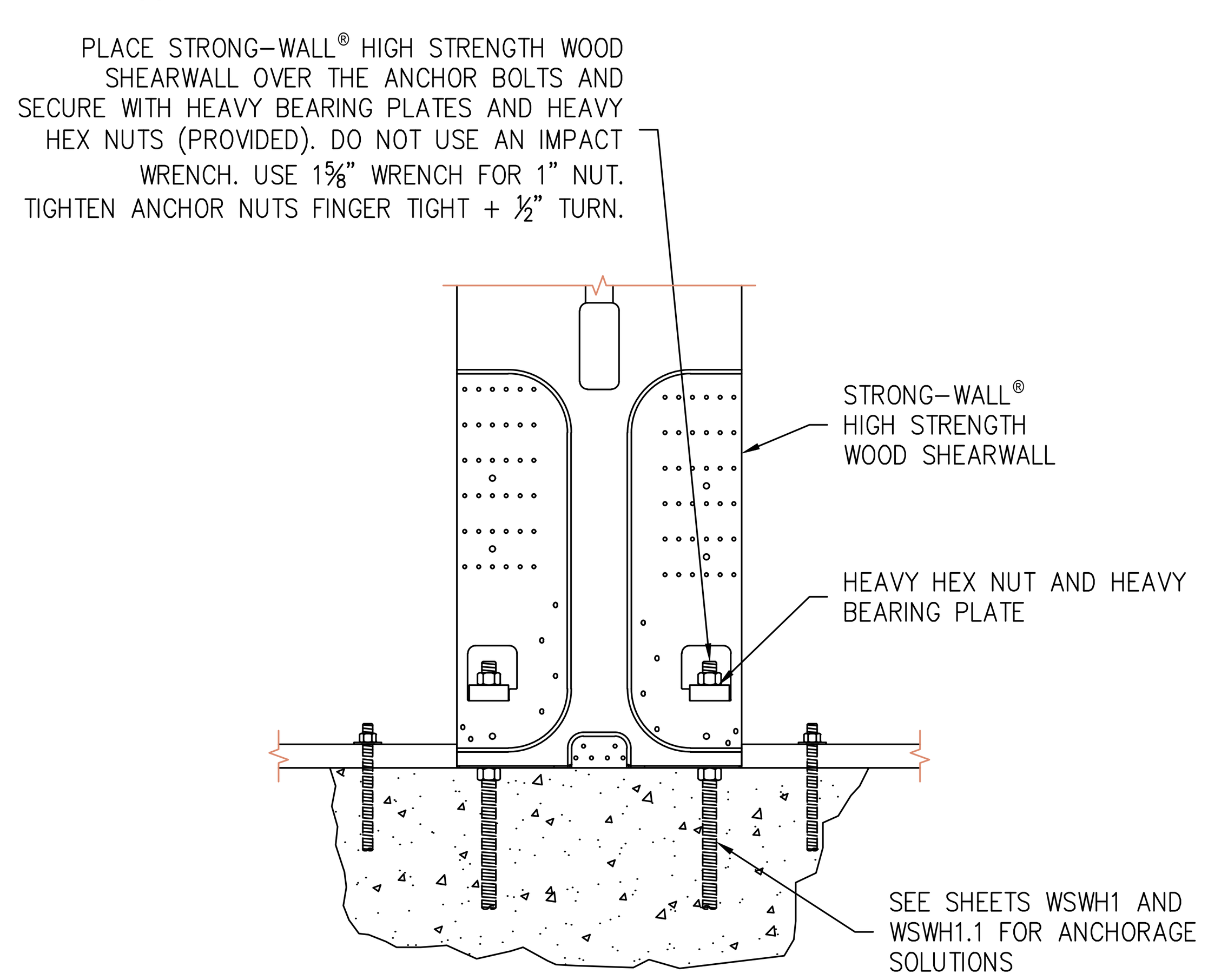


INSTALLATION NOTES :
1. ACTUAL CUT LENGTH (L) MUST BE GREATER THAN OR EQUAL TO PANEL WIDTH (W).
2. THIS DETAIL APPLICABLE FOR SLOPES UP TO 12:12.
3. PANELS TALLER THAN 12' MUST BE DESIGNED FOR THE APPLICATION.

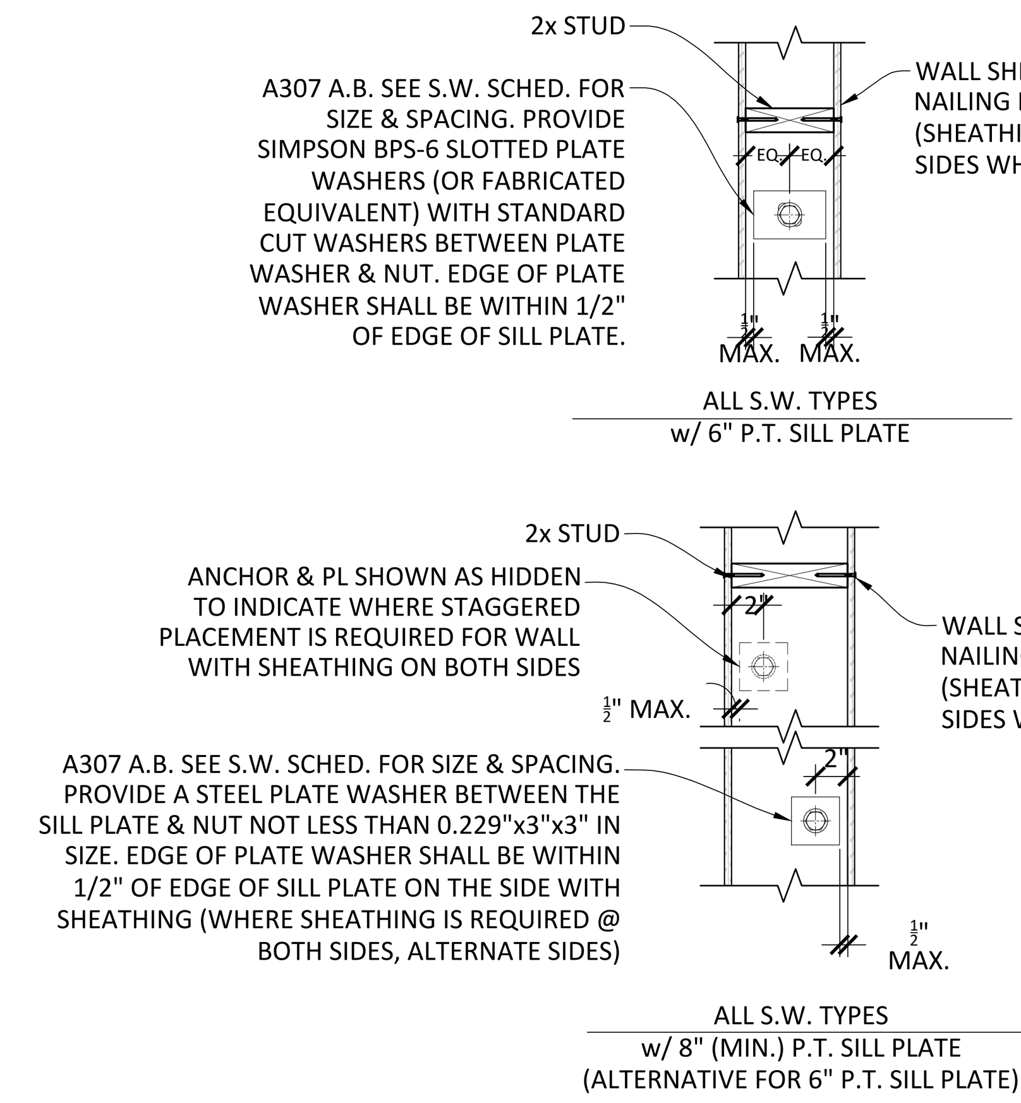
10 S3.02 SIMPSON WSWH RAKE WALL CONNECTION
SCALE: 1"=1'-0"



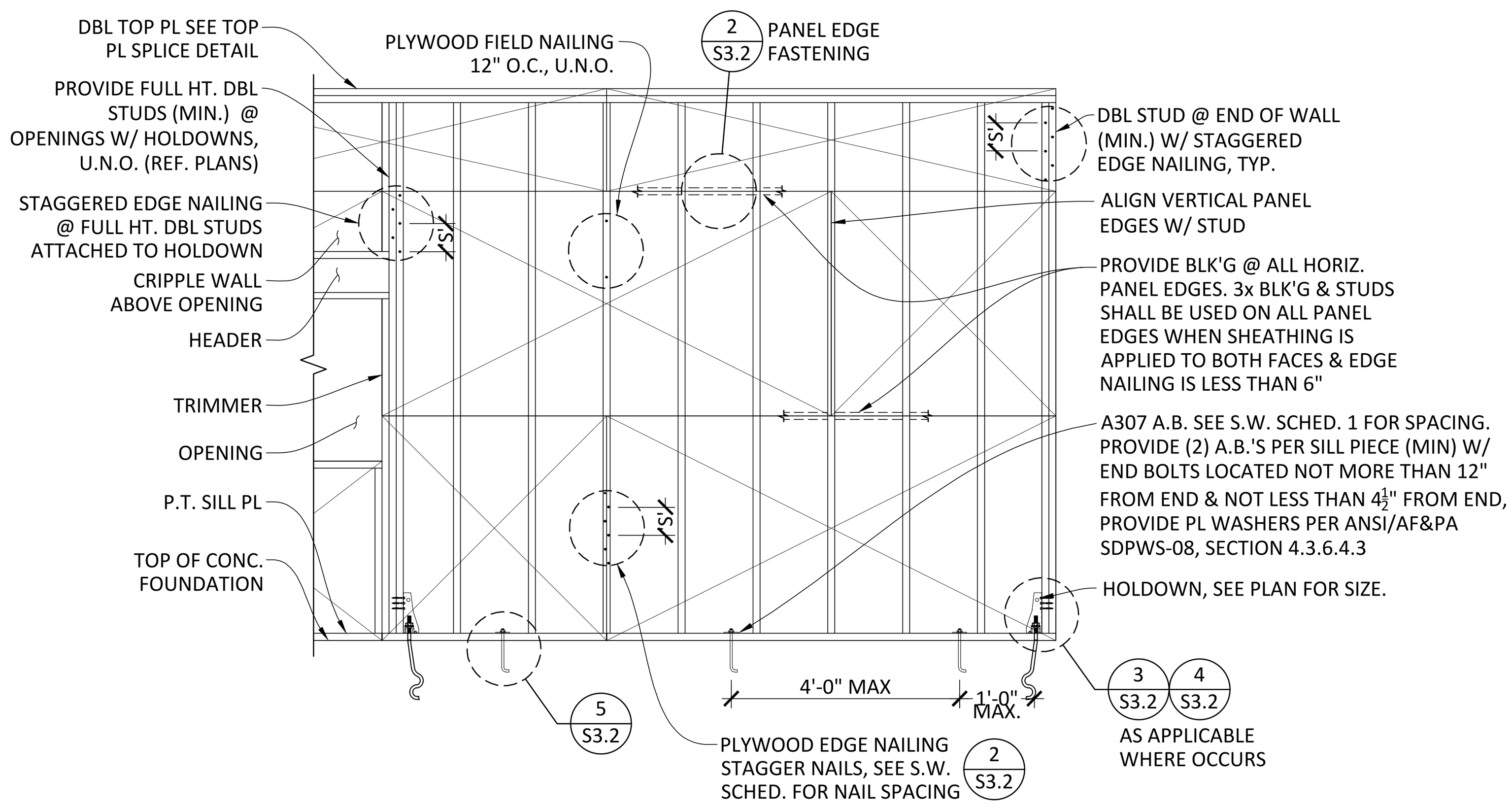
7 S3.02 SIMPSON WSWH INSTALLATION
SCALE: 1"=1'-0"



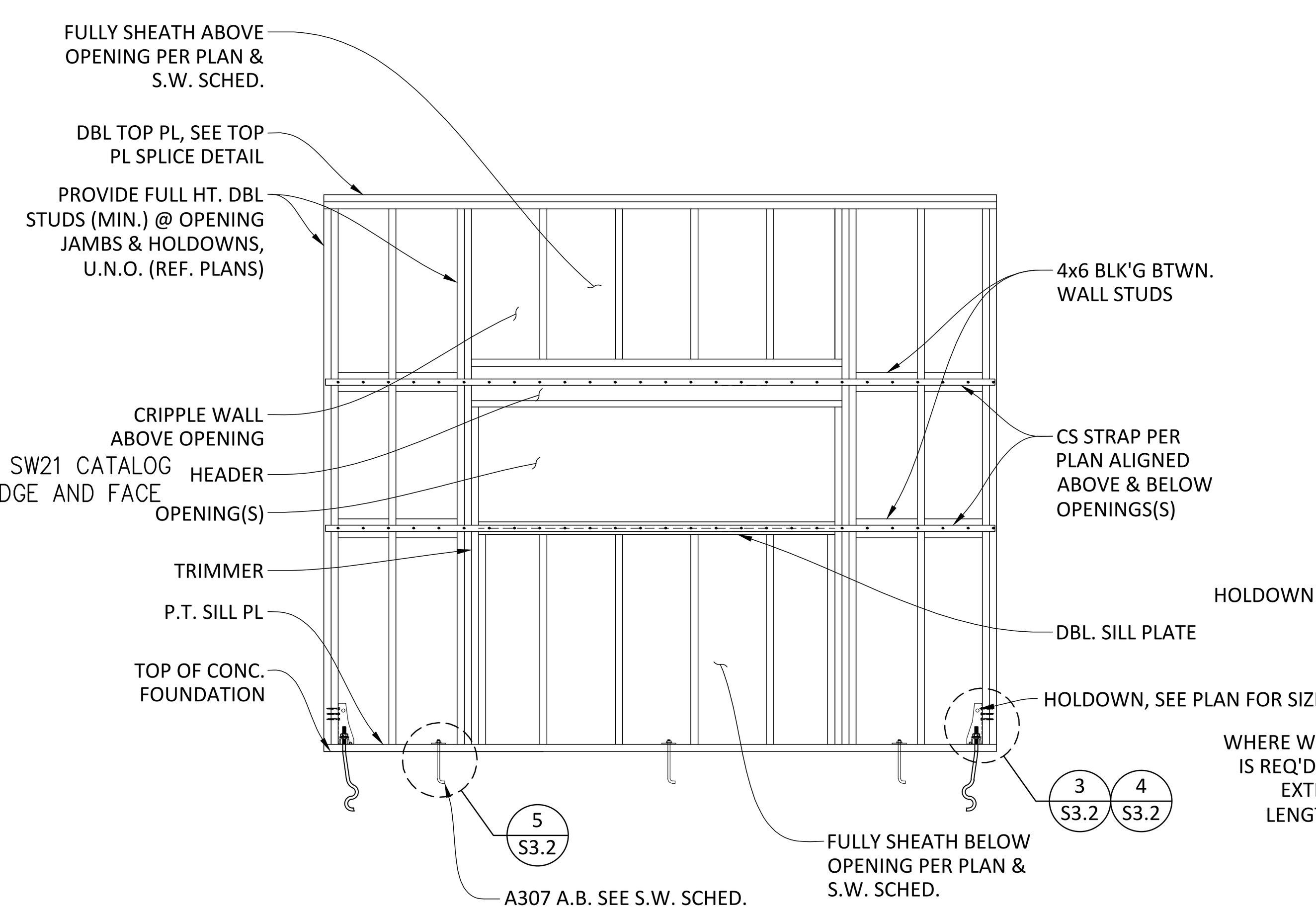
8 S3.02 SIMPSON WSWH BASE CONNECTION
SCALE: 1"=1'-0"



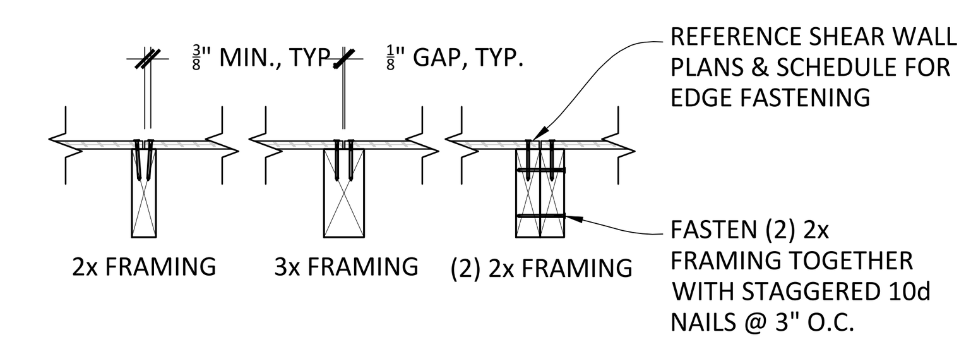
5 S3.02 S.W. SILL PLATE ANCHORAGE
SCALE: 1"=1'-0"



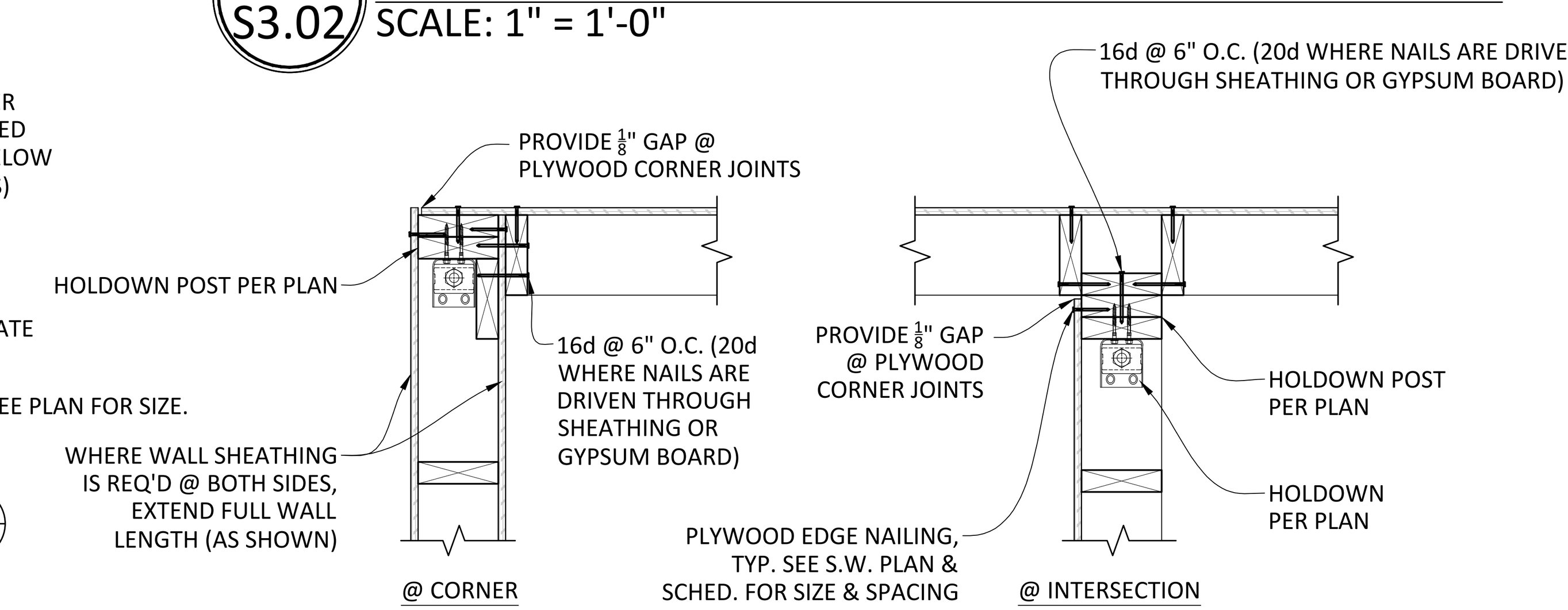
1 S3.02 PLYWOOD SHEAR WALL ELEVATION
SCALE: 1"=1'-0"



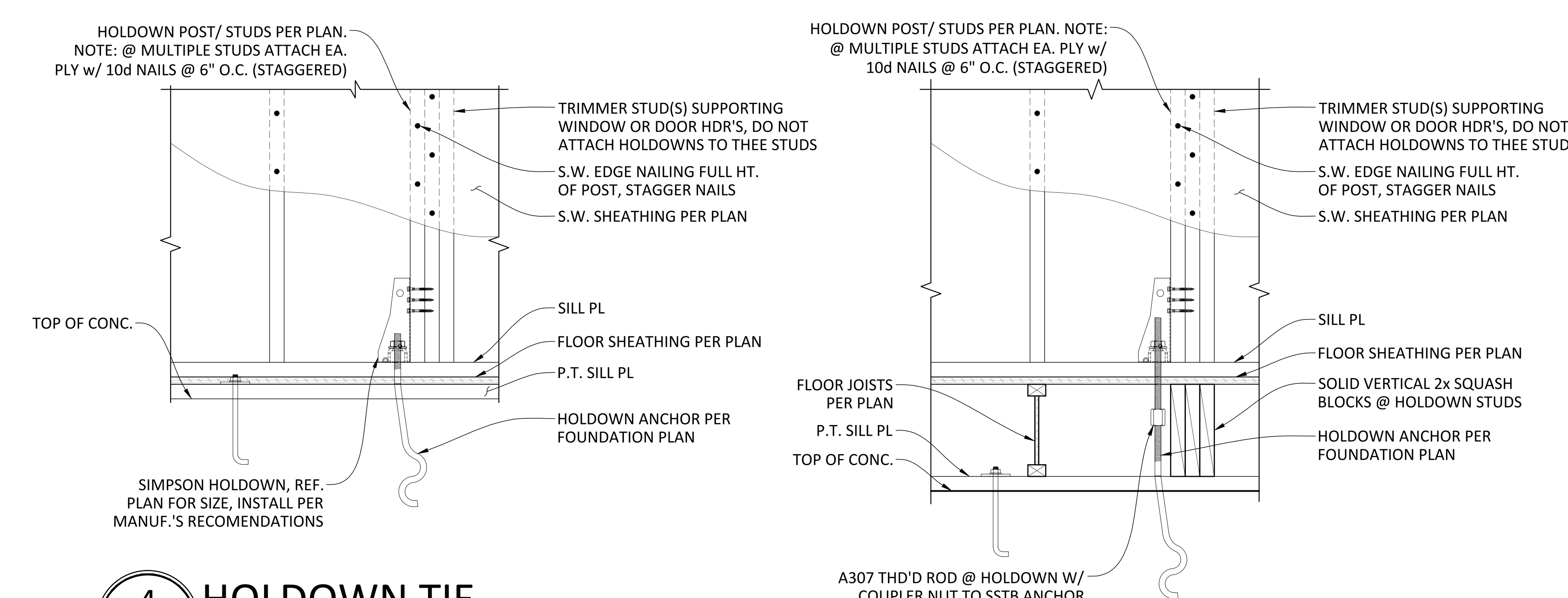
6 S3.02 FORCE TRANSFER AROUND OPENING
SCALE: 1"=1'-0"



2 S3.02 FRAMING @ ADJOINING PANEL EDGES
SCALE: 1" = 1'-0"



3 S3.02 HOLDOWN @ CORNER
SCALE: 1"=1'-0"



4 S3.02 HOLDOWN TIE
SCALE: 1"=1'-0"

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[illegible]
SIGNATURE 04/30/26 EXPIRATION DATE

DRAWING REVISIONS

#	Date	Description

WORTHINGTON MAUI HOUSE
BALDWIN AVENUE
HALIIMAILE, MAKAWAO, MAUI, HAWAII
ROGER WORTHINGTON
PERMIT SET

Drawing Title: SHEAR WALL DETAILS
Drawn By : MS/CED
Project No. WSE JOB #23110
Date : 08/20/2025
Revised : -
Sheet No. S3.02

SHEAR WALL PLAN NOTES

1. IF A.B. SPACING IS GREATER THAN SHEAR WALL, PLACE (1) A.B. WITHIN 12" OF EACH END, UNLESS NOTED OTHERWISE.
2. THE CAPACITY VALUES ARE APPLICABLE TO STUDS OF SPECIES GROUP II (DOUGLAS FIR-SOUTHERN PINE).
3. PANEL EDGES FOR TYPE "1" & "2" WALLS SHALL BE BACKED WITH 2x NOMINAL (MIN.). PANEL EDGES FOR TYPE "3" & "4" WALLS SHALL BE BACKED WITH 3x NOMINAL OR (2) 2x STITCHED TOGETHER W/ 10d NAILS @ 3" OC (STAGGERED).
4. ALL SHEATHING NAILS REFERENCED ARE COMMON WIRE NAILS (i.e. 8d 0.131") SOLE PLATE NAILS REFERENCED ARE TO BE SINKER NAILS (i.e. 16d=0.148"). VALUES OF THEIR STANDARD CONSTRUCTION FASTENERS WILL REQUIRE SPACING ADJUSTMENTS AND MUST BE APPROVED BY WSE PRIOR TO USE. MINIMUM NAIL PENETRATIONS INTO SUPPORT FRAMING. 8d=1.5", 10d=1.625", 16d=1.625".
5. DO NOT PENETRATE SURFACE PLY OF SHEATHING WITH NAIL HEAD.
6. APA RATED WALL SHEATHING C-D, C-C SHEATHING, PLYWOOD PANEL SIDING, OSB, AND OTHER GRADES COVERED IN 2014 OSSC CH. 35 STANDARDS.
7. SHEATHING FACE GRAIN CAN BE APPLIED PERPENDICULAR OR PARALLEL TO STUDS PROVIDED THE STUDS ARE SPACED @ 16" OC OR LESS. WHERE STUDS ARE SPACED GREATER THAN 16" OC APPLY SHEATHING PERPENDICULAR TO STUDS.
8. SHEATHING MAY BE APPLIED AT EITHER SIDE OF WALL UNLESS REQ'D AT BOTH SIDES.
9. WALL SHEATHING MUST BE EDGE NAILED @ STUDS ATTACHED TO HOLDOWNS, FULL HT.
10. PER ANSI/AF&PA SDPWS-08, SECTION 4.3.6.4.3. PROVIDE SIMPSON BPS-6 SLOTTED PLATE WASHERS (OR FABRICATED EQUIVALENT) WITH STANDARD CUT WASHERS BETWEEN PLATE WASHER & NUT. EDGE OF PLATE WASHER SHALL BE WITHIN 1/2" OF EDGE OF SILL PLATE ON THE SIDE WITH SHEATHING (WHERE SHEATHING IS REQUIRED @ BOTH SIDES, ALTERNATE SIDES.)
11. FOUNDATION VENTS ARE ACCEPTABLE UNDER SHEAR WALL TYPES "1" AND "2". ANCHOR BOLTS SHALL BE PLACED 3" CLEAR OF FOUNDATION VENTS. ANY TWO ADJACENT VENTS MUST HAVE AT LEAST 12" OF CONCRETE BETWEEN. ANCHOR BOLT SPACING MAY VARY, BUT SCHEDULED AVERAGE SPACING MUST BE MAINTAINED. FOUNDATION VENTS ARE NOT PERMITTED UNDER SHEAR WALL TYPES "3", "4", & "5".
12. ALL HOLDOWN ANCHOR BOLTS SHOWN ON THE FOUNDATION PLAN REPRESENT A GENERAL LOCATION AND MUST BE VERIFIED BASED ON SPECIFIED POST SIZE WITH RELATION TO THE ROUGH OPENING/EDGE OF WALL LOCATIONS. REFERENCE ARCHITECTURAL DRAWINGS FOR DIMENSIONAL VERIFICATION.

SHEAR WALL SCHEDULE

SYMBOL	SHEATHING/ ATTACHMENT (SEE NOTE 9)	SILL PL & SILL ATTACHMENT TO FOUNDATION	NOTES
1	7/16" SHEATHING w/ 8d @ 6" OC EDGES, 12" OC FIELD. ALL EDGES BLOCKED	2x P.T. SILL PL. w/ 5/8" DIA. x 10" A.B.'S @ 32" OC w/ PLATE WASHERS PER NOTE 10	-SILL PLATE- SILL TO RIM - 16d @ 6" OC RIM TO PLATE - SIMPSON A35 CLIPS @ 32" OC
2	7/16" SHEATHING w/ 8d @ 4" OC EDGES, 12" OC FIELD. ALL EDGES BLOCKED	2x P.T. SILL PL. w/ 5/8" DIA. x 10" A.B.'S @ 24" OC w/ PLATE WASHERS PER NOTE 10	-SILL PLATE- SILL TO RIM - 16d @ 6" OC RIM TO PLATE - SIMPSON A35 CLIPS @ 20" OC
3	7/16" SHEATHING w/ 8d @ 3" OC EDGES, 12" OC FIELD. ALL EDGES BLOCKED	2x P.T. SILL PL. w/ 5/8" DIA. x 10" A.B.'S @ 16" OC w/ PLATE WASHERS PER NOTE 10	-SILL PLATE- SILL TO RIM - 16d @ 3" OC RIM TO PLATE - SIMPSON A35 CLIPS @ 9" OC
4	7/16" SHEATHING w/ 8d @ 4" OC EDGES, 12" OC FIELD. ALL EDGES BLOCKED	2x P.T. SILL PL. w/ 5/8" DIA. x 10" A.B.'S @ 16" OC w/ PLATE WASHERS PER NOTE 10	-SILL PLATE- SILL TO RIM - LTP4 @ 9" OC RIM TO PLATE - SIMPSON LTP4 @ 9" OC
5	BOTH SIDES 7/16" SHEATHING w/ 8d @ 4" OC EDGES, 12" OC FIELD. ALL EDGES BLOCKED	4x PT SILL PL W/ 5/8" DIA x 10" A.B.'S @ 12" OC	-SILL PLATE- SILL TO RIM - LTP4 @ 8" OC RIM TO PLATE - SIMPSON LTP4 @ 8" OC (SEE NOTE 7)

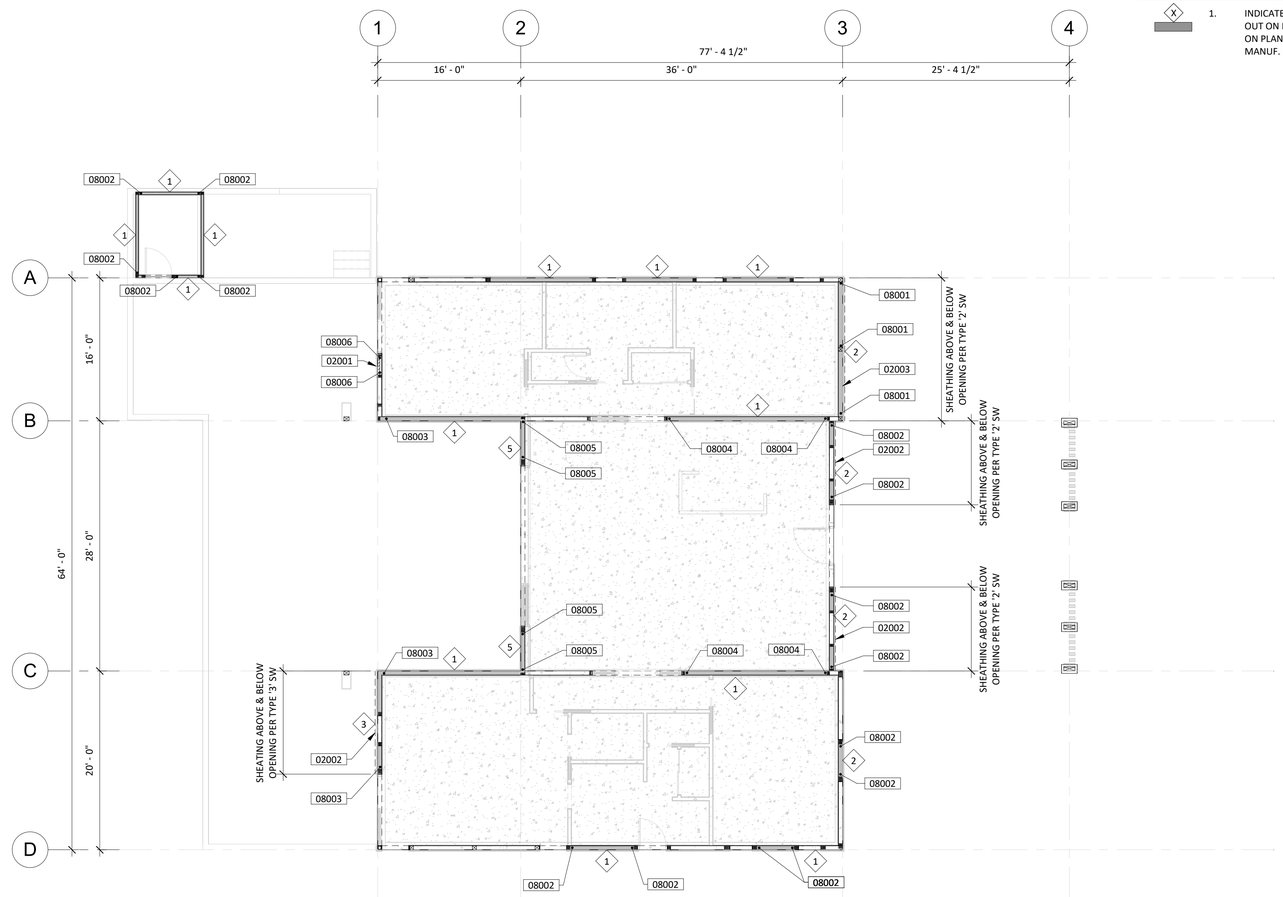
KEYNOTES IN-USE

02001	SIMPSON WSWH24 SHEAR WALL (TRIM HEIGHT TO FIT). ATTACH TO DBL TOP PL W/ STANDARD OR ALTERNATE TOP CONNECTION PER MANUF SPECS (REF SIMPSON CATALOG C-L-WSW21 & DETAIL 10/S3.02)
02002	CS16 STRAP ON FLAT 4x6 BLK'G BTWN WALL STUDS, ABOVE & BELOW OPENING
02003	CS16 STRAP FULL LENGTH OF WALL, ABOVE & BELOW OPENING
08001	HDU2 ON POST W/ SB5/8x24
08002	HDU2 ON (2) KING STUDS W/ SB5/8x24
08003	HDU4 ON (2) KING STUDS W/ SB5/8x24
08004	HDU4 ON (2) KING STUDS W/ SB5/8x24
08005	HDU14 ON (3) KING STUDS W/ PAB8 W/ 10" EMBED BELOW TOP OF SPREAD FOOTING
08006	WSWH-AB1 ANCHOR BOLT THRU STEM WALL W/ 12" EMBED BELOW TOP OF FOOTING. USE ANCHOR BOLT TEMPLATE & ENCLOSE BOLTS W/ (2) #3 TIES AT TOP OF STEM WALL (REF SIMPSON CATALOG C-L-WSW21)

LEGEND - SHEAR WALL

X

1. INDICATES EXTENT OF SHEAR WALL. PROVIDE HOLDOWNS AS CALLED OUT ON PLANS @ EACH END OF SHEAR WALL. HOLDOWNS INDICATE ON PLANS ARE BY "SIMPSON STRONG-TIE CO." INSTALL AS PER MANUF. RECOMMENDATIONS.



ALL HOLDOWN ANCHOR BOLTS SHOWN ON THE PLAN REPRESENT A GENERAL LOCATION AND MUST BE VERIFIED BASED ON SPECIFIED POST SIZE WITH RELATION TO THE ROUGH OPENING/EDGE OF WALL LOCATIONS. REFERENCE ARCHITECTURAL DRAWINGS FOR DIMENSIONAL VERIFICATION. IT IS THE GENERAL CONTRACTOR'S RESPONSIBILITY TO ENSURE THESE ARE PLACED PRIOR TO THE FOUNDATION POUR - EPOXIED ANCHOR BOLTS ARE NOT AN EQUAL SUBSTITUTE. FAILURE TO PLACE HOLDOWN ANCHOR BOLTS IN THE CORRECT LOCATION WILL LIKELY RESULT IN CUTTING/REMOVAL OF FOUNDATION ELEMENTS, DOWELING AND REPOUR OF AREAS REMOVED. ADDITIONAL FEES MAY INCUR REDESIGNING OF FOUNDATIONS AND REPLACEMENT HOLDOWNS.

1 / S3.11 MAIN FLOOR SHEAR WALL PLAN

1/8" = 1'-0"

BEND
2863 NW Crossing Dr.
Suite 201
Bend, Oregon 97703
Tel: 541-330-6869

BOISE
950 Bannock St.
Suite 1100
Boise, Idaho 83702
Tel: 541-330-6869

WALKER
STRUCTURAL ENGINEERING LLC.

Stamp

JOH L. WALKER
LICENSED PROFESSIONAL ENGINEER
No. 14440-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WAS BE UNDER MY OBSERVATION.

04/30/26
SIGNATURE EXPIRATION DATE

DRAWING REVISIONS

#	Date	Description
D	08/20/2025	PERMIT REVISIONS

Worthington Residence (Maui)

MAUI, HAWAII

PERMIT SET

Drawing Title: MAIN FLOOR SHEAR WALL PLAN

Date : 08/20/2025

Revised :

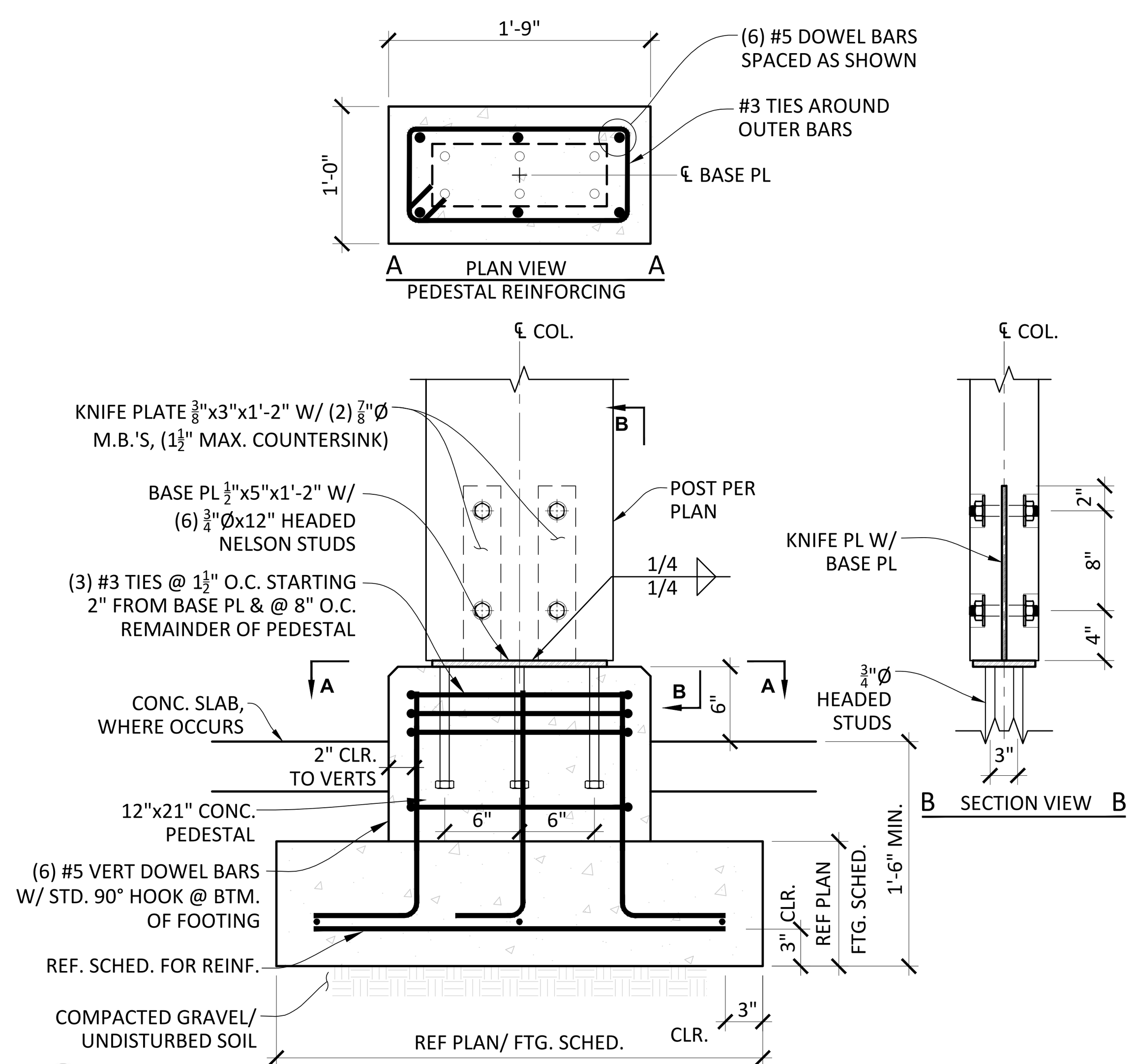
Drawn By: TF

Project No. WSE JOB #23110

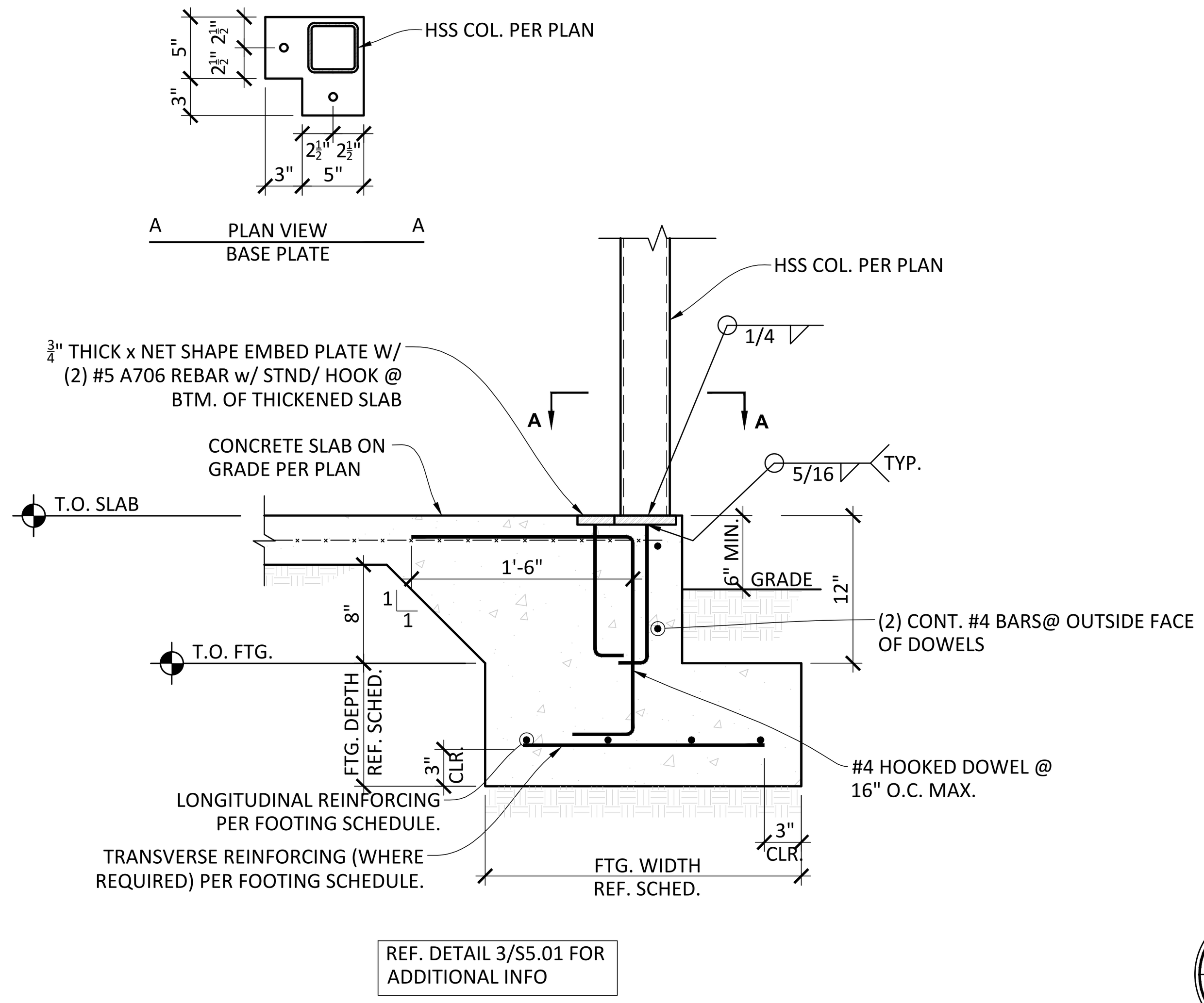
Sheet No. S3.11

WSE Structural

8/27/2025 4:18:11 PM



9 S5.01 EXTERIOR POST @ FTG. W/ KNIFE PL
SCALE: 1"=1'-0"



7 S5.01 HSS COLUMN TO PERIMETER FOOTING
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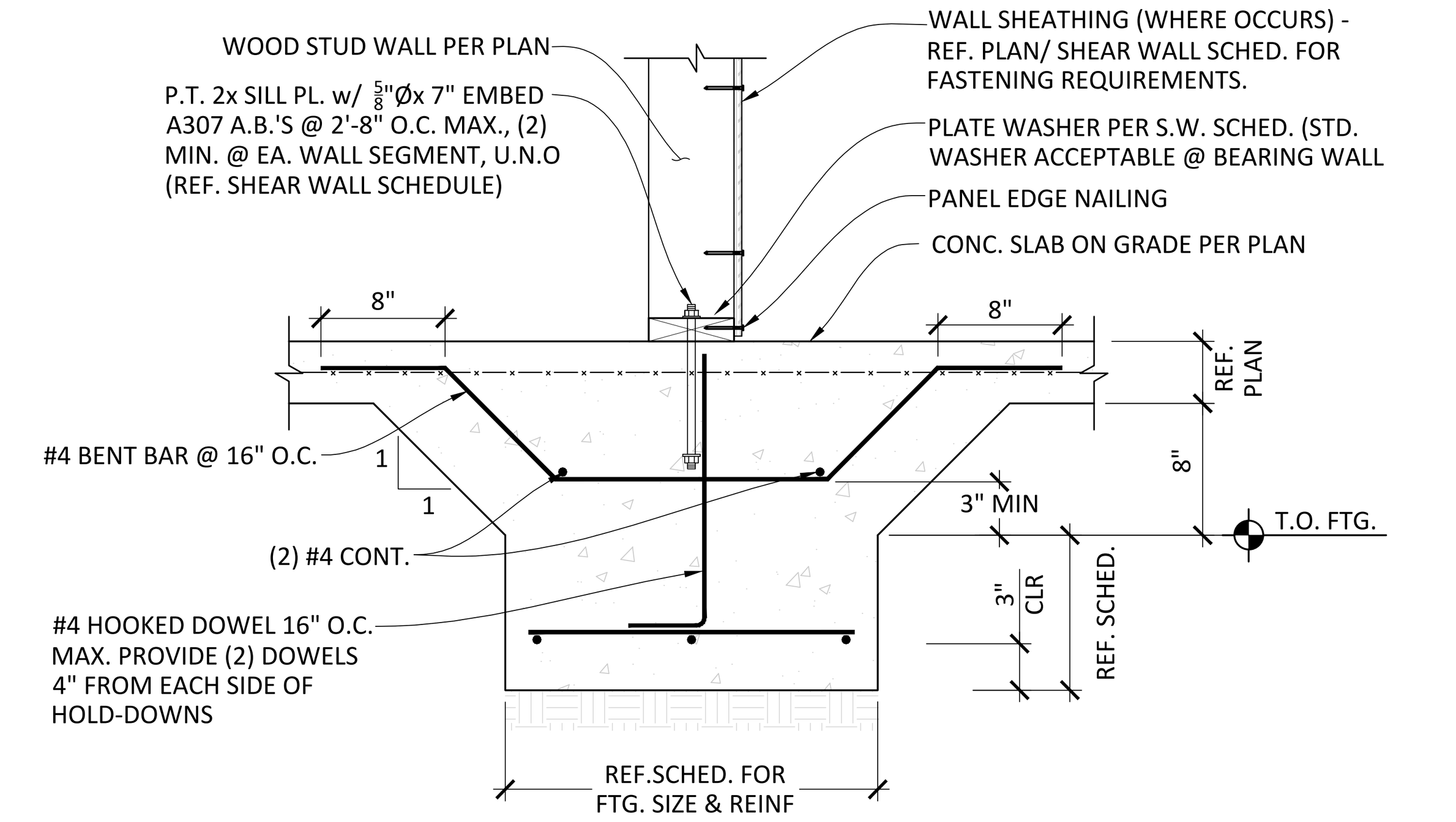

4 S5.01 INTERIOR BEARING/SHEAR WALL FOOTING
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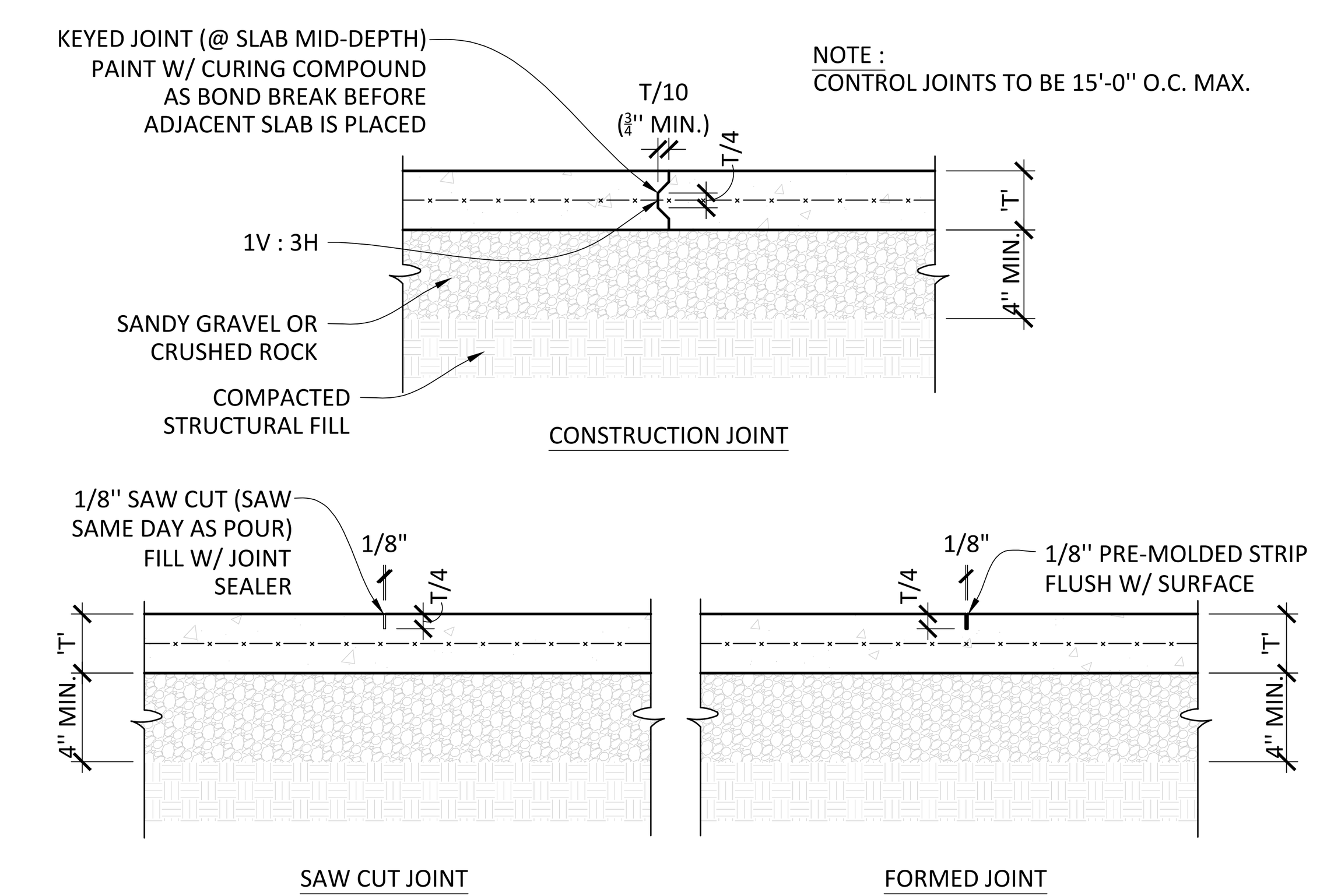

1 S5.01 TYPICAL SLAB ON GRADE
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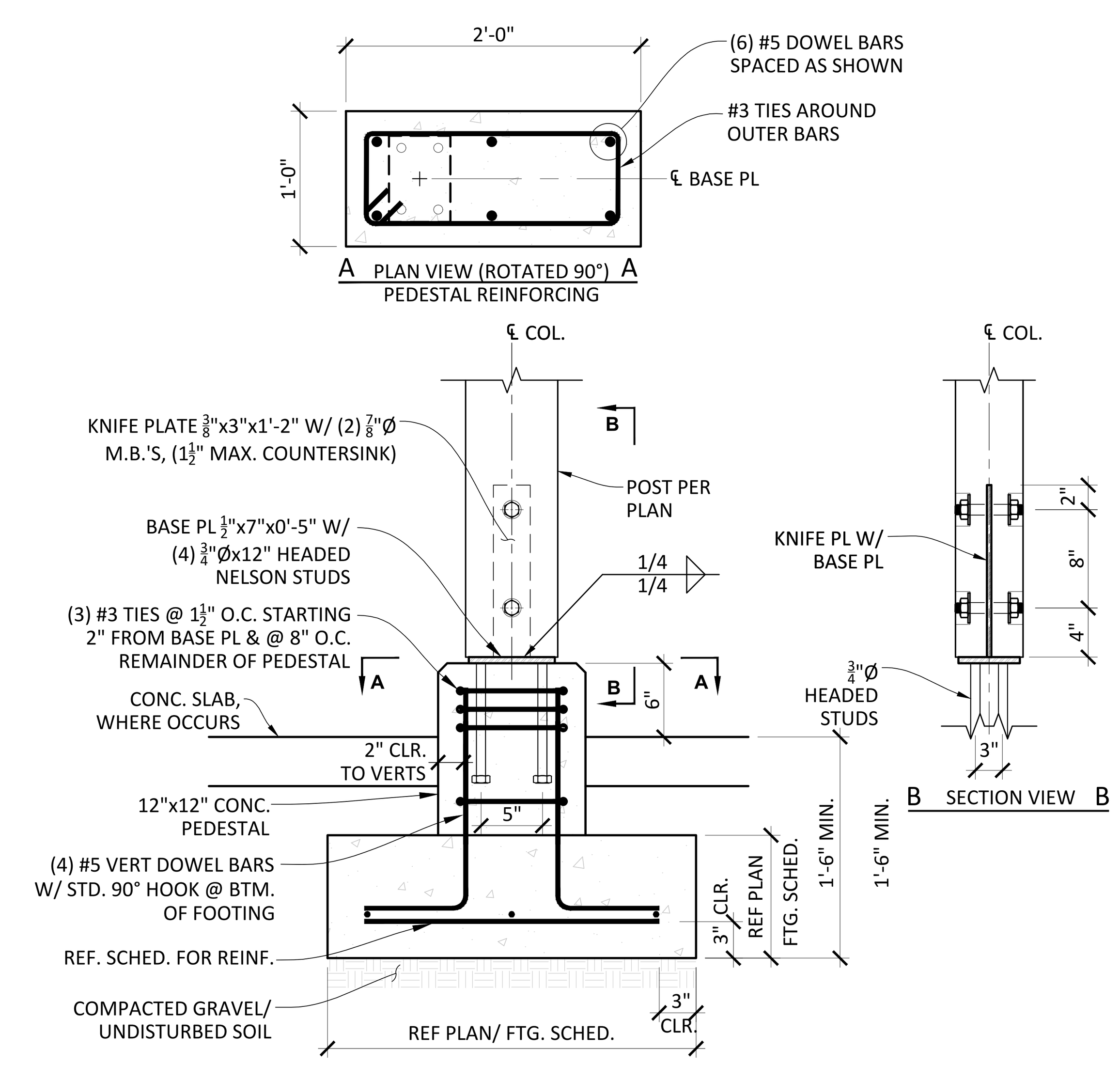
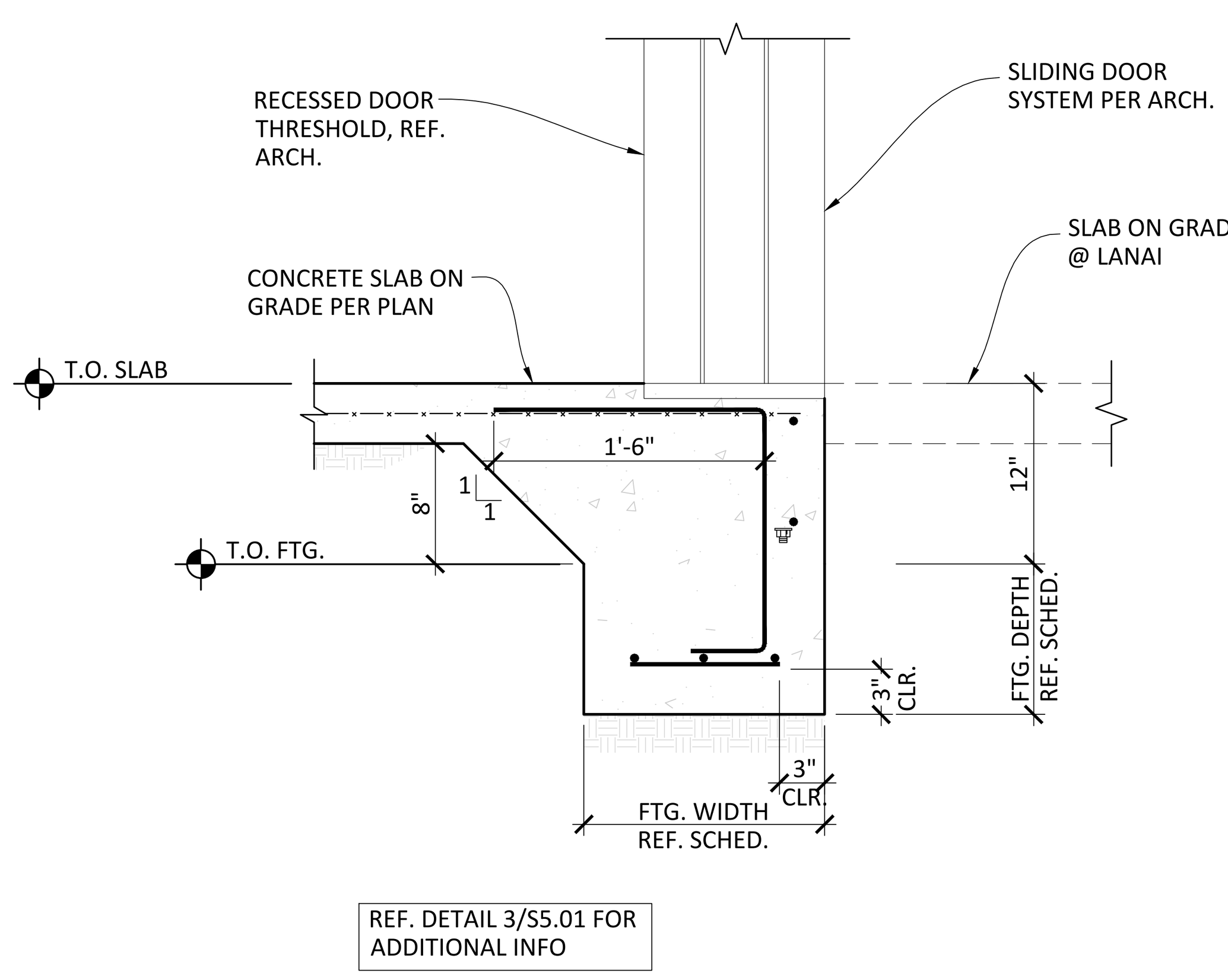


10 S5.01 EXTERIOR POST @ FTG. W/ KNIFE PL
SCALE: 1"=1'-0"



8 S5.01 FOOTING @ OPENING TO LANAI
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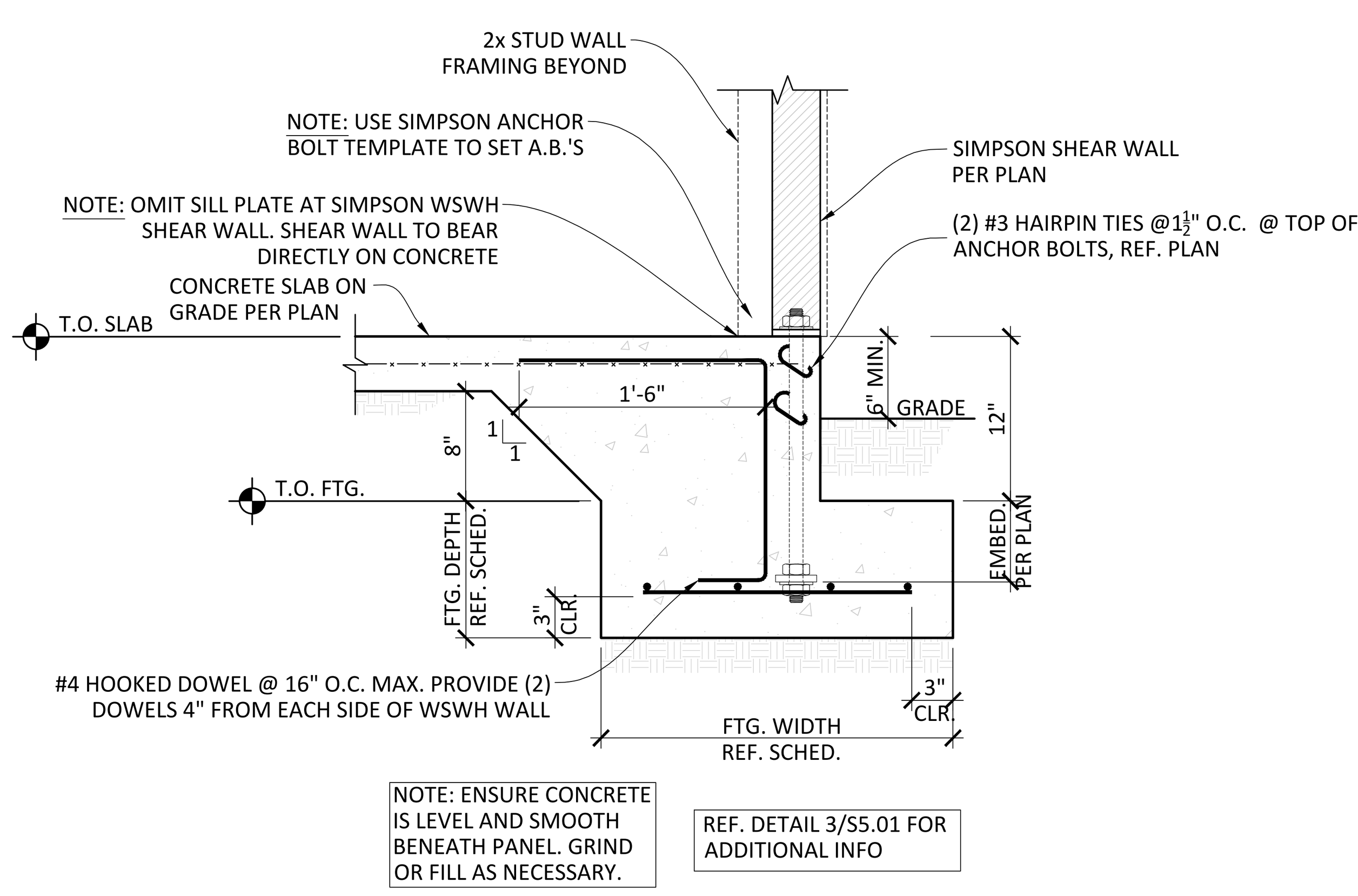

5 S5.01 SIMPSON WSWH @ PERIMETER FOOTING
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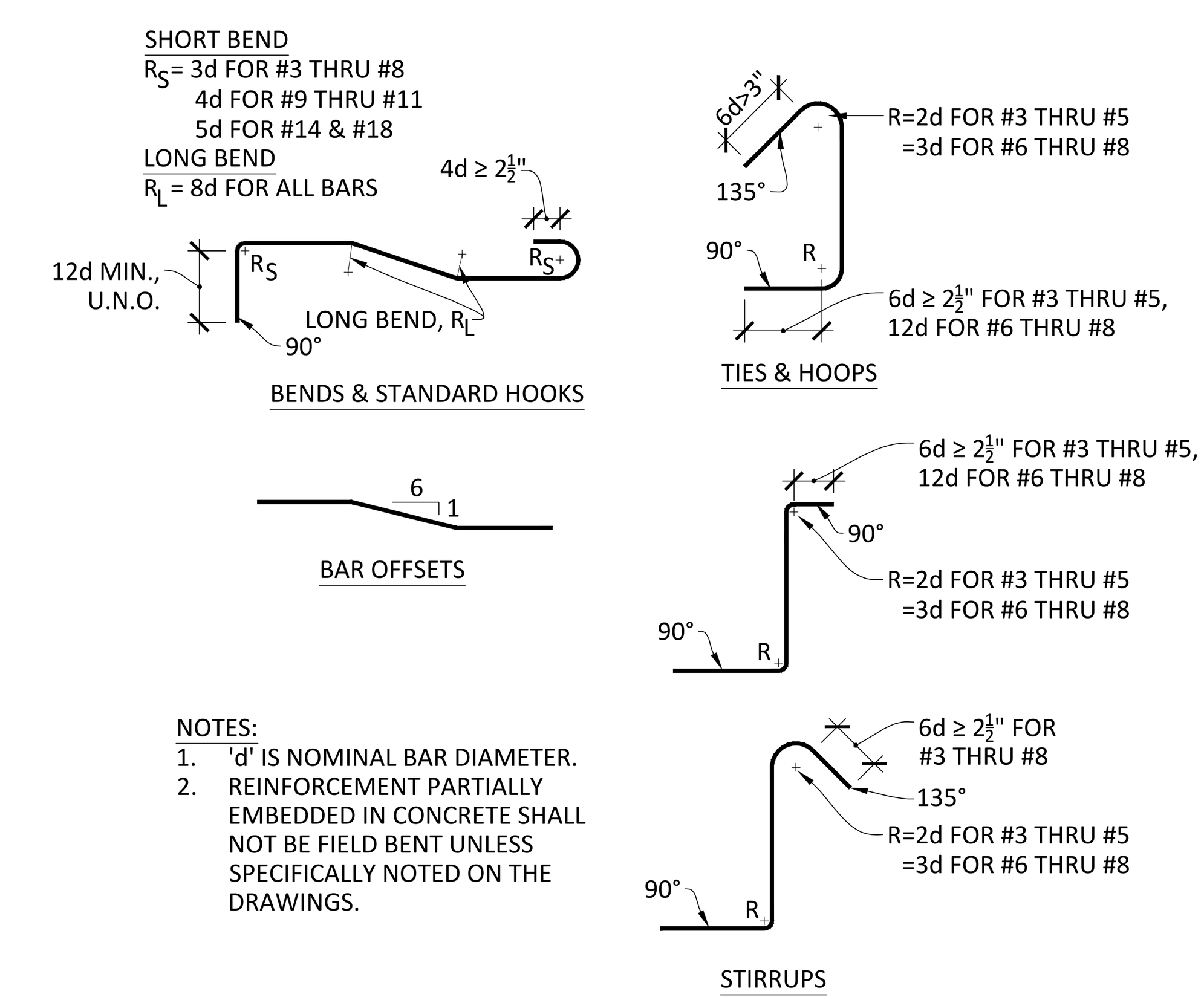
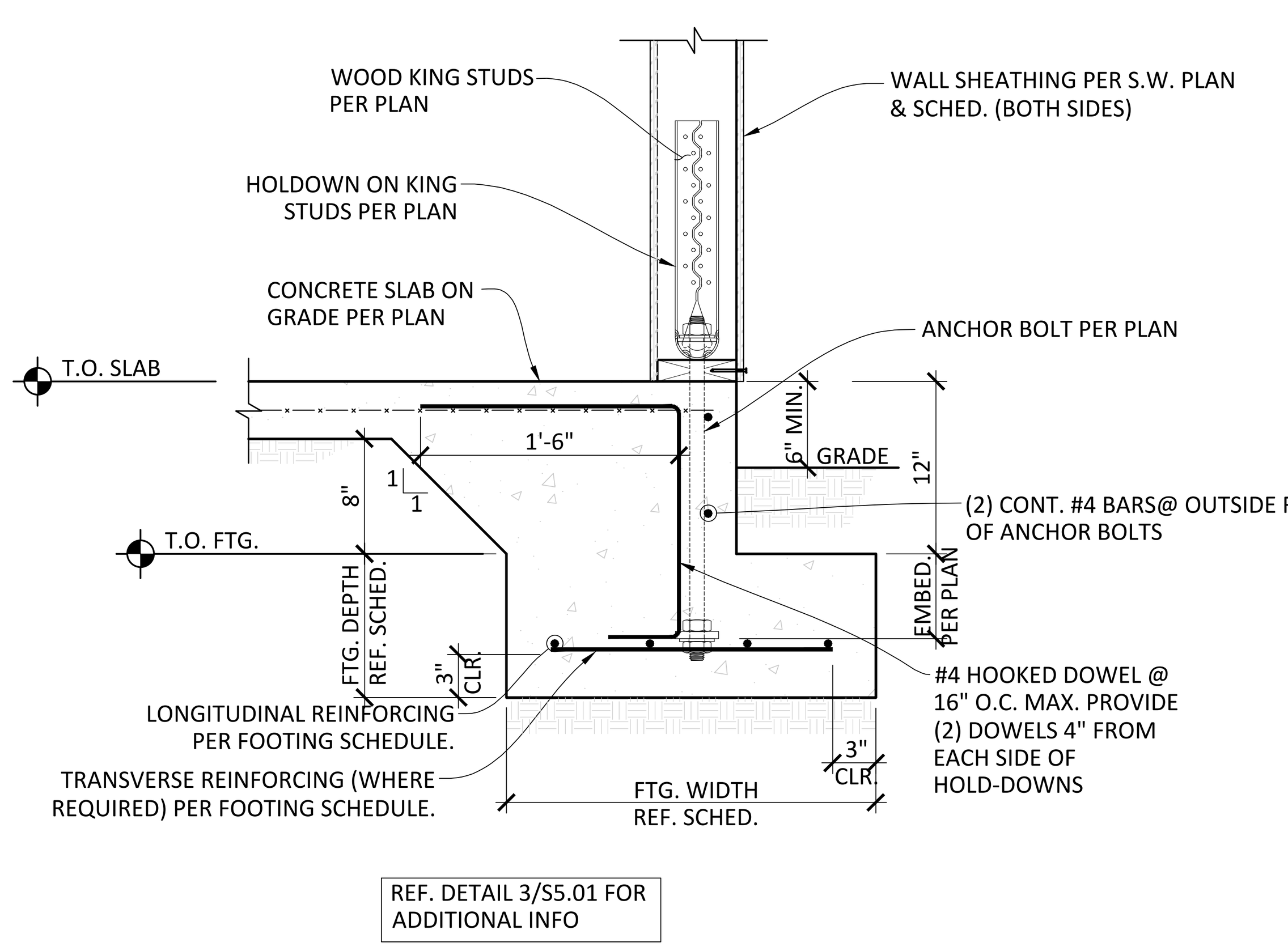


2 S5.01 REINF. HOOKS & BENDS
SCALE: AS NOTED



6 S5.01 FOUNDATION @ TYPE "5" SHEAR WALL
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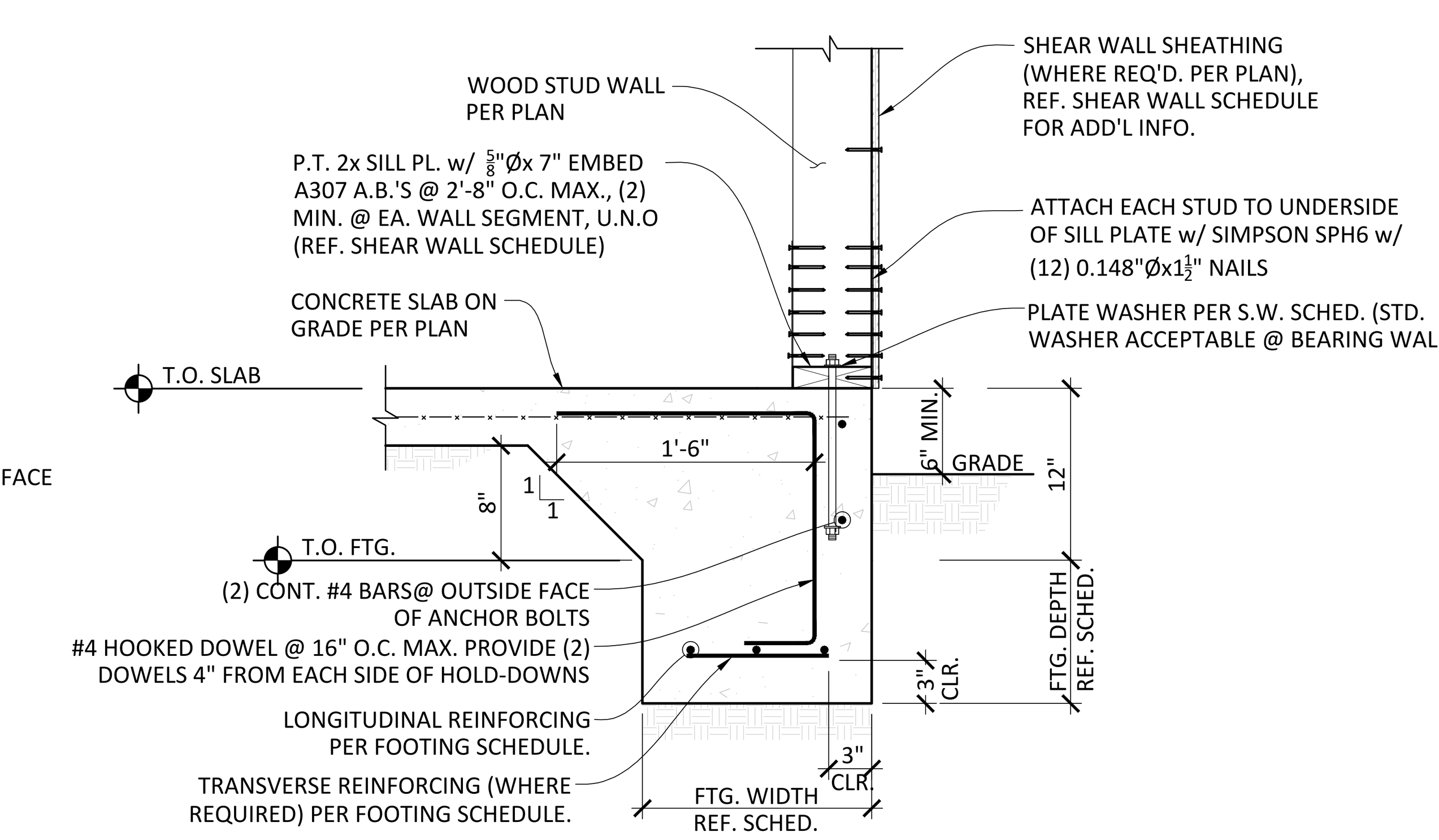


3 S5.01 TYPICAL PERIMETER FOOTING
SCALE: 1"=1'-0"

BEND
2863 NW Crossing Dr.
Suite 201
Bend, Oregon 97703
Tel: 541-330-6869

BOISE
950 Bannock St.
Suite 1100
Boise, Idaho 83702
Tel: 541-330-6869

STRUCTURAL ENGINEERING LLC.

Stamp
JON L. WALKER
LICENSED PROFESSIONAL ENGINEER
No. 14440-S
HAWAII U.S.A.
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.
[illegible] 04/30/26
SIGNATURE EXPIRATION DATE

DRAWING REVISIONS

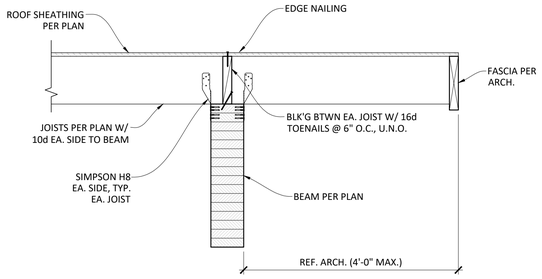
#	Date	Description
D	08/20/2025	PERMIT REVISIONS

WORTHINGTON MAUI HOUSE
BALDWIN AVENUE
HALIIMAILE, MAKAWAO, MAUI, HAWAII
ROGER WORTHINGTON
PERMIT SET

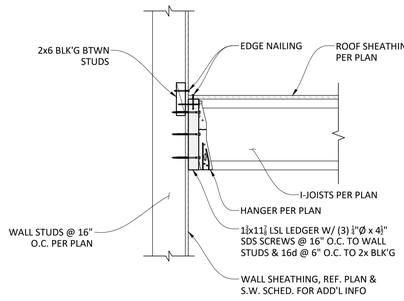
Drawing Title:
FOUNDATION DETAILS

Date : 08/20/2025
Drawn By : MS/CED
Revised : -
Project No. WSE JOB #23110

Sheet No.
S5.01



10 S6.01 ROOF JOIST TO BEAM @ OVERHANG
SCALE: 1"=1'-0"



7 S6.01 LEDGER TO BALLON FRAME WALL
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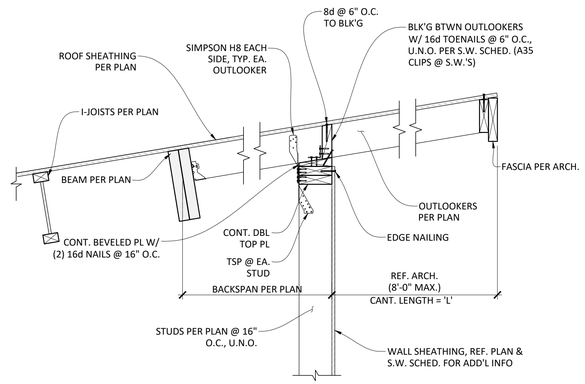

4 S6.01 OUTLOOKERS @ LOW EAVE
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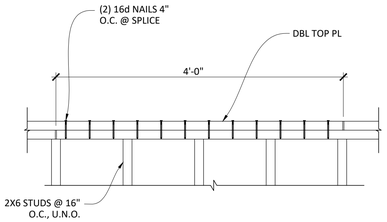

1 S6.01 TYPICAL TOP PLATE SPLICE
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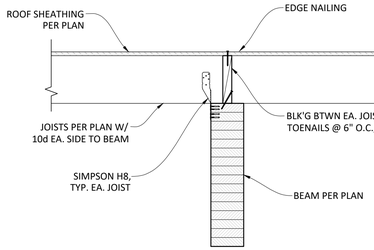
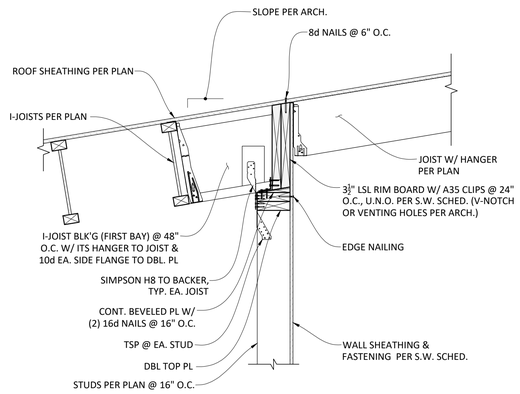
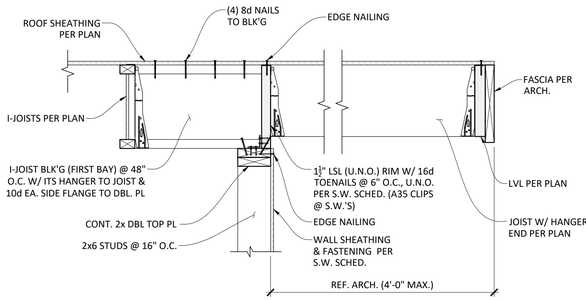


11 S6.01 ROOF JOIST PERP. TO BEAM
SCALE: 1"=1'-0"



8 S6.01 I-JOIST @ HIGH EAVE
SCALE: 1"=1'-0"



5 S6.01 I-JOISTS PARALLEL @ OVERHANG
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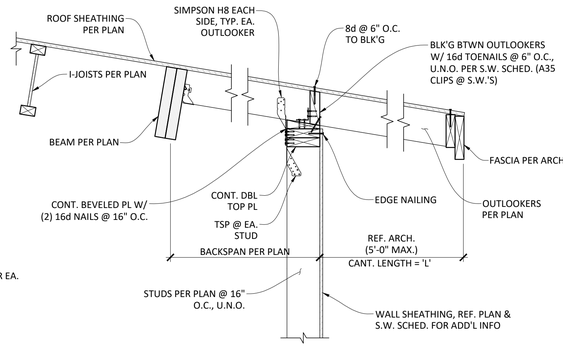

2 S6.01 OUTLOOKERS @ LOW EAVE
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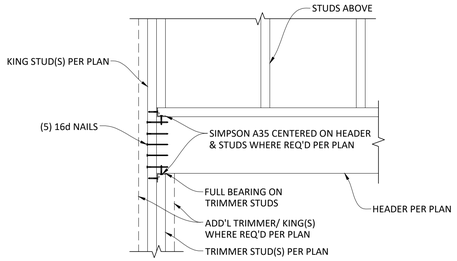

1 S6.02 TYPICAL JAMB CONNECTION DETAIL
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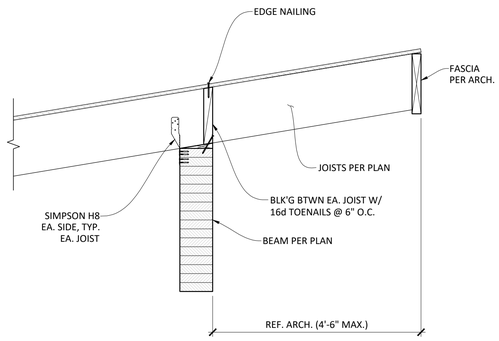

9 S6.01 ROOF JOIST @ BEAM
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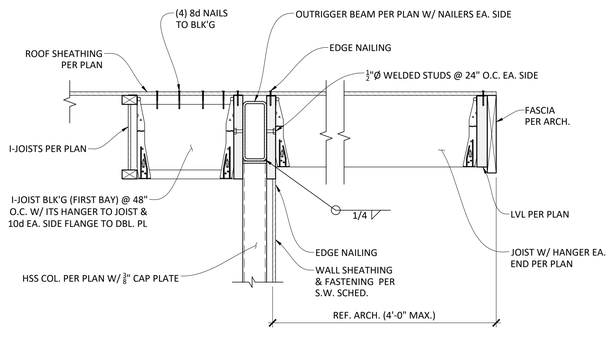
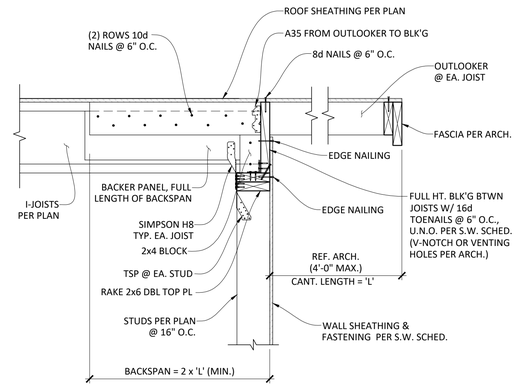


6 S6.01 I-JOISTS PARALLEL @ HSS OUTRIGGER
SCALE: 1"=1'-0"



3 S6.01 TYPICAL I-JOIST @ EAVE (RAKE WALL)
SCALE: 1"=1'-0"

BEND
2863 NW Crossing Dr.
Suite 201
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950 W. Bannock St.
Suite 1100
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Tel: 541-330-6869

WALKER
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JON L. WALKER
LICENSED PROFESSIONAL ENGINEER
No. 14440-S
HAWAII, U.S.A.

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Stamp
04/30/26
SIGNATURE EXPIRATION DATE

DRAWING REVISIONS

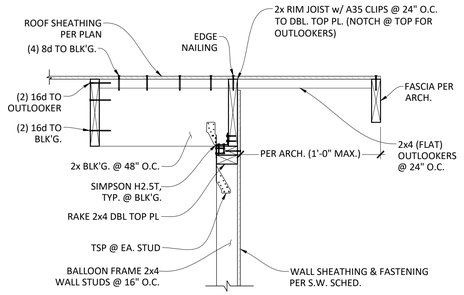
#	Date	Description

WORTHINGTON MAUI HOUSE
BALDWIN AVENUE
HALIIMAILE, MAKAWAO, MAUI, HAWAII
ROGER WORTHINGTON

PERMIT SET

Drawing Title: FRAMING DETAILS
Drawn By: MS/CED
Project No. WSE JOB #23110
Date: 08/20/2025
Revised: -

Sheet No.
S6.01



4 S6.02 2x RAFTER @ GABLE END
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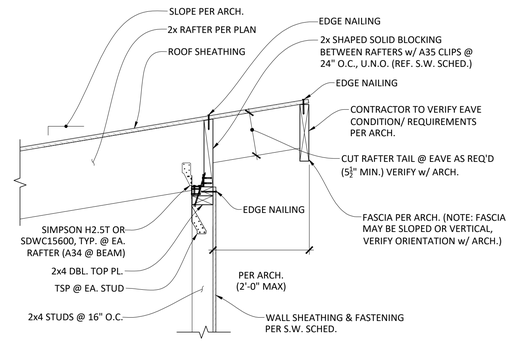

1 S6.02 2x RAFTER @ HIGH EAVE (SLOPE OPPOSITE @ LOW EAVE @ SIM)
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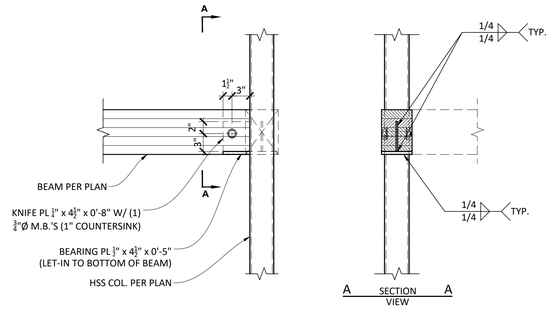

2 S6.02 BEAM/HEADER TO HSS COL. W/ KNIFE PL
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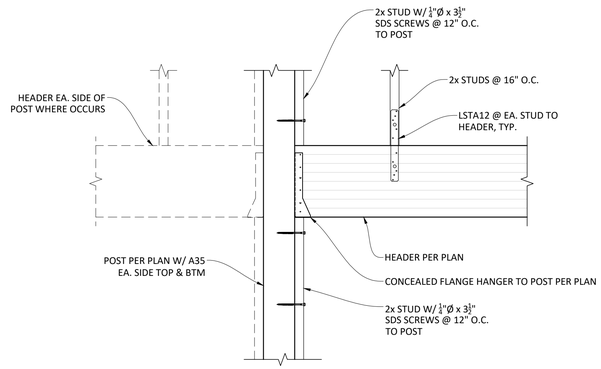

3 S6.02 HEADER CONNECTION @ FULL HT. POST
SCALE: 1" = 1'-0"

BEND
2863 NW Crossing Dr.
Suite 201
Bend, Oregon 97703
Tel: 541-330-6869

BOISE
950 W. Bannock St.
Suite 1100
Boise, Idaho 83702
Tel: 541-330-6869

WALKER
STRUCTURAL ENGINEERING LLC.

Stamp
JON L. WALKER
LICENSED PROFESSIONAL ENGINEER
No. 14440-S
HAWAII, U.S.A.
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SIGNATURE 04/30/26 EXPIRATION DATE

DRAWING REVISIONS

#	Date	Description
1	08/20/2025	PERMIT REVISIONS

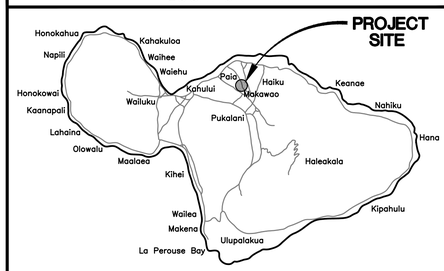
WORTHINGTON MAUI HOUSE
BALDWIN AVENUE
HALIIMAILE, MAKAWAO, MAUI, HAWAII
ROGER WORTHINGTON
PERMIT SET

Drawing Title: FRAMING DETAILS
Drawn By: MS/CED
Project No. WSE JOB #23110
Date : 08/20/2025
Revised : -

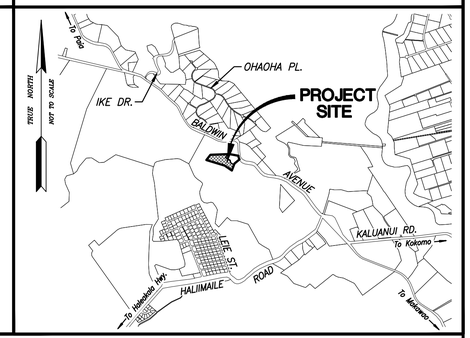
Sheet No.
S6.02

WSE Structural

LOCATION MAP



VICINITY MAP



OTOMO
ENGINEERING, INC.
CONSULTING CIVIL ENGINEERS
305 S. HIGH STREET, STE. 102
WAILUKU, MAUI, HAWAII 96793
PHONE: (808) 242-0032

STACY A. OTOMO
LICENSED PROFESSIONAL ENGINEER
No. 5115-C
HAWAII, U.S.A.

LICENSE EXPIRES: 4-30-26

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Stacy A. Otomo — 8-20-25
SIGNATURE — DATE

NOTE: THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AT THE JOB SITE BEFORE PROCEEDING WITH THE WORK.

WORTHINGTON RESIDENCE

T.M.K: (2) 2-5-003: 040

HALIIMAILE, MAKAWAO, MAUI, HAWAII

GRADING PLAN

TRUE NORTH
SCALE: 1 IN. = 40 FT.

TMK: (2) 2-5-003: 030
TMK: (2) 2-5-003: 039
TMK: (2) 2-5-003: 041
TMK: (2) 2-5-003: 042
TO PAIA
BALDWIN AVENUE
TO MAKAWAO
EXT'G ACCESS & UTILITY EASEMENT AU-2
EXT'G UTILITY EASEMENT U-4
EXT'G ACCESS & UTILITY EASEMENT AU-1
EXT'G NON-EXCLUSIVE PERPETUAL EASEMENT U-31
EXT'G NON-EXCLUSIVE PERPETUAL EASEMENT U-32
EXT'G ACCESS & UTILITY EASEMENT AU-3
EXT'G ACCESS & UTILITY EASEMENT AU-4
UNIT A
UNIT B
LOT 3
TMK: (2) 2-5-003: 040
SEPTIC TANK
DRAIN FIELD AND WASTE LINES
15' SETBACK
25' SETBACK
SEE INSET SHT. 2
BENCHMARK
"X" ON FIRE HYDRANT
ELEV.=1,032.38 FT. (M.S.L.)

GRADING PLAN
SCALE: 1 IN. = 40 FT.

APPROXIMATE EARTHWORK QUANTITIES

THE EARTHWORK QUANTITIES SHOWN HEREIN ARE FOR SECURING THE GRADING PERMIT ONLY. THE CONTRACTOR SHALL VERIFY THE QUANTITIES AND COMPLETE THE GRADING AS SHOWN ON THE PLAN.

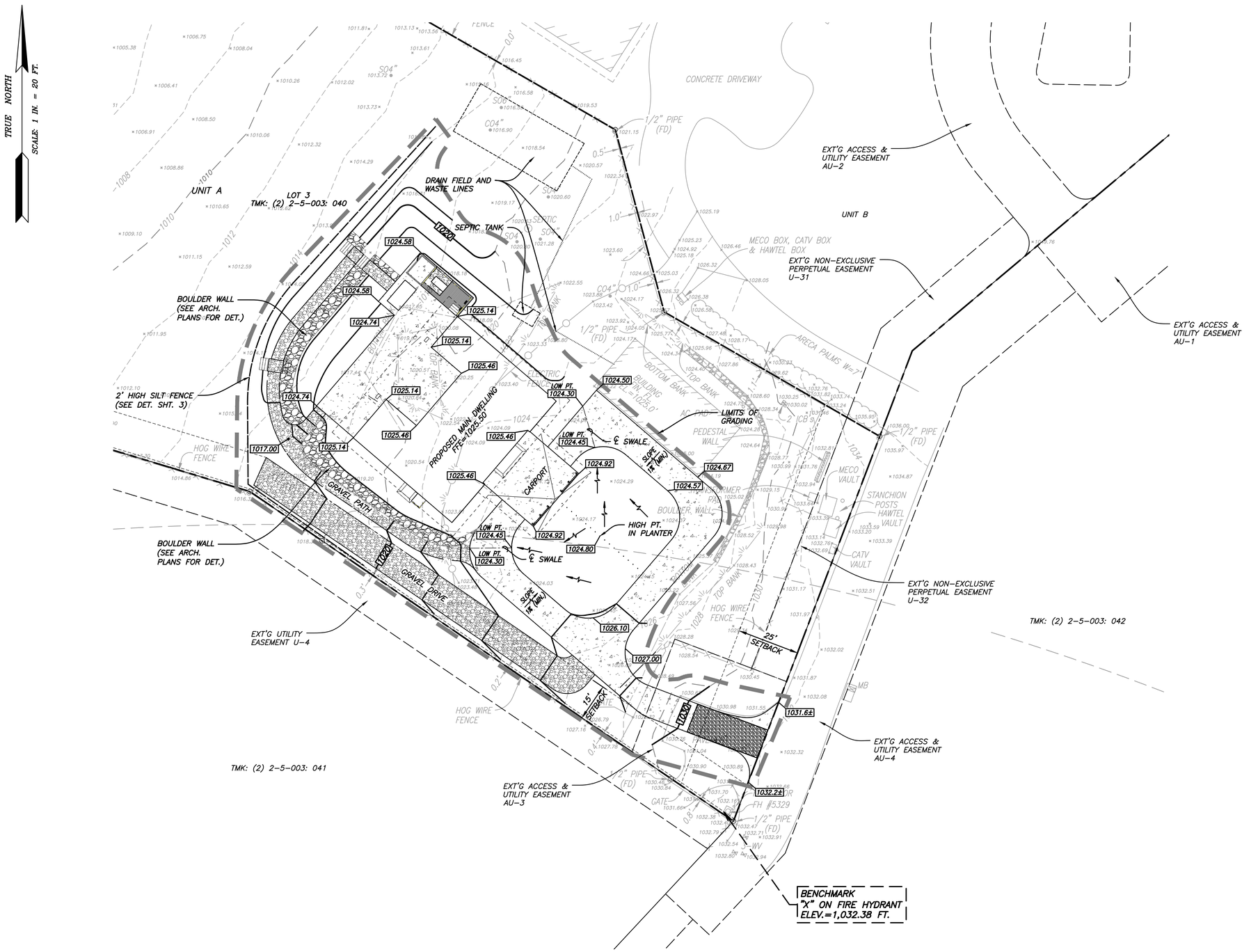
CLEARING AND GRUBBING = 0.5 ACRES±
EMBANKMENT = 1,778 C.Y.
EXCAVATION = 48 C.Y.

REVISION	DATE	NOTE
1		
2		
3		
4		
5		
6		
7		

DESIGNED BY: S.A.O.
DRAWN BY: L.C.O.
PROJECT NO.: 2025-10
DRAWING NAME: GRAD-00
DATE: 8-20-25

SHEET NO.
C-1
OF SHEETS

C:\2025 PROJECTS\2025-10 Worthington Residence\CONSTRUCTION PLANS\GRAD-00.dwg Aug 20, 2025 - 2:46pm



INSET – GRADING PLAN

SCALE: 1 IN. = 20 FT.

OTOMO ENGINEERING, INC.
CONSULTING CIVIL ENGINEERS
305 S. HIGH STREET, STE. 102
WAILUKU, MAUI, HAWAII 96793
PHONE: (808) 242-0032

STACY A. OTOMO
LICENSED PROFESSIONAL ENGINEER
No. 5115-C
HAWAII, U.S.A.

LICENSE EXPIRES: 4-30-26

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION. ("OBSERVATION OF CONSTRUCTION" AS DEFINED UNDER SECTION 16-115-2 OF THE HAWAII ADMINISTRATIVE RULES, PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS, AND LANDSCAPE ARCHITECTS.)

Stacy A. Otomo — 8-20-25
SIGNATURE — DATE

NOTE: THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AT THE JOB SITE BEFORE PROCEEDING WITH THE WORK.

WORTHINGTON RESIDENCE

T.M.K: (2) 2-5-003: 040

HALIIMAILE, MAKAWAO, MAUI, HAWAII

INSET – GRADING PLAN

REVISION	DATE	NOTE
1		
2		
3		
4		
5		
6		
7		

DESIGNED BY:	S.A.O.
DRAWN BY:	L.C.O.
PROJECT NO.:	2025-10
DRAWING NAME:	GRAD-00
DATE:	8-20-25

SHEET NO.

C-2

OF SHEETS

GRADING

1. The Contractor shall obatain a "Grading Permit" from the Development Services Administration, Department of Public Works and Environmental Management, four (4) weeks prior to commencement of any clearing and grubbing. A satisfactory dust and erosion control plan and/or outline shall be submitted by the Contractor.
2. The Contractor shall remove all silt and debris resulting from his work and deposited in drainage facilities, roadways and other areas. The cost incurred for any necessary remedial action by the Chief Environmentalist shall be borne entirely by the Contractor.
3. The Contractor, at his sole expense, shall keep the project area and surrounding areas free from dust nuisance. The work shall be in conformance with the Air Pollution Control Standards and Regulations of the State Department of Health.
4. All grading operations shall be performed in conformance with the applicble provisions of the Water Pollution Control and Water Quality Standards of Public Health Regulations, State Department of Health and Chapter 20.08 of the Maui County Code.
5. Construction debris and wastes shall be deposited at appropriate sites. Said sites shall also fulfill the requirements of Chapter 20.08 of the Maui County Code.
6. The Contractor shall be responsible for all construction stakeout.

ENVIRONMENTAL PROTECTION

1. The contractor shall remove all silt and debris resulting from his work and deposited in drainage facilities, roadways and other areas. The costs incurred for any necessary remedial action by the Chief Environmentalist shall be borne by the Contractor.
2. The Contractor shall keep the project area and surrounding areas free from dust nuisance, all in accordance with the Air Pollution Control Standards and Regulations of the State Department of Health. All costs shall be borne by the Contractor.
3. All grading operations shall be performed in conformance with the applicable provisions of the Water Poilution Control and Water Quality Standards of the Public Health Regulations of the State Department of Health and the County's Grading Ordinance.
4. All cut and fill slopes shall be sodded or planted immediately after grading work has been completed.
5. Construction debris and wastes shall be deposited at appropriate sites. The Contractor shall inform the Engineer of the location of the disposal sites. The disposal sites shall also fulfill the requirements of the Grading Ordinance.
6. The Contractor shall not demolish or clear any structure, site, or vacant lot without first ascertaining the presence or absence of rodents which may endanger the public health by dispersal from such premises. Should such inspection reveal the presence of such rodents, the Contractor shall eradicate such rodents before demolishing or clearing said structure, site or vacant lot.

EROSION CONTROL

The following measures shall be taken to control erosion during the site development period:
1. Minimize the time of construction.
2. Retain existing ground cover until latest date to complete construction.
3. Early construction of drainage control features.
4. Use temporary area sprinklers in non-active construction areas when ground cover is removed.
5. Station water truck on site during construction period to provide for immediate sprinkling, as needed in active construction zones (weekends and holidays included).
6. Use temporary berms and cut-off ditches, where needed, for control of erosion.
7. Graded areas shall be thoroughly watered after construction activity has ceased for the day and on weekends.
8. All cut and fill slopes shall be sodded immediately after grading work has been completed.

EROSION CONTROL PLAN REQUIREMENTS

The erosion control plan shall employ Best Management Practices to the maximum extent practicable to prevent or reduce pollutants from water bodies, including sediment and other contaminants, in discharging from a construction site.

The following must be addressed if applicable:

1. Stabilization of denuded areas.
2. Protection/stabilization of soil stockpiles.
3. Permanent soil stabilization.
4. Establishment and maintenance of permanent vegetation.
5. Protection of adjacent properties and water bodies.
6. Sediment trapping measures.
7. Sediment basins.
8. Cut and fill slopes (terracing).
9. Stormwater management.
10. Sequence of construction operations, including phased and successive development projects.
11. Stabilization of waterways and outlets.
12. Storm sewer inlet protection.
13. Control of access and vehicular movement.
14. Vehicular control on residential lots during construction.
15. Working in or crossing watercourses.
16. Underground utility construction.
17. Timely installation of permanent erosion and sediment control.
18. Maintenance of erosion control facilities.
19. Protection of existing vegetation.
20. Dust control.

EXISTING GRADES

1. Existing grades shall be verified by the contractor before proceeding with grading work. Should any discrepancies be discovered in the existing grades or dimensions given on the plans, the Contractor shall immediately notify the Engineer before proceeding further with any work, otherwise he will be held responsible for any cost involved in correction of construction placed due to such discrepancies.

EXISTING UTILITIES

1. The location, depth and type of the various existing utility lines shown on the construction plans were determined on the basis of the best information possible. The Contractor shall verify exact location, depth, and type prior to commencement of work.
2. Contractor shall notify the Engineer of any discrepancies between the existing utilities as shown on the construction plans and that located in ground, and not proceed with any further work until written notification is received from the Engineer. Any work done without written notification from the Engineer shall be the sole responsibility of the Contractor.
3. All existing utilities whether or not shown on the plans, if damaged during construction by the Contractor, shall be repaired solely at his expense.

STATE HISTORIC PRESERVATION DIVISION REQUIREMENTS

Should historic sites such as walls, platforms, pavements and mounds, or remains such as artifacts, burials, concentration of charcoal or shells be encountered during construction activities, work shall cease in the immediate vicinity of the find and the find shall be protected from further damage. The contractor and/or landowner shall immediately contact the State Historic Preservation Division (692-8015), which will assess the significance of the find and recommend an appropriate mitigation measure, if necessary.

EARTHWORK SPECIFICATIONS

1. All vegetation, weeds, brush, roots, stumps, rubbish, debris, soft soil and other deleterious material shall be removed and disposed of offsite.
2. In areas to receive fill and at finish subgrade in cut areas, the exposed surface shall then be scarified to a depth of 6 inches, moisture conditioned to near optimum moisture and then compacted to a degree of compaction specified herein. If soft or loose spots are encountered that can not be re-compacted, the project soils engineer shall be consulted to discuss the available options.
3. Structural areas shall be defined as areas beneath pavement structures and areas beneath and 3 feet beyond the edges of the buildings.
4. Structural fill and backfill material shall be granular, well-graded with no particle larger than 3 inches in greatest dimension. Each layer shall be placed in lifts not exceeding 8 inches in loose thickness. Prior to compacting the soil, the soils moisture content shall be adjusted to near optimum moisture content. Each layer shall be thoroughly compacted to at least 95 percent of the maximum dry density (ASTM D 1557).
5. Non-structural areas shall be defined as areas beyond 3 feet from the edge of any building and non-pavement areas. Non-structural fill and backfill material shall consist of material which is free of organics and debris. In the upper 3 feet from finished grade, the material shall be less than 3 inches in greatest dimension. Below 3 feet from finished grade, the material shall be less than 12 inches in greatest dimension, provided there is sufficient fines to fill the interstices. The onsite soils are acceptable for use as non-structural fill at any depth provided the above gradation requirements are met and the material is free of organics and man made debris. Each layer shall be placed in lifts not exceeding 12 inches in loose thickness. Prior to compacting the soil, the soils moisture content shall be adjusted to near optimum moisture content. Each layer shall be thoroughly compacted prior to placing of any subsequent lifts to at least 90 percent of the maximum dry density as determined by the ASTM D 1557-91 test procedure.
6. During construction, drainage shall be provided to minimize ponding of water adjacent to or on foundation and pavement areas. Ponded areas shall be drained immediately or water pumped out without damaging adjacent structures and property. If water accumulation softens the subgrade materials, the affected soils shall be removed an replaced with properly compacted fill.
7. The Contractor shall retain the services of a Soils Engineer, licensed in the State of Hawaii, to monitor as test the soils in accordance with the Soils Investigation Report.

MINIMUM BEST MANAGEMENT PRACTICES

Drainage. Handle drainage to control erosion, prevent damage to downstream properties and return waters to the natural drainage course in a manner which minimizes sedimentation or other pollution to the maximum extent practicable.

Dust Control. Control dust emissions to the maximum extent practicable through BMP's such as water sprinkling, dust fences, limiting area of disturbance and timely grassing of finish areas.

Vegetation. Retain natural vegetation, especially grasses, wherever feasible. Avoid storage of grubbed material near watercourses.

Erosion Controls. Stabilize all disturbed areas with erosion control measures such as vegetation, runoff diversion, check dams, mulching, blankets, bonded fiber matrices, and wheel wash facilities.

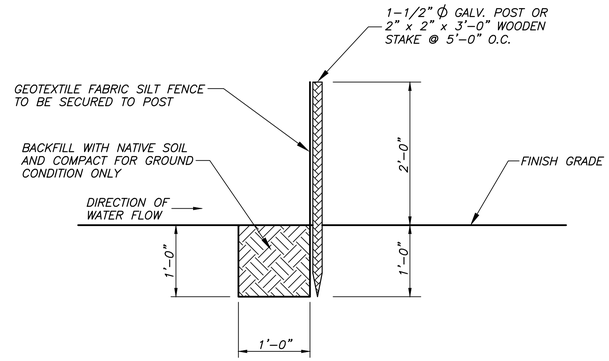
Sediment Control. Capture sediment transported in runoff to minimize the sediment from leaving the site with methods such as sediment basins, sediment traps, silt fences, sand bags, and vegetated filter strips.

Material and Waste Management. Properly store toxic material and prevent the discharge of pollutants associated with construction material.

Timing of Control Measure Implementation. Timing of control measures shall be in accordance with the approved erosion control plan. Disturbed areas of construction sites that will not be re-disturbed for twenty-one days or more will be stabilized (grassed or graveled) by no later than the fourteenth day after the last disturbance.

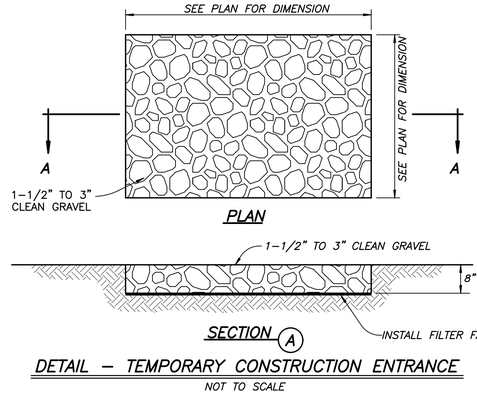
Shoreline Area. Use of soil as fill is prohibited within any shoreline area, except for sand.

Coastal Dune. Grading or mining of a coastal dune is prohibited.



DETAIL – SILT FENCE INSTALLATION

SCALE: 1 IN. = 1 FT.



DETAIL – TEMPORARY CONSTRUCTION ENTRANCE

NOT TO SCALE

OTOMO
ENGINEERING, INC.
CONSULTING CIVIL ENGINEERS
305 S. HIGH STREET, STE. 102
WAILUKU, MAUI, HAWAII 96793
PHONE: (808) 242-0032

STACY A. OTOMO
LICENSED PROFESSIONAL ENGINEER
No. 5115-C
HAWAII, U.S.A.

LICENSE EXPIRES: 4-30-26

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION. "OBSERVATION OF CONSTRUCTION" AS DEFINED UNDER SECTION 16-115-2 OF THE HAWAII ADMINISTRATIVE RULES, PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS, AND LANDSCAPE ARCHITECTS.)

Stacy A. Otomo — 8-20-25
SIGNATURE — DATE

NOTE: THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AT THE JOB SITE BEFORE PROCEEDING WITH THE WORK.

WORTHINGTON RESIDENCE

T.M.K: (2) 2-5-003: 040

HALIIMAILE, MAKAWAO, MAUI, HAWAII

CONSTRUCTION NOTES & DETAILS

REVISION	DATE	NOTE
1		
2		
3		
4		
5		
6		
7		

DESIGNED BY: S.A.O.
DRAWN BY: L.C.O.
PROJECT NO.: 2025-10
DRAWING NAME: NOTES-1
DATE: 8-20-25

SHEET NO.
C-3
OF SHEETS