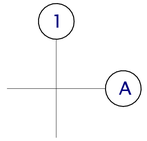
ABBREVIATIONS

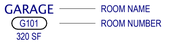
@	AT
℄	CENTERLINE
₹	PROPERTY LINE
∅	DIAMETER
#	POUND OR NUMBER
(E)	EXISTING
(N)	NEW
AB	ANCHOR BOLT
ABV	ABOVE
ACC	ACCESS
ACOUS	ACOUSTICAL
ACP	ASPHALT CONCRETE PAVING
ACS	ACCESS PANEL
ACT	ACOUSTICAL TILE
AD	AREA DRAIN
ADA	AMERICANS with DISABILITIES
ADJ	ADJUSTABLE
AFF	ABOVE FINISHED FLOOR
AGGR	AGGREGATE
AIB	AIR INFILTRATION BARRIER
ALT	ALTERNATE
ALUM	ALUMINUM
APPROX	APPROXIMATE
ARCH	ARCHITECTURAL
ASPH	ASPHALT
AUTO	AUTOMATIC
BD	BOARD
BITUM	BITUMINOUS
BLDG	BUILDING
BLKG	BLOCKING
BM	BEAM
BO	BOTTOM OF...
BOT	BOTTOM
BRG	BEARING
BSMT	BASEMENT
BUR	BUILT UP ROOFING
CAB	CABINET
CB	CATCH BASIN
CEM	CEMENT
CER	CERAMIC
CIP	CAST-IN-PLACE
CJ	CONTROL JOINT
CLG	CEILING
CLK	CAULKING
CLO	CLOSET
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
CNTR	COUNTER
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS
CONTR	CONTRACTOR
CORR	CORRIDOR
CPT	CARPET; CARPETED
CRS	COLD ROLLED STEEL
CSK	COUNTERSUNK
CT	CERAMIC TILE
CTR	CENTER
CU FT	CUBIC FEET
DBL	DOUBLE
DEMO	DEMOLITION
DET	DETAIL
DIA	DIAMETER
DIM	DIMENSION
DL	DEAD LOAD
DN	DOWN
DR	DOOR
DR OPNG	DOOR OPENING
DS	DOWNSPOUT
DSP	DRY STANDPIPE
DT	DRAIN TILE
DW	DISHWASHER
DWG	DRAWING
E	EAST
EA	EACH
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRICAL
ELEV	ELEVATOR
ENCL	ENCLOSURE
EQ	EQUAL
EQUIP	EQUIPMENT
EST	ESTIMATE
EW	EACH WAY
EXH FN	EXHAUST FAN
EXIST	EXISTING
EXP	EXPANDED; EXPANSION
EXP BT	EXPANSION BOLT
EXPO	EXPOSED
EXT	EXTERIOR
FA	FIRE ALARM
FB	FLAT BAR
FD	FLOOR DRAIN
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FF EL	FINISH FLOOR ELEVATION
FH	FIRE HYDRANT
FHC	FIRE HOSE CABINET
FIN FLR	FINISH FLOOR
FF	FINISH TO FINISH
FIN	FINISH
FLASH	FLASHING
FLR	FLOOR; FLOORING
FLUOR	FLUORESCENT
FOC	FACE OF CONCRETE
FOF	FACE OF FINISH
FOIC	FURNISHED BY OWNER - INSTALLED BY CONTRACTOR
FOM	FACE OF MASONRY
FOS	FACE OF STUDS
FP	FIREPROOF
FPL	FIREPLACE
FR	FRAME
FT	FOOR OR FEET
FTG	FOOTING
FURR	FURRING
FUT	FUTURE
FW	FULL WIDTH
GA	GAUGE
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GL	GLASS
GLAM	GLUE-LAMINATED
GR	GRADE
GWB	GYPSUM WALL BOARD
GYP	GYPSUM
HB	HOSE BIBB
HC	HOLLOW CORE
HDO	HIGH DENSITY OVERLAY
HDR	HEADER
HDWD	HARDWOOD
HDW	HARDWARE
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HP	HIGH POINT
HR	HOUR
HT	HEIGHT
HVAC	HEATING/VENTILATING/AIR CONDITIONING
HW	HOT WATER
HWT	HOT WATER TANK
ID	INSIDE DIAMETER
IN	INCH
INCL	INCLUDED
INSUL	INSULATION
INT	INTERIOR
INV	INVERT
JB	JUNCTION BOX
JF	JOINT FILLER
JT	JOINT
KIT	KITCHEN
KO	KNOCKOUT
LAM	LAMINATE, LAMINATED
LAV	LAVATORY
LBS	POUNDS
LF	LINEAR FOOT (FEET)
LH	LEFT HAND
LL	LIVE LOAD
LOC	LOCATION
LP	LOW POINT
LT	LIGHT
MAS	MASONRY
MATL	MATERIAL
MAX	MAXIMUM
MB	MACHINE BOLT
MC	MEDICINE CABINET
MDF	MEDIUM DENSITY FIBERBOARD
MDO	MEDIUM DENSITY OVERLAY
MECH	MECHANICAL
MEMB	MEMBRANE
MEZZ	MEZZANINE
MFR	MANUFACTURER
MIN	MINIMUM
MIR	MIRROR
MISC	MISCELLANEOUS
MO	MASONRY OPENING
MTD	MOUNTED
MTL	METAL
MUL	MULLION
N	NORTH
N/A	NOT APPLICABLE
NIC	NOT IN CONTRACT
NO	NUMBER
NOM	NOMINAL
NR	NOISE REDUCTION
NTS	NOT TO SCALE
OA	OVERALL
OC	ON CENTER
OD	OUTSIDE DIAMETER
	OVERFLOW DRAIN
OFF	OFFICE
OH	OVERHEAD
OHWM	ORDINARY HIGH WATER MARK
OPNG	OPENING
OPP	OPPOSITE
OSB	ORIENTED STRAND BOARD
PBD	PARTICLE BOARD
PCC	PRECAST CONCRETE
PCF	POUNDS PER CUBIC FOOT
PERF	PERFORATED
PERP	PERPENDICULAR
PL	PLATE
PLAM	PLASTIC LAMINATE
PLAS	PLASTER
PLWD	PLYWOOD
PNL	PANEL
PNT	POINT
PR	PAIR
PRCST	PRECAST
PSF	POUNDS PER CUBIC FOOT
PSI	POUNDS PER SQUARE INCH
PT	PRESERVATIVE TREATED
PTN	PARTITION
PVC	POLYVINYL CHLORIDE
R	RISER
RA	RETURN AIR
RAD	RADIUS
RD	ROOF DRAIN
REF	REFERENCE
REFR	REFRIGERATOR
REG	REGISTER
REINF	REINFORCED
REM	REMAINDER
REQ	REQUIRED
RESIL	RESILIENT
REV	REVISION; REVISIONS; REVISED
RH	RIGHT HAND
RM	ROOM
RO	ROUGH OPENING
RWL	RAIN WATER LEADER
S	SOUTH
SAF	SELF-ADHERED FLASHING
SAM	SELF-ADHERED MEMBRANE
SC	SOLID CORE
SCHED	SCHEDULE
SD	SMOKE DETECTOR
SECT	SECTION
SG	SAFETY GLASS
SHV	SHELF; SHELVING
SHR	SHOWER
SHT	SHEET
SHT MTL	SHEET METAL
SHTG	SHEATHING
SIM	SIMILAR
SOG	SLAB ON GRADE
SPEC	SPECIFICATION
SQ FT	SQUARE FOOT (FEET)
SQ IN	SQUARE INCH(ES)
SST	STAINLESS STEEL
STD	STANDARD
STL	STEEL
ST	STONE
STOR	STORAGE
STRUCT	STRUCTURAL
SUSP	SUSPENDED
SYM	SYMMETRICAL
T	TREAD
T&G	TONGUE AND GROOVE
TEL	TELEPHONE
TER	TERRAZZO
TG	TEMPERED GLASS
THK	THICK
TO	TOP OF...
TOB	TOP OF BEAM
TOC	TOP OF CONCRETE; CURB
TOF	TOP OF FLOOR; FOOTING; FRAME
TOM	TOP OF MASONRY
TOP	TOP OF PARAPET; PAVEMENT
TOPO	TOPOGRAPHY
TOS	TOP OF SLAB; STEEL
TOW	TOP OF WALL
TS	TUBE STEEL
TSTAT	THERMOSTAT
TYP	TYPICAL
UNO	UNLESS OTHERWISE NOTED
VB	VINYL BASE
VEN	VENEER
VERT	VERTICAL
VEST	VESTIBULE
VG	VERTICAL GRAIN
VIF	VERIFY IN FIELD
VT	VINYLT TILE
W	WEST
W/	WITH
W/O	WITHOUT
WC	WATER CLOSET
WD	WOOD
WDW	WINDOW
WF	WIDE FLANGE
WF BM	WIDE FLANGE BEAM
WG	WIRED GLASS
WH	WATER HEATER
WL	WATER LINE
WLD	WELDED
WP	WATERPROOF
WPM	WATERPROOF MEMBRANE
WR	WATER RESISTANT
WSCT	WAINSCOT
WSG	WIRE SAFETY GLASS
WTR	WATER
WWF	WELDED WIRE FABRIC
WWM	WELDED WIRE MESH
WT	WEIGHT

SYMBOLS LEGEND

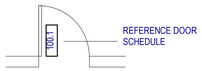
1. GRID LINE REFERENCE



2. ROOM REFERENCE



3. DOOR REFERENCE

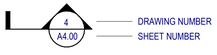


4. WINDOW / SKYLIGHT REFERENCE

5. ELEVATION / DATUM REFERENCE

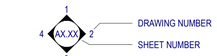
6. EXTERIOR ELEVATION

7. BUILDING SECTION

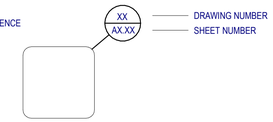


8. WALL SECTION

9. INTERIOR ELEVATION



10. DETAIL REFERENCE



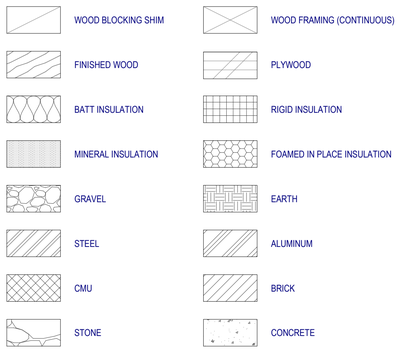
11. ASSEMBLY REFERENCE

12. NORTH SYMBOL

13. REVISION REFERENCE

REFERENCE CONSTRUCTION MEMO ISSUING REVISION.
ONLY MOST RECENT REVISION SHOWN CLOUDED.
REFERENCE FOR PREVIOUS REVISIONS REMAIN.
DATE OF REVISIONS INDICATED AT RIGHT MARGINS.

MATERIALS LEGEND



ZONING / BUILDING CODE SUMMARY

PROJECT ADDRESS:
8925 SE 58th St
Mercer Island, WA 98040

ASSESSOR'S PARCEL NUMBER:
228700-0050

LEGAL DESCRIPTION:
EL DORADO ESTATES ADD

APPLICABLE CODES:
Mercer Island Municipal Code
Washington State Residential Code
Washington State Energy Code

AUTHORITY HAVING JURISDICTION:
City of Mercer Island

LOT SIZE:
9,897 SF

LAND USE DESIGNATION:
R-9,600

PROJECT DESCRIPTION:
700 SF Addition to SFR

HEIGHT:
ALLOWED: 30'
PROPOSED: 23'

YARD SETBACKS:
FRONT: 20'
SIDE: 15' Aggregate; 5' Minimum
REAR: 25'

ENERGY CODE COMPLIANCE:
Washington State Energy Code Credits

1.4 Efficient Building Envelope: Vertical Fenestration U=0.25, Wall R-21 int + R-4 ci, Floor R-38, Slab on grade R-10 perimeter and under entire slab.

5.5 Efficient Water Heating: Electric heat pump water heater meeting the standards for Tier III of NEEA's advanced water heating spec.

VERTICAL GLAZING: U 0.25
CEILING: R-49
WALL ABOVE GRADE: R-21+4 ci
FLOOR: R-38
SLAB ON GRADE: R-10

GENERAL NOTES

1. CODES: ALL WORK SHALL CONFORM APPLICABLE LAND USE AND BUILDING CODES AS AMENDED BY AUTHORITIES HAVING JURISDICTION.

2. DO NOT SCALE DIMENSIONS FROM DRAWINGS. USE CALCULATED DIMENSIONS ONLY. NOTIFY THE ARCHITECT IMMEDIATELY IF ANY CONFLICTS EXIST.

3. CONTRACTOR SHALL VERIFY ALL CONDITIONS PRIOR TO INITIATING THE WORK. NOTIFY THE ARCHITECT OF ANY DISCREPANCIES.

4. VERIFY ALL ROUGH-IN DIMENSIONS FOR EQUIPMENT. PROVIDE ALL BUCK-OUT, BLOCKING, BACKING, AND JACKS REQUIRED FOR INSTALLATIONS.

5. DIMENSIONS ARE TO EXTERIOR FACE OF CONCRETE / WOOD FRAMING UNLESS OTHERWISE NOTED.

6. EXTERIOR WALL FRAMING 2x6 WOOD STUDS UNLESS OTHERWISE NOTED.

7. INTERIOR WALL FRAMING 2x4 WOOD STUDS UNLESS OTHERWISE NOTED.

PROJECT DIRECTORY

OWNER:
Josh & Jordan Helling
8925 SE 58th St
Mercer Island, WA 98040

ARCHITECT:
Christensen Architects LLC
PRINCIPAL ARCHITECT: C.J. Christensen
cj@christensenarchitects.com

STRUCTURAL ENGINEER:
Nickerson Engineering
CONTACT: Jonathan Carlson
carlson@nickersonengineering.com

CONTRACTOR
CA James
CONTACT: Kyle Caulk
kyle@cajames.com

SHEET INDEX

Sheet Filter	Sheet No.	SHEET NAME
GENERAL		
	A0.00	GENERAL INFORMATION
	A0.01	2018 IRC CODE INFORMATION
ARCHITECTURAL		
	A1.00	SITE PLAN
	A2.10	MAIN LEVEL PLAN
	A2.20	UPPER LEVEL PLAN
	A3.00	EXTERIOR ELEVATIONS
	A3.01	EXTERIOR ELEVATIONS
	A3.10	BUILDING SECTIONS
	A6.00	REFLECTED CEILING PLANS
STRUCTURAL		
	S1.0	GENERAL STRUCTURAL NOTES
	S2.0	FOUNDATION PLAN
	S2.1	UPPER FLOOR & LOW ROOF FRAMING PLAN
	S2.2	ROOF FRAMING PLAN
	S3.0	FOUNDATION DETAILS
	S4.0	FRAMING DETAILS
	S4.1	FRAMING DETAILS

Christensen Architects

project:
HELLING ADDITION
8925 SE 58th St
Mercer Island, WA 98040

principal architect
project manager
drawn by
checked by
job no.
date 02/13/2023

revisions:

no.	date	by
1	5/12/23	CORRECTIONS 1

PERMIT SET
02/13/2023

GENERAL INFORMATION

A0.00

SITE WORK

GENERAL

UNLESS A SOILS INVESTIGATION REPORT BY A LICENSED SOILS ENGINEER IS PROVIDED, THE FOUNDATION DESIGN IS BASED UPON AN ASSUMED AVERAGE SOIL BEARING CAPACITY OF 1,500 PSF. EXTERIOR FOOTINGS SHALL BEAR 1'-6" MINIMUM BELOW FINISHED GRADE. ALL FOOTINGS TO BEAR ON FIRM, UNDISTURBED EARTH BELOW ORGANIC SURFACE SOILS. ALL BACK FILL MATERIAL SHALL BE THOROUGHLY COMPACTED. FOUNDATION VENTS SHALL NOT INTERFERE WITH DIRECT LOAD PATH OF COLUMNS.

GENERAL

PLANS COMPLY TO THE 2018 INTERNATIONAL RESIDENTIAL CODE.

CONTRACTOR SHALL VERIFY ALL NOTES, DIMENSIONS AND CONDITIONS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL PROVIDE TEMPORARY BRACING AS REQUIRED UNTIL ALL PERMANENT CONNECTIONS HAVE BEEN MADE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO IDENTIFY ALL DISCREPANCIES TO THE ARCHITECT AT THE TIME THEY ARE NOTED. DIMENSIONS TAKE PRECEDENCE OVER SCALED DRAWINGS.

CODES:

ALL APPLICABLE CODES AND AUTHORITIES HAVING JURISDICTION SHALL BE FOLLOWED
1. 2018 INTERNATIONAL RESIDENTIAL CODE (IRC)
2. 2018 INTERNATIONAL BUILDING CODE (IBC)
3. 2018 INTERNATIONAL EXISTING BUILDING CODE (IEBC)
4. 2018 INTERNATIONAL MECHANICAL CODE (IMC)
5. 2018 INTERNATIONAL FUEL GAS CODE (IFGC)
6. 2018 UNIFORM PLUMBING CODE (UPC)
7. 2018 INTERNATIONAL FIRE CODE (IFC)
8. 2018 WASHINGTON STATE ENERGY CODE (WSEC).

BUILDING

CONSTRUCTION TYPE: V-B
OCCUPANCY GROUP: R-3

LOCAL JURISDICTION REQUIRES DWELLING UNIT FIRE SPRINKLER SYSTEM PER IRC APPENDIX U
☐ YES
☒ NO

CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA (1)

ROOF SNOW LOAD	WIND DESIGN				SEISMIC DESIGN CATEGORY	SUBJECT TO DAMAGE FROM			WINTER DESIGN TEMP	ICE BARRIER UNDER-LAYMENT REQUIRED	FLOOD HAZARDS	AIR FREEZING INDEX	MEAN ANNUAL TEMP
	SPEED (MPH)	TOPO-GRAPHIC EFFECTS	SPECIAL WIND REGION	WIND-BOURNE DEBRIS ZONE		WEATHERING	FROST LINE DEPTH	TERMITE					
25 PSF	110	YES	NO	NO	D2	MODERATE	12"	SLIGHT TO MODERATE	24°F/83°F	NO	N/A	113	53° F
EQUIVALENT FLUID PRESSURE = 35 P.C.F. (UNRESTRAINED WALLS) 50 P.C.F. (RESTRAINED WALLS)													

CONCRETE

GENERAL

CLASS AND USE	F'C	SLUMP	MINIMUM SACKS / C.Y.
A. FOOTINGS	2500	3-4	5-1/2
B. SLABS ON GRADE	2500	3-4	5-1/2

1. AIR ENTRAINING AGENT (5% TO 7%) TO BE USED IN ALL CONCRETE FLAT WORK EXPOSED TO WEATHER.
2. POZZOLITH 300 SERIES (4 oz. PER 100# OF CEMENT) TO BE USED IN ALL CONCRETE.
3. MIX MAY BE DESIGNED IN ACCORDANCE WITH THE PROVISIONS OF THE 2012 IBC/IRC.
4. WATER TO CEMENT RATIO PER THE 2012 IBC/IRC.

REINFORCING STEEL

ASTM A615 GRADE 40, REINFORCING STEEL DETAILS SHALL BE PREPARED BY AN EXPERIENCED APPROVED DETAILER AND CONFORM TO STANDARD PRACTICE OUTLINED IN ACI REPORT 315.

CONCRETE COVER OF REINFORCING STEEL

3" CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH.
1-1/2" CONCRETE EXPOSED TO EARTH OR WEATHER.
1-1/2" BEAMS AND COLUMNS NOT EXPOSED TO EARTH OR WEATHER.
3/4" SLABS AND WALLS NOT EXPOSED TO EARTH OR WEATHER.

CARPENTRY

GENERAL

ALL FRAMING SHALL COMPLY WITH THE APPROPRIATE SECTION(S) OF THE 2018 IBC/IRC. PRESSURE TREATED WOOD REQUIRED IN LOCATIONS LISTED IN IRC R317.1

2" MINIMUM VERTICAL CLEARANCE BETWEEN WOOD & CONCRETE STEPS, PORCH SLABS, PATIO SLABS & OTHER SIMILAR HORIZONTAL SURFACES EXPOSED TO THE WEATHER.
6" MINIMUM CLEARANCE BETWEEN WOOD SIDING, SHEATHING AND WALL FRAMING ON EXTERIOR OF THE BUILDING AND EARTH.
8" MINIMUM CLEARANCE BETWEEN UNTREATED MUDSILLS AND EARTH.
12" MINIMUM CLEARANCE BETWEEN FLOOR BEAMS AND EARTH.
18" MINIMUM CLEARANCE BETWEEN FLOOR JOISTS AND EARTH.

LOADING

ROOF	15 PSF DEAD LOAD	+	20 PSF LIVE LOAD	= 35 PSF
FLOOR	10 PSF DEAD LOAD	+	40 PSF LIVE LOAD	= 50 PSF
CEILING	5 PSF DEAD LOAD	+	10 PSF LIVE LOAD	= 15 PSF
DECK	5 PSF DEAD LOAD	+	40 PSF LIVE LOAD	= 45 PSF
INTERIOR PARTITION				= 7 PSF
EXTERIOR PARTITION				= 10 PSF

WOOD BEARING ON OR INSTALLED WITHIN 1/2" OF MASONRY OR CONCRETE TO BE TREATED WITH AN APPROVED PRESERVATIVE. SOLID BLOCKING OF NOT LESS THAN 2x THICKNESS SHALL BE PROVIDED AT ENDS AND AT ALL SUPPORT OF JOISTS AND RAFTERS. ANCHOR BOLTS TO BE PER SHEAR WALL SCHEDULE AND FOUNDATION PLAN. 7" MINIMUM EMBEDMENT. ALL METAL FRAMING ANCHORS AND HANGERS SHOWN ON DRAWINGS SHALL BE STRONG TIE CONNECTORS AS MANUFACTURED BY SIMPSON COMPANY.

PROVIDE FIREBLOCKING IN CONCEALED SPACES OF STUD WALLS & PARTITIONS, INCLUDING FURRED SPACES & PARALLEL ROWS OF STUDS OR STAGGERED STUDS AS FOLLOWS:

1. VERTICALLY AT THE CEILING & FLOOR LEVELS.
2. HORIZONTALLY AT INTERVALS NOT EXCEEDING 10 FEET.

PROVIDE FIREBLOCKING AT OTHER LOCATIONS PER 2018 IRC R302.11.

PLYWOOD

ALL PLYWOOD WALL AND ROOF SHEATHING SHALL BE 1/2" CDX, UNLESS NOTED OTHERWISE. MINIMUM NAILING SHALL BE 8d @ 6" O.C. AT PANEL EDGES AND 12" O.C. IN FIELD. SPAN INDEX SHALL BE 24/0. ALL PLYWOOD FLOOR SHEATHING SHALL BE 3/4" CDX TONGUE & GROOVE UNLESS NOTED OTHERWISE. MINIMUM NAILING SHALL BE 10d @ 6" O.C. @ PANEL EDGES AND 12" O.C. IN FIELD. SPAN INDEX SHALL BE 40/20. STAGGER ALL PANEL EDGES AT ROOF AND FLOOR SHEATHING. ORIENTED STRAND BOARD (O.S.B.) SHEATHING PRODUCTS OF EQUIVALENT SPAN RATINGS SHALL BE ALLOWED.

GLUE LAMINATED TIMERS

ALL GLUE LAMINATED TIMBERS SHALL BE MANUFACTURED AND IDENTIFIED AS REQUIRED IN AITC A190 and ASTM D 3737. ALL GLUE LAMINATED TIMBERS SHALL BE DOUG-FIR LARCH, FABRICATED TO THE REQUIREMENTS OF THE US PRODUCT STANDARD PS 56. LUMBER SHALL BE OF SUCH GRADE TO PROVIDE NORMAL WORKING STRESS VALUES OF; 2,400 PSI IN BENDING, 1,100 PSI IN TENSION, 1,600 PSI IN COMPRESSION PARALLEL TO GRAIN, 560 PSI IN COMPRESSION PERPENDICULAR TO GRAIN AND 165 PSI HORIZONTAL SHEAR (COMBINATION 24F-V4). GLUE LAMINATED TIMBERS TO BE AITC CERTIFIED. USE WATERPROOF GLUE.

MANUFACTURED TRUSSES

ALL TRUSSES SHALL BE DESIGNED BY REGISTERED WA STATE ENGINEER AND FABRICATED FROM ONLY THESE DESIGNS. TRUSSES SHALL BE STAMPED BY THE ENGINEER OR BY A QUALITY CONTROL AGENCY SUCH AS THE STATE TRUSS FABRICATORS COUNCIL. ALL TRUSS DESIGNS SHALL BE SUBMITTED FOR APPROVAL PRIOR TO FABRICATION.

ALL NON BEARING WALLS OR PARTITIONS SHALL BE HELD AWAY FROM THE TRUSS BOTTOM CHORD WITH AN APPROVED FASTENER TO ENSURE THAT THE TRUSS BOTTOM CHORD WILL NOT BEAR ON THE WALL OR PARTITION.

APPROVED HANGERS SHALL BE USED AT ALL CONNECTIONS OF RAFTERS, JACK OR HIP TRUSSES TO MAIN GIRDER TRUSSES.

ALL ROOF TRUSSES SHALL BE FRAMED AND TIED INTO THE FRAME WORK AND SUPPORTING WALLS SO AS TO FORM AN INTEGRAL PART OF THE WHOLE STRUCTURE. ROOF TRUSSES SHALL HAVE JOINTS WELL FITTED AND SHALL HAVE ALL TENSION MEMBERS WELL TIGHTENED BEFORE ANY LOAD IS PLACED UPON THE TRUSS. DIAGONAL AND SWAY BRACING SHALL BE USED TO BRACE ALL TRUSSES.

INSULATION & MOISTURE PROTECTION

GENERAL

UNLESS NOTED OTHERWISE, INSULATION SHALL CONFORM TO THE WASHINGTON STATE ENERGY CODES. INSULATION BAFFLES TO MAINTAIN 1" CLEAR SPACE ABOVE INSULATION. BAFFLES TO EXTEND 6" ABOVE BATT INSULATION & 12" ABOVE LOOSE FILL INSULATION. INSULATE BEHIND BATHTUBS, SHOWERS, PARTITIONS AND CORNERS. PROVIDE FACE STAPLED BATTS OR FRICTION FIT FACED BATTS. PROVIDE 4 MIL (0.004") POLYETHYLENE VAPOR BARRIER AT WALLS OR USE PVA PAINT WITH A DRY CUP PERM RATING OF ONE (MAX.). PROVIDE R-10 INSULATION UNDER ELECTRIC WATER HEATERS.

INFILTRATION CONTROL

1. EXTERIOR JOINTS AROUND WINDOWS AND DOOR FRAMES, OPENINGS BETWEEN WALLS AND FOUNDATIONS, BETWEEN WALLS AND ROOF AND BETWEEN WALL PANELS, OPENINGS AT PENETRATIONS OF UTILITY SERVICES THROUGH WALLS, FLOORS, AND ROOF, AND ALL OTHERS SUCH OPENINGS IN THE BUILDING ENVELOPE, INCLUDING ACCESS PANELS INTO UNHEATED SPACES, SHALL BE SEALED, CAULKED, GASKETED OR WEATHER-STRIPPED TO LIMIT AIR INFILTRATION.
2. ALL EXTERIOR DOORS, OTHER THAN FIRE-RATED DOORS, SHALL BE DESIGNED TO LIMIT AIR INFILTRATION AROUND THEIR PERIMETER WHEN IN A CLOSED POSITION. DOORS BETWEEN RESIDENCE AND GARAGE ARE NOT CONSIDERED "FIRE-RATED" AND MUST MEET THE ABOVE REQUIREMENT.
3. ALL EXTERIOR WINDOWS SHALL BE DESIGNED TO ADMIT AIR INFILTRATION INTO OR FROM THE BUILDING ENVELOPE WHICH SHALL BE SUBSTANTIATED BY TESTING TO STANDARD ASTM E 283.73. SITE BUILT AND MILLWORK SHOP MADE WOODEN SASH ARE EXEMPT FROM TESTING BUT SHALL BE WEATHER-STRIPPED, CAULKED AND MORE TIGHTLY FITTING.
4. RECESSED LIGHT FIXTURES TO LIMIT AIR LEAKAGE PER W.S.E.C.

PIPING FOR HOT WATER / STEAM SYSTEMS OF PIPING FOR CONTINUOUSLY CIRCULATING HOT WATER SERVICE IS REQUIRED TO BE INSULATED PER THE W.S.E.C. SERVICE WATER PIPING SHALL BE INSULATED TO A MINIMUM OF R-3.

VAPOR BARRIERS / GROUND COVERS

AN APPROVED VAPOR BARRIER SHALL BE PROPERLY INSTALLED IN ROOF DECKS, IN ENCLOSED RAFTER SPACES FORMED WHERE CEILINGS ARE APPLIED DIRECTLY TO THE UNDERSIDE OF ROOF RAFTERS, AND AT EXTERIOR WALLS. INSET STAPLED BATTS WITH A PERM RATING LESS THAN ONE MAY BE INSTALLED IF THE VAPOR BARRIER IS TO THE WARM SIDE, STAPLES SHALL BE PLACED NOT MORE THAN 8" O.C. AND GAPS BETWEEN THE FACING AND THE FRAMING SHALL NOT EXCEED 1/16"

A GROUND COVER OF 6 MIL (0.006") BLACK POLYETHYLENE OR EQUIVALENT SHALL BE LAID OVER THE GROUND IN ALL CRAWL SPACES. THE GROUND COVER SHALL BE OVERLAPPED ONE FOOT AT EACH JOINT AND SHALL EXTEND TO THE FOUNDATION WALL.

THE NET FREE VENTILATING AREA FOR ATTIC VENTILATION MAY BE 1/300 OF THE AREA OF THE VENTILATED SPACE PROVIDED THAT A VAPOR BARRIER HAVE A PERM RATING NOT EXCEEDING ONE IS INSTALLED ON THE WARM SIDE OF THE INSULATION.

DOORS, WINDOWS AND SKYLIGHTS

GENERAL

THE REQUIRED EGRESS DOOR MAY HAVE A MAXIMUM 7 3/4" STEP FROM TOP OF THE THRESHOLD TO A MINIMUM 36" DEEP LANDING. OTHER EXTERIOR DOORS MAY HAVE A MAXIMUM (2) 7 3/4" STEPS TO A MIN.. 36" DEEP LANDING. ALL GLAZING SHALL MEET THE REQUIREMENTS OF THE W.S.E.C. TABLE 6-1 UNLESS NOTED OTHERWISE. ALL SKYLIGHTS AND SKYWALLS SHALL HAVE LAMINATED GLASS UNLESS NOTED OTHERWISE. ALL BEDROOM EMERGENCY EGRESS WINDOWS SHALL HAVE A MINIMUM NET CLEAR OPENING OF 5.7 SQUARE FEET. MINIMUM NET CLEAR OPERABLE WIDTH OF 20" AND A MINIMUM NET CLEAR OPENING HEIGHT OF 24", MAXIMUM FINISHED SILL HEIGHT OF 44" ABOVE FLOOR. OPERABLE WINDOWS WITH A SILL OF MORE THAN 72" ABOVE FINISHED GRADE AND WITHOUT AN ADJACENT ROOF WITH MAX 4:12 SLOPE, TO BE A MINIMUM OF 24" ABOVE ADJACENT FINISHED FLOOR.

SAFETY GLAZING LOCATIONS PER 2018 IRC SECTION R308.4

1. GLAZING IN ALL FIXED AND OPERABLE PANELS OF SWINGING, SLIDING AND BI-FOLD DOORS.
2. GLAZING IN AN INDIVIDUAL FIXED OR OPERABLE PANEL ADJACENT TO A DOOR WHERE THE NEAREST VERTICAL EDGE IS WITHIN A 24 INCH ARC OF THE DOOR IN A CLOSED POSITION AND WHOSE BOTTOM EDGE IS LESS THAN 60 INCHES ABOVE THE FLOOR OR WALKING SURFACE.
3. GLAZING IN AN INDIVIDUAL FIXED OR OPERABLE PANEL THAT MEETS ALL OF THE FOLLOWING CONDITIONS:
3.1. THE EXPOSED AREA OF AN INDIVIDUAL PANEL IS LARGER THAN 9 SQUARE FEET AND:
3.2. THE EXPOSED BOTTOM EDGE OF THE GLAZING IS LESS THAN 18" ABOVE THE FLOOR AND:
3.3. THE TOP EDGE OF THE GLAZING IS MORE THAN 36" ABOVE THE FLOOR AND:
3.4. ONE OR MORE WALKING SURFACES ARE WITHIN 36" MEASURED HORIZONTALLY AND IN A STRAIGHT LINE, OF THE GLAZING.
4. ALL GLAZING IN RAILINGS REGARDLESS OF AREA OR HEIGHT ABOVE A WALKING SURFACE. INCLUDED ARE STRUCTURAL BALUSTER PANELS AND NONSTRUCTURAL INFILL PANELS.
5. GLAZING IN ENCLOSURES FOR OR WALLS FACING HOT TUBS, WHIRLPOOLS, SAUNAS, STEAM ROOMS, BATHTUBS, AND SHOWERS. WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 60 INCHES MEASURED VERTICALLY ABOVE ANY STANDING OR WALKING SURFACE.
6. GLAZING IN WALLS AND FENCES ADJACENT TO INDOOR AND OUTDOOR SWIMMING POOLS, HOT TUBS, AND SPAS WHERE THE BOTTOM EDGE OF THE GLAZING IS LESS THAN 60" ABOVE A WALKING SURFACE AND WITHIN 60" MEASURED HORIZONTALLY AND IN A STRAIGHT LINE, OF THE WATER'S EDGE. THIS SHALL APPLY TO SINGLE GLAZING AND ALL PANES IN MULTIPLE GLAZING.
7. GLAZING ADJACENT TO STAIRWAYS, LANDINGS AND RAMPS WITHIN 36" HORIZONTALLY OF A WALKING SURFACE WHEN THE EXPOSED SURFACE OF THE GLAZING IS LESS THAN 60" ABOVE THE PLANE OF THE ADJACENT WALKING SURFACE.
8. GLAZING ADJACENT TO THE STAIRWAYS WITHIN 60" HORIZONTALLY OF THE BOTTOM TREAD OF A STAIRWAY IN ANY DIRECTION WHEN THE EXPOSED SURFACE OF THE GLAZING IS LESS THAN 60" ABOVE THE NOSE OF THE TREAD.

FOR EXCEPTIONS SEE IRC SECTION R308.4

FIREPLACES

ALL MASONRY FIREPLACES AND CHIMNEYS SHALL BE CONSTRUCTED TO CONFORM TO ALL APPLICABLE PORTIONS OF THE 2018 IBC/IRC CODE. FLUE LINER MINIMUM, 5/8" FIRE CLAY (OR EQ.) PER IRC. FLUE AREA PER IRC. CHIMNEYS SHALL SUPPORT ONLY THEIR OWN WEIGHT UNLESS SPECIFICALLY DESIGNED TO SUPPORT ADDITIONAL LOADS. ALL FIREPLACES SHALL BE PROVIDED WITH TIGHTLY FITTING FLUE DAMPERS, OPERATED WITH A READILY ACCESSIBLE MANUAL OR APPROVED AUTOMATIC CONTROL, AND AN OUTSIDE SOURCE OF COMBUSTION AIR. MINIMUM DUCT SIZE OF 6" SQ. INCHES IN AREA PROVIDED WITH READILY ACCESSIBLE DAMPER LOCATED IN FRONT PART OF FIREBOX. PRE-FABRICATED FIREPLACES, CHIMNEYS, AND RELATED COMPONENTS TO BEAR U.L. OR I.C.B.O. SEAL OR APPROVAL AND TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS. HEARTHS SHALL EXTEND 20" (MIN.) IN FRONT OF AND 12" (MIN.) BEYOND EACH SIDE OF FIREPLACE OPENINGS WHEN REQ'D. FIREPLACES SHALL BE PROVIDED WITH TIGHTLY FITTING GLASS OR METAL DOORS.

(1) FIRE ALARM

NFPA 72 CHAPTER 29 RESIDENTIAL FIRE ALARM SYSTEM REQUIRED TO BE INSTALLED PER NFPA AND COMI STANDARDS. A SEPARATE FIRE PERMIT IS REQUIRED"

MECHANICAL

GENERAL

SOLID FUEL BURNING APPLIANCES INCLUDE AIRTIGHT STOVES, FIREPLACE STOVES, ROOM BEATERS, FACTORY BUILT FIREPLACES AND FIREPLACE INSERTS. ALL SOLID FUEL BURNING APPLIANCES SHALL COMPLY WITH THE PROVISIONS OF CHAPTER 24 OF THE 2018 INTERNATIONAL RESIDENTIAL CODE.

HEATING

EACH DWELLING UNIT SHALL BE PROVIDED WITH HEATING FACILITIES CAPABLE OF MAINTAINING A TEMPERATURE OF 68 DEGREES FAHRENHEIT AT A HEIGHT OF 3'-0" ABOVE THE FLOOR AND TWO FEET FROM EXTERIOR WALLS IN ALL HABITABLE ROOMS WHEN THE OUTSIDE TEMPERATURE IS AS SET FORTH IN THE W.S.E.C.

DEFINITION OF BUILDING THERMAL ENVELOPE FROM THE WASHINGTON STATE ENERGY CODE:
THE BELOW-GRADE WALLS, ABOVE-GRADE WALLS, FLOOR, ROOF, AND ANY OTHER BUILDING ELEMENTS THAT ENCLOSE CONDITIONED SPACE OR PROVIDES A BOUNDARY BETWEEN CONDITIONED SPACE AND EXEMPT OR UNCONDITIONED SPACE.

1. FUEL BURNING APPLIANCES LOCATED WITHIN THE BUILDING ENVELOPE SHALL OBTAIN AIR FROM OUTDOORS, MEETING THE PROVISIONS OF CHAPTER 24 OF THE 2018 IRC.
2. FUEL BURNING APPLIANCES LOCATED OUTSIDE THE BUILDING ENVELOPE SHALL MEET THE PROVISIONS OF CHAPTER 24 OF THE 2018 IRC.
3. DUCTWORK LOCATION AND SOURCE OF COMBUSTION AIR SHALL MEET THE PROVISIONS OF CHAPTER 16 OF THE 2018 IRC.

ALL WARM AIR FURNACES SHALL BE LISTED AND LABELED BY AN APPROVED AGENCY AND INSTALLED PER CHAPTER MI402 OF THE 2018 IRC.

NO WARM AIR FURNACE SHALL BE INSTALLED IN A ROOM USED OR DESIGNED TO BE USED AS A BEDROOM, BATHROOM, CLOSET OR IN ANY ENCLOSED SPACE WITH ACCESS ONLY THROUGH SUCH ROOM OR SPACE, EXCEPT DIRECT VENT FURNACE, ENCLOSED FURNACES AND ELECTRIC HEATING FURNACES.

NO WARM AIR FURNACE SHALL BE INSTALLED IN A CLOSET OR ALCOVE WITH A SPACE LESS THAN 12" WIDER THAN THE FURNACE OR A CLEARANCE OF 3" ALONG THE SIDES, BACK AND TOP.

LIQUEFIED PETROLEUM GAS BURNING APPLIANCES SHALL NOT BE INSTALLED IN A PIT, BASEMENT OR SIMILAR LOCATION WHERE HEAVIER THAN AIR GASES MIGHT COLLECT. APPLIANCES SO FUELED SHALL NOT BE INSTALLED IN AN ABOVE GRADE UNDER FLOOR SPACE OR BASEMENT UNLESS SUCH LOCATION IS PROVIDED WITH AN APPROVED MEANS FOR REMOVAL OF UNBURNED GAS.

HEATING AND COOLING APPLIANCES LOCATED IN A GARAGE AND WHICH GENERATE A GLOW, SPARK OR FLAME CAPABLE OF IGNITING FLAMMABLE VAPORS SHALL BE INSTALLED WITH THE PILOTS AND BURNERS OR HEATING ELEMENTS AND SWITCHES AT LEAST 18" ABOVE THE FLOOR SURFACE.

FIRE DAMPERS NEED NOT BE INSTALLED IN AIR DUCTS PASSING THROUGH THE WALL, FLOOR OR CEILING SEPARATING A RESIDENCE (GROUP B, DIVISION 3 OCCUPANCY) FROM A GARAGE (GROUP M, DIVISION 1 OCCUPANCY), PROVIDED SUCH DUCTS WITHIN THE GARAGE ARE CONSTRUCTED OF STEEL HAVING A THICKNESS NOT LESS THAN 0.019" (NO. 26 GALVANIZED SHEET GAUGE) AND HAVE NO OPENINGS INTO THE GARAGE

WARM AIR FURNACE INSTALLATIONS IN ATTICS OR CRAWL SPACES SHALL COMPLY WITH M1402 OF THE 2018 IRC.

EVERY APPLIANCE DESIGNED TO BE VENTED SHALL BE CONNECTED TO A VENTING SYSTEM COMPLYING WITH CHAPTER 18 OF THE 2018 IRC. EVERY FACTORY BUILT CHIMNEY, TYPE L VENT, TYPE B GAS VENT OR TYPE BW GAS VENT SHALL BE INSTALLED IN ACCORDANCE WITH THE TERMS OF ITS LISTING, MANUFACTURERS INSTALLATION INSTRUCTIONS AND THE REQUIREMENTS PER CHAPTER 10 OF THE 2018 IRC.

A TYPE B OR BW GAS VENT SHALL TERMINATE PER CHAPTER 24 OF THE 2018 IRC.

VENT CONNECTORS SHALL BE INSTALLED WITHIN THE SPACE OR AREA IN WHICH THE APPLIANCE IS LOCATED AND SHALL BE CONNECTED TO A CHIMNEY OR VENT IN SUCH A MANNER AS TO MAINTAIN THE CLEARANCE TO COMBUSTIBLES PER SECTION M1803 OF THE 2018 IRC.

HEATING EQUIPMENT

ALL HEATING EQUIPMENT SHALL COMPLY WITH SECTION M1401 OF THE 2018 IRC.

FOR GAS AND OIL FIRED EQUIPMENT, OUTPUT MAY HAVE CAPACITY OF 150%-250% OF HEATING DESIGN LOAD PROVIDED THAT IT HAS AN AFUE OF 90% OR GREATER

DUCTWORK

1. DUCT SYSTEMS OR FACTORY BUILT AIR DUCTS SHALL BE OF METAL AS SET FORTH BY TABLE 1601.1.1 (1) & 1601.1.1 (2)
2. RECTANGULAR, FLAT, OVAL AND ROUND DUCT JOINTS AND SEAMS SHALL BE AIRTIGHT PER SECTION M1601.4.1 OF THE 2018 IRC
3. INSTALLATION OF DUCTS SHALL COMPLY WITH SECTION M1601.4 OF THE 2018 IRC.
4. DUCT INSULATION SHALL BE INSTALLED IN ACCORDANCE WITH SECTION M1601.3 OF THE 2018 IRC.

WHOLE HOUSE VENTILATION

SPECIFICATIONS FROM THE 2018 IRC SECTIONS M1505

SOURCE SPECIFIC VENTILATION REQUIREMENTS.
1. MINIMUM EXHAUST FAN REQUIREMENTS:
A. BATHROOMS, LAUNDRIES AND POWDER ROOMS - 50 CFM @ 0.25" W.G.
B. KITCHENS - 100 CFM @ 0.25" W.G. (RANGE HOOD OR DOWN DRAFT EXHAUST FAN RATED AT MIN.. 100 CFM @ 0.10" W.G. MAY BE USED FOR EXHAUST FAN REQUIREMENTS.)

2. EXHAUST DUCT REQUIREMENTS:
A. INSULATE TO R-8 (MIN..) IN UNCONDITIONED SPACES.
B. EQUIP WITH A BACK DRAFT DAMPER.
C. TERMINATE OUTSIDE THE BUILDING.
D. COMPLY WITH TABLE 403.4.7.2 ON THIS SHEET.

PRESCRIPTIVE REQUIREMENTS FOR: OPTION 1. INTERMITTENT WHOLE HOUSE VENTILATION USING EXHAUST FANS (IRC M1505.4.3.2. OUTDOOR AIR SHALL BE SUPPLIED TO ALL HABITABLE ROOMS AT FLOW RATES SPECIFIED IN TABLE M1505.4.3(1) ON THIS SHEET, USING THE FOLLOWING METHODS:

1. ROOM OUTDOOR AIR INLETS SHALL COMPLY WITH THE FOLLOWING:
A. HAVE CONTROLLABLE AND SECURE OPENINGS.
B. BE SLEEVED OR DESIGNED SO AS TO NOT COMPROMISE THE THERMAL PROPERTIES OF THE WALL OR WINDOW IN WHICH THEY ARE PLACED.
C. PROVIDE A MINIMUM OF FOUR SQUARE INCHES OF NET FREE AREA OF OPENING FOR EACH HABITABLE SPACE.
D. PROVISIONS SHALL BE MADE TO ENSURE AIR FLOW BY THE INSTALLATION OF DISTRIBUTION DUCTS, TRANSOMS, 1 INSTALLATION OF GRILLES, UNDERCUTTING DOORS A MINIMUM OF " ABOVE THE FINISHED FLOOR COVERINGS, OR 2 SIMILAR MEANS.

2. WHOLE HOUSE EXHAUST FANS SHALL:
A. BE SIZED ACCORDING TO TABLE M1505.4.3(1) ON THIS SHEET.
B. BE FLOW RATED AT 0.25" W.G.
C. SOUND RATED AT 1.0 SONES MAXIMUM.

3. WHOLE HOUSE EXHAUST FAN CONTROLS:
A. BE CONTROLLED BY A 24-HOUR CLOCK TIMER.
B. PROVIDE CAPABILITY OF CONTINUOUS OPERATION, MANUAL AND AUTOMATIC CONTROL.
C. THE 24-HOUR CLOCK TIMER SHALL BE READILY ACCESSIBLE.
D. AT THE TIME OF FINAL INSPECTION, THE AUTOMATIC CONTROL TIMER SHALL BE SET TO OPERATE THE WHOLE HOUSE FAN FOR AT LEAST 8 HOURS A DAY.
E. A LABEL SHALL BE AFFIXED TO THE CONTROL THAT READS "WHOLE HOUSE VENTILATION (SEE OPERATING INSTRUCTIONS)".

4. WHOLE HOUSE EXHAUST DUCTS:
A. BE SIZED ACCORDING TO TABLE 403.4.7.2 ON THIS SHEET.
B. BE INSULATED TO A MINIMUM R-4 IN UNCONDITIONED SPACES.
C. TERMINATE OUTSIDE THE BUILDING.

IMC TABLE M403.4.7.2
PRESCRIPTIVE EXHAUST DUCT SIZING

FAN TESTED CFM @ 0.25" W.G.	MINIMUM FLEX DIAMETER	MAXIMUM LENGTH FEET	MINIMUM SMOOTH DIAMETER	MAXIMUM LENGTH FEET	MAXIMUM ELBOWS[1]
50	4 INCH	25' - 0"	4 INCH	70' - 0"	3
50	5 INCH	90' - 0"	5 INCH	100' - 0"	3
50	6 INCH	NO LIMIT	6 INCH	NO LIMIT	3
80	4 INCH[2]	N / A	4 INCH	20' - 0"	3
80	5 INCH	15' - 0"	5 INCH	100' - 0"	3
80	6 INCH	90' - 0"	6 INCH	NO LIMIT	3
100	5 INCH[2]	N / A	5 INCH	50' - 0"	3
100	6 INCH	45' - 0"	6 INCH	NO LIMIT	3
125	6 INCH	15' - 0"	6 INCH	NO LIMIT	3
125	7 INCH	70' - 0"	7 INCH	NO LIMIT	3

1. FOR EACH ADDITIONAL ELBOW, SUBTRACT 10'-0" FROM LENGTH.
2. FLEX DUCTS OF THIS DIAMETER ARE NOT PERMITTED WITH FANS OF THIS SIZE.

IRC TABLE M1505.4.3(1)
MINIMUM VENTILATION RATES (CONTINUOUSLY OPERATING SYSTEMS)

FLOOR AREA (SQ. FT.)	NUMBER OF BEDROOMS				
	0 - 1	2	3	4	5 OR MORE
	AIRFLOW IN CFM				
<500	30	30	35	45	50
501 - 1000	30	35	40	50	55
1001 - 1500	30	40	45	55	60
1501 - 2000	35	45	50	60	65
2001 - 2500	40	50	55	65	70
2501 - 3000	45	55	60	70	75
3001 - 3500	50	60	65	75	80
3501 - 4000	55	65	70	80	85
4001 - 4500	60	70	75	85	90
4501 - 5000	65	75	80	90	95

1. VENTILATION RATES IN TABLE ARE MINIMUM OUTDOOR AIRFLOW RATES MEASURED IN CFM.

ENERGY CODE

TABLE R301.1
CLIMATE ZONES, MOISTURE REGIMES, AND WARM-HUMID DESIGNATIONS BY STATE AND COUNTY

Key: A - Moist, B - Dry, C - Marine. Absence of moisture designation indicates moisture regime is irrelevant.

WASHINGTON

5B Adams	4C Lewis
5B Asotin	5B Lincoln
5B Benton	4C Mason
5B Chelan	5B Okanogan
4C Clallam	4C Pacific
4C Clark	5B Pend Oreille
5B Comumbia	4C Pierce
4C Cowlitz	4C San Juan
5B Douglas	4C Skagit
5B Ferry	5B Skamania
5B Franklin	4C Snohomish
5B Garfield	5B Spokane
5B Grant	5B Stevens
4C Grays Harbor	4C Thurston
4C Island	4C Wahkiakum
4C Jefferson	5B Walla Walla
4C King	4C Whatcom
4C Kitsap	5B Whitman
5B Kittitas	5B Yakima
5B Klickitat	

TABLE R402.1.1
INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT [a]

CLIMATE ZONE	5 AND MARINE 4
FENESTRATION U-FACTOR[b]	0.30
SKYLIGHT[b] U-FACTOR	0.50
CEILING R-VALUE[e]	49
WOOD FRAME WALL[g,h] R-VALUE	21 int
FLOOR R-VALUE	30
BELOW-GRADE[c,h] WALL R-VALUE	10/15/21 int + 5TB
SLAB[d,f] R-VALUE & DEPTH	10, 2ft

FOR SI: 1 FOOT .= 304.8 MM, CI .= CONTINUOUS INSULATION, INT .= INTERMEDIATE FRAMING.

a. R-VALUES ARE MINIMUMS. U-FACTORS AND SHGC ARE MAXIMUMS. WHEN INSULATION IS INSTALLED IN A CAVITY WHICH IS LESS THAN THE LABEL OR DESIGN THICKNESS OF THE INSULATION, THE COMPRESSED R-VALUE OF THE INSULATION FROM APPENDIX TABLE A101.4 SHALL NOT BE LESS THAN THE R-VALUE SPECIFIED IN THE TABLE.

b. THE FENESTRATION U-FACTOR COLUMN EXCLUDES SKYLIGHTS.

c. "10/15/21 + 5TB" MEANS R-10 CONTINUOUS INSULATION ON THE EXTERIOR OF THE WALL, OR R-15 CONTINUOUS INSULATION ON THE INTERIOR OF THE WALL, OR R-21 CAVITY INSULATION PLUS A THERMAL BREAK BETWEEN THE SLAB AND THE BASEMENT WALL AT THE INTERIOR OF THE BASEMENT WALL. "10/15/21+ 5TB" SHALL BE PERMITTED TO BE MET WITH R-13 CAVITY INSULATION ON THE INTERIOR OF THE BASEMENT WALL PLUS R-5 CONTINUOUS INSULATION ON THE INTERIOR OR EXTERIOR OF THE WALL. "5TB" MEANS R-5 THERMAL BREAK BETWEEN FLOOR SLAB AND BASEMENT WALL.

d. R-10 CONTINUOUS INSULATION IS REQUIRED UNDER HEATED SLAB ON GRADE FLOORS. SEE R402.2.9.1.

e. FOR SINGLE RAFTER- OR JOIST-VAUTED CEILINGS, THE INSULATION MAY BE REDUCED TO R-38 IF THE FULL INSULATION DEPTH EXTENDS OVER THE TOP PLATE OF THE EXTERIOR WALL.

f. R-7.5 CONTINUOUS INSULATION INSTALLED OVER AN EXISTING SLAB IS DEEMED TO BE EQUIVALENT TO THE REQUIRED PERIMETER SLAB INSULATION WHEN APPLIED TO EXISTING SLABS COMPLYING WITH SECTION R503.1.1. IF FOAM PLASTIC IS USED, IT SHALL MEET THE REQUIREMENTS FOR THERMAL BARRIERS PROTECTING FOAM PLASTICS.

g. FOR LOG STRUCTURES DEVELOPED IN COMPLIANCE WITH STANDARD ICC 400, LOG WALLS SHALL MEET THE REQUIREMENTS FOR CLIMATE ZONE 5 OF ICC 400.

h. INT. (INTERMEDIATE FRAMING) DENOTES FRAMING AND INSULATION AS DESCRIBED IN SECTION A103.2.2 INCLUDING STANDARD FRAMING 16 INCHES ON CENTER, 78 PERCENT OF THE WALL CAVITY INSULATED AND HEADERS INSULATED WITH A MINIMUM OF R-10 INSULATION.

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principal architect
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checked by Checker
job no.
date 02/13/2023

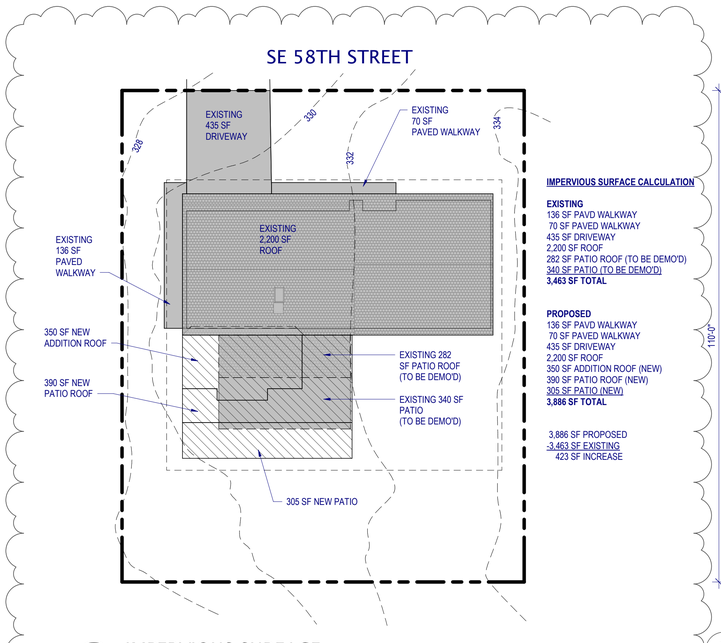
revisions:

no.	date		by
1	5/12/23	CORRECTIONS 1	

PERMIT SET
02/13/2023

2018 IRC CODE INFORMATION

A0.01



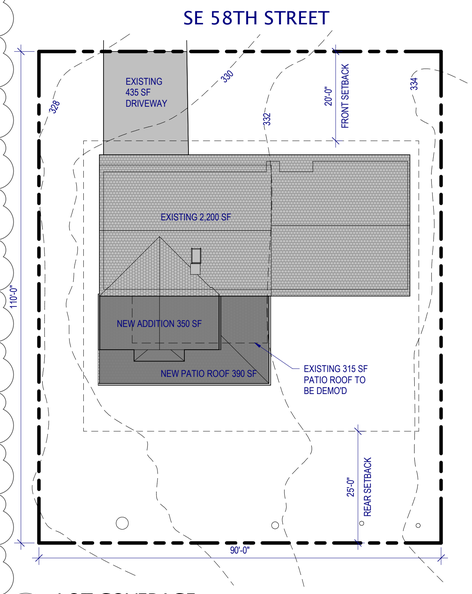
IMPERVIOUS SURFACE CALCULATION

EXISTING
136 SF PAVD WALKWAY
70 SF PAVED WALKWAY
435 SF DRIVEWAY
2,200 SF ROOF
282 SF PATIO ROOF (TO BE DEMO'D)
340 SF PATIO (TO BE DEMO'D)
3,463 SF TOTAL

PROPOSED
136 SF PAVD WALKWAY
70 SF PAVED WALKWAY
435 SF DRIVEWAY
2,200 SF ROOF
350 SF ADDITION ROOF (NEW)
390 SF PATIO ROOF (NEW)
305 SF PATIO (NEW)
3,886 SF TOTAL

3,886 SF PROPOSED
-3,463 SF EXISTING
423 SF INCREASE

5 IMPERVIOUS SURFACE
SCALE: 1/16" = 1'-0"



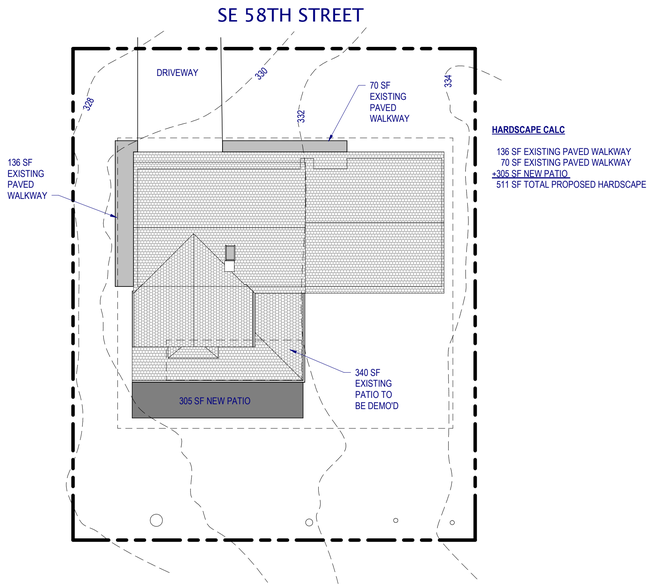
LOT COVERAGE CALC

334' - 328' = 6' DROP
90' = WIDTH OF LOT
6' / 90' = 6.7% SLOPE

LOT SLOPE LESS THAN 15%
40% LOT COVERAGE ALLOWED
LOT AREA = 9,897 SF
40% = 3,958 SF ALLOWED LOT COVERAGE

2,200 SF EXISTING HOUSE
435 SF EXISTING DRIVEWAY
350 SF NEW ADDITION
+ 390 SF NEW PATIO ROOF
3,375 SF TOTAL PROPOSED LOT COVERAGE

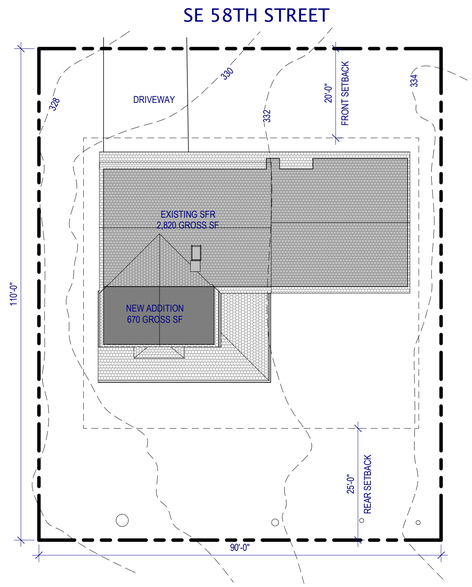
2 LOT COVERAGE
SCALE: 1/16" = 1'-0"



HARDSCAPE CALC

136 SF EXISTING PAVED WALKWAY
70 SF EXISTING PAVED WALKWAY
+305 SF NEW PATIO
511 SF TOTAL PROPOSED HARDSCAPE

4 HARDSCAPE
SCALE: 1/16" = 1'-0"

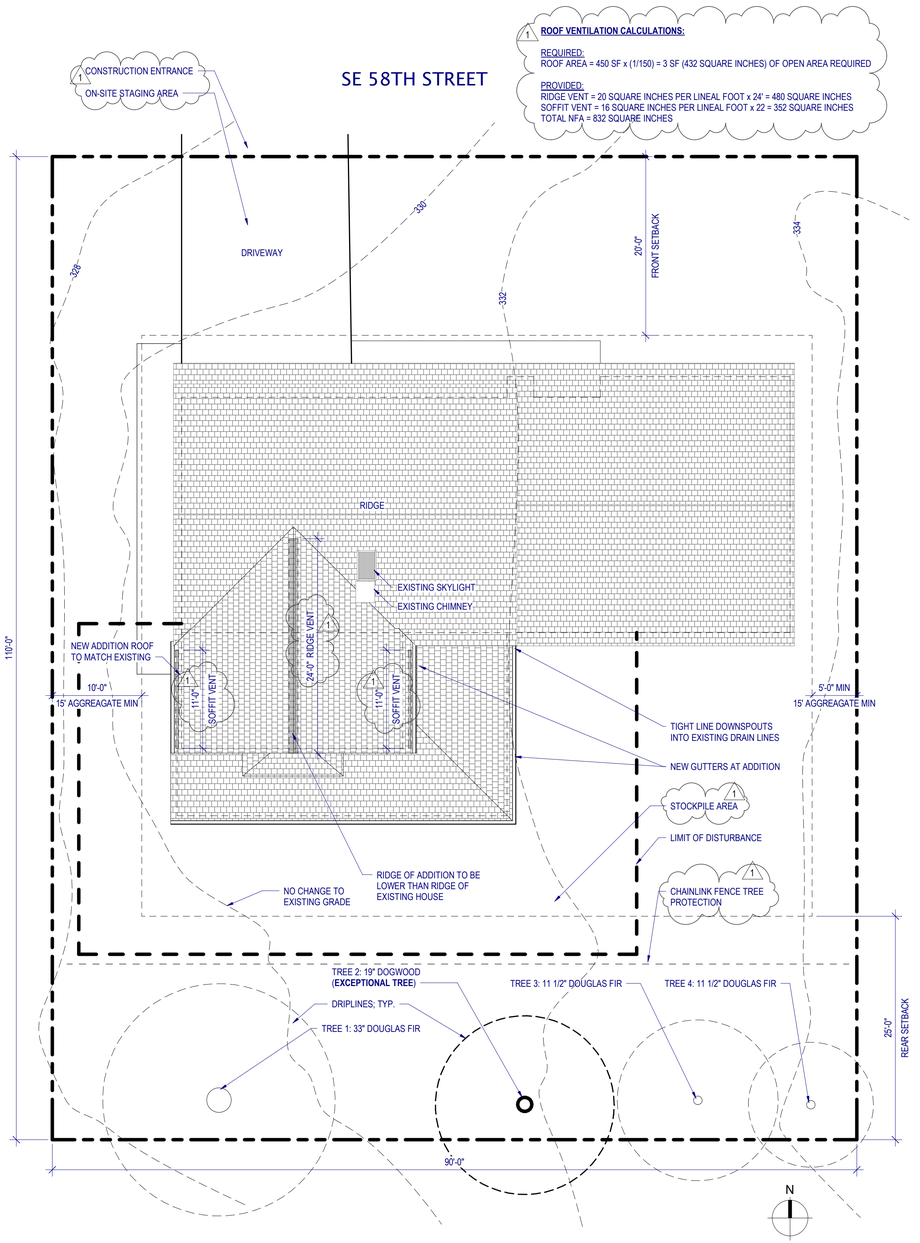


GROSS FLOOR AREA CALC

LOT AREA = 9,897 SF
40% = 3,958 SF ALLOWED GROSS FLOOR AREA

2,820 SF EXISTING SINGLE FAMILY RESIDENCE
+ 670 SF NEW ADDITION
3,490 SF TOTAL PROPOSED GROSS FLOOR AREA

3 GROSS FLOOR AREA
SCALE: 1/16" = 1'-0"



ROOF VENTILATION CALCULATIONS:

REQUIRED:
ROOF AREA = 450 SF x (1/150) = 3 SF (432 SQUARE INCHES) OF OPEN AREA REQUIRED

PROVIDED:
RIDGE VENT = 20 SQUARE INCHES PER LINEAL FOOT x 24' = 480 SQUARE INCHES
SOFFIT VENT = 16 SQUARE INCHES PER LINEAL FOOT x 22 = 352 SQUARE INCHES
TOTAL NFA = 832 SQUARE INCHES

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

Christensen Architects

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HELLING ADDITION
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principal architect
project manager
drawn by
Author
checked by
job no.
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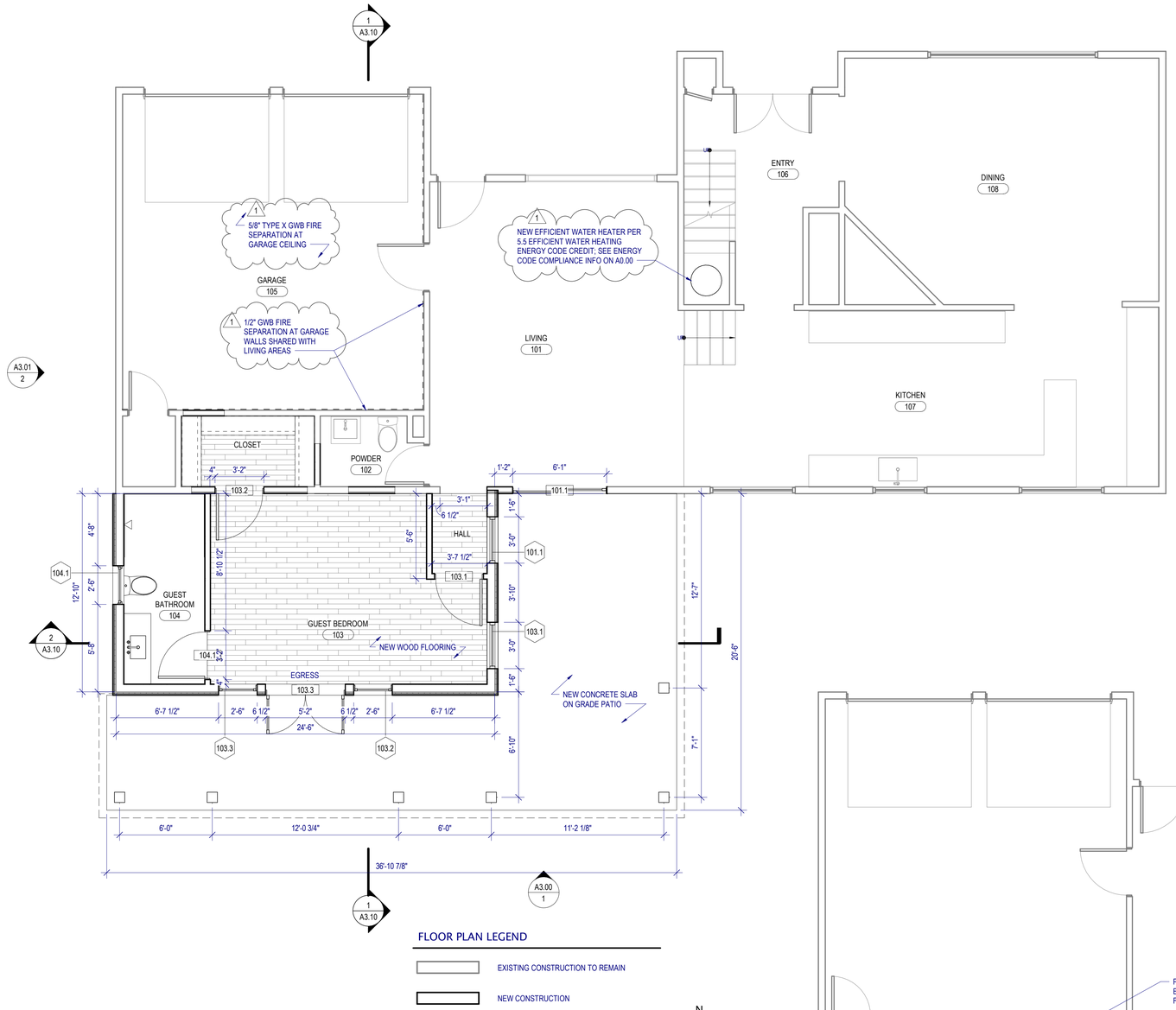
revisions:

no.	date	by
1	5/12/23	CORRECTIONS 1

PERMIT SET
02/13/2023

SITE PLAN

A1.00



FLOOR PLAN LEGEND

EXISTING CONSTRUCTION TO REMAIN

NEW CONSTRUCTION

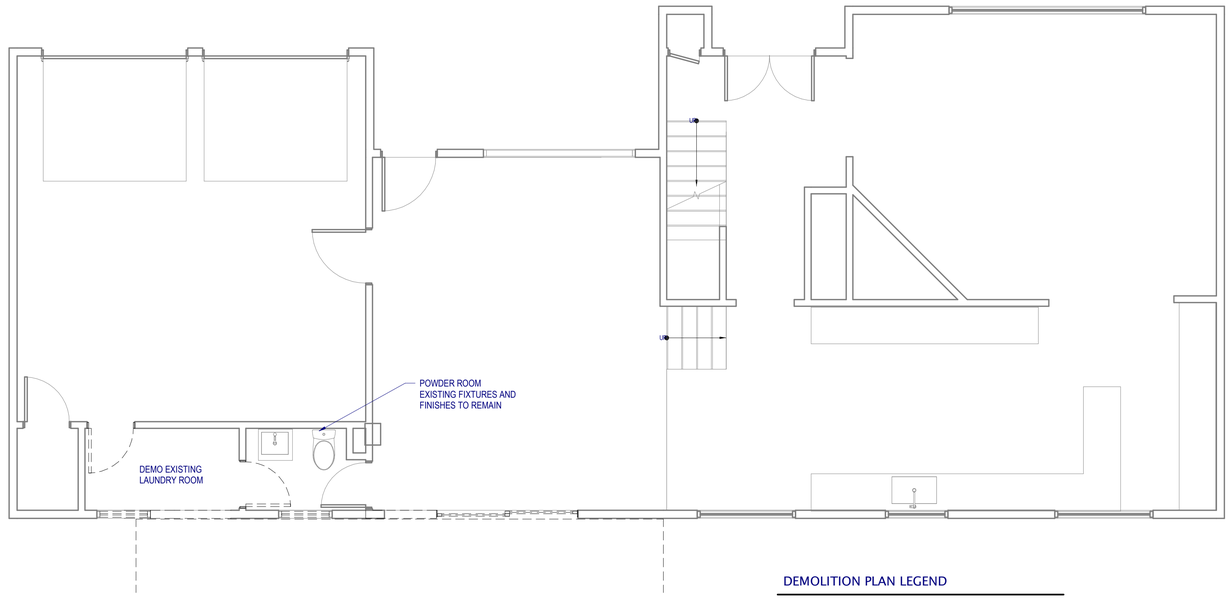
2 01 MAIN LEVEL PLAN

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

N

055 & 056_DOORS

MARK	Level (HIDE)	Family	Type	LOCATION	OPERATION	DIMENSIONS WIDTH	DIMENSIONS HEIGHT	U Value	Comments
GARAGE LEVEL									
101.1	GARAGE LEVEL	DR-Sliding-Glass-XO	6'-0"w x 6'-8"h	LIVING		6' - 0"	6' - 8"	0.28	EXTERIOR, SAFETY GLAZING
103.1	GARAGE LEVEL	DR-Flush-Single	3'-0"w x 6'-8"h	GUEST BEDROOM		3' - 0"	6' - 8"		
103.2	GARAGE LEVEL	DR-Flush-Single	3'-0"w x 6'-8"h	CLOSET		3' - 0"	6' - 8"		
103.3	GARAGE LEVEL	DR-Flush-Double-Glass	5'-0"w x 6'-8"h	GUEST BEDROOM		5' - 0"	6' - 8"	0.28	EXTERIOR, SAFETY GLAZING
104.1	GARAGE LEVEL	DR-Flush-Single	3'-0"w x 6'-8"h	GUEST BEDROOM		3' - 0"	6' - 8"		
UPPER LEVEL									
201.1	UPPER LEVEL	DR-Flush-Single	2'-6"w x 6'-8"h	HALLWAY		2' - 6"	6' - 8"		
202.1	UPPER LEVEL	DR-Flush-Single	2'-6"w x 6'-8"h	BEDROOM 2		2' - 6"	6' - 8"		
202.2	UPPER LEVEL	DR-Bifold-Double-4_Panel	4'-0"w x 6'-8"h	BEDROOM 2		4' - 0"	6' - 8"		
203.1	UPPER LEVEL	DR-Flush-Single	2'-6"w x 6'-8"h	BATHROOM		2' - 6"	6' - 8"		
203.2	UPPER LEVEL	DR-Flush-Single	2'-6"w x 6'-8"h	BATHROOM		2' - 6"	6' - 8"		
204.1	UPPER LEVEL	DR-Flush-Single	2'-6"w x 6'-8"h	BEDROOM 3		2' - 6"	6' - 8"		
204.2	UPPER LEVEL	DR-Bifold-Double-4_Panel	4'-0"w x 6'-8"h	BEDROOM 3		4' - 0"	6' - 8"		
205.1	UPPER LEVEL	DR-Flush-Single	2'-8"w x 6'-8"h	MASTER BEDROOM		2' - 8"	6' - 8"		
205.2	UPPER LEVEL	DR-Flush-Single	1'-8"w x 6'-8"h	MASTER BEDROOM		1' - 8"	6' - 8"		
206.1	UPPER LEVEL	DR-Flush-Single	2'-6"w x 6'-8"h	MASTER BATHROOM		2' - 6"	6' - 8"		
206.2	UPPER LEVEL	DR-Flush-Single	2'-6"w x 6'-8"h	MASTER BATHROOM		2' - 6"	6' - 8"		
207.1	UPPER LEVEL	DR-Flush-Single	2'-6"w x 6'-8"h	MASTER CLOSET		2' - 6"	6' - 8"		
208.1	UPPER LEVEL	DR-Flush-Single	2'-8"w x 6'-8"h	LAUNDRY		2' - 8"	6' - 8"		
209.1	UPPER LEVEL	DR-Flush-Single	2'-6"w x 6'-8"h	BEDROOM 1		2' - 6"	6' - 8"		
209.2	UPPER LEVEL	DR-Flush-Single	2'-2"w x 6'-8"h	BEDROOM 1		2' - 2"	6' - 8"		
Grand total: 20									



DEMOLITION PLAN LEGEND

EXISTING CONSTRUCTION TO REMAIN

EXISTING CONSTRUCTION TO BE DEMOLISHED

1 01 MAIN LEVEL DEMO PLAN

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

N

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project manager
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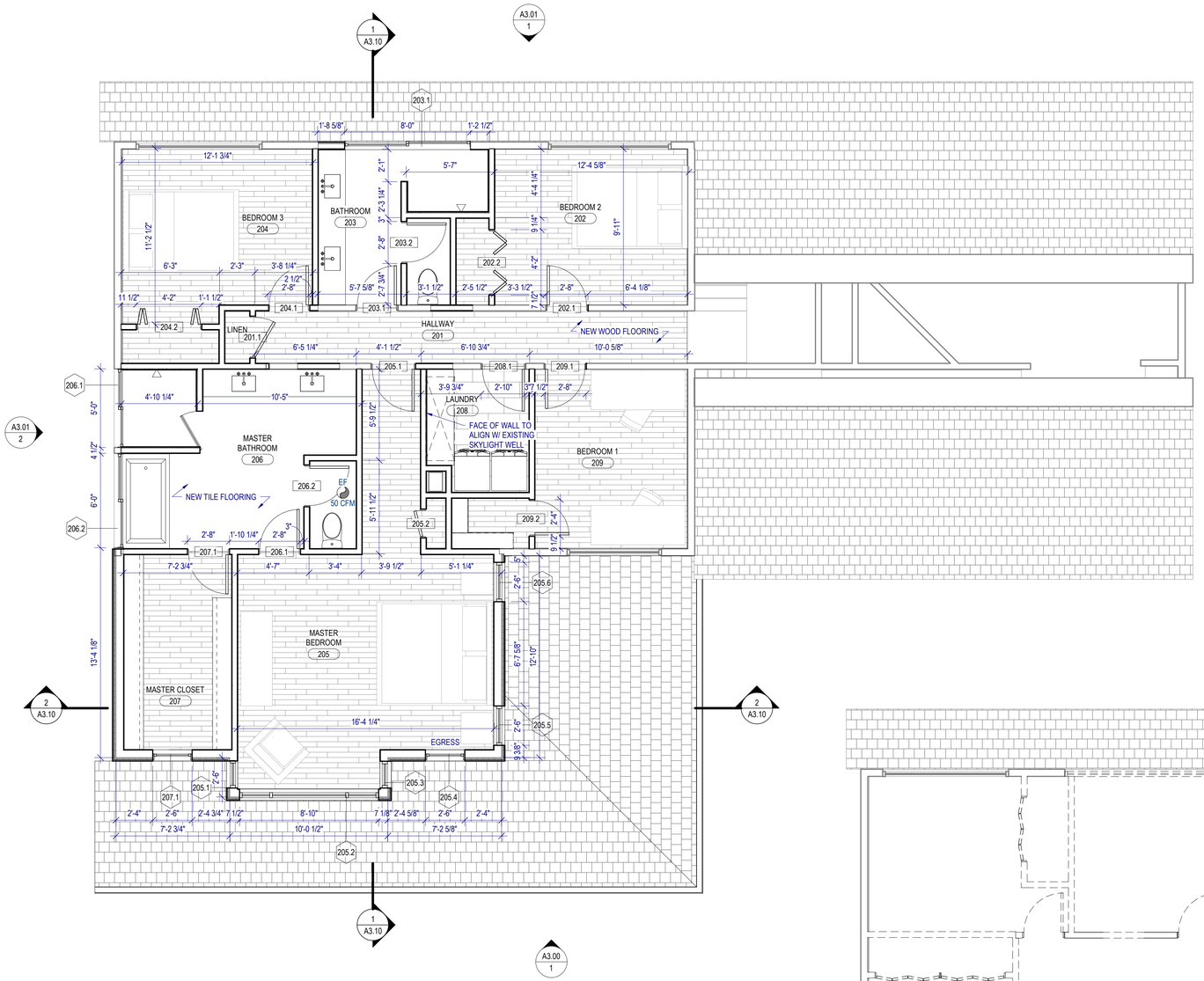
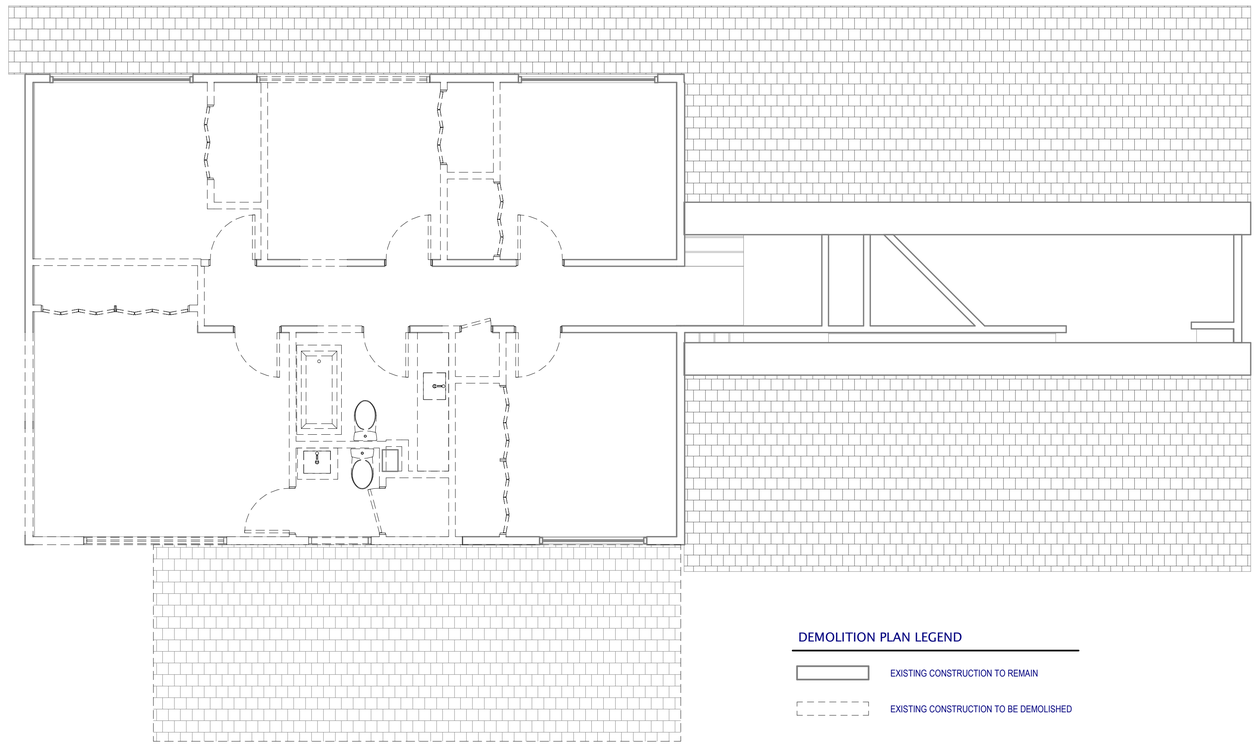
MAIN LEVEL PLAN

A2.10





FLOOR PLAN LEGEND

EXISTING CONSTRUCTION TO REMAIN

NEW CONSTRUCTION

2 02 UPPER LEVEL PLAN

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

1 02 UPPER LEVEL DEMO PLAN

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

N

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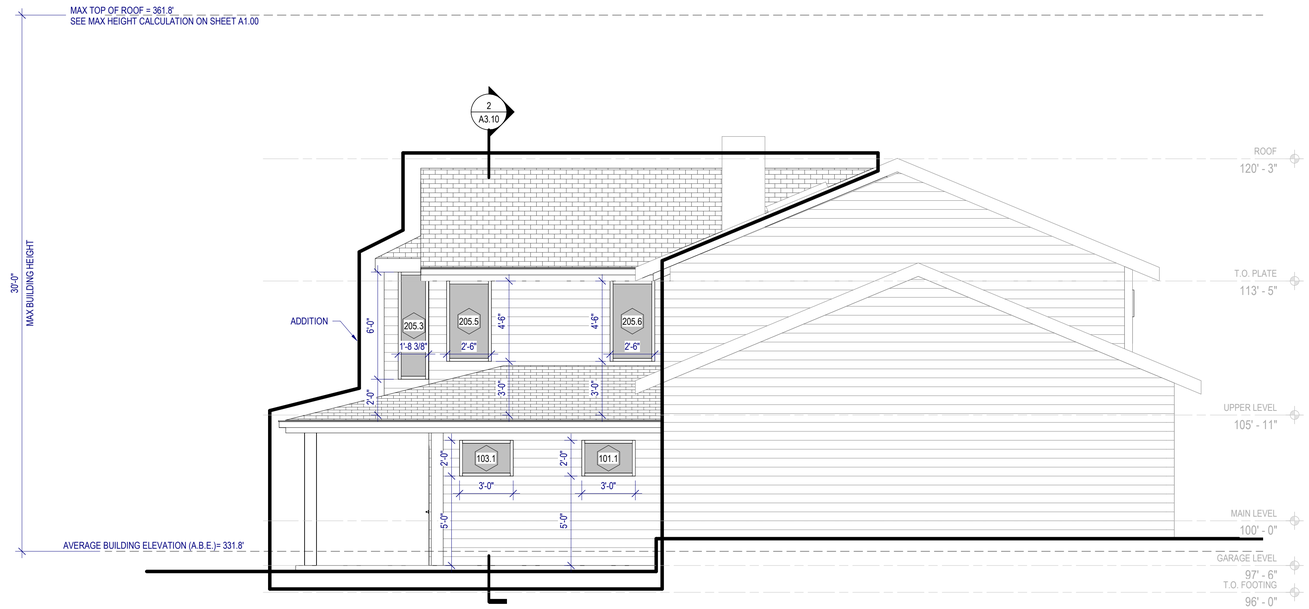
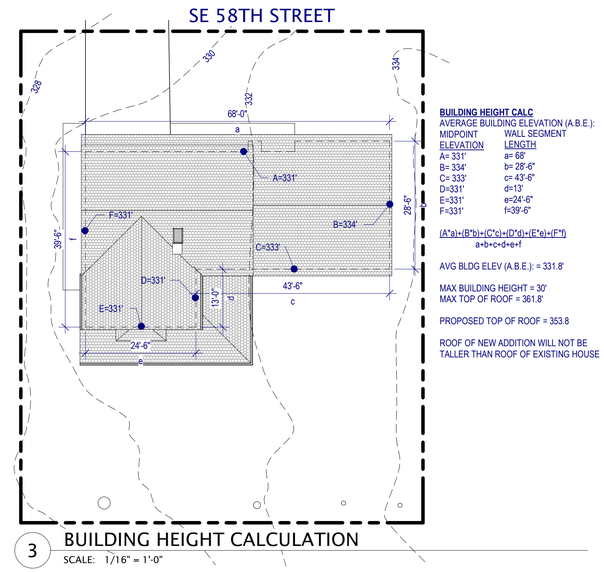
UPPER LEVEL PLAN

A2.20



2 EAST ELEVATION

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



BUILDING HEIGHT CALC

AVERAGE BUILDING ELEVATION (A.B.E.):

MIDPOINT ELEVATION	WALL SEGMENT LENGTH
A= 331'	a= 68'
B= 334'	b= 28'-6"
C= 333'	c= 43'-6"
D=331'	d=13'
E=331'	e=24'-6"
F=331'	f=39'-6"

$$\frac{(A*a)+(B*b)+(C*c)+(D*d)+(E*e)+(F*f)}{a+b+c+d+e+f}$$

AVG BLDG ELEV (A.B.E.): = 331.8'

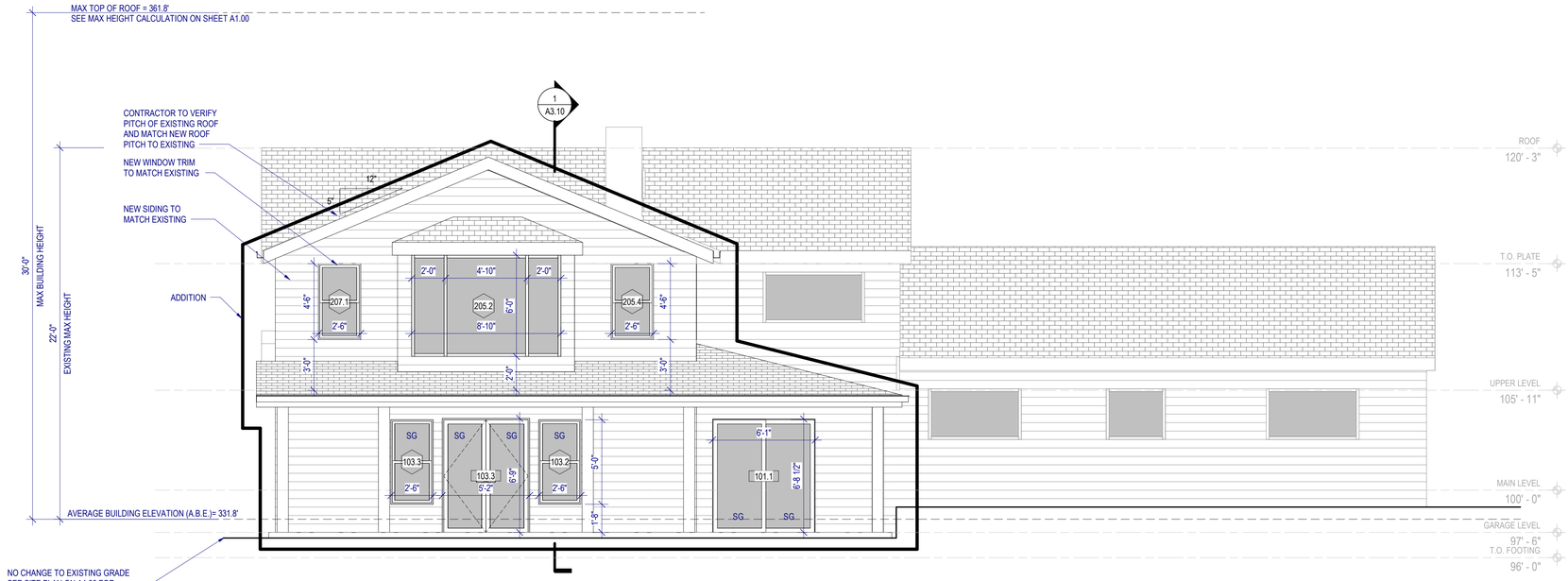
MAX BUILDING HEIGHT = 30'
MAX TOP OF ROOF = 361.8'

PROPOSED TOP OF ROOF = 353.8

ROOF OF NEW ADDITION WILL NOT BE TALLER THAN ROOF OF EXISTING HOUSE

3 BUILDING HEIGHT CALCULATION

SCALE: 1/16" = 1'-0"



1 SOUTH ELEVATION

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

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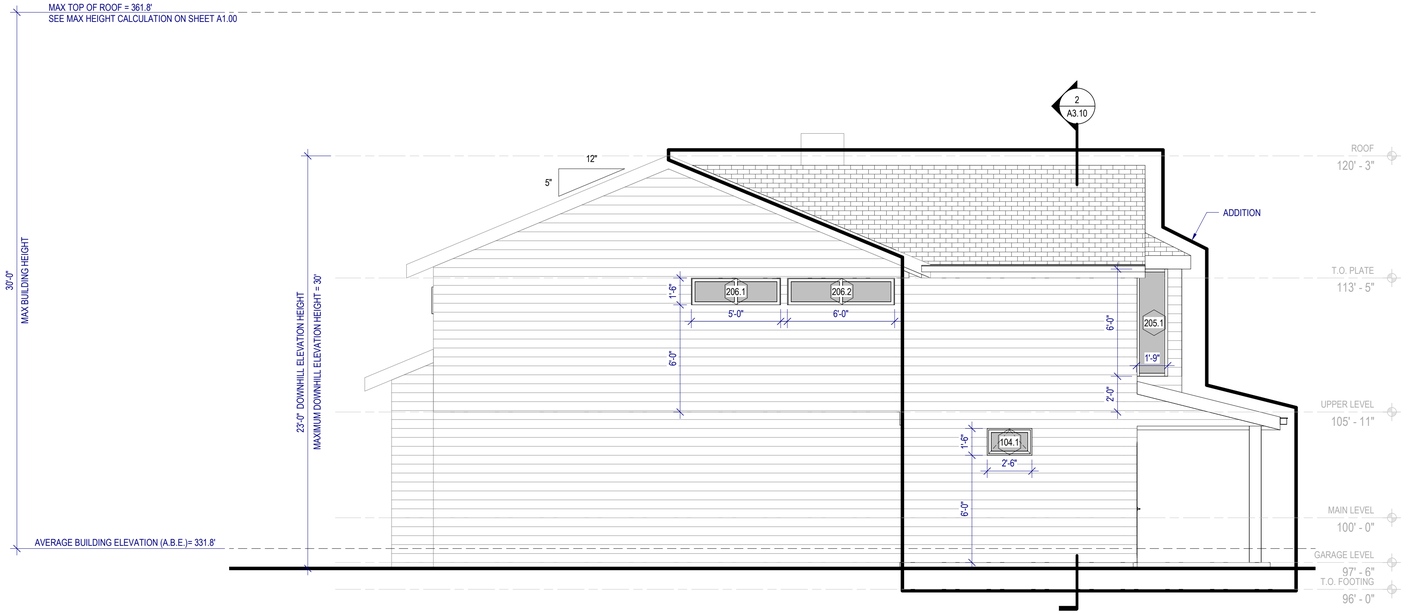
EXTERIOR ELEVATIONS

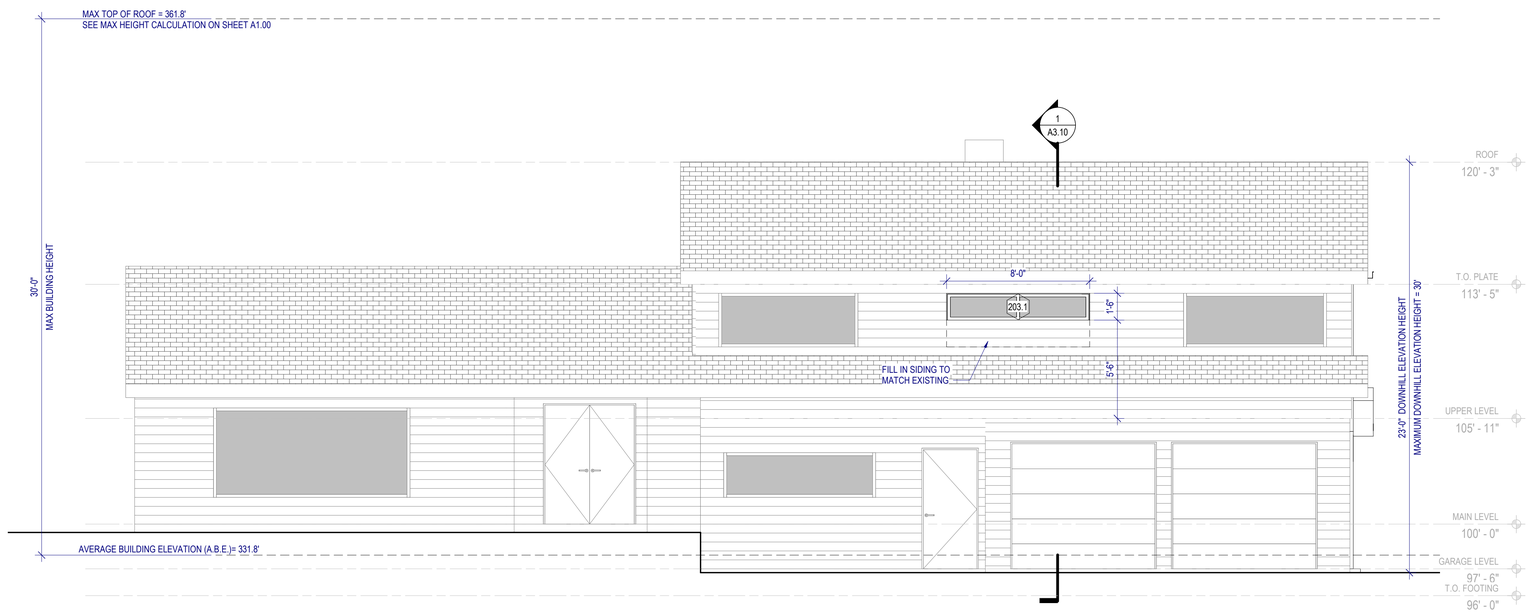
A3.00

065_WINDOWS

MARK	DIMENSIONS (ROUGH OPENING) WIDTH	HEIGHT	AREA	U VALUE	UA VALUE	REMARKS
101.1	3' - 0"	2' - 0"	6 SF	0.25	2	
103.1	3' - 0"	2' - 0"	6 SF	0.25	2	
103.2	2' - 6"	5' - 0"	13 SF	0.25	3	DOUBLE HUNG, SAFETY GLAZING
103.3	2' - 6"	5' - 0"	13 SF	0.25	3	DOUBLE HUNG, SAFETY GLAZING
104.1	2' - 6"	1' - 6"	4 SF	0.25	1	AWNING
203.1	8' - 0"	1' - 6"	12 SF	0.25	3	SLIDER
205.1	1' - 9"	6' - 0"	11 SF	0.25	3	FIXED
205.2	8' - 10"	6' - 0"	53 SF	0.25	13	FIXED
205.3	2' - 1"	4' - 11"	10 SF	0.25	3	FIXED
205.4	2' - 6"	4' - 6"	11 SF	0.25	3	DOUBLE HUNG - EGRESS
205.5	2' - 6"	4' - 6"	11 SF	0.25	3	FIXED
205.6	2' - 6"	4' - 6"	11 SF	0.25	3	FIXED
206.1	5' - 4 1/4"	1' - 4 3/4"	8 SF	0.25	2	SLIDER
206.2	6' - 5 3/4"	1' - 4 3/4"	9 SF	0.25	2	SLIDER
207.1	2' - 6"	4' - 6"	11 SF	0.25	3	DOUBLE HUNG
15			188 SF		47	



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



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

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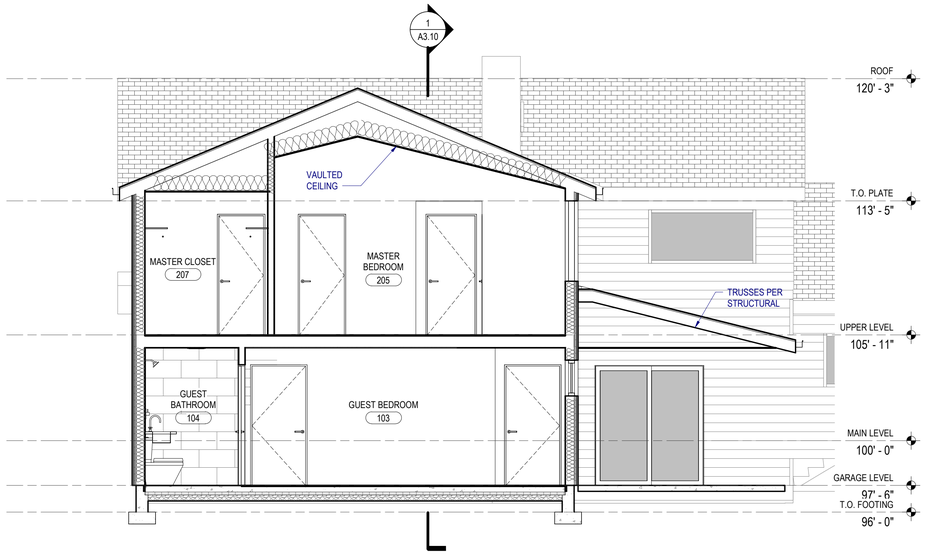
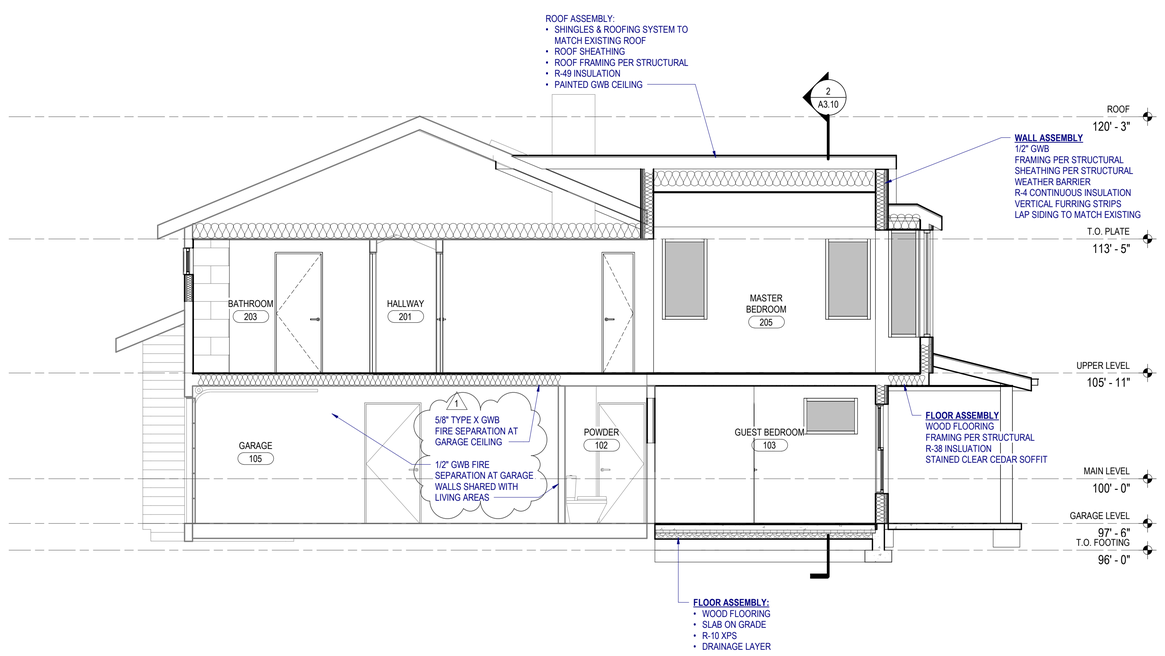
EXTERIOR ELEVATIONS

A3.01



2 Section 2

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



1 Section 1

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

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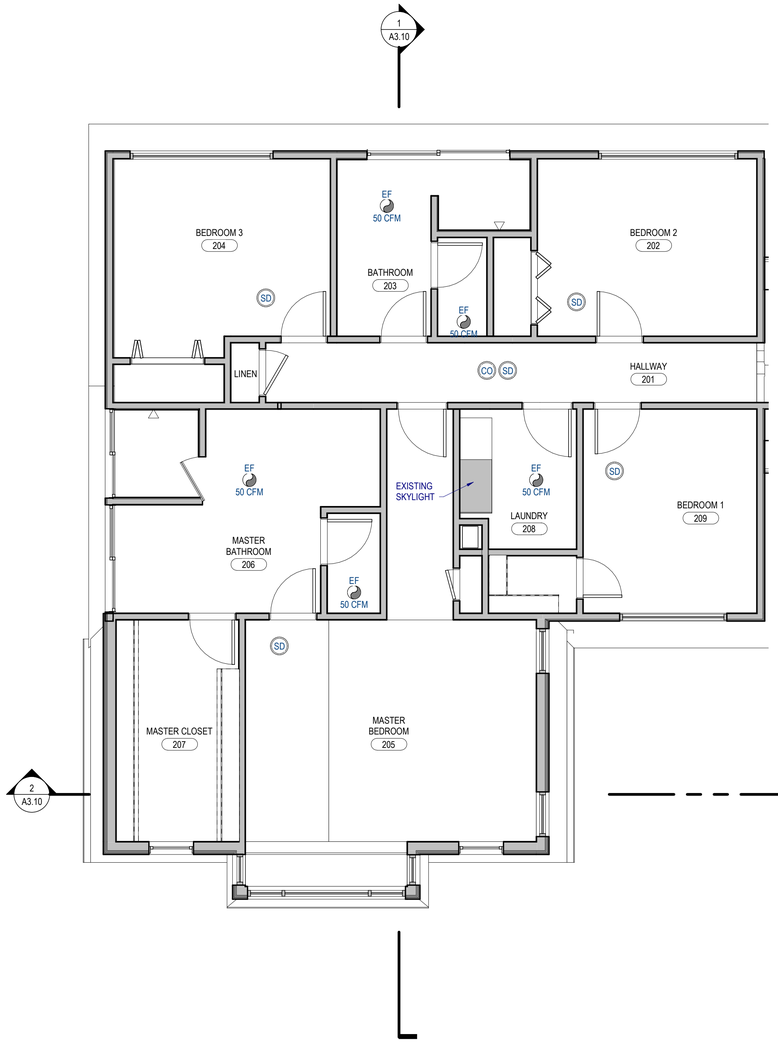
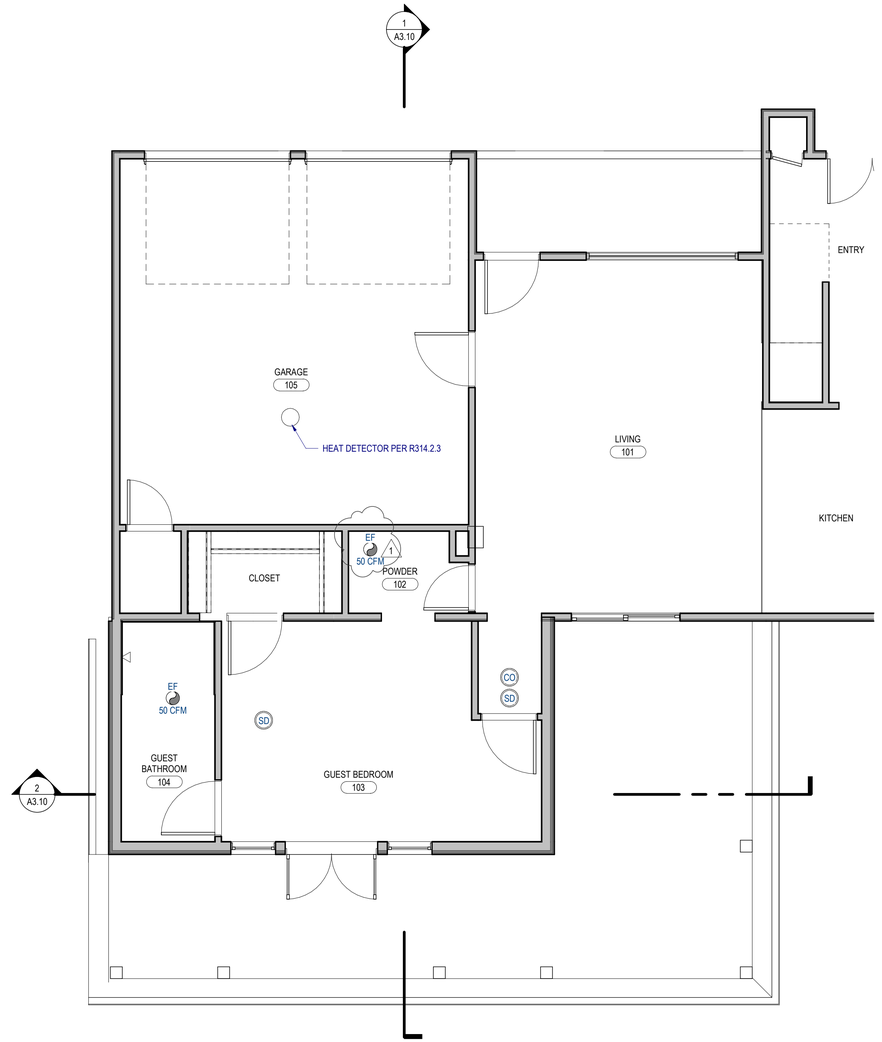
BUILDING SECTIONS

A3.10



2 02 UPPER LEVEL RCP

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



1 01 MAIN LEVEL RCP

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

GENERAL NOTE:
LIGHTING LAYOUT & ELECTRICAL PLAN TO BE PROVIDED BY INTERIOR DESIGNER

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REFLECTED CEILING PLANS

A6.00

GENERAL STRUCTURAL NOTES

(The following apply unless shown otherwise on the plans)

CRITERIA

1. ALL MATERIALS, WORKMANSHIP, DESIGN, AND CONSTRUCTION SHALL CONFORM TO THE DRAWINGS, SPECIFICATIONS, AND THE 2018 INTERNATIONAL BUILDING CODE.

2. DESIGN LOADING CRITERIA

   FLOOR LIVE LOAD (RESIDENTIAL)..... 40 PSF
   SNOW LOAD..... Pf = 25 PSF
   WIND LOAD.....Kzt=1.3, Iw=1.0, GCpi=0.18, V=98 MPH (3 SEC GUST), EXPOSURE "B"
   EARTHQUAKE ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE PROCEDURE
   LATERAL SYSTEM: LIGHT FRAMED SHEARWALLS, R=6.5
   SDC D, SITE CLASS D, Ie=1.0, Ss=1.62, S1=0.63, SDS=1.296, SD1=0.714, Cs=0.199
   SEISMIC BASE SHEAR, Vs = 14.3 KIPS

3. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS FOR BIDDING AND CONSTRUCTION. CONTRACTOR SHALL VERIFY DIMENSIONS AND CONDITIONS FOR COMPATIBILITY AND SHALL NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.

4. CONTRACTOR SHALL PROVIDE TEMPORARY BRACING FOR THE STRUCTURE & STRUCTURAL COMPONENTS UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH THE PLANS.

5. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS & THE METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES REQUIRED TO PERFORM THE CONTRACTORS WORK. THE STRUCTURAL ENGINEER HAS NO OVERALL SUPERVISORY AUTHORITY OR ACTUAL AND/OR DIRECT RESPONSIBILITY FOR THE SPECIFIC WORKING CONDITIONS AT THE SITE AND/OR FOR ANY HAZARDS RESULTING FROM THE ACTIONS OF ANY TRADE CONTRACTOR. THE STRUCTURAL ENGINEER HAS NO DUTY TO INSPECT, SUPERVISE, NOTE, CORRECT, OR REPORT ANY HEALTH OR SAFETY DEFICIENCIES OF THE OWNER, CONTRACTORS, OR OTHER ENTITIES OR PERSONS AT THE PROJECT SITE.

6. CONTRACTOR-INITIATED CHANGES SHALL BE SUBMITTED IN WRITING TO THE ARCHITECT & STRUCTURAL ENGINEER FOR APPROVAL PRIOR TO FABRICATION OR CONSTRUCTION. CHANGES SHOWN ON SHOP DRAWINGS ONLY WILL NOT SATISFY THIS REQUIREMENT.

7. DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED BUT ARE OF SIMILAR CHARACTER TO DETAILS SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED, SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND THE STRUCTURAL ENGINEER.

GEOTECHNICAL

8. FOUNDATION NOTES: ALLOWABLE SOIL PRESSURE AND LATERAL EARTH PRESSURE ARE ASSUMED & THEREFORE MUST BE VERIFIED BY A QUALIFIED SOILS ENGINEER OR APPROVED BY THE BUILDING OFFICIAL. IF SOILS ARE FOUND TO BE OTHER THAN ASSUMED, NOTIFY THE STRUCTURAL ENGINEER FOR POSSIBLE FOUNDATION REDESIGN.

   FOOTINGS SHALL BEAR ON FIRM, UNDISTURBED EARTH AT LEAST 18" BELOW ADJACENT FINISHED GRADE, UNLESS NOTED OTHERWISE, FOOTINGS SHALL BE CENTERED BELOW COLUMNS OR WALLS ABOVE:

   BACK FILL BEHIND ALL RETAINING WALLS WITH FREE DRAINING, GRANULAR FILL AND PROVIDE FOR SUBSURFACE DRAINAGE.

   ALLOWABLE SOIL PRESSURE.....1500 PSF
   LATERAL EARTH PRESSURE (RESTRAINED/UNRESTRAINED).....55 PCF/35 PCF
   COEFFICIENT OF FRICTION (FACTOR OF SAFETY OF 1.5 INCLUDED)...0.3

CONCRETE

9. CONCRETE SHALL BE MIXED, PROPORTIONED, CONVEYED AND PLACED IN ACCORDANCE WITH IBC SECTION 1905, 1906 AND ACI 301, INCLUDING TESTING PROCEDURES. CONCRETE SHALL ATTAIN A 28-DAY STRENGTH OF f'c = 2,500 PSI AND MIX SHALL CONTAIN NOT LESS THAN 5-1/2 SACKS OF CEMENT PER CUBIC YARD AND SHALL BE PROPORTIONED TO PRODUCE A SLUMP OF 5" OR LESS.

10. ALL CONCRETE EXPOSED TO FREEZING-AND-THAWING CYCLES SHALL BE AIR-ENTRAINED WITH AN AIR-ENTRAINING AGENT CONFORMING TO ASTM C260, C494, AND C618. TOTAL AIR CONTENT FOR FROST-RESISTANT CONCRETE SHALL BE IN ACCORDANCE WITH SECTION 1904 OF THE INTERNATIONAL BUILDING CODE AND TABLE 19.3.3.1 OF THE ACI 318. EXPOSED CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 3000 PSI. NO SPECIAL INSPECTION IS REQUIRED FOR 3000 PSI INSTALLED SOLELY TO SATISFY EXPOSED CONCRETE REQUIREMENTS.

11. REINFORCING STEEL SHALL CONFORM TO ASTM A615 (INCLUDING SUPPLEMENT S1), GRADE 60, fy = 60,000 PSI. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185. SPIRAL REINFORCEMENT SHALL BE PLAIN WIRE CONFORMING TO ASTM 615, GRADE 60, fy = 60,000 PSI.

12. REINFORCING STEEL SHALL BE DETAILED (INCLUDING HOOKS AND BENDS) IN ACCORDANCE WITH ACI 315-99 AND 318-14. LAP ALL CONTINUOUS REINFORCEMENT #5 AND SMALLER 40 BAR DIAMETERS OR 2'-0" MINIMUM. PROVIDE CORNER BARS AT ALL WALL AND FOOTING INTERSECTIONS. LAP CORNER BARS #5 AND SMALLER 40 BAR DIAMETERS OR 2'-0" MINIMUM. LAPS OF LARGER BARS SHALL BE MADE IN ACCORDANCE WITH ACI 318-14, CLASS B. LAP ADJACENT MATS OF WELDED WIRE FABRIC A MINIMUM OF 8" AT SIDES AND ENDS.

    NO BARS PARTIALLY EMBEDDED IN HARDENED CONCRETE SHALL BE FIELD BENT UNLESS SPECIFICALLY SO DETAILED OR APPROVED BY THE STRUCTURAL ENGINEER.

13. CONCRETE PROTECTION (COVER) FOR REINFORCING STEEL SHALL BE AS FOLLOWS:

    FTGS & OTHER UNFORMED SURFACES CAST AGAINST & PERMANENTLY EXPOSED TO EARTH....3"
    FORMED SURFACES EXPOSED TO EARTH OR WEATHER (#6 BARS OR LARGER).....2"
    FORMED SURFACES EXPOSED TO EARTH OR WEATHER (#5 BARS OR SMALLER).....1-1/2"
    COLUMN TIES OR SPIRALS AND BEAM STIRRUPS .....1-1/2"
    SLABS AND WALLS (INTERIOR FACE) ..... GREATER OF BAR Ø PLUS 1/8" OR 3/4"

14. CAST-IN-PLACE CONCRETE: SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS & DIMENSIONS OF DOOR AND WINDOW OPENINGS IN ALL CONCRETE WALLS. SEE ARCHITECTURAL DRAWINGS FOR ALL GROOVES, NOTCHES, CHAMFERS, FEATURE STRIPS, COLOR, TEXTURE & OTHER FINISH DETAILS AT ALL EXPOSED CONCRETE SURFACES, BOTH CAST-IN-PLACE AND PRE-CAST

ANCHORAGE

15. EPOXY-GROUTED ITEMS (THREADED RODS OR REINFORCING BAR) SPECIFIED ON THE DRAWINGS SHALL BE INSTALLED USING "AT-XP" HIGH STRENGTH EPOXY AS MANUFACTURED BY THE SIMPSON STRONG TIE COMPANY. INSTALL IN STRICT ACCORDANCE WITH IAMPO UES EVALUATION REPORT NO. ER-0263. SPECIAL INSPECTION OF INSTALLATION IS REQUIRED. THREADED RODS SHALL BE ASTM A-36, UNO.

WOOD

16. FRAMING LUMBER SHALL BE KILN DRIED OR MC-19, & GRADED & MARKED IN CONFORMANCE WITH W.C.L.I.B. STANDARD GRADING RULES FOR WEST COAST LUMBER NO. 17. FURNISH TO THE FOLLOWING MINIMUM STANDARDS:

JOISTS AND BEAMS:	(2x & 3x MEMBERS)	HEM-FIR NO. 2 MINIMUM BASE VALUE, Fb = 850 PSI
	(4x MEMBERS)	DOUGLAS FIR-LARCH NO. 1 MINIMUM BASE VALUE, Fb = 1000 PSI
LARGE BEAMS:	(INCL. 6x AND LARGER)	DOUGLAS FIR-LARCH NO. 1 MINIMUM BASE VALUE, Fb = 1350 PSI
POSTS:	(4x MEMBERS)	DOUGLAS FIR-LARCH NO. 2 MINIMUM BASE VALUE, Fc = 1350 PSI
	(6x AND LARGER)	DOUGLAS FIR-LARCH NO. 1 MINIMUM BASE VALUE, Fc = 1000 PSI
STUDS, PLATES & MISC. FRAMING		DOUGLAS-FIR-LARCH OR HEM-FIR NO. 2

17. PREFABRICATED CONNECTOR PLATE WOOD ROOF TRUSSES SHALL BE DESIGNED BY THE MANUFACTURER IN ACCORDANCE WITH THE "NATIONAL DESIGN STANDARD FOR METAL PLATE-CONNECTED WOOD TRUSS CONSTRUCTION, ANSI/TPI 1" BY THE TRUSS PLATE INSTITUTE FOR THE SPANS AND CONDITIONS SHOWN ON THE PLANS. LOADING SHALL BE AS FOLLOWS:

TOP CHORD SNOW LOAD	25 PSF
TOP CHORD DEAD LOAD (AT STD ROOF)	10 PSF
BOTTOM CHORD DEAD LOAD	5 PSF
TOTAL LOAD	40 PSF (@ STD ROOF);
WIND UPLIFT (TOP CHORD)	PER ASCE 7-16
BOTTOM CHORD LIVE LOAD	10 PSF (BOTTOM CHORD LIVE LOAD DOES NOT ACT CONCURRENTLY WITH THE ROOF LIVE LOAD)

    WOOD TRUSSES SHALL UTILIZE APPROVED CONNECTOR PLATES (GANG NAIL OR EQUAL). **SUBMIT SHOP DRAWINGS AND DESIGN CALCULATIONS TO THE ARCHITECT & STRUCTURAL ENGINEER FOR REVIEW PRIOR TO FABRICATION.** SUBMITTED DOCUMENTS SHALL BE SIGNED AND STAMPED BY A STRUCTURAL ENGINEER REGISTERED IN THE STATE OF WASHINGTON PROVIDE FOR SHAPES, BEARING POINTS, INTERSECTIONS, HIPS, VALLEYS, ETC. SHOWN ON THE DRAWINGS. EXACT COMPOSITION OF SPECIAL HIP, VALLEY, & INTERSECTION AREAS (USE OF GIRDER TRUSSES, JACK TRUSSES, STEP-DOWN TRUSSES, ETC.) SHALL BE DETERMINED BY THE MANUFACTURER, UNLESS SPECIFICALLY INDICATED ON THE PLANS. PROVIDE ALL TRUSS-TO-TRUSS AND TRUSS-TO-GIRDER TRUSS CONNECTION DETAILS AND REQUIRED CONNECTION MATERIALS. PROVIDE FOR ALL TEMPORARY AND PERMANENT TRUSS BRACING AND BRIDGING.

18. PLYWOOD SHEATHING SHALL BE GRADE C-D, EXTERIOR GLUE OR STRUCTURAL II, EXTERIOR GLUE IN CONFORMANCE WITH DOC PS 1. ORIENTED STRAND BOARD OF EQUIVALENT THICKNESS, EXPOSURE RATING AND PANEL INDEX MAY BE USED IN LIEU OF PLYWOOD.

    ROOF SHEATHING SHALL BE 1/2" (NOMINAL) WITH SPAN RATING 32/16.
    FLOOR SHEATHING SHALL BE 3/4" (NOMINAL) WITH SPAN RATING 48/24.
    WALL SHEATHING SHALL BE 1/2" (NOMINAL) WITH SPAN RATING 24/0.
    REFER TO WOOD FRAMING NOTES BELOW FOR TYPICAL NAILING REQUIREMENTS.

19. ALL WOOD IN DIRECT CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE-TREATED WITH AN APPROVED PRESERVATIVE. (2) LAYERS OF ASPHALT IMPREGNATED BUILDING PAPER SHALL BE PROVIDED BETWEEN UNTREATED WOOD AND CONCRETE OR MASONRY.

20. PRESSURE TREATED WOOD SHALL BE TREATED WITH WATERBORNE PRESERVATIVES PER AWPA STANDARD U1. INTERIOR WOOD IN CONTINUOUS CONTACT WITH CONCRETE (SUCH AS SILL PLATES) SHALL BE IN ACCORDANCE WITH USE CATEGORY 2 (UC2) WOOD IN CONTINUOUS CONTACT WITH FRESH WATER OR SOIL SHALL BE IN ACCORDANCE WITH USE CATEGORY 3B (UC3B). TIMBER CONNECTORS IN DIRECT CONTACT WITH TREATED WOOD SHALL BE G185 OR A185 HOT DIPPED OR CONTINUOUS HOT GALVANIZED PER ASTM A653. FASTENERS AND TIMBER CONNECTORS IN DIRECT CONTACT WITH ACZA TREATED WOOD SHALL BE TYPE 304 OR 316 STAINLESS STEEL.

21. TIMBER CONNECTORS CALLED OUT BY LETTERS AND NUMBERS SHALL BE "STRONG-TIE" BY SIMPSON COMPANY, AS SPECIFIED IN THEIR CATALOG NUMBER C-C-2021. EQUIVALENT DEVICES BY OTHER MANUFACTURERS MAY BE SUBSTITUTED, PROVIDED THEY HAVE ICBO ER (OR LES) APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. PROVIDE NUMBER AND SIZE OF FASTENERS AS SPECIFIED BY MANUFACTURER. CONNECTORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS.

    ALL 2X JOISTS SHALL BE CONNECTED TO FLUSH BEAMS WITH "LUS" SERIES JOIST HANGERS.
    ALL TJI JOISTS SHALL BE CONNECTED TO FLUSH BEAMS WITH "ITS" SERIES JOIST HANGERS.
    ALL DOUBLE JOIST BEAMS SHALL BE CONNECTED TO FLUSH BEAMS WITH "MIT" SERIES JOIST HANGERS.

    WHERE CONNECTOR STRAPS CONNECT TWO MEMBERS, PLACE ONE-HALF OF THE NAILS OR BOLTS IN EACH MEMBER. ALL SHIMS SHALL BE SEASONED AND DRIED AND THE SAME GRADE (MINIMUM) AS MEMBERS CONNECTED.

WOOD (continued)

22. WOOD FASTENERS

A. NAIL SIZES SPECIFIED ON DRAWINGS ARE BASED ON THE FOLLOWING SPECIFICATIONS:

SIZE	LENGTH	DIAMETER
6d	2"	0.113"
8d	2-1/2"	0.131"
10d	3"	0.148"
12d	3-1/4"	0.148"
16d BOX	3-1/2"	0.135"

    IF CONTRACTOR PROPOSES THE USE OF ALTERNATE NAILS, THEY SHALL SUBMIT NAIL SPECIFICATIONS TO THE STRUCTURAL ENGINEER (PRIOR TO CONSTRUCTION) FOR REVIEW AND APPROVAL. PLYWOOD (APA RATED SHEATHING) FASTENERS TO FRAMING SHALL BE DRIVEN FLUSH TO FACE OF SHEATHING WITH NO COUNTERSINKING PERMITTED.

B. ALL BOLTS IN WOOD MEMBERS SHALL CONFORM TO ASTM A307. PROVIDE WASHERS UNDER THE HEADS AND NUTS OF ALL BOLTS AND LAG BOLTS BEARING ON WOOD. INSTALLATION OF LAG BOLTS SHALL CONFORM TO THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION (2018 EDITION) WITH A LEAD BORE HOLE OF 60-70% OF THE SHANK DIAMETER. LEAD HOLES ARE NOT REQUIRED FOR 3/8"Ø AND SMALLER LAG SCREWS.

32. WOOD FRAMING NOTES--THE FOLLOWING APPLY UNLESS OTHERWISE SHOWN ON THE PLANS:

A. ALL WOOD FRAMING DETAILS NOT SHOWN OTHERWISE SHALL BE CONSTRUCTED TO THE MINIMUM STANDARDS OF THE INTERNATIONAL BUILDING CODE. MINIMUM NAILING, UNLESS NOTED OTHERWISE, SHALL CONFORM TO TABLE 2304.10.1 OF THE INTERNATIONAL BUILDING CODE. COORDINATE THE SIZE & LOCATION OF ALL OPENINGS WITH MECHANICAL AND ARCHITECTURAL DRAWINGS.

B. WALL FRAMING: REFER TO ARCHITECTURAL DRAWINGS FOR THE SIZE OF ALL WALLS. ALL STUDS SHALL BE SPACED AT 16" OC, UNLESS NOTED OTHERWISE. TWO STUDS, MINIMUM, SHALL BE PROVIDED AT THE END OF ALL WALLS & AT EACH SIDE OF ALL OPENINGS, & AT BEAM OR HEADER BEARING LOCATIONS. TWO 2x8 HEADERS SHALL BE PROVIDED OVER ALL OPENINGS NOT OTHERWISE NOTED. SOLID BLOCKING FOR WOOD COLUMNS SHALL BE PROVIDED THROUGH FLOORS TO SUPPORTS BELOW. PROVIDE CONTINUOUS SOLID BLOCKING AT MID-HEIGHT OF ALL STUD WALLS OVER 10'-0" IN HEIGHT.

    ALL WALLS SHALL HAVE A SINGLE BOTTOM PLATE & A DOUBLE TOP PLATE. END NAIL TOP PLATE TO EACH STUD WITH TWO 16d NAILS, & TOENAIL OR END NAIL EACH STUD TO BOTTOM PLATE WITH TWO 16d NAILS. FACE NAIL DOUBLE TOP PLATE WITH 10d @ 12"OC & LAP MINIMUM 4'-0" AT JOINTS AND PROVIDE TWELVE 10d NAILS @ 4"OC EACH SIDE JOINT.

    FLOOR AND ROOF FRAMING: PROVIDE DOUBLE JOISTS UNDER ALL PARALLEL PARTITIONS THAT EXTEND OVER MORE THAN HALF THE JOIST LENGTH & AROUND ALL OPENINGS IN FLOORS OR ROOFS UNLESS NOTED OTHERWISE PROVIDE SOLID BLOCKING AT ALL BEARING POINTS, TOENAIL JOISTS TO SUPPORTS WITH TWO 16d NAILS. ATTACH TIMBER JOISTS TO FLUSH HEADERS OR BEAMS WITH SIMPSON METAL JOIST HANGERS IN ACCORDANCE WITH NOTES ABOVE. NAIL ALL MULTI-JOIST BEAMS TOGETHER WITH TWO ROWS 16d @ 12"OC UNLESS NOTED OTHERWISE ON THE PLANS. PLYWOOD ROOF AND FLOOR SHEATHING SHALL BE LAID UP WITH GRAIN PERPENDICULAR TO SUPPORTS AND NAILED AT 6"OC WITH 8d NAILS TO FRAMED PANEL EDGES. STRUTS & OVER STUD WALLS AS SHOWN ON PLANS AND @ 12"OC TO INTERMEDIATE SUPPORTS. PROVIDE APPROVED PLYWOOD EDGE CLIPS CENTERED BETWEEN JOISTS/TRUSSES AT UNBLOCKED ROOF SHEATHING EDGES. ALL FLOOR SHEATHING EDGES SHALL HAVE APPROVED T&G JOINTS OR SHALL BE SUPPORTED WITH SOLID BLOCKING. ALLOW 1/8" SPACING AT ALL PANEL EDGES AND ENDS OF FLOOR & ROOF SHEATHING. TOENAIL BLOCKING TO SUPPORTS WITH 16d @ 12"OC, UNLESS NOTED OTHERWISE.

    ALL STUD WALLS SHALL HAVE THEIR LOWER WOOD PLATES ATTACHED TO WOOD FRAMING BELOW WITH 16d NAILS @ 6"OC, OR ATTACHED TO CONCRETE BELOW WITH 5/8"Ø ANCHOR BOLTS @ 4'-0"OC, EMBEDDED 7" MINIMUM, UNLESS NOTED OTHERWISE. INDIVIDUAL MEMBERS OF BUILT-UP POSTS SHALL BE NAILED TO EACH OTHER WITH TWO ROWS OF 16d @ 12"OC. UNLESS NOTED OTHERWISE, GYPSUM WALLBOARD SHALL BE FASTENED TO THE INTERIOR SURFACE OF ALL STUDS & PLATES WITH NO. 6 X 1-1/4" TYPE S OR W SCREWS @ 8"OC, UNLESS NOTED OTHERWISE. 1/2" (NOMINAL) APA RATED SHEATHING (SPAN RATING 24/0) SHALL BE NAILED TO ALL EXTERIOR VERTICAL SURFACES WITH 8d NAILS @ 6"OC AT PANEL EDGES & TOP & BOTTOM PLATES (BLOCK UNSUPPORTED EDGES) & TO ALL INTERMEDIATE STUDS & BLOCKING WITH 8d NAILS @ 12"OC. ALLOW 1/8" SPACING AT ALL PANEL EDGES & PANEL ENDS.

DRAWING INDEX

S1.0 GENERAL STRUCTURAL NOTES, ABBREVIATIONS & LEGEND
S2.0 FOUNDATION PLAN
S2.1 UPPER FLOOR & LOW ROOF FRAMING PLAN
S2.2 ROOF FRAMING PLAN
S3.0 FOUNDATION DETAILS
S4.0 FRAMING DETAILS
S4.1 FRAMING DETAILS

LEGENDS

- CONCRETE ON PLAN
- BEARING WALL BELOW
- BEARING WALL ABOVE
- NON-BEARING WALL BELOW
- ROOF DECK EXTENT ON PLAN
- FOOTING (BELOW GRADE)
- JOIST or RAFTER SPAN
- JOIST or RAFTER EXTENTS
- ROOF OUTLINE
- BEAM or HEADER
- VERTICAL HOLDOWN STRAP
- ⊏ HANGER — METAL CONNECTOR
- HORIZ STRAPPING HARDWARE
- **SWX (X'-X")** — SHEARWALL TYPE & LENGTH
- ⊠ COLUMN BELOW
- F1 — FOOTING TYPE
- 1 / S4.0 — SECTION NUMBER / DRAWING WHERE SECTION IS LOCATED
- 1 / S4.0 — DETAIL NUMBER / DRAWING WHERE DETAIL IS LOCATED
- SECTION 3 — SECTION NUMBER / DRAWING WHERE SECTION TAKEN FROM

ABBREVIATIONS

&	AND	H, HT	HEIGHT
@	AT	HGR(S)	HANGER(S)
AB	ANCHOR BOLT	HDR	HEADER
ALT	ALTERNATE(LY)	HORIZ	HORIZONTAL
APPROX	APPROXIMATE(LY)	INT	INTERSECTION
ARCH	ARCHITECT(URAL)	INTR	INTERIOR
BM	BEAM	INV	INVERTED
BETW'N	BETWEEN	KP	KING POST
BLDG	BUILDING	LG	LONG
BLKG	BLOCKING	LL	LIVE LOAD
BOT	BOTTOM	LT	LIGHT
BS	BACKSPAN	MATL	MATERIAL
BU	BUILT UP	MAX	MAXIMUM
CL, ℄	CENTER LINE	MFR	MANUFACTURER
C/W	COMPLETE WITH	MIN	MINIMUM
CC	CENTER TO CENTER	N	NEW
CJ	CONSTRUCTION JOINT	N/S	NEAR SIDE
COL	COLUMN	NTS	NOT TO SCALE
CONC	CONCRETE	OC	ON CENTER
CONST	CONSTRUCTION	OPNG	OPENING
CONT	CONTINUOUS	OPPO	OPPOSITE
CTR	CENTER	OWSJ	OPEN WEB STEEL JOIST
DET	DETAIL	PERP	PERPENDICULAR
DIM	DIMENSION	PL, ℄	PLATE
DL	DEAD LOAD	PT	PRESSURE TREATED
DN	DOWN	R	RADIUS
DO	DITTO	REINF	REINFORCEMENT
DP	DEEP	REQ'D	REQUIRED
DS	DRAG STRUT	REV	REVISION
DT	DRAGTRUSS	R/W	REINFORCED WITH
DWGS	DRAWINGS	SECT	SECTION
EA	EACH	SIM	SIMILAR
EF	EACH FACE	SOG	SLAB ON GRADE
EL	ELEVATION	SP	SPACE(D)(S)(ING)
EQ SP	EQUAL(LY) SPACES(D)	SPEC	SPECIFICATION
EW	EACH WAY	STAG	STAGGERED
(E)	EXISTING	STD	STANDARD
EXT	EXTERIOR	STIR(S)	STIRRUP(S)
FB	FLUSH BEAM	STL	STEEL
FD	FLOOR DRAIN	STR	STRUCTURE(AL)
FDN	FOUNDATION	SW	SHEAR WALL
FIN GR	FINISHED,FINAL GRADE	T&B	TOP AND BOTTOM
FIN FL	FINISHED FLOOR	T&G	TOUNGE AND GROOVE
FL	FLOOR	THK	THICK(NESS)
FRMG	FRAMING	TOC	TOP OF CONCRETE
F/S	FAR SIDE	TOS	TOP OF STRUCTURAL STEEL
FTG	FOOTING	TYP	TYPICAL
GA	GAUGE	U/S	UNDERSIDE
GALV	GALVANIZED	UNO	UNLESS NOTED OTHERWISE
GL	GRIDLINE, BAYLINE	VERT	VERTICAL
GLB	GLULAM BEAM	W	WIDE
GT	GIRDER TRUSS	W/	WITH

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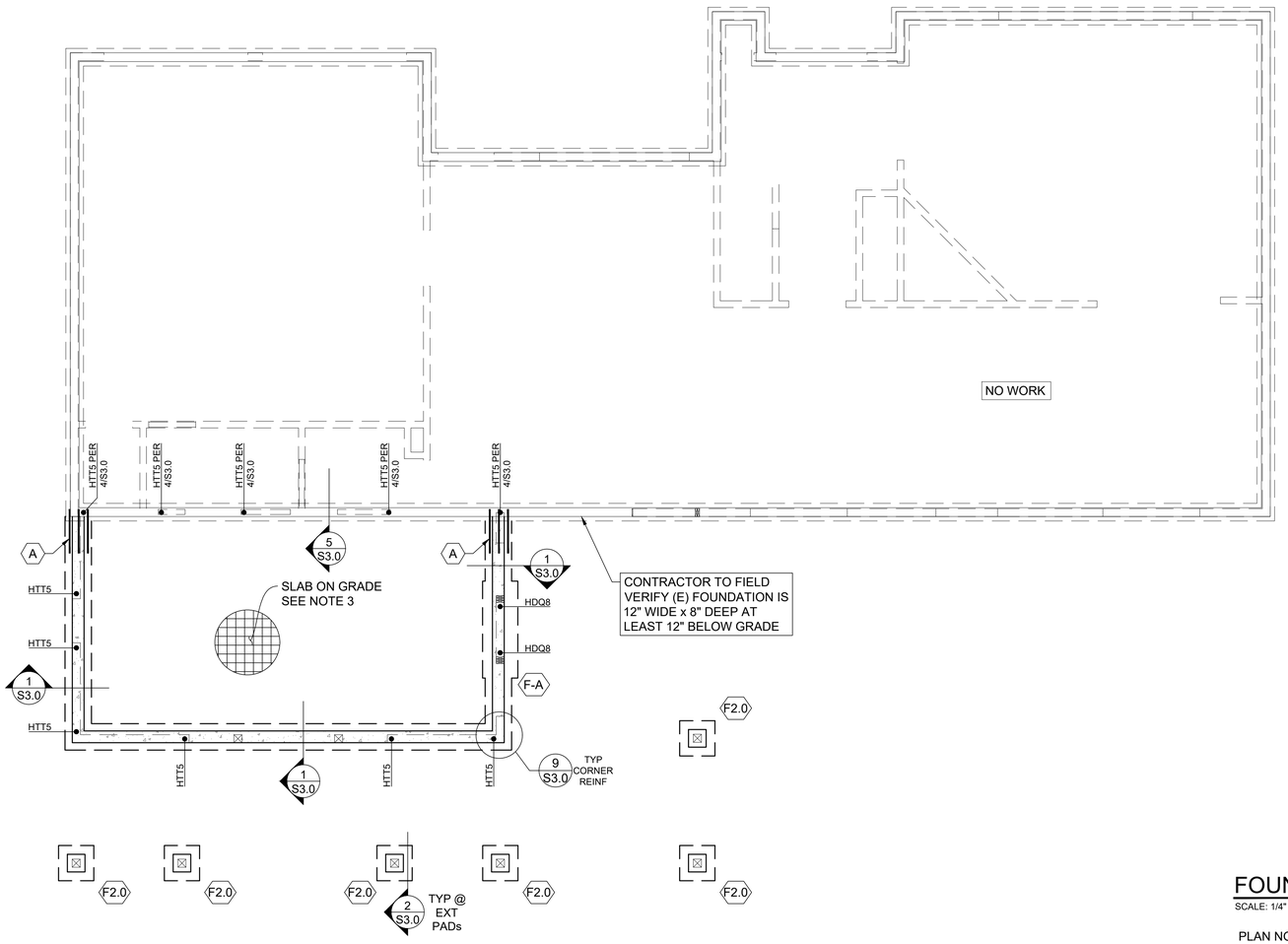
No.	Date	Issue
0	12.22.22	Building Permit

Sheet Contents
GENERAL STRUCTURAL NOTES, ABBREVIATIONS & LEGEND

Job No. 22-053

Sheet No. S1.0



FOUNDATION PLAN

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

PLAN NOTES

1. DO NOT SCALE DRAWINGS. REFER TO ARCH DWGS FOR ALL DIMENSIONS.
2. THE BOTTOM OF ALL EXTERIOR FTGS SHALL BE 18" MINIMUM BELOW GRADE.
3. 4" CONCRETE SLAB OVER 6 MIL VAPOR BARRIER ON 6" OF GRAVEL OR CRUSHED ROCK OVER FIRM UNDISTURBED SOIL OR ENGINEERED COMPACTED BACK-FILL.
4. HTTXX INDICATES HOLD-DOWN @ END OF SHEAR WALL ABOVE. SEE DETAIL 3/S3.0 FOR INSTALLATION REQUIREMENTS.
5. HDQ8 INDICATES HOLD-DOWN @ END OF SHEAR WALL ABOVE. SEE DETAIL 6/S3.0 FOR INSTALLATION REQUIREMENTS.
6. F# INDICATES FOOTING MARK. SEE FOOTING SCHEDULE FOR SIZE & REINFORCING.
7. REFER TO GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.

HATCH LEGEND	
	NEW CONCRETE WALLS BELOW

FOOTING SCHEDULE		
MARK	SIZE	REINFORCEMENT
F2.0	2'-0" x 2'-0" x 8" DP	(2)#4 EW 3" FROM BOT
F-A	2'-0" x 5'-6" x 12" DP	#4 @ 12"O.C. EW TOP & BOT

KEY NOTE LEGEND

(A) PROVIDE #4x2'-6" DOWELS EMBEDDED 5" MIN INTO EXISTING CONCRETE TO MATCH NEW HORIZ WALL & FTG REINF QTY AND SPACES, EPOXY W/ AT-XP HIGH STRENGTH EPOXY AS MANUF. BY SIMPSON

1/4"=1'-0" 0 4' 8' 16'

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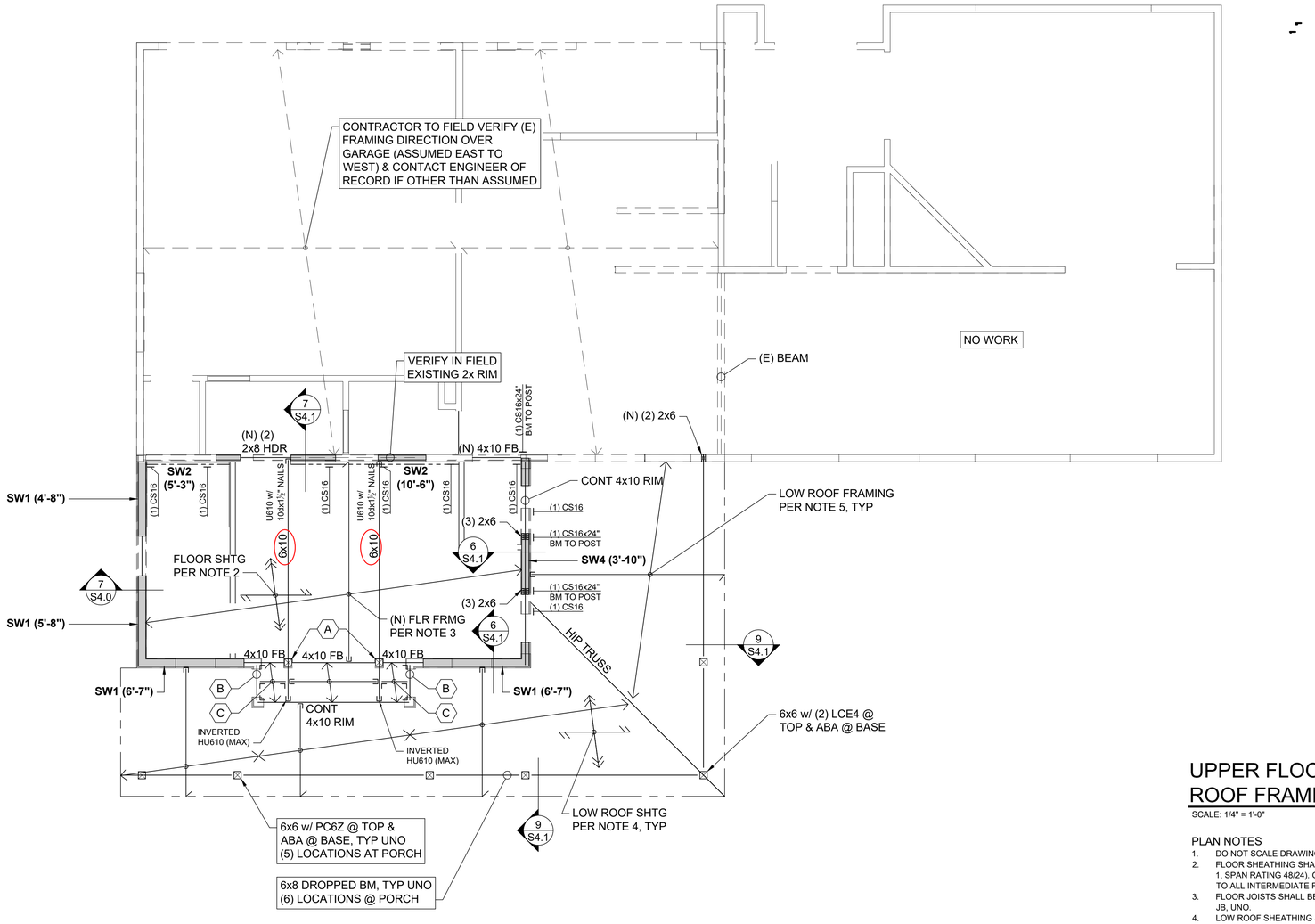
Sheet Contents
FOUNDATION PLAN

Job No. 22-053

Sheet No.
S2.0



HATCH LEGEND	
	NEW STRUCTURAL WALLS BELOW

KEY NOTE LEGEND

- A — 6x6 w/ CCTQ
- B — (2) 2x10 RIM w/ A35 EACH END
- C — 2x10 @ 16"O.C. w/ A35 EACH END

UPPER FLOOR & LOW ROOF FRAMING PLAN

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

PLAN NOTES

1. DO NOT SCALE DRAWINGS. REFER TO ARCH DWGS FOR ALL DIMENSIONS.
2. FLOOR SHEATHING SHALL BE 3/4" TONGUE AND GROOVE A.P.A. RATED PANELS (EXPOSURE 1, SPAN RATING 48/24). GLUE AND NAIL @ ALL FRAMED PANEL EDGES WITH 8d @ 6"OC AND TO ALL INTERMEDIATE FRAMING @ 12"OC
3. FLOOR JOISTS SHALL BE 2x10 @ 16"OC TYPICAL JOIST HANGERS TO BE SIMPSON LUS OR JB, UNO.
4. LOW ROOF SHEATHING SHALL BE 1/2" A.P.A. RATED PANELS (EXPOSURE 1, SPAN RATING 32/16), FACE GRAIN PERPENDICULAR TO SUPPORTS OVER ROOF FRAMING PER PLAN. NAIL SHEATHING @ ALL FRAMED PANEL EDGES WITH 8D @ 6"OC AND TO ALL INTERMEDIATE FRAMING @ 12"OC.
5. LOW ROOF FRAMING SHALL BE PREFABRICATED JACK ROOF TRUSSES @ 24"OC. TRUSS DESIGN TO BE PROVIDED BY OTHERS. SEE STRUCTURAL NOTES FOR DESIGN REQUIREMENTS.
6. NEW HEADERS OVER DOOR AND WINDOW OPENINGS SHALL BE (2) 2x8 MINIMUM. PROVIDE (2) TRIMMER STUDS MIN @ EA END OF ALL HEADERS U.N.O. SEE DETAIL 4/S4.0 FOR TYPICAL INSTALLATION.
7. PROVIDE (2) STUDS MINIMUM @ EACH END OF ALL NEW BEAMS U.N.O. ON PLANS. BEAR BEAM FULLY ON BUILT UP COLUMN & PROVIDE POSITIVE CONNECTION BY EITHER A35 OR LTP4 CLIPS ON EA SIDE OF BEAM OR W/ AN AC, PC, OR LPC CAP.
8. SW# (X'-X") INDICATES NEW SHEAR WALL TYPE AND APPROXIMATE LENGTH. SEE 1/S4.0 FOR CONSTRUCTION REQUIREMENTS.
9. ALL NEW EXTERIOR WALLS SHALL BE SW1, U.N.O. ON PLANS.
10. TYPICAL NEW TOP PLATE CONSTRUCTION PER 3/S4.0.
11. (X)CS16 INDICATES VERTICAL HOLD-DOWN STRAP @ END OF SHEAR WALL ABOVE. (X) INDICATES STRAP QTY. SEE DETAIL 8/S4.0 FOR INSTALLATION REQUIREMENTS.
12. REFER TO GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.

1/4"=1'-0" (0, 4', 8', 16')

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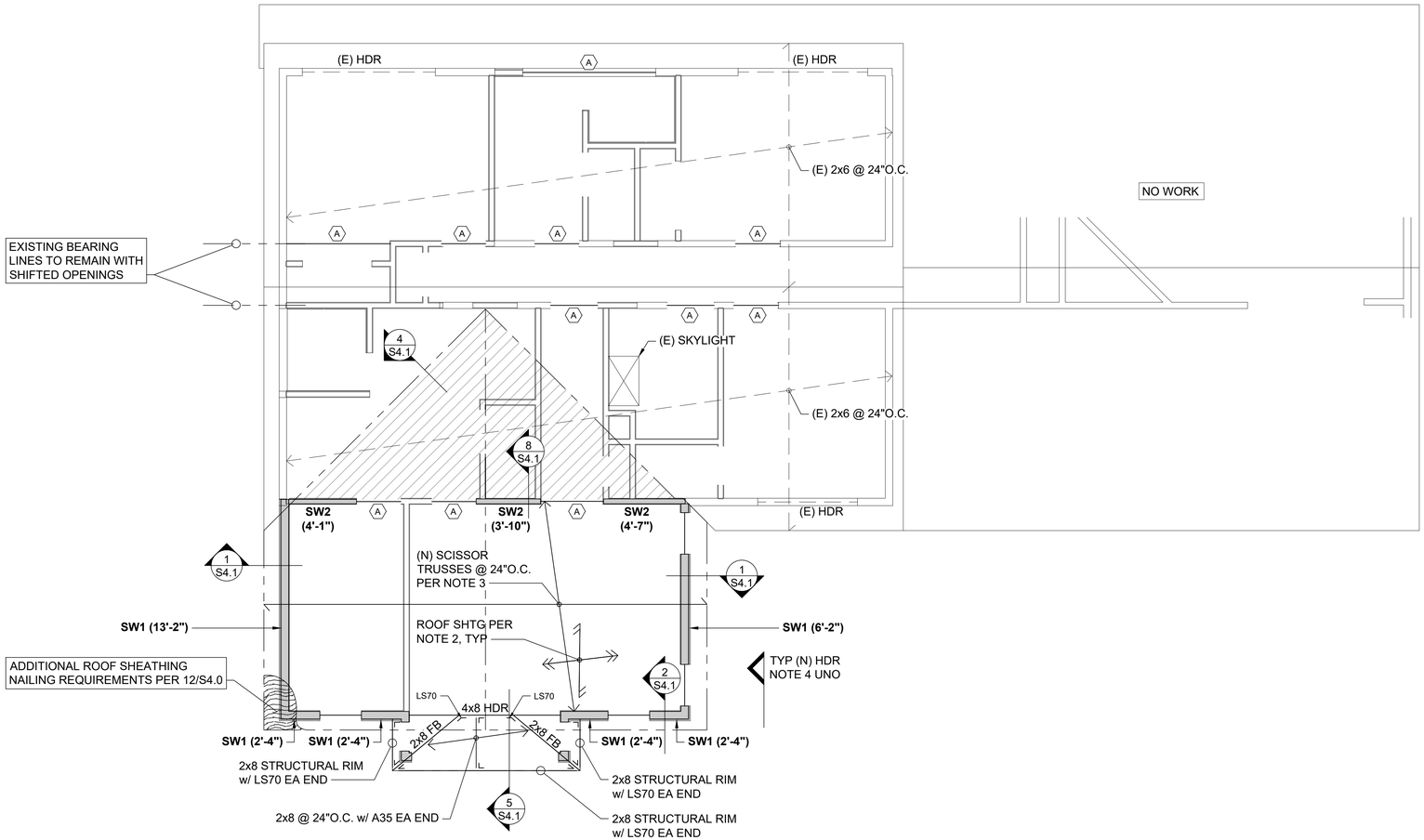
Sheet Contents: UPPER FLOOR & LOW ROOF FRAMING PLAN

Job No. 22-053

Sheet No. S2.1



HATCH LEGEND	
	NEW STRUCTURAL WALLS BELOW
	OVERFRAMING PER NOTE 9

KEY NOTE LEGEND

A NEW (2) 2x8 HEADER

ROOF FRAMING PLAN

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

PLAN NOTES

1. DO NOT SCALE DRAWINGS. REFER TO ARCH DWGS FOR ALL DIMENSIONS.
2. NEW ROOF SHEATHING SHALL BE 1/2" A.P.A. RATED PANELS (EXPOSURE 1, SPAN RATING 32/16), FACE GRAIN PERPENDICULAR TO SUPPORTS OVER ROOF FRAMING PER PLAN. NAIL SHEATHING @ ALL FRAMED PANEL EDGES WITH 8d @ 6"OC AND TO ALL INTERMEDIATE FRAMING @ 12"OC.
3. NEW ROOF FRAMING SHALL BE PREFABRICATED ROOF SCISSOR TRUSSES @ 24"OC. TRUSS DESIGN TO BE PROVIDED BY OTHERS. SEE STRUCTURAL NOTES FOR DESIGN REQUIREMENTS.
4. NEW HEADERS OVER DOOR AND WINDOW OPENINGS SHALL BE (2) 2x8 MINIMUM. PROVIDE (2) TRIMMER STUDS MIN @ EA END OF ALL HEADERS U.N.O. SEE DETAIL 4/S4.0 FOR TYPICAL INSTALLATION.
5. PROVIDE (2) STUDS MINIMUM @ EACH END OF NEW ALL BEAMS U.N.O. ON PLANS. BEAR BEAM FULLY ON BUILT UP COLUMN & PROVIDE POSITIVE CONNECTION BY EITHER A35 OR LTP4 CLIPS ON EA SIDE OF BEAM OR W/ AN AC, PC, OR LPC CAP.
6. SW# (X'-X") INDICATES NEW SHEAR WALL TYPE AND APPROXIMATE LENGTH. SEE 1/S4.0 FOR CONSTRUCTION REQUIREMENTS.
7. ALL NEW EXTERIOR WALLS SHALL BE SW1, U.N.O. ON PLANS.
8. TYPICAL NEW TOP PLATE CONSTRUCTION PER 3/S4.0.
9. OVERFRAMING TYP TO BE 2X6'S @ 24"OC W/ VERT SUPPORT TO TRUSSES BELOW @ NO MORE THAN 48"OC
10. REFER TO GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.

1/4"=1'-0" 0 4' 8' 16'

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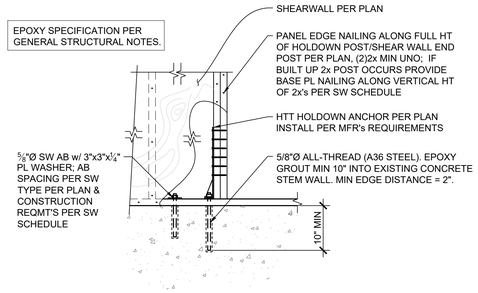
Sheet Contents: ROOF FRAMING PLAN

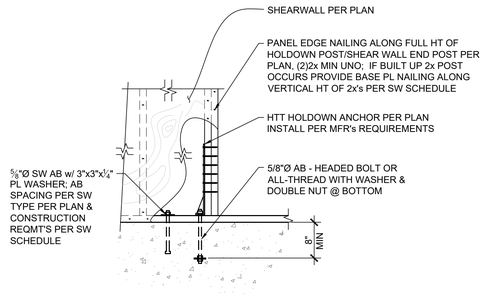
Job No. 22-053

Sheet No. S2.2



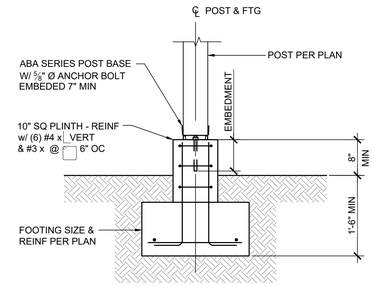
HTT RETROFIT HOLDOWN ANCHOR — 4 / S3.0

SCALE: 3/4" = 1'-0"



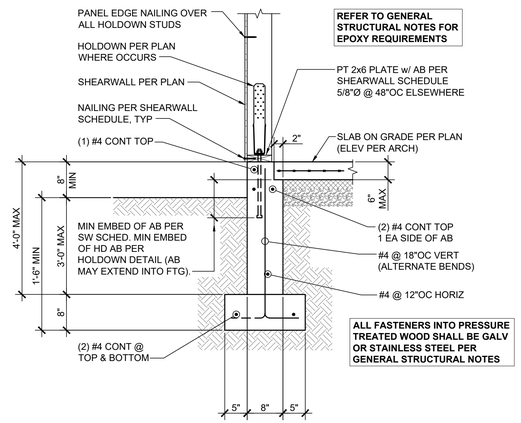
TYPICAL HTT HOLDOWN ANCHOR — 3 / S3.0

SCALE: 3/4" = 1'-0"



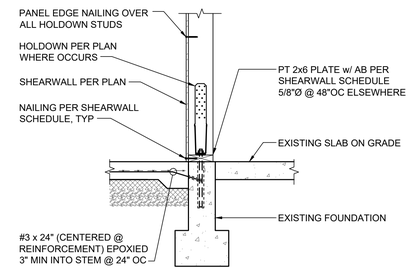
EXTERIOR POST FOOTING — 2 / S3.0

SCALE: 3/4" = 1'-0"



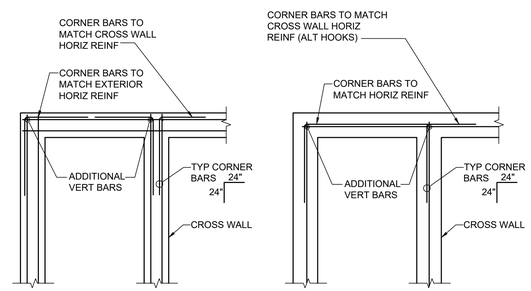
EXTERIOR GRADE BEAM @ SLAB ON GRADE — 1 / S3.0

SCALE: 3/4" = 1'-0"



NEW SLAB AGAINST EXISTING FOUNDATION — 5 / S3.0

SCALE: 3/4" = 1'-0"



DOUBLE CURTAIN

SINGLE CURTAIN

TYP CORNER BARS @ CONC WALLS & FTGS — 9 / S3.0

SCALE: 3/4" = 1'-0"

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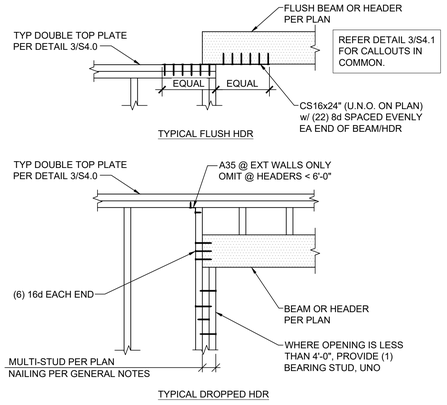
FOUNDATION DETAILS

Job No. 22-053

Sheet No.

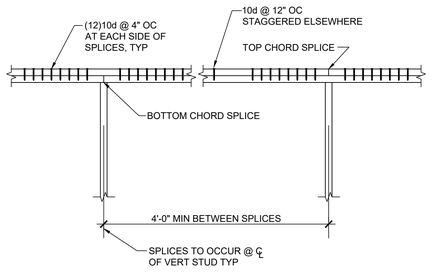
S3.0



TYPICAL HEADER SUPPORT

SCALE: 3/4" = 1'-0"

4 / S4.0



TYPICAL TOP PLATE SPLICE

SCALE: 3/4" = 1'-0"

3 / S4.0

SHEARWALL (SW) SCHEDULE ①④⑦

MARK	SHEATHING ⑨	PANEL EDGE NAILING ②	⑧ ⑩ TOP PL CONNECTION	BASE PLATE CONNECTION	
				at WOOD	at CONCRETE ③
SW1	½" PLYWOOD	8d @ 6"OC	A35 @ 24"OC	16d @ 6"OC	⅝"Ø AB @ 48"OC
SW2	½" PLYWOOD	8d @ 4"OC	A35 @ 16"OC	16d @ 4"OC	⅝"Ø AB @ 32"OC
SW3 ⑤	½" PLYWOOD	8d @ 3"OC	A35 @ 12"OC	16d @ 3"OC	⅝"Ø AB @ 16"OC ⑥
SW4 ⑤	½" PLYWOOD	8d @ 2"OC	A35 @ 9"OC	(2) ROWS 16d @ 4½"OC	⅝"Ø AB @ 12"OC ⑥
SW5 ⑤	½" PLYWOOD EACH SIDE	8d @ 3"OC EACH SIDE	A35 @ 6"OC	(2) ROWS 16d @ 3"OC	⅝"Ø AB @ 12"OC ⑥

① BLOCK PANEL EDGES WITH 2x LAID FLAT AND NAIL PANELS TO INTERMEDIATE SUPPORTS WITH 8d @ 12"OC.

② 8d NAILS SHALL BE 0.131"Ø x 2½" (COMMON); ACCEPTABLE SUBSTITUTE FOR 8d's ARE 10d's OF 0.131"Ø x 3" AT CONTRACTOR'S OPTION; 16d NAILS SHALL BE 0.135"Ø x 3½" (BOX) , 0.148"Ø x 3¼" (SINKER), OR 0.162"Ø x 3½" (COMMON WIRE)

③ EMBED ANCHOR BOLTS (AB'S) 7" MIN & PROVIDE 3"x3"x¼" PL WASHER AT EA AB; EXPANSION BOLTS, TITEN HD ANCHORS, OR EPOXY EMBEDDED THREADED RODS MAY BE POST INSTALLED IN LIEU OF AB'S; ALL POST INSTALLED ANCHORS SHALL HAVE 3"x3"x¼" PL WASHER; EPOXY EMBEDDED OPTION SHALL UTILIZE SIMPSON AT-XP EPOXY.

④ (2)2x STUDS MIN ARE REQUIRED AT THE END OF ALL SHEAR WALLS TO RECEIVE THE PANEL EDGE NAILING, UNLESS NOTED OTHERWISE. AT BUILT-UP 2x STUDS, PROVIDE 16d FACE NAILS ALONG FULL HEIGHT OF 2x'S, SPACED PER BASE PLATE NAILING REQUIREMENTS OF THE SPECIFIC SW TYPE (PER PLAN).

⑤ SW3, SW4 & SW5 REQUIREMENTS: 3x STUDS OR (2) 2x STUDS ARE REQUIRED AT ABUTTING PANEL EDGES. WHERE (2)2x STUDS ARE UTILIZED, PROVIDE 16d FACE NAILS ALONG FULL HEIGHT OF 2x'S, SPACED PER BASE PLATE NAILING REQUIREMENTS OF THE SPECIFIC SW TYPE (PER PLAN) - SEE DETAIL B. EACH ROW OF PANEL EDGE NAILING TO BE STAGGERED HORIZONTALLY - SEE DETAIL D. FOR SW5, ABUTTING PANEL EDGES SHALL BE OFFSET EACH SIDE OF WALL.

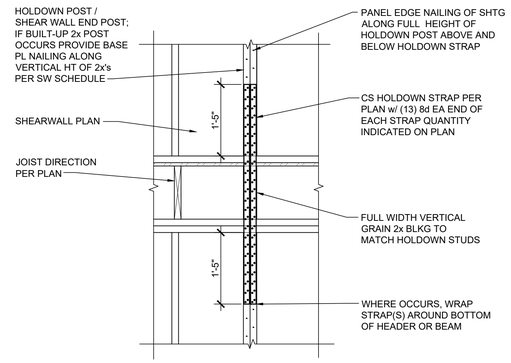
⑥ SW3, SW4 & SW5 ANCHOR BOLT & PLATE WASHER PLACEMENT - PLATE WASHERS SHALL BE NO MORE THAN ½" FROM INTERIOR FACE OF SHEATHING/SILL PLATE EDGE WHERE NAILING OCCURS - SEE DETAIL C. AT SW5, ANCHOR BOLTS TO BE STAGGERED.

⑦ ALL EXTERIOR WALLS SHALL BE SW1, UNLESS NOTED OTHERWISE.

⑧ ALTERNATIVE CONNECTIONS FOR A35'S: LTP4 FLAT PL'S AT SAME SPACING FROM RIM/BLOCKING/BEAM TO TOP PL'S. WHEN LTP4'S ARE INSTALLED OVER ½" SHEATHING, PROVIDE 0.131"Ø x 2½" NAILS INSTEAD. OTHER ALTERNATIVE CONNECTIONS FOR A35'S: A 2x NAILER FOR CEILING CONNECTION, OR THE HORIZONTAL SHEATHING SPLICE/JOINT TO OCCUR ON RIM/BLKG/BEAM (ABOVE TOP PL'S & BELOW BOTTOM PL) - SEE DETAIL A. AT SW5 & SW6, INSTALL LTP4 FLAT PL'S AS SPECIFIED TO EACH SIDE OF FULL DEPTH BLOCKING OR BEAM. BLOCKING/BEAM WIDTH TO MATCH SW WIDTH.

⑨ 7/16" OSB IS ACCEPTABLE SUBSTITUTE FOR ½" CDX PLYWOOD w/ SIMILAR SPAN RATING.

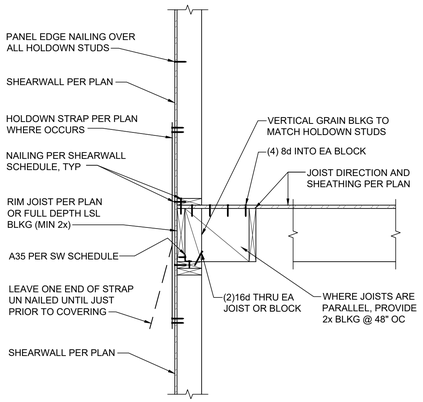
⑩ ALL RIMS TO BE 2x TO MATCH FLOOR/DECK JOISTS ADJACENT (10" OR 12" PER PLAN) MIN U.N.O. AS WIDER PER PLAN.



TYPICAL CS HOLDOWN STRAP

SCALE: 3/4" = 1'-0"

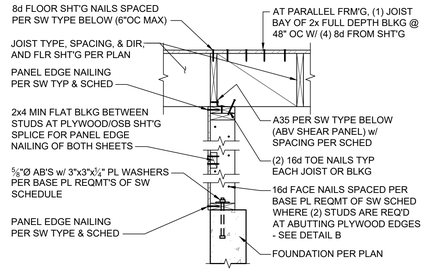
8 / S4.0



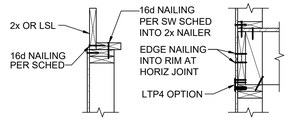
EXTERIOR WALL @ FLOOR

SCALE: 3/4" = 1'-0"

7 / S4.0



TYPICAL WALL CONSTRUCTION



DETAIL A - SEE NOTE 8

DETAIL B - SEE NOTE 5 (SW3, SW4 & SW5)

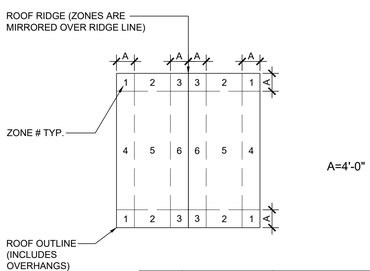
DETAIL D - SEE NOTE 5 (SW3, SW4 & SW5)

DETAIL C - SEE NOTE 6

SHEARWALL SCHEDULE AND TYPICAL CONSTRUCTION

SCALE: NTS

1 / S4.0



ZONE	PANEL EDGE NAILING	INTERMEDIATE FRAMING NAILING
1	8d @ 6" OC	8d @ 6" OC
2	8d @ 6" OC	8d @ 12" OC
3	8d @ 6" OC	8d @ 12" OC
4	8d @ 6" OC	8d @ 12" OC
5	8d @ 6" OC	8d @ 12" OC
6	8d @ 6" OC	8d @ 12" OC

ADDITIONAL ROOF NAILING (PITCHED ROOF)

SCALE: 3/4" = 1'-0"

12 / S4.0

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2221 Everett Ave #202
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425.610.4425

Stated drawing scale is based on 36" x 24" sheet.

CHRISTOPHER PAUL NICKERSON — STATE OF WASHINGTON — 43016 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER — 12/22/22

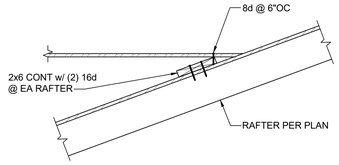
HELLING ADDITION
8925 SE 58TH ST
MERCER ISLAND, WA 98040

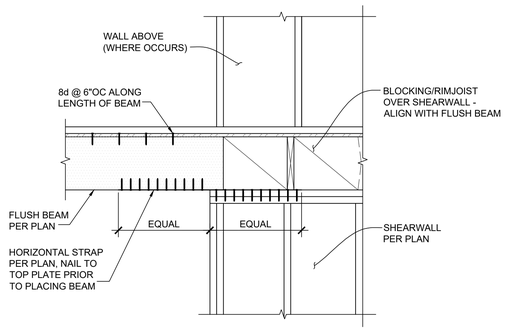
No.	Date	Issue
0	12.22.22	Building Permit

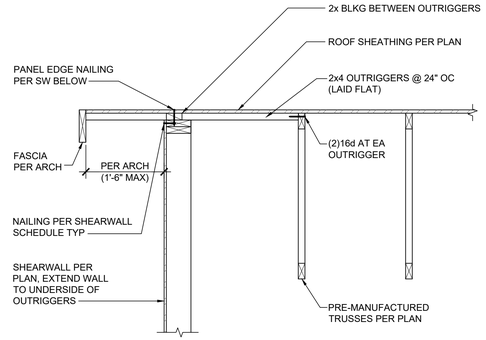
Sheet Contents: FRAMING DETAILS

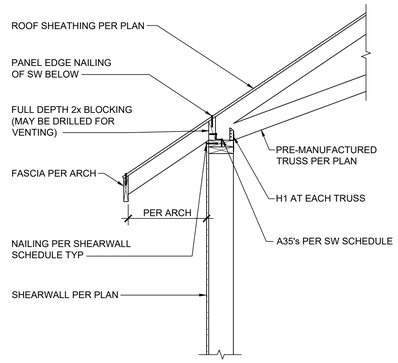
Job No. 22-053

Sheet No. S4.0

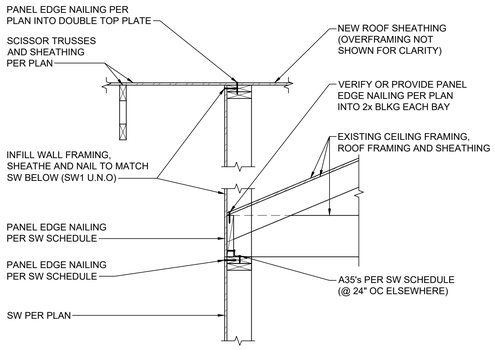




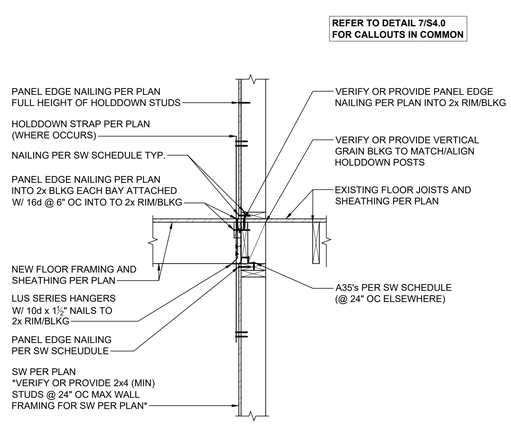




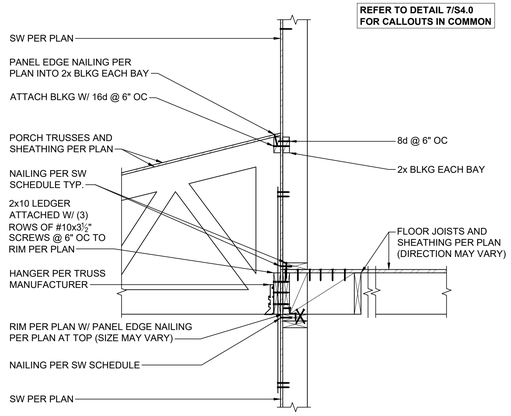
OVER FRAMING CONNECTION 4 S4.1
SCALE: 3/4" = 1'-0"



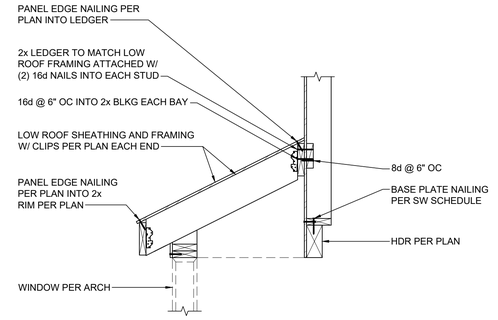
TYPICAL DRAG STRUT STRAP 3 S4.1
SCALE: 3/4" = 1'-0"



EXTERIOR WALL @ GABLE END 2 S4.1
SCALE: 3/4" = 1'-0"



EXTERIOR WALL @ EAVE 1 S4.1
SCALE: 3/4" = 1'-0"

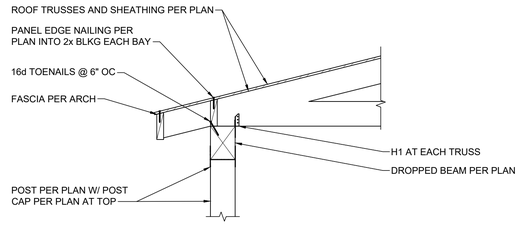


NEW ROOF AT OVERFRAMING 8 S4.1
SCALE: 3/4" = 1'-0"

NEW FLOOR FRAMING AT EXISTING EXTERIOR WALL 7 S4.1
SCALE: 3/4" = 1'-0"

PORCH TRUSSES AT EXTERIOR WALL 6 S4.1
SCALE: 3/4" = 1'-0"

LOW ROOF FRAMING @ WINDOW BUMP OUT 5 S4.1
SCALE: 3/4" = 1'-0"



PORCH TRUSSES AT DROPPED BEAMS 9 S4.1
SCALE: 3/4" = 1'-0"

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