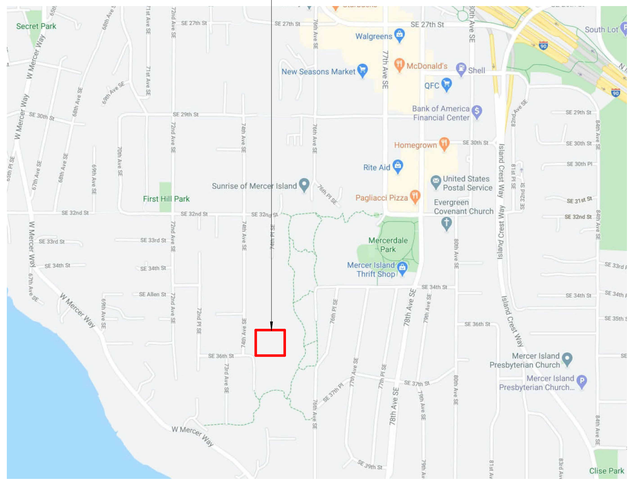
VICINITY MAP:



PROJECT INFORMATION:

SITE ADDRESS: 3453 74th Ave SE
Mercer Island, WA 98040

TAX/PARCEL NUMBER: 1300301965

LEGAL DESCRIPTION:

CALKINS C C 1ST TO EAST SEATTLE 16 THRU 20 & E 15 FT OF 21 THRU 25 TGW POR OF VAC STS ADJ
PLAT BLOCK: 7
PLAT LOT: 16 TO 25

SCOPE OF PROJECT:

ZONING: R-8.4
LOT SIZE: 21,618 SF

PROJECT CONSISTS OF DEMOLISHING EXISTING HOUSE AND BUILDING A NEW SINGLE-FAMILY RESIDENCE WITH ONE ACCESSORY BUILDING, A NEW DRIVEWAY AND OTHER ASSOCIATED SITE WORK.

FIRST FLOOR	
LIVABLE FLOOR AREA	2,572.70 SF
GARAGE/MECHANIAL AREA	567.40 SF
SECOND FLOOR	1,599.13 SF
GROSS FLOOR AREA (ALLOWED AND PROVIDED)	**4,739.23 SF**
BASEMENT	887.63 SF
TOTAL BUILDING AREA	**5,626.86 SF**

PROVIDED PARKING: 2 COVERED 2 UNCOVERED

ENFORCED CODES:

2015 International Residential Code with statewide and City amendments
2015 International Mechanical Code with statewide and City amendments
2014 Liquefied Petroleum Gas Code (NFPA 58)
2015 National Fuel Gas Code (NFPA 54) for LP gas
2015 International Fuel Gas Code with statewide and City amendments
2015 International Fire Code with statewide and City amendments
2015 Washington State Energy Code
Washington Cities Electrical Code

FIRE REQUIREMENTS:

Sprinkler System: An NFPA 13R fire sprinkler shall be provided in accordance with IRC P2904. The system shall be designed and the plans stamped by a person holding a Washington State Certificate of Competency. Contractor shall submit design to the Fire Department for approval. The system shall be installed by a state licensed sprinkler contractor.

Monitored Houshold Fire Alarm per NFPA 72 and Monitored Sprinkler Water Flow Alarm are required.

PROJECT CONTACTS:

PROJECT DESIGNER:
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SEATTLE, WA 98121
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nick@garretcordwerner.com

CLIENT:
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MERCER ISLAND, WA 98040
305.613.5505
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ssulliv@gmail.com

STRUCTURAL ENGINEER:
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180 NICKERSON STREET SUITE 302
SEATTLE, WASHINGTON 98109
206.285.4512
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CIVIL ENGINEER:
CORE DESIGN, INC.
12100 NE 195TH STREET, SUITE 300
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206.262.0370
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CONTRACTOR:
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SHEET LIST:

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DATE	DRAWN BY
9/20/2022	NLD
SCALE	CHECKED BY
	GCW

PROJECT
FOO RESIDENCE

3453 74th Ave SE
Mercer Island, WA
98040

REV	DATE	ISSUE/REVISION
1	7/15/20	Revision 1
5	5/11/21	CD Set Update
6	10/15/21	CD Set Update
8	3/03/22	IFC CD Set

DEDICATED APPROVAL STAMP SPACE

SHEET TITLE
COVER SHEET

REVISION NO.
8
SUPERSEDES ALL PREVIOUS REVISIONS

SHEET NO.
G000

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ABBREVIATIONS:

AB	ANCHOR BOLT
ABV	ABOVE
ACC	ACCESS
ACOUST	ACOUSTICAL
ACP	ASPHALT CONCRETE PAVEMENT
ACT	ACOUSTICAL TILE
AD	AREA DRAIN
ADD	ADDITIVE
ADJ	ADJUSTABLE
AFF	ABOVE FINISH FLOOR
AGG	AGGREGATE
AIB	AIR AND MOISTURE BARRIER
ALT	ALTERNATIVE
ALUM	ALUMINUM
AP	ACCESS PANEL
APPROX	APPROXIMATE
ARCH	ARCHITECT/ARCHITECTURAL
ASL	ABOVE SEA LEVEL
ASPH	ASPHALT
AUTO	AUTOMATIC
BD	BOARD
BITUM	BITUMINOUS
BLDG	BUILDING
BLK	BLOCK
BM	BEAM
BOT	BOTTOM
BO	BOTTOM OF
BSMT	BASEMENT
BRG	BEARING
BRK	BRICK
BUR	BUILT UP ROOFING
BVL	BEVELED
CAB	CABINET
C/C	CENTER TO CENTER
CEM	CEMENT
CER	CERAMIC
CG	CORNER GUARD
CI	CAST IRON
CIP	CAST-IN-PLACE
CJ	CONTROL JOINT
CLG	CEILING
CLKG	CAULKING
CLO	CLOSET
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
CNTR	COUNTER
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONSTR	CONSTRUCTION
CONT	CONTINUOUS
CONTR	CONTRACTOR
CORR	CORRIDOR
CP	CONCRETE PAVER
CPT	CARPET/CARPETED
CRS	COURSE
CTSK	COUNTERSUNK
CT	CERAMIC TILE
CTD	COATED
CTR	CENTER
CWC	CHILLED WATER CABINET
CU FT	CUBIC FEET
CVG	CLEAR VERTICAL GRAIN
DBL	DOUBLE
DEMO	DEMOLITION
DET	DETAIL
DIA	DIAMETER
DIM	DIMENSION
DISP	DISPENSER
DL	DEAD LOAD
DN	DOWN
DO	DOOR OPENING
DP	DAMPPROOFING
DR	DOOR
DS	DOWNSPOUT
DSP	DRY STANDPIPE
DTL	DETAIL
DW	DISHWASHER
DWG	DRAWING
DWGS	DRAWINGS
DWR	DRAWER
E	EAST
EA	EACH
EB	EXPANSION BOLT
EE	EACH END
EF	EACH FACE
EIFS	EXTERIOR INSULATION AND FINISH SYSTEM
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRICAL
ELEV	ELEVATOR
EMER	EMERGENCY
ENCL	ENCLOSURE
ENG	ENGINEER
ENT	ENTRANCE
EO	EDGE OF
EQ	EQUAL
EQUIP	EQUIPMENT
EST	ESTIMATE
EW	EACH WAY
EXH	EXHAUST
EXIST	EXISTING
EXP	EXPANDED/EXPANSION
EXPO	EXPOSED
EXT	EXTERIOR
EXTR	EXTRUDE
FA	FIRE ALARM
FAB	FABRIC
FB	FLAT BAR
FBP	FABRIC PANEL
FBRK	FIRE BRICK
FD	FLOOR DRAIN
FDN	FOUNDATION
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FIN	FINISH
F/F	FINISH TO FINISH
FL; FLR	FLOOR; FLOORING
FLASH	FLASHING
FLUOR	FLUORESCENT
FLX	FLEXIBLE
FO	FINISHED OPENING
FOC	FACE OF CONCRETE
FOF	FACE OF FRAMING
FOIC	FURNISHED BY OWNER INSTALLED BY CONTRACTOR
FOM	FACE OF MASONRY
FOS	FACE OF STUDS
FRPF	FIREPROOF
FRPL	FIREPLACE
FR	FRAME
FRT	FIRE RETARDANT TREATED
FT	FOOT/FEET
FTG	FOOTING
FURN	FURNITURE
FURR	FURRING
FUT	FUTURE
FV	FIELD VERIFY
FW	FULL WIDTH
GA	GAUGE
GAL	GALLON
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GFCI	GROUND FAULT CIRCUIT INTERRUPTOR
GFRC	GLASS FIBER REINFORCED CONCRETE
GLS	GLASS
GR	GRADE
GRND	GROUND
GRTG	GRATING
GVL	GRAVEL
GWB	GYPSUM WALL BOARD
GYP	GYPSUM
HB	HOSE BIB
HC	HOLLOW CORE
HD GALV	HOT DIPPED GALVANIZED
HDR	HEADER
HDO	HIGH DENSITY OVERLAY
HDWD	HARDWOOD
HDWE	HARDWARE
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HP	HIGH POINT
HR	HOUR
HT	HEIGHT
HVAC	HEATING/VENTILATION/AIR CONDITIONING
HW	HOT WATER
HWS	HOT WATER SUPPLY
HWT	HOT WATER TANK
ID	INSIDE DIAMETER
IN	INCH
INCL	INCLUDE
INCR	INCREASE
INFO	INFORMATION
INSTL	INSTALL
INSUL	INSULATION
INT	INTERIOR
INV	INVERT
JB	JUNCTION BOX
JF	JOINT FILLER
JST	JOIST
JT	JOINT
KIT	KITCHEN
KO	KNOCKOUT
KS	KITCHEN SINK
LAM	LAMINATE, LAMINATED
LAV	LAVATORY
LF	LINEAL FEET
LH	LEFT HAND
LL	LIVE LOAD
LN	LENGTH
LP	LOW POINT
LOC	LOCATION
LT	LIGHT
LTG	LIGHTING
LTL	LINTEL
MAN	MANUAL
MAS	MASONRY
MATL	MATERIAL
MAX	MAXIMUM
MB	MACHINE BOLT
MC	MEDICINE CABINET
MDO	MEDIUM DENSITY OVERLAY
MECH	MECHANICAL
MEMB	MEMBRANE
MET	METAL
MEZZ	MEZZANINE
MFR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MIR	MIRROR
MISC	MISCELLANEOUS
MLD	MOLDING
MO	MASONRY OPENING
MOD	MODULE
MTD	MOUNTED
MTL	MATERIAL
MUL	MULLION
MWK	MILLWORK
N	NORTH
N/A	NOT APPLICABLE
NIC	NOT IN CONTACT
NO	NUMBER
NOM	NOMINAL
NR	NOISE REDUCTION
NTS	NOT TO SCALE
OA	OVERALL
OBS	OBSCURE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OFF	OFFICE
OH	OVERHEAD
OPNG	OPENING
OPP	OPPOSITE
PB	PARTICLE BOARD
PC	PRE-CAST CONCRETE
PCF	POUNDS PER CUBIC FOOT
PERP	PERPENDICULAR
PL	PROPERTY LINE, PLATE
P LAM	PLASTIC LAMINATE
PLAS	PLASTER
PLYWD	PLYWOOD
PNL	PANEL
PR	PAIR
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	POINT
PTD	PAINTED
PTN	PARTITION
PVC	POLYVINYL CHLORIDE
QT	QUARRY TILE
QTR	QUARTER
QTY	QUANTITY
R	RISER
RA	RETURN AIR
RAD	RADIUS
RB	RUBBER BASE
RCP	REFLECTED CEILING PLAN
RD	ROOF DRAIN
RECP	RECEPTACLE
REF	REFERENCE
REFR	REFRIGERATOR
REINF	REINFORCE
REM	REMOVE
REQD	REQUIRED
RESIL	RESILIENT
REV	REVISION, REVISED
RF	ROOF
RGH	ROUGH
RGTR	REGISTER
RH	RIGHT HAND
RM	ROOM
RMV	REMOVE
RO	ROUGH OPENING
RWL	RAIN WATER LEADER
S	SOUTH
SAF	SELF ADHERED FLASHING
SALV	SALVAGE
SAM	SELF ADHERED MEMBRANE
SAN	SANITARY
SC	SOLID CORE
SCHED	SCHEDULE
S CONC	SCOURED CONCRETE
SECT	SECTION
SF	SQUARE FOOT
SFGL	SAFETY GLASS
SH	SHELF
SHR	SHOWER
SHT	SHEET
SHTHG	SHEATHING
SIM	SIMILAR
SK	SINK
SPEC	SPECIFICATION
SQ	SQUARE
SQ FT	SQUARE FOOT
SQ IN	SQUARE INCH
SS	STAINLESS STEEL
ST	STRAIGHT
STA	STATION
STD	STANDARD
STL	STEEL
STOR	STORAGE
STRUCT	STRUCTURAL
STWY	STAIRWAY
SUR	SURFACE
SUSP	SUSPENDED
SYM	SYMMETRICAL
TB	TOWEL BAR
TC	TOP OF CURB
TEL	TELEPHONE
TER	TERRAZZO
T&G	TONGUE AND GROOVE
THK	THICK
THR	THRESHOLD
THRM	THERMAL
THRU	THROUGH
TKBD	TACK BOARD
TLT	TOILET
TO	TOP OF
TOL	TOLERANCE
TPH	TOILET PAPER HOLDER
TRD	TREAD
TSL	TOP OF SLAB
TST	TOP OF STEEL
TSTAT	THERMOSTAT
TT	TERRAZZO TILE
TV	TELEVISION
TW	TOP OF WALL
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
UT	UTILITY
VAR	VARIES
VB	VINYL BASE
VCT	VINYL COMPOSITION TILE
VERT	VERTICAL
VEST	VESTIBULE
VIF	VERIFY IN FIELD
VNR	VENEER
VOL	VOLUME
VT	VINYL TILE
W	WEST
W/	WITH
WB	WOOD BASE
WC	WATER CLOSET
WD	WOOD
WG	WIRED GLASS
WH	WATER HEATER
WIN	WINDOW
WLC	WALL COVERING
W/O	WITHOUT
WP	WATERPROOF
WPR	WATERPROOFING
WS	WEATHERSTRIPPING
WSCT	WAINSCOT
WT	WEIGHT

SYMBOLS LEGEND

GRID LINES:

CENTER LINES:

ELEVATION/DATUM: LEVEL 1 0'-0"

ASSEMBLY TYPE REFERENCE:

ROOM REFERENCE:

DOOR TAG: 101

WINDOW/SKYLIGHT TAG: 1t

BUILDING SECTION: 1 / A101 SIM

EXTERIOR ELEVATION: 1 / A101 SIM

INTERIOR ELEVATION: 1 Ref / 1 Ref / A101 / 1 Ref / 1 Ref

DETAIL REFERENCE: 1 / A101 SIM

NEW CONSTRUCTION:

TO BE DEMOLISHED:

EXISTING TO REMAIN:

DOWN SPOUT: DS

SMOKE ALARM: SD

CARBON MONOXIDE ALARM: CO

90 CFM VENT FAN: 90

110 CFM VENT FAN: 110

NORTH ARROW:

REVISION REFERENCE:

1

(ONLY THE MOST RECENT REVISIONS ARE SHOWN CLOUDED. THE TAG REFERS TO PAST REVISIONS. THE NUMBERS ARE KEYED TO THE DATES THE REVISIONS WERE ISSUED).

SYMBOLS LEGEND
12" = 1'-0"

GENERAL CODES AND REGULATIONS

Building Code - 2015 International Residential Code (IRC) with statewide and City amendments

Mechanical Code - 2015 International Mechanical Code with statewide and City amendments 2014 Liquefied Petroleum Gas Code (NFPA 58) 2015 National Fuel Gas Code (NFPA 54) for LP gas 2015 International Fuel Gas Code with statewide and City amendments

Plumbing Code - 2015 Uniform Plumbing Code (UPC) including appendices A, B, and I, except chapters 12, 15 and portions of chapter 5 per WAC 51-56-003

Energy Code - 2015 WA State Residential Energy Code per WAC 51-11R

Fire Code - 2015 International Fire Code (IFC) including Appendix N as adopted by 51-54 WAC

Electrical Code - 2008 National Electrical Code (NEC) per WAC 296-46B-010

Zoning Code - City of Mercer Island Municipal Code

All surfaces shall be cleaned prior to occupancy.

GARRET CORD WERNER

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DATE	DRAWN BY
9/20/2022	NLD
SCALE	CHECKED BY
12" = 1'-0"	GCW

PROJECT

FOO RESIDENCE

3453 74th Ave SE
Mercer Island, WA
98040

REV	DATE	ISSUE/REVISION

DEDICATED APPROVAL STAMP SPACE

SHEET TITLE

ABBREVIATIONS

REVISION NO.

SUPERSEDES ALL PREVIOUS REVISIONS

SHEET NO.

G001

9/20/2022 2:33:38 PM

GENERAL REQUIREMENTS

Governing Codes and Regulations:

Building Code - 2015 International Residential Code (IRC) including appendices F, Q, and R, except chapters 11, 25-43 per WAC 51-51-003 - Chapter 51-51 WAC

Mechanical Code - 2015 International Mechanical Code (IMC) including adoption of 2015 International Fuel Gas Code, 2014 NFPA 58 & 2014 NFPA 54 - Chapter 51-52 WAC

Plumbing Code - 2015 Uniform Plumbing Code (UPC) including appendices A, B, and I, except chapters 12, 15 and portions of chapter 5 per WAC 51-56-003

Energy Code - 2015 WA State Residential Energy Code per WAC 51-11R

Fire Code - 2015 International Fire Code (IFC) including Appendix N as adopted by 51-54 WAC

Electrical Code - 2008 National Electrical Code (NEC) per WAC 296-46B-010

Contractor Responsibilities: It is the responsibility of the contractor to ensure compliance and conformance with the various provisions within these ordinances and codes in all of the work. The General Contractor is responsible for coordinating all work including additional permits and subcontractor work.

Dimensions: Dimensions that are not stated as "maximum" or "minimum" are absolute. All dimensions are subject to conventional industry tolerances. Verify and coordinate dimensions among all drawings prior to construction. Written dimensions take precedence over scaled lengths and heights in all cases. Do not scale the drawings.

Discrepancies: In the event of discrepancies or contradictory information in the drawings, notes, or specifications, it is the obligation of the contractor to notify the architect of the same and to obtain clarification from the architect before proceeding with the work. Any work done by the contractor after discovery of such discrepancy shall be done at the contractor's risk.

Inspections: Contractor shall be responsible for coordinating all building inspections. Required building inspections per IRC section R109 and WSEC 105:

- Foundation Inspection: after forms are erected and reinforcing steel is placed.
- Plumbing, mechanical, gas, and electrical systems inspection: prior to covering/concealment.
- Frame and masonry inspection: after the roof, masonry, firestopping, draftstopping, and bracing are in place and after plumbing, mechanical, and electrical rough inspections are approved.
- Special Inspections as required by the Engineer of Record.
Wall insulation inspection: after all wall and cavity insulation is in place and prior to wall covering.
- Other inspections required by the Building Official.
- Final Inspection: after the permit work is complete and prior to occupancy.

Contract Documents: The Architect shall have the final authority with regard to interpretation of the intent and spirit of the contract documents. The Project Specifications are included by reference. All contract documents pertaining to this project are to be considered and interpreted for bidding and construction purposes as a complete whole. No part of the drawings or project specifications shall be distributed, considered, or used in any way independent of the complete set of documents.

Typical Details: Project drawings indicated general and typical details of construction. Where conditions are not specifically indicated but are of similar character to details shown, similar details of construction to those provided shall be used - subject to review and approval by the architect and the structural engineer.

Work and Data by Others: The architect assumes no responsibility for, nor verifies the accuracy of, any engineering data supplied by others.

Submittals: General Contractor to provide a minimum of 10 business days for architect to review. Shop drawings are required for the following components:

- Items required by consultants. See individual consultant documentation for any shop drawings required by their respective disciplines
- Windows and doors
- Skylights and canopies
- Trellises not of wood
- Railing systems
- Gates and specialty doors
- Wine rack and shelving layouts
- Casework and built-ins
- Sauna and steam rooms
- Other components called out in the specifications

Changes: Contractor initiated changes shall be submitted in writing to the architect and/or structural engineer for approval prior to fabrication or construction. Changes shown on shop drawings only do not satisfy this requirement. All changes - whether drawing or field required - shall have revisions approved & filed for record w/ the city once the original submission has been approved and the permit issued. Charge will be made by the city for all revision review and approvals including field inspections beyond that required under permit fees and paid for under estimated inspection fee.

As-Built Drawings: Contractor and subcontractors shall mark drawings for as-built condition. Mechanical, electrical, plumbing, and fire-protection drawings shall be revised for as-built conditions by their respective authors. Final as-built reproducible drawings shall be submitted to owner's representative.

Safety: Contractor shall be responsible for all required safety precautions and the methods, techniques, sequences, or procedures required to perform the work.

Site Maintenance: Contractor shall maintain a trash bin in an area designated by the owner's representative for the collection of all construction debris. Contractor shall dispose of all debris and remove trash bin prior to occupancy. All surfaces shall be cleaned prior to occupancy.

FIRE-RESITANT CONSTRUCTION

Occupancy Separation: The garage shall be separated from the dwelling unit and its attic area by not less than 1/2" gypsum wall board applied to the garage side. Garages shall be separated from all habitable rooms above and all structures supporting the floor/ceiling assembly by not less than 5/8" Type X gypsum board or equivalent. (Table R302.6)

Doors between the garage and the residence shall be minimum 1 3/8" thick solid wood, or 20-minute fire-rated, and shall be equipped with a self-closing device. (R302.5.1)

Ducts in the garage and ducts penetrating the separation assemblies shall be min 26 gage sheet steel and have no openings into the garage. (R302.5.2)

Under-Stair Protection: Enclosed accessible space under stairs shall be protected with minimum 1/2" gypsum board on the enclosed side. (R302.7)

Fire Blocking: Provide fire blocking in concealed wall spaces of stud walls and partitions vertically at ceiling and floor levels, at 10 feet max. horizontally, and at all interconnections of concealed vertical and horizontal spaces. Fire block concealed spaces between stair stringers at the top and bottom of run between studs and in line with the run of the stairs if the wall sunder the stairs are unfinished. Fire stop with non-combustible materials in openings around all vents, pipes, ducts, chimneys, fireplaces, and similar openings which afford passage for fire at ceiling and floor levels. (R302.11 & R1003.19)

Draftstopping: Draft stop floor/ceiling assemblies greater than 1,000 SF. into approximately equal areas with 1/2" gypsum board parallel to the floor framing members. (R302.12)

EGRESS

Egress Openings: Emergency escape and rescue openings shall have a minimum net clear opening of 5.7 sq. ft. except the minimum net clear opening for emergency escape and rescue grade-floor openings shall be 5 sq. ft. Where provided, they shall have a sill height of not more than 44" measured from the finished floor to the bottom of the clear opening. The minimum net clear opening height shall be 24". The minimum net clear opening width shall be 20". (R310.1)

Handrails: One handrail shall be provided at every stairway having four or more risers and shall be continuous for the full length of the flight. Provide 2 handrails where indicated on plans. Handrail height, measured above stair tread nosings, or finish surface of ramp slope, shall be uniform, not less than 34" and not more than 38". Handrails with a circular cross section shall have an outside diameter of at least 1.25" and not greater than 2". If the handrail is not circular, it shall have a perimeter dimension of at least 4" and not greater than 6.25" with a maximum cross-section dimension of 2.25". Handrails with a perimeter greater than 6.25" shall have a graspable finger recess area on both sides of the profile. (R311.7.8)

Guards: Guards shall be located along open-sided walking surfaces, mezzanines, stairways, ramps and landings which are located more than 30" above the floor or grade below and within 36" of the edge of the open side. Guards shall be 36" high minimum except guards whose top rail also serves as a stair handrail shall have a height of no less than 34" and not more than 38" measured vertically from the leading edge of the stair tread nosing. (R312)

Open guards shall have balusters or ornamental patterns such that a 4"-diameter sphere cannot pass through any opening except the triangular openings formed by the riser, tread, and bottom rail at the open side of a stairway shall not allow passage of a sphere of 6" in diameter. Guards on the open side of stairs shall not have openings which allow passage of a sphere 4-3/8" in diameter. (R312.1.3)

FIRE PROTECTION SYSTEMS

Bidder Designed: Fire Protection systems, if necessary, shall be bidder designed. Designated subcontractors are responsible for the preparation of drawings and applications for appropriate required permits.

Sprinkler System: An NFPA 13R fire sprinkler shall be provided in accordance with IRC P2904. The system shall be designed and the plans stamped by a person holding a Washington State Certificate of Competency. Contractor shall submit design to the Fire Department for approval. The system shall be installed by a state licensed sprinkler contractor.

Monitored Houshold Fire Alarm per NFPA 72 and Monitored Sprinkler Water Flow Alarm are required.

Smoke Alarm System: An approved automatic smoke alarm system shall be provided and installed in accordance with the warning equipment provisions of NFPA 72. Smoke alarms shall be provided inside each sleeping room, outside of each sleeping area, and on each story of the dwelling. Required smoke alarms shall be hardwired, interconnected, and have a battery backup. (R314)

Carbon Monoxide Alarms: Provide approved carbon monoxide alarms outside of each separate sleeping area and on each level of the dwelling. (R315)

FIREPLACES AND CHIMNEYS

Factory-Built Fireplaces: Factory-built fireplaces shall be UL listed, labeled and installed and terminated in accordance with the conditions of their listing. (R1004)

Factory-Built Chimneys: Factory-built chimneys shall be UL 127-96 listed, labeled, installed, and terminated in accordance with the manufacturer's installation instructions. (R1005)

Hearth Extensions: Hearth extensions of factory-built fireplaces shall be installed in accordance with the listing of the fireplace and shall be readily distinguishable from the surrounding floor area. (R1004.2)

Flue Clearances: Metal flues venting gas appliances shall have a minimum net clearance to combustible materials as required by the appliance manufacturer in accordance with the listing of the flue. (UMC 504(a))

GLASS, GLAZING & FENESTRATION

Glazing shall be in accordance with IRC section 308.

Exterior Glazing: All exterior wall glazing shall be double-glazed and comply with the Washington State Energy Code (WAC 51-11).

Safety Glazing: Install in areas subject to human impact (R308.4) Such hazardous locations include:

- Glazing in fixed and operable panels of swinging, sliding, and bifold doors
- Glazing in a fixed or operable panel adjacent to a door where the nearest vertical edge is within a 24" arch of the door in a closed position and whose bottom edge is less than 60" above the floor or walking surface except for:
  - Decorative glazing
  - Where there is an intervening wall
  - Glazing in the wall perpendicular to the latch side of the door
  - Adjacent to the fixed panel of patio doors
- Glazing in an individual or fixed panel that meets all of the following conditions:
  - Exposed area of an individual pane greater than 9 square feet
  - Bottom edge is less than 18" above the floor
  - Top edge is greater than 36" above the floor
  - One or more walking surfaces within 36" horizontally of the glazing
- All glazing in railings, regardless of an area or height above walking surface. Included are structural baluster panels and nonstructural in-fill panels.
- Glazing in walls, enclosures, or fences for hot tubs, spas, whirlpools, saunas, steam rooms, bathtubs, showers, and indoor or outdoor pools where the bottom exposed edge of the glazing is less than 60" above any standing or walking surface and within 60" horizontally of the water's edge.
- Glazing adjacent to stairways, landings, and ramps within 36" horizontally of a walking surface when the bottom exposed edge of the glass is less than 36" above the adjacent walking surface. Except when a rail is installed on the accessible side of the glazing 34" to 38" above the walking surface.
- Glazing adjacent to the landing at the bottom of a stairway within 60" horizontally of the bottom tread when the exposed surface of the glazing is less than 36" above the nose of the tread. Except when the glazing is protected by a guard complying with section R312 and the glass is more than 18" from the guard.

Fenestration Products: U-factors of fenestration products (windows, doors, and skylights) shall be determined in accordance with NFRC 100, with exception to garage door U-factors which shall be determined in accordance with either NFRC 100 or ANSI/DAMSA 105. U-factors shall be determined by an accredited, independent laboratory, and labeled and certified by the manufacturer per R303.1.3.

ENERGY EFFICIENCY

Insulation and Vapor Barriers: Application and installation of insulation and vapor barriers shall comply with WSEC. All insulating materials shall have a flame spread index of not more than 25 and a smoke-developed index of not more than 450. (R302.10.1)

Air Leakage: The building thermal envelope shall be constructed to limit air leakage in accordance with the requirements of WSEC R402.4.1 through R402.4.4.

Testing: The building shall be tested and verified as having an air leakage rate of not exceeding 5 air changes per hour. Testing shall be conducted with a blower door at a pressure of 0.2 inches w.g.. Testing shall be performed at nay time after creation of all penetrations of the building thermal envelope. (WSEC R402.4.1.2)

Ducts, air handlers, and filter boxes shall be sealed. Ducts shall be leak tested in accordance with WSU RS-33, using the maximum duct leakage rates specified. (R403.2.2)

Air Barrier and Insulation: The air barriers and insulation in walls, floors, roofs, and any other enclosures of conditioned space shall be installed in accordance with the manufacturer's instructions and the criteria listed in Table R402.4.1.1, or the building shall be tested and verified as having an air leakage rate of not exceeding 5 air changes per hour. (WSEC R402.2.4)

Weatherstripping: Access doors from conditioned spaces to unconditioned spaces shall be weatherstripped and insulated to a level equivalent to the insulation on surrounding surfaces. (WSEC R402.2.4)

Thermostat: Where the primary heating system is a forced-air furnace, at least one programmable thermostat shall be provided for each separate heating and cooling system. (WSEC R403.1)

Energy Certificate: A permanent certificate shall be posted on or within three feet of the electrical panel. The certificate shall be completed by the builder or registered design professional. The certificate shall list the R-values of insulation installed in or on ceiling/roof, walls, foundation (slab, below-grade wall, and/or floor), and ducts outside the conditioned spaces; U-factors for fenestration; and the solar heat gain coefficient (SHGC) of fenestration; and the results from any required duct system and building envelope air leakage testing. Where more than one value for each component, the certificate shall list the value covering the largest area. The certificate shall list the type and efficiency of heating, cooling, and service water heating equipment. Where a gas-fired unvented room heater, electric furnace, or baseboard electric heater is installed, the certificate shall list this as appropriate. (WSEC R401.3)

STRUCTURAL SYSTEMS

Structural Systems: All structural systems (such as trusses) which are to be composed of components to be field erected shall be supervised by the supplier during manufacturing, delivery, handling, storage, and erection in accordance with instructions prepared by the supplier.

Walls: Exterior walls to be 2x6 wood studs at 16" o.c. unless indicated otherwise on plans. Interior walls to be 2x4 studs at 16" o.c. unless noted otherwise on plans.

Refer to structural documents by engineer of record for detailed information on structural components and connections.

SOILS AND FOUNDATIONS

Soils: The architect assumes no responsibility as to the physical characteristics of the soils. The geotechnical engineer shall inspect all excavations prior to pouring concrete.

Damp-proofing: Except where required by Section R406.2 to be waterproofed, foundation walls that retain earth and enclose interior spaces below grade shall be dampproofed from the top of the footing to the finished grade in accordance with one of the following: bituminous coating; three pounds per square yard of acrylic modified cement; 1/8" coat of surface-bonding cement complying with ASTM C 887; any material permitted for waterproofing in Section R406.2. (R406.1)

Perimeter Drains: Provide continuous 6" round perforated drain in gravel fill with filter fabric wrap at all foundation walls. Provide clean-outs such that all portions of drainage system can be adequately cleaned. Locate bottoms of drain pipes at the lowest point of wall footings and tight-line perimeter drains to storm sewer or other approved discharge. Do not connect the perimeter/foundation drain tight-line to any other tight-lines or site drainage systems. (R405)

Provide a minimum 12" wide layer of continuous gravel fill from bottom of footing to within 12" of finish grade - typical at all walls. Approved gravel fill consists of washed, clean, free drainage gravel ranging from 1/4" to 3/4" in size.

Site drainage shall conform to all local regulations and ordinances. Tight-line all roof drains to storm sewer system or approved discharge when storm sewers are not available. Refer to civil engineer's documents for additional information.

Finish Grade: Grade at the building face shall have a positive slope away from the building. All site hard surfaces to have a minimum slope of 1/8" per FT to drains unless otherwise noted.

WOOD AND WEATHER PROTECTION

Exterior Structures: Exterior wood framed decks and other wood framed structures exposed to weather: all wood shall be pressure treated to current American Wood Preservers Institute standards. This includes all plywood, trusses, sawn members, glue-laminated members, etc., unless noted otherwise. All nails and connectors shall be heavy-coat galvanized.

Wood Protection: Wood framing members in contact with exterior concrete foundations shall be pressure treated. Wood siding, sheathing, and wall framing on the exterior of the building less than 6" from the ground or less than 2" from slabs, steps, and similar horizontal surfaces shall be pressure treated. Ends of wood beams entering a concrete wall (pocket) shall have 1/2" clearance on top, sides, and ends. (R317)

Wall Flashing: Approved corrosion resistant flashing shall be applied shingle-fashion in a manner to prevent entry of water into the wall. Self-adhered membrane flashings shall comply with AAMA 711. The flashing shall extend to the surface of the exterior wall finish. Flashing shall be installed at exterior window and door openings; intersections of chimneys or other masonry with frame or stucco walls; under and at the ends of masonry, wood or metal copings and sills; above projecting wood trim; where exterior porches, decks or stairs attach to a wall or floor assembly of wood-frame construction; at wall and roof intersections; at gutters. (R703.8 and WAC 51-51-703)

Roof Flashings: Flashing shall be installed at wall and roof intersections, wherever there is a change in roof slope or direction, at gutters, and around roof openings in a manner that prevents moisture from entering the wall and roof assemblies. A flashing shall be installed to divert the water away from where the eave of a sloped roof intersects a vertical side wall. Where flashing is of metal, the metal shall be corrosion resistant with a thickness of not less than 0.019". (R903.2)

INTERIOR ENVIRONMENT

Attic Ventilation: The net free ventilating area of enclosed attics and rafter spaces shall not be less than 1/150 of the area of the space ventilated, except that 1/300 min. is permitted if 40%-50% of the required ventilating area is provided by ventilators located in the upper portion of the space no more than 3' below the ridge or highest point of the space, with the balance provided by eave or cornice vents. Where eave or cornice vents are installed, provide minimum 1-inch clear space between insulation and roof sheathing and the location of the vent. (R806)

Exhaust Fans: Exhaust fans vented to the exterior are required in bathrooms, water closets, laundry rooms, kitchens, and other rooms where water vapor or cooking odor is produced. (M1507.4 and WAC 51-51-1507)

Provide 50 CFM minimum fan flow rating at bathrooms, laundries, and similar rooms. Provide 300 CFM minimum for kitchens.

Crawlspace Access: Provide access to crawlspaces through a floor access opening of 18"x24" minimum or a perimeter wall access opening of 16"x24" minimum. (R408.4)

Attic Access: Provide access to any attic area having a clear height of over 30" and greater than 30 SF in size through an opening of 22"x30" minimum. A 30" minimum clear headroom in the attic space shall be provided at or above the access opening. Locate in a hallway or other readily-accessible location. (R807)

Wet Areas: Shower compartments and walls above bathtubs with installed shower heads shall be finished with a non-absorbent surface to a height not less than 72" above the floor. (R307.2)

Solid Blocking: Provide solid blocking in walls at connection points behind cabinets, wall shelving, towel and grab bars, and other wall-hung items.

Acoustical Insulation: Provide sound attenuation blankets at all bathroom, toilet room, and powder room walls and other spaces as noted on plans. Provide sound attenuation blankets at all bathroom, toilet room, and powder room floors and ceilings when these rooms occur above or below a habitable space.

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DATE	DRAWN BY
9/20/2022	NLD
SCALE	CHECKED BY
	GCW

PROJECT

FOO RESIDENCE

3453 74th Ave SE
Mercer Island, WA
98040

REV	DATE	ISSUE/REVISION
1	7/15/20	Revision 1

DEDICATED APPROVAL STAMP SPACE

SHEET TITLE

GENERAL PROJECT NOTES AND REQUIREMENTS

REVISION NO.

1

SUPERSEDES ALL PREVIOUS REVISIONS

SHEET NO.

G002

9/20/2022 2:33:38 PM

Prescriptive Energy Code Compliance for All Climate Zones in Washington

Project Information	*Contact Information*
FOO Residence	Amir Parnianpour
3453 74th Ave SE, Mercer Island, WA 98040	800.478.1956
Parcel # 1300301965	amir@garretcordwerner.com

This project will use the requirements of the Prescriptive Path below and incorporate the the minimum values listed. In addition, based on the size of the structure, the appropriate number of additional credits are checked as chosen by the permit applicant.

Authorized Representative _____ Date _____

Each dwelling unit in a residential building shall comply with sufficient options from Table R406.2 so as to achieve the following minimum number of credits:

- ☐ **1. Small Dwelling Unit: 1.5 credits**
  Dwelling units less than 1500 square feet in conditioned floor area with less than 300 square feet of fenestration area. Additions to existing building that are greater than 500 square feet of heated floor area but less than 1500 square feet.
- ☐ **2. Medium Dwelling Unit: 3.5 credits**
  All dwelling units that are not included in #1 or #3. **Exception:** Dwelling units serving R-2 occupancies shall require 2.5 credits.
- ☑ **3. Large Dwelling Unit: 4.5 credits**
  Dwelling units exceeding 5000 square feet of conditioned floor area.
- ☐ **4. Additions less than 500 square feet: .5 credits**

Table R406.2 Summary

Option	Description	Credit(s)			
1a	Efficient Building Envelope 1a	0.5	☑		0.5
1b	Efficient Building Envelope 1b	1.0	☐		
1c	Efficient Building Envelope 1c	2.0	☐		
1d	Efficient Building Envelope 1d	0.5	☐		
2a	Air Leakage Control and Efficient Ventilation 2a	0.5	☐		
2b	Air Leakage Control and Efficient Ventilation 2b	1.0	☑		1.0
2c	Air Leakage Control and Efficient Ventilation 2c	1.5	☐		
3a	High Efficiency HVAC 3a	1.0	☑		1.0
3b	High Efficiency HVAC 3b	1.0	☐		
3c	High Efficiency HVAC 3c	1.5	☐		
3d	High Efficiency HVAC 3d	1.0	☐		
4	High Efficiency HVAC Distribution System	1.0	☐		
5a	Efficient Water Heating 5a	0.5	☑		0.5
5b	Efficient Water Heating 5b	1.0	☐		
5c	Efficient Water Heating 5c	1.5	☑		1.5
5d	Efficient Water Heating 5d	0.5	☐		
6	Renewable Electric Energy	0.5		*1200 kwh	0.0
Total Credits					**4.50**

*Please refer to Table R406.2 for complete option descriptions

ENERGY CODE NOTES

2015 WASHINGTON STATE ENERGY CODE

ALL DUCTS NOT LOCATED COMPLETELY INSIDE THE BUILDING THERMAL ENVELOPE DUCTS SHALL BE INSULATED TO A MINIMUM OF R-8.

ALL HEADERS IN EXTERIOR WALLS TO HAVE A MINIMUM R-10 INSULATION.

DWELLING UNIT IS REQUIRED TO BE PROVIDED WITH AT LEAST ONE PROGRAMMABLE THERMOSTAT FOR REGULATION OF TEMPERATURE (SEC 503.8.1).

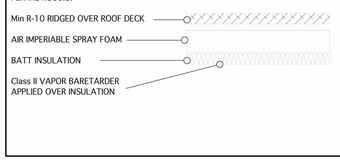
MINIMUM 75% OF ALL INTERIOR LUMINAIRES SHALL BE HIGH EFFICACY LUMINAIRES, AND ALL EXTERIOR LIGHTING SHALL BE HIGH EFFICACY LUMINAIRES.

A SIGNED AFFIDAVIT DOCUMENTING THE DUCT LEAKAGE TEST RESULTS SHALL BE PROVIDED TO THE BUILDING INSPECTOR PRIOR TO AN APPROVED FINAL INSPECTION (SEC 503.10.2).

DUCT LEAKAGE TEST RESULTS SHALL BE PROVIDED TO THE BUILDING INSPECTOR AND HOMEOWNER PRIOR TO APPROVED FINAL INSPECTION (SEC 101.3.2.6 AND 503.10.2).

ROOF VENTILATION

NO ROOF VENTILATION. ALL ROOFS ARE A INSULATED WITH A FLASH AND BATT SYSTEM PER IRC R806.5.



VENTILATION CODE NOTES

WAC 51-13, WASHINGTON STATE VENTILATION AND INDOOR AIR QUALITY CODE AND INTERNATIONAL MECHANICAL CODE CHAPTER 15 AND IRC.

CONTINUOUSLY WHOLE HOUSE VENTILATION SYSTEM MINIMUM VENTILATION RATE = 105, PER IRC.

NOISE: WHOLE HOUSE FANS LOCATED FOUR FEET OR LESS FROM THE INTERIOR GRILLE SHALL HAVE A SONE RATING OF 1.0 OR LESS.

EXHAUST DUCTS SHALL TERMINATE OUTSIDE OF THE BUILDING .

OUTDOOR AIR DISTRIBUTION: OUTDOOR AIR SHALL BE DISTRIBUTED TO EACH HABITABLE ROOM BY MEANS SUCH AS INDIVIDUAL INLETS, SEPARATE DUCT SYSTEMS, OR A FORCED-AIR SYSTEM.

DOORS SHALL BE UNDERCUT TO A MINIMUM OF ONE-HALF INCH ABOVE THE SURFACE OF THE FINISH FLOOR COVERING. DOORS AND OPERABLE LITES IN WINDOWS ARE DEEMED NOT TO MEET THE OUTDOOR AIR SUPPLY INTAKE REQUIREMENTS.

SOURCE SPECIFIC VENTILIATION: INTERMITTENTLY OPERATING MINIMUM EXHAUST RATES FOR BATHROOMS IS 50 CFM, KITCHENS IS 100 CFM. SYSTEMS EXCEEDING 400 CFM'S VENTED TO OUTSIDE AIR MUST BE INTERLOCKED WITH MAKE-UP AIR. PROVIDE MAKE-UP AIR PER SECTION M1503.8. EXHAUST SHALL BE DISTCHARGED OUTSIDE AND BACKDRAFT DAMPERS ARE REQUIRED.

ENERGY CREDITS

TOTAL ENERGY CREDITS REQUIRED PER TABLE R406.2: 4.5 CREDITS

EFFICIENT BUILDING ENVELOPE
OPTION 1a: 0.5 CREDITS

VERTICAL FENESTRATION U = 0.28
NEW FLOOR OVER UNCONDITIONED SPACE REQUIRES R-38 INSULATION
NEW SLAB ON GRADE REQUIRES THERMAL BREAK AT PERIMETER FOOTING
NEW SLAB ON GRADE REQUIRES 24" OF R-10 INSULATION AT PERIMETER

AIR LEAKAGE CONTROL AND EFFICIENT VENTILATION
OPTION 2b: 1.0 CREDITS

COMPLIANCE OF AIR LEAKAGE TO 2.0 AIR CHANGES PER HOUR MAXIMUM
ALL WHOLE HOUSE VENTILATION REQUIREMENTS PER SECTION M1507.3 OF THE INTERNATIONAL RESIDENTIAL CODE SHALL BE MET WITH A HEAT RECOVERY VENTILATION SYSTEM WITH MINIMUM SENSIBLE HEAT RECOVERY EFFICIENCY OF 0.70.

HIGH EFFICIENCY HVAC EQUIPMENT
OPTION 3a: 1.0 CREDITS

GAS, PROPANE OR OIL-FIRED FURNACE WITH MINIMUM AFUE OF 94%, TO QUALIFY TO CLAIM THIS CREDIT, THE BUILDING PERMIT DRAWINGS SHALL SPECIFY THE OPTION BEING SELECTED AND SHALL SPECIFY THE HEATING EQUIPMENT TYPE AND THE MINIMUM EQUIPMENT EFFICIENCY.

EFFICIENT WATER HEATING
OPTION 5a: 0.5 CREDITS

ALL KITCHEN SINK FAUCETS SHALL BE RATED AT 1.75 GPM OR LESS.
ALL SHOWERHEADS SHALL BE RATED AT 1.75 GPM OR LESS.
ALL OTHER LAVATORY FAUCETS SHALL BE RATED AT 1.0 GPM OR LESS.

EFFICIENT WATER HEATING
OPTION 5C: 1.5 CREDITS

GAS WATER HEATER WITH A MINIMUM EF OF 0.91% SHALL BE INSTALLED

Simple Heating System Size: Washington State

This heating system sizing calculator is based on the Prescriptive Requirements of the 2015 Washington State Energy Code (WSEC) and ACCA Manuals J and S. This calculator will calculate heating loads only. ACCA procedures for sizing cooling systems should be used to determine cooling loads.

Please fill out all of the green drop-downs and boxes that are applicable to your project. As you make selections in the drop-downs for each section, some values will be calculated for you. If you do not see the selection you need in the drop-down options, please call the WSU Energy Extension Program at (360) 956-2042 for assistance.

Project Information	*Contact Information*
FOO Residence	Amir Parnianpour
3453 74th Ave SE, Mercer Island, WA 98040	800.478.1956
Parcel # 1300301965	amir@garretcordwerner.com

Heating System Type: ○ All Other Systems ◉ Heat Pump

To see detailed instructions for each section, place your cursor on the word "Instructions".

Design Temperature
Instructions: Mercer Island — Design Temperature Difference (ΔT) = 45
ΔT = Indoor (70 degrees) - Outdoor Design Temp

Area of Building
Conditioned Floor Area
Instructions: Conditioned Floor Area (sq ft) = 5,306

Average Ceiling Height
Instructions: Average Ceiling Height (ft) = 9.0 — Conditioned Volume = 47,754

Glazing and Doors
Instructions: U-0.28

U-Factor	X	Area	=	UA
0.280		2,260		632.86

Skylights
Instructions

U-Factor	X	Area	=	UA
0.50		0		—

Insulation
Attic
Instructions: R-49

U-Factor	X	Area	=	UA
0.026		1,975		51.35

Single Rafter or Joist Vaulted Ceilings
Instructions: R-38 Vented

U-Factor	X	Area	UA
0.027		1,154	31.17

Above Grade Walls *(see Figure 1)*
Instructions: R-21 INS plus R-4 ci

U-Factor	X	Area	UA
0.043		5,951	255.89

Floors
Instructions: R-38

U-Factor	X	Area	UA
0.029		330	9.57

Below Grade Walls *(see Figure 1)*
Instructions: R-21 int plus R-5 ci

U-Factor	X	Area	UA
0.028		1,344	37.63

Slab Below Grade *(see Figure 1)*
Instructions: R-10 Fully Insulated

F-Factor	X	Length	UA
0.303		134	40.60

Slab on Grade *(see Figure 1)*
Instructions: R-10 Fully Insulated

F-Factor	X	Length	UA
0.360		206	74.16

Location of Ducts
Instructions: Conditioned Space — Duct Leakage Coefficient = 1.00

Figure 1

Sum of UA	1133.23	
Envelope Heat Load *Sum of UA X ΔT*	50,995	Btu / Hour
Air Leakage Heat Load *Volume X .018 X ΔT X .018*	23,208	Btu / Hour
Building Design Heat Load *Air Leakage + Envelope Heat Loss*	74,204	Btu / Hour
Building and Duct Heat Load *Ducts in unconditioned space: Sum of Building Heat Loss X 1.10* *Ducts in conditioned space: Sum of Building Heat Loss X 1*	74,204	Btu / Hour
Maximum Heat Equipment Output *Building and Duct Heat Loss X 1.40 for Forced Air Furnace* *Building and Duct Heat Loss X 1.25 for Heat Pump*	92,755	Btu / Hour

(07/01/13)

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98121

TEL 800.478.1956
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DATE	DRAWN BY
9/20/2022	NLD
SCALE	CHECKED BY
	GCW

PROJECT
FOO RESIDENCE

3453 74th Ave SE
Mercer Island, WA
98040

REV DATE ISSUE/REVISION

DEDICATED APPROVAL STAMP SPACE

SHEET TITLE
ENERGY CODE COMPLIANCE WORKSHEET

REVISION NO.

SUPERSEDES ALL PREVIOUS REVISIONS

SHEET NO.
G003

9/20/2022 2:33:40 PM

NE 1/4, SW 1/4, SEC 12, TWP 24N, RNG 4E, W.M.

PROJECT NO.	18-243
DRAWN BY:	EFJ
CHECKED BY:	TNW
DATE:	6/14/18
SHEET 1	OF 1

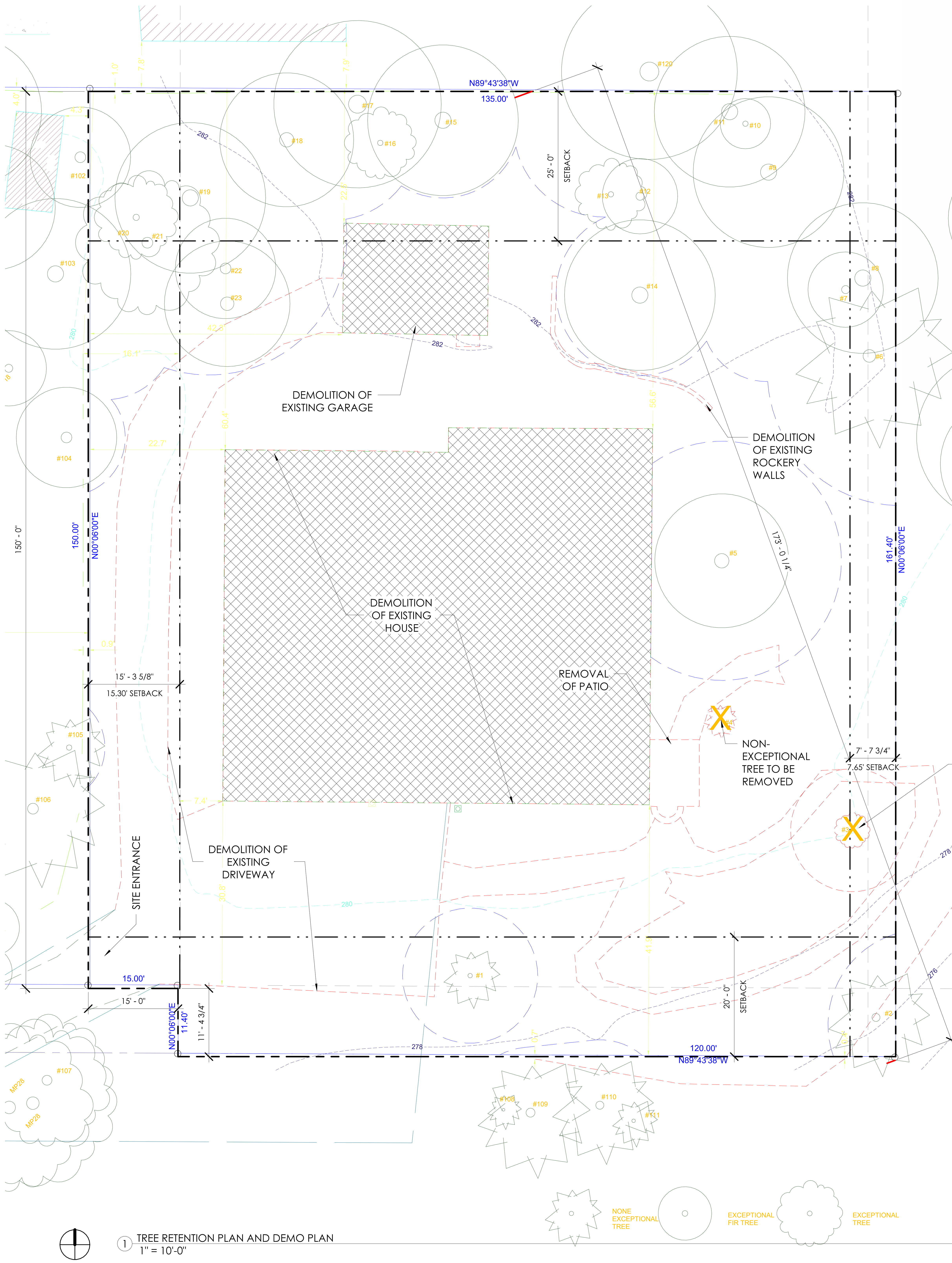
PRELIMINARY SHORT PLAT

DAVID ARMITAGE
3453 74TH AVENUE SE
MERCER ISLAND, WA 98040

DATE	REVISION	DRN

THOMAS N. WOLDENDORP
STATE OF WASHINGTON
38964
REGISTERED
PROFESSIONAL LAND SURVEYOR

Site Surveying, Inc.
www.sitesurveymapping.com 21923 NE 11th Street Sammamish, WA 98074 Phone: 425.298.4412



1 TREE RETENTION PLAN AND DEMO PLAN
1" = 10'-0"

Tree Summary Table
For: 3453 74th Ave SE-Neighboring Trees, City of Mercer Island

American Forest Management, Inc
Date: 11/5/2018
Inspector: Layton

Tree/ Tag #	Species	Exceptional	DBH (inches)	Height (feet)	Drip-Line / Limits of Disturbance (feet) N	S	E	W	Condition	Proposal	Comments
101	Douglas fir	yes	12	60		0/10			fair	Protect	suppressed, cannot isolate
102	Douglas fir	yes	19	106			4/10		fair	Protect	shhweinitizi conk 2' from root crown
103	Douglas fir	yes	30	125			4/5		good	Protect	no concerns
104	Douglas fir	yes	23	98			4/6		good	Protect	no concerns
105	Douglas fir	no	10	48			4/4		fair	Protect	old broken top, regrown
106	Douglas fir	no	20	96			2/2		good	Protect	approx 8' off pl
107	bigleaf maple	yes	21,23,23 (39)	95	16	na	22	30	fair	Protect	approx 8' off driveway
108	Lawson cypress	no	8	35	0/0				good	Protect	
109	Lawson cypress	no	16	50	0/2				fair	Protect	lean
110	Lawson cypress	no	16	52	2/4				good	Protect	
111	Lawson cypress	no	10	42	2/2				good	Protect	
112	Douglas fir	yes	22	86		19		17/16	good	Protect	natural lean southwest
113	Douglas fir	yes	24	90				12/14	fair	Protect	old broken top
114	Douglas fir	yes	21	62				19/14	fair	Protect	leans southwest, mod decay column
115	Douglas fir	yes	38	145				15/16	good	Protect	
116	Douglas fir	yes	11	67				6/8	fair	Protect	suppressed
117	Douglas fir	yes	28	130				10/14	good	Protect	good taper
118	Douglas fir	yes	35	132				10/18	good	Protect	
119	Douglas fir	yes	24	113				14/14	good	Protect	
120	Douglas fir	yes	36	135		14/16			good	Protect	

Trees on neighboring properties - Drip-Line and Limits of Disturbance measurements from property line, except for #112>#119, face of trunk
Calculated DBH: the DBH is parenthesis is the square root of the sum of the dbh for each individual stem squared
(example with 3 stems: dbh = square root [(stem1)2 +(stem2)2 +(stem3)2]).

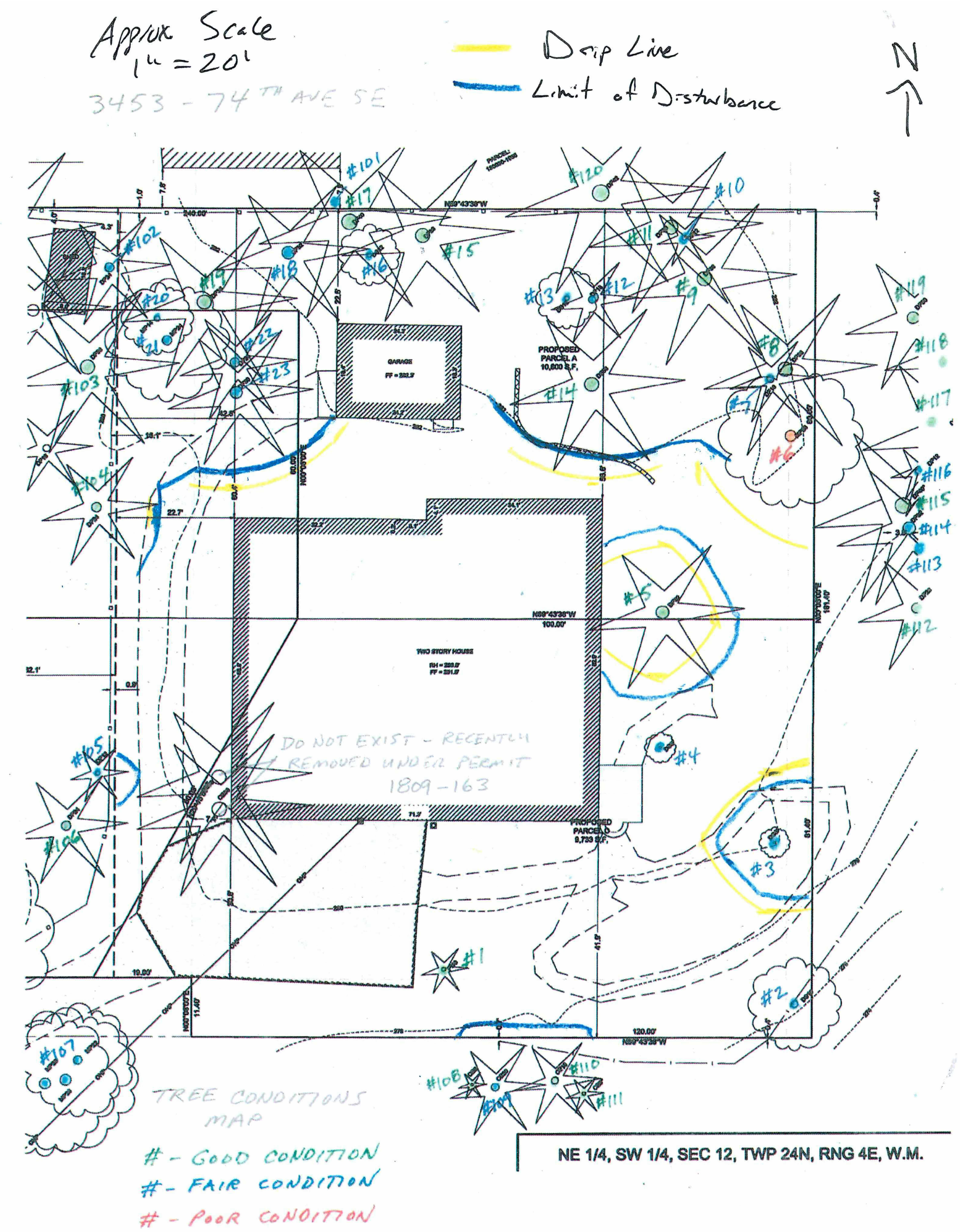
Tree Summary Table
For: **3453 74th Ave SE-Property Trees**, City of Mercer Island

American Forest Management, Inc
Date: 11/5/2018
Inspector: Layton
Date: 10/28/2019 **Update 3/9/2021**
Inspector: Tomco

Tree/ Tag #	Common Name	Scientific Name	Exceptional	DBH (inches)	Height (feet)	Drip-Line / Limits of Disturbance (feet) N	S	E	W	Condition	Proposal	Comments
1	Japanese white pine	*Pinus parviflora*	no	8	28	10	10	11	12	good	Retain	No concerns.
2	red alder	*Alnus rubra*	no	15	63	13	14	16	7	fair	Retain	Leans sw, declining top.
3	Pacific dogwood	*Cornus nuttallii*	yes	9	37	14	8	12	12/10	fair	Remove	Exceptional due to size. Several small cavities, mod anthracnose infection. Exceptional threshold 6".
4	flowering dogwood	*Cornus florida*	no	5,6 (8)	31	7	6	5	12	fair	Remove	Leans west, pruned in past.
5	grand fir	*Abies grandis*	yes	27	92	10/20	10/20	10/20	10/6	good	Retain	Exceptional due to size. No concerns. Exceptional threshold 24". Existing residence is located 6 feet west.
6	bigleaf maple	*Acer macrophyllum*	no	24	83	0	24	4	16	poor	Retain	Extensive trunk rot, kretchmaria, major top dieback. Grove tree. Part of grove but poor health.
7	Douglas fir	*Pseudotsuga menziesii*	yes	15	78	6	10	4	12	fair	Retain	Natural lean west, suppressed, minor decay column. Grove tree.
8	Douglas fir	*Pseudotsuga menziesii*	yes	32	116	14	14	16	12	good	Retain	Exceptional due to size. Good form, natural lean east. Grove tree.
9	Douglas fir	*Pseudotsuga menziesii*	yes	33	140	12	15	14	10	good	Retain	Exceptional due to size. 60% lcr. Grove tree.
10	Douglas fir	*Pseudotsuga menziesii*	yes	12	33	7	8	10	6	fair	Retain	Old broken top, suppressed, moderate decay column. Grove tree.
11	Douglas fir	*Pseudotsuga menziesii*	yes	36	144	na	11	13	10	good	Retain	Exceptional due to size. 70% lcr. Grove tree.
12	Douglas fir	*Pseudotsuga menziesii*	yes	20	86	6	9	11	11	fair	Retain	Old broken top. Grove tree.
13	Pacific dogwood	*Cornus nuttallii*	yes	11	53	10	19	14	12	fair	Retain	Exceptional due to size. Large canker on east side, longevity in question. Grove tree.
14	Douglas fir	*Pseudotsuga menziesii*	yes	37	127	12	15/12	16	14/13	good	Retain	Exceptional due to size. 70% lcr. Grove tree.
15	Douglas fir	*Pseudotsuga menziesii*	yes	28	126	12	8/12	12	8	good	Retain	Natural lean north. Grove tree.
16	Pacific dogwood	*Cornus nuttallii*	yes	11	48	12	16/10	14	16	fair	Retain	Exceptional due to size. suppressed by Douglas fir. Grove tree.
17	Douglas fir	*Pseudotsuga menziesii*	yes	32	128	12	16/14	12	12	good	Retain	Exceptional due to size. 70% lcr. Grove tree.
18	Douglas fir	*Pseudotsuga menziesii*	yes	27	112	10	11/12	10	10	fair	Retain	60% lcr, old broken top. Grove tree.
19	Douglas fir	*Pseudotsuga menziesii*	yes	32	118	14	10/14	12	12	good	Retain	Exceptional due to size. 60% lcr. Grove tree.
20	bigleaf maple	*Acer macrophyllum*	yes	12	40	20	0	12	16	fair-poor	Retain	Suppressed, old broken top, asymm crown to north. Grove tree.
21	bigleaf maple	*Acer macrophyllum*	yes	19	88	14	18	13	15	fair	Retain	Lots of dead cambium on ne side, suspect xylella. Grove tree.
22	Douglas fir	*Pseudotsuga menziesii*	yes	22	97	12	8	10	10	fair	Retain	Old broken top. Grove tree.
23	Douglas fir	*Pseudotsuga menziesii*	yes	24	90	8	13/12	14	10	fair	Retain	Old broken top. Grove tree.

Parcel Trees - Drip-Line and Limits of Disturbance measurements from face of trunk
Trees on neighboring properties - Drip-Line and Limits of Disturbance measurements from property line
Calculated DBH: the DBH is parenthesis is the square root of the sum of the dbh for each individual stem squared (example with 3 stems: dbh = square root [(stem1)2 +(stem2)2 +(stem3)2]).

NOTE:
Pneumatic excavation should be carried at the limits of disturbance were proposed improvements encroach within either the drip line or limits of disturbance of retained trees. This includes off site utility work for water meter. Air excavation should be monitored and assessed by a qualified arborist. City Arborist to be notified within 24 hours of this work to inspect the findings. Tree protection will be increased where possible near tree 15 and 23.



TREE RETENTION PLAN PER ARBORIST REPORT

GARRET CORD WERNER
GARRET CORD WERNER LLC
ARCHITECTURE | INTERIORS
3132 WESTERN AVE
SEATTLE WA
98121
TEL 800.478.1956
WWW.GARRETCORDWERNER.COM

DATE 9/20/2022
DRAWN BY NLD
SCALE 1" = 10'-0"
CHECKED BY GCW

PROJECT
FOO RESIDENCE

3453 74th Ave SE
Mercer Island, WA
98040

REV	DATE	ISSUE/REVISION
1	7/15/20	Revision 1
2	10/28/20	City Comments
3	2/25/21	City Comments Round 2

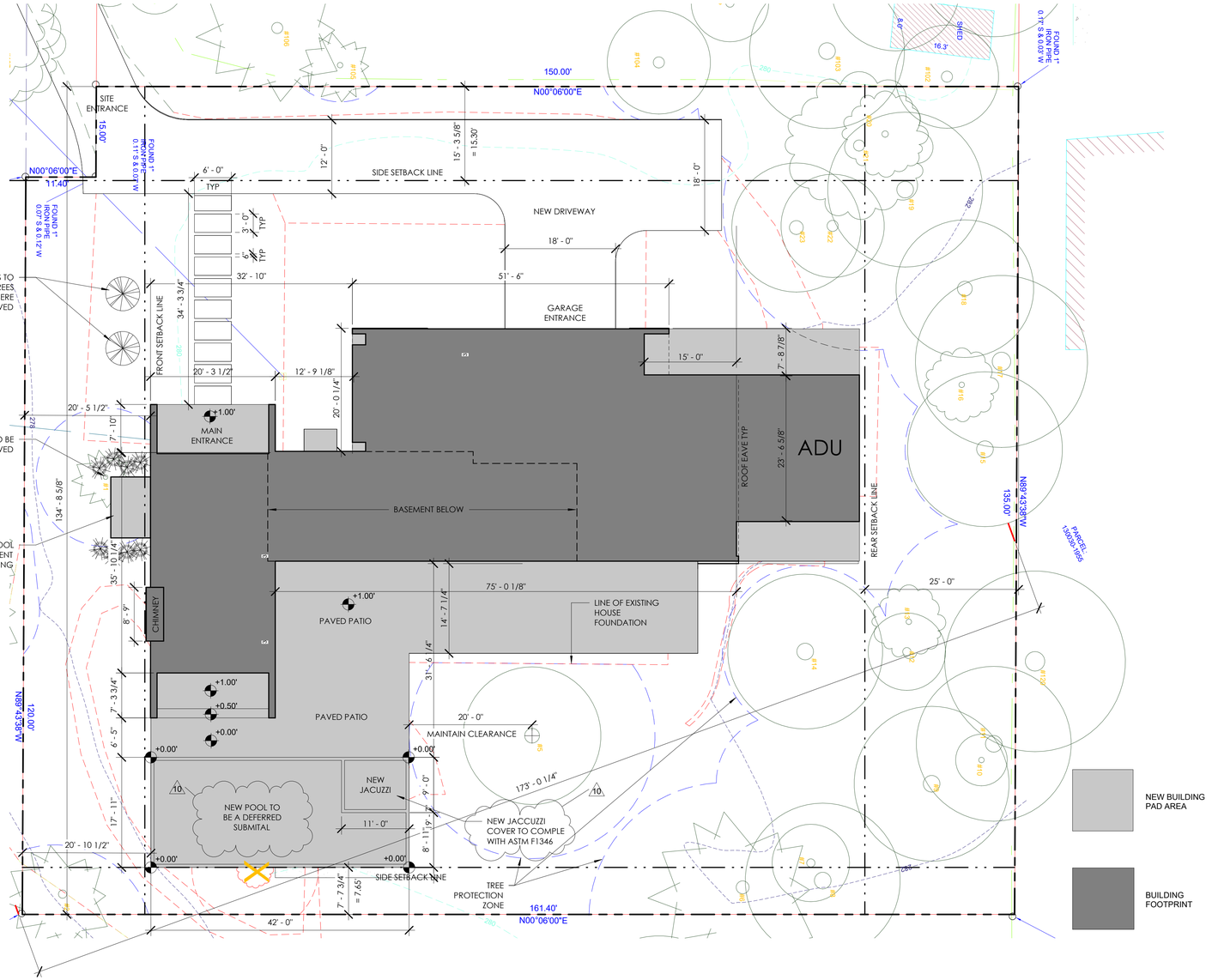
DEDICATED APPROVAL STAMP SPACE

SHEET TITLE
TREE RETENTION PLAN AND DEMO PLAN

REVISION NO.
3
SUPERSEDES ALL PREVIOUS REVISIONS

SHEET NO.
G005

9/20/2022 2:33:43 PM



1 SITE PLAN
1" = 10'-0"

SITE PLAN NOTES

- ALL DIMENSIONS PULLED FROM OUTSIDE FACE OF FINISH
- SEE FLOOR PLANS FOR DIMENSIONS PULLED FROM FACE OF FRAMING

BASEMENT FLOOR AREA EXCLUSION CALCULATION			
WALL ID	WALL SEGMENT COVERAGE (%)	WALL SEGMENT LENGTH (FT)	RESULT
U	100%	32.33	32.33
V	100%	2	2
W	100%	16.5	16.5
X	100%	15.5	15.5
Y	100%	48.83	48.83
Z	100%	17.5	17.5
		132.66	132.66
		TOTAL BASEMENT AREA	887.63
Portion of Excluded Basement Floor Area		Total Basement Area x Σ(Wall Segment Coverage x Wall Segment Length) ...	887.63

LOT SLOPE CALCULATIONS

HIGHEST ELEVATION POINT OF LOT:	283.00 FT
LOWEST ELEVATION POINT OF LOT:	275.00 FT
ELEVATION DIFFRENCE:	8.00 FT
HORIZANTAL DISTANCE BETWEEN HIGH AND LOW POINTS:	173.19FT
LOT SLOPE:	4.62%

LOT COVERAGE CALCULATIONS

A. ALLOWED LOT COVERAGE	40% OF LOT
B. ALLOWED LOT COVERAGE AREA	8,647.20 SF
D. NET LOT AREA	21,618.00 SF
E. MAIN STRUCTURE ROOF AREA	3,557.51 SF
F. ACCESSORY BUILDING ROOF AREA	234.00 SF
G. VEHICULAR USE(DRIVEWAY, ACCESS EASEMENTS, PARKING)	1,782.24 SF
H. TOTAL EXISTING LOT COVERAGE AREA	7,395.00 SF
I. (TOTAL LOT COVERAGE AREA REMOVED)	7,395.00 SF
J. TOTAL NEW LOT COVERAGE AREA	5,573.75 SF
K. TOTAL PROJECT LOT COVERAGE AREA = (H-I) + J	**5,573.75 SF**
N. PROPOSED LOT COVERAGE = (K/D)X100	25.78% OF LOT
O. LANDSCAPING AREA	74.22 % OF LOT

HARDSCAPE

10

NET LOT AREA	21,618.00 SF
9% OF NET LOT AREA	1,945.62 SF
UNUSED LOT COVERAGE	3,073.45 SF
TOTAL ALLOWABLE HARDSCAPE AREA	**5,019.07 SF**
ENTRY WALKWAY	177.00 SF
POOL EQUIPMENT	64.05SF
WINDOW WELL	19.33SF
REAR YARD PATIO	1,540.00 SF
IN-GROUND POOL	756.00 SF
PAVED AREAS	642.25 SF
TOTAL HARDSCAPE ON PROPERTY	**3,198.63 SF**

BUILDING AREA	EXISTING AREA	REMOVED AREA	NEW AREA	TOTAL
UPPER FLOOR	0 SF	0 SF	1,599.13 SF	1,599.13 SF
MAIN FLOOR	4,330 SF	4,330 SF	2,572.70 SF	2,572.70 SF
GROSS BASEMENT AREA	0 SF	0 SF	887.63 SF	887.63 SF
GARAGE / CARPORT	436 SF	436 SF	567.40 SF	567.40 SF
TOTAL FLOOR AREA	**4,766 SF**	**4,766 SF**	**5,626.86 SF**	**5,626.86 SF**
ACCESSORY BUILDINGS	0 SF	0 SF	234.00 SF	234.00 SF
BASEMENT AREA EXCLUDED	0 SF	0 SF	- 887.63 SF	- 887.63 SF
150 % GFA MODIFIER	0 SF	0 SF	0 SF	0 SF
200 % GFA MODIFIER	0 SF	0 SF	18.95 SF	18.95 SF
TOTAL BUILDING AREA	**4,766 SF**	**4,766 SF**	**4,992.18 SF**	**4,992.18 SF**

GROSS FLOOR AREA (GFA)

A. LOT AREA	21,618.00 SF
B. ALLOWED GROSS FLOOR AREA	5,000.00 SF
C. PROPOSED GROSS FLOOR AREA	**4,992.18 SF**

AVERAGE BUILDING ELEVATION				
WALL ID	MIDPOINT ELEVATION (FT)	LENGTH ID	WALL SEGMENT LENGTH (FT)	ELEV x LENGTH
A	280.10	a	20.00	5602.00
C	280.30	c	13.00	3643.90
D	280.30	d	2.00	560.60
E	280.30	e	2.00	560.60
F	280.30	f	16.00	4538.8
G	280.50	g	2.00	561.00
H	280.50	h	2.00	561.00
I	281.00	i	51.00	14331.00
J	281.70	j	7.50	2112.75
K	281.80	k	13.00	3663.40
L	282.00	l	30.00	8460.00
M	281.70	m	77.00	21675.50
N	280.50	n	25.50	7152.75
O	280.00	o	20.00	5600.00
P	279.70	p	35.00	9789.50
		TOTAL	316	88774.2
ABE			(ELEVxLENGTH)/ LENGTH	280.93
HIGHEST BUILDING ELEVATION			(ABE + 30.00')	310.93

ADU AVERAGE BUILDING ELEVATION				
WALL ID	MIDPOINT ELEVATION (FT)	LENGTH ID	WALL SEGMENT LENGTH (FT)	ELEV x LENGTH
Q	282.00	q	10.00	2820.00
R	282.20	r	23.40	6603.48
S	282.20	s	10.00	2822.00
T	282.00	t	23.40	6598.8
		TOTAL	382.80	18844.28
ABE			(ELEVxLENGTH)/ LENGTH	282.10
HIGHEST BUILDING ELEVATION			(ABE + 17.00')	299.10

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PROJECT

FOO RESIDENCE

3453 74th Ave SE
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98040

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1	7/15/20	Revision 1
2	10/28/20	City Comments
3	2/25/21	City Comments Round 2
4	4/27/21	Framing Plans Update
5	5/11/21	CD Set Update
10	8/7/22	City Commnets Round 3

DEDICATED APPROVAL STAMP SPACE

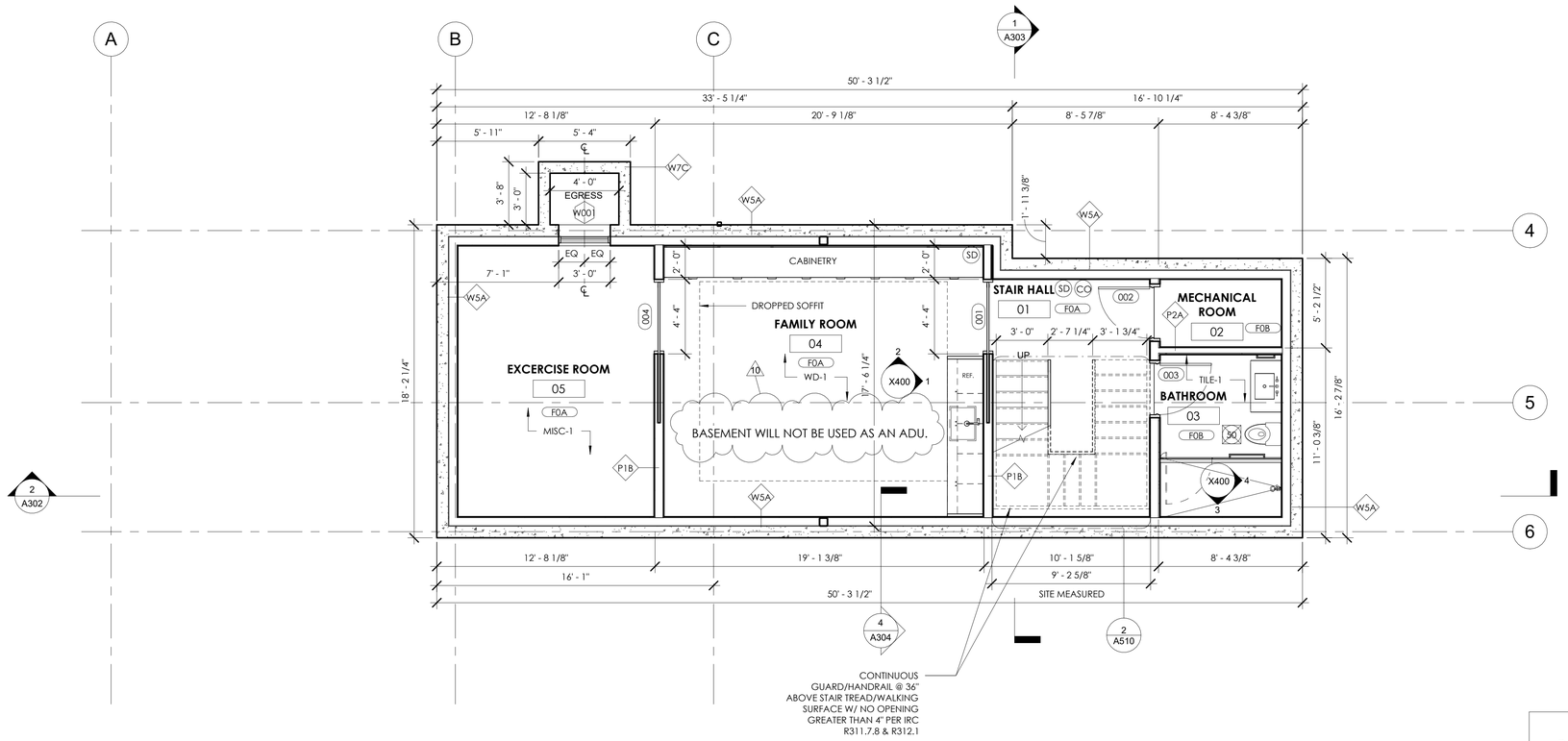
SHEET TITLE

SITE PLAN AND DEVELOPMENT INFORMATION

REVISION NO.
10
SUPERSEDES ALL PREVIOUS REVISIONS

SHEET NO.
G006

9/20/2022 2:33:44 PM



10.

NOTE: BASEMENT WILL NOT BE USED AS AN ADU.

BASEMENT PLAN NOTES

- ALL FOOTINGS AND FOUNDATION WALLS PER STRUCTURAL
- ALL DIMENSIONS ARE PULLED FROM FACE OF FOUNDATION WALL OR FACE OF FRAMING U.N.O.
- REFER TO TYPICAL ASSEMBLIES FOR WALL CONSTRUCTION AND FLOORING MATERIALS

1 FLOOR PLAN - BASEMENT
1/4" = 1'-0"

(SD) SMOKE DETECTORS

IRC R314.3 SMOKE ALARMS
SMOKE ALARMS SHALL BE INSTALLED IN THE FOLLOWING LOCATIONS:

- IN EACH SLEEPING ROOM

- OUTSIDE EACH SEPERATE SLEEPING AREA IN THE IMMEDIATE VACINITY OF THE BEDROOMS.

- ON EACH ADDITIONAL STORY OF THE DWELLING, INCLUDING BASEMENTS, BUT NOT INCLUDING CRAWLSPACES AND UNINHABITABLE ATTICS. IN DWELLINGS OR DWELLING UNITS WITH SPLIT LEVELS AND WITHOUT AN INTERVENING DOOR BETWEEN ADJACENT LEVELS, A SMOKE ALARM INSTALLED ON THE UPPER FLOOR SHALL SUFFICE FOR THE ADJACENT LOWER STOREY BELOW THE UPPER LEVEL.

SMOKE DETECTORS ARE TO BE HARDWIRED, INTERCONNECTED, WITH BATTERY BACKUP PER IRC R314.4

VENTILATION SCHEDULE

100 100 CFM ON SWITCH

105 105 CFM CONTINUOUSLY OPERATED WHOLE-HOUSE FAN, SIZED PER TABLE IRC M1507.3.3(1)

50 50 CFM ON SWITCH

MIN. 4 S. I. SCREENED OUTDOOR AIR INLET - WALL PORT OR WINDOW VENT AS REQUIRED.

MECHANICAL VENTILATION SYSTEM IN BATHROOMS, LAUNDRY ROOMS, AND SIMILAR ROOMS SHOULD EXHAUST DIRECTLY TO THE OUTSIDE. THE POINT OF DISCHARGE OF EXHAUST SHALL BE AT LEAST THREE FEET (3') FROM ANY OPENING INTO THE BUILDING PER IRC 1502.3 WHOLE-HOUSE EXHAUST FANS SHALL HAVE A SONE RATING OF 1.0 OR LESS WHEN LOCATED FOUR FEET (4') OR LESS FROM THE INTERIOR GRILLE PER IMC 403.8.8.5 / IRC 1507.3.4.2

(CO) CARBON MONOXIDE DETECTORS

IRC R315.1 CARBON MONOXIDE ALARMS. FOR NEW CONSTRUCTION, CARBON MONOXIDE ALARMS SHALL BE INSTALLED OUTSIDE OF EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS IN DWELLING UNITS AND ON EACH LEVEL OF THE DWELLING UNIT AND IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS.

NOTE: MINIMUM SENSIBLE HEAT RECOVERY EFFICIENCY SHALL 0.70.

MECHANICAL ROOM NOTES

- IN SEISMIC ZONES D0, D1 & D2, WATER HEATERS SHALL BE ANCHORED TO RESIST HORIZONTAL DISPLACEMENT DUE TO EARTHQUAKE MOTION. STRAPPING SHALL BE AT POINTS WITHIN THE UPPER ONE-THIRD AND LOWER ONE-THIRD OF ITS VERTICAL DIMENSIONS PER IRC R802.1
- PROVIDE OUTDOOR COMBUSTION AIR FOR FURNACE AND WATER HEATER.

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As indicated	GCW

PROJECT

FOO RESIDENCE

3453 74th Ave SE
Mercer Island, WA
98040

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1	7/15/20	Revision 1
2	10/28/20	City Comments
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4	4/27/21	Framing Plans Update
5	5/11/21	CD Set Update
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10	8/7/22	City Commnets Round 3

DEDICATED APPROVAL STAMP SPACE

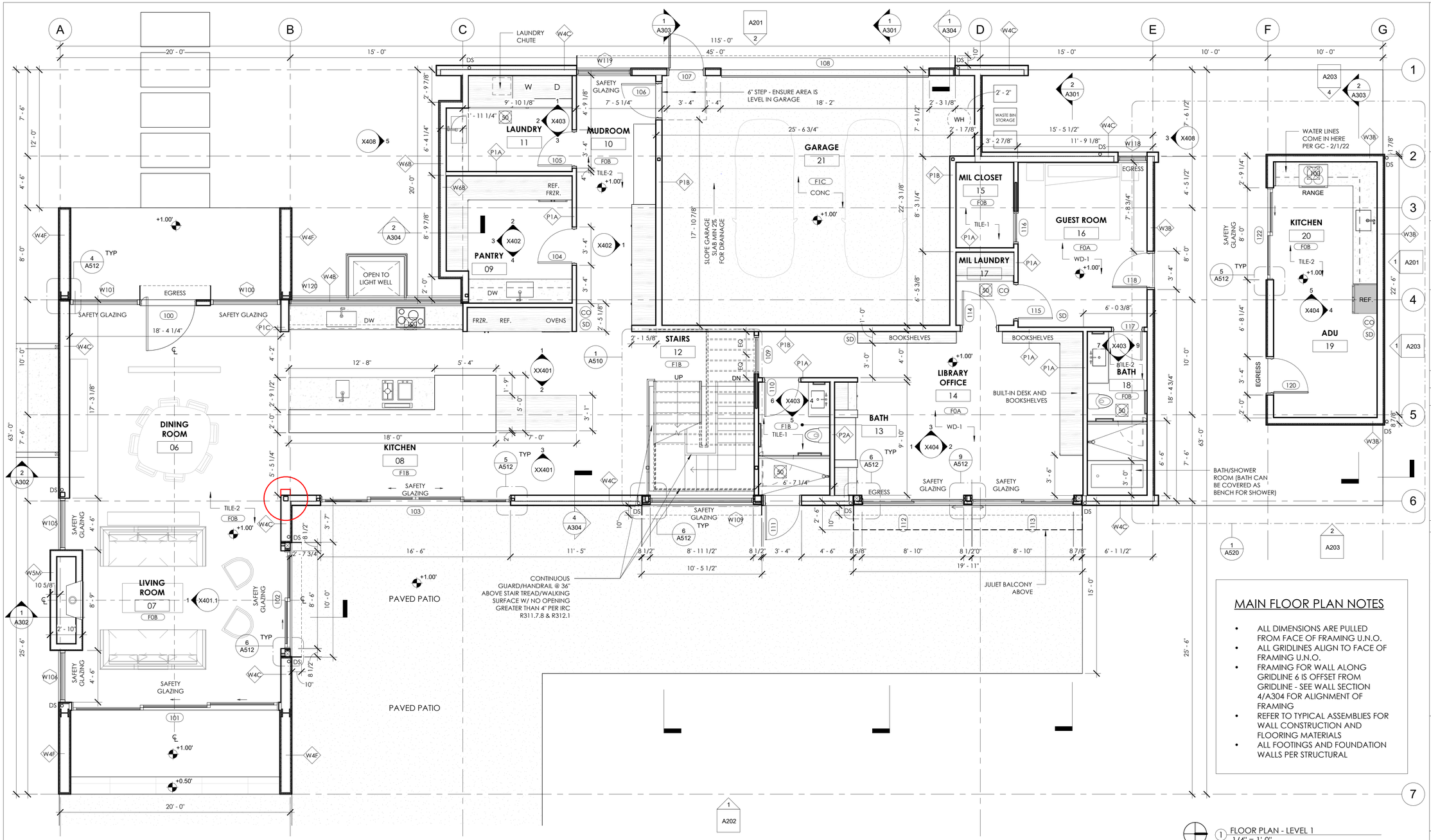
SHEET TITLE

FLOOR PLAN - BASEMENT

REVISION NO.
10
SUPERSEDES ALL PREVIOUS REVISIONS

SHEET NO.
A110

9/20/2022 2:33:09 PM



MAIN FLOOR PLAN NOTES

- ALL DIMENSIONS ARE PULLED FROM FACE OF FRAMING U.N.O.
- ALL GRIDLINES ALIGN TO FACE OF FRAMING U.N.O.
- FRAMING FOR WALL ALONG GRIDLINE 6 IS OFFSET FROM GRIDLINE - SEE WALL SECTION 4/A304 FOR ALIGNMENT OF FRAMING
- REFER TO TYPICAL ASSEMBLIES FOR WALL CONSTRUCTION AND FLOORING MATERIALS
- ALL FOOTINGS AND FOUNDATION WALLS PER STRUCTURAL

(1) FLOOR PLAN - LEVEL 1
1/4" = 1'-0"

(SD) SMOKE DETECTORS

IRC R314.3 SMOKE ALARMS
SMOKE ALARMS SHALL BE INSTALLED IN THE FOLLOWING LOCATIONS:

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- OUTSIDE EACH SEPERATE SLEEPING AREA IN THE IMMEDIATE VACINITY OF THE BEDROOMS.

- ON EACH ADDITIONAL STORY OF THE DWELLING, INCLUDING BASEMENTS, BUT NOT INCLUDING CRAWLSPACES AND UNINHABITABLE ATTICS. IN DWELLINGS OR DWELLING UNITS WITH SPLIT LEVELS AND WITHOUT AN INTERVENING DOOR BETWEEN ADJACENT LEVELS, A SMOKE ALARM INSTALLED ON THE UPPER FLOOR SHALL SUFFICE FOR THE ADJACENT LOWER STOREY BELOW THE UPPER LEVEL.

SMOKE DETECTORS ARE TO BE HARDWIRED, INTERCONNECTED, WITH BATTERY BACKUP PER IRC R314.4

VENTILATION SCHEDULE

(100) 100 CFM ON SWITCH

(105) 105 CFM CONTINUOUSLY OPERATED WHOLE-HOUSE FAN, SIZED PER TABLE IRC M1507.3.3(1)

(50) 50 CFM ON SWITCH

MIN. 4 S. I. SCREENED OUTDOOR AIR INLET - WALL PORT OR WINDOW VENT AS REQUIRED.

(30) 30 CFM CONTINUOUSLY OPERATED WHOLE-HOUSE FAN, SIZED PER TABLE IRC M1507.3.3(1) FOR ADU

MECHANICAL VENTILATION SYSTEM IN BATHROOMS, LAUNDRY ROOMS, AND SIMILAR ROOMS SHOULD EXHAUST DIRECTLY TO THE OUTSIDE. THE POINT OF DISCHARGE OF EXHAUST SHALL BE AT LEAST THREE FEET (3') FROM ANY OPENING INTO THE BUILDING PER IRC 1502.3 WHOLE-HOUSE EXHAUST FANS SHALL HAVE A SONE RATING OF 1.0 OR LESS WHEN LOCATED FOUR FEET (4') OR LESS FROM THE INTERIOR GRILLE PER IMC 403.8.8.5 / IRC 1507.3.4.2

GARAGE NOTES

- THE GARAGE SHALL BE SEPARATED FROM THE RESIDENCE AND ITS ATTIC AREA BY NOT LESS THAN 1/2" GWB APPLIED TO THE GARAGE SIDE. GARAGES BENEATH HABITABLE ROOMS ABOVE BY NOT LESS THAN 5/8" TYPE-X GYPSUM BOARD OR EQUIVALENT. WHERE THE SEPARATION IS A FLOOR-CEILING ASSEMBLY, THE STRUCTURE SUPPORTING THE SEPARATION SHALL ALSO BE PROTECTED BY NOT LESS THAN 1/ 2" GYPSUM BOARD OR EQUIVALENT. IRC R309.2
- OPENINGS BETWEEN THE GARAGE AND RESIDENCE SHALL BE EQUIPPED WITH SOLID WOOD DOORS NOT LESS THAN 1 3/ 8" THICKNESS, SOLID OR HONEYCOMB CORE STEEL DOORS NOT LESS THAN 1-3/8" THICK OR 20-MINUTE FIRE-RATED DOORS. SRC 309.1

(CO) CARBON MONOXIDE DETECTORS

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MECHANICAL ROOM NOTES

- IN SEISMIC ZONES D0, D1 & D2, WATER HEATERS SHALL BE ANCHORED TO RESIST HORIZONTAL DISPLACEMENT DUE TO EARTHQUAKE MOTION. STRAPPING SHALL BE AT POINTS WITHIN THE UPPER ONE-THIRD AND LOWER ONE-THIRD OF ITS VERTICAL DIMENSIONS PER IRC R802.1
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SCALE	CHECKED BY
As indicated	GCW

PROJECT

FOO RESIDENCE

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98040

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1	7/15/20	Revision 1
2	10/28/20	City Comments
3	2/25/21	City Comments Round 2
4	4/27/21	Framing Plans Update
5	5/11/21	CD Set Update
6	10/15/21	CD Set Update
7	1/20/22	CD Set Update

DEDICATED APPROVAL STAMP SPACE

SHEET TITLE

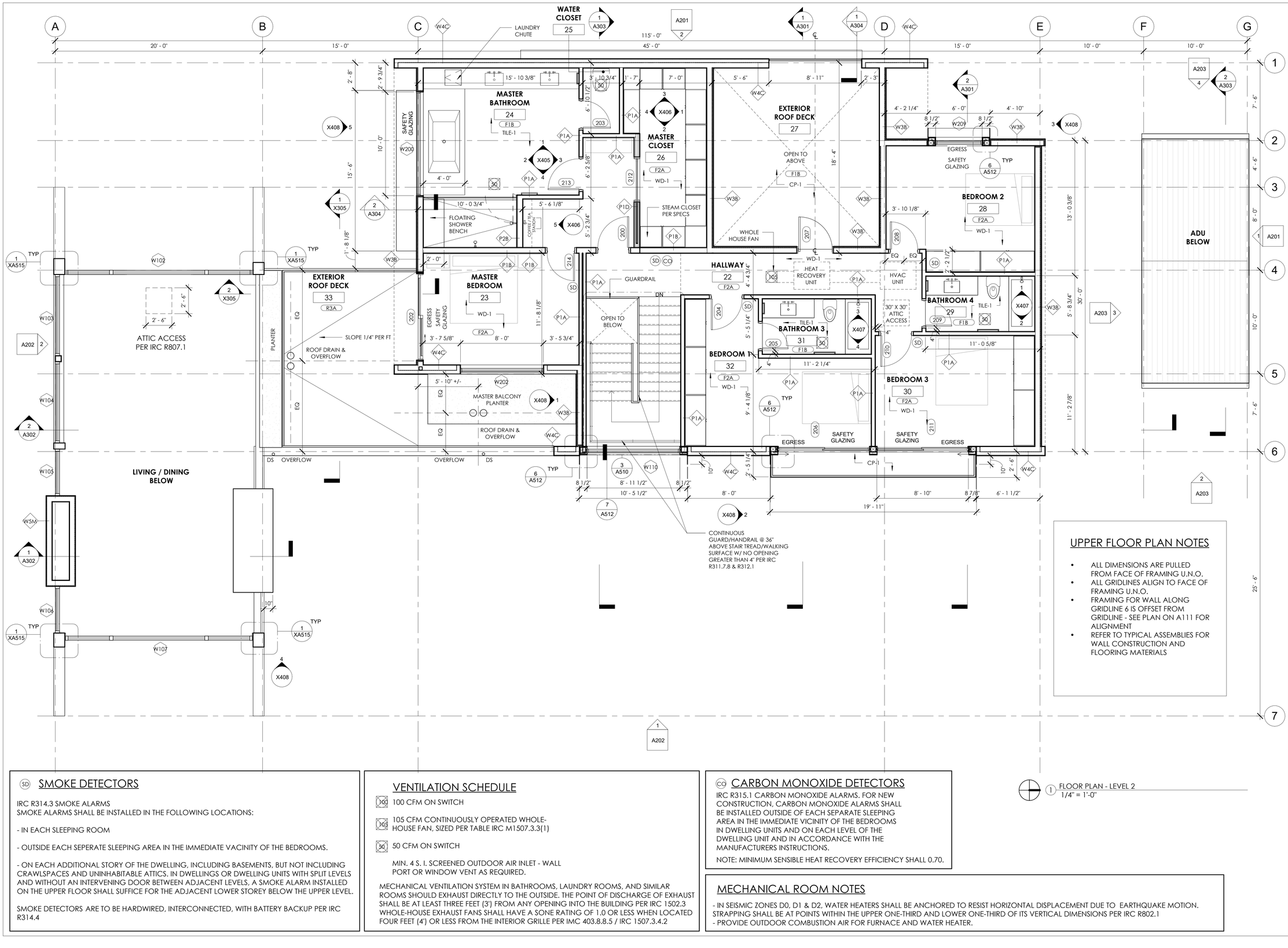
FLOOR PLAN - LEVEL 1

REVISION NO. 7

SUPERSEDES ALL PREVIOUS REVISIONS

SHEET NO. A111

9/20/2022 2:33:11 PM



UPPER FLOOR PLAN NOTES

- ALL DIMENSIONS ARE PULLED FROM FACE OF FRAMING U.N.O.
- ALL GRIDLINES ALIGN TO FACE OF FRAMING U.N.O.
- FRAMING FOR WALL ALONG GRIDLINE 6 IS OFFSET FROM GRIDLINE - SEE PLAN ON A111 FOR ALIGNMENT
- REFER TO TYPICAL ASSEMBLIES FOR WALL CONSTRUCTION AND FLOORING MATERIALS

SMOKE DETECTORS

IRC R314.3 SMOKE ALARMS
SMOKE ALARMS SHALL BE INSTALLED IN THE FOLLOWING LOCATIONS:

- IN EACH SLEEPING ROOM

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SMOKE DETECTORS ARE TO BE HARDWIRED, INTERCONNECTED, WITH BATTERY BACKUP PER IRC R314.4

VENTILATION SCHEDULE

100 — 100 CFM ON SWITCH

105 — 105 CFM CONTINUOUSLY OPERATED WHOLE-HOUSE FAN, SIZED PER TABLE IRC M1507.3.3(1)

50 — 50 CFM ON SWITCH

MIN. 4 S. I. SCREENED OUTDOOR AIR INLET - WALL PORT OR WINDOW VENT AS REQUIRED.

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CARBON MONOXIDE DETECTORS

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NOTE: MINIMUM SENSIBLE HEAT RECOVERY EFFICIENCY SHALL 0.70.

MECHANICAL ROOM NOTES

- IN SEISMIC ZONES D0, D1 & D2, WATER HEATERS SHALL BE ANCHORED TO RESIST HORIZONTAL DISPLACEMENT DUE TO EARTHQUAKE MOTION. STRAPPING SHALL BE AT POINTS WITHIN THE UPPER ONE-THIRD AND LOWER ONE-THIRD OF ITS VERTICAL DIMENSIONS PER IRC R802.1
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1 FLOOR PLAN - LEVEL 2
1/4" = 1'-0"

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As indicated	GCW

PROJECT

FOO RESIDENCE

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Mercer Island, WA
98040

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4	4/27/21	Framing Plans Update
5	5/11/21	CD Set Update
6	10/15/21	CD Set Update
7	1/20/22	CD Set Update
8	3/03/22	IFC CD Set

DEDICATED APPROVAL STAMP SPACE

SHEET TITLE

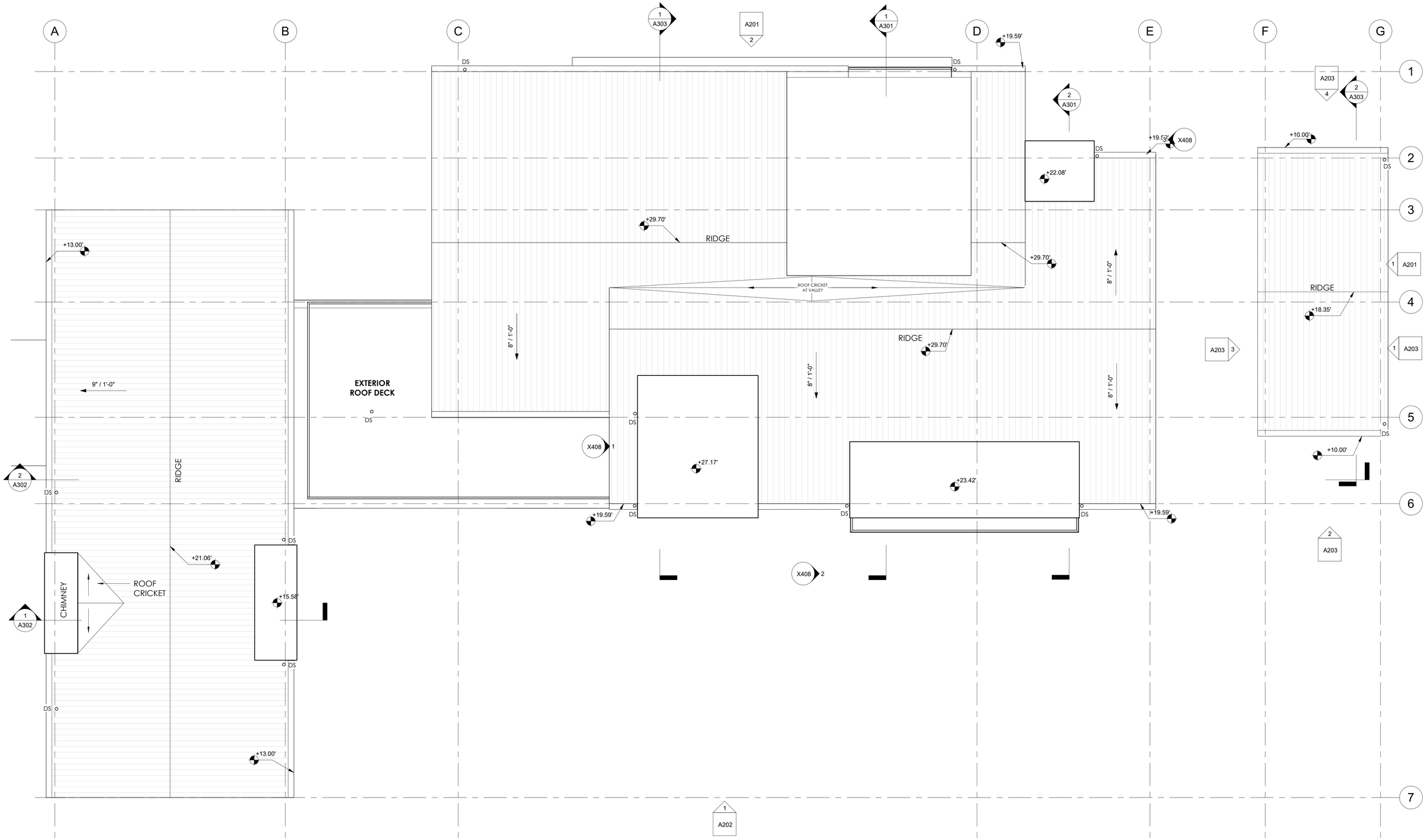
FLOOR PLAN - LEVEL 2

REVISION NO. 8

SUPERSEDES ALL PREVIOUS REVISIONS

SHEET NO. A112

9/20/2022 2:33:13 PM



1 FLOOR PLAN - ROOF
1/4" = 1'-0"

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1/4" = 1'-0"	GCW

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6	10/15/21	CD Set Update
7	1/20/22	CD Set Update

DEDICATED APPROVAL STAMP SPACE

SHEET TITLE

FLOOR PLAN - ROOF

REVISION NO.

7

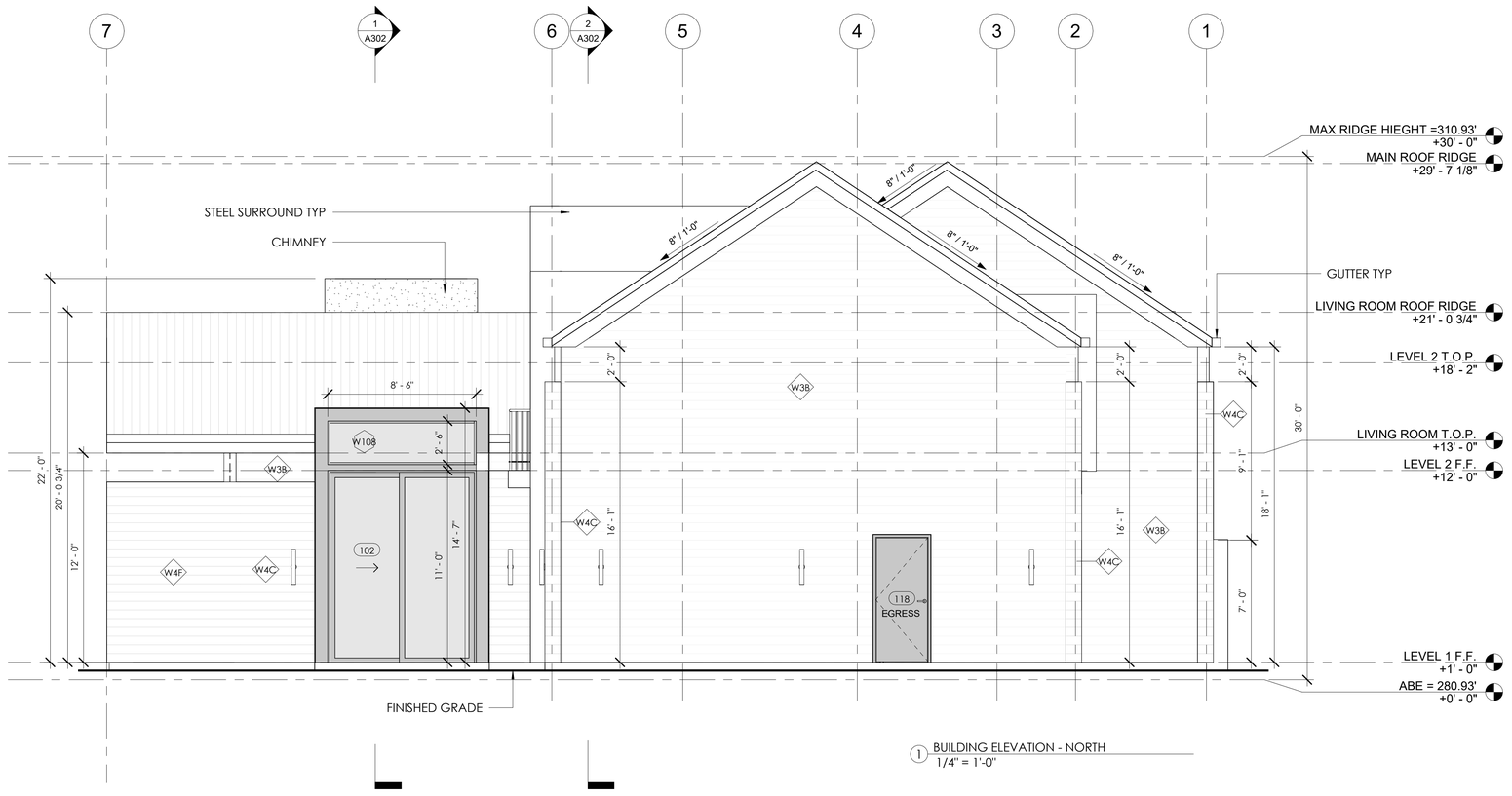
SUPERSEDES ALL PREVIOUS REVISIONS

SHEET NO.

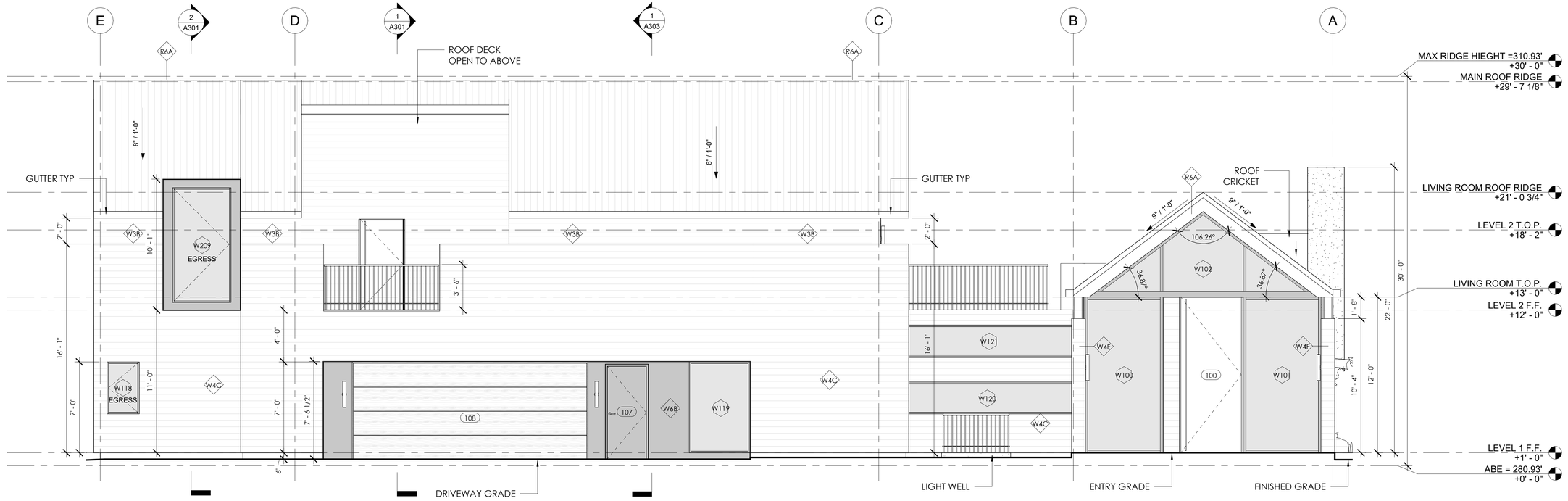
A116

9/20/2022 2:33:14 PM

AVERAGE BUILDING ELEVATION				
WALL ID	MIDPOINT ELEVATION (FT)	LENGTH ID	WALL SEGMENT LENGTH (FT)	ELEV x LENGTH
A	280.10	a	20.00	5602.00
C	280.30	c	13.00	3643.90
D	280.30	d	2.00	560.60
E	280.30	e	2.00	560.60
F	280.30	f	16.00	4538.8
G	280.50	g	2.00	561.00
H	280.50	h	2.00	561.00
I	281.00	i	51.00	14331.00
J	281.70	j	7.50	2112.75
K	281.80	k	13.00	3663.40
L	282.00	l	30.00	8460.00
M	281.70	m	77.00	21675.50
N	280.50	n	25.50	7152.75
O	280.00	o	20.00	5600.00
P	279.70	p	35.00	9789.50
		TOTAL	316	88774.2
ABE			(ELEVxLENGTH)/ LENGTH	280.93
HIGHEST BUILDING ELEVATION			(ABE + 30.00')	310.93



1 BUILDING ELEVATION - NORTH
1/4" = 1'-0"



2 BUILDING ELEVATION - WEST
1/4" = 1'-0"

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9/20/2022	NLD
SCALE	CHECKED BY
1/4" = 1'-0"	GCW

PROJECT

FOO RESIDENCE

3453 74th Ave SE
Mercer Island, WA
98040

REV	DATE	ISSUE/REVISION
1	7/15/20	Revision 1
3	2/25/21	City Comments Round 2
5	5/11/21	CD Set Update
6	10/15/21	CD Set Update
7	1/20/22	CD Set Update
8	3/03/22	IFC CD Set

DEDICATED APPROVAL STAMP SPACE

SHEET TITLE

ELEVATIONS

REVISION NO.

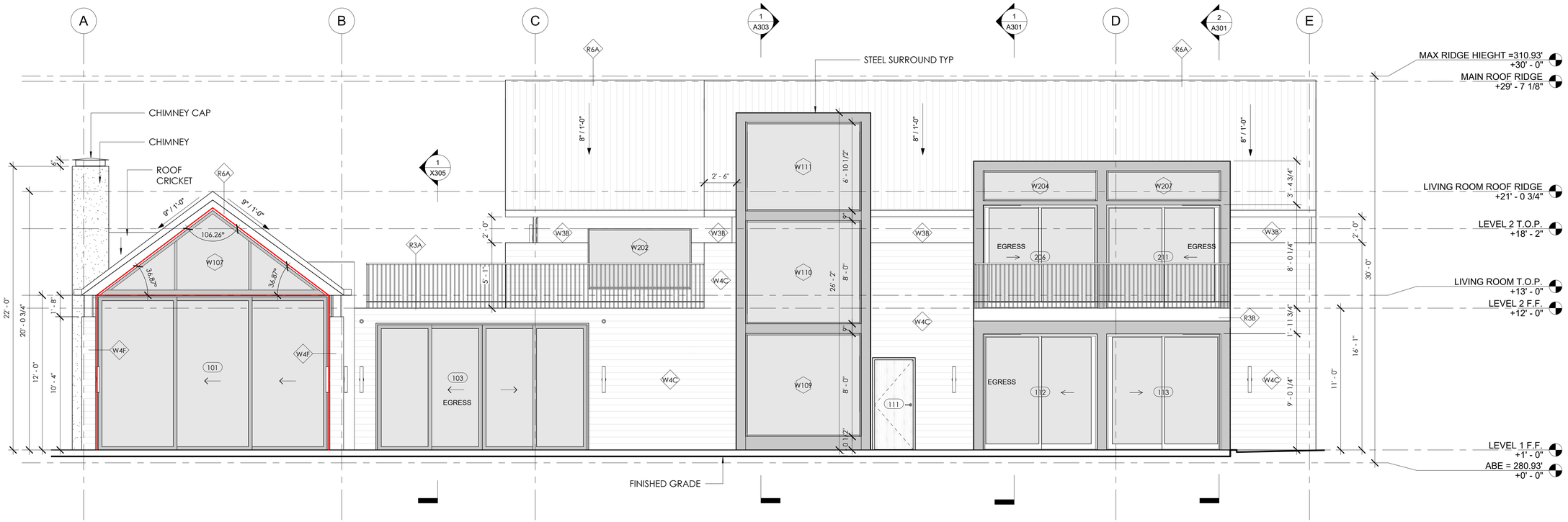
8

SUPERSEDES ALL PREVIOUS REVISIONS

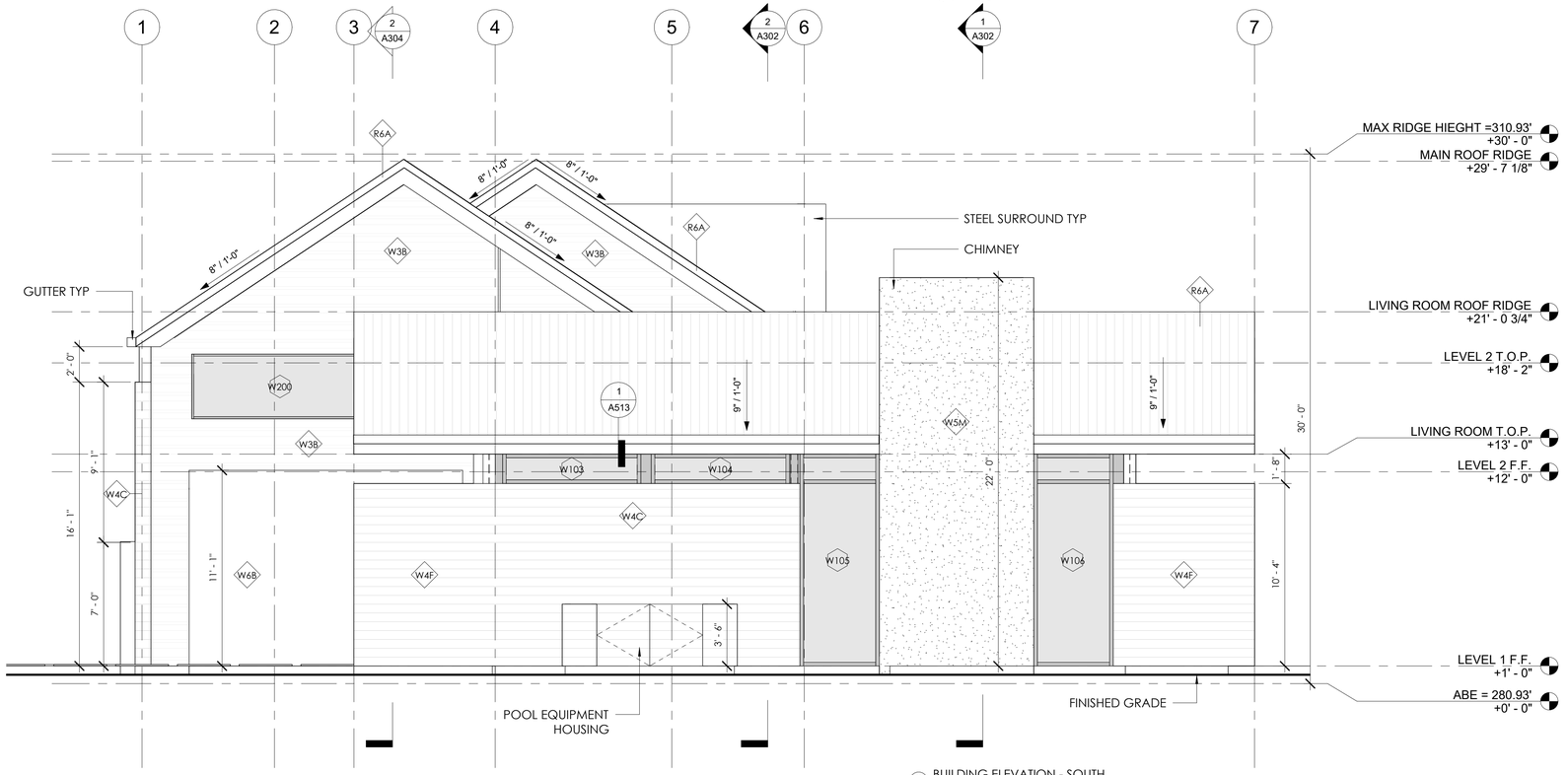
SHEET NO.

A201

9/20/2022 2:33:17 PM



1 BUILDING ELEVATION - EAST
1/4" = 1'-0"



2 BUILDING ELEVATION - SOUTH
1/4" = 1'-0"

AVERAGE BUILDING ELEVATION				
WALL ID	MIDPOINT ELEVATION (FT)	LENGTH ID	WALL SEGMENT LENGTH (FT)	ELEV x LENGTH
A	280.10	a	20.00	5602.00
C	280.30	c	13.00	3643.90
D	280.30	d	2.00	560.60
E	280.30	e	2.00	560.60
F	280.30	f	16.00	4538.8
G	280.50	g	2.00	561.00
H	280.50	h	2.00	561.00
I	281.00	i	51.00	14331.00
J	281.70	j	7.50	2112.75
K	281.80	k	13.00	3663.40
L	282.00	l	30.00	8460.00
M	281.70	m	77.00	21675.50
N	280.50	n	25.50	7152.75
O	280.00	o	20.00	5600.00
P	279.70	p	35.00	9789.50
		TOTAL	316	88774.2
ABE			(ELEVxLENGTH)/ LENGTH	280.93
HIGHEST BUILDING ELEVATION			(ABE + 30.00')	310.93

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1/4" = 1'-0"	GCW

PROJECT

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REV	DATE	ISSUE/REVISION
1	7/15/20	Revision 1
2	10/28/20	City Comments
3	2/25/21	City Comments Round 2
5	5/11/21	CD Set Update
6	10/15/21	CD Set Update
7	1/20/22	CD Set Update
8	3/03/22	IFC CD Set

DEDICATED APPROVAL STAMP SPACE

SHEET TITLE

ELEVATIONS

REVISION NO.

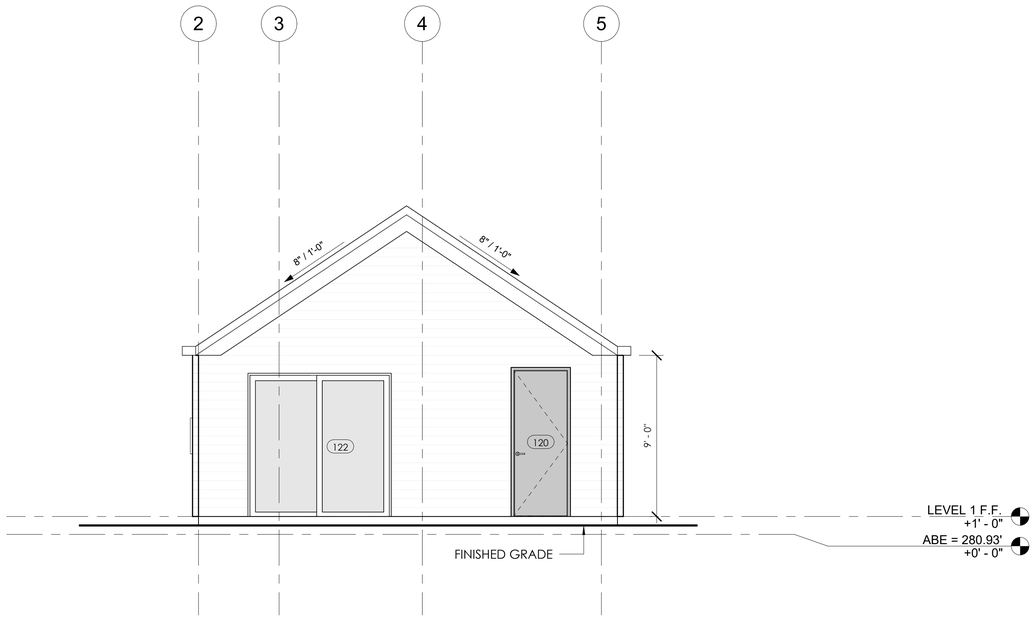
8

SUPERSEDES ALL PREVIOUS REVISIONS

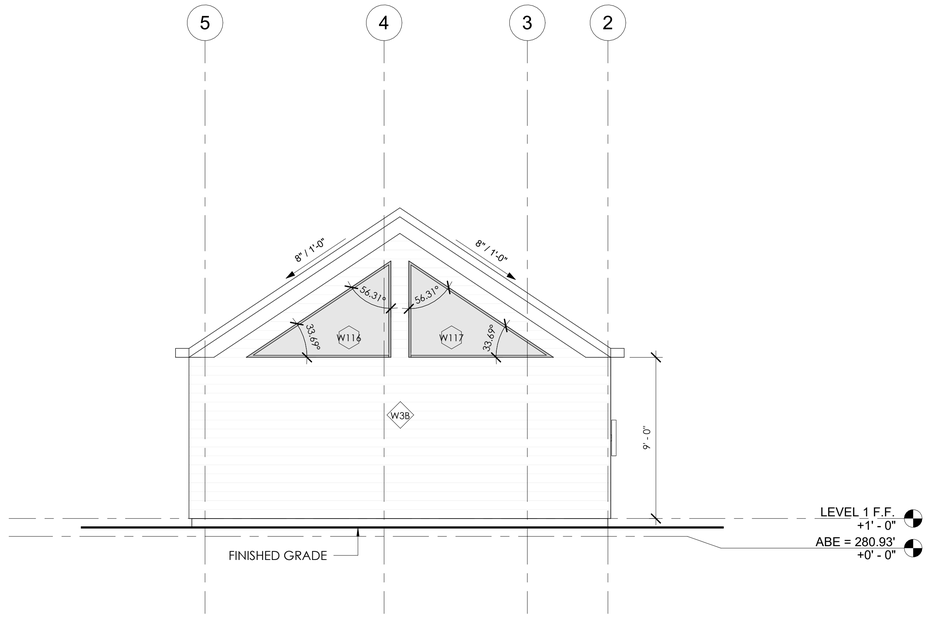
SHEET NO.

A202

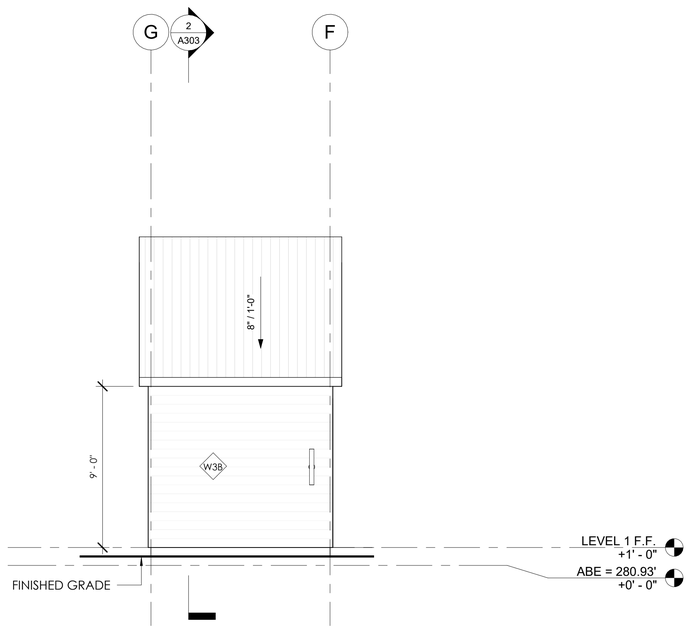
9/20/2022 2:33:20 PM



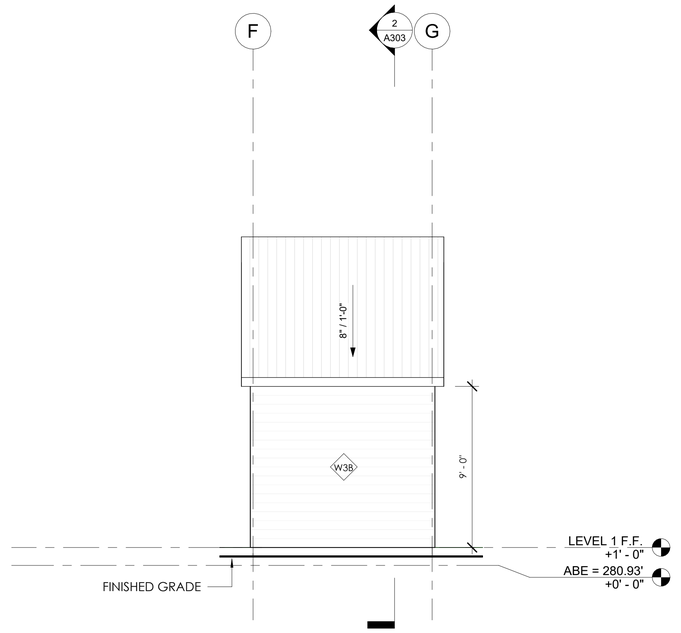
3 ADU ELEVATION - SOUTH
1/4" = 1'-0"



1 ADU ELEVATION - NORTH
1/4" = 1'-0"



4 ADU ELEVATION - WEST
1/4" = 1'-0"



2 ADU ELEVATION - EAST
1/4" = 1'-0"

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SCALE	CHECKED BY
1/4" = 1'-0"	GCW

PROJECT
FOO RESIDENCE

3453 74th Ave SE
Mercer Island, WA
98040

REV	DATE	ISSUE/REVISION
5	5/11/21	CD Set Update
6	10/15/21	CD Set Update
7	1/20/22	CD Set Update

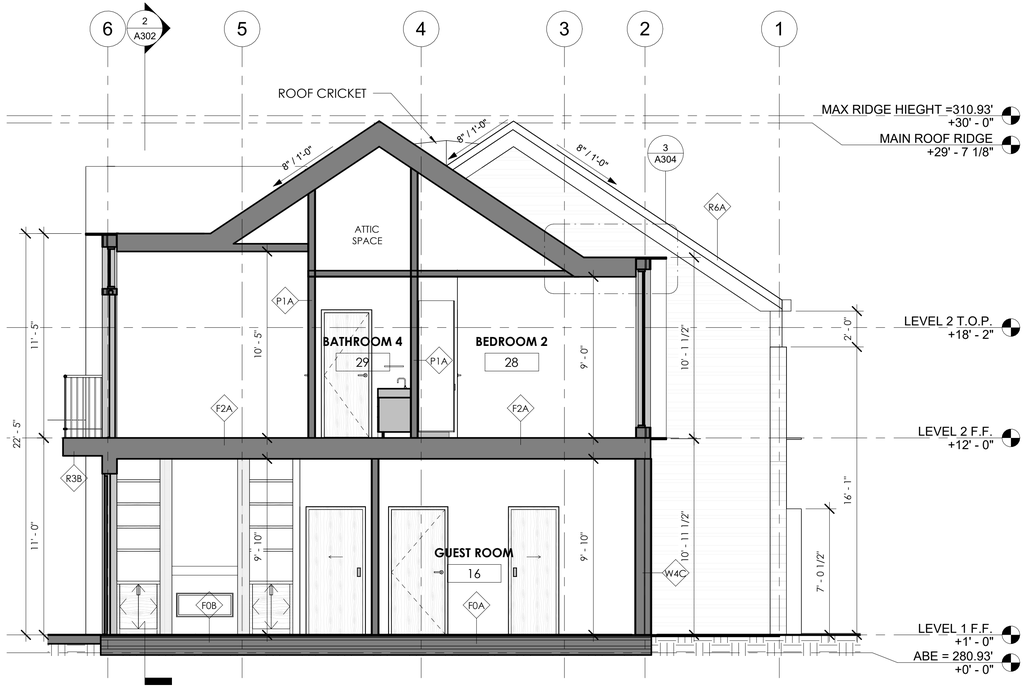
DEDICATED APPROVAL STAMP SPACE

SHEET TITLE
ELEVATIONS

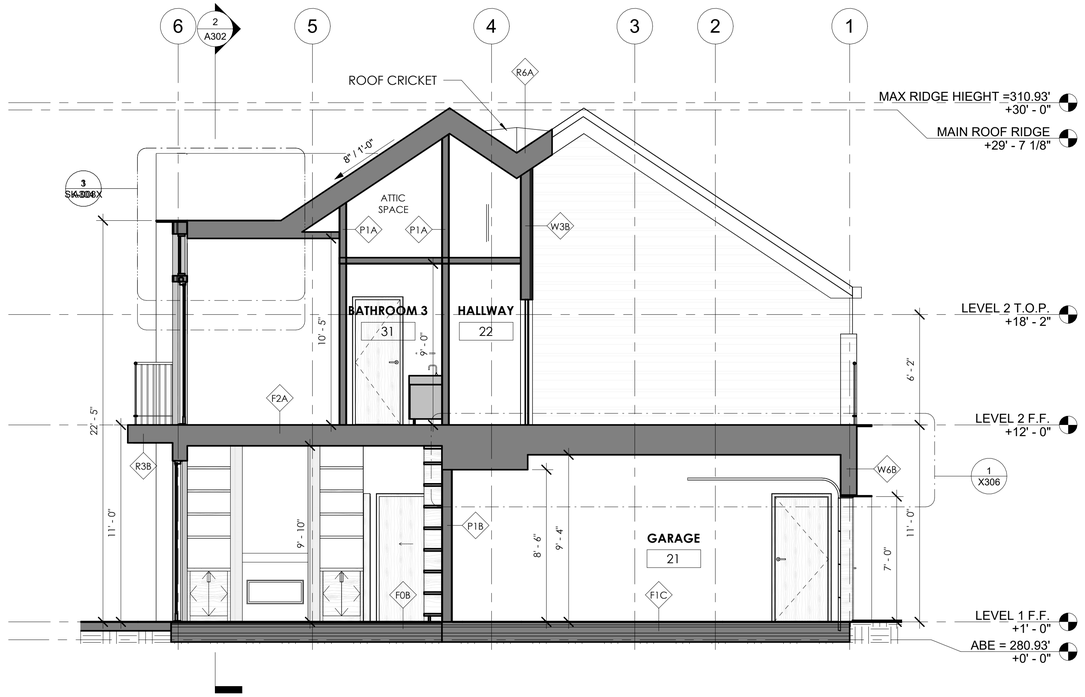
REVISION NO.
7
SUPERSEDES ALL PREVIOUS REVISIONS

SHEET NO.
A203

9/20/2022 2:33:21 PM



2 TRANSVERSE SECTION 2
1/4" = 1'-0"



1 TRANSVERSE SECTION 1
1/4" = 1'-0"

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SCALE	CHECKED BY
1/4" = 1'-0"	GCW

PROJECT

FOO RESIDENCE

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REV	DATE	ISSUE/REVISION
1	7/15/20	Revision 1
3	2/25/21	City Comments Round 2
5	5/11/21	CD Set Update
6	10/15/21	CD Set Update
7	1/20/22	CD Set Update

DEDICATED
APPROVAL STAMP SPACE

SHEET TITLE

BUILDING SECTIONS

REVISION NO.

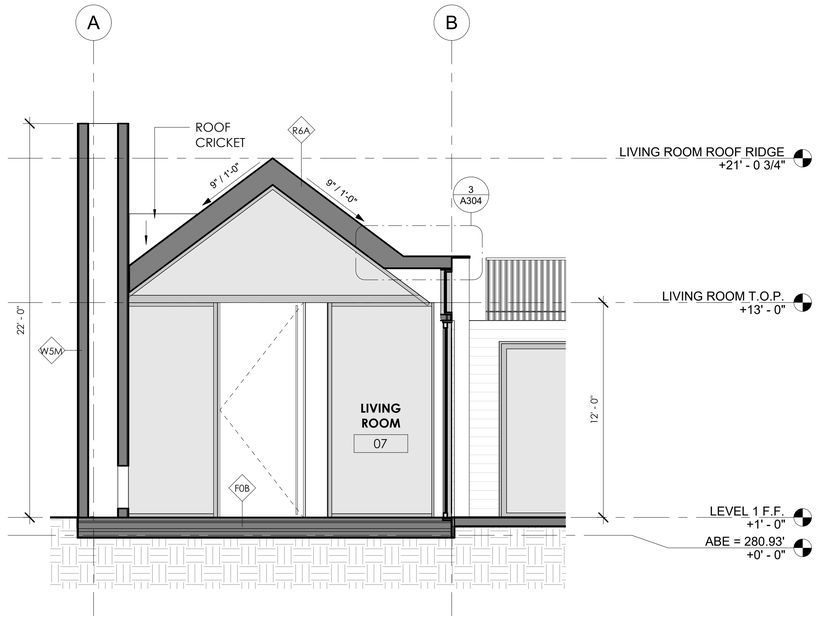
7

SUPERSEDES ALL PREVIOUS REVISIONS

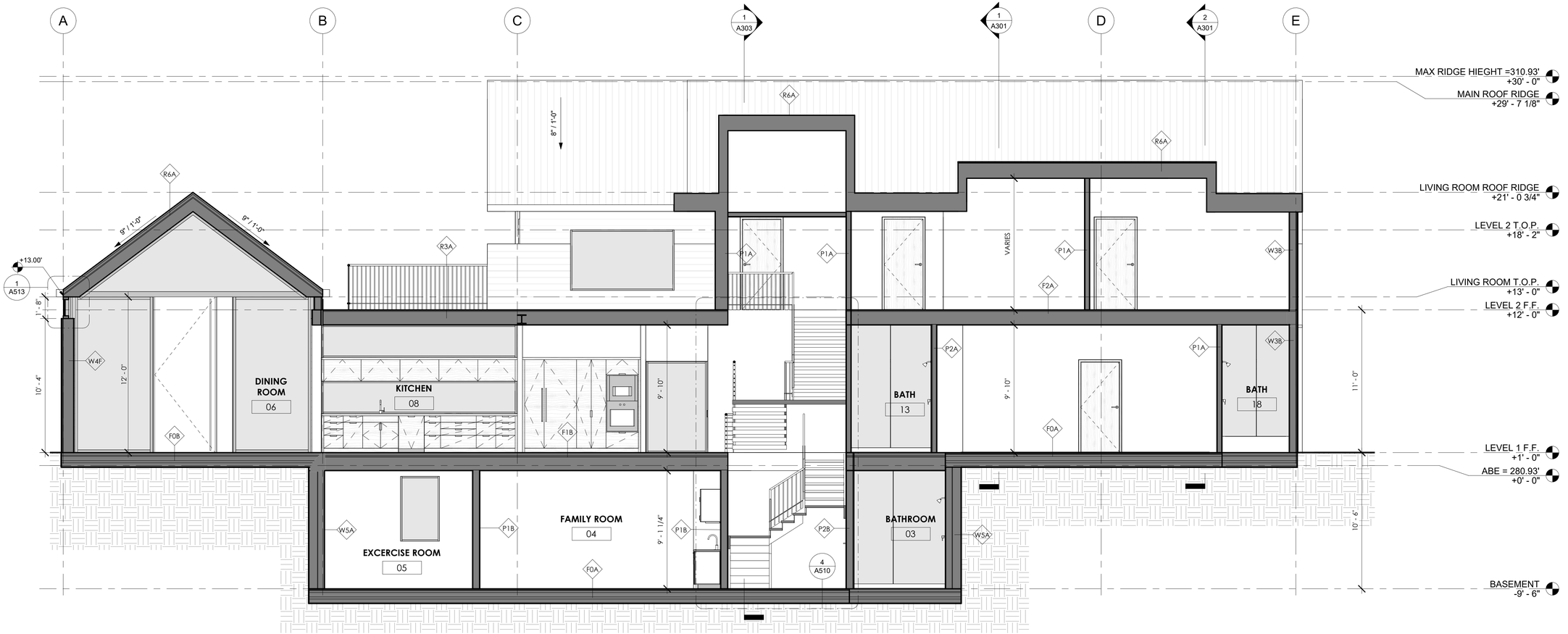
SHEET NO.

A301

9/20/2022 2:33:23 PM



1 SECTION AT LIVING ROOM
1/4" = 1'-0"



2 LONGITUDINAL SECTION
1/4" = 1'-0"

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DATE	DRAWN BY
9/20/2022	NLD
SCALE	CHECKED BY
1/4" = 1'-0"	GCW

PROJECT
FOO RESIDENCE

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REV	DATE	ISSUE/REVISION
1	7/15/20	Revision 1
2	10/28/20	City Comments
5	5/11/21	CD Set Update
7	1/20/22	CD Set Update

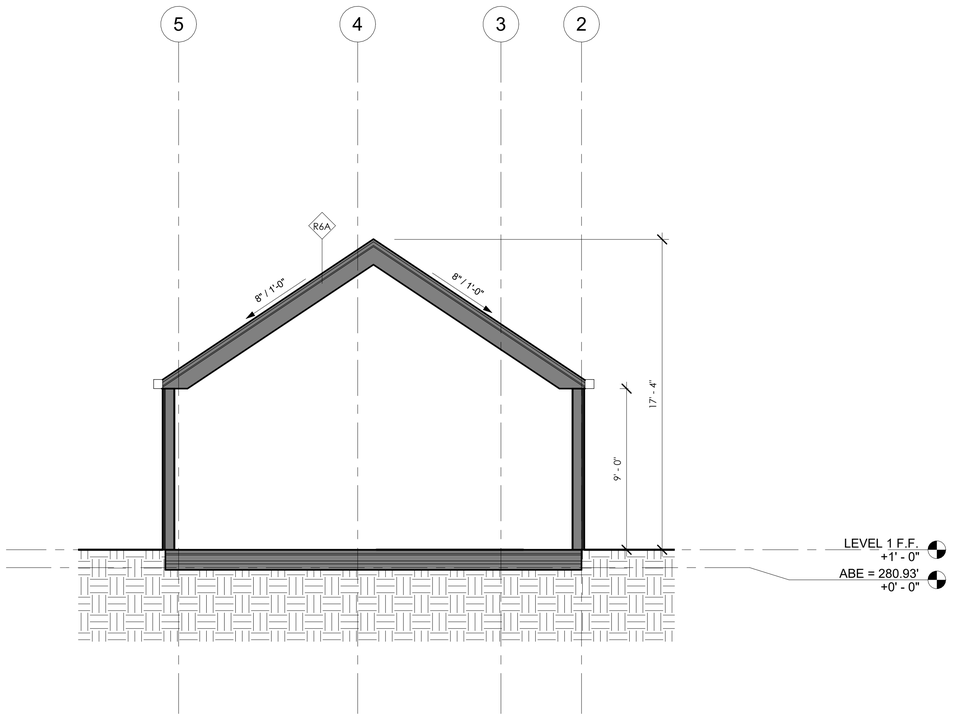
DEDICATED APPROVAL STAMP SPACE

SHEET TITLE
BUILDING SECTIONS

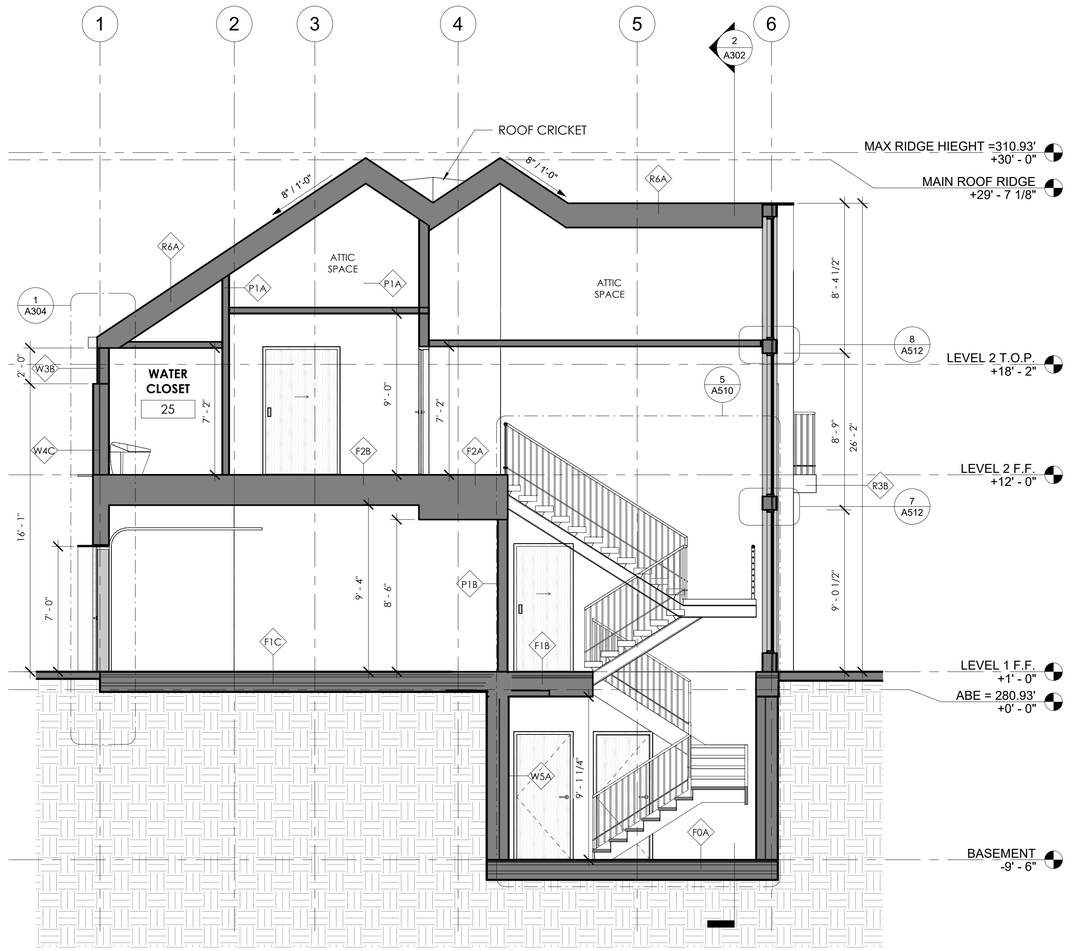
REVISION NO.
7
SUPERSEDES ALL PREVIOUS REVISIONS

SHEET NO.
A302

9/20/2022 2:33:25 PM



2 BUILDING SECTION - ADU
1/4" = 1'-0"



1 TRANSVERSE SECTION 3
1/4" = 1'-0"

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1/4" = 1'-0"	GCW

PROJECT
FOO RESIDENCE

3453 74th Ave SE
Mercer Island, WA
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REV	DATE	ISSUE/REVISION
2	10/28/20	City Comments
5	5/11/21	CD Set Update
7	1/20/22	CD Set Update
8	3/03/22	IFC CD Set

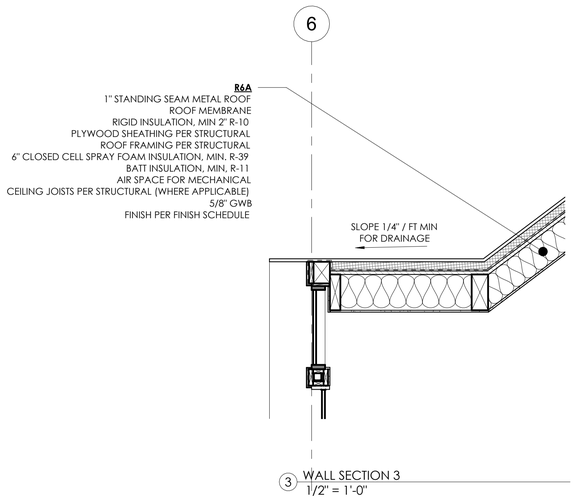
DEDICATED APPROVAL STAMP SPACE

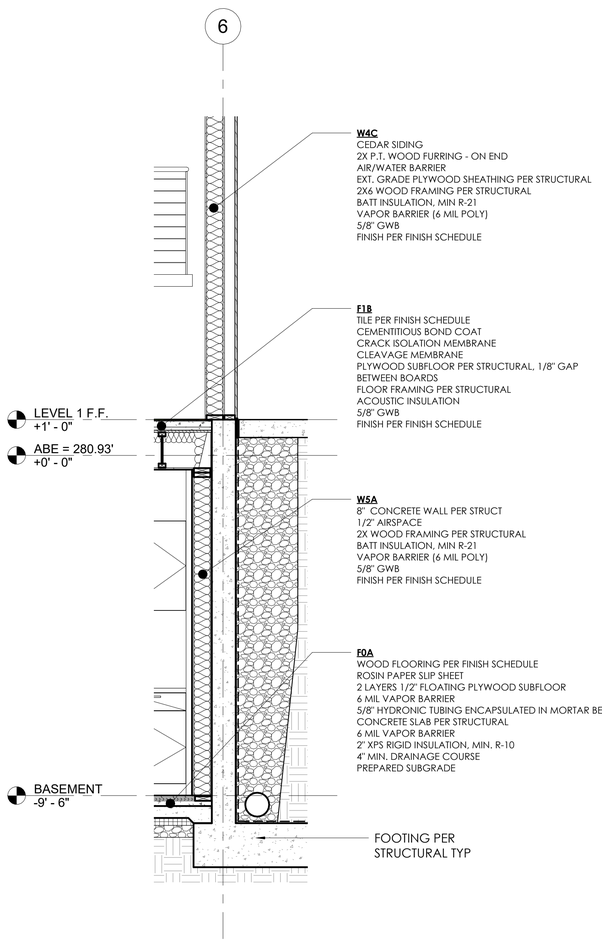
SHEET TITLE
BUILDING SECTIONS

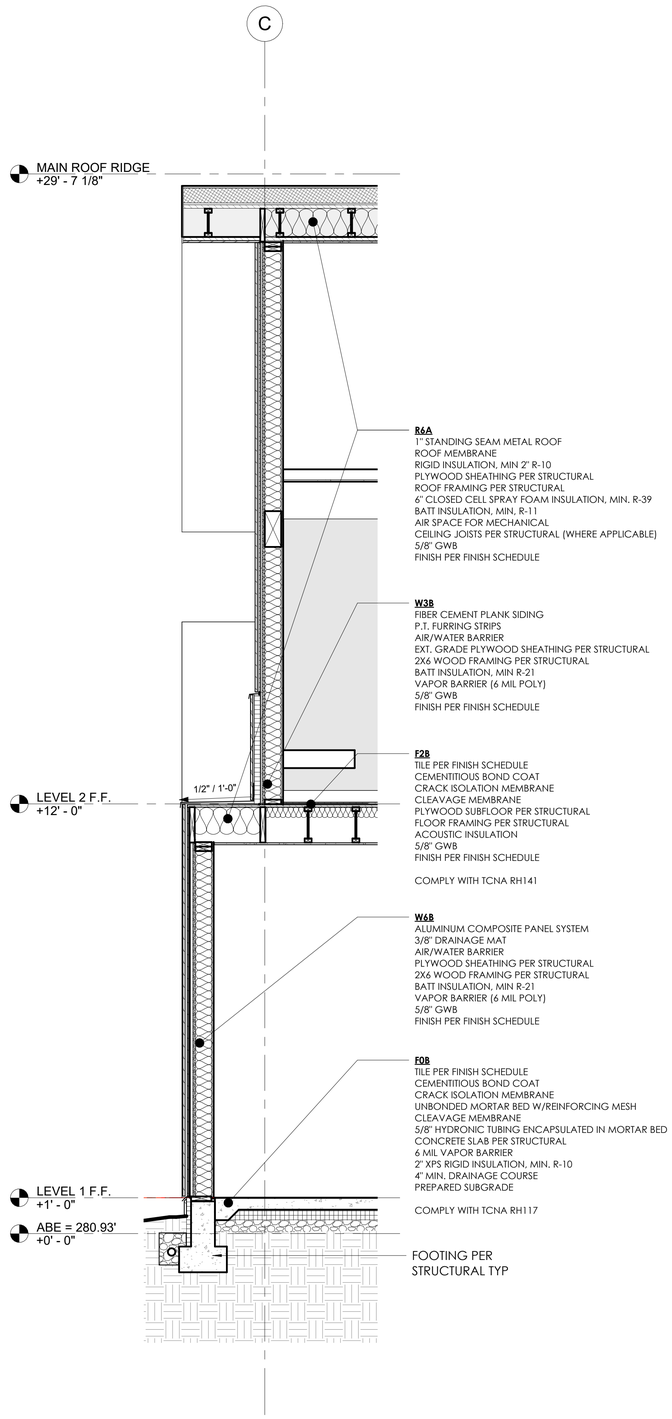
REVISION NO.
8
SUPERSEDES ALL PREVIOUS REVISIONS

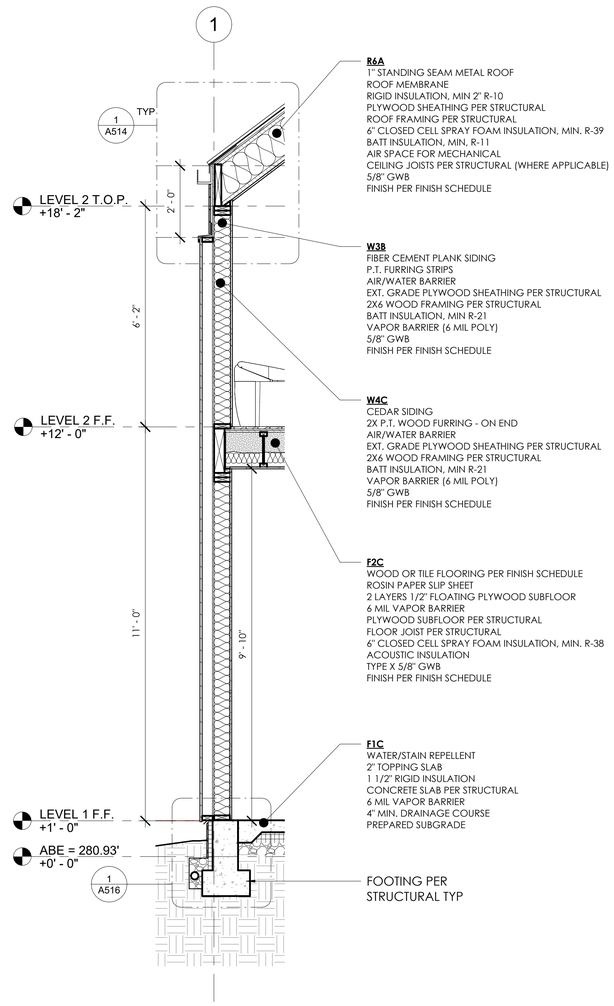
SHEET NO.
A303

9/20/2022 2:33:26 PM









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SCALE	CHECKED BY
1/2" = 1'-0"	GCW

PROJECT

FOO RESIDENCE

3453 74th Ave SE
Mercer Island, WA
98040

REV	DATE	ISSUE/REVISION
3	2/25/21	City Comments Round 2
5	5/11/21	CD Set Update
6	10/15/21	CD Set Update
7	1/20/22	CD Set Update

DEDICATED
APPROVAL STAMP SPACE

SHEET TITLE

WALL SECTIONS

REVISION NO.

7

SUPERSEDES ALL PREVIOUS REVISIONS

SHEET NO.

A304

9/20/2022 2:33:26 PM

WALL ASSEMBLY AND PARTITION NOTES

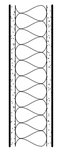
1. REPLACE 5/8" GWB WITH 5/8" TYPE 'X' GYPSUM BOARD FOR 1 HOUR RATED WALLS WHERE INDICATED ON PLANS.

2. REPLACE 5/8" GWB WITH 5/8" WR GWB IN WET LOCATIONS.

3. ADD PLYWOOD SHEATHING PER STRUCTURAL AT SHEAR WALL LOCATIONS.

4. AT LOCATIONS WHERE NEW WATERPROOFING IS INSTALLED ADJACENT TO EXISTING WATERPROOFING, GC TO VERIFY COMPATIBILITY.

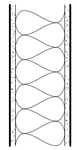
5. ALL TILE WALLS TO COMPLY WITH APPROPRIATE METHOD LISTED IN THE TCNA HANDBOOK FOR CERAMIC, GLASS, AND STONE TILE INSTALLATION.



P1A TYP 2X4 INTERIOR PARTITION
P1G, S1A

- FINISH PER FINISH SCHEDULE
- 5/8" GWB
- 2X4 WOOD FRAMING PER STRUCTURAL
- ACOUSTIC INSULATION AS REQ'D
- SHEATHING PER STRUCT AS REQ'D (S1A)
- 5/8" GWB
- FINISH PER FINISH SCHEDULE

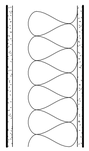
PARTITION TYPE P1G SIM. W/ GWB ONLY ONE SIDE



P1B TYP 2X6 INTERIOR PARTITION
P1H, S1B

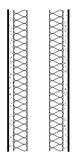
- FINISH PER FINISH SCHEDULE
- 5/8" GWB
- 2X6 WOOD FRAMING PER STRUCTURAL
- ACOUSTIC INSULATION AS REQ'D
- SHEATHING PER STRUCT AS REQ'D (S1B)
- 5/8" GWB
- FINISH PER FINISH SCHEDULE

PARTITION TYPE P1H SIM. W/ GWB ONLY ONE SIDE



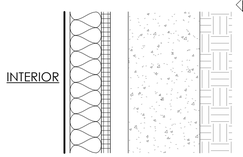
P1C TYP 2X8 INTERIOR PARTITION
S1C

- FINISH PER FINISH SCHEDULE
- 5/8" GWB
- 2X8 WOOD FRAMING PER STRUCTURAL
- ACOUSTIC INSULATION AS REQ'D
- SHEATHING PER STRUCT AS REQ'D (S1C)
- 5/8" GWB
- FINISH PER FINISH SCHEDULE



P1D 2X6 PARTITION AT POCKET DOOR

- FINISH PER FINISH SCHEDULE
- 5/8" GWB
- 2X4 WOOD FRAMING TURNED ON END
- ACOUSTIC INSULATION AS REQ'D
- VOID FOR POCKET DOOR
- ACOUSTIC INSULATION AS REQ'D
- 2X4 WOOD FRAMING TURNED ON END
- 5/8" GWB
- FINISH PER FINISH SCHEDULE

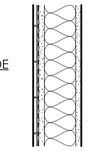


P1E TYP PARTITION AT CONCRETE WALL

- FINISH PER FINISH SCHEDULE
- 5/8" GWB
- 2X4 WOOD FRAMING PER STRUCTURAL
- BATT INSULATION, MIN R-13
- RIGID INSULATION, MIN R-5
- (E) OR (N) CONCRETE WALL (SEE PLANS)

P1F TYP FURRING PARTITION

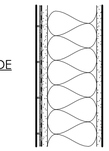
- FINISH PER FINISH SCHEDULE
- 5/8" GWB
- 2X FURRING
- SHIM AS REQ'D



P2A TYP 2X4 PARTITION W/TILE
P2D, P2G, S2A

- TILE PER FINISH SCHEDULE
- THIN SET MORTAR
- LIQUID APPLIED WATERPROOFING
- 5/8" CEMENTITIOUS BACKER BOARD
- 2X4 WOOD FRAMING PER STRUCTURAL
- ACOUSTICAL INSULATION
- SHEATHING PER STRUCT AS REQ'D (S2A)
- 5/8" GWB
- FINISH PER FINISH SCHEDULE

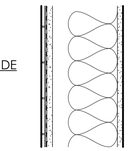
PARTITION TYPE P2D SIM BUT WET BOTH SIDES WITH TILE. TYPE P2G SIM BUT NO GWB ON DRY SIDE



P2B TYP 2X6 PARTITION W/TILE
P2E, P2H, S2B

- TILE PER FINISH SCHEDULE
- THIN SET MORTAR
- LIQUID APPLIED WATERPROOFING
- 5/8" CEMENTITIOUS BACKER BOARD
- 2X6 WOOD FRAMING PER STRUCTURAL
- ACOUSTICAL INSULATION
- SHEATHING PER STRUCT AS REQ'D (S2B)
- 5/8" GWB
- FINISH PER FINISH SCHEDULE

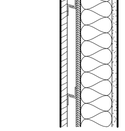
PARTITION TYPE P2E SIM BUT WET BOTH SIDES WITH TILE. TYPE P2H SIM BUT NO GWB ON DRY SIDE



P2C TYP 2X8 PARTITION W/TILE
P2F, P2J, S2C

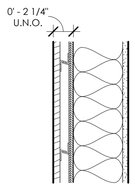
- TILE PER FINISH SCHEDULE
- THIN SET MORTAR
- LIQUID APPLIED WATERPROOFING
- 5/8" CEMENTITIOUS BACKER BOARD
- 2X8 WOOD FRAMING PER STRUCTURAL
- ACOUSTICAL INSULATION
- SHEATHING PER STRUCT AS REQ'D (S2C)
- 5/8" GWB
- FINISH PER FINISH SCHEDULE

PARTITION TYPE P2F SIM BUT WET BOTH SIDES WITH TILE. TYPE P2J SIM BUT NO GWB ON DRY SIDE



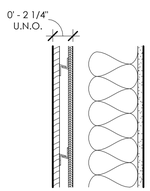
P4A TYP 2X4 PARTITION W/WOOD
S4A

- 3/4" WOOD VENEER WALL PANEL PER FINISH SCHEDULE
- 1" CLEAT SYSTEM
- 1/2" PLYWOOD SHEATHING
- 2X4 WOOD FRAMING PER STRUCTURAL
- ACOUSTICAL INSULATION AS REQ'D
- SHEATHING PER STRUCT AS REQ'D (S4A)
- 5/8" GWB
- FINISH PER FINISH SCHEDULE



P4B TYP 2X6 PARTITION W/WOOD
S4B

- 3/4" WOOD VENEER WALL PANEL PER FINISH SCHEDULE
- 1" CLEAT SYSTEM
- 1/2" PLYWOOD SHEATHING
- 2X6 WOOD FRAMING PER STRUCTURAL
- ACOUSTICAL INSULATION AS REQ'D
- SHEATHING PER STRUCT AS REQ'D (S4B)
- 5/8" GWB
- FINISH PER FINISH SCHEDULE

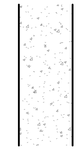


P4C TYP 2X8 PARTITION W/WOOD
S4C

- 3/4" WOOD VENEER WALL PANEL PER FINISH SCHEDULE
- 1" CLEAT SYSTEM
- 1/2" PLYWOOD SHEATHING
- 2X8 WOOD FRAMING PER STRUCTURAL
- ACOUSTICAL INSULATION AS REQ'D
- SHEATHING PER STRUCT AS REQ'D (S4C)
- 5/8" GWB
- FINISH PER FINISH SCHEDULE

P5A CONCRETE WALL

- 4" ARCHITECTURAL FINISH CONCRETE WALL PER STRUCT.



P5B CONCRETE WALL

- 6" ARCHITECTURAL FINISH CONCRETE WALL PER STRUCT.

P5C CONCRETE WALL

- 8" ARCHITECTURAL FINISH CONCRETE WALL PER STRUCT.

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DATE	DRAWN BY
9/20/2022	NLD
SCALE	CHECKED BY
1 1/2" = 1'-0"	GCW

PROJECT

FOO RESIDENCE

3453 74th Ave SE
Mercer Island, WA
98040

REV	DATE	ISSUE/REVISION
5	5/11/21	CD Set Update

DEDICATED APPROVAL STAMP SPACE

SHEET TITLE

TYPICAL ASSEMBLIES - INTERIOR

REVISION NO.

5

SUPERSEDES ALL PREVIOUS REVISIONS

SHEET NO.

A501

9/20/2022 2:33:27 PM

WALL ASSEMBLY AND PARTITION NOTES

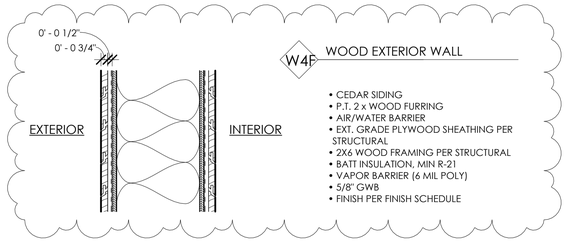
1. REPLACE 5/8" GWB WITH 5/8" TYPE 'X' GYPSUM BOARD FOR 1 HOUR RATED WALLS WHERE INDICATED ON PLANS.

2. REPLACE 5/8" GWB WITH 5/8" WR GWB IN WET LOCATIONS.

3. ADD PLYWOOD SHEATHING PER STRUCTURAL AT SHEAR WALL LOCATIONS.

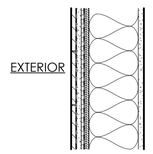
4. AT LOCATIONS WHERE NEW WATERPROOFING IS INSTALLED ADJACENT TO EXISTING WATERPROOFING, GC TO VERIFY COMPATIBILITY.

5. ALL TILE WALLS TO COMPLY WITH APPROPRIATE METHOD LISTED IN THE TCNA HANDBOOK FOR CERAMIC, GLASS, AND STONE TILE INSTALLATION.



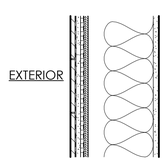
W4F WOOD EXTERIOR WALL

- CEDAR SIDING
- P.T. 2 x WOOD FURRING
- AIR/WATER BARRIER
- EXT. GRADE PLYWOOD SHEATHING PER STRUCTURAL
- 2X6 WOOD FRAMING PER STRUCTURAL
- BATT INSULATION, MIN R-21
- VAPOR BARRIER (6 MIL POLY)
- 5/8" GWB
- FINISH PER FINISH SCHEDULE



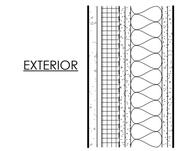
W3B FIBER CEMENT EXTERIOR WALL

- FIBER CEMENT BOARD - HARDIE PLANK HORIZONTAL SIDING
- AIR/WATER BARRIER
- PLYWOOD SHEATHING PER STRUCTURAL
- 2X6 WOOD FRAMING PER STRUCTURAL
- BATT INSULATION, MIN R-21
- VAPOR BARRIER (6 MIL POLY)
- 5/8" GWB
- FINISH PER FINISH SCHEDULE



W3C FIBER CEMENT EXTERIOR WALL

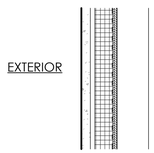
- FIBER CEMENT BOARD - HARDIE PLANK HORIZONTAL SIDING
- AIR/WATER BARRIER
- PLYWOOD SHEATHING PER STRUCTURAL
- 2X8 WOOD FRAMING PER STRUCTURAL
- BATT INSULATION, MIN R-21
- VAPOR BARRIER (6 MIL POLY)
- 5/8" GWB
- FINISH PER FINISH SCHEDULE



W5J 2-HR CONCRETE RAINSCREEN WALL

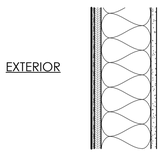
UL ASSEMBLY U308

- 1" CONCRETE RAINSCREEN PANEL
- 1/2" AIR SPACE
- 2" RIGID INSULATION, MIN R-10
- AIR/WATER BARRIER
- 5/8" GLASS MAT TYPE X GYPSUM SHEATHING
- 5/8" TYPE X GWB
- 2X4 WOOD FRAMING PER STRUCTURAL
- BATT INSULATION, MIN R-13
- VAPOR BARRIER (6 MIL POLY)
- (2) LAYERS TYPE X 5/8" GWB
- FINISH PER FINISH SCHEDULE



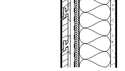
W5K CONCRETE RAINSCREEN WALL

- 1" CONCRETE RAINSCREEN PANEL
- 1/2" AIR SPACE
- 2" RIGID INSULATION, MIN R-10
- AIR/WATER BARRIER
- PLYWOOD SHEATHING PER STRUCTURAL
- 2X4 WOOD FRAMING PER STRUCTURAL



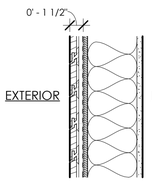
W5M STUCCO EXTERIOR WALL

- STUCCO MAX FINISH PER SPECIFICATIONS
- SCRATCH COAT
- AIR/WATER BARRIER
- EXT. GRADE PLYWOOD SHEATHING PER STRUCTURAL
- 2X6 WOOD FRAMING PER STRUCTURAL
- BATT INSULATION, MIN R-21
- VAPOR BARRIER (6 MIL POLY)
- 5/8" TYPE X GWB



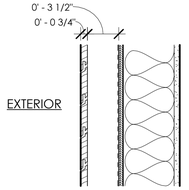
W4A WOOD EXTERIOR WALL

- CEDAR SIDING
- VENTILATING PLASTIC FURRING
- AIR/WATER BARRIER
- EXT. GRADE PLYWOOD SHEATHING PER STRUCTURAL
- 2X4 WOOD FRAMING PER STRUCTURAL
- BATT INSULATION, MIN R-13
- VAPOR BARRIER (6 MIL POLY)
- 5/8" GWB
- FINISH PER FINISH SCHEDULE



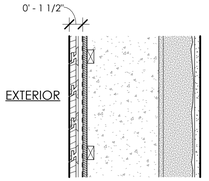
W4B WOOD EXTERIOR WALL

- CEDAR SIDING
- VENTILATING PLASTIC FURRING
- AIR/WATER BARRIER
- EXT. GRADE PLYWOOD SHEATHING PER STRUCTURAL
- 2X6 WOOD FRAMING PER STRUCTURAL
- BATT INSULATION, MIN R-21
- VAPOR BARRIER (6 MIL POLY)
- 5/8" GWB
- FINISH PER FINISH SCHEDULE



W4C WOOD EXTERIOR WALL

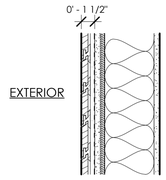
- CEDAR SIDING
- P.T. 2 x WOOD FURRING
- AIR/WATER BARRIER
- EXT. GRADE PLYWOOD SHEATHING PER STRUCTURAL
- 2X6 WOOD FRAMING PER STRUCTURAL
- BATT INSULATION, MIN R-21
- VAPOR BARRIER (6 MIL POLY)
- 5/8" GWB
- FINISH PER FINISH SCHEDULE



W4D WOOD AT CONCRETE WALL

- CEDAR SIDING
- VENTILATING PLASTIC FURRING
- AIR/WATER BARRIER
- EXT. GRADE PLYWOOD SHEATHING PER STRUCTURAL
- 8" CONCRETE WALL PER STRUCT. W/EMBEDDED 1X2 P.T. NAILER STRIPS @ 24" O.C.
- 1/2" AIRSPACE
- 2X4 WOOD FRAMING PER STRUCTURAL
- SPRAY-APPLIED CLOSED CELL INSULATION, MIN R-21
- VAPOR BARRIER (6 MIL POLY)
- 5/8" GWB
- FINISH PER FINISH SCHEDULE

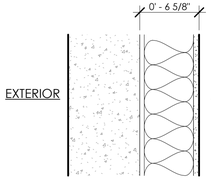
NOTE: UPPERMOST NAILER STRIPS TO BE LOCATED 24" BELOW TOP OF CONCRETE WALL



W4E 1-HR WOOD EXTERIOR WALL

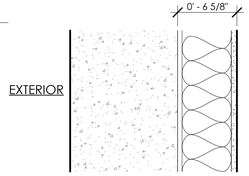
UL ASSEMBLY U303

- CEDAR SIDING
- VENTILATING PLASTIC FURRING
- AIR/WATER BARRIER
- 5/8" GLASS MAT GYPSUM SHEATHING
- EXT. GRADE PLYWOOD SHEATHING PER STRUCTURAL
- 2X6 WOOD FRAMING PER STRUCTURAL
- BATT INSULATION, MIN R-21
- VAPOR BARRIER (6 MIL POLY)
- 5/8" GWB
- FINISH PER FINISH SCHEDULE



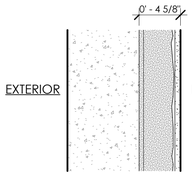
W5A CONCRETE EXTERIOR WALL

- 8" CONCRETE WALL PER STRUCT
- 1/2" AIRSPACE
- 2X6 WOOD FRAMING PER STRUCTURAL
- BATT INSULATION, MIN R-21
- VAPOR BARRIER (6 MIL POLY)
- 5/8" GWB
- FINISH PER FINISH SCHEDULE



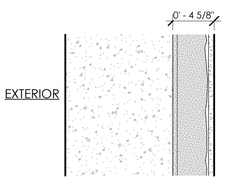
W5B CONCRETE EXTERIOR WALL

- 12" ARCHITECTURALLY EXPOSED CONCRETE WALL PER STRUCT. FINISH PER SCHEDULE
- 1/2" AIRSPACE
- 2X6 WOOD FRAMING PER STRUCTURAL
- BATT INSULATION, MIN R-21
- VAPOR BARRIER (6 MIL POLY)
- 5/8" GWB
- FINISH PER FINISH SCHEDULE



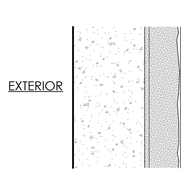
W5C CONCRETE EXTERIOR WALL

- 8" ARCHITECTURALLY EXPOSED CONCRETE WALL PER STRUCT. FINISH PER SCHEDULE
- 1/2" AIRSPACE
- 2X4 WOOD FRAMING PER STRUCTURAL
- SPRAY-APPLIED CLOSED CELL INSULATION, MIN R-21
- VAPOR BARRIER (6 MIL POLY)
- 5/8" GWB
- FINISH PER FINISH SCHEDULE



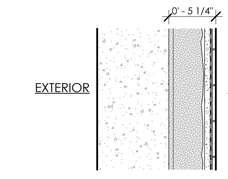
W5D CONCRETE EXTERIOR WALL

- 12" ARCHITECTURALLY EXPOSED CONCRETE WALL PER STRUCT. FINISH PER SCHEDULE
- 1/2" AIRSPACE
- 2X4 WOOD FRAMING PER STRUCTURAL
- SPRAY-APPLIED CLOSED CELL INSULATION, MIN R-21
- VAPOR BARRIER (6 MIL POLY)
- 5/8" GWB
- FINISH PER FINISH SCHEDULE



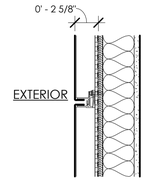
W5E CONCRETE EXTERIOR WALL

- 8" ARCHITECTURALLY EXPOSED CONCRETE WALL PER STRUCT. FINISH PER SCHEDULE
- 1/2" AIRSPACE
- 2X4 WOOD FRAMING PER STRUCTURAL
- SPRAY-APPLIED CLOSED CELL INSULATION, MIN R-21
- VAPOR BARRIER (6 MIL POLY)



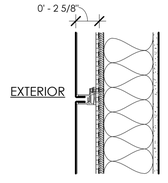
W5F CONCRETE EXTERIOR WALL

- 8" ARCHITECTURALLY EXPOSED CONCRETE WALL PER STRUCT. FINISH PER SCHEDULE
- 1/2" AIRSPACE
- 2X4 WOOD FRAMING PER STRUCTURAL
- SPRAY-APPLIED CLOSED CELL INSULATION, MIN R-21
- 5/8" CEMENTITIOUS BACKER BOARD
- VAPOR BARRIER (6 MIL POLY)
- LIQUID APPLIED WATERPROOFING
- THIN SET MORTAR
- TILE PER FINISH SCHEDULE



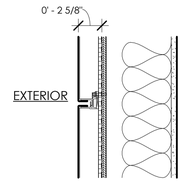
W6A METAL PANEL EXTERIOR WALL

- ALUMINUM COMPOSITE PANEL SYSTEM
- 3/8" DRAINAGE MAT
- AIR/WATER BARRIER
- PLYWOOD SHEATHING PER STRUCTURAL
- 2X4 WOOD FRAMING PER STRUCTURAL
- BATT INSULATION, MIN R-13
- VAPOR BARRIER (6 MIL POLY)
- 5/8" GWB
- FINISH PER FINISH SCHEDULE



W6B METAL PANEL EXTERIOR WALL

- ALUMINUM COMPOSITE PANEL SYSTEM
- 3/8" DRAINAGE MAT
- AIR/WATER BARRIER
- PLYWOOD SHEATHING PER STRUCTURAL
- 2X6 WOOD FRAMING PER STRUCTURAL
- BATT INSULATION, MIN R-21
- VAPOR BARRIER (6 MIL POLY)
- 5/8" GWB
- FINISH PER FINISH SCHEDULE



W6C METAL PANEL EXTERIOR WALL

- ALUMINUM COMPOSITE PANEL SYSTEM
- 3/8" DRAINAGE MAT
- AIR/WATER BARRIER
- PLYWOOD SHEATHING PER STRUCTURAL
- 2X8 WOOD FRAMING PER STRUCTURAL
- BATT INSULATION, MIN R-21
- VAPOR BARRIER (6 MIL POLY)
- 5/8" GWB
- FINISH PER FINISH SCHEDULE

W7A CONCRETE SITE WALL

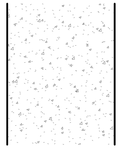
- 4" ARCHITECTURAL FINISH CONCRETE WALL PER STRUCT.

W7B CONCRETE SITE WALL

- 6" ARCHITECTURAL FINISH CONCRETE WALL PER STRUCT.

W7C CONCRETE SITE WALL

- 8" ARCHITECTURAL FINISH CONCRETE WALL PER STRUCT.



W7D CONCRETE SITE WALL

- 12" ARCHITECTURAL FINISH CONCRETE WALL PER STRUCT.

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PROJECT

FOO RESIDENCE

3453 74th Ave SE
Mercer Island, WA
98040

REV	DATE	ISSUE/REVISION
5	5/11/21	CD Set Update
9	5/23/22	MI Coordination Set
10	8/7/22	City Commnets Round 3

DEDICATED APPROVAL STAMP SPACE

SHEET TITLE

TYPICAL ASSEMBLIES - EXTERIOR

REVISION NO.

10

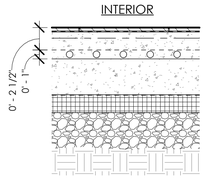
SUPERSEDES ALL PREVIOUS REVISIONS

SHEET NO.

A502

9/20/2022 2:33:28 PM

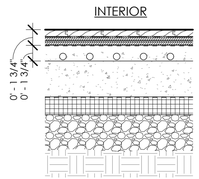
F0B TILE FLOOR OVER S.O.G. (HEATED)



- TILE PER FINISH SCHEDULE
- CEMENTITIOUS BOND COAT
- CRACK ISOLATION MEMBRANE
- UNBONDED MORTAR BED W/REINFORCING MESH
- CLEAVAGE MEMBRANE
- 5/8" HYDRONIC TUBING ENCAPSULATED IN MORTAR BED
- CONCRETE SLAB PER STRUCTURAL
- 6 MIL VAPOR BARRIER
- 2" XPS RIGID INSULATION, MIN. R-10
- 4" MIN. DRAINAGE COURSE
- PREPARED SUBGRADE

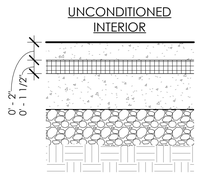
COMPLY WITH TCNA RH117

F0A WOOD FLOOR OVER S.O.G.



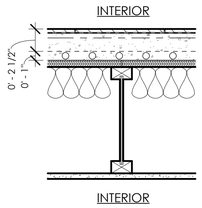
- WOOD FLOORING PER FINISH SCHEDULE
- ROSIN PAPER SLIP SHEET
- 2 LAYERS 1/2" FLOATING PLYWOOD SUBFLOOR
- 6 MIL VAPOR BARRIER
- 5/8" HYDRONIC TUBING ENCAPSULATED IN MORTAR BED
- CONCRETE SLAB PER STRUCTURAL
- 6 MIL VAPOR BARRIER
- 2" XPS RIGID INSULATION, MIN. R-10
- 4" MIN. DRAINAGE COURSE
- PREPARED SUBGRADE

F1C CONCRETE FLOOR S.O.G. (UNHEATED)



- WATER/STAIN REPELLENT
- 2" TOPPING SLAB
- 1 1/2" RIGID INSULATION
- CONCRETE SLAB PER STRUCTURAL
- 6 MIL VAPOR BARRIER
- 4" MIN. DRAINAGE COURSE
- PREPARED SUBGRADE

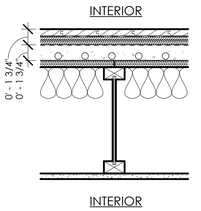
F1B TILE FLOOR OVER BEAMS (HEATED)



- TILE PER FINISH SCHEDULE
- CEMENTITIOUS BOND COAT
- CRACK ISOLATION MEMBRANE
- UNBONDED MORTAR BED W/REINFORCING MESH
- CLEAVAGE MEMBRANE
- 5/8" HYDRONIC TUBING ENCAPSULATED IN MORTAR BED
- PLYWOOD SUBFLOOR PER STRUCTURAL, 1/8" GAP BETWEEN BOARDS
- FLOOR FRAMING PER STRUCTURAL
- ACOUSTIC INSULATION
- 5/8" GWB
- FINISH PER FINISH SCHEDULE

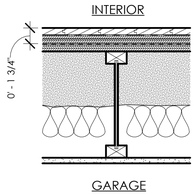
COMPLY WITH TCNA RH141

F1A WOOD FLOOR OVER BEAMS (HEATED)



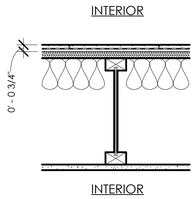
- WOOD FLOORING PER FINISH SCHEDULE
- ROSIN PAPER SLIP SHEET
- 2 LAYERS 1/2" FLOATING PLYWOOD SUBFLOOR
- 6 MIL VAPOR BARRIER
- 5/8" HYDRONIC TUBING ENCAPSULATED IN MORTAR BED
- PLYWOOD SUBFLOOR PER STRUCTURAL 1/8" GAP BETWEEN BOARDS
- FLOOR JOIST PER STRUCTURAL
- ACOUSTIC INSULATION
- 5/8" GWB
- FINISH PER FINISH SCHEDULE

F2C WOOD FLOOR OVER BEAMS (ABOVE GARAGE)



- WOOD OR TILE FLOORING PER FINISH SCHEDULE
- ROSIN PAPER SLIP SHEET
- 2 LAYERS 1/2" FLOATING PLYWOOD SUBFLOOR
- 6 MIL VAPOR BARRIER
- PLYWOOD SUBFLOOR PER STRUCTURAL
- FLOOR JOIST PER STRUCTURAL
- 6" CLOSED CELL SPRAY FOAM INSULATION, MIN. R-38
- ACOUSTIC INSULATION
- AIR SPACE FOR MECHANICAL
- CEILING JOISTS PER STRUCTURAL
- TYPE X 5/8" GWB
- FINISH PER FINISH SCHEDULE

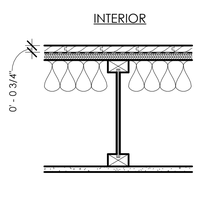
F2B TILE FLOOR OVER BEAMS (UNHEATED)



- TILE PER FINISH SCHEDULE
- CEMENTITIOUS BOND COAT
- CRACK ISOLATION MEMBRANE
- CLEAVAGE MEMBRANE
- PLYWOOD SUBFLOOR PER STRUCTURAL
- FLOOR FRAMING PER STRUCTURAL
- ACOUSTIC INSULATION
- 5/8" GWB
- FINISH PER FINISH SCHEDULE

COMPLY WITH TCNA RH141

F2A WOOD FLOOR OVER BEAMS (UNHEATED)



- WOOD FLOORING PER FINISH SCHEDULE
- ROSIN PAPER SLIP SHEET
- PLYWOOD SUBFLOOR PER STRUCTURAL
- FLOOR JOIST PER STRUCTURAL
- ACOUSTIC INSULATION
- 5/8" GWB
- FINISH PER FINISH SCHEDULE

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DATE	DRAWN BY
9/20/2022	NLD
SCALE	CHECKED BY
1 1/2" = 1'-0"	GCW

PROJECT

FOO RESIDENCE

3453 74th Ave SE
Mercer Island, WA
98040

REV	DATE	ISSUE/REVISION
2	10/28/20	City Comments
3	2/25/21	City Comments Round 2
4	4/27/21	Framing Plans Update
5	5/11/21	CD Set Update

DEDICATED APPROVAL STAMP SPACE

SHEET TITLE

TYPICAL ASSEMBLIES - FLOOR

REVISION NO.

5

SUPERSEDES ALL PREVIOUS REVISIONS

SHEET NO.

A503

9/20/2022 2:33:28 PM

ES ICC EVALUATION SERVICE

ICC-ES Evaluation Report

ESR-2151
Reissued May 2020
This report is subject to renewal May 2022.

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DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION
Section: 07 18 13—Pedestrian Traffic Coatings
Section: 07 54 00—Thermoplastic Membrane Roofing
Section: 07 54 19—Polyvinyl-Chloride Roofing

REPORT HOLDER:

DURADEK U.S. INC.

EVALUATION SUBJECT:

DURADEK ULTRA ROOF AND WALKING DECK MEMBRANE

1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2015, 2012 and 2009 *International Building Code®* (IBC)
- 2015, 2012 and 2009 *International Residential Code®* (IRC)

Properties evaluated:

- Physical properties
- Wind resistance
- Fire classification
- Chemical resistance
- Impact resistance

2.0 USES

The Duradek Ultra system is a walking deck and classified (rated) roof covering system for use directly over USG Durock cement board Next Gen and plywood substrates, as described in Section 3.2.3 of this report.

3.0 DESCRIPTION

3.1 General:

The Duradek Ultra system consists of a membrane and deck adhesive. See Section 4.0 of this report for recognized Duradek configurations and corresponding component requirements.

3.2 Materials:

3.2.1 Membrane: Duradek Ultra membrane is a calendered polyvinyl chloride (PVC) film laminated to a woven, heat-set polyester fabric. The surface of the PVC film is factory-printed and top-coated with a PVC/acrylic finish. The membrane is produced in a variety of colors and patterns and is available in rolls of various widths and lengths. The membrane weighs approximately 55 ounces per square yard (1864 g/m²) and is nominally 0.060 inch [60 mils (1.5 mm)] thick.

3.2.2 Adhesives:

3.2.2.1 Duradek D763: A white-colored, water-based, liquid adhesive with a shelf life of six months when stored at temperatures between 45° and 80°F (10° and 26.7°C).

3.2.2.2 Duradek D811-23-S and Duradek D811-23-W: A yellow-colored, liquid contact adhesive with a shelf life of six months when stored at temperatures between 45° and 80°F (10° and 26.7°C).

3.2.2.3 Mapei Ultra Flex 2: A single-component, polymer-modified thin-set mortar with a shelf life of one year when stored at 73°F (23°C) and 50 percent relative humidity.

3.2.3 Substrates:

3.2.3.1 Plywood: Minimum 5/8-inch-thick (15.9 mm) exterior-grade with tongue-and-groove edges, complying with US Department of Commerce Product Standard PS-1 or PS-2.

3.2.3.2 USG Durock Cement Board Next Gen: Minimum nominally 1/2-inch-thick cement panel, manufactured by United States Gypsum Company.

3.3 Impact Resistance:

The Duradek Ultra System described in this report complies with requirements for impact resistance in accordance with ASTM D3746.

4.0 INSTALLATION

4.1 General:

Installation of the Duradek Ultra system must be in accordance with the report holder's published installation instructions, the applicable code and this report. The report holder's installation instructions must be available on the jobsite during application. Installation is limited to conditions when the weather is dry and the ambient air temperature is a minimum of 45°F (7.2°C). Materials must not be applied if precipitation is occurring or expected during application.

4.2 Preparation of Substrates:

Substrates must be structurally sound, clean and dry, and shall be sloped a minimum of 1/4 inch per foot (2 percent slope).

4.2.1 Plywood: Plywood must be applied to framing in accordance with the requirements of the applicable code. All unsupported edges must be blocked. All penetrations through and terminations of the sheathing must be protected with metal flashing in accordance with the requirements of the applicable code and the manufacturer's published installation instructions.

4.2.2 USG Durock: Where USG Durock is used as a substrate, it must be installed over a plywood substrate

complying with, and installed in accordance with, Sections 3.2.3.1 and 4.2.1. See Footnote 3 of Table 1 for additional installation details.

4.3 Membrane Installation:

The membrane must be adhered to the substrate with either Duradek D763, Duradek D811-23-S or Duradek D811-23-W adhesive. Duradek D763 must be applied to the substrate with either a U-notched trowel having 1/32-inch-deep-by-1/16-inch-wide (0.8 by 1.6 mm) notches spaced 1/32 inch (0.8 mm) apart or a textured roller. The minimum coverage is 1 gallon per 190 square feet (1L/4.66 m²). Duradek D811-23-S and Duradek D811-23-W must be applied with either a brush or a roller at a coverage rate of 1 gallon per 70 to 90 square feet (1L/1.71 m² to 1L/2.21 m²). The minimum application temperature for both adhesives is 45°F (7.2°C).

A minimum 2-inch (51 mm) width of Duradek D811-23-S or Duradek D811-23-W adhesive must be used at the perimeter of the deck and on walls, edges and right-angle corners. Membrane seams must be overlapped a minimum of 3/4 inch (19.1 mm) at edges and ends, and heat-fused with a hot-air seaming tool. Exposed edges, posts and trim strips must be sealed with sealant.

4.4 Method of Repair:

A portion of the membrane larger than the affected area must be removed and a new piece of material must be prepared that is 1 1/2-inch (38 mm) larger in dimension than the piece removed. Duradek D763, Duradek D811-23-S or Duradek D811-23-W adhesive must be applied to the substrate and the patch must be placed into the space so it overlaps the existing sheet by 3/4 inch (19 mm). The patch must be welded to the existing sheet using a hot-air seaming tool. When substrate damage occurs, the retention of the fire classification and wind-resistance properties of the system must be demonstrated to the satisfaction of the code official.

4.5 Wind Resistance:

The roof deck construction over which the Duradek Ultra system is installed must be designed to resist the minimum design wind pressures set forth in the applicable code. The allowable wind uplift pressures for the roof assemblies are noted in Table 1.

Metal edge securement systems must be listed in accordance with 2011 edition of ANSI/SPRI/FM 4435 ES-1, and designed and installed for wind loads in accordance with 2015 IBC Section 1504.5 and 2015 IBC Chapter 16 [2003 edition of ANSI/SPRI/FM 4435 ES-1, and designed and installed for wind loads in accordance with 2012 and 2009 IBC Section 1504.5 and 2012 and 2009 IBC Chapter 16].

4.6 Roof Covering Classification:

See Table 1 for fire-classified assembly details.

5.0 CONDITIONS OF USE

The Duradek Ultra walking deck and roof covering system described in this report complies with, or is a suitable alternative to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

5.1 Installation must comply with this report, the report holder's published installation instructions and the applicable code. If there is a conflict between the installation instructions and this report, this report governs.

5.2 The Duradek Ultra system may be installed adjacent to swimming pools or spas, or in areas subject to related chemical exposure.

5.3 Wind uplift pressure on any roof area, including edge and corner zones, must not exceed the allowable wind pressure for the roof covering installed in that particular area. Refer to Table 1.

5.4 The allowable wind uplift pressures listed in Table 1 are for the roof covering system only. The deck and framing to which the system is attached must be designed for the applicable components and cladding wind loads in accordance with the applicable code.

5.5 The membrane is manufactured under a quality control program with inspections by ICC-ES.

6.0 EVIDENCE SUBMITTED

6.1 Data in accordance with the ICC-ES Acceptance Criteria for Walking Decks (AC39), dated June 2017 (editorially revised May 2018).

6.2 Data in accordance with the ICC-ES Acceptance Criteria for Membrane Roof Covering Systems (AC75), dated July 2010 (editorially revised March 2018).

6.3 Report of fire classification testing in accordance with ASTM E108.

6.4 Report of simulated wind uplift testing in accordance with FM 4474 Appendix B.

6.5 Report of impact resistance testing in accordance with ASTM D3746.

7.0 IDENTIFICATION

7.1 Each roll of membrane is identified with the Duradek U.S. Inc. name and address, the evaluation report number (ESR-2151).

The Duradek D763, D811-23-S and Duradek D811-23-W adhesives are identified with the Duradek U.S. Inc. name and address, the product designation, batch number keyed to the date of manufacture, and product expiration date.

The Mapei Ultraflex 2 mortar, USG Durock cement board Next Gen and the Rock-on Hi-Lo thread screws are identified with their product name and company name.

7.2 The report holder's contact information is the following:

DURADEK U.S. INC.
8288 129TH STREET
SURREY, BRITISH COLUMBIA V3W 0A6
CANADA
(604) 591-5594
www.duradek.com
duradek@duradek.com

TABLE 1—FIRE CLASSIFICATION AND WIND RESISTANCE ASSEMBLIES

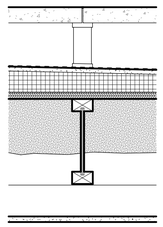
SYSTEM NO.	FIRE CLASSIFICATION	MAXIMUM ALLOWABLE WIND UPLIFT (psf)	SUBSTRATE[2]	ADHESIVE (membrane to substrate)	MEMBRANE
1	A[1]	200	Plywood/cement board[3]	Duradek D763	Duradek Ultra
2	A[1]	200		Duradek D811-23-S and Duradek D811-23-W	
3	Nonclassified	200	Plywood	Duradek D763	
4	C[1]	240		Duradek D811-23-S and Duradek D811-23-W	

For **SI:** 1 inch = 25.4 mm; 1 psf = 47.8 Pa.

[1]Maximum slope for fire classification assemblies is 1/4:12 (2 percent slope).
[2]See Section 3.2.3 for additional substrate specifications.
[3]USG Durock cement board Next Gen attached to plywood substrate with Mapei "Ultraflex 2" polymer modified mortar, troweled down with a 1/4-inch-by-1/4-inch square-notched trowel, with notches spaced 1/4 inch on center; and screwed to plywood with 1 1/4-inch-long Rock-on #9 Hi-Lo thread screws spaced 6 inches on center around the perimeter of the cement board.

R3A PEDESTAL PAVER ROOF OVER BEAMS

EXTERIOR

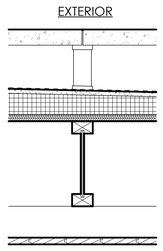


INTERIOR

- PAVERS PER FINISH SCHEDULE
- EXTERIOR PEDESTAL PAVER SYSTEM
- ROOF MEMBRANE - DURADEK OR EQ ICC-ES APPROVED MEMBRANE
- PROTECTION BOARD - DENSDECK OR EQ
- HIGH DENSITY RIGID INSULATION SLOPED 1/4" PER FOOT MIN, MIN. 2" R-10
- PLYWOOD SHEATHING PER STRUCTURAL
- FLOOR FRAMING PER STRUCTURAL
- 6" CLOSED CELL SPRAY FOAM INSULATION, MIN. R-39
- CEILING JOISTS PER STRUCTURAL
- 5/8" GWB
- FINISH PER FINISH SCHEDULE

R3B PEDESTAL PAVER ROOF OVER BEAMS

EXTERIOR

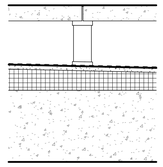


EXTERIOR

- PAVERS PER FINISH SCHEDULE
- EXTERIOR PEDESTAL PAVER SYSTEM
- ROOF MEMBRANE - DURADEK OR EQ ICC-ES APPROVED MEMBRANE
- PROTECTION BOARD - DENSDECK OR EQ
- HIGH DENSITY RIGID INSULATION SLOPED 1/4" PER FOOT MIN, MIN. 2" R-10
- PLYWOOD SHEATHING PER STRUCTURAL
- FLOOR FRAMING PER STRUCTURAL
- CEILING JOISTS PER STRUCTURAL
- EXTERIOR GRADE WOOD SOFFIT PANELS
- FINISH PER FINISH SCHEDULE

R3C PEDESTAL PAVER ROOF OVER SLAB

EXTERIOR

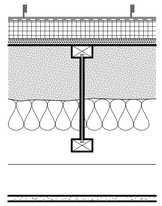


EXTERIOR

- PAVERS PER FINISH SCHEDULE
- EXTERIOR PEDESTAL PAVER SYSTEM
- ROOF MEMBRANE - DURADEK OR EQ ICC-ES APPROVED MEMBRANE
- PROTECTION BOARD - DENSDECK OR EQ
- HIGH DENSITY RIGID INSULATION SLOPED 1/4" PER FOOT MIN, MIN. 2" R-10
- PT SLAB PER STRUCTURAL
- FINISH PER FINISH SCHEDULE

R6A METAL ROOF OVER BEAMS

EXTERIOR

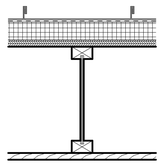


INTERIOR

- 1 1/2" STANDING SEAM METAL ROOF
- ROOF MEMBRANE
- RIGID INSULATION, MIN 2" R-10
- PLYWOOD SHEATHING PER STRUCTURAL
- ROOF FRAMING PER STRUCTURAL
- 6" CLOSED CELL SPRAY FOAM INSULATION, MIN. R-39
- BATT INSULATION, MIN, R-11
- AIR SPACE FOR MECHANICAL
- CEILING JOISTS PER STRUCTURAL
- 5/8" GWB
- FINISH PER FINISH SCHEDULE

R6B METAL ROOF OVER BEAMS

EXTERIOR

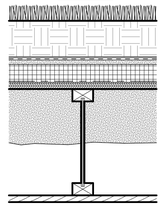


EXTERIOR

- 1 1/2" STANDING SEAM METAL ROOF
- ROOF MEMBRANE
- RIGID INSULATION, MIN 2" R-10
- PLYWOOD SHEATHING PER STRUCTURAL
- ROOF FRAMING PER STRUCTURAL
- EXTERIOR GRADE WOOD SOFFIT PANELS
- FINISH PER FINISH SCHEDULE

R7A PLANTED ROOF OVER BEAMS

EXTERIOR



INTERIOR

- 4" PREVEGETATED MODULAR GREEN ROOF SYSTEM
- PROTECTION COURSE
- ROOF MEMBRANE
- COVER BOARD
- RIGID INSULATION, MIN 2" R-10
- VAPOR BARRIER
- PLYWOOD SHEATHING PER STRUCTURAL
- ROOF FRAMING PER STRUCTURAL
- 6" CLOSED CELL SPRAY FOAM INSULATION, MIN. R-39
- WOOD SOFFIT CEILING PANELS TO MATCH EXTERIOR WOOD SOFFIT
- FINISH PER FINISH SCHEDULE

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1 1/2" = 1'-0"	GCW

PROJECT

FOO RESIDENCE

3453 74th Ave SE
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REV	DATE	ISSUE/REVISION
2	10/28/20	City Comments
5	5/11/21	CD Set Update

DEDICATED APPROVAL STAMP SPACE

SHEET TITLE

TYPICAL ASSEMBLIES - ROOF

REVISION NO.

5

SUPERSEDES ALL PREVIOUS REVISIONS

SHEET NO.

A504

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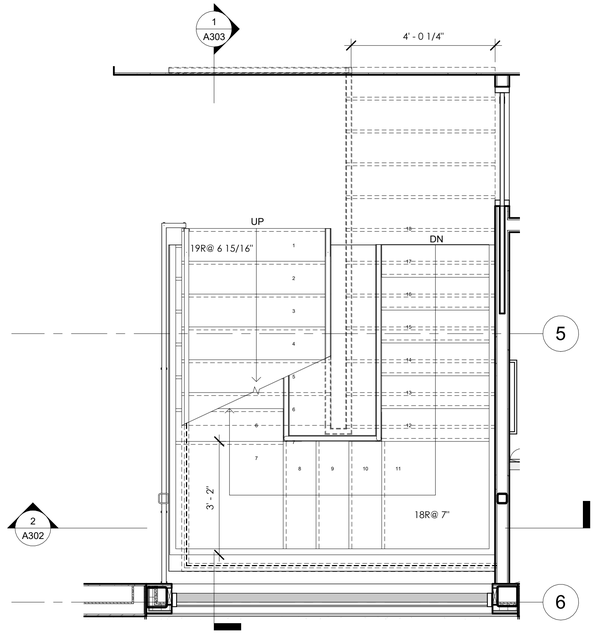
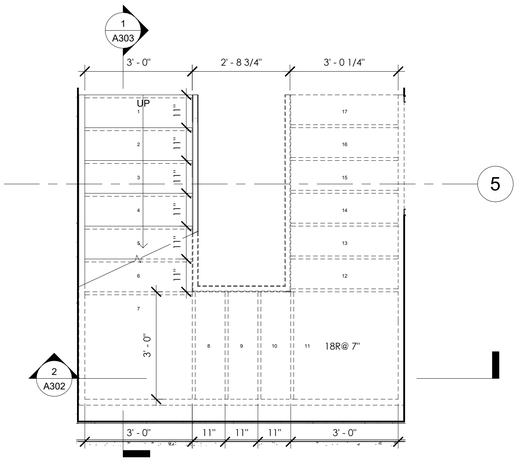
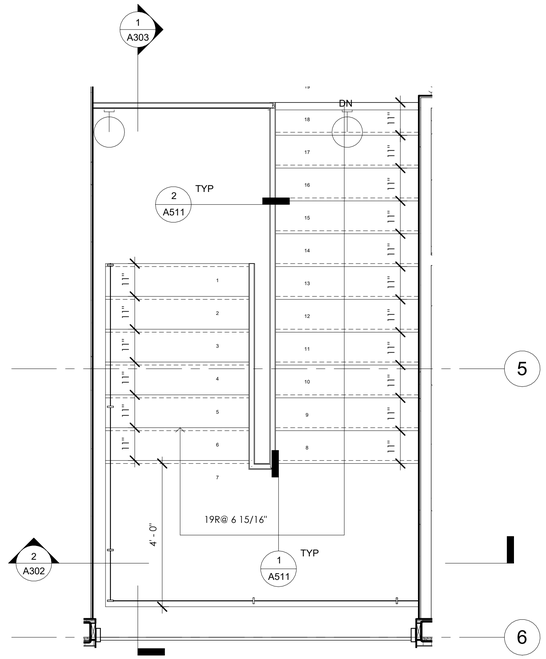


1 STAIRS DETAIL - 1ST FLOOR PLAN
1/2" = 1'-0"



2 STAIRS DETAIL - BASEMENT PLAN
1/2" = 1'-0"



3 STAIRS DETAIL - 2ND FLOOR PLAN
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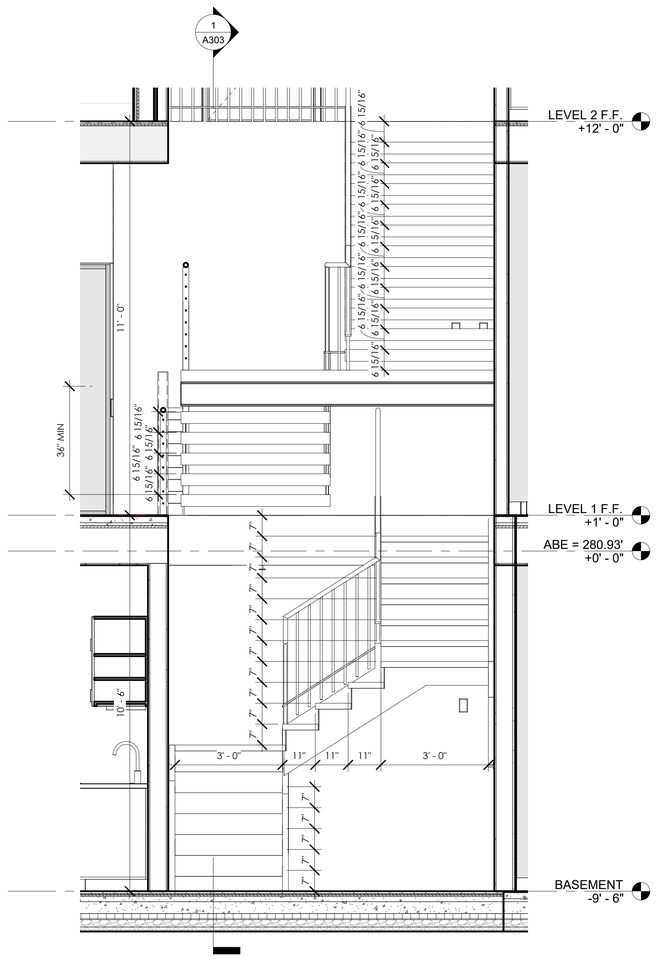
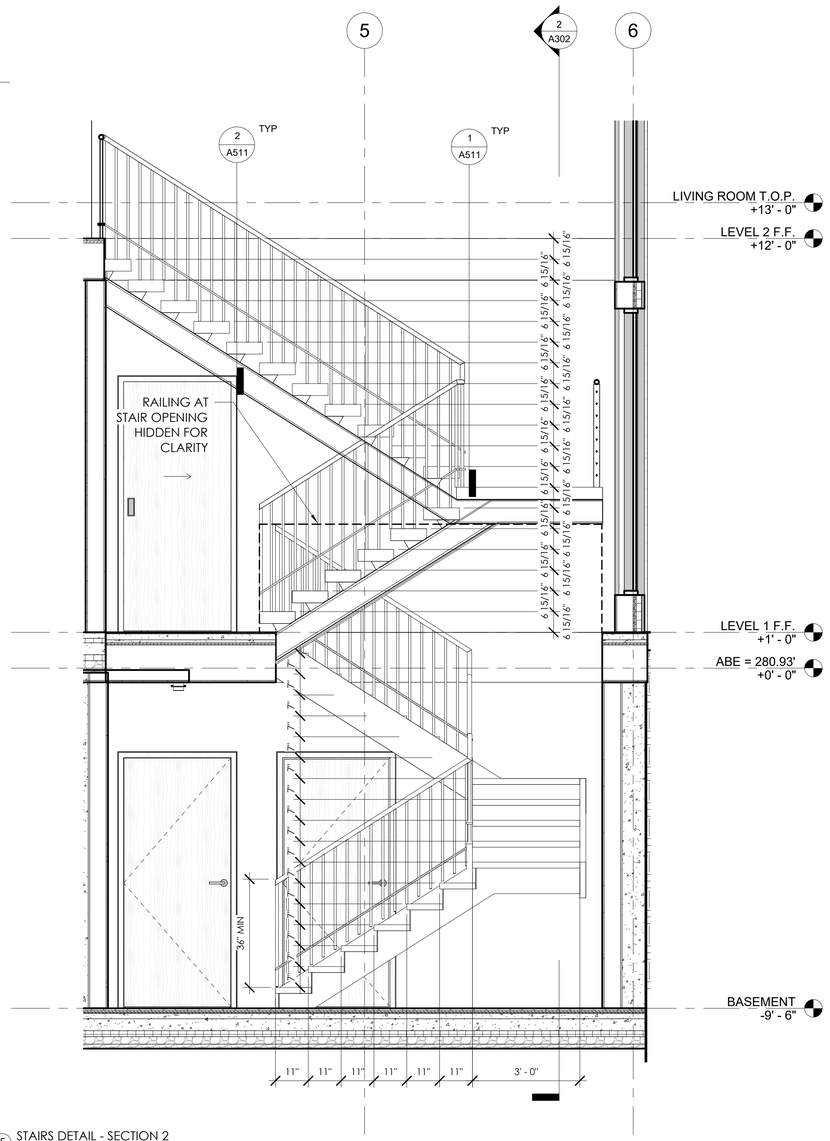


4 STAIRS DETAIL - SECTION 1
1/2" = 1'-0"



5 STAIRS DETAIL - SECTION 2
1/2" = 1'-0"

STAIR NOTES

PER IRC R311.7.1: STAIRWAY SHALL BE NOT LESS THAN 36 INCHES (914 MM) IN CLEAR WIDTH AT ALL POINTS ABOVE THE PERMITTED HANDRAIL HEIGHT AND BELOW THE REQUIRED HEADROOM HEIGHT. HANDRAILS SHALL NOT PROJECT MORE THAN 4 1/2 INCHES ON EITHER SIDE OF THE STAIRWAY AND THE CLEAR WIDTH OF THE STAIRWAY AT AND BELOW THE HANDRAIL HEIGHT, INCLUDING TREADS AND LANDINGS, SHALL BE NOT LESS THAN 31 1/2 INCHES (787 MM) WHERE A HANDRAIL IS INSTALLED ON ONE SIDE AND 27 INCHES (698 MM) WHERE HANDRAILS ARE PROVIDED ON BOTH SIDES.

RAILING DESIGN TBD

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2	10/28/20	City Comments

DEDICATED APPROVAL STAMP SPACE

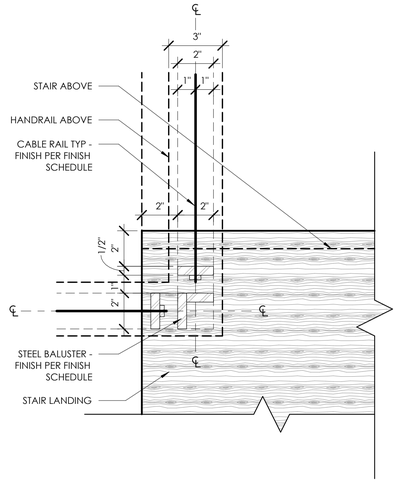
SHEET TITLE
STAIRS PLANS & SECTIONS

REVISION NO.
2
SUPERSEDES ALL PREVIOUS REVISIONS

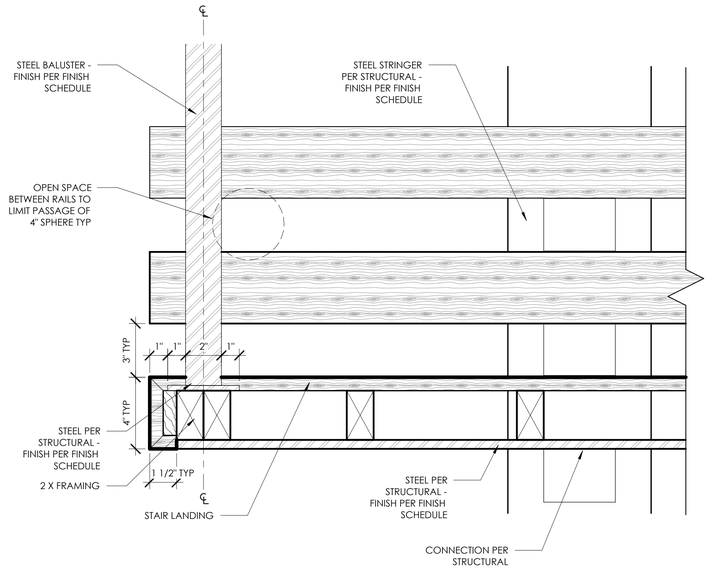
SHEET NO.
A510

9/20/2022 2:33:32 PM

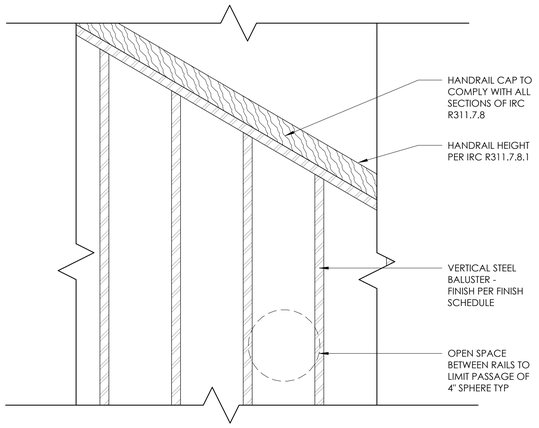
RAILING DESIGN TBD



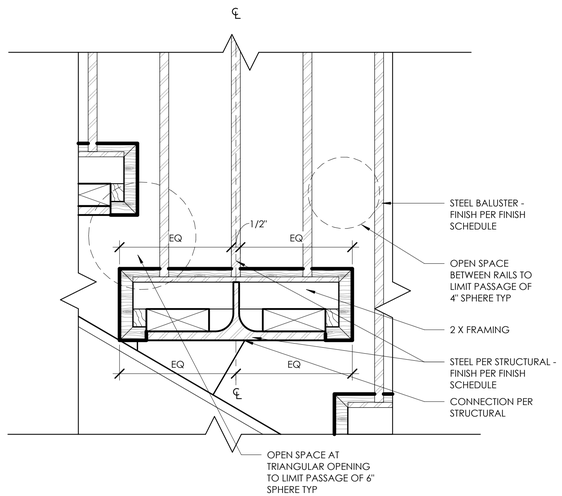
3 TYPICAL BALUSTER CORNER DETAIL
3" = 1'-0"



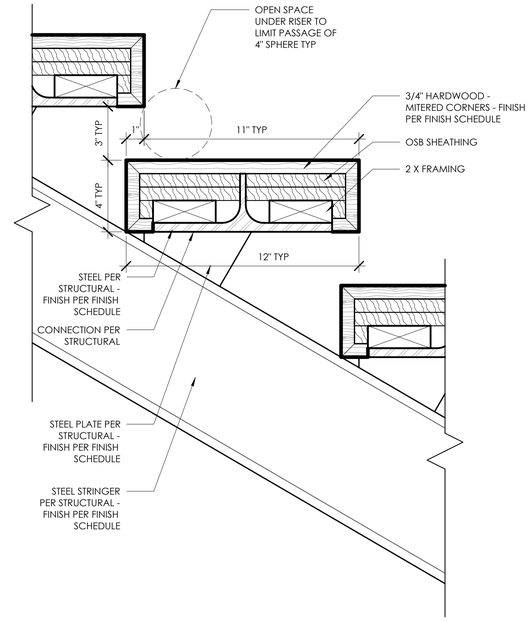
1 TYPICAL BALUSTER AT STAIR LANDING DETAIL
3" = 1'-0"



5 TYPICAL HANDRAIL DETAIL
3" = 1'-0"



4 TYPICAL BALUSTER DETAIL
3" = 1'-0"



2 TYPICAL STAIR TREAD / RISER / STRINGER DETAIL
3" = 1'-0"

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SEATTLE WA
98121

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DATE	DRAWN BY
9/20/2022	NLD
SCALE	CHECKED BY
3" = 1'-0"	GCW

PROJECT
FOO RESIDENCE

3453 74th Ave SE
Mercer Island, WA
98040

REV	DATE	ISSUE/REVISION
2	10/28/20	City Comments
3	2/25/21	City Comments Round 2

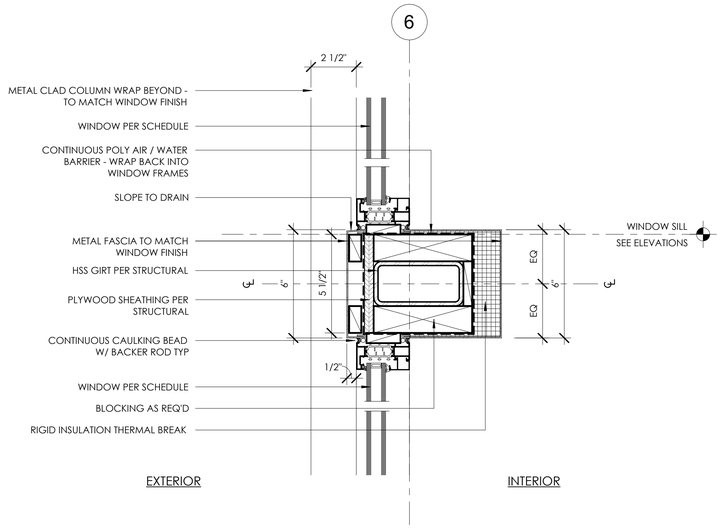
DEDICATED APPROVAL STAMP SPACE

SHEET TITLE
STAIR DETAILS

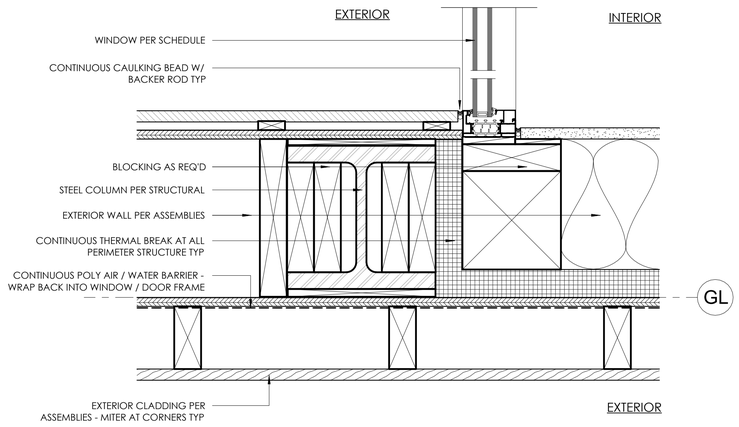
REVISION NO.
3
SUPERSEDES ALL PREVIOUS REVISIONS

SHEET NO.
A511

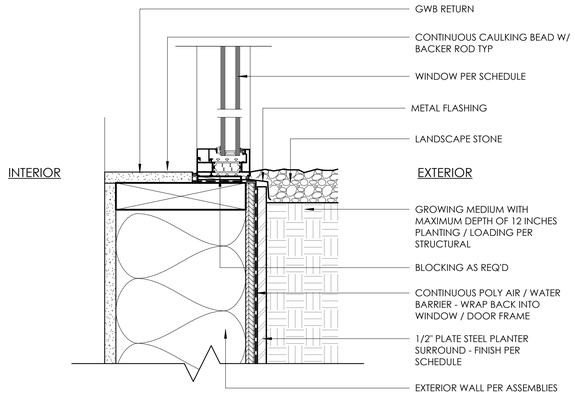
9/20/2022 2:33:32 PM



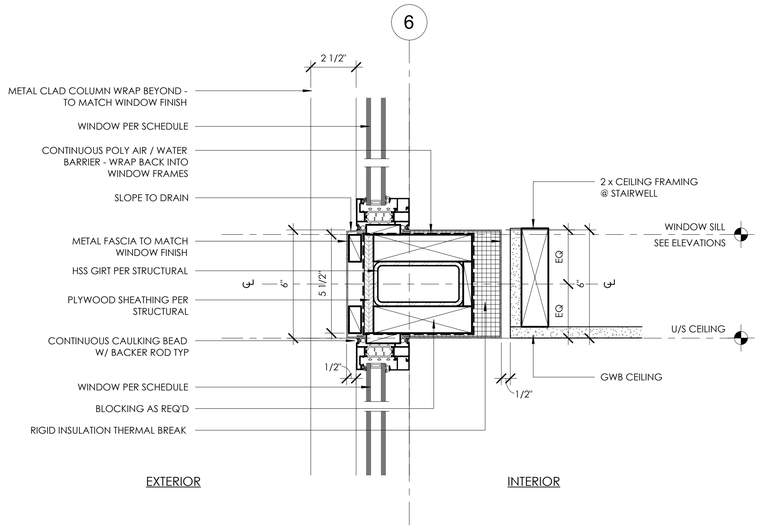
7 HORIZONTAL HSS GIRT @ STAIRWELL
3" = 1'-0"



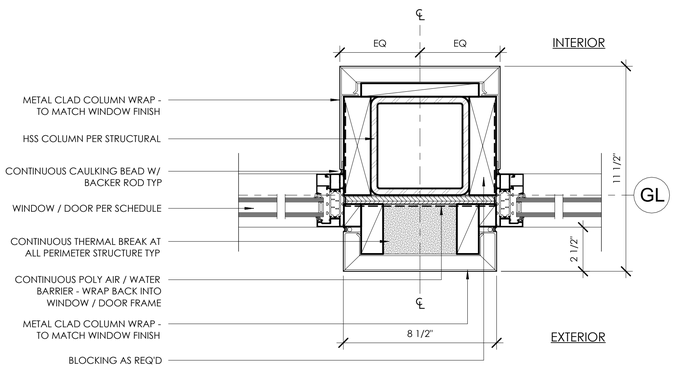
4 EXTERIOR CORNER DETAIL A
3" = 1'-0"



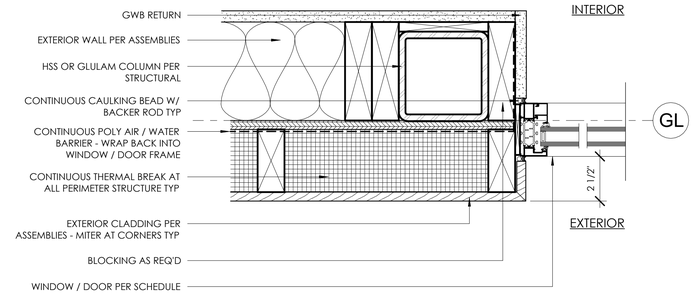
1 BALCONY PLANTER @ WINDOW
3" = 1'-0"



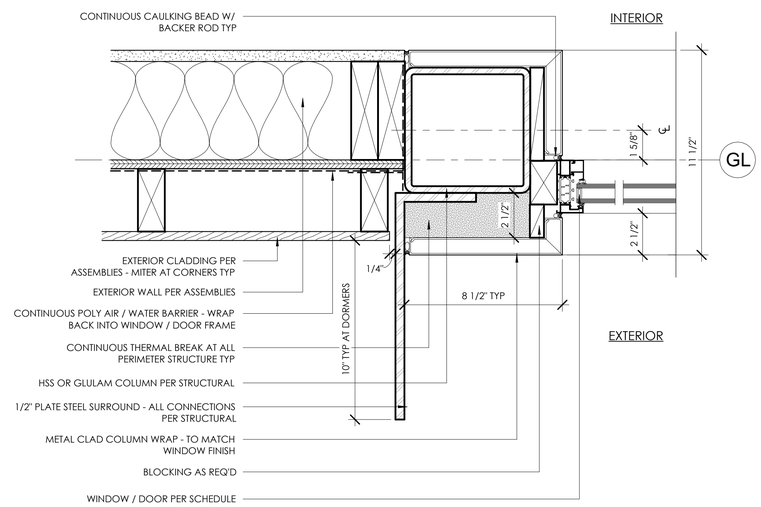
8 UPPER LEVEL DROP CEILING @ STAIRWELL
3" = 1'-0"



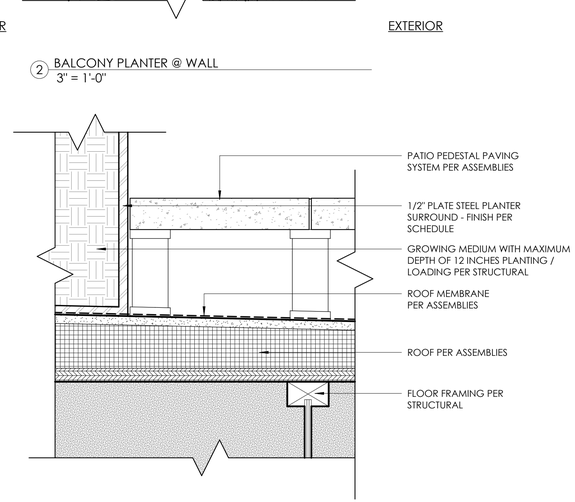
9 HSS COLUMN @ GL D/6
3" = 1'-0"



5 TYPICAL EXTERIOR JAMB DETAIL @ WALL TYPE W4C
3" = 1'-0"



6 TYPICAL EXTERIOR JAMB DETAIL @ METAL SURROUND
3" = 1'-0"



2 BALCONY PLANTER @ WALL
3" = 1'-0"

3 BALCONY PLANTER @ PERIMETER
3" = 1'-0"

DETAIL NOTES

- ALL FINISHES PER ASSEMBLIES AND SPECIFICATIONS
- ALL CONNECTIONS PER STRUCTURAL
- ALL MEMBER SIZES PER STRUCTURAL

GARRET CORD WERNER

GARRET CORD WERNER LLC
ARCHITECTURE | INTERIORS

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98121

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As indicated	GCW

PROJECT

FOO RESIDENCE

3453 74th Ave SE
Mercer Island, WA
98040

REV	DATE	ISSUE/REVISION
2	10/28/20	City Comments
3	2/25/21	City Comments Round 2
5	5/11/21	CD Set Update

DEDICATED APPROVAL STAMP SPACE

SHEET TITLE

EXTERIOR DETAILS

REVISION NO.

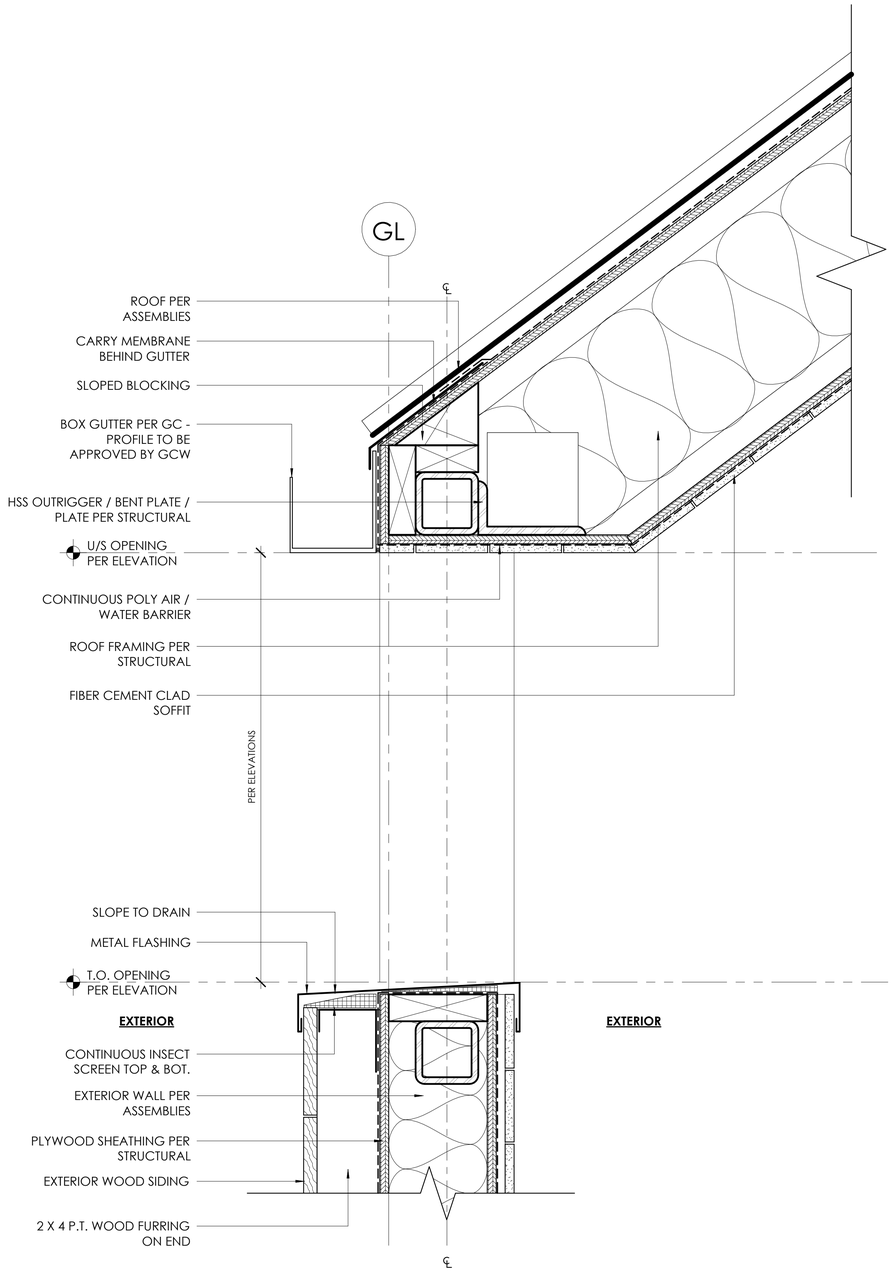
5

SUPERSEDES ALL PREVIOUS REVISIONS

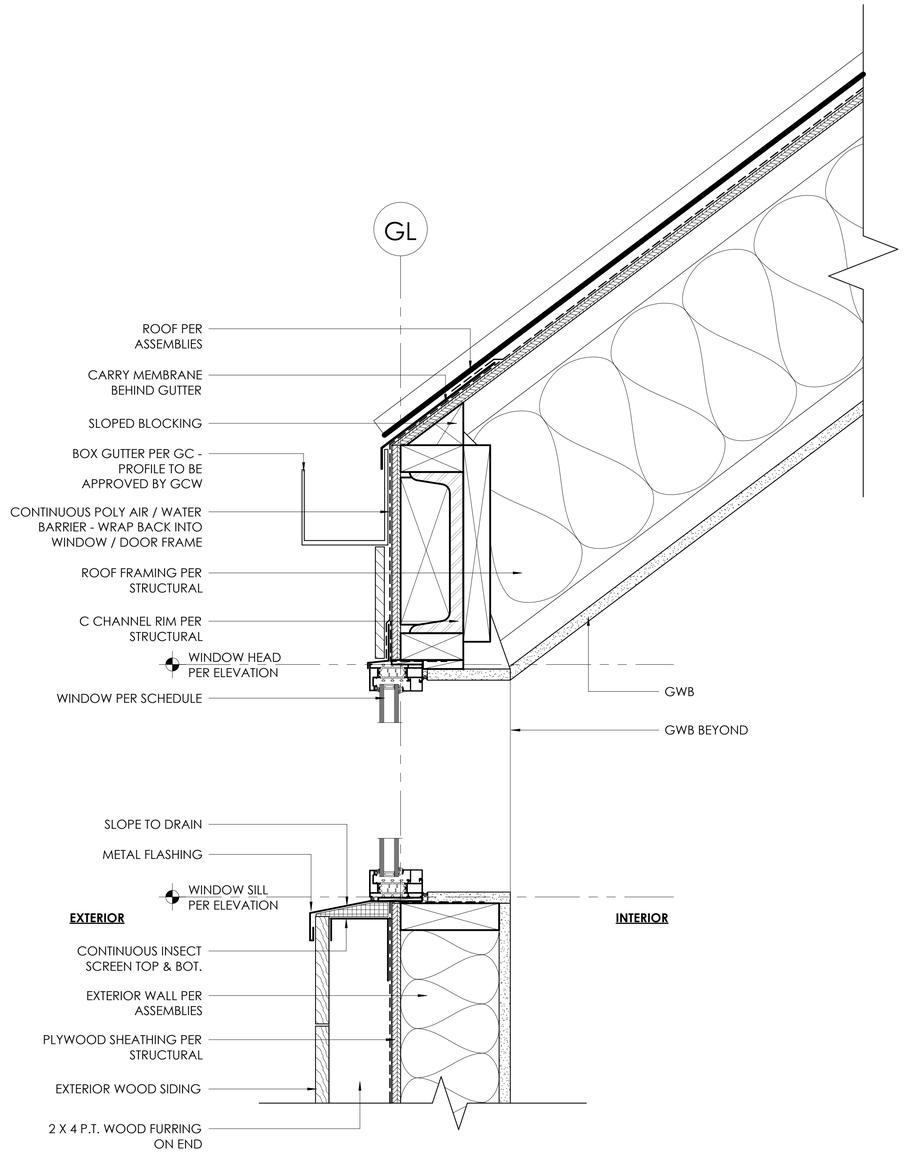
SHEET NO.

A512

9/20/2022 2:33:33 PM



2 TYPICAL SECTION @ FLOATING ROOF EAVE
3" = 1'-0"



1 WINDOW HEAD @ LIVING ROOM ROOF EAVE
3" = 1'-0"

DETAIL NOTES

- ALL FINISHES PER ASSEMBLIES AND SPECIFICATIONS
- ALL CONNECTIONS PER STRUCTURAL
- ALL MEMBER SIZES PER STRUCTURAL

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As indicated	GCW

PROJECT

FOO RESIDENCE

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98040

REV	DATE	ISSUE/REVISION
7	1/20/22	CD Set Update

DEDICATED APPROVAL STAMP SPACE

SHEET TITLE

EXTERIOR DETAILS

REVISION NO. 7

SUPERSEDES ALL PREVIOUS REVISIONS

SHEET NO. A513

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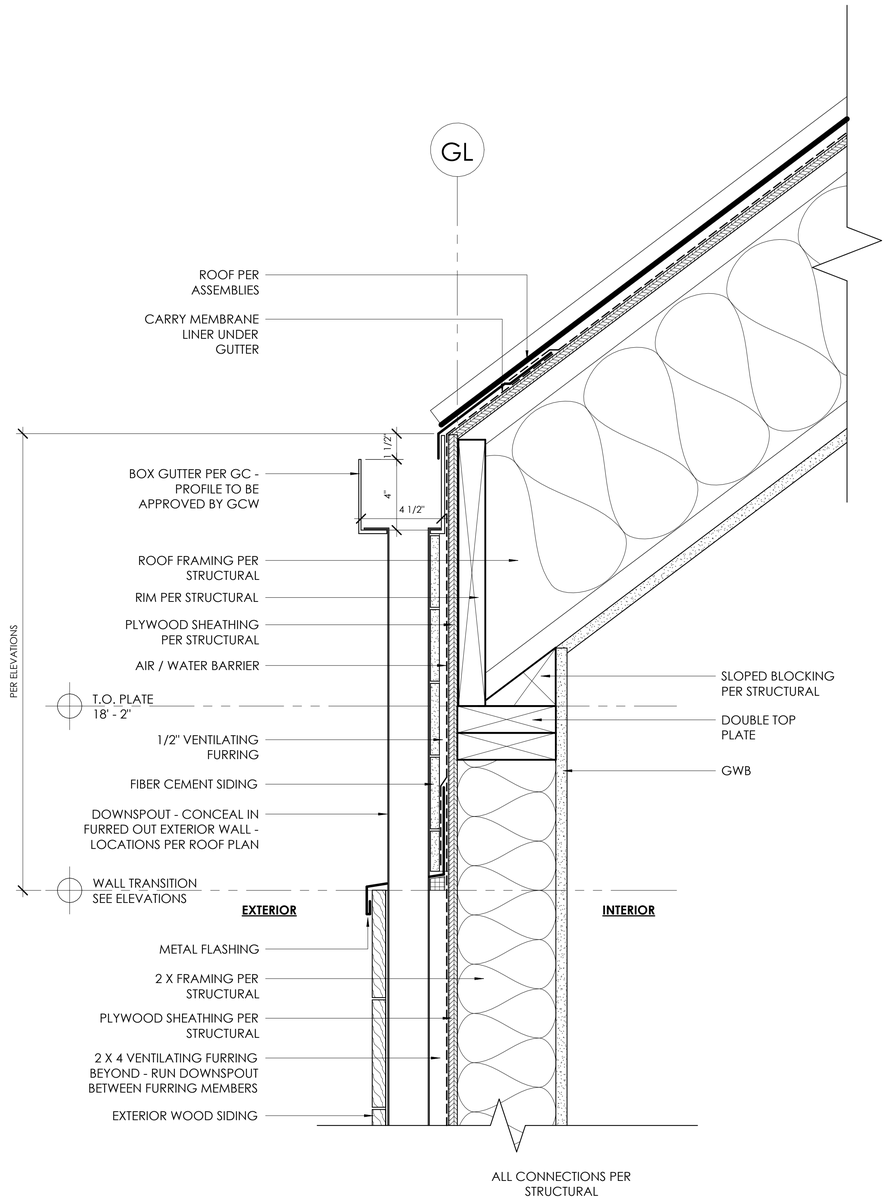
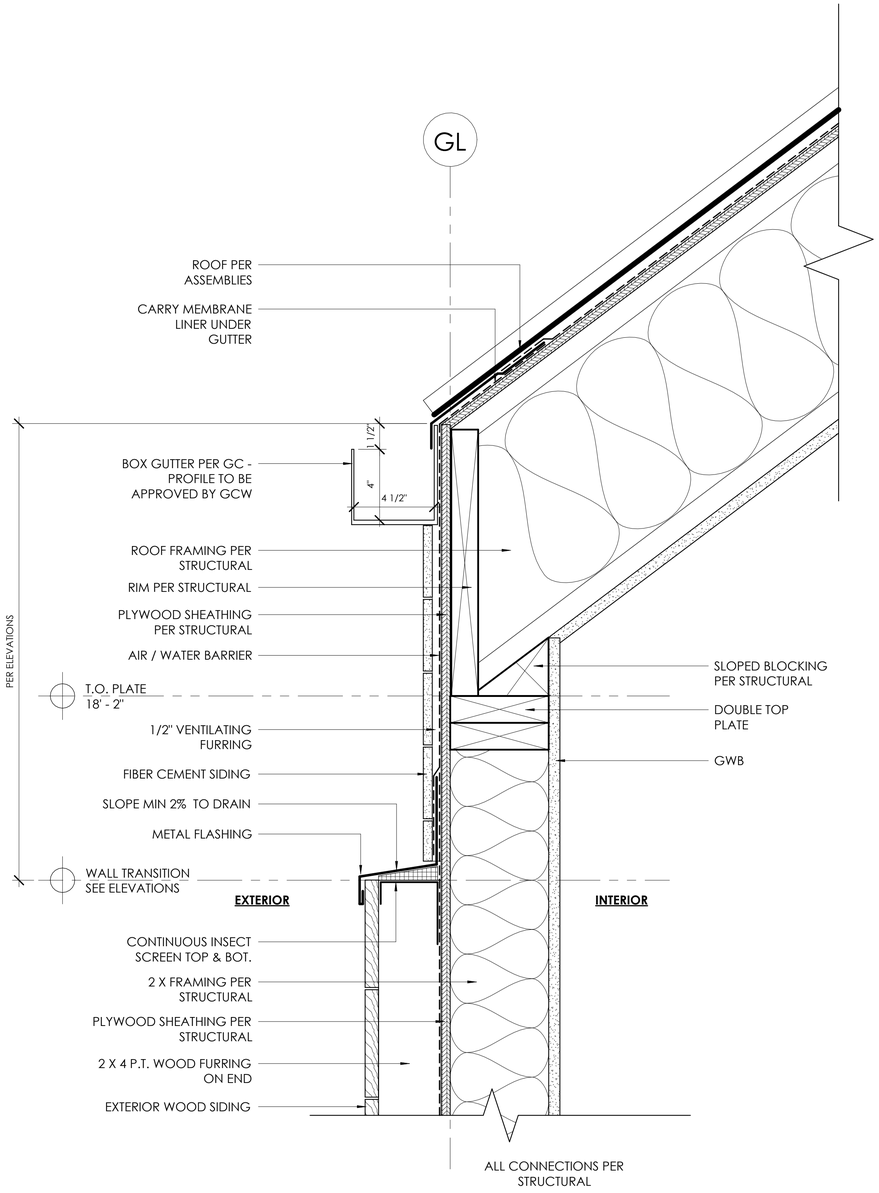


2 TYPICAL GUTTER & DOWNSPOUT DETAIL
3" = 1'-0"



1 TYPICAL GUTTER DETAIL
3" = 1'-0"

DETAIL NOTES

- ALL FINISHES PER ASSEMBLIES AND SPECIFICATIONS
- ALL CONNECTIONS PER STRUCTURAL
- ALL MEMBER SIZES PER STRUCTURAL

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PROJECT

FOO RESIDENCE

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98040

REV	DATE	ISSUE/REVISION
5	5/11/21	CD Set Update
6	10/15/21	CD Set Update
7	1/20/22	CD Set Update

DEDICATED APPROVAL STAMP SPACE

SHEET TITLE

TYPICAL DRAINAGE DETAILS

REVISION NO.

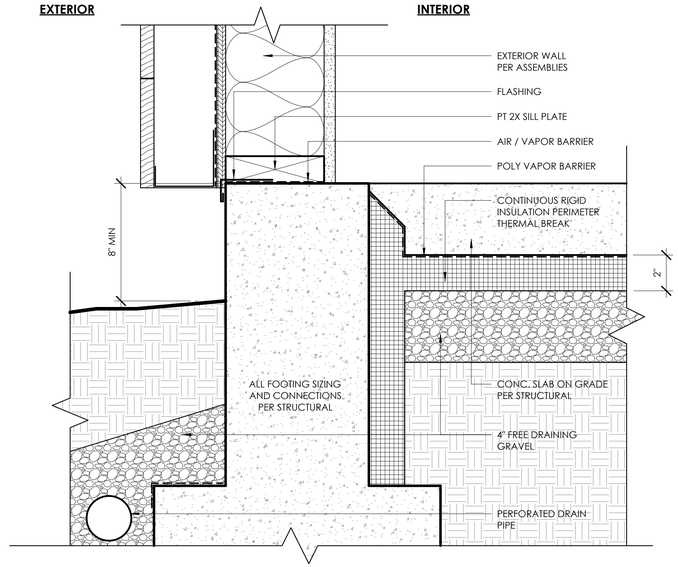
7

SUPERSEDES ALL PREVIOUS REVISIONS

SHEET NO.

A514

9/20/2022 2:33:33 PM



1 TYPICAL THERMAL BREAK @ FOUNDATION
3" = 1'-0"

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3" = 1'-0"	GCW

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3453 74th Ave SE
Mercer Island, WA
98040

REV	DATE	ISSUE/REVISION
5	5/11/21	CD Set Update

DEDICATED APPROVAL STAMP SPACE

SHEET TITLE

FOUNDATION DETAILS

REVISION NO.

5

SUPERSEDES ALL PREVIOUS REVISIONS

SHEET NO.

A516

9/20/2022 2:33:34 PM

WINDOW NOTES

1. Safety glazing (SG) to be provided where required by IRC R308.4. Refer to plans for safety glazing locations. Each pane of safety glazing shall be identified by a label in accordance with the IRC.

2. Emergency escape and rescue openings shall be installed per IRC R310. See plans for locations. All emergency escape and rescue openings shall have a minimum net clear opening of 5.7SF. The minimum net clear opening height shall be no less than 24", clear opening width no less than 20", with a finished sill height not more than 44" above the floor.

3. Window supplier/manufacturer to field verify all rough openings, window divisions, and operation prior to production of all windows.

4. All window finishes per architect. Window supplier to submit color sample for approval by architect/owner.

5. Windows within 10'-0" of grade (or accessible deck) shall be capable of being locked.

6. All glazing to have an area weighted average U-factor of 0.28 max per the WSEC and using the prescriptive option. Manufacturer to confirm during shop drawing process.

7. Safety glazing to be provided when adjacent to stairways and landings within 36" horizontally of a walking surface.

WINDOW SCHEDULE

Mark	Window Type	Sill Height	Width	Height	Area	U-Factor	UA	# of Panes	Glazing	Comments
W001	Casement	3' - 8"	3' - 0"	5' - 0"	15.0 SF	0.28	4.2	1		Egress
W100	Fixed	0' - 0"	6' - 0"	12' - 0"	72.0 SF	0.28	20.2	1	SAFETY GLAZING	
W101	Fixed	0' - 0"	6' - 0"	12' - 0"	72.0 SF	0.28	20.2	1	SAFETY GLAZING	
W102	Fixed	12' - 0"	17' - 6 1/2"	6' - 7"	57.8 SF	0.28	16.2	3	SAFETY GLAZING	Triangular Window
W103	Fixed	10' - 4"	7' - 10"	1' - 8"	13.1 SF	0.28	3.7	1		
W104	Fixed	10' - 4"	7' - 10"	1' - 8"	13.1 SF	0.28	3.7	1		
W105	Fixed	0' - 0"	4' - 6"	12' - 0"	54.0 SF	0.28	15.1	2	SAFETY GLAZING	
W106	Fixed	0' - 0"	4' - 6"	12' - 0"	54.0 SF	0.28	15.1	2	SAFETY GLAZING	
W107	Fixed	12' - 0"	17' - 6 1/2"	6' - 7"	57.8 SF	0.28	16.2	3	SAFETY GLAZING	Triangular Window
W108	Fixed	11' - 4"	8' - 6"	2' - 6"	21.3 SF	0.28	6.0	2		
W109	Fixed	1' - 0 1/2"	8' - 11"	8' - 0"	71.3 SF	0.28	20.0	1	SAFETY GLAZING	
W110	Fixed	9' - 9 1/2"	8' - 11"	8' - 0"	71.3 SF	0.28	20.0	1	SAFETY GLAZING	
W111	Fixed	18' - 6 1/2"	8' - 11"	6' - 10 1/2"	61.3 SF	0.28	17.2	1	SAFETY GLAZING	
W116	Fixed	9' - 0"	8' - 1"	5' - 5"	21.8 SF	0.28	6.1	1		Triangular Window
W117	Fixed	9' - 0"	8' - 1"	5' - 5"	21.8 SF	0.28	6.1	1		Triangular Window
W118	Casement	3' - 0"	2' - 6"	4' - 0"	10.0 SF	0.28	2.8	1	SAFETY GLAZING	Egress
W119	Fixed	0' - 0"	4' - 8"	7' - 0"	32.7 SF	0.28	9.1	1	SAFETY GLAZING	
W120	Fixed	3' - 0"	15' - 0"	2' - 6"	37.5 SF	0.28	10.5	1	SAFETY GLAZING	
W121	Fixed	7' - 4"	15' - 0"	2' - 6"	37.5 SF	0.28	10.5	1	SAFETY GLAZING	
W200	Fixed	3' - 0"	10' - 0"	3' - 8"	36.7 SF	0.28	10.3	1	SAFETY GLAZING	
W202	Fixed	1' - 6"	8' - 0"	4' - 8"	37.3 SF	0.28	10.5	1		
W204	Fixed	8' - 4"	8' - 10 1/4"	2' - 4"	20.6 SF	0.28	5.8	1		
W207	Fixed	8' - 4"	8' - 10 1/4"	2' - 4"	20.6 SF	0.28	5.8	1		
W209	Casement	0' - 7"	4' - 6"	8' - 10"	39.8 SF	0.28	11.1	1	SAFETY GLAZING	Egress
Totals: 24					950.3 SF		266.1			

	Area	UA	Average U-Factor
Total From Window Schedule:	1147.8 SF	321.4	.28
Total From Glazed Door Schedule:	696.0 SF	195.0	.28
Total Vertical Glazing Weighted Average U-Factor:	1843.8 SF	516.4	.28

GLAZED DOOR SCHEDULE

Mark	Function	Description	Thickness	Width	Height	Area	U-Factor	UA	Glazing	Comments
101	Exterior	Glazed Slider 3 Panel XOO	0' - 8 9/16"	18' - 0"	12' - 0"	216 SF	0.28	60 SF	SAFETY GLAZING	
102	Exterior	Glazed Slider 2 Panel XO	0' - 5 7/8"	8' - 6"	11' - 0"	94 SF	0.28	26 SF	SAFETY GLAZING	
103	Exterior	Glazed Slider 4 Panel OXXO	0' - 5 7/8"	16' - 6"	9' - 10"	162 SF	0.28	45 SF	SAFETY GLAZING	
112	Exterior	Glazed Slider 2 Panel XO	0' - 3 13/16"	8' - 9 1/2"	9' - 0"	79 SF	0.28	22 SF	SAFETY GLAZING	EGRESS
113	Exterior	Glazed Slider 2 Panel XO	0' - 3 13/16"	8' - 9 1/2"	9' - 0"	79 SF	0.28	22 SF	SAFETY GLAZING	
122	Exterior	Glazed Slider 2 Panel XO	0' - 5 7/8"	8' - 0"	8' - 0"	64 SF	0.28	18 SF	SAFETY GLAZING	
202	Exterior	Glazed Slider 2 Panel XO	0' - 5 7/8"	8' - 4"	7' - 0"	58 SF	0.28	16 SF	SAFETY GLAZING	EGRESS
206	Exterior	Glazed Slider 2 Panel XO	0' - 3 13/16"	8' - 9 1/2"	8' - 0"	70 SF	0.28	20 SF	SAFETY GLAZING	EGRESS
211	Exterior	Glazed Slider 2 Panel XO	0' - 3 13/16"	8' - 9 1/2"	8' - 0"	70 SF	0.28	20 SF	SAFETY GLAZING	EGRESS
Totals: 10						895 SF		250 SF		

	Area	UA	Average U-Factor
Total From Window Schedule:	1147.8 SF	321.4	.28
Total From Glazed Door Schedule:	696.0 SF	195.0	.28
Total Vertical Glazing Weighted Average U-Factor:	1843.8 SF	516.4	.28

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	GCW

PROJECT

FOO RESIDENCE

3453 74th Ave SE
Mercer Island, WA
98040

REV	DATE	ISSUE/REVISION
2	10/28/20	City Comments
5	5/11/21	CD Set Update
6	10/15/21	CD Set Update
7	1/20/22	CD Set Update

DEDICATED APPROVAL STAMP SPACE

SHEET TITLE

WINDOW SCHEDULE & TYPES

REVISION NO.

7

SUPERSEDES ALL PREVIOUS REVISIONS

SHEET NO.

A601

9/20/2022 2:33:34 PM

DOOR NOTES

1. Safety Glazing (SG) to be provided where required by IRC R308.4. All glazing subject to human impact shall be tempered, safety glazing as required by the IRC. Provide safety glazing in fixed or operable panels adjacent to a door where the nearest exposed edge of the glazing is within a 24" arc of either vertical edge or the door in a closed position and where the bottom edge of the glazing is less than 60" above the walking surface. Provide safety glazing for panels over 9SF and within 18" vertical and 36" horizontal of any walking surface. Provide safety glazing in all shower doors, shower enclosures, bathtub enclosures, or bathtub doors. Glass enclosure doors and panels must be labeled category II, and doors must swing outward. Refer to plans for safety glazing locations. Each pane of safety glazing shall be identified by a label in accordance with the IRC.

2. Door frames and frame anchorage shall be installed according to the conditions of their listing.

3. All exterior doors, except garage doors, to be provided with mortise lock and deadbolt. Minimum 1/2" throw dead latch for doors per IRC R329.

4. All glazed doors to have an area weighted average U-factor of 0.30 max. per the WSEC using the prescriptive option.

5. 1 1/2" maximum threshold for all exterior doors swinging out to the exterior. (IRC R311.3)

6. Exterior doors to have a U-factor of 0.20 max per the WSEC prescriptive option.

7. Fire doors, windows, and dampers shall have an approved label or listing mark, indicating fire-protection rating, which is visible for inspection and permanently affixed at the time of manufacture.

8. All exterior, mechanical room doors shall be insulated, with interlocking low-rise thresholds and weatherstripping.

9. Door thresholds shall not exceed 1/2" in height above finished floor.

10. All bedroom, bathroom, and powder room doors to be provided with privacy locks.

11. Operation, hinging, pocketing or sliding per plans.

12. All interior doors to be painted wood solid core.

13. Door supplier/manufacturer to field verify all rough openings and operation prior to production of the doors.

14. Sizes noted are for reference only, field verify R.O. size before ordering doors.

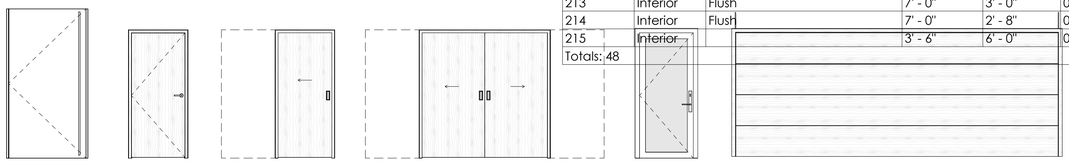
15. Door glazing to be argon filled, 1" 366 I.G.

16. Windows and doors shall limit infiltration per ASTM E 283-73.

DOOR SCHEDULE

Mark	Function	Description	Height	Width	Thickness	Door Type	Hardware Package	Door Material	Comments
001	Interior	Pocket	7' - 0"	4' - 0"	0' - 1 3/8"				
002	Interior	Flush	7' - 0"	3' - 0"	0' - 1 3/8"				
003	Interior	Flush	7' - 0"	3' - 0"	0' - 1 3/8"				
004	Interior	Pocket	7' - 0"	4' - 0"	0' - 1 3/8"				
007									
008									
009									
010									
011									
012									
013									
014									
100	Exterior	Offset Pivot	12' - 0"	4' - 8"	0' - 1 3/4"	ENTRY			
101	Exterior	Glazed Slider 3 Panel XOO	12' - 0"	18' - 0"	0' - 8 9/16"	SAFETY GLAZING			
102	Exterior	Glazed Slider 2 Panel XO	11' - 0"	8' - 6"	0' - 5 7/8"	SAFETY GLAZING			
103	Exterior	Glazed Slider 4 Panel OXXO	9' - 10"	16' - 6"	0' - 5 7/8"	SAFETY GLAZING			
104	Interior	Flush	7' - 0"	3' - 0"	0' - 1 3/8"				
105	Interior	Flush	7' - 0"	3' - 0"	0' - 1 3/8"				
106	Interior	Flush	7' - 0"	3' - 0"	0' - 1 3/8"				1-HOUR FIRE RATED
107	Exterior	Exterior Flush Swing	7' - 0"	3' - 0"	0' - 1 3/8"				
108	Exterior	Garage	7' - 5"	18' - 0"	0' - 1 1/2"				
109	Interior	Pocket	7' - 0"	3' - 0"	0' - 1 3/8"				
110	Interior	Flush	7' - 0"	3' - 0"	0' - 1 3/8"				
111	Exterior	Flush	7' - 0"	3' - 0"	0' - 1 3/8"				
112	Exterior	Glazed Slider 2 Panel XO	9' - 0"	8' - 9 1/2"	0' - 3 13/16"	SAFETY GLAZING			EGRESS
113	Exterior	Glazed Slider 2 Panel XO	9' - 0"	8' - 9 1/2"	0' - 3 13/16"	SAFETY GLAZING			
114	Interior	Flush	7' - 0"	3' - 0"	0' - 1 3/8"				
115	Interior	Flush	7' - 0"	3' - 0"	0' - 1 3/8"				
116	Interior	Pocket	7' - 0"	2' - 6"	0' - 1 3/8"				
117	Interior	Flush	7' - 0"	2' - 6"	0' - 1 3/8"				
118	Exterior	Exterior Flush Swing	7' - 0"	3' - 0"	0' - 1 3/8"				
120	Interior	Exterior Flush Swing	8' - 0"	3' - 0"	0' - 1 3/8"				
122	Exterior	Glazed Slider 2 Panel XO	8' - 0"	8' - 0"	0' - 5 7/8"	SAFETY GLAZING			
200	Interior	Flush	7' - 0"	3' - 0"	0' - 1 3/8"				
202	Exterior	Glazed Slider 2 Panel XO	7' - 0"	8' - 4"	0' - 5 7/8"	SAFETY GLAZING			EGRESS
203	Interior	Flush	7' - 0"	2' - 8"	0' - 1 3/8"				
204	Interior	Flush	7' - 0"	3' - 0"	0' - 1 3/8"				
205	Interior	Flush	7' - 0"	2' - 6"	0' - 1 3/8"				
206	Exterior	Glazed Slider 2 Panel XO	8' - 0"	8' - 9 1/2"	0' - 3	SAFETY GLAZING			EGRESS
208	Interior	Flush	7' - 0"	2' - 6"	0' - 1 3/4"				
209	Interior	Flush	7' - 0"	2' - 6"	0' - 1 3/8"				
210	Interior	Flush	7' - 0"	3' - 0"	0' - 1 3/8"				
211	Exterior	Glazed Slider 2 Panel XO	8' - 0"	8' - 9 1/2"	0' - 3 13/16"	SAFETY GLAZING			EGRESS
212	Interior	Pocket	7' - 0"	4' - 0"	0' - 1 3/8"				
213	Interior	Flush	7' - 0"	3' - 0"	0' - 1 3/8"				
214	Interior	Flush	7' - 0"	2' - 8"	0' - 1 3/8"				
215	Interior		3' - 6"	6' - 0"	0' - 1 1/2"				
Totals: 48									

	Area	UA	Average U-Factor
Total From Window Schedule:	1147.8 SF	321.4	.28
Total From Glazed Door Schedule:	696.0 SF	195.0	.28
Total Vertical Glazing Weighted Average U-Factor:	1843.8 SF	516.4	.28



DOOR TYPES
1/4" = 1'-0"

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GARRET CORD WERNER LLC
ARCHITECTURE | INTERIORS

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SEATTLE WA
98121

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DATE	DRAWN BY
9/20/2022	NLD
SCALE	CHECKED BY
1/4" = 1'-0"	GCW

PROJECT

FOO RESIDENCE

3453 74th Ave SE
Mercer Island, WA
98040

REV	DATE	ISSUE/REVISION
5	5/11/21	CD Set Update
6	10/15/21	CD Set Update
7	1/20/22	CD Set Update

DEDICATED APPROVAL STAMP SPACE

SHEET TITLE

DOOR SCHEDULE & TYPES

REVISION NO. 7

SUPERSEDES ALL PREVIOUS REVISIONS

SHEET NO. A610

9/20/2022 2:33:36 PM

ABBREVIATION

&	AND
@	AT
'	FEET(FOOT)
"	INCH (INCHES)
#	POUND(S), NUMBER
=	EQUAL(S)
/	PER
A.B.	ANCHOR BOLT
ABV.	ABOVE
ADD.	ADDITIONAL
ADJ.	ADJACENT
ALUM.	ALUMINUM
ALT.	ALTERNATE
APPRX.	APPROXIMATE(LY)
ARCH.	ARCHITECT(URAL)
ASSY	ASSEMBLY
B.	BOTTOM
BEL.	BELOW
BEN	BOUNDARY EDGE NAILING
B.F.	BRACED FRAME
BLDG.	BUILDING
BLK.	BLOCK
BLKG.	BLOCKING
BLW.	BELOW
BM.	BEAM
BMU	BRICK MASONRY UNIT
BN	BOUNDARY NAILING
BNDRY.	BOUNDARY
B.O.	BOTTOM OF
B.O.E.	BOTTOM OF EXCAVATION
B.O.F.	BOTTOM OF FOOTING
BRDG.	BRIDGE(ING)
BRG.	BEARING
BTM.	BOTTOM
BTWN.	BETWEEN
C	CAMBER
CAMB.	CAMBER(ED)
CANT.	CANTILEVER(ED)
CF	CUBIC FOOT
C.I.P.	CAST IN PLACE
C.J.	CONSTRUCTION JOINT
CL	CENTER LINE
CLG.	CEILING
CLR.	CLEAR
COL.	COLUMN
CONC.	CONCRETE
CONN.	CONNECTION
CONST.	CONSTRUCTION
CONT.	CONTINUOS
CTSK.	COUNTERSINK
CTR.	CENTER(ED)
CY	CUBIC YARD
d	PENNY(NAILS)
DB	DROPPED BEAM
DBA	DEFORMED BAR ANCHORS
DBL.	DOUBLE
DCW	DEMAND CRITICAL WELD
DEPT.	DEPARTMENT
DET.	DETAIL
DF	DOUGLAS FIR
DIA.	DIAMETER
DIAG.	DIAGONAL
DIAPH.	DIAPHRAGM
DIM.	DIMENSION
DN.	DOWN
D.O.	DITTO(REPEAT)
DP.	DEEP
D.S.	DRAG STRUT
DWG.	DRAWING(S)
DWL.	DOWEL(S)
(E)	EXISTING
EA.	EACH
E.E.	EACH END
E.F.	EACH FACE
E.J.	EXPANSION JOINT
EL.	ELEVATION
ELEV.	ELEVATOR
EMBD.	EMBED(MENT)
EN	EDGE NAIL
ENG.	ENGINEER
EQ.	EQUAL
EQPT.	EQUIPMENT
E.W.	EACH WAY
EXP.	EXPANSION
EXST.	EXISTING
EXT.	EXTERIOR
FAB.	FABRICATION
FB	FLUSH BEAM
FDN.	FOUNDATION
F.F.	FINISH FLOOR
FIN.	FINISH(ED)
FLG.	FLANGE
FLR.	FLOOR
FN	FIELD (FACE) NAIL
F.O.	FINISHED OPENING
F.O.C.	FACE OF CONCRETE
F.O.M.	FACE OF MASONRY
F.O.S.	FACE OF STUD
F.O.W.	FACE OF WALL
FRM.	FRAME(ING)
F.S.	FAR SIDE
FT.	FEET(FOOT)
FRTW	FIRE RETARDANT TREATED WOOD
FTG.	FOOTING
GA.	GAUGE
GALV.	GALVANIZE(D)
GB.	GRADE BEAM
GLB	GLUE LAMINATED BEAM
GRD.	GRADE
GWB	GYPSUM WALLBOARD
GYP.	GYPCRETE
H.	HORIZONTAL
HD	HOLDOWN
H.D.G.	HOT DIPPED GALVANIZED
HDR.	HEADER
HGR.	HANGER
HORZ.	HORIZONTAL
HORIZ.	HORIZONTAL
HR	HEADER
H.S.B.	HIGH STRENGTH BOLT
HT.	HEIGHT
I.D.	INSIDE DIAMETER
I.E.	INVERT ELEVATION
I.F.	INSIDE FACE
IN.	INCHE(S)
INFO.	INFORMATION
INT.	INTERIOR
JST.	JOIST
JT.	JOINT
K	KIPS(1000)
LAT.	LATERAL
LB.	POUND(S)
L.B.	LAG BOLT(S)
LG.	LONG(ITUDINAL)
LGTH.	LENGTH
LGMF	LIGHT GAUGE METAL FRAMING
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LSH	LONG SLOTTED HOLE(S)
LT. WT.	LIGHT WEIGHT
L.W.	LIGHT WEIGHT
MAS.	MASONRY
MASN.	MASONRY
MAT.	MATERIAL
MAX.	MAXIMUM
M.B.	MACHINE BOLT
MBM	METAL BUILDING MANUFACTURER
MECH.	MECHANICAL
M.E.J.	MASONRY EXPANSION JOINT
MEZZ.	MEZZANINE
MFR.	MANUFACTURER
MIN.	MINIMUM
MISC.	MISCELLANEOUS
MTL.	METAL
(N)	NEW
N.L.B.	NON-LOAD BEARING
NO.	NUMBER
N.S.	NEAR SIDE
N.T.S.	NOT TO SCALE
N.W.C.	NORMAL WEIGHT CONCRETE
OC	ON CENTER
O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER
O.F.	OUTSIDE FACE
O.H.	OPPOSITE HAND
OPNG.	OPENING
OPP.	OPPOSITE
ORNT.	ORIENTATE(ION)
OSB	ORIENTED STRAND BOARD
O.W.J.	OPEN WEB JOIST
PAR.	PARALLEL
P/C	PRECAST
PEN	PANEL EDGE NAIL
PERP.	PERPENDICULAR
PL.	PLATE
PL	PROPERTY LINE
PLN	PLAN
PLMBG.	PLUMBING
PLYWD.	PLYWOOD
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
P.T.	PRESERVATIVE TREATED
PT	POST TENSION(ED)
QTY.	QUANTITY
R.	RADIUS
RAD.	RADIUS
RE:	REFERENCE
REF.	REFERENCE
REINF.	REINFORCEMENT(ING)
REQ.	REQUIRED
R.F.	RIGID FRAME
R.O.	ROUGH OPENING
R.S.	ROUGH SAWN
SCH.	SCHEDULE
SCL	STRUCTURAL COMPOSITE WOOD
SCHED.	SCHEDULE
SHT.	SHEET
SIM.	SIMILAR
S.J.	SHRINKAGE CONTROL JOINT
SKW.	SKEW(ED)
S.O.G.	SLAB ON GRADE
SPC.	SPACE(S) (ING)
SPEC.	SPECIFICATION(S)
SQ.	SQUARE
STD.	STANDARD
STGR.	STAGGER
STIFF.	STIFFENER(S)
STIR.	STIRRUP(S)
STL.	STEEL
STRUC.	STRUCTURAL
STRUCT.	STRUCTURAL
SUSP.	SUSPENDED(TION)
SYMM.	SYMMETRICAL
T.	TOP
T.&B.	TOP AND BOTTOM
TEMP.	TEMPORARY
T.&G.	TONGUE AND GROOVE
THK.	THICK(NESS)
THRD.	THREADED
TN	TOE NAIL
T.O.S.	TOP OF SHEATHING(SLAB)
T.O.W.	TOP OF WALL
TRANSV.	TRANSVERSE
T.O.S..	TOP OF STEEL
TYP.	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
U/S	UNDERSIDE
V.	VERTICAL
VERT.	VERTICAL
VIF	VERIFY IN FIELD
W.	WIDE(WIDTH)
W/	WITH
W/O	WITHOUT
WD.	WOOD
W.H.S.	WELDED HEADED STUDS
W.P.	WORK POINT
W.S.	WELDED STUD
WT.	WEIGHT
W.W.F.	WELDED WIRE FABRIC
X-STG	EXTRA STRONG
XX-STG	DOUBLE EXTRA STRONG
YD	YARD

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STRUCTURAL NOTES

01000 - GENERAL REQUIREMENTS
THE STRUCTURAL NOTES SUPPLEMENT THE PLANS AND SPECIFICATIONS. ANY DISCREPANCY FOUND BETWEEN THE DRAWINGS, NOTES, SPECIFICATIONS, SITE CONDITIONS, AND ARCHITECTURAL PLANS SHALL BE REPORTED TO THE ARCHITECT WHO SHALL CORRECT THE DISCREPANCY IN WRITING. ANY WORK COMPLETED AFTER DISCOVERY OF THE DISCREPANCY SHALL BE DONE AT THE CONTRACTOR'S RISK. REFER TO ARCHITECTURAL PLANS FOR OPENINGS, ARCHITECTURAL TREATMENTS, AND DIMENSIONS NOT SHOWN. CONSULT MECHANICAL PLANS FOR DUCTS AND PIPES ETC. NOT SHOWN.

THE CONTRACTOR SHALL PROVIDE BRACING AND SUPPORT REQUIRED FOR TEMPORARY CONSTRUCTION LOADS AND FOR STRUCTURAL COMPONENTS AS REQUIRED DURING ERECTION. BACKFILL BEHIND WALLS SHALL NOT BE PLACED UNTIL THE WALLS ARE PROPERLY SUPPORTED.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF ALL WORK INCLUDING BUT NOT LIMITED TO EXCAVATION, SHORING, AND OTHER WORK WITH ALL UTILITIES AND ADJACENT PROPERTIES. CALL THE UTILITY LOCATE SERVICE PRIOR TO ANY WORK AT 1-800-424-5555.

01001 - CODE REQUIREMENTS
ALL DESIGN AND CONSTRUCTION SHALL CONFORM TO THE 2015 INTERNATIONAL BUILDING CODE AS ADOPTED BY SEATTLE, WASHINGTON.

01100 - DESIGN LOADS
DEAD LOADS:
ACTUAL WEIGHT OF MATERIALS OF CONSTRUCTION AND PERMANENT EQUIPMENT.

FLOOR LIVE LOADS:
FLOORS (RESIDENTIAL) 40 PSF

ROOF LIVE LOADS:
ROOF 20 PSF

DECK LIVE LOAD:
DECK 60 PSF

SNOW LOAD DESIGN DATA:
Pg = 20 PSF, Pf = 20 PSF, Ce = 0.9, Is = 1.0, Ct = 1.0, 25 PSF UNIFORM

WIND DESIGN DATA:

BASIC WIND SPEED	110 MPH (3-SECOND GUST)
WIND IMPORTANCE FACTOR	Iw = 1.0
WIND EXPOSURE	EXPOSURE C
TOPOGRAPHICAL FACTOR	Kzt = 1.6
INTERNAL PRESSURE COEFFICIENT	GCpi = +/- 0.18
COMPONENT/CLADDING WIND PRESSURE	P(C) = 25 PSF

EARTHQUAKE DESIGN DATA:

SEISMIC IMPORTANCE FACTOR	Ie = 1.0	
OCCUPANCY CATEGORY	II	
SPECTRAL RESPONSE ACCELERATIONS	Ss = 1.397	S1 = 0.538
SITE CLASS	D	
SPECTRAL RESPONSE COEFFICIENTS	SDS = 0.92	SD1 = 0.538
SEISMIC DESIGN CATEGORY	D	
WOOD LEVELS - BEARING WALL SYSTEM	R = 6.5	Cs = 0.14
LIGHT FRAMED PLYWOOD SHEAR WALLS		

01200 - FOUNDATIONS - GEOTECHNICAL INVESTIGATION
FOUNDATION DESIGN BASED ON REPORT 20-084 DATED APRIL 9, 2020 PREPARED BY PAN GEO INC.. ALL SITE PREPARATION AND FOUNDATION CONSTRUCTION TO BE PERFORMED PER REPORT. FILLS TO BE COMPACTED TO 95% MODIFIED PROCTOR PER ASTM D-1557.

ALL FOUNDATIONS SHALL BE FOUNDED ON EITHER COMPETENT NATIVE MATERIAL OR BY OTHER MEANS AS DEFINED BY THE GEOTECHNICAL ENGINEER.

WHERE FOOTINGS ARE ALLOWED TO BE FOUNDED ON NATIVE MATERIAL BY THE GEOTECHNICAL ENGINEER, ALLOWABLE BEARING CACITY IS 3,000 PSF. 1/3 INCREASE ALLOWABLE FOR WIND OR SEISMIC LOADS.

GEOTECHNICAL DESIGN PARAMETERS HAVE BEEN COORDINATED WITH PAN GEO INC. AS LISTED BELOW:

DESIGN PARAMETERS FOR RETAINING WALLS WITH FLAT BACKFILL ARE AS FOLLOWS:

ACTIVE EARTH PRESSURE (YIELDING)	50 PCF
ACTIVE EARTH PRESSURE (AT-REST)	50 PCF (1)
PASSIVE EARTH PRESSURE	350 PCF (ALLOWABLE - FS=1.5)
COEFFICIENT OF FRICTION	0.35 (ALLOWABLE - FS=1.5)
SOIL PROFILE	SITE CLASS D
SEISMIC SURCHARGE	UNIFORM 8H
VEHICLE SURCHARGE	2'-0" OF SOIL

ALL FOUNDATION INSTALLATIONS SHALL BE SUBJECT TO APPROVAL OF THE GEOTECHNICAL ENGINEER.

01300 - SHOP DRAWING SUBMITTAL PROCESS
SHOP DRAWINGS ARE TO BE SUBMITTED TO THE ARCHITECT AND ENGINEER OF RECORD FOR APPROVAL PRIOR TO FABRICATION. IF SHOP DRAWINGS DIFFER FROM THE APPROVED DESIGN DRAWINGS, NEW DESIGN DRAWINGS BEARING THE SEAL AND SIGNATURE OF A LICENSED STATE OF WASHINGTON STRUCTURAL ENGINEER SHALL BE SUBMITTED ALONG WITH THE SHOP DRAWINGS TO THE BUILDING OFFICIAL FOR APPROVAL PRIOR TO FABRICATION.

SHOP DRAWINGS ARE REQUIRED FOR ALL STRUCTURAL STEEL AND PROPRIETARY GUARD COMPONENTS.

01400 - INSPECTIONS AND SPECIAL INSPECTIONS
THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE ALL INSPECTIONS REQUIRED BY THE LOCAL BUILDING DEPARTMENT.

SPECIAL INSPECTIONS ARE GENERALLY NOT REQUIRED FOR GROUP R-3 OCCUPANCIES UNLESS OTHERWISE REQUIRED BY THE BUILDING OFFICIAL. HOWEVER, SPECIAL INSPECTIONS ARE REQUIRED FOR STRUCTURAL STEEL WELDING. SHEAR WALLS WITH TIGHTER NAILING THAN 4" O.C. AS WELL AS POST INSTALLED ANCHORS. REFER TO THE INSPECTION TABLES FOR FURTHER DIRECTION.

01500 - STRUCTURAL OBSERVATION
STRUCTURAL OBSERVATION IS NOT REQUIRED.

01600 - QUALITY ASSURANCE REQUIREMENTS
THE QUALITY ASSURANCE PLAN SHALL BE TO VERIFY THAT THE SPECIAL INSPECTIONS NOTED IN SECTION 01400 AND THE STRUCTURAL OBSERVATION NOTED IN SECTION 01500 HAVE BEEN COMPLETED AND THAT SUPPORTING DOCUMENTATION NOTED IN SUCH SECTIONS HAS BEEN PROVIDED.

QUALITY ASSURANCE PLAN IS NOT REQUIRED FOR STRUCTURES OF LIGHT WOOD FRAMING WITH DESIGN SPECTRAL RESPONSE AT SHORT PERIODS, SDS, NOT EXCEEDING 0.50g.

QUALITY ASSURANCE PLAN IS NOT REQUIRED FOR WIND EXPOSURE B WHERE BASIC WIND SPEED IS LESS THAN 120 MPH.

SUMMARY: A QUALITY ASSURANCE PLAN IS NOT REQUIRED BY CODE FOR THIS STRUCTURE.

01700 - EXECUTION REQUIREMENTS
INSTALLATION OF ALL STRUCTURAL COMPONENTS SHALL BE AS REQUIRED PER ALL LOCAL CODES.

02000: SITE CONSTRUCTION
ALL SITE CONSTRUCTION SHALL BE CONSISTENT WITH THE GEOTECHNICAL ENGINEERING RECOMMENDATIONS AS NOTED IN THE GEOTECHNICAL ENGINEERING REPORT (SEE SECTION 01300) AND IN SUBSEQUENT DIRECTIVES.

02100 - EXCAVATION SUPPORT AND PROTECTION
EXCAVATION FOR FOUNDATIONS SHALL BE PER PLAN DOWN TO UNDISTURBED NATIVE MATERIAL PER THE GEOTECHNICAL ENGINEERING RECOMMENDATIONS. OVER-EXCAVATED AREAS SHALL BE BACKFILLED WITH LEAN CONCRETE OR PER GEOTECHNICAL RECOMMENDATIONS AT THE CONTRACTOR'S EXPENSE.

EXCAVATION SLOPES SHALL BE SAFE AND SHALL NOT BE GREATER THAN THE LIMITS SPECIFIED BY LOCAL, STATE, AND NATIONAL SAFETY REGULATIONS.

INSTALLATION OF CONSTRUCTION SHORING, IF REQUIRED, SHALL BE PER THE SHORING DRAWINGS, NOTES, AND SPECIFICATIONS.

02200 - BACKFILL AND COMPACTION
BACKFILL SHALL NOT BE PLACED UNTIL THE REMOVAL OF FORMWORK AND OF ANY DEBRIS. BACKFILL BEHIND ALL WALLS SHALL NOT BE PLACED UNTIL THE WALLS ARE PROPERLY SUPPORTED. ALL BACKFILL MATERIAL AND PLACEMENT PROCEDURES SHALL BE CONSISTENT WITH THE GEOTECHNICAL ENGINEERING RECOMMENDATIONS.CATILEVERED BASEMENT WALLS SHALL CURE FOR A MINIMUM OF 14 DAYS PRIOR TO BACKFILL AND COMPACTION PER THE SOILS REPORT.

03000 - CAST-IN-PLACE CONCRETE
CONCRETE CONSTRUCTION SHALL CONFORM TO THE AMERICAN CONCRETE INSTITUTE STANDARD ACI 318-14 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE".

CEMENT AND CONCRETE SHALL CONFORM TO IBC SECTION 1903. ADMIXTURES SHALL BE APPROVED BY THE ENGINEER OF RECORD AND SHALL COMPLY WITH ACI 318-14
SECTION 3.6. CONCRETE EXPOSED TO FREEZING AND THAWING SHALL HAVE AN AIR ENTRAINING ADMIXTURE CONFORMING TO IBC SECTION 1904.2. THE USE OF WATER SOLUBLE CHLORIDE ION SHALL NOT BE USED.

CONCRETE MIX DESIGNS SHALL MEET THE FOLLOWING REQUIREMENTS:
(1) 28 DAY MAX. STRENGTH f'c [PSI] (2) MAX. WATER / CEMENT RATIO (3) MAX. SLUMP [IN] (4) AIR ENTRAINMENT [%] (5) SPECIAL INSPECTION REQUIRED (6) MIN. 90 LB SACKS OF CEMENT (7) LOCATION AND APPLICATION.

(1)	(2)	(3)	(4)	(5)	(6)	(7)
3000	0.45	4+/-1	5+/-1	NO		EXTERIOR SLAB ON GRADE
3000	0.45	4+/-1	0+/-1	NO		INTERIOR SLAB ON GRADE
3000	0.50	5+/-1	0+/-1	NO		FOOTINGS
3000	0.45	5+/-1	5+/-1	NO		STEMS
3000	0.50	5+/-1	5+/-1	NO		ALL OTHER CONCRETE

SPECIAL INSPECTION IS NOT REQUIRED AS THE DESIGN IS BASED ON f'c = 2500 PSI.

CHAMFER ALL EXPOSED CORNERS PER THE ARCHITECTURAL PLANS OR 3/4 INCH IF NOT SPECIFIED BY THE ARCHITECT.

03100 - REINFORCING STEEL
REINFORCING STEEL DETAILING, FABRICATION, AND PLACEMENT SHALL BE PER ACI 318-14. REINFORCING STEEL SHALL MEET THE FOLLOWING REQUIREMENTS:

ASTM A-615 DEFORMED BARS GRADE 40 (fy=40 KSI) FOR #3 BARS ONLY
ASTM A-615 DEFORMED BARS GRADE 60 (fy=60 KSI) FOR #4 BARS AND LARGER
ASTM A-706 DEFORMED BARS GRADE 60 (fy=60 KSI) FOR ALL WELDABLE BARS
ASTM A-1064 SMOOTH BAR (fy=60 KSI) FOR WELDED WIRE FABRIC

REINFORCING FOR SLABS ON GRADE SHALL BE 6X6 W1.4XW1.4 WELDED WIRE FABRIC OR FIBER MESH UNLESS NOTED OTHERWISE. PROVIDE LAP SPLICES PER THE LAP SPLICE SCHEDULE ON SHEET S6.0. REINFORCING STEEL AT ALL WALLS, SLABS, AND FOOTINGS SHALL BE CONTINUOUS AROUND CORNERS ELSE CORNER BARS SHALL BE PROVIDED.

COVER REQUIREMENTS SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE:

CONCRETE CAST AGAINST EARTH
ALL BAR SIZES . . . . 3"
FORMED SURFACE EXPOSED TO EARTH OR WEATHER
#6 AND LARGER . . . . 2"
#5 AND SMALLER . . . . .1 1/2"
CONCRETE NOT EXPOSED TO EARTH OR WEATHER
WALLS AND JOISTS
#14 AND #18 BARS . . . . .1 1/2"
#11 BARS AND SMALLER . . . . 3/4"
SLABS AND JOISTS
#14 AND #18 BARS . . . . .1 1/2"
#11 BARS AND SMALLER . . . . 1"
BEAMS, COLUMNS
PRIMARY REINFORCEMENT . . . . . .1 1/2"
TIES, STIRRUPS, AND SPIRALS . . . 1 1/2"

REINFORCING STEEL SHALL BE ACCURATELY PLACED AND ADEQUATELY SECURED IN PLACE PRIOR TO CONCRETE PLACEMENT. REINFORCING STEEL SHALL NOT BE FIELD BENT EXCEPT AS NOTED IN THE DESIGN DRAWINGS. WELDING OF REINFORCING STEEL SHALL NOT BE PERMITTED WITHOUT PRIOR APPROVAL OF THE ENGINEER OF RECORD EXCEPT AS NOTED ON THE DESIGN DRAWINGS.

03200 - CONCRETE WALL REINFORCING
PLACE TWO HORIZONTAL #5 BARS AT EACH FLOOR LEVEL OR TOP OF WALL ELEVATION. PROVIDE CORNER BARS TO MATCH HORIZONTAL REINFORCEMENT AT EACH WALL CORNER AND INTERSECTION. PROVIDE TWO VERTICAL #5 BARS AT EACH WALL CORNER AND INTERSECTION. AT ALL WALL OPENINGS PROVIDE TWO #5 BARS OVER, UNDER, AND AT THE SIDES OF THE OPENINGS. EXTEND THE HORIZONTAL BARS THE LAP SPLICE DISTANCE PAST THE OPENING OR EXTEND AS FAR AS POSSIBLE AND HOOK. PROVIDE ONE #5 BAR BY 4'-0" LONG DIAGONALLY AT EACH CORNER OF THE WALL OPENING. ALL CONCRETE SHALL BE PLACED AND CONSOLIDATED WALLS SHALL BE REINFORCED PER SCHEDULE BELOW U.N.O.:

WALL THICKNESS	HORIZONTAL	VERTICAL	LOCATION
6"	#4 AT 14"OC	#5 AT 18"OC	CENTERLINE
8"	#4 AT 10"OC	#5 AT 15"OC	CENTERLINE
10"	#4 AT 16"OC	#5 AT 18"OC	EACH FACE
12"	#4 AT 12"OC	#5 AT 18"OC	EACH FACE

05000 - STRUCTURAL STEEL
DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION "AISC 360-10 SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS". MATERIALS SHALL BE IN ACCORDANCE WITH THE FOLLOWING U.N.O.:

STRUCTURAL W SHAPE	ASTM A-992	Fy = 50 KSI
S, M, AND C SHAPES	ASTM A-36	Fy = 36 KSI
STEEL ANGLES	ASTM A-36	Fy = 36 KSI
PLATE MATERIAL	ASTM A-36	Fy = 36 KSI
STRUCTURAL PIPE	ASTM A-53 GRADE B	Fy = 35 KSI
STRUCTURAL HSS	ASTM A-500 GRADE B	Fy = 46 KSI
ANCHOR RODS	ASTM F1554	Fy = 36 KSI
WOOD CONNECTION BOLTS	ASTM A-307 GRADE A	
WELDING ELECTRODES	E7018	

ALL WELDING SHALL CONFORM TO THE AWS D1.4 "STRUCTURAL WELDING CODE". ALL WELDING SHALL BE PERFORMED BY A WASHINGTON ASSOCIATION OF BUILDING OFFICIALS (WABO) AND AMERICAN WELDING SOCIETY (AWS) CERTIFIED WELDERS. ALL COMPLETE PENETRATION (CP) WELDS SHALL BE ULTRASONICALLY TESTED. ALL FILLET WELDS SHALL BE VISUALLY INSPECTED RE: S1.3.

STRUCTURAL STEEL AND CONNECTIONS EXPOSED TO WEATHER SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION IN COMPLIANCE WITH ASTM A-123. ALL FIELD WELDS EXPOSED TO WEATHER SHALL BE COATED WITH BRUSH APPLIED ZINC-RICH PAINT COMPLYING WITH ASTM A-780.

ALL STRUCTURAL STEEL TO RECEIVE ONE COAT OF PAINT (PRIME COAT). PROVIDE A MINIMUM FRY-FILM THICKNESS OF ONE MIL. PREPARE SURFACE TO MEET REQUIREMENTS OF SSPC-SP2. TOUCHUPS OF ABRASIONS ARE THE RESPONSIBILITY OF THE CONTRACTOR. UNO. REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION RELATING TO FINISH PAINT OR OTHER FINISH REQUIREMENTS.

06000 - WOOD FRAMING NOTES
FRAMING CONNECTORS, ACCESSORIES, AND FASTENERS AS NOTED IN THE PLANS AND DETAILS SHALL BE AS MANUFACTURED BY SIMPSON STRONG-TIE. EQUIVALENT HARDWARE MY BE USED WITH PRIOR APPROVED BY ENGINEER OF RECORD. INSTALL ALL HARDWARE PER MANUFACTURERS SPECIFICATIONS. WHERE STRAPS CONNECT TWO MEMBERS TOGETHER, PLACE HALF OF THE REQUIRED FASTENERS INTO EACH MEMBER. PROVIDE SOILD BLOCKING AT ALL BEARING POINTS. SEE SECTION 06100 FOR FASTENER REQUIREMENTS AT TREATED LUMBER. TYPICAL NAILING NOT SHOWN PER PLAN, DETAIL, OR SCHEDULE SHALL CONFORM TO FASTENING SCHEDULE PER IBC TABLE 2304.10.1 OR TO THE FASTENING SCHEDULE ON SHEET S9.0.

NAILS SHALL BE COMMON UNLESS NOTED OTHERWISE COMMON NAIL DIMENSIONS ARE AS FOLLOWS:

NAIL SIZE	DIAMETER	LENGTH
8d	0.131"	2 1/2"
10d	0.148"	3"
12d	0.148"	3 1/4"
16d	0.162"	3 1/2"

UNLESS NOTED OTHERWISE PER SHEARWALL SCHEDULE OR PLANS. ANCHOR BOLTS AT SILL PLATES SHALL BE 5/8 INCH DIAMETER WITH 7 INCHES MINIMUM EMBEDMENT INTO CONCRETE AND SHALL BE SPACED NOT MORE THAN 4 FEET APART. THERE SHALL BE A MINIMUM OF TWO BOLTS PER SILL PIECE WITH ONE BOLT LOCATED NOT MORE THAN 12 INCHES NOR LESS THAN 4 1/2 INCHES FROM EACH END OF THE PIECE. A 3"x3"x1/4" PLATE WASHER SHALL BE PROVIDED FOR ALL ANCHOR BOLTS (COUNTERSINK PLATE WASHERS SHALL NOT BE ALLOWED).

06100 - ROUGH FRAMING
SAWN LUMBER SHALL CONFORM TO WEST COAST LUMBER INSPECTION BUREAU (WCLIB) "GRADING AND DRESSING RULES" NO. 17 LATEST EDITION. SAWN LUMBER SHALL BE S4S AND SURFACED DRIED, 19 PERCENT MAXIMUM MOISTURE CONTENT. PROTECT LUMBER FROM WEATHER AND PROVIDE FURTHER DRYING OF ASSEMBLED FRAMING TO MINIMIZE WOOD SHRINKAGE POTENTIAL. ALL LUMBER EXPOSED TO WEATHER OR IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESERVATIVE TREATED U.N.O. PER PLAN. LUMBER SPECIES, GRADE, AND PROPERTIES FOR EACH USE/LOCATION SHALL BE AS FOLLOWS U.N.O. PER PLAN/SCHEDULE:

USE/LOCATION	SPECIES	GRADE	Fb (PSI)	Fv (PSI)	Fcp (PSI)	Fc (PSI)	E (PSI)
WALL STUDS/BLOCKING							
2X, 3X 4" WIDE	HEM-FIR	STUD	675	150	405	800	1.2E6
2X, 3X 6" & WIDER	HEM-FIR	NO. 2	850	150	405	1300	1.3E6
WALL PLATES							
2X4, 3X4	HEM-FIR	STUD	675	150	405	800	1.2E6
2X6, 3X6	HEM-FIR	NO. 2	850	150	405	1300	1.3E6
JOISTS							
2X, 3X	HEM-FIR	NO. 2	850	150	405	1300	1.3E6
LEDGERS							
2X, 3X	DOUGLAS FIR-LARCH	NO. 2	900	180	625	1350	1.6E6
4X	DOUGLAS FIR-LARCH	NO. 1	1000	180	625	1500	1.7E6
BEAMS AND POSTS							
4X	DOUGLAS FIR-LARCH	NO. 2	900	180	625	1350	1.6E6
6X	DOUGLAS FIR-LARCH	NO. 1	1200	170	625	1000	1.6E6

06102: FRAMING NOTES
FRAMING CONNECTORS, ACCESSORIES, AND FASTENERS AS NOTED IN THE PLANS AND DETAILS SHALL BE AS MANUFACTURED BY SIMPSON STRONG-TIE. EQUIVALENT HARDWARE MAY BE USED WITH PRIOR APPROVAL BY ENGINEER OF RECORD. INSTALL ALL HARDWARE PER MANUFACTURERS' SPECIFICATIONS. WHERE STRAPS CONNECT TWO MEMBERS TOGETHER, PLACE HALF OF THE REQUIRED FASTENERS INTO EACH MEMBER. PROVIDE SOLID BLOCKING AT ALL BEARING POINTS. SEE SECTION 06200 FOR FASTENER REQUIREMENTS AT TREATED LUMBER. TYPICAL NAILING NOT SHOWN PER PLAN, DETAIL, OR SCHEDULE SHALL CONFORM TO FASTENING SCHEDULE PER IBC TABLE 2304.10.1 OR TO THE FASTENING SCHEDULE ON SHEET S9.0.

NAILS SHALL BE COMMON UNLESS NOTED OTHERWISE COMMON NAIL DIMENSIONS ARE AS FOLLOWS:

NAIL SIZE	DIAMETER	LENGTH
8d	0.131"	2.5"
10d	0.148"	3.0"
12d	0.148"	3.25"
16d	0.162"	3.5"

UNLESS NOTED OTHERWISE PER SHEARWALL SCHEDULE OR PLANS, ANCHOR BOLTS AT SILL PLATES SHALL BE 5/8" DIAMETER WITH 7" MINIMUM EMBEDMENT INTO CONCRETE AND SHALL BE SPACED NOT MORE THAN 4 FEET APART. THERE SHALL BE A MINIMUM OF TWO BOLTS PER SILL PIECE WITH ONE BOLT LOCATED NOT MORE THAN 12" NOR LESS THAN 4.5" FROM EACH END OF THE PIECE. A 3"X3"X0.229" PLATE WASHER SHALL BE PROVIDED FOR ALL ANCHOR BOLTS (DO NOT COUNTER-SINK PLATE WASHERS). A 13/16" X 1 3/4" DIAGONAL SLOTTED HOLE IN THE 3" X 3" PLATE WASHER IS ALLOWED WITH A STANDARD CUT WASHER.

06200 - PRESERVATIVE TREATED WOOD PRODUCTS
PRESERVATIVE TREATED WOOD SHALL BE REQUIRED FOR ALL WOOD THAT FORMS THE STRUCTURAL SUPPORT OF THE BUILDING, BALCONIES PORCHES, OR SIMILAR PERMANENT BUILDING APPURTENANCES THAT ARE EXPOSED TO THE WEATHER WITHOUT ADEQUATE PROTECTION FROM A ROOF, EAVE, OVERHANG OR OTHER COVERING TO PREVENT MOISTURE OR WATER ACCUMULATION AT THE SURFACE OR AT JOINTS BETWEEN MEMBERS.

ALL WOOD INSTALLED ABOVE GROUND AND RESTING ON AN EXTERIOR CONCRETE OR MASONRY FOUNDATION WALL LESS THAN 8 INCHES FROM EXPOSED EARTH.

POSTS OR COLUMNS SUPPORTING PERMANENT STRUCTURES AND SUPPORTED BY A CONCRETE SLAB OR FOOTING THAT IS IN DIRECT CONTACT WITH THE EARTH. EXCEPT;

1. IF LOCATED IN BASEMENTS ON A CONCRETE PIER OR METAL PEDESTAL 1 INCH ABOVE THE SLAB AND SEPARATED THEREFROM BY AN IMPERVIOUS MOISTURE BARRIER.
2. IF IN AN ENCLOSED CRAWL SPACE OR AN UNEXCAVATED AREA WITHIN THE BUILDING PERIPHERY AND SUPPORTED BY A CONCRETE PIER OR PEDESTAL MORE THAN 8 INCHES FROM EXPOSED GROUND AND SEPARATED THEREFROM BY AN IMPERVIOUS MOISTURE BARRIER.
3. SLEEPERS AND SILLS ON A CONCRETE SLAB ON GRADE THAT DOES NOT HAVE AN IMPERVIOUS MOISTURE BARRIER SEPARATION WITH EXPOSED EARTH.
4. LEDGERS AND FURRING ATTACHED DIRECTLY TO THE INTERIOR OF EXTERIOR CONCRETE OR MASONRY WALLS BELOW GRADE.

PRESERVATIVE TREATMENT SHALL BE PER AMERICAN WOOD PRESERVERS' ASSOCIATION (AWPA) SPECIFICATION C2 AND C9 OR APPLICABLE STANDARDS.

ALL FASTENERS (NAILS, BOLTS, ANCHOR BOLTS, PLATES, HANGERS, ETC.) IN CONTACT WITH TREATED LUMBER SHALL BE CORROSION RESISTANT G-185 HOT DIPPED GALVANIZED PER ASTM A153 OR STAINLESS STEEL.

06300 - JOIST AND BEAM HANGERS
JOIST AND BEAM HANGERS AS NOTED IN THE PLANS SHALL BE AS MANUFACTURED BY SIMPSON STRONG-TIE. EQUIVALENT HARDWARE MAY BE USED WITH PRIOR APPROVAL BY ENGINEER OF RECORD. JOIST AND BEAM HANGERS SHALL BE INSTALLED PER MANUFACTURERS' SPECIFICATIONS AND SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE PER PLANS OR DETAILS:

MEMBER SIZE	HANGER
SAWN LUMBER	LUS OR HUS SERIES TO MATCH LUMBER SIZE WHERE NOT NOTED SPECIFICALLY BELOW
I JOIST-FLOOR	11 7/8" TJI 110 IUS 1.81 / 11.88 W/(10) 10d (0.148"DIA. x 3") FACE W/WEB STIFFENERS ADD (2) 0.148"DIA. x 1 1/2" JOIST IN TRIANGLE HOLES. PROVIDE 0.148"DIA. x 3" CLINCHED NAILS AT 1 1/2" LSL RIM BOARDS. MIN. WEB STIFFENER SIZE (EACH SIDE OF WEB) 5/8" x 2 5/16" W/(3) 0.113" DIA. x 2 1/2"
I JOIST-SLOPING ROOF	11 7/8" TJI 110 LSSU125 W/(10) 10d FACE; W/(7) 10d x 1 1/2" JOIST MIN. WEB STIFFENER SIZE (EACH SIDE OF WEB) 5/8" x 2 5/16" W/(3) 0.113" DIA. x 2 1/2"

GLUED LAMINATED BEAMS (H = BEAM DEPTH TYPICAL) (DF CAPACITY / HF CAPACITY)

3 1/8"	LGU3.25-SDS W/(16) SDS 1/4x2 1/2" FACE, (12) SDS 1/4x2 1/2" JOIST	(6720 / 4840)
3 1/2"	HGU3.63-SDS W/(36) SDS 1/4x2 1/2" FACE, (24) SDS 1/4x2 1/2" JOIST	(14145 / 10185)
5 1/8"	HGU5.25-SDS W/(36) SDS 1/4x2 1/2" FACE, (24) SDS 1/4x2 1/2" JOIST	(14145 / 10185)
5 1/4"	HHGU5.50-SDS W/(44) SDS 1/4x2 1/2" FACE, (28) SDS 1/4x2 1/2" JOIST	(17845 / 12850)
5 1/2"	HHGU5.62-SDS W/(44) SDS 1/4x2 1/2" FACE, (28) SDS 1/4x2 1/2" JOIST	(17845 / 12850)
6 3/4"	HHGU7.00-SDS W/(44) SDS 1/4x2 1/2" FACE, (28) SDS 1/4x2 1/2" JOIST	(17845 / 12850)
8 3/4"	HHGU9.00-SDS W/(44) SDS 1/4x2 1/2" FACE, (28) SDS 1/4x2 1/2" JOIST	(17845 / 12850)
10 3/4"	HHGU11.00-SDS W/(44) SDS 1/4x2 1/2" FACE, (28) SDS 1/4x2 1/2" JOIST	(18480 / 13305)

LSL

1 1/2" x 11 7/8"	MIU1.56/11 W/(20) 16d FACE, (2) 10d x 1 1/2" JOIST	(2880)
(2) 1 3/4" x 11 7/8"	HHUS410 W/(30) 16d FACE, (10) 16d JOIST	(5635)
3 1/2" x 11 7/8"	HHUS410 W/(30) 16d JOIST	(5635)

PROVIDE HUC HANGER FOR BEAM SIZE SPECIFIED FOR END OF BEAM CONDITIONS.

06400 - SHRINKAGE OF WOOD FRAMING
SHRINKAGE IN WOOD FRAMING IS DUE TO LOSS OF MOISTURE CONTENT AND TO COMPRESSION OF ASSEMBLIES OF WOOD COMPONENTS. PLUMBING, ELECTRICAL, AND MECHANICAL SYSTEMS AS WELL AS EXTERIOR FINISHES SHALL BE DESIGNED AND BUILT TO ACCOMMODATE 1/4 INCH PER FLOOR WOOD SHRINKAGE. THE USE OF KILN DRIED LUMBER AND PROVIDING A DRYING PROCESS TO THE FRAMING MEMBERS PRIOR TO APPLICATION OF FINISHES WILL HELP CONTROL BUT WILL NOT ELIMINATE SHRINKAGE.

06500 - WOOD SHEATHING
STRUCTURAL WOOD SHEATHING PANELS SHALL HAVE APA GRADE TRADEMARK OF THE AMERICAN PLYWOOD ASSOCIATION. WOOD SHEATHING PANELS SHALL BE C-D INT APA WITH EXTERIOR GLUE (CDX). ORIENTED STRAND BOARD (OSB) PANELS SHALL BE EXPOSURE 1. PANELS SHALL HAVE THE FOLLOWING THICKNESS, SPAN RATING, AND FASTENING UNLESS NOTED OTHERWISE PER PLAN:

		EDGE NAILS	FIELD NAILS
ROOF:	5/8" 40/20 C-D APA CDX	8d AT 6"	8d AT 12"
FLOOR:	3/4" 48/24 C-D T&G	10d AT 6"	10d AT 12"
SHEARWALL:	7/16" C-D EXTERIOR GLUE	SEE SCHEDULE SHEET S1.1	
EXTERIOR WALL:	7/16" D-D EXTERIOR GLUE	10d AT 6"	10d AT 12"

ALL ROOF SHEATHING PANELS SHALL BE INSTALLED FACE GRAIN PERPENDICULAR TO SUPPORTS AND IN A STAGGERED PATTERN UNLESS NOTED OTHERWISE PER PLAN. BLOCKING AT INTERMEDIATE FLOOR AND ROOF SHEATHING JOINTS SHALL NOT BE REQUIRED UNLESS NOTED OTHERWISE PER PLAN. SHEARWALL SHEATHING SHALL BE BLOCKED AT ALL EDGES WITH 2X OR 3X FRAMING PER SHEARWALL SCHEDULE.

06610 - SHOP FABRICATED METAL PLATE CONNECTED WOOD TRUSSES (9)
RE: S1.3

06620 - STRUCTURAL GLUED LAMINATED TIMBER
GLUED-LAMINATED MEMBERS SHALL HAVE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION (AITC) IDENTIFICATION MARK. EXPOSED MEMBERS SHALL RECEIVE ONE COAT OF END SEALER APPLIED IMMEDIATELY AFTER TRIMMING IN EITHER SHOP OR FIELD. DESIGN MATERIAL PROPERTIES SHALL BE AS FOLLOWS:

USE	COMBINATION SYMBOL	SPECIES	CAMBER
SIMPLE SPAN BEAM	24F-V4	DF/DF	STANDARD
CONTINUOUS BEAM	24F-V8	DF/DF	ZERO
CANTILEVER BEAM	24F-V8	DF/DF	ZERO

UNEXPOSED GLUED-LAMINATED TIMBER SHALL BE INDUSTRIAL GRADE. TYPICAL, UNLESS NOTED OTHERWISE. EXPOSED GLUED LAMINATED TIMBER SHALL BE APPEARANCE CLASS PER ARCHITECT.

06630 - STRUCTURAL COMPOSITE LUMBER (SCL)
STRUCTURAL COMPOSITE LUMBER SHALL CONFORM TO ALL PERTINENT PROVISIONS OF ASTM D5456 AND SHALL BE THE SIZE AND TYPE SHOWN ON THE DRAWINGS AS MANUFACTURED BY ILEVEL TRUS JOIST OR APPROVED EQUAL. STORAGE, ERECTION, AND INSTALLATION SHALL BE PER MANUFACTURER SPECIFICATIONS. ALL MEMBERS SHALL NOT HAVE NOTCHES OR DRILLED HOLES WITHOUT PRIOR ENGINEER OF RECORD APPROVAL.
ALLAOWABLE DESIGN MATERIAL PROPERTIES SHALL BE AS FOLLOWS (ALL UNITS ARE IN PSI):

ORIENTATION	Fb	Fv	Fc(perp)	Fc	E
TIMBERSTRAND LAMINATED STRAND LUMBER (LSL)					
COLUMN	1700	400	680	1400	1.3E6
PLANK	1900	150	435	1400	1.3E6
BEAM	2325	310	800	2050	1.55E6
RIM	2325	310	800	2050	1.55E6
MICROLAM LAMINATED VENEER LUMBER (LVL)					
BEAM	2600	NA	NA	2500	1.9E6
PARALLAM PARALLEL STRAND LUMBER (PSL)					
COLUMN	2400	NA	NA	2500	1.8E6
BEAM	2900	290	750	2900	2.0E6

06640 - PREFABRICATED PLYWOOD WEB JOISTS
PREFABRICATED PLYWOOD WEB JOISTS SHALL BE THE SIZE AND TYPE SHOWN ON THE DRAWINGS AS MANUFACTURED BY TRUS-JOIST OR APPROVED EQUAL. STORAGE, ERECTION, AND INSTALLATION SHALL BE PER MANUFACTURER SPECIFICATIONS. JOIST FLANGES SHALL NOT BE CUT. DRILLED HOLES IN WEB SHALL BE PER MANUFACTURER REQUIREMENTS. DESIGN LOADING AND DEFLECTION CRITERIA SHALL BE AS FOLLOWS:

TOP CHORD LIVE LOAD	SEE LIVE LOADS IN SECTION 01100
TOP CHORD DEAD LOAD	12 PSF + (14 PSF GYPCRETE)
BOTTOM CHORD DEAD LOAD	6 PSF
MECHANICAL LOADS	SEE MECHANICAL PLANS
LIVE LOAD DEFLECTION	L/480

08100 - EPOXY ADHESIVE ANCHORS
CONCRETE
EPOXY SPECIFIED IN THE DRAWINGS SHALL BE SIMPSON STRONG-TIE SET-XP EPOXY ADHESIVE. ANCHOR ROD, THREADED ROD, OR REINFORCING DIAMETER AND EMBEDMENT PER PLAN. INSTALLATION PER ESR-2508.

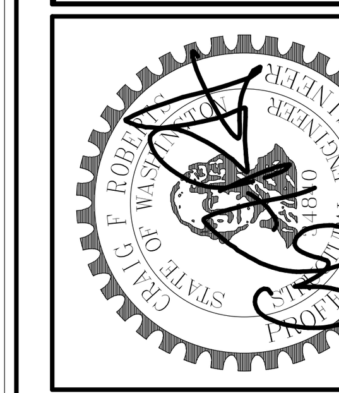
08200 - EXPANSION ANCHORS
CONCRETE
EXPANSION ANCHORS SPECIFIED IN THE DRAWINGS SHALL BE SIMPSON STRONG-TIE STRONG-BOLT WEDGE ANCHOR. ANCHOR DIAMETER AND EMBEDMENT PER PLAN. INSTALLATION PER SECTION 4.3 OF ESR-1771.

08300 - SCREW ANCHORS
CONCRETE
SCREW ANCHORS SPECIFIED IN THE DRAWINGS SHALL BE SIMPSON STRONG-TIE TITEN HD. ANCHOR DIAMETER AND EMBEDMENT PER PLAN. INSTALLATION PER ESR-2713.

5

STRUCTURAL DRAWING LIST

CT ENGINEERING INC.
Structural Engineers
180 Nickerson Street Suite 302 Seattle, WA 98109
206.285.4512 (V) 206.285.0618 (F)
www.ctengineering.com



06/11/20

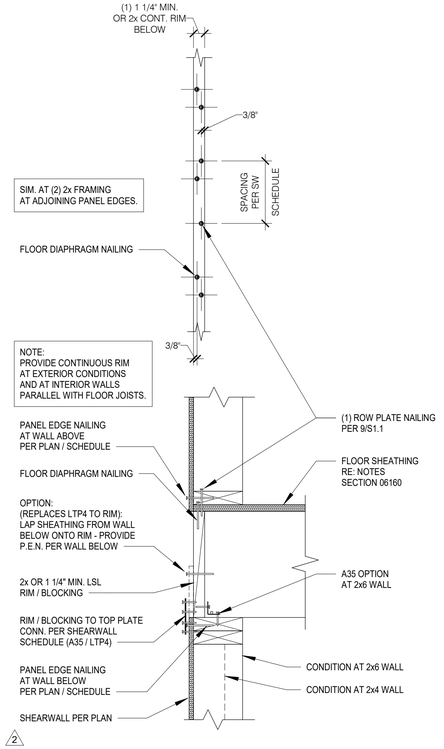
No.	REVISION	DATE
1	RESPONSE TO CITY COMMENTS	01.08.2021
9	CA Re Issue	06.07.2022

JOB #: 20035
ENG: BJM
CAD: JMA
SCALE: 3/4" = 1'-0"
KEY ISSUE DATES:
SD: SD
DD: DD
CD: CD
PERMIT: 06.11.2020
OTHER: BD

Structural Notes
Foo Residence
3453 74th Ave SE
Mercer Island, WA 98040

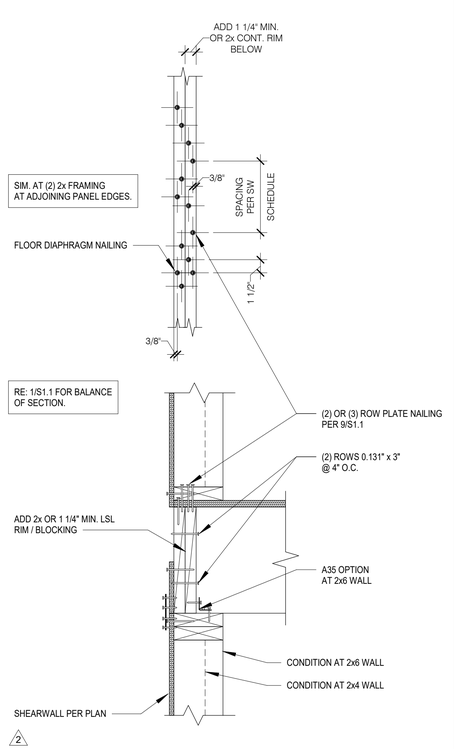
S1.0

9/6/2022 4:17:15 PM
M:\20035 Foo Residence\STRUCT\20035 Foo Residence (R23)- SOG.rvt



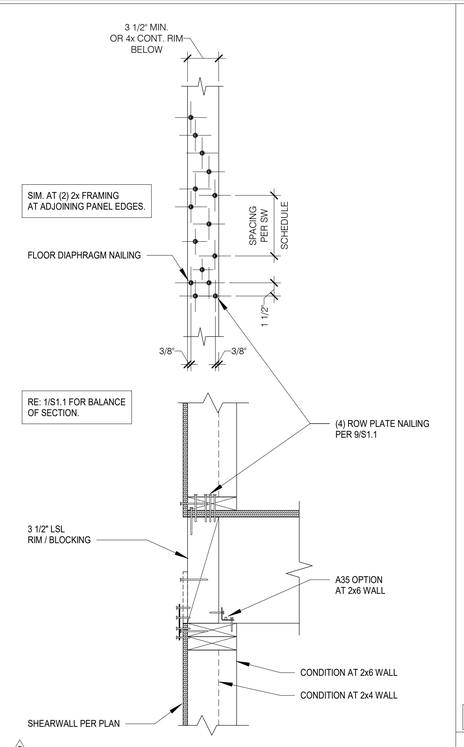
SCALE: 1 1/2" = 1'-0"

1 P6TN & P6 TYP. SHEARWALL CONN.



SCALE: 1 1/2" = 1'-0"

2 P4, P3 & P2 TYP. SHEARWALL CONN.



SCALE: 1 1/2" = 1'-0"

3 2P4, 2P3 & 2P2 TYP. SHEARWALL CONN.

SHEARWALL SCHEDULE - 7/16" APA RATED SHEATHING W/ HEM-FIR STUDS AND HEM-FIR PLATES

WALL TYPE	SHEATHING (2)	PANEL EDGE NAILING (3)	FIELD NAILING (4)	BOTTOM PLATE NAILING (7)		RIM OR BLOCKING TO TOP PLATE CONN. (10)			FRAMING AT ADJOINING PANEL EDGES (5)	FOUNDATION SILL PLATE (12)	ANCHOR BOLT SPACING 5/8" DIA. 7" EMBED (13)
				ROWS	SPACING	0.148"x3.25" TOENAIL	LTP4 DIRECT TO FRAMING	A35 ONLY			
P6TN	7/16" SHT. ONE SIDE	6" O.C.	12" O.C.	(1)	8" O.C.	4" O.C.	N/A	N/A	2x	2x	48" O.C.
P6	7/16" SHT. ONE SIDE	6" O.C.	12" O.C.	(1)	6" O.C.	N/A	24" O.C.	24" O.C. EA. SIDE	2x	2x	48" O.C.
P4	7/16" SHT. ONE SIDE	4" O.C.	12" O.C.	(2)	6" O.C.	N/A	16" O.C.	16" O.C. EA. SIDE	(2)2x OR 3x	2x	36" O.C.
P3	7/16" SHT. ONE SIDE	3" O.C.	12" O.C.	(2)	5" O.C.	N/A	12" O.C.	12" O.C. EA. SIDE	(2)2x OR 3x	2x	30" O.C.
P2	7/16" SHT. ONE SIDE	2" O.C.	12" O.C.	(3)	6" O.C.	N/A	10" O.C.	10" O.C.	(2)2x OR 3x	2x	24" O.C.
2P4	7/16" SHT. BOTH SIDES	4" O.C.	12" O.C.	(4)	6" O.C.	N/A	16" O.C. EA. SIDE	16" O.C. EA. SIDE	(2)2x OR 3x	2x	18" O.C.
2P3	7/16" SHT. BOTH SIDES	3" O.C.	12" O.C.	(4)	5" O.C.	N/A	12" O.C. EA. SIDE	12" O.C. EA. SIDE	(2)2x OR 3x	2x	14" O.C.
2P2	7/16" SHT. BOTH SIDES	2" O.C.	12" O.C.	(4)	4" O.C.	N/A	10" O.C. EA. SIDE	10" O.C. EA. SIDE	(2)2x OR 3x	2x	10" O.C.

2

(#) REFERS TO KEYNOTES IN DETAIL 19 THIS SHEET

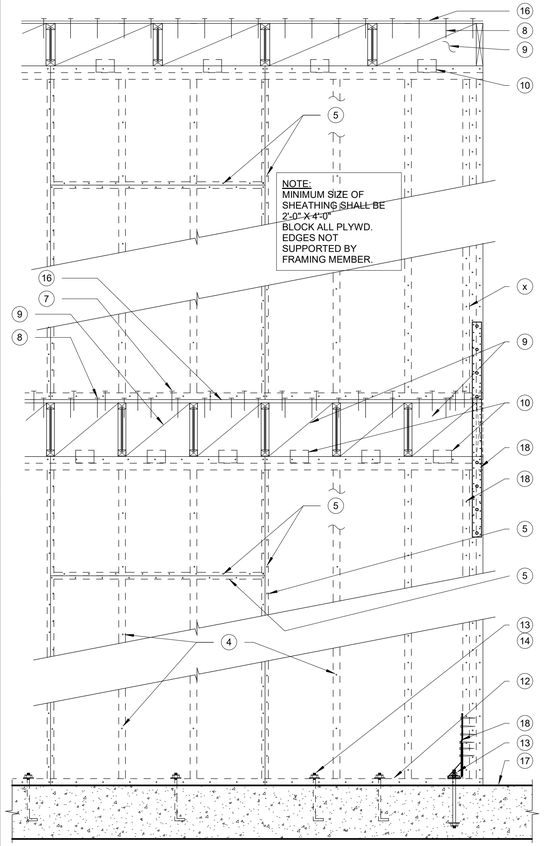
SHEARWALL SCHEDULE NOTES :

1. STUDS SHALL NOT BE SPACED MORE THAN 16" O.C.
2. RE: S1.0 SECTION 06100 "ROUGH FRAMING" FOR REQUIRED WALL STUD AND PLATE SPECIES AND GRADE.
3. RE: S1.0 SECTION 06160 "WOOD SHEATHING" FOR REQUIRED SHEAR WALL SHEATHING, THICKNESS AND GRADE. ALL SHEAR WALL PANELS SHALL BE APPLIED DIRECTLY TO FRAMING.
4. SHEATHING PANELS MAY BE INSTALLED EITHER HORIZONTALLY OR VERTICALLY WITH ALL PANEL EDGES BACKED/BLOCKED WITH 2" NOMINAL OR WIDER FRAMING. SEE NOTE 5.
5. FRAMING MEMBERS RECEIVING EDGE NAILING FROM ABUTTING PANELS SHALL NOT BE LESS THAN 3" NOMINAL AND NAILS SHALL BE STAGGERED FOR ALL SHEARWALL MARKS EXCEPT "P6".
6. WHERE PANELS ARE APPLIED ON BOTH FACES OF A WALL AND NAIL SPACING IS LESS THAN 6" O.C. ON EITHER SIDE, PANEL JOINTS SHALL BE OFFSET TO FALL ON DIFFERENT FRAMING MEMBERS OR FRAMING SHALL BE 3" NOMINAL OR THICKER AND NAILS SHALL BE STAGGERED.
7. NAILS FOR PLYWOOD AND OSB PANEL EDGE AND FIELD NAILING SHALL BE 8D COMMON (0.131" X 2 1/2").
8. NAILS FOR BOTTOM PLATE FRAMING SHALL BE 12D COMMON (0.148" X 3.25").
9. FLOOR DIAPHRAGM NAILING SHALL BE PLACED BETWEEN THE SPACING CALLED OUT FOR BOTTOM PLATE NAILING. DO NOT OVER NAIL THE BLOCKING.
10. ANCHOR BOLTS SHALL BE GALVANIZED 5/8" DIAMETER A-307 AND SHALL BE SECURED IN PLACE PRIOR TO CONCRETE POUR. WET STICKING OF ANCHOR BOLTS IS NOT ALLOWED.
11. GALVANIZED 3" X 3" X 0.229" (MIN.) PLATE WASHERS ARE REQUIRED AT EACH ANCHOR BOLT - SEE 8 THIS SHEET FOR PLACEMENT REQUIREMENTS. RECESSING PLATE WASHERS IN PLATES IS NOT ALLOWED.
12. LTP4 FRAMING PLATES SHALL BE INSTALLED WITH 12-8D X 1 1/2" (0.131" X 2 1/2") NAILS. RE: DETAILS 1, 2, 3 & 6/S1.1.
13. A35 FRAMING ANGLES SHALL BE INSTALLED WITH 12-8D X 1 1/2" (0.I31" X 1 1/2") NAILS. RE: DETAILS 1, 2 & 3/S1.1.
14. ALL NAILS INTO PRESSURE TREATED WOOD SHALL BE HOT-DIPPED GALVANIZED CONFORMING TO ASTM 153 OR STAINLESS STEEL.
15. ALL WOOD IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESERVATIVE TREATED.
16. WHERE BOTTOM PLATE NAILING SPECIFIES A SPACING OF 4 INCHES OR LESS NAILS SHALL BE INSTALLED IN TWO ROWS OFFSET 1/2 INCH AND STAGGERED.
17. GALVANIZED EXPANSION ANCHORS OF SIMILAR. DIAMETER AND EMBEDMENT ALLOWED AT INTERIOR BEARING AND PARTY WALLS.
18. 2-2X'S IN LIEU OF 3X'S AT PANEL EDGES ACCEPTABLE PROVIDED STUDS ARE ATTACHED PER 10/S1.2 SIM. AND BOTTOM PLATE NAILING.
19. WHERE BUILDING OFFICIALS ALLOW, OSB SHEATHING MAY BE APPLIED OVER 1/2" OR 3/8" GYPSUM WALL BOARD PROVIDED SHEATHING IS NAILED WITH 10D NAILS (0.148" DIA X 3" LONG)

SCALE: NONE

9

SHEARWALL SCHEDULE



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

19 TYPICAL SHEARWALL NOMENCLATURE (ELEVATION)

1 (1) SHEARWALL TYPE W1
SHEATHING: 15/32" CD-CC SHEATHING
APPLIED DIRECTLY TO FRAMING
NAILING:
USE LENGTH DIA.
BOTTOM PLATE/FRAMING 3 1/4" X 0.148"
PANEL EDGE NAILING 2 3/8" X 0.148"

SPECIAL INSPECTION: PER JURISDICTION
STUD SPACING: 16"O.C. MAX.
STUDS AND PLATE: HEM-FIR #2 OR BETTER
FLOOR THICKNESS: 23/32"
ANCHOR BOLT: 5/8" DIA., 7" EMBED.
RIM/BLOCKING: 0.148" DIA. NAILS AT 4" O.C./SG=0.50
VERTICAL LOAD TRANSFER CAPACITY3300 LB./FT.
LATERAL LOAD TRANSFER CAPACITY (1.25") 600 LB./FT.
LATERAL LOAD TRANSFER CAPACITY (3.50") 1200 LB./FT.

RIM, BLOCKING
BOTTOM PLATE NAILING NO. PIECES/THICKNESS
(CLOSEST SPACING)
(1) ROWS 0.148" DIA. AT 4" O.C.(1) / 1.25"
(2) ROWS 0.148" DIA. AT 4" O.C.(1) / 1.75"
(3) ROWS 0.148" DIA. AT 4" O.C.(1) / 3.50"

APPROVED RIM PRODUCTS:
TRUS JOIST ER-4979 TIMBERSTRAND LSL 2.0E, PARALLAM PSL 2.0E
TJ-STRAND

SUBSTITUTIONS TO ABOVE REQUIRE ENGINEER OF RECORD APPROVAL PRIOR TO INSTALLATION. SUBMIT DOCUMENTATION BY A CODE APPROVED AGENCY. CONFIRMING THE REQUIRED CAPACITIES AND MINIMUM NAIL SPACING FOR THE CONDITIONS DESCRIBED.

2 (2) WALL SHEATHING:
SHEATHING PANELS MAY BE INSTALLED EITHER VERTICALLY OR HORIZONTALLY. ALL PANEL EDGES SHALL BE FASTENED TO STUDS OR BLOCKING.

3 (3) PANEL EDGE NAILING:
NAILING AT ALL OUTER EDGES OF SHEATHING PANELS IN SHEARWALLS SHALL BE FASTENED PER THE SHEARWALL SCHEDULE.

4 (4) FIELD NAILING:
WITHIN THE FIELD OF THE PANEL, AT FRAMING MEMBERS, THE PANELS ARE LESS CLOSELY FASTENED.

5 (5) FRAMING AT ADJOINING PANEL EDGES:
WHERE TWO PIECES OF PLYWOOD JOIN ON A FRAMING MEMBER, THE PANEL EDGE NAILING FROM EACH PANEL IS TO BE STAGGERED. SOME WALLS REQUIRE 3 INCH NOMINAL FRAMING MEMBER (EITHER A STUD OR BLOCKING) AT ADJOINING PANEL EDGES (SEE SHEARWALL SCHEDULE FOR WALL TYPES REQUIRING 3 INCH NOMINAL FRAMING MEMBERS AT ADJOINING PANEL EDGES). DOUBLED STUDS ARE GENERALLY NOT ACCEPTABLE FOR THIS APPLICATION. WHERE A SINGLE PANEL EDGE LANDS ON A FRAMING MEMBER, A 2 INCH NOMINAL FRAMING MEMBER SHALL BE ACCEPTABLE (AT ENDS OF WALLS FOR EXAMPLE). BLOCK ALL PLYWOOD EDGES NOT SUPPORTED BY FRAMING MEMBERS AND NAIL W/PANEL EDGE NAILING.

6 (6) BOTTOM PLATE:

7 (7) BOTTOM PLATE NAILING:
LOCATE THE NAILING THROUGH THE BOTTOM PLATE SO AS TO FULLY PENETRATE THE SOLID BLOCKING OR CONTINUOUS RIM BENEATH THE FLOOR SHEATHING, SPACED AS PER THE SHEARWALL SCHEDULE.

8 (8) FLOOR DIAPHRAGM NAILING:
FLOOR DIAPHRAGM NAILING SHALL BE INSTALLED BETWEEN THE SPACING SHOWN FOR BOTTOM PLATE NAILING. LOCATE ADJOINING PANEL EDGES OF FLOOR SHEATHING AWAY FROM SHEARWALLS. FIELD NAILING OF FLOOR SHEATHING MAY BE OMITTED AT SHEARWALL BOTTOM PLATE NAILING.
RE: NOTES 06500

9 (9) RIM / BLOCKING:
JOIN ADJACENT RIMS AND BLOCKING WITH FACE NAILING AS SPECIFIED ABOVE. SHIM WITH FULL HEIGHT SHIMS, ADJUST FACE NAIL LENGTHS. REFER TO PLANS FOR ADDITIONAL SEISMIC CONNECTIONS AT THE FLOOR OR ROOF LEVEL.

10 (10) RIM / BLOCKING TO TOP PLATE CONNECTION:
THE CONTINUOUS RIM OR SOLID BLOCKING THAT IS PART OF THE SHEARWALL ASSEMBLY SHALL BE CONNECTED TO THE DOUBLE TOP PLATE OR FOUNDATION SILL PLATE WITH APPROVED CONNECTORS AND SPACED PER THE SHEARWALL SCHEDULE.

11 (11) DOUBLE TOP PLATE:
LAP AND SPLICE - SEE PLANS FOR ADDITIONAL SEISMIC CONNECTIONS AT THE FLOOR OR ROOF LEVEL.

12 (12) FOUNDATION SILL PLATE:
ALL WOOD IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESERVATIVE TREATED. THE FOUNDATION SILL PLATE SHALL BE EITHER 2 INCH NOMINAL OR 3 INCH NOMINAL DEPENDING ON THE SHEARWALL SCHEDULE.

13 (13) ANCHOR BOLTS:
FULL DIAMETER ANCHOR BOLTS, ASTM A-307 SHALL BE SECURED IN PLACE PRIOR TO PLACING CONCRETE. MINIMUM EMBEDMENT IS 7 INCHES. MIN. (2) BOLTS PER PIECE OF PLATE, W/(1) BOLT NOT MORE THAN 12" FROM END OF PIECE.

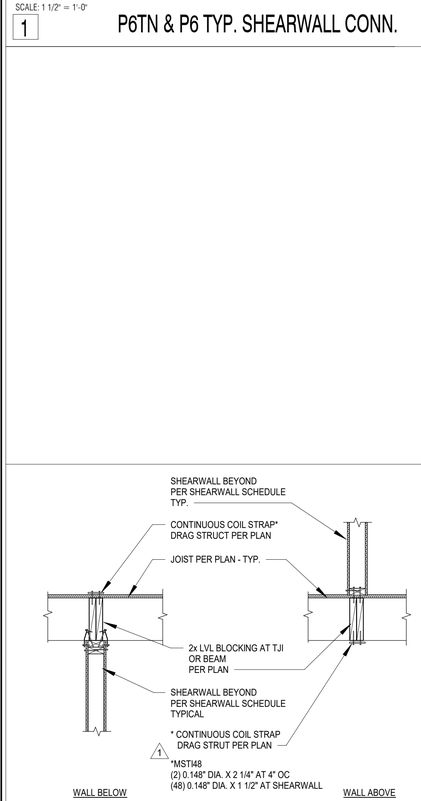
14 (14) PLATE WASHERS:
PLATE WASHERS SHALL BE REQUIRED FOR FOUNDATION SILL PLATE CONNECTIONS. 3" X 3" X 1/4" MINIMUM. DO NOT RECESS BOLTS IN SILL PLATE UNLESS SPECIFICALLY DETAILED ELSEWHERE.

15 (15) SQUASH BLOCKS:
IN THE FLOOR CAVITY OF PLATFORM FRAMING POST LOADS SHALL BE PROVIDED WITH ADDITIONAL STIFFENERS EQUAL TO THE POST SIZE FROM ABOVE THAT CONTINUES THROUGH THE FLOOR.

16 (16) DIAPHRAGM:
SEE (1) FOR SHEARWALL, FLOOR AND ROOF DIAPHRAGM THICKNESS.

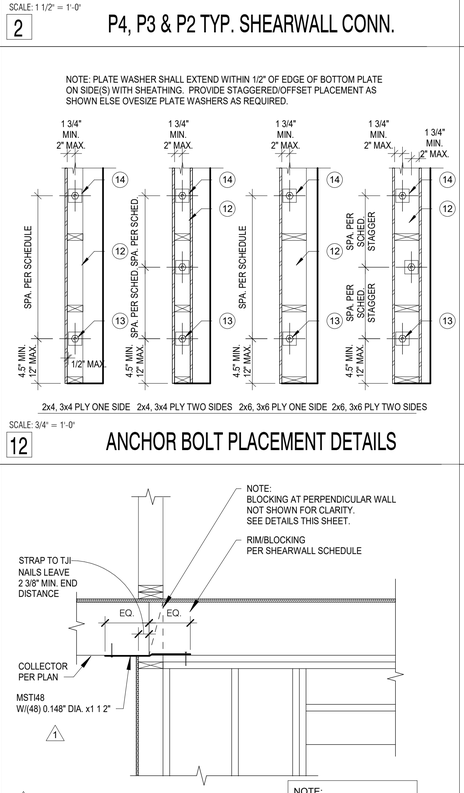
17 (17) CONCRETE BASE:
CONCRETE FOUNDATION OR BASE.

18 (18) HOLDOWN:
SEE SHEET S1.2 FOR HOLDOWN DETAILS AND ADDITIONAL STUDS REQUIRED.



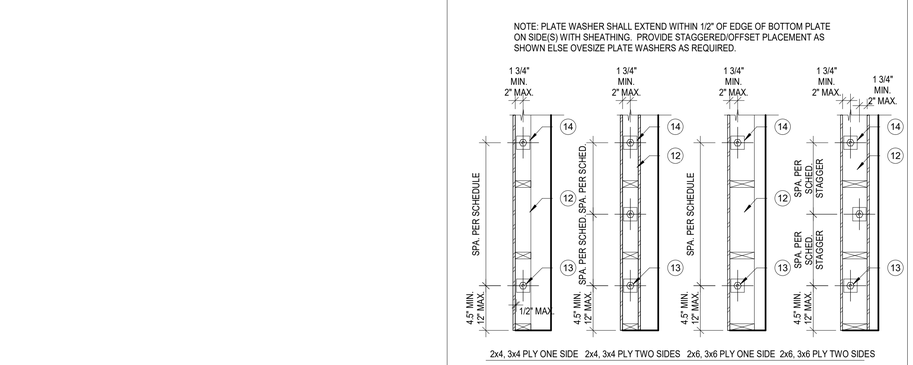
SCALE: 3/4" = 1'-0"

16 DRAG STRUT DETAILS



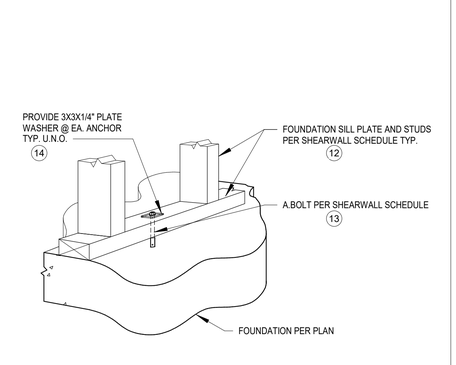
SCALE: 3/4" = 1'-0"

17 TYPICAL SHEARWALL STRAP



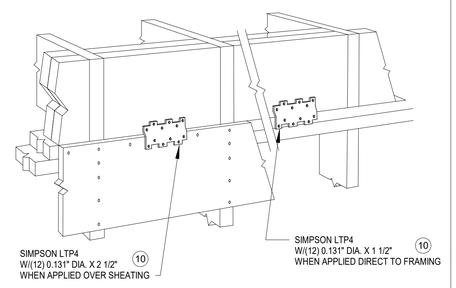
SCALE: 3/4" = 1'-0"

12 ANCHOR BOLT PLACEMENT DETAILS



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

13 TYP. SHEARWLL ANCHOR BOLT TO CONCRETE



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

18 TYPICAL SIMPSON LTP4 AT INTERIOR SHEARWALL

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06/11/20

No.	REVISION	DATE
1	RESPONSE TO CITY COMMENTS	01.06.2021
2	RESPONSE TO CITY COMMENTS	03.16.2021

JOB #:	20025
ENG:	BJM
CAD:	JMA
SCALE:	As indicated

KEY ISSUE DATES:

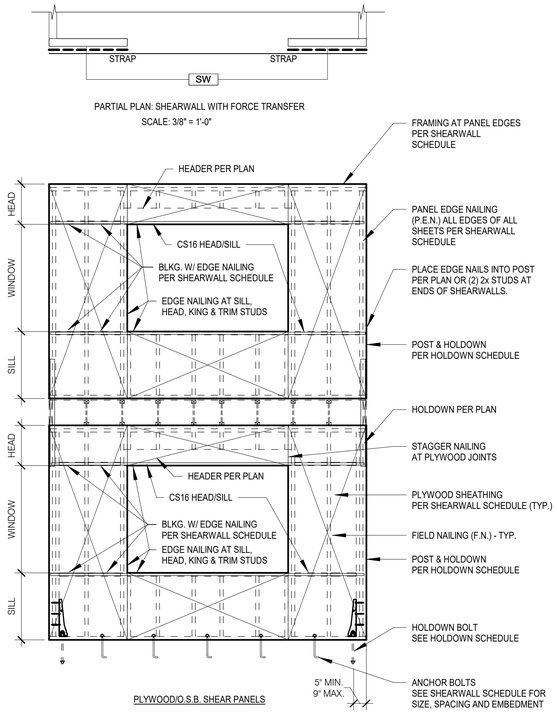
SD:	SD
DD:	DD
CD:	CD
PERMIT:	06.11.2020
OTHER:	BD

Shearwall Schedule and Details

Foo Residence
3453 74th Ave SE
Mercer Island, WA 98040

S1.1

9/6/2022 4:17 PM
M:\20035 Foo Residence\STRUCT\20035 Foo Residence (R23)- SOG.rvt



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

8 TYPICAL DETAIL FOR SHEARWALL W/ FORCE TRANSFER AROUND WINDOW OPENINGS

HOLDOWN & FASTENER SCHEDULE (HF STUDS)

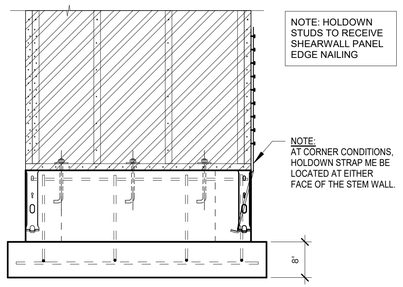
HARDWARE TYPE	WOOD MEMBER/POST		FASTENER	ROD DIAMETER	ANCHOR		EMBEDMENT		STEM (MINIMUM)	DETAIL
	2X4 WALL	2X6 WALL			STEM	THICKENED FOOTING	STEM	THICKENED SLAB		
CS16	2X4	2X6	(28) 8d	N.A.	N.A.	-	N.A.	-	N.A.	RE: 14, 15/S1.2
MST37	(2) 2X4	(2) 2X6	(22) 16d	N.A.	N.A.	-	N.A.	-	N.A.	
MST48	(2) 2X4	(2) 2X6	(34) 16d	N.A.	N.A.	-	N.A.	-	N.A.	
MST60	(2) 2X4	(2) 2X6	(48) 16d	N.A.	N.A.	-	N.A.	-	N.A.	
LSDTHD8 LSDTHD8RJ	(2) 2X4	(2) 2X6	(16) 12d	STRAP	N.A.	-	8"	-	8"	RE: 11, 12/S1.2
STHD14 STHD14RJ	(2) 2X4	(2) 2X6	(24) 12d	STRAP	N.A.	-	14"	-	8"	
HTT22	(2) 2X4	(2) 2X6	(32) 12d	5/8"	N.A.	-	9"	-	8"	
HDU2-SDS2.5	(2) 2X4	(2) 2X6	(6) SDS 1/4X2 1/2"	5/8"	DOUBLE NUT AND WASHER PER 12/S1.2		11"		6"	RE: 12/S1.2
HDU4-SDS2.5	(2) 2X4	(2) 2X6	(10) SDS 1/4X2 1/2"	5/8"			11"		6"	
HDU5-SDS2.5	(2) 2X4	(2) 2X6	(14) SDS 1/4X2 1/2"	5/8"			11"		6"	
HDU8-SDS2.5	(2) 2X4 4X4	(2) 2X6 4X6	(20) SDS 1/4X2 1/2"	7/8"			11"		8"	
HDU11-SDS2.5	4X6	6X6	(30) SDS 1/4X2 1/2"	1"			16"		8"	RE: 12/S1.2
HD19	--	6X6	(5) 1"DIA. M.B.	1 1/4"			16"		8"	
HDU14-SDS2.5	4X6	6X6	(36) SDS 1/4X2 1/2"	1"			16"		8"	RE: 12/S1.2
MSTC48B3	(2) 2X4	(2) 2X6	(12) 10d FACE, (4) 10d BOTTOM, (38) 10d STUDS/POST							

HOLDOWN AND FASTENER SCHEDULE NOTES;

1. HOLDDOWNS SHALL BE AS MANUFACTURED BY THE SIMPSON STRONG-TIE COMPANY.
2. 16D = 0.162" DIA. X 3 1/2" LONG.
3. USE HALF THE REQUIRED NAILS IN EACH MEMBER BEING CONNECTED.
4. SCREWS SHALL BE SDS 1/4" DIA. X 2 1/2" AS MANUFACTURED BY SIMPSON STRONG-TIE COMPANY.
5. HOLDDOWN ANCHORS SHALL BE SECURED IN PLACE PRIOR TO PLACING CONCRETE.
6. ANCHOR BOLT NUT SHALL BE FINGER-TIGHT PLUS 1/3 - 1/2" TURN WITH HAND WRENCH. CARE SHALL BE TAKEN TO NOT OVER-TORQUE THE NUT. IMPACT WRENCHES SHALL NOT BE USED.
7. HDU HOLDDOWNS SHALL BE INSTALLED CENTERED ALONG THE WIDTH OF THE ATTACHED POST.
8. RE: NOTES SECTION 06100 "ROUGH FRAMING" FOR THE REQUIRED POST SPECIES AND GRADE.
9. BUNDLED STUDS PER DETAIL 18/S1.2.
10. STRAP TIE HOLDOWNS. NAIL STRAPS FROM BOTTOM UP. INSTALL WITH STRAP MATE "NO WET STCKING".
11. ANCHOR BOLT HOLDOWNS SHALL BE ASTM A307 OR A36 STEEL. ANCHOR HEAD REQUIRES NUT/WASHER NUT PER 2/S1.2.

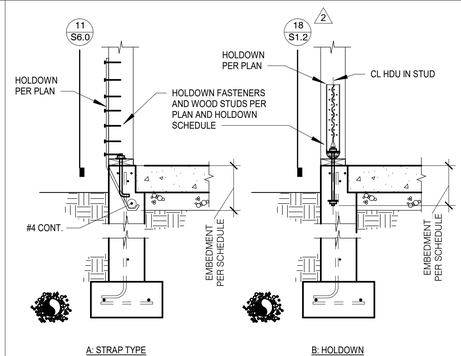
SCALE: 3/4" = 1'-0"

10 SHEARWALL SCHEDULE



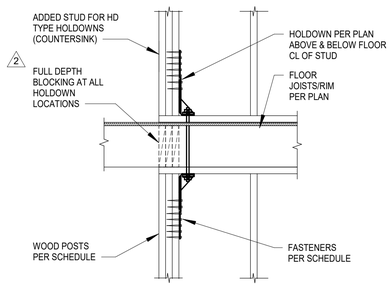
SCALE: 3/4" = 1'-0"

11 EXTERIOR HOLDOWN - ELEVATION



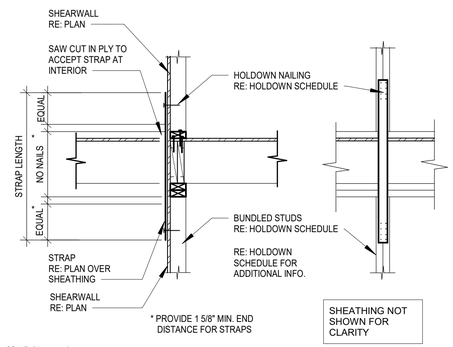
SCALE: 3/4" = 1'-0"

12 EXTERIOR HOLDOWN



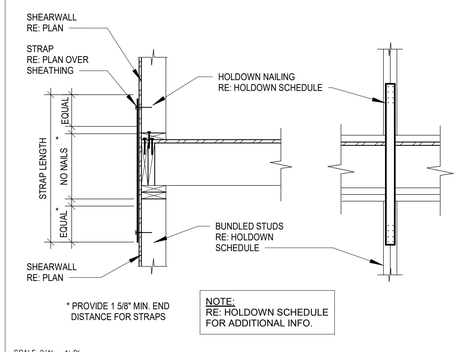
SCALE: 3/4" = 1'-0"

13 TYPICAL HOLDOWON FLOOR TO FLOOR



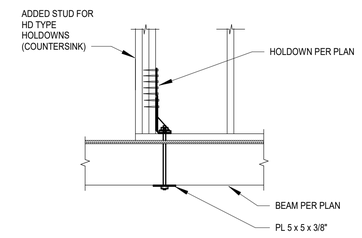
SCALE: 3/4" = 1'-0"

14 INTERIOR HOLDOWN



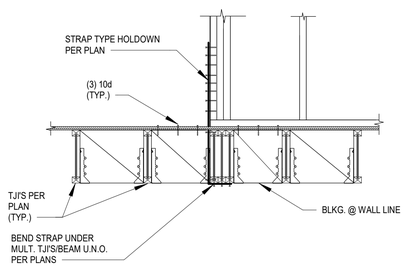
SCALE: 3/4" = 1'-0"

15 EXTERIOR HOLDOWN



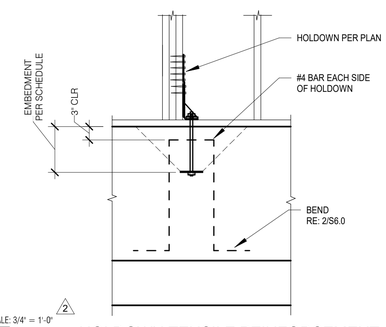
SCALE: 3/4" = 1'-0"

16 1 TYPICAL HOLDOWN TO BEAM



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

17 1 HOLDOWN DETAIL



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

18 HOLDOWN TENSILE REINFORCEMENT

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06/11/20

No.	REVISION	DATE
1	RESPONSE TO CITY COMMENTS	01.06.2021
2	RESPONSE TO CITY COMMENTS	03.16.2021

JOB #: 20035
ENG: Designer
CAD: Author
SCALE: 3/4" = 1'-0"

KEY ISSUE DATES:
SD: SD
DD: DD
CD: CD
PERMIT: 06.11.2020
OTHER: BD

Holddown Schedule and Details

Foo Residence
3453 74th Ave SE
Mercer Island, WA 98040

S1.2

1

SPECIAL INSPECTION

9

06610 - SHOP FABRICATED METAL PLATE CONNECTED WOOD TRUSSES
PREMANUFACTURED METAL-PLATE-CONNECTED WOOD TRUSSES SHALL BE DESIGNED AND MANUFACTURED IN ACCORDANCE WITH IBC SECTION 2303.4 TRUSSES, AND THE TRUSS PLATE INSTITUTE ANSI/TPI 1-2014 "NATIONAL DESIGN STANDARD FOR METAL-PLATE-CONNECTED WOOD TRUSS CONSTRUCTION". A TRUSS SUBMITTAL PACKAGE SHALL BE SUBMITTED FOR APPROVAL PRIOR TO FABRICATION PER THE REQUIREMENTS OF IBC 2303.4.3. THE TRUSS DESIGN DRAWINGS SHALL BEAR THE STAMP AND SEAL OF A REGISTERED STATE OF WASHINGTON PROFESSIONAL ENGINEER.

DESIGN FOR THE SPANS, LOADS, SHAPES, BEARING POINTS, INTERSECTIONS, HIPS AND VALLEYS, OVER-FRAMING, BLOCKING PANELS AND ALL CONDITIONS SHOWN ON THE PLANS. THE DESIGN LOADS AND DEFLECTION CRITERIA SHALL BE AS FOLLOWS:

TOP CHORD LOADS

TOP CHORD LIVE LOAD	25 PSF
TOP CHORD DEAD LOAD	9 PSF
TOP CHORD GROSS WIND UPLIFT	
OVERHANGS AT CORNERS	33.2 PSF
CORNERS	25.0 PSF
OVERHANG AT EDGE	19.8 PSF
EDGES	16.9 PSF
FIELD	9.5 PSF
TOP CHORD GROSS WIND PRESSURE	
FIELD	6.1 PSF

BOTTOM CHORD LOADS

BOTTOM CHORD DEAD LOAD	5 PSF

DEFLECTION LIMITATIONS

LIVE LOAD DEFLECTION	L/360
TOTAL LOAD DEFLECTION	L/240

PROVIDE ALL TRUSS-TO-TRUSS CONNECTION DETAILS INCLUDING BLOCKING PANELS AND REQUIRED MATERIALS. PROVIDE EACH TRUSS WITH THE STRUCTURAL BUILDING COMPONENT (SBCA) TAGS FOR BEARING LOCATIONS, PERMANENT BRACING LOCATIONS ETC.. THE TRUSS DESIGNER SHALL SPECIFY ALL PERMANENT BRACING LOCATIONS & TRUSS REACTIONS ON THE TRUSS DESIGN DRAWINGS.

STORE, INSTALL & BRACE TRUSSES IN ACCORDANCE WITH WTCA/TPI (SBCA) BUILDING COMPONENT SAFETY INFORMATION (BCSI) "GUIDE TO GOOD PRACTICE FOR HANDLING, INSTALLING & BRACING OF METAL-PLATED-WOOD TRUSSES" & BCSI B1 THROUGH B11 QUICK REFERENCES. THE CONTRACTOR SHALL INSTALL ALL TEMPORARY BRACING; SEE BCSI-2 FOR TYPICAL TEMPORARY BRACING REQUIREMENTS.

THE CONTRACTOR SHALL INSTALL ALL PERMANENT BRACING AS INDICATED ON THE TRUSS DESIGN DRAWINGS AND PLANS. REFERENCE BCSI-B3 FOR TYPICAL PERMANENT BRACING REQUIREMENTS U.N.O.

MINIMUM BEARING FOR TRUSSES SHALL BE 3 1/2". SECURE TRUSSES TO TOP PLATE WITH (2) 0.148" DIAMETER x 3" TOE NAILED, ONE EACH SIDE. AS A MINIMUM PROVIDE H2.5A HURRICANE CLIP AT EACH SUPPORT OF TRUSS.

2

1

IBC 2015 AISC 360 STEEL INSPECTIONS

	INSPECTION TASKS	QC	QA
O=	OBSERVE ITEMS ON A RANDOM BASIS - OPERATAIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS		
P=	PERORM THESE TASKS FOR EACH ITEM NOTED AT EACH MEMBER		
N5.4-1	INSPECTION TASKS PRIOR TO WELDING		
	WELDING PROCEDURE SPECIFICATIONS (WPSs) AVAILABLE	P	P
	MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE	P	P
	MATERIAL IDENTIFICATION (TYPE/GRADE)	O	O
	WELDER IDENTIFICATION SYSTEM	O	O
	FIT-UP GROOVE WELDS (INCLUDING JOINT GEOMETRY); JOINT PREPARATION; DIMENSIONS (ALIGNMENT ROOT OPENING, ROOT FACE, BEVEL); CLEANLINESS (CONDITION OF STEEL SURFACES); TACKING (TACK WELD QUALITY AND LOCATION); BACKING TYPE AND FIT (IF APPLICABLE)	O	O
	CONFIGURATION AND FINISH OF ACCESS HOLES	O	O
	FIT-UP OF FILLET WELDS: DIMENSIONS (ALIGNMENT, GAPS AT ROOT); CLEANLINESS (CONDITION OF STEEL SURFACE); TACKING (TACK WELD QUALITY AND LOCATION)	O	O
	CHECK WELDING EQUIPMENT	O	-
N5.4-2	INSPECTION TASKS DURING WELDING		
	USE OF QUALIFIED WELDERS	O	O
	CONTROL AND HANDILING OF WELDING CONSUMABLES: PACKAGING; EXPOSURE CONTROL	O	O
	NO WELDING OVER CRACKED TACK WELDS	O	O
	ENVIRONMENTAL CONDITIONS: WIND SPEED WITHIN LIMITS; PRECIPTITATION AND TEMPRATURE	O	O
	WPS FOLLOWED: SETTINGS ON WELDING EQUIPMENT; TRAVEL SPEED; SELECTED WELDING MKATERIALS; SHIELDING GAS TYPE/FLOW RATE; PREHEAT APPLIED; INTERPASS TEMPRATURE MAINTAINED (MIN/MAX); PROPER POSITION (F, V, H, OH)	O	O
	WELDING TECHNIQUES: INTERPASS AND FINAL CLEANING; EACH PASS WITHIN PROFILE LIMITATIONS; EACH PASS MEETS QUALITY REQUIREMENTS	O	O
N5.4-3	INSPECTION TASKS AFTER WELDING		
	WELDS CELANED	O	O
	SIZE, LENGTH AND LOCATION OF WELDS	P	P
	WELDS MEET VISUAL ACCEPTANCE CRITERIA: CRACK PROHIBITION; WELD/BASE-METAL FUSION; CRATER CROSS SECTION; WELD PROFILES; WELD SIZE; UNDERCUT; POROSITY	P	P
	ARC STRIKES	P	P
	k-AREA	P	P
	BACKING REMOVED AND WELD TABS REMOVED (IF REQUIRED)	P	P
	REPAIR ACTIVITIES	P	P
	DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT OR MEMBER	P	P
N5.6-1	INSPECTION TASKS PRIOR TO BOLTING		
	MANUFACTURERS CERTIFICATION AVAILABLE FOR FASTENER MATERIALS	O	P
	FASTENERS MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS	O	O
	PROPER FASTENERS SELECTED FOR THE JOINT DETAIL (GRADE, TYPE, BOLT LENGTH IF THREADS ARE TO BE EXCLUDED FROM SHEAR PLANE)	O	O
	PROPER BOLOTING PROCEDURE SELECTED FOR JOINT DETAIL	O	O
	CONNECTING ELEMENTS, INCLUDING THE APPROPRIATE FAYING SURFACE CONDITION AND HOLE PREPARATION, IF SPECIFIED, MEEET APPLICABLE REQUIREMENTS	O	O
	PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND DOCUMENTED FOR FASTENER ASSEMBLIES AND METHODS USED	P	O
	PROPER STIRAGE ORICUDED FIR BIKTS, NUTS, WASHERS AND OTHER FASTENER COMPONENTS	O	O
N5.6-2	INSPECTION TASKS DURING BOLTING		
	FASTENER ASSEMBLIES, OF SUITABLE CONDITION, PLACED IN ALL HOLES AND WASHERS (IF REQURIED) ARE POSITIONED AS REQUIRED	O	O
	JOINT BROUGHT TO THE SNUG-TIGHT CONDITIO PRIOR TO THE PRETENSIONING OPERATION	O	O
	FASTENER CONPNENT NOT TURNED BY WRENCH PREVENTED FROM ROTATING	O	O
	FASTENERS ARE PRETENSIONED IN ACCORDANCE WITH THE RCSC SPEC, PRGRESSING SYSTEMATICALLY FROM THE MOST RIGID POINT TOWARD THE FREE EDGES	O	O
N5.6-3	INSPECTION TASKS AFTER BOLTING		
	DOCUMENT ACCEPTANCE OR REJECTION FO BOLTED CONNECTIONS	P	P
N6.1	INSPECTION OF STEEL ELEMENTS OF COMPOSITE CONSTRUCTION PRIOR TO CONCRETE PLACEMENT		
	PLACEMENT AND INSTALLAATION OF STEEL DECK	P	P
	PLACEMENT AND ISNTALLATION OF STEEL HEADED STUD ANCHORS	P	P
	DOCUMENT ACCEPTANCE OR REJECTION OF STEEL ELEMENTS	P	P

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06/11/20

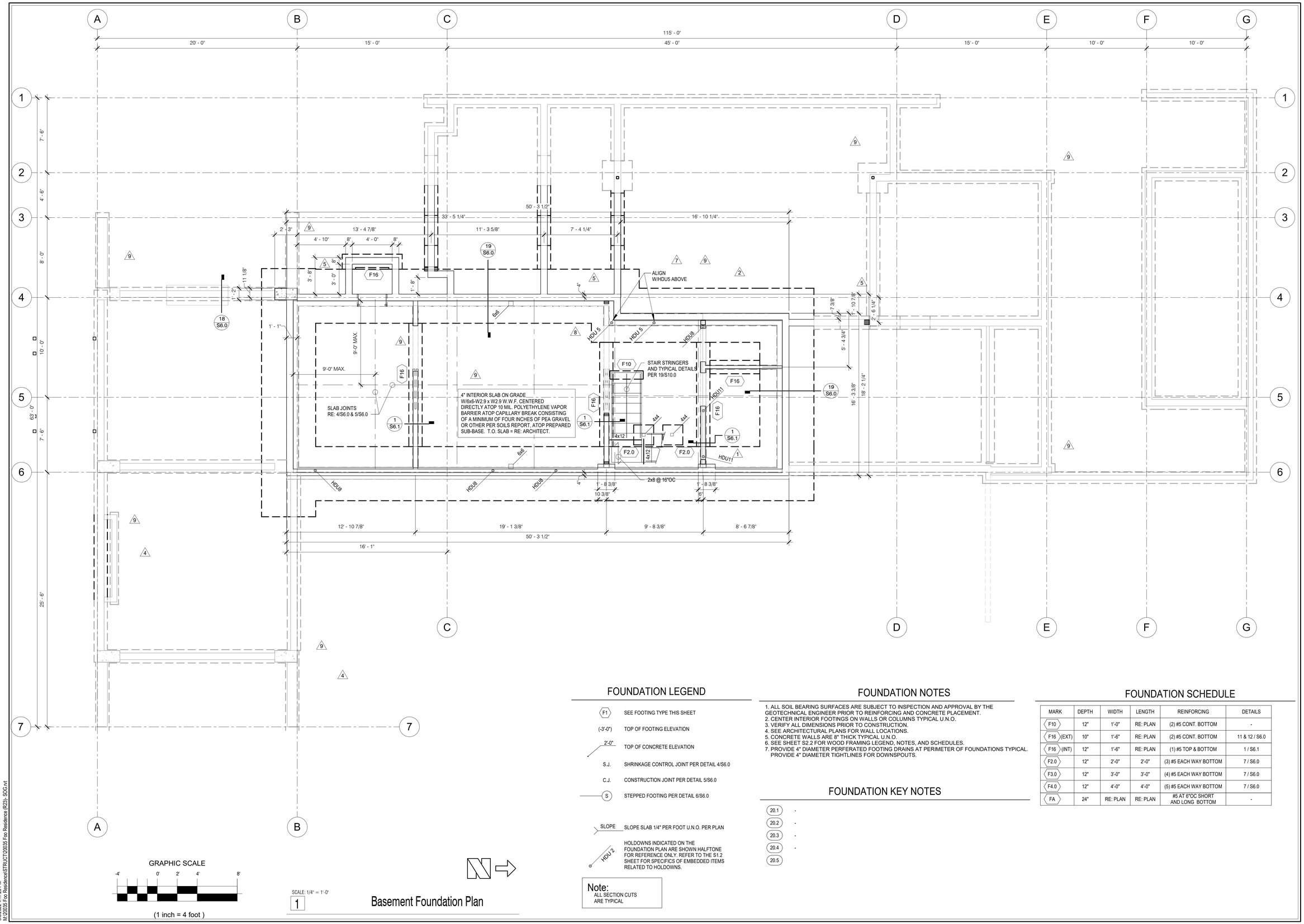
No.	REVISION	DATE
1	RESPONSE TO CITY COMMENTS	01.06.2021
2	RESPONSE TO CITY COMMENTS	03.16.2021
9	CA Re Issue	06.07.2022

JOB #:	20035	KEY ISSUE DATES:	
ENG:	BJM	SD:	SD
CAD:	JMA	DD:	DD
SCALE:	3/4" = 1'-0"	CD:	CD
		PERMIT:	09.11.2020
		OTHER:	BID

Special Inspection

Foo Residence
3453 74th Ave SE
Mercer Island, WA 98040

S1.3



FOUNDATION LEGEND

F1	SEE FOOTING TYPE THIS SHEET
(-3'-0")	TOP OF FOOTING ELEVATION
2'-0"	TOP OF CONCRETE ELEVATION
S.J.	SHRINKAGE CONTROL JOINT PER DETAIL 4/S6.0
C.J.	CONSTRUCTION JOINT PER DETAIL 5/S6.0
S	STEPPED FOOTING PER DETAIL 6/S6.0
SLOPE	SLOPE SLAB 1/4" PER FOOT U.N.O. PER PLAN
HDU2	HOLDOWNS INDICATED ON THE FOUNDATION PLAN ARE SHOWN HALFTONE FOR REFERENCE ONLY. REFER TO THE S1.2 SHEET FOR SPECIFICS OF EMBEDDED ITEMS RELATED TO HOLDOWNS.

Note:
ALL SECTION CUTS
ARE TYPICAL

FOUNDATION NOTES

1. ALL SOIL BEARING SURFACES ARE SUBJECT TO INSPECTION AND APPROVAL BY THE GEOTECHNICAL ENGINEER PRIOR TO REINFORCING AND CONCRETE PLACEMENT.
2. CENTER INTERIOR FOOTINGS ON WALLS OR COLUMNS TYPICAL U.N.O.
3. VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION.
4. SEE ARCHITECTURAL PLANS FOR WALL LOCATIONS.
5. CONCRETE WALLS ARE 8" THICK TYPICAL U.N.O.
6. SEE SHEET S2.2 FOR WOOD FRAMING LEGEND, NOTES, AND SCHEDULES.
7. PROVIDE 4" DIAMETER PERFERATED FOOTING DRAINS AT PERIMETER OF FOUNDATIONS TYPICAL. PROVIDE 4" DIAMETER TIGHTLINES FOR DOWNSPOUTS.

FOUNDATION KEY NOTES

20.1 -
20.2 -
20.3 -
20.4 -
20.5

FOUNDATION SCHEDULE

MARK	DEPTH	WIDTH	LENGTH	REINFORCING	DETAILS
F10	12"	1'-0"	RE: PLAN	(2) #5 CONT. BOTTOM	-
F16 (EXT)	10"	1'-6"	RE: PLAN	(2) #5 CONT. BOTTOM	11 & 12 / S6.0
F16 (INT)	12"	1'-6"	RE: PLAN	(1) #5 TOP & BOTTOM	1 / S6.1
F2.0	12"	2'-0"	2'-0"	(3) #5 EACH WAY BOTTOM	7 / S6.0
F3.0	12"	3'-0"	3'-0"	(4) #5 EACH WAY BOTTOM	7 / S6.0
F4.0	12"	4'-0"	4'-0"	(5) #5 EACH WAY BOTTOM	7 / S6.0
FA	24"	RE: PLAN	RE: PLAN	#5 AT 6"OC SHORT AND LONG BOTTOM	-

GRAPHIC SCALE
-4' 0' 2' 4' 8'
(1 inch = 4 foot)

SCALE: 1/4" = 1'-0"
1 Basement Foundation Plan

9/6/2022 4:17:20 PM
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CT ENGINEERING INC.
Structural Engineers
180 Nickerson Street Suite 302 Seattle, WA 98109
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2	RESPONSE TO CITY COMMENTS	03.16.2021
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7	Deck Framing Changes	02.07.2022
8	Deck Revision	03.02.2022
9	CA Re Issue	06.07.2022

JOB #: 20035
ENG: Designer
CAD: Author
SCALE: As indicated

KEY ISSUE DATES:
SD: SD
DD: DD
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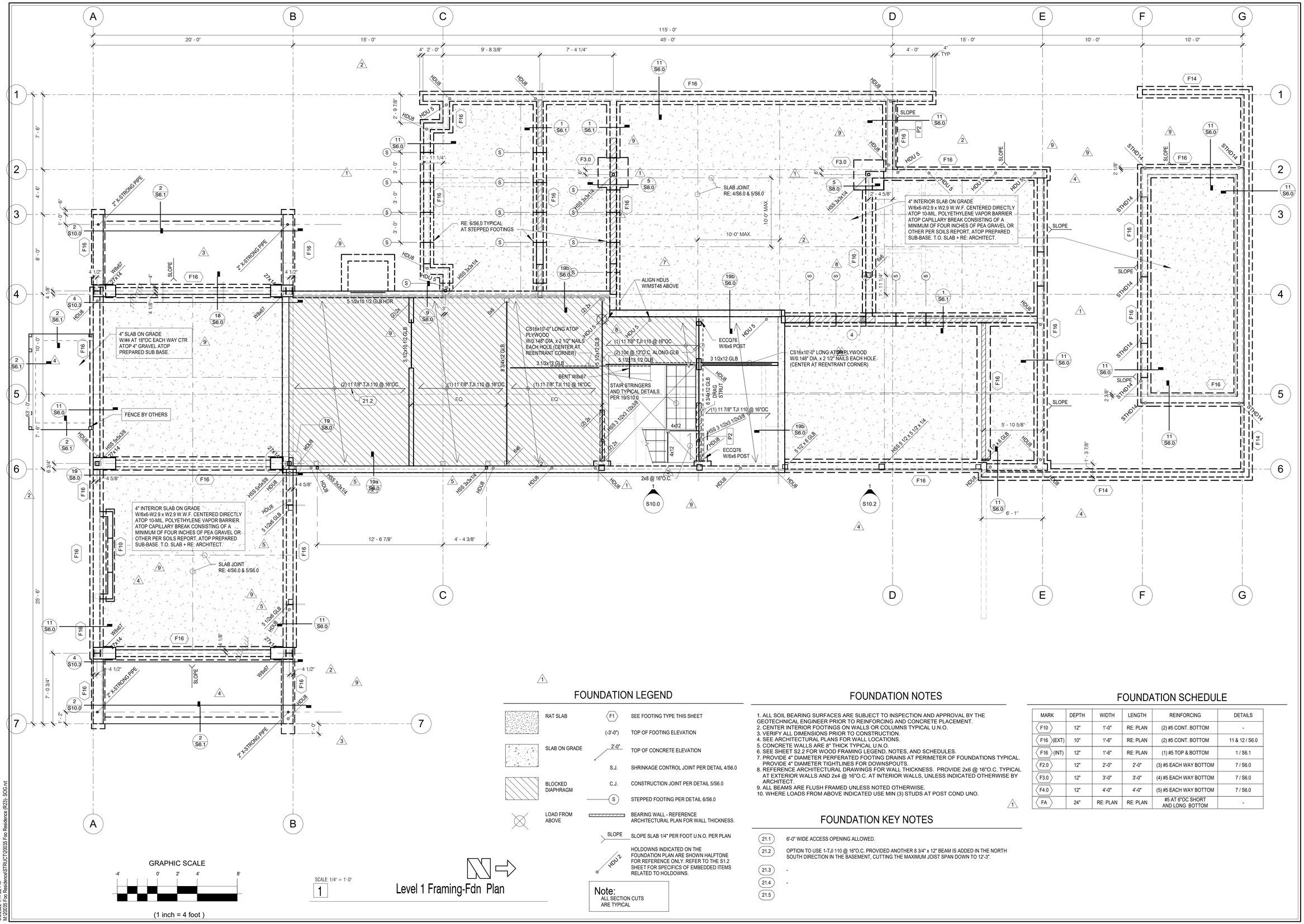
OTHER: BD

Basement Level Foundation Plan

Foo Residence
3453 74th Ave SE
Mercer Island, WA 98040

S2.0



FOUNDATION LEGEND

- RAT SLAB
- SLAB ON GRADE
- BLOCKED DIAPHRAGM
- LOAD FROM ABOVE
- F1 — SEE FOOTING TYPE THIS SHEET
- (-3'-0") — TOP OF FOOTING ELEVATION
- 2'-0" — TOP OF CONCRETE ELEVATION
- S.J. — SHRINKAGE CONTROL JOINT PER DETAIL 4/S6.0
- C.J. — CONSTRUCTION JOINT PER DETAIL 5/S6.0
- S — STEPPED FOOTING PER DETAIL 6/S6.0
- BEARING WALL - REFERENCE ARCHITECTURAL PLAN FOR WALL THICKNESS.
- SLOPE — SLOPE SLAB 1/4" PER FOOT U.N.O. PER PLAN
- HDU2 — HOLDOWNS INDICATED ON THE FOUNDATION PLAN ARE SHOWN HALFTONE FOR REFERENCE ONLY. REFER TO THE S1.2 SHEET FOR SPECIFICS OF EMBEDDED ITEMS RELATED TO HOLDOWNS.

Note: ALL SECTION CUTS ARE TYPICAL

FOUNDATION NOTES

1. ALL SOIL BEARING SURFACES ARE SUBJECT TO INSPECTION AND APPROVAL BY THE GEOTECHNICAL ENGINEER PRIOR TO REINFORCING AND CONCRETE PLACEMENT.
2. CENTER INTERIOR FOOTINGS ON WALLS OR COLUMNS TYPICAL U.N.O.
3. VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION.
4. SEE ARCHITECTURAL PLANS FOR WALL LOCATIONS.
5. CONCRETE WALLS ARE 8" THICK TYPICAL U.N.O.
6. SEE SHEET S2.2 FOR WOOD FRAMING LEGEND, NOTES, AND SCHEDULES.
7. PROVIDE 4" DIAMETER PERFERATED FOOTING DRAINS AT PERIMETER OF FOUNDATIONS TYPICAL. PROVIDE 4" DIAMETER TIGHTLINES FOR DOWNSPOUTS.
8. REFERENCE ARCHITECTURAL DRAWINGS FOR WALL THICKNESS. PROVIDE 2x6 @ 16"O.C. TYPICAL AT EXTERIOR WALLS AND 2x4 @ 16"O.C. AT INTERIOR WALLS, UNLESS INDICATED OTHERWISE BY ARCHITECT.
9. ALL BEAMS ARE FLUSH FRAMED UNLESS NOTED OTHERWISE.
10. WHERE LOADS FROM ABOVE INDICATED USE MIN (3) STUDS AT POST COND UNO.

FOUNDATION KEY NOTES

- 21.1 — 6'-0" WIDE ACCESS OPENING ALLOWED.
- 21.2 — OPTION TO USE 1-TJI 110 @ 16"O.C. PROVIDED ANOTHER 8 3/4" x 12" BEAM IS ADDED IN THE NORTH SOUTH DIRECTION IN THE BASEMENT, CUTTING THE MAXIMUM JOIST SPAN DOWN TO 12'-3".
- 21.3 —
- 21.4 —
- 21.5 —

FOUNDATION SCHEDULE

MARK	DEPTH	WIDTH	LENGTH	REINFORCING	DETAILS
F10	12"	1'-0"	RE: PLAN	(2) #5 CONT. BOTTOM	-
F16 (EXT)	10"	1'-6"	RE: PLAN	(2) #5 CONT. BOTTOM	11 & 12 / S6.0
F16 (INT)	12"	1'-6"	RE: PLAN	(1) #5 TOP & BOTTOM	1 / S6.1
F2.0	12"	2'-0"	2'-0"	(3) #5 EACH WAY BOTTOM	7 / S6.0
F3.0	12"	3'-0"	3'-0"	(4) #5 EACH WAY BOTTOM	7 / S6.0
F4.0	12"	4'-0"	4'-0"	(5) #5 EACH WAY BOTTOM	7 / S6.0
FA	24"	RE: PLAN	RE: PLAN	#5 AT 6"OC SHORT AND LONG BOTTOM	-

GRAPHIC SCALE
-4' 0' 2' 4' 8'
(1 inch = 4 foot)

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

Level 1 Framing-Fdn Plan

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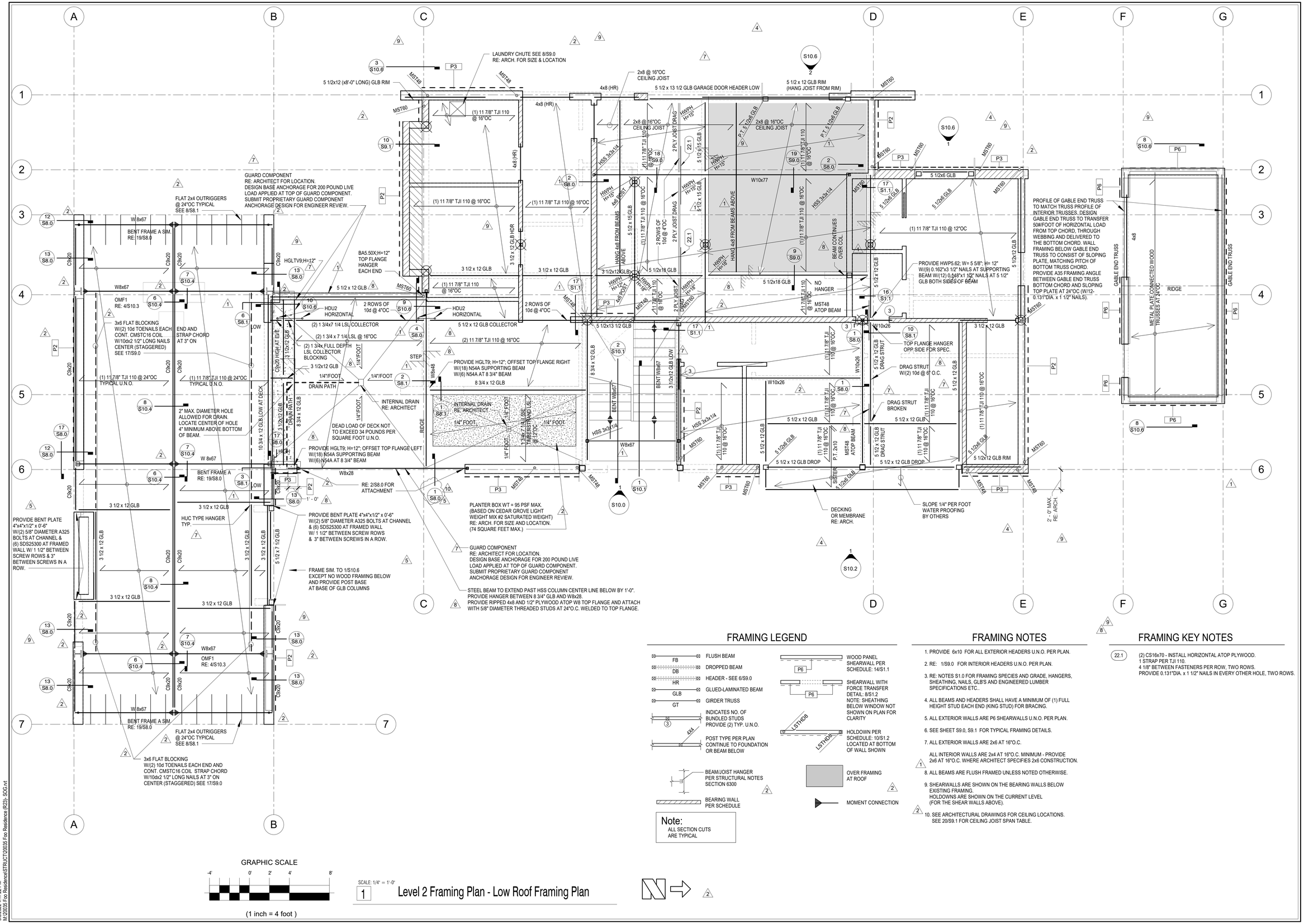
S2.1



FRAMING LEGEND

- FB — FLUSH BEAM
- DB — DROPPED BEAM
- HR — HEADER - SEE 6/S9.0
- GLB — GLUED-LAMINATED BEAM
- GT — GIRDER TRUSS
- (3) — INDICATES NO. OF BUNDLED STUDS PROVIDE (2) TYP. U.N.O.
- 4X4 — POST TYPE PER PLAN CONTINUE TO FOUNDATION OR BEAM BELOW
- BEAM/JOIST HANGER PER STRUCTURAL NOTES SECTION 6300
- BEARING WALL PER SCHEDULE
- P6 — WOOD PANEL SHEARWALL PER SCHEDULE: 14/S1.1
- P6 — SHEARWALL WITH FORCE TRANSFER DETAIL: 8/S1.2 NOTE: SHEATHING BELOW WINDOW NOT SHOWN ON PLAN FOR CLARITY
- LSTHD8 — HOLDOWN PER SCHEDULE: 10/S1.2 LOCATED AT BOTTOM OF WALL SHOWN
- OVER FRAMING AT ROOF
- MOMENT CONNECTION

Note: ALL SECTION CUTS ARE TYPICAL

FRAMING NOTES

1. PROVIDE 6x10 FOR ALL EXTERIOR HEADERS U.N.O. PER PLAN.
2. RE: 1/S9.0 FOR INTERIOR HEADERS U.N.O. PER PLAN.
3. RE: NOTES S1.0 FOR FRAMING SPECIES AND GRADE, HANGERS, SHEATHING, NAILS, GLB'S AND ENGINEERED LUMBER SPECIFICATIONS ETC..
4. ALL BEAMS AND HEADERS SHALL HAVE A MINIMUM OF (1) FULL HEIGHT STUD EACH END (KING STUD) FOR BRACING.
5. ALL EXTERIOR WALLS ARE P6 SHEARWALLS U.N.O. PER PLAN.
6. SEE SHEET S9.0, S9.1 FOR TYPICAL FRAMING DETAILS.
7. ALL EXTERIOR WALLS ARE 2x6 AT 16"O.C.

1 ALL INTERIOR WALLS ARE 2x4 AT 16"O.C. MINIMUM - PROVIDE 2x6 AT 16"O.C. WHERE ARCHITECT SPECIFIES 2x6 CONSTRUCTION.

8. ALL BEAMS ARE FLUSH FRAMED UNLESS NOTED OTHERWISE.
9. SHEARWALLS ARE SHOWN ON THE BEARING WALLS BELOW EXISTING FRAMING. HOLDOWNS ARE SHOWN ON THE CURRENT LEVEL (FOR THE SHEAR WALLS ABOVE).

2 10. SEE ARCHITECTURAL DRAWINGS FOR CEILING LOCATIONS. SEE 20/S9.1 FOR CEILING JOIST SPAN TABLE.

FRAMING KEY NOTES

22.1 (2) CS16x70 - INSTALL HORIZONTAL ATOP PLYWOOD. 1 STRAP PER TJI 110. 4 1/8" BETWEEN FASTENERS PER ROW, TWO ROWS. PROVIDE 0.131"DIA. x 1 1/2" NAILS IN EVERY OTHER HOLE, TWO ROWS.

GRAPHIC SCALE

-4' 0' 2' 4' 8'

(1 inch = 4 foot)

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

1 Level 2 Framing Plan - Low Roof Framing Plan

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Level 2 Framing Plan - Low Roof

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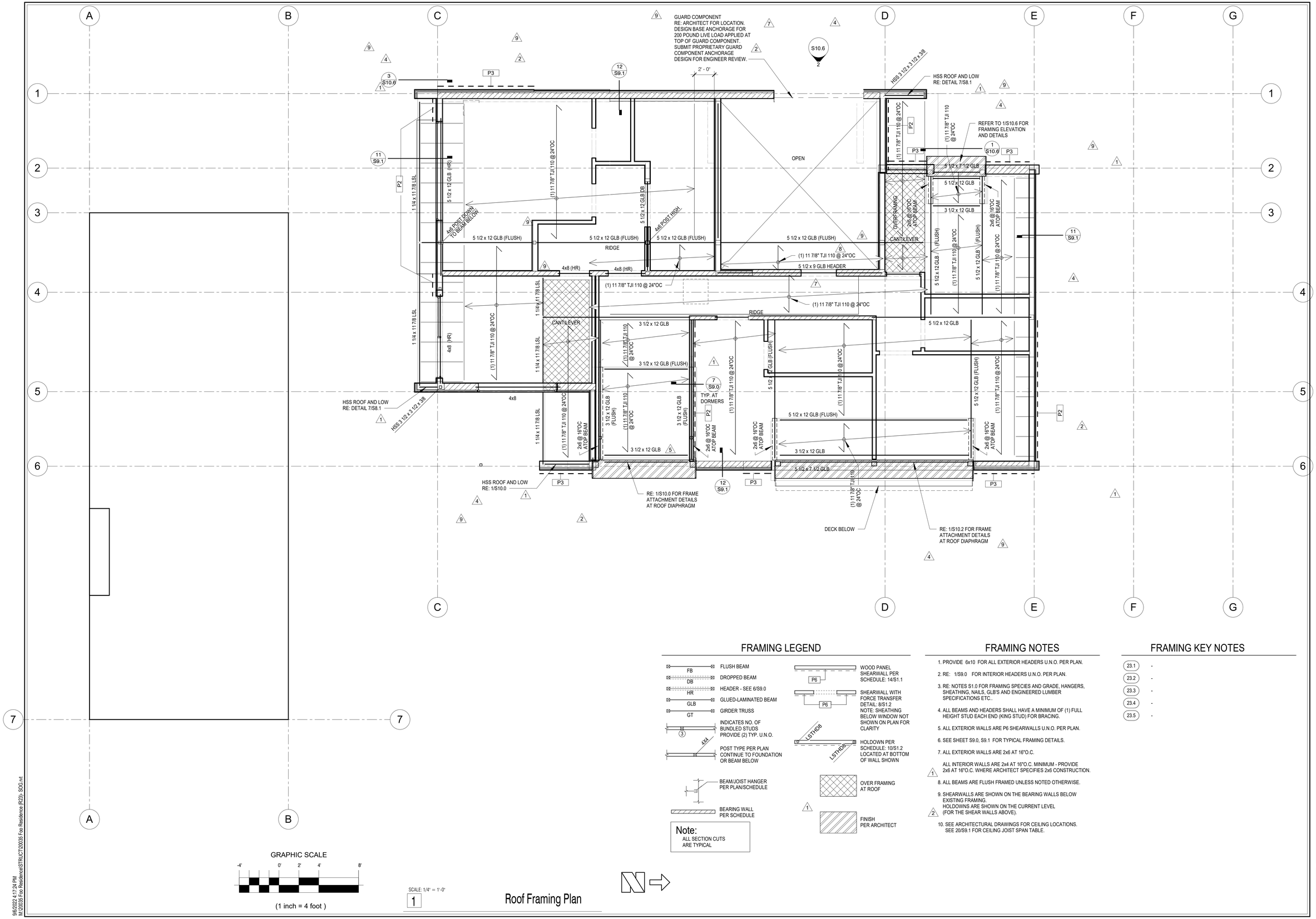
S2.2



FRAMING LEGEND

- FB — FLUSH BEAM
- DB — DROPPED BEAM
- HR — HEADER - SEE 6/S9.0
- GLB — GLUED-LAMINATED BEAM
- GT — GIRDER TRUSS
- (3) — INDICATES NO. OF BUNDLED STUDS PROVIDE (2) TYP. U.N.O.
- 4X4 — POST TYPE PER PLAN CONTINUE TO FOUNDATION OR BEAM BELOW
- BEAM/JOIST HANGER PER PLAN/SCHEDULE
- BEARING WALL PER SCHEDULE
- P6 — WOOD PANEL SHEARWALL PER SCHEDULE: 14/S1.1
- P6 — SHEARWALL WITH FORCE TRANSFER DETAIL: 8/S1.2 NOTE: SHEATHING BELOW WINDOW NOT SHOWN ON PLAN FOR CLARITY
- LSTHD8 — HOLDOWN PER SCHEDULE: 10/S1.2 LOCATED AT BOTTOM OF WALL SHOWN
- OVER FRAMING AT ROOF
- FINISH PER ARCHITECT

Note:
ALL SECTION CUTS ARE TYPICAL

FRAMING NOTES

1. PROVIDE 6x10 FOR ALL EXTERIOR HEADERS U.N.O. PER PLAN.
2. RE: 1/S9.0 FOR INTERIOR HEADERS U.N.O. PER PLAN.
3. RE: NOTES S1.0 FOR FRAMING SPECIES AND GRADE, HANGERS, SHEATHING, NAILS, GLB'S AND ENGINEERED LUMBER SPECIFICATIONS ETC..
4. ALL BEAMS AND HEADERS SHALL HAVE A MINIMUM OF (1) FULL HEIGHT STUD EACH END (KING STUD) FOR BRACING.
5. ALL EXTERIOR WALLS ARE P6 SHEARWALLS U.N.O. PER PLAN.
6. SEE SHEET S9.0, S9.1 FOR TYPICAL FRAMING DETAILS.
7. ALL EXTERIOR WALLS ARE 2x6 AT 16"O.C.
- 1 — ALL INTERIOR WALLS ARE 2x4 AT 16"O.C. MINIMUM - PROVIDE 2x6 AT 16"O.C. WHERE ARCHITECT SPECIFIES 2x6 CONSTRUCTION.
8. ALL BEAMS ARE FLUSH FRAMED UNLESS NOTED OTHERWISE.
9. SHEARWALLS ARE SHOWN ON THE BEARING WALLS BELOW EXISTING FRAMING. HOLDOWNS ARE SHOWN ON THE CURRENT LEVEL (FOR THE SHEAR WALLS ABOVE).
- 2 —
10. SEE ARCHITECTURAL DRAWINGS FOR CEILING LOCATIONS. SEE 20/S9.1 FOR CEILING JOIST SPAN TABLE.

FRAMING KEY NOTES

- 23.1 -
- 23.2 -
- 23.3 -
- 23.4 -
- 23.5 -

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High Roof Framing Plan

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S2.3

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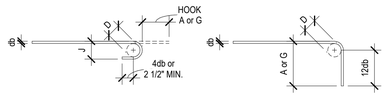
BAR SIZE	Ld	f'c=3000 PSI	
		OTHER BARS LAP SPLICE	TOP BARS LAP SPLICE
#3	16"	21"	28"
#4	22"	28"	37"
#5	27"	36"	46"
#6	33"	43"	56"

LAP SPLICE SCHEDULE NOTES:
1. TENSION LAP SPLICE SHOWN ABOVE FOR CONCRETE COVER GREATER THAN OR EQUAL TO BAR DIAMETER AND CENTER TO CENTER SPACING GREATER THAN OR EQUAL TO TWO BAR DIAMETERS (SPACING AND COVER CASE1). TENSION LAP SPLICE SHOWN ABOVE ARE CLASS B SPLICES.
2. "OTHER BARS" ARE ALL VERTICAL BARS AND HORIZONTAL BARS WITH LESS THAN 12" OF CONCRETE CAST BELOW THE BAR.
3. "TOP BARS" ARE HORIZONTAL BARS WITH MORE THAN 12" OF CONCRETE CAST BELOW THE BARS.
4. COMPRESSION LAP SPLICES SHALL BE 30 BAR DIAMETERS MIN. U.N.O. ON THE DRAWINGS
5. DEVELOPMENT LENGTH (Ld) IS "OTHER BARS", CLASS A.

SCALE: NONE
1 TYPICAL LAP SPLICE SCHEDULE

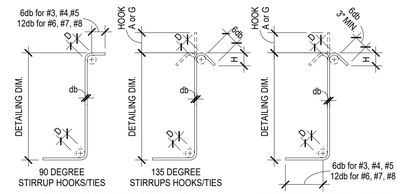
BAR SIZE	D	STANDARD 180 DEGREE HOOK			STANDARD 90 DEGREE HOOK		
		D	A OR G	J	BAR SIZE	D	A OR G
#3	6db	2 1/4"	5"	3"	#3	2 1/4"	6"
#4	6db	3"	6"	4"	#4	3"	8"
#5	6db	3 3/4"	7"	5"	#5	3 3/4"	10"
#6	6db	4 1/2"	8"	6"	#6	4 1/2"	1'-0"



STANDARD 180 DEGREE HOOK
STANDARD 90 DEGREE HOOK
D=FINISHED INSIDE BEND DIAMETER

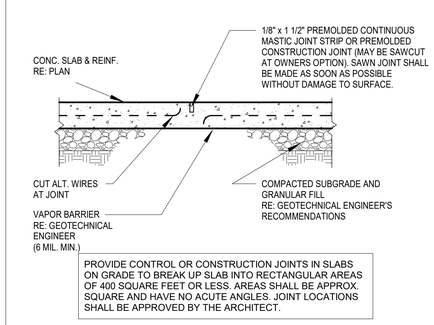
SCALE: NONE
2 STANDARD HOOK DETAILS

BAR SIZE	D	D	STIRRUP HOOKS/TIES			SEISMIC STIRRUP/TIE	
			90 DEGREE	135 DEGREE		135 DEGREE SEISMIC HOOK	
			A or G	A or G	APPROX. H	A or G	APPROX. H
#3	4db	1 1/2"	4"	4"	2 1/2"	4 1/4"	3"
#4	4db	2"	4 1/2"	4 1/2"	3"	4 1/2"	3"
#5	4db	2 1/2"	6"	5 1/2"	3 3/4"	5 1/2"	3 3/4"
#6	6db	4 1/2"	1'-0"	7 3/4"	4 1/2"	7 3/4"	4 1/2"



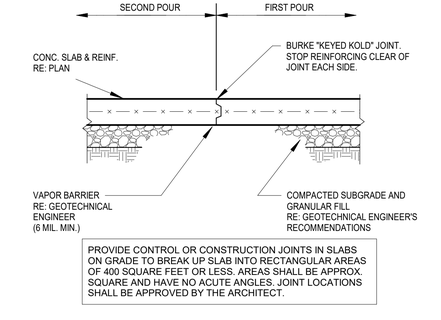
90 DEGREE STIRRUP HOOKS/TIES
135 DEGREE STIRRUPS HOOKS/TIES
135 DEGREE SEISMIC STIRRUPS/TIES
D=FINISHED INSIDE BEND DIAMETER

SCALE: NONE
3 STIRRUP and TIE HOOK DETAILS



PROVIDE CONTROL OR CONSTRUCTION JOINTS IN SLABS ON GRADE TO BREAK UP SLAB INTO RECTANGULAR AREAS OF 400 SQUARE FEET OR LESS. AREAS SHALL BE APPROX. SQUARE AND HAVE NO ACUTE ANGLES. JOINT LOCATIONS SHALL BE APPROVED BY THE ARCHITECT.

SCALE: NONE
4 TYPICAL SHRINKAGE CONTROL JOINT (S.J.)



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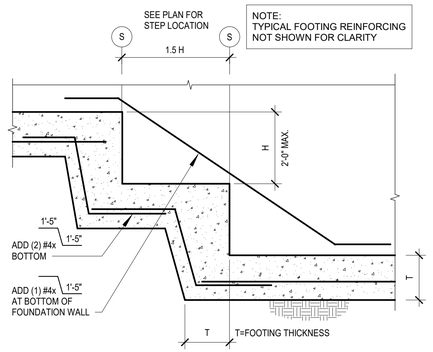
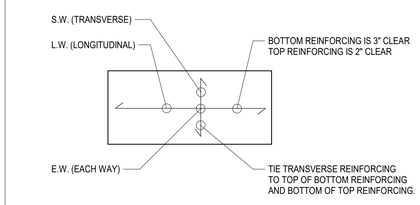
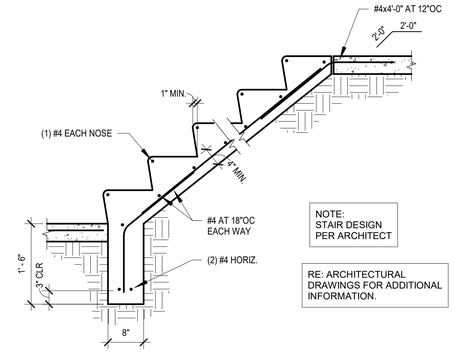
SCALE: NONE
5 TYPICAL CONSTRUCTION JOINT (C.J.)



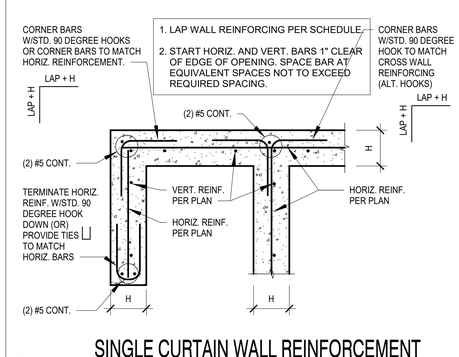
SCALE: 3/4" = 1'-0"
6 TYPICAL STEPPED FOOTING



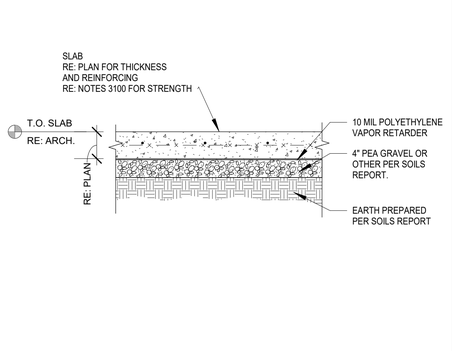
SCALE: 3/4" = 1'-0"
7 TYPICAL FOOTING REINFORCEMENT PLACEMENT



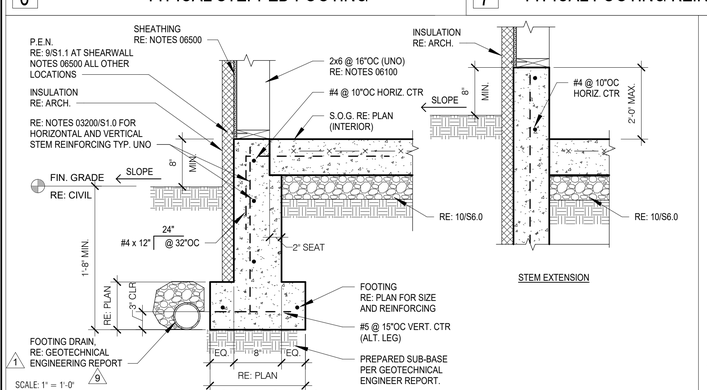
SCALE: 3/4" = 1'-0"
8 TYPICAL STAIR ON GRADE



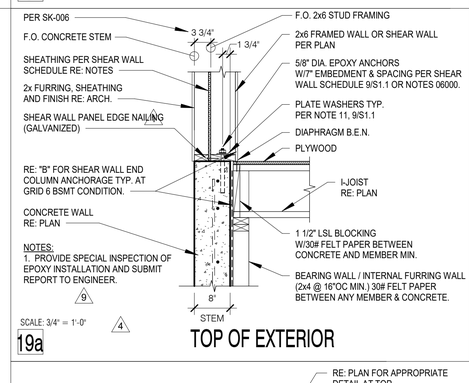
SCALE: 3/4" = 1'-0"
9 SINGLE CURTAIN WALL REINFORCEMENT PLACEMENT



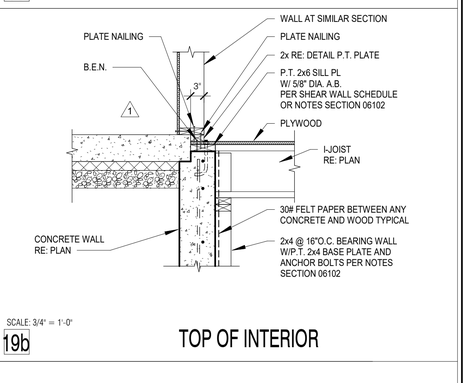
SCALE: 3/4" = 1'-0"
10 TYPICAL INTERIOR SLAB ON GRADE



SCALE: 1" = 1'-0"
11 TYP. PERIMETER FOOTING AT SLAB ON GRADE

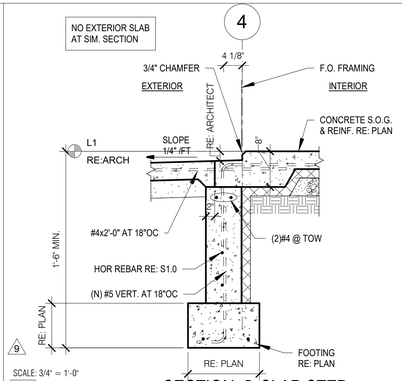


SCALE: 3/4" = 1'-0"
19a TOP OF EXTERIOR

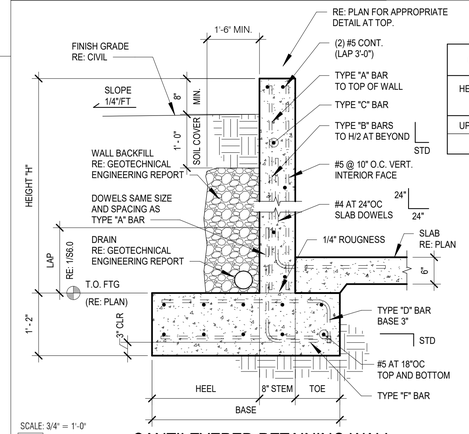


SCALE: 3/4" = 1'-0"
19b TOP OF INTERIOR

SCALE: 1" = 1'-0"
11 TYP. PERIMETER FOOTING AT SLAB ON GRADE



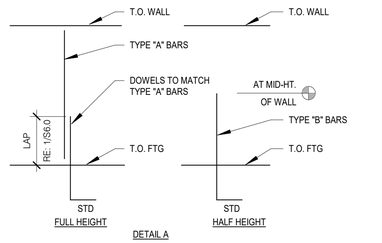
SCALE: 3/4" = 1'-0"
18 SECTION @ SLAB STEP



SCALE: 3/4" = 1'-0"
19 CANTILEVERED RETAINING WALL

Retaining Wall Schedule

CONCRETE DIMENSIONS			REINFORCING				
HEIGHT "H"	TOE	HEEL	FULL HEIGHT VERT. BARS TYPE "A"	HALF HEIGHT VERT. BARS TYPE "B"	HORIZ. BARS TYPE "C"	FOOTING BARS TYPE "D"	FOOTING BARS TYPE "F"
UP TO 11'-0"	3'-4"	3'-0"	#6 AT 14"OC	#6 AT 14"OC	#4 AT 10"OC	#5 AT 14"OC	#5 AT 14"OC
					STAGGER FACE		



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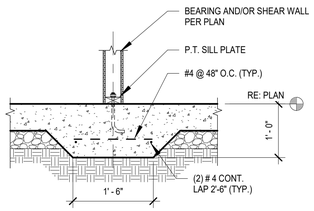
CD: PERMIT: 06.11.2020
OTHER: BD

Typical Concrete Details
Foo Residence
3453 74th Ave SE
Mercer Island, WA 98040

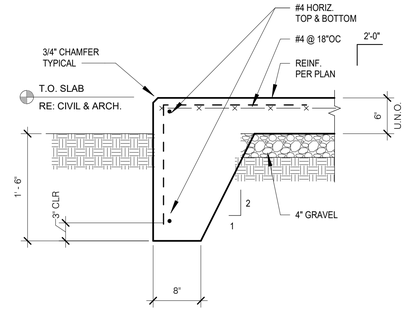
S6.0

9/6/2022 4:17:24 PM
M:\20035 Foo Residence\STRUCT\20035 Foo Residence (R23) - SOG.rvt



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

1 THICKENED SLAB FTG



SCALE: 1" = 1'-0"

2 TYPICAL EXTERIOR SLAB TURNED DOWN EDGE

2 4 9

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06/11/20

No.	REVISION	DATE
2	RESPONSE TO CITY COMMENTS	03.16.2021
4	VE APPROVED 11.04.2021	12.10.2021
9	CA Re Issue	06.07.2022

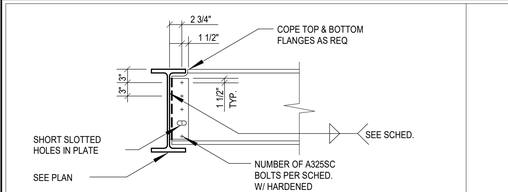
Typical Concrete Details

Foo Residence
3453 74th Ave SE
Mercer Island, WA 98040

JOB #: 20035
ENG: Designer
CAD: Author
SCALE: As indicated

KEY ISSUE DATES:
SD:
DD:
CD:
PERMIT: 06.11.2020
OTHER: BD

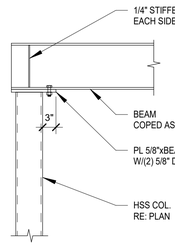
S6.1



BEAM SIZE	NO. OF BOLTS REQUIRED	PLATE THICKNESS	WELD SIZE	CONNECTION CAPACITY (SINGLE SHEAR)
W8	(2) 7/8" DIA.	1/4	1/4	8.0
W10	(2) 7/8" DIA.	1/4	1/4	8.0
W12	(3) 7/8" DIA.	1/4	1/4	15.7
W14	(4) 7/8" DIA.	1/4	1/4	25.3
W24	(7) 7/8" DIA.	3/8	5/16	54.5

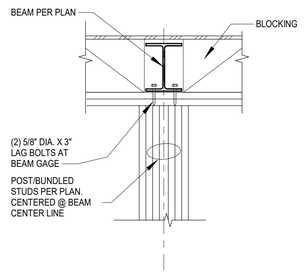
SCALE: 3/4" = 1'-0"

1 SHEAR TAB CONNECTION



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

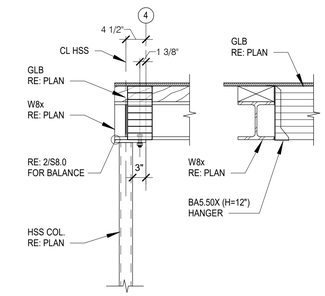
2 TYPICAL COLUMN TO END BEAM



2

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

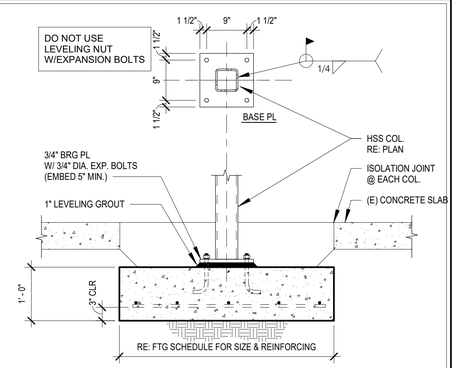
3 SUPPORT AT STEEL BEAM



5 9 2

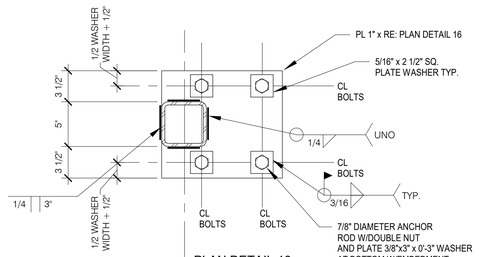
SCALE: 3/4" = 1'-0"

4 TYPICAL COLUMN TO END BEAM

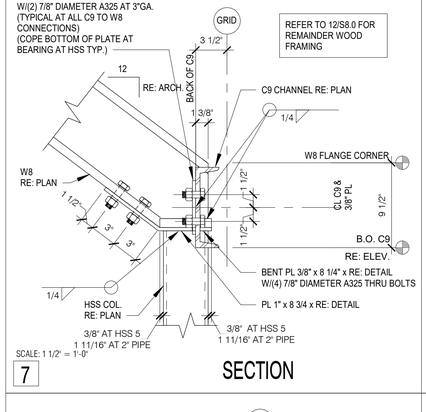


SCALE: 3/4" = 1'-0"

5 TYPICAL STEEL COLUMN AT FOOTING

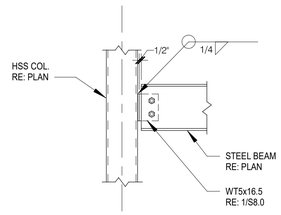


PLAN DETAIL 16



SCALE: 1 1/2" = 1'-0"

7 SECTION



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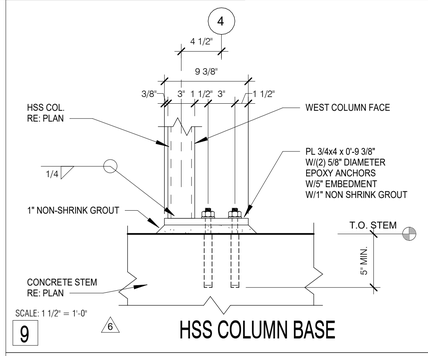
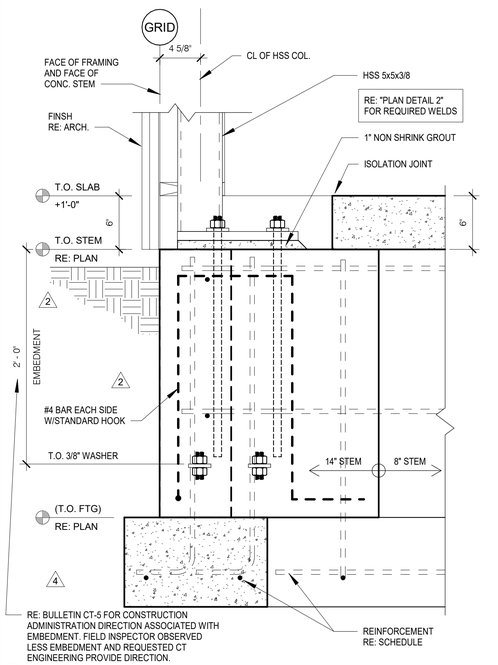
SCALE: 3/4" = 1'-0"

8 SECTION



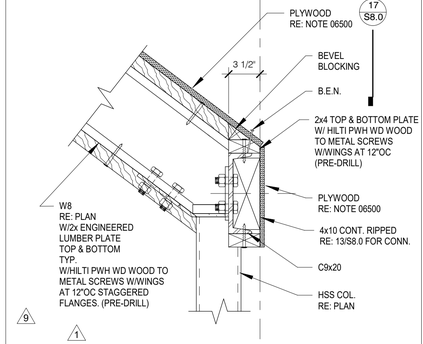
SCALE: 1 1/2" = 1'-0"

9 6 HSS COLUMN BASE



SCALE: 1 1/2" = 1'-0"

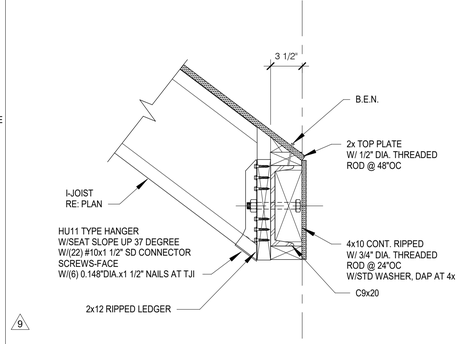
16 6 BENT FRAME A



9 1

SCALE: 1 1/2" = 1'-0"

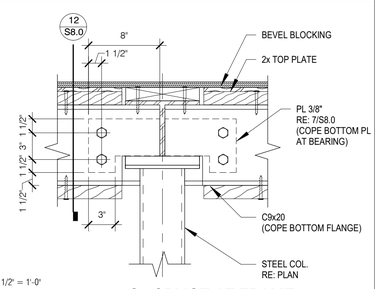
12 C9 STRUCTURAL FASCIA AT W8



9

SCALE: 1 1/2" = 1'-0"

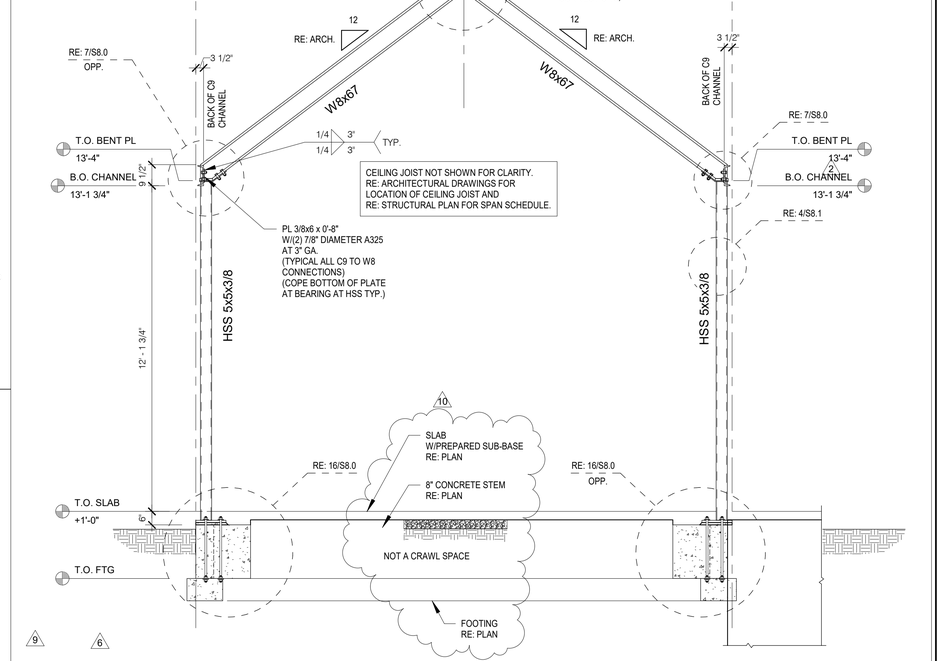
13 C9 STRUCTURAL FASCIA AT 11 7/8" TJI



9

SCALE: 1 1/2" = 1'-0"

17 C9 SPLICE AT FRAME



9 6

SCALE: 3/8" = 1'-0"

19 BENT FRAME A - ELEVATION

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06/11/20

No.	REVISION	DATE
1	RESPONSE TO CITY COMMENTS	01.08.2021
2	RESPONSE TO CITY COMMENTS	03.16.2021
4	VE APPROVED 11.04.2021	12.10.2021
5	VE APPROVED 11.04.2021	12.21.2021
6	Steel Shop/Deck Revisions	02.04.2022
9	CA Re Issue	06.07.2022
10	RE:SUBMITTAL	09.06.2022

JOB #: 20205
ENG: BJM
CAD: JMA
SCALE: As indicated

KEY ISSUE DATES:
SD: SD
DD: DD
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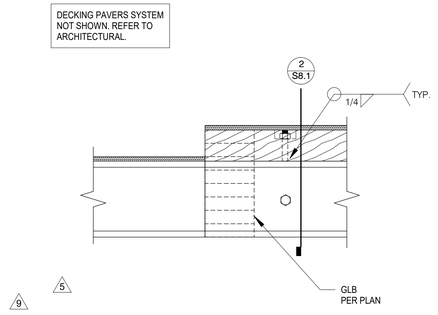
PERMIT: 06.11.2020
OTHER: BD

Steel Framing Details

Foo Residence
3453 74th Ave SE
Mercer Island, WA 98040

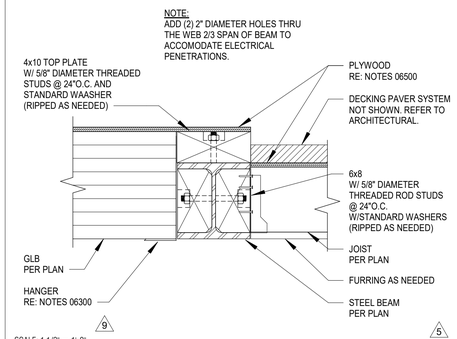
S8.0

9/6/2022 4:17:25 PM
M:\20035 Foo Residence\STRUCT\20035 Foo Residence (R23)- SOG.rvt



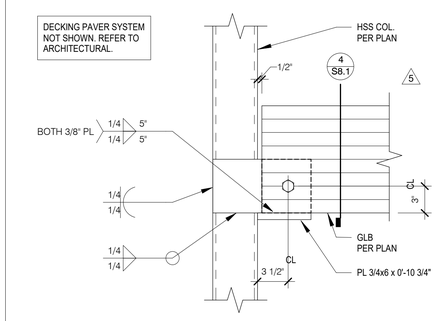
SCALE: 1 1/2" = 1'-0"

1 GLB AT W8x48



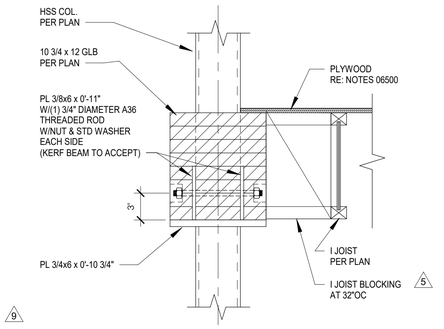
SCALE: 1 1/2" = 1'-0"

2 SECTION



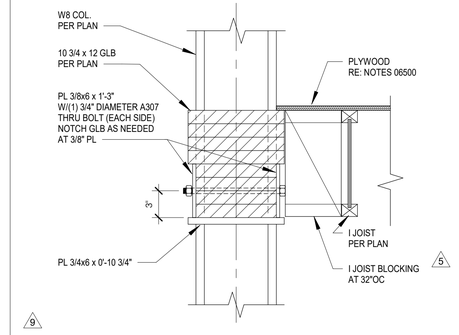
SCALE: 1 1/2" = 1'-0"

3 10 3/4" GLB AT HSS COL.



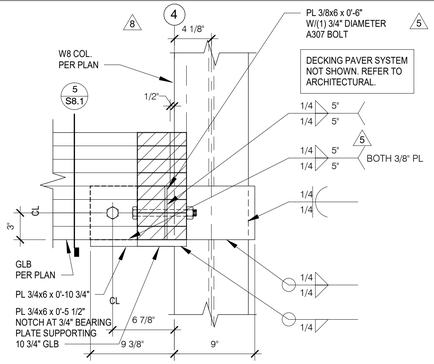
SCALE: 1 1/2" = 1'-0"

4 10 3/4" GLB AT HSS COL.



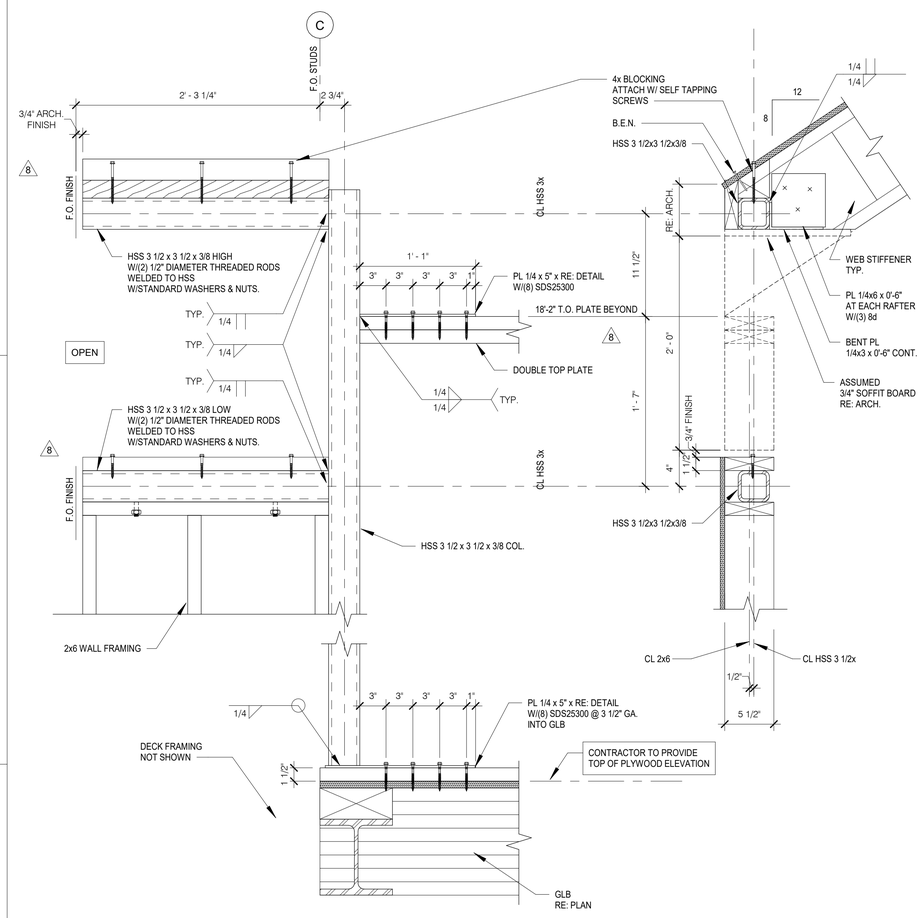
SCALE: 1 1/2" = 1'-0"

5 10 3/4" GLB AT W8 COL.



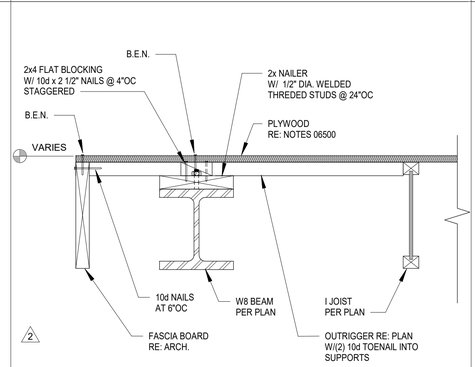
SCALE: 1 1/2" = 1'-0"

6 10 3/4" GLB AT W8 COL.



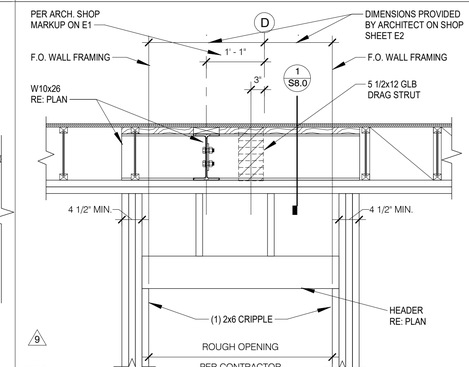
SCALE: 1 1/2" = 1'-0"

7 STEEL FRAME AT END



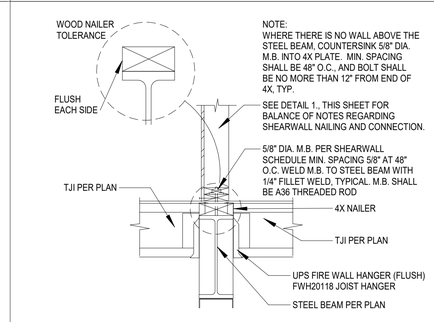
SCALE: 1 1/2" = 1'-0"

8 OUTRIGGER DETAIL



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

10 INTERIOR STEEL HEADER



UPS	TOP	FACE	JOIST
FWH20118	(2) 0.148" DIA. x3"	(2) 0.148" DIA. x3"	(6) 0.148" DIA. x1 1/2"

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

15 TYPICAL SECTION

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01/07/21

No.	REVISION	DATE
1	RESPONSE TO CITY COMMENTS	01.06.2021
2	RESPONSE TO CITY COMMENTS	03.16.2021
5	VE APPROVED 11.04.2021	12.21.2021
7	Deck Framing Changes	02.07.2022
8	Deck Revision	03.02.2022
9	CA Re Issue	06.07.2022

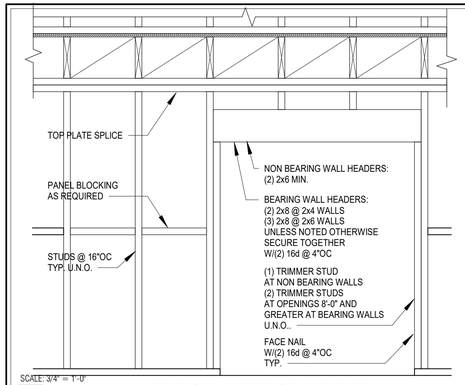
JOB #: 20035
ENG: BJM
CAD: JMA
SCALE: As indicated

KEY ISSUE DATES:
SD: SD
DD: DD
CD: CD
PERMIT: 08.11.2020
OTHER: BD

Steel Framing Details

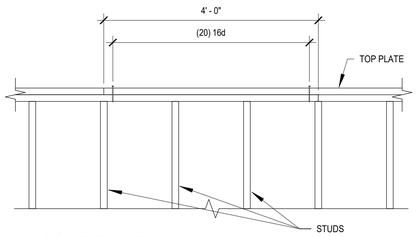
Foo Residence
3453 74th Ave SE
Mercer Island, WA 98040

S8.1 1



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

1 TYPICAL INTERIOR HEADER

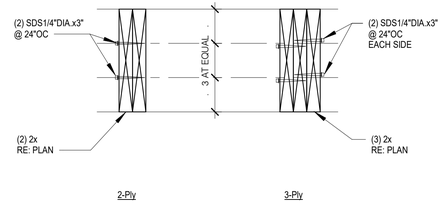


TOP PLATE SPLICE NOTES:
1. SPLICE AND NAIL TOP PLATES SHAOWN AT ALL EXTERIOR, PLUMBING, PARTY AND SHEAR WALLS AT EACH FLOOR LEVEL AND AT ROOF.

2. PROVIDE (2) LSTA 36 STRAP W/(26) 10d NAILS ONE EACH SIDE WHERE DRILLED HOLES EXCEED THE FOLLOWING:
1" FOR 2x4
3" FOR 2x6 WALL PLATES, CENTER ALL HOLES MIN. EDGE DISTANCE = 1 1/4".

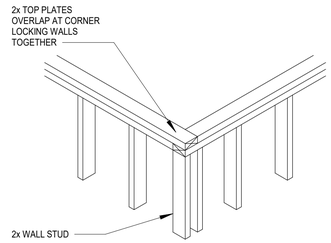
SCALE: 3/4" = 1'-0"

2 TYPICAL TOP PLATE SPLICE



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

3 TYPICAL 2 or 3 PLY RAFTER or JOIST ATTACHMENT



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

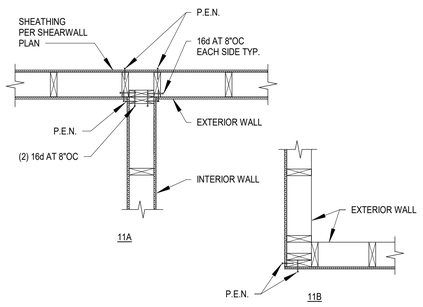
4 TYPICAL TOP PLATE FRAMING DETAIL

IBC 2015 TABLE 2304.10.1 FASTENING SCHEDULE

	CONNECTION	FASTENING (a)	LOCATION
ROOF			
1.	BLOCKING BETWEEN CEILING JOISTS,RAFTERS OR TRUSSES TO TOP PLATE OR OTHER FRAMING BELOW	(3) 8d COMMON (2 1/2" X 0.131"); OR (3) 3" X 0.131" NAILS	EACH END, TOENAIL
	BLOCKING BETWEEN RAFTERS OR TRUSSES NOT AT THE WALL TOP PLATE, TO RAFTER OR TRUSS	(2) 8d COMMON (2 1/2" X 0.131") (2) 3" X 0.131" NAILS	EACH END, TOENAIL
	BLOCKING BETWEEN RAFTERS OR TRUSSES NOT AT THE WALL TOP PLATE, TO RAFTER OR TRUSS	(2) 16d COMMON (3 1/2" X 0.162") (3) 3" X 0.131" NAILS	EACH END
	FLAT BLOCKING TO TRUSS AND WEB FILLER	16d COMMON (3 1/2" X 0.161") AT 6"OC...	FACE NAIL
2.	CEILING JOISTS TO TOP PLATE	(3) 8d COMMON (3 1/2" X 0.131"); OR (3) 3" X 0.131" NAILS	EACH JOIST, TOENAIL
3.	CEILING JOIST NOT ATTACHED TO PARALLEL RAFTER, LAPS OVER PARTITIONS (NO THRUST) (SEE SECTION 2308.7.3.1, TABLE 2308.7.3.1)	(3) 16d COMMON (3 1/2" X 0.162"); OR (4) 3" X 0.131" NAILS	FACE NAIL
4.	CEILING JOIST ATTACHED TO PARALLEL RAFTER (HEEL JOINT) (SEE SECTION 2308.7.3.1, TABLE 2308.7.3.1)	PER TABLE 2308.7.3.1	FACE NAIL
5.	COLLAR TIE TO RAFTER	(3) 10d COMMON (3" X 0.148"); OR (4) 3" X 0.131" NAILS	FACE NAIL
6.	RAFTER OR ROOF TRUSS TO TOP PLATE (SEE SECTION 2308.7.5, TABLE...	(3) 10d COMMON (3" X 0.148");OR (4) 3" X 0.131" NAILS	TOENAIL
7.	ROOF RAFTERS TO RIDGE VALLEY OR HIP RAFTERS; OR ROOF RAFTER TO 2-INCH RIDGE BEAM	(2) 16d COMMON (3 1/2" X 0.162");OR (3) 3" X 0.131" NAILS	END NAIL
WALL			
8.	STUD TO STUD (NOT AT BRACED WALL PANELS)	16d COMMON (3 1/2" X 0.162"); 3" X 0.131" NAILS	24"OC FACE NAIL 16"OC FACE NAIL
9.	STUD TO STUD AND ABUTTING STUDS AT INTERSECTING WALL CORNERS (AT BRACED WALL PANELS)	16d COMMON (3 1/2" X 0.162");OR 3" X 0.131" NAILS	16"OC FACE NAIL 12"OC FACE NAIL
10.	BUILT-UP HEADER (2" TO 2" HEADER)	16d COMMON (3 1/2" X 0.162")	16"OC EACH EDGE, FACE NAIL
11.	CONTINUOUS HEADER TO STUD	(4) 8d COMMON (2 1/2" X 0.131")	TOENAIL
12.	TOP PLATE TO TOP PLATE	16d COMMON (3 1/2" X 0.162") OR 3" X 0.131" NAILS	16"OC FACE NAIL 12"OC FACE NAIL
13.	TOP PLATE TO TOP PLATE, AT END JOINTS	(8) 16d COMMON (3 1/2" X 0.162") OR (12) 3" X 0.131" NAILS	EACH SIDE OF END JOINT, FACE NAIL (MINIMUM 24" LAP SPLICE LENGTH EACH SIDE OF END JOINT)
14.	BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST OR BLOCKING (NOT AT BRACED WALL PANELS)	16d COMMON (3 1/2" X 0.162"); OR 3" X 0.131" NAILS	16"OC FACE NAIL 12"OC FACE NAIL
15.	BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST OR BLOCKING AT BRACED WALLO PANELS	(2) 16d COMMON (3 1/2" X 0.162"); OR (4) 3" X 0.131" NAILS	16"OC FACE NAIL
16.	STUD TO TOP OR BOTTOM PLATE	(4) 8d COMMON (2 1/2" X 0.131"); OR (3) 3" X 0.131" NAILS	TOENAIL
	STUD TO TOP OR BOTTOM PLATE	(2) 16d COMMON (3 1/2" X 0.162"); OR...	END NAIL
17.	TOP OT BOTTOM PLATE TO STUD	(2) 16d COMMON (3 1/2" X 0.162"); OR END NAIL (3) 3" X 0.131" NAILS	
18.	TOP PLATES, LAPS AT CORNERS AND INTERSECTIONS	(2) 16d COMMON (3 1/2" X 0.162"); OR FACE NAIL (3) 3" X 0.131" NAILS	
19.	1" BRACE TO EACH STUD AND PLATE	(2) 8d COMMON (2 1/2" X 0.131"); OR (2) 3" X 0.131" NAILS	FACE NAIL
20.	1" X 6" SHEATHING TO EACH BEARING	(2) 8d COMMON (2 1/2" X 0.131")	FACE NAIL
21.	1" X 8" AND WIDER SHEATHING TO EACH BEARING	(3) 8d COMMON (2 1/2" X 0.131")	FACE NAIL
FLOOR			
22.	JOIST TO SILL, TOP PLATE, OR GIRDER	(3) 8d COMMON (2 1/2" X 0.131"); OR 3" X 0.131" NAILS	TOENAIL
23.	RIM JOIST, BAND JOIST, OR BLOCKING TO TOP PLATE, SILL OR OTHER...	8d COMMON (2 1/2" X 0.131"); OR 3" X 0.131" NAILS	6"OC, TOENAIL
24.	1" X 6" SUBFLOOR OR LESS TO EACH...	(2) 8d COMMON (2 1/2" X 0.131")	FACE NAIL
25.	2" SUBFLOOR TO JOIST OR GIRDER	(2) 16d COMMON (3 1/2" X 0.162")	FACE NAIL
26.	2" PLANKS (PLANK NAD BEAM-FLOOR AND ROOF)	(2) 16d COMMON (3 1/2" X 0.162")	EACH BEARING, FACE NAIL
27.	BUILT-UP GIRDERS AND BEAMS, 2" LUMBER LAYERS	20d COMMON (4" X 0.192")	32"OC, FACE NAIL AT TOP AND BOTTOM STAGGERED ON OPPOSITE SIDES
		3" X 0.131" NAILS	24"OC, FACE NAIL AT TOP AND BOTTOM STAGGERED ON...
		(2) 20d COMMON (4" X 0.192"); OR (3) 3" X 0.131" NAILS	END JOIST OR RAFTER, FACE NAIL
28.	LEDGER STRIP SUPPORTING JOISTS OR RAFTERS	(3) 16d COMMON (3 1/2" X 0.162"); OR (4) 3" X 0.131" NAILS	FACE NAIL
		(2) 16d COMMON (3) 3" X 0.131" NAILS	FACE NAIL
29.	JOIST TO BAND JOIST OR RIM JOIST	(3) 16d COMMON (3 1/2" X 0.162"); OR (4) 3" X 0.131" NAILS	END NAIL
30.	BRIDGING OR BLOCKING TO JOIST, RAFTER OR TRUSS	(2) 8d COMMON (2 1/2" X 0.131"); OR (2) 3" X 0.131" NAILS	EACH END, TOENAIL
31.	WOOD STRUCTURAL PANELS TO FRAMING SUBFLOOR TO FRAMING	SEE SHEARWALL SCHEDULE SEE STRUCTURAL NOTES	SECTION06160

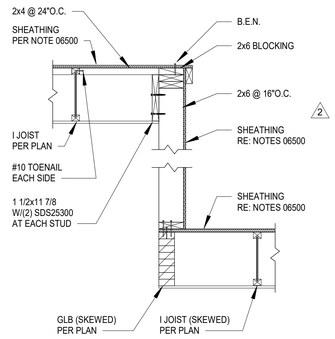
a. COMMON OR BOX NAILS ARE PERMITTED TO BE USED EXCEPT WHERE NOTED OTHERWISE.

b. FASTENING SCHEDULE BASED ON IBC TABLE 2304.10.1 AND PROVIDES THE MINIMUM NAILING REQUIRED. WHEN SPECIFIED ELSEWHERE IN THESE PLANS PROVIDE NAILING AS SPECIFIED. SEE IBC FOR COMPLETE NAILING SCHEDULE.



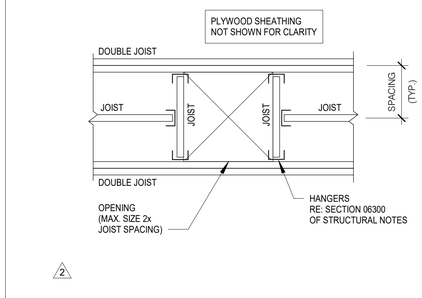
SCALE: 3/4" = 1'-0"

6 PLAN VIEW



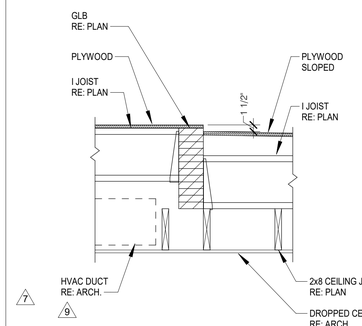
SCALE: 3/4" = 1'-0"

7 TYPICAL DORMER FRAMING



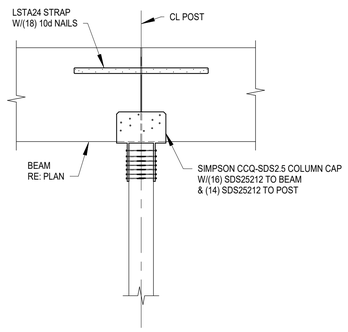
SCALE: 3/4" = 1'-0"

8 OPENING FRAMING PLAN



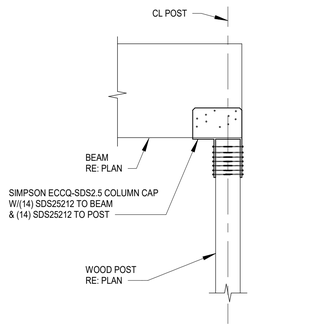
SCALE: 3/4" = 1'-0"

9 STEP AT BEAM



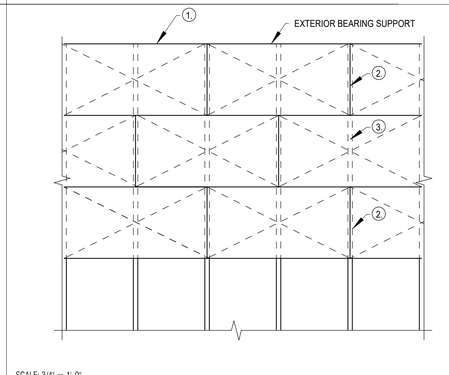
SCALE: 3/4" = 1'-0"

11 TYPICAL BEAM TO POST CONNECTION



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

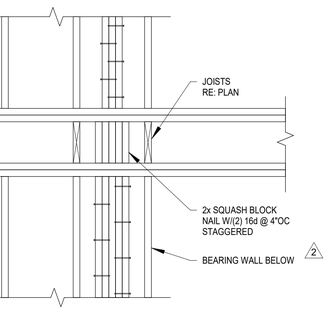
12 TYPICAL BEAM TO POST CONNECTION



ROOF/FLOOR SHEATHING NOTES:
1. BOUNDARY NAILING (B.N.) AT ROOF/FLOOR PERIMETER, AT ALL CONTINUOUS PANEL EDGES.
2. EDGE NAILING (P.E.N.) AT ALL EDGES OF ALL PLYWOOD SHEETS AT SUPPORTS AND AT INTERIOR SHEARWALLS.
3. INTERIOR FIELD NAILING (F.N.) 12"O.C. AT ALL BEARING SUPPORTS.
4. SEE PLANS FOR PLYWOOD THICKNESS AND NAILING SCHEDULE.
5. LONG DIMESION OF PLYWOOD SHALL RUN PERPENDICULAR TO TRUSS SYSTEM FRAMING AND FLOOR FRAMING.
6. MINIMUM EDGE DISTANCE FOR NAILS SHALL BE 3/8".
7. MINIMUM PLYWOOD SHEET SIZE SHALL BE 2'-0" X 4'-0".
8. NAILS SHALL NOT BE OVER DRIVEN.

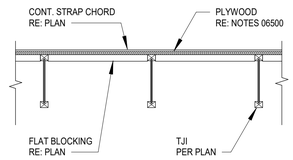
SCALE: 3/4" = 1'-0"

13 ROOF/FLOOR SHEATHING LAYOUT



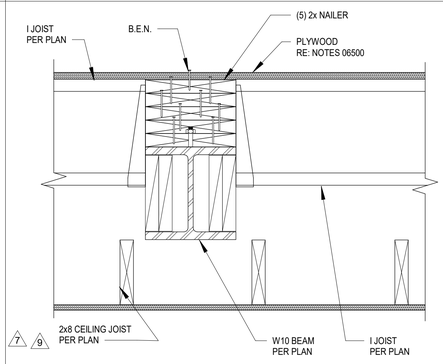
SCALE: 3/4" = 1'-0"

16 TYPICAL BLOCKING AT BUNDLED STUD



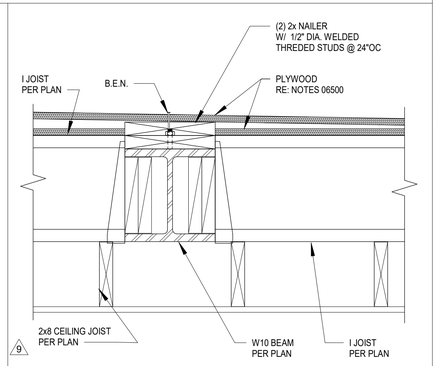
SCALE: 3/4" = 1'-0"

17 STRAP CHORD DETAIL



SCALE: 1 1/2" = 1'-0"

18 W10 BEAM



SCALE: 1 1/2" = 1'-0"

19 STEP AT W10 BEAM

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Structural Engineers
160 Nickerson Street Suite 302 Seattle, WA 98109
206.285.4512 (V) 206.285.0818 (F)
www.ctengineering.com

06/11/20

No.	REVISION	DATE
1	RESPONSE TO CITY COMMENTS	01.08.2021
2	RESPONSE TO CITY COMMENTS	03.16.2021
7	Deck Framing Changes	02.07.2022
9	CA Re Issue	06.07.2022

JOB #: 20035
ENG: Designer
CAD: Author
SCALE: As indicated

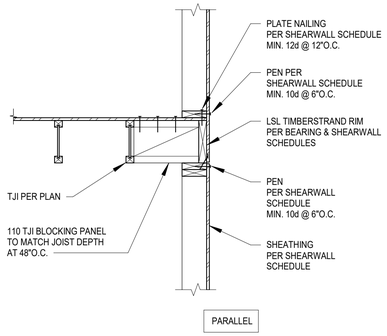
KEY ISSUE DATES:
SD: SD
DD: DD
CD:
PERMIT: 06.11.2020
OTHER: BD

Typical Wood Framing Details

Foo Residence
3453 74th Ave SE
Mercer Island, WA 98040

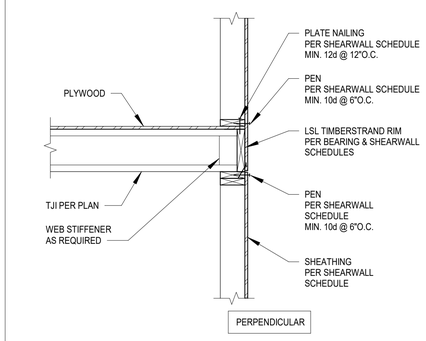
S9.0

9/6/2022 4:17:28 PM
M:\20035 Foo Residence\STRUCT\20035 Foo Residence (R23)- SOG.rvt



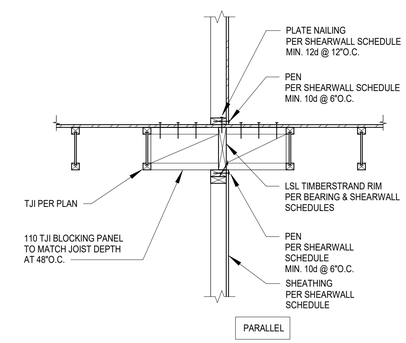
SCALE: 3/4" = 1'-0"

1 TYPICAL EXTERIOR WALL TO FRAMING



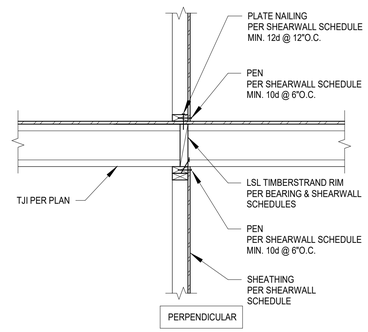
SCALE: 3/4" = 1'-0"

2 TYPICAL EXTERIOR WALL TO FRAMING



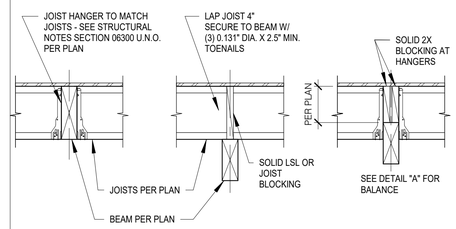
SCALE: 3/4" = 1'-0"

3 TYPICAL INTERIOR WALL TO FRAMING



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

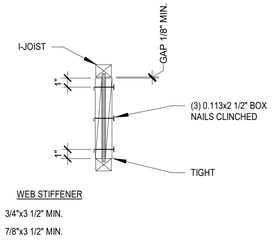
4 TYPICAL INTERIOR WALL TO FRAMING



A: FLUSH BEAM B: DROPPED BEAM C: PARTIAL DROP

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

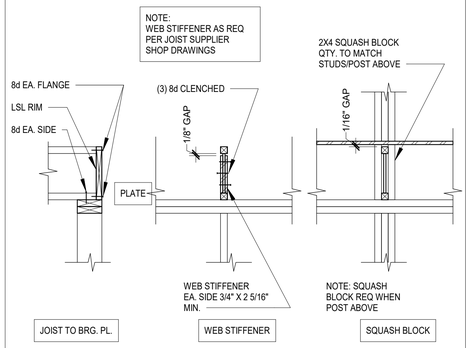
5 TYPICAL FRAMING TO BEAM



TJI	WEB STIFFENER
210	3/4"x3 1/2" MIN.
360	7/8"x3 1/2" MIN.

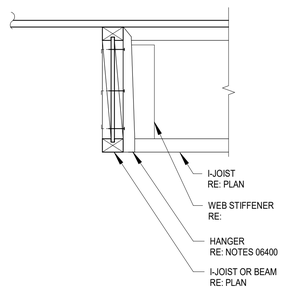
SCALE: 1 1/2" = 1'-0"

6 TYPICAL WEB STIFFENER ATTACHMENT



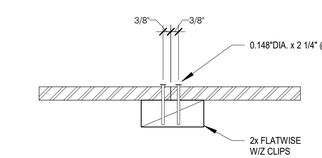
SCALE: 3/4" = 1'-0"

7 I-JOIST NAILING AT BEARING



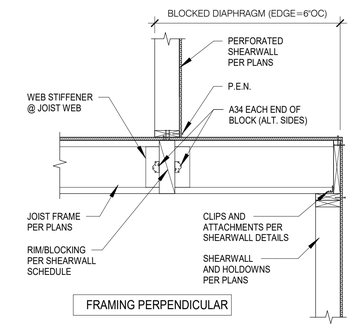
SCALE: 3/4" = 1'-0"

8 TYPICAL I-JOIST HANGER



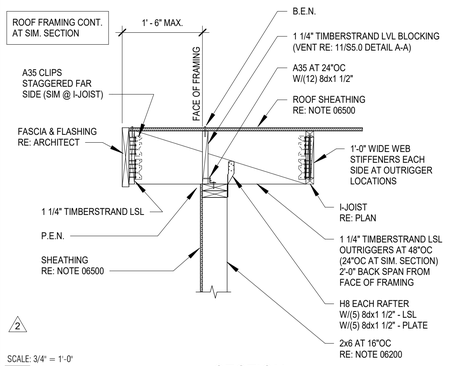
SCALE: 3" = 1'-0"

9 BLOCKING DETAIL



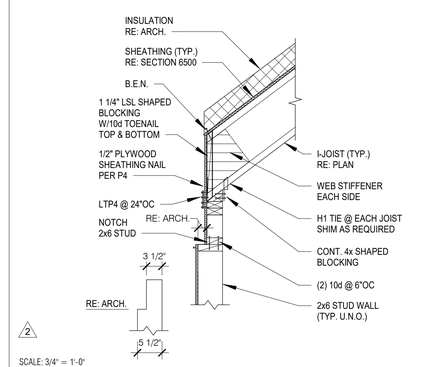
SCALE: 3/4" = 1'-0"

10 SECTION



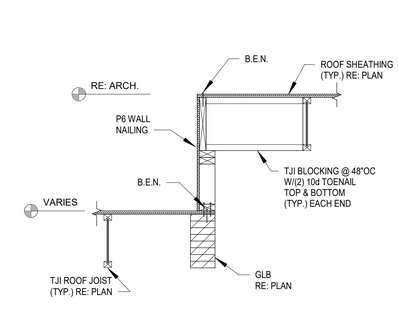
SCALE: 3/4" = 1'-0"

11 SECTION



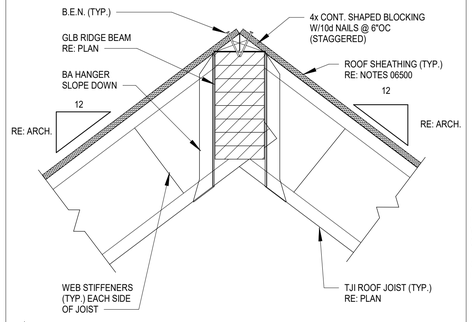
SCALE: 3/4" = 1'-0"

12 SECTION



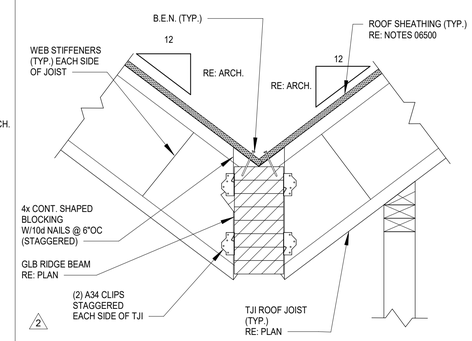
SCALE: 3/4" = 1'-0"

13 SECTION



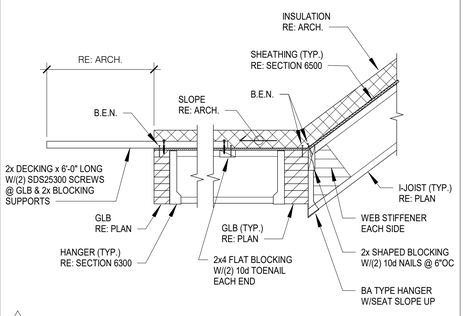
SCALE: 1 1/2" = 1'-0"

14 SECTION



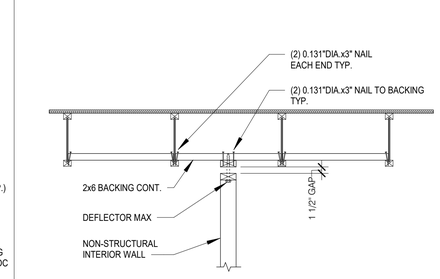
SCALE: 1 1/2" = 1'-0"

15 SECTION



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

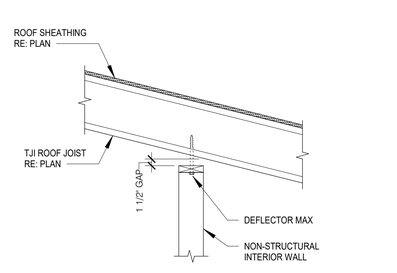
16 SECTION



RAFTER PARALLEL

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

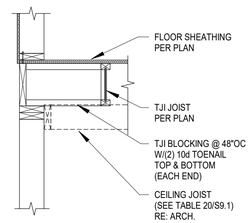
17 TYPICAL INTERIOR PARTITION AT ROOF



RAFTER PERPENDICULAR

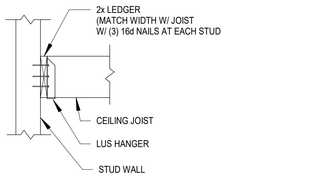
SCALE: 3/4" = 1'-0"

18 TYPICAL INTERIOR PARTITION AT ROOF



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

19 TYPICAL BLOCKING AT CEILING JOIST



JOIST *	CEILING W/OUT STORAGE (LL = 10 PSF)	CEILING W/ STORAGE (LL = 20 PSF)
2x4 HF #2	8'-0"	6'-9"
2x6 HF #2	12'-8"	10'-0"
2x8 HF #2	16'-6"	13'-0"
2x10 HF #2	^ 21'-0"	16'-4"
2x12 HF #2	^ 24'-0"	^ 19'-0"

* ALL JOIST SPACED AT 24"OC
^ BLOCKING AT 3RD POINTS.

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

20 CEILING JOIST SPAN TABLE

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160 Nickerson Street Suite 302 Seattle, WA 98109
206.285.4512 (V) 206.285.0518 (F)
www.ctengineering.com

06/11/20

No.	REVISION	DATE
2	RESPONSE TO CITY COMMENTS	03.16.2021

JOB #:	20035
ENG:	Designer
CAD:	Author
SCALE:	As indicated

KEY ISSUE DATES:

SD:	SD
DD:	DD
CD:	CD
PERMIT:	06.11.2020
OTHER:	BD

Floor TJI Wood Framing Details

Foo Residence
3453 74th Ave SE
Mercer Island, WA 98040

S9.1

9/6/2022 4:17:30 PM
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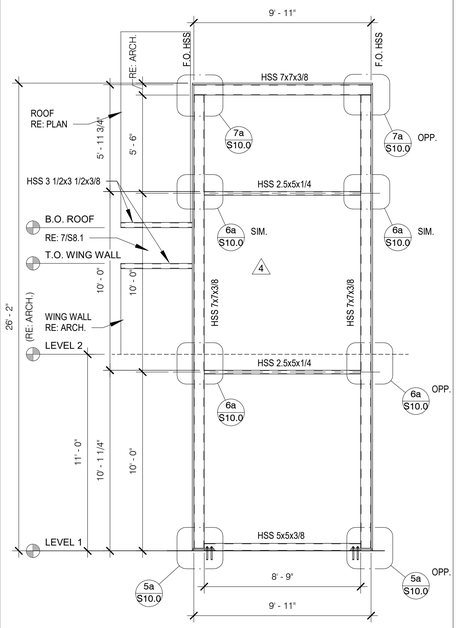
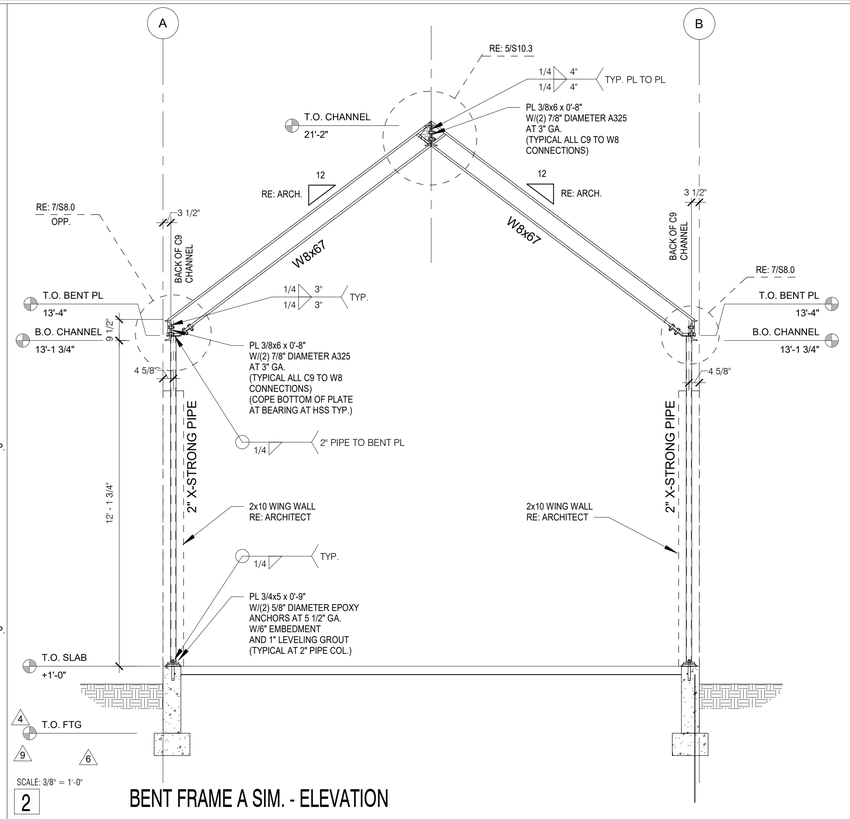


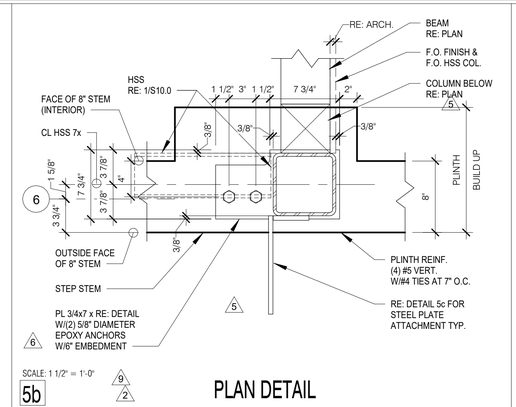
SCALE: 1/4" = 1'-0"

1 FRAME OPENING AT GRID 6



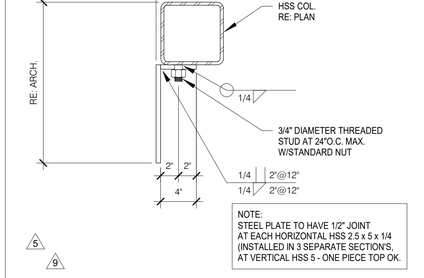
SCALE: 3/8" = 1'-0"

2 BENT FRAME A SIM. - ELEVATION



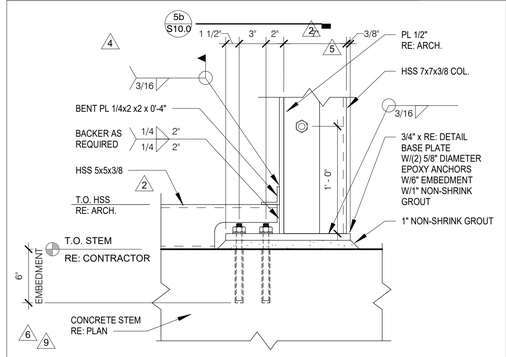
SCALE: 1 1/2" = 1'-0"

5b PLAN DETAIL



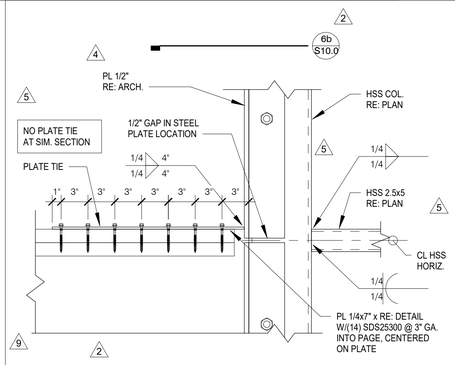
SCALE: 1 1/2" = 1'-0"

5c TYPICAL STEEL PL AT HSS



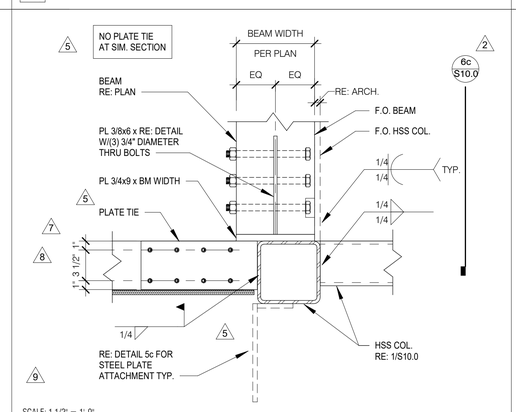
SCALE: 1 1/2" = 1'-0"

5a CLEAR STORY WINDOW AT LEVEL 1



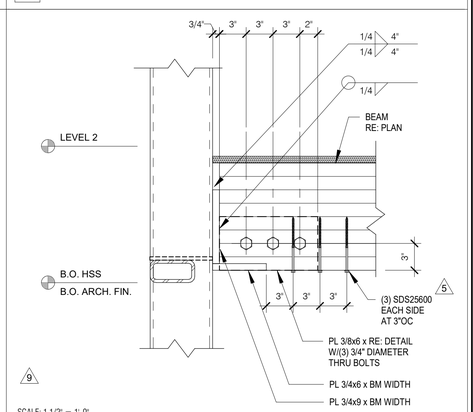
SCALE: 1 1/2" = 1'-0"

6a CLEAR STORY WINDOW AT LEVEL 2



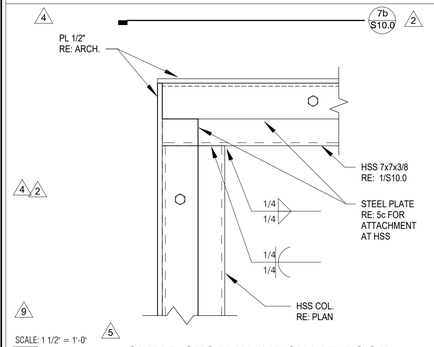
SCALE: 1 1/2" = 1'-0"

6b PLAN DETAIL



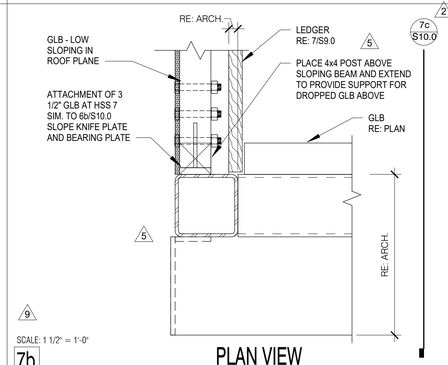
SCALE: 1 1/2" = 1'-0"

6c GLB AT HSS 5 TYP.



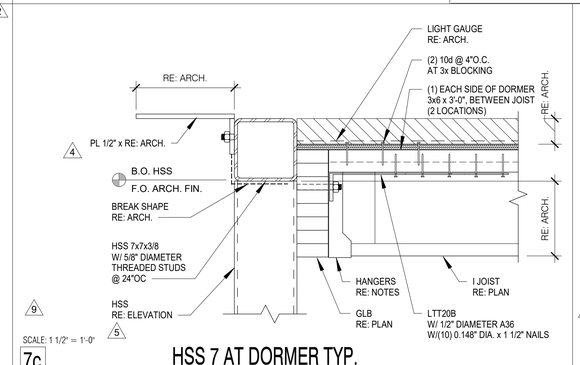
SCALE: 1 1/2" = 1'-0"

7a CLEAR STORY WINDOW AT ROOF



SCALE: 1 1/2" = 1'-0"

7b PLAN VIEW



SCALE: 1 1/2" = 1'-0"

7c HSS 7 AT DORMER TYP.

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06/11/20

No.	REVISION	DATE
1	RESPONSE TO CITY COMMENTS	01.08.2021
2	RESPONSE TO CITY COMMENTS	03.16.2021
4	VE APPROVED 11.04.2021	12.10.2021
5	VE APPROVED 11.04.2021	12.21.2021
6	Steel Shop/Deck Revisions	02.04.2022
7	Deck Framing Changes	02.07.2022
8	Deck Revision	03.02.2022
9	CA Re Issue	06.07.2022

JOB #: 20035
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KEY ISSUE DATES:
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OTHER: BD

Steel Framing Details

Foo Residence
3453 74th Ave SE
Mercer Island, WA 98040

S10.0

9/6/2022 4:17:32 PM
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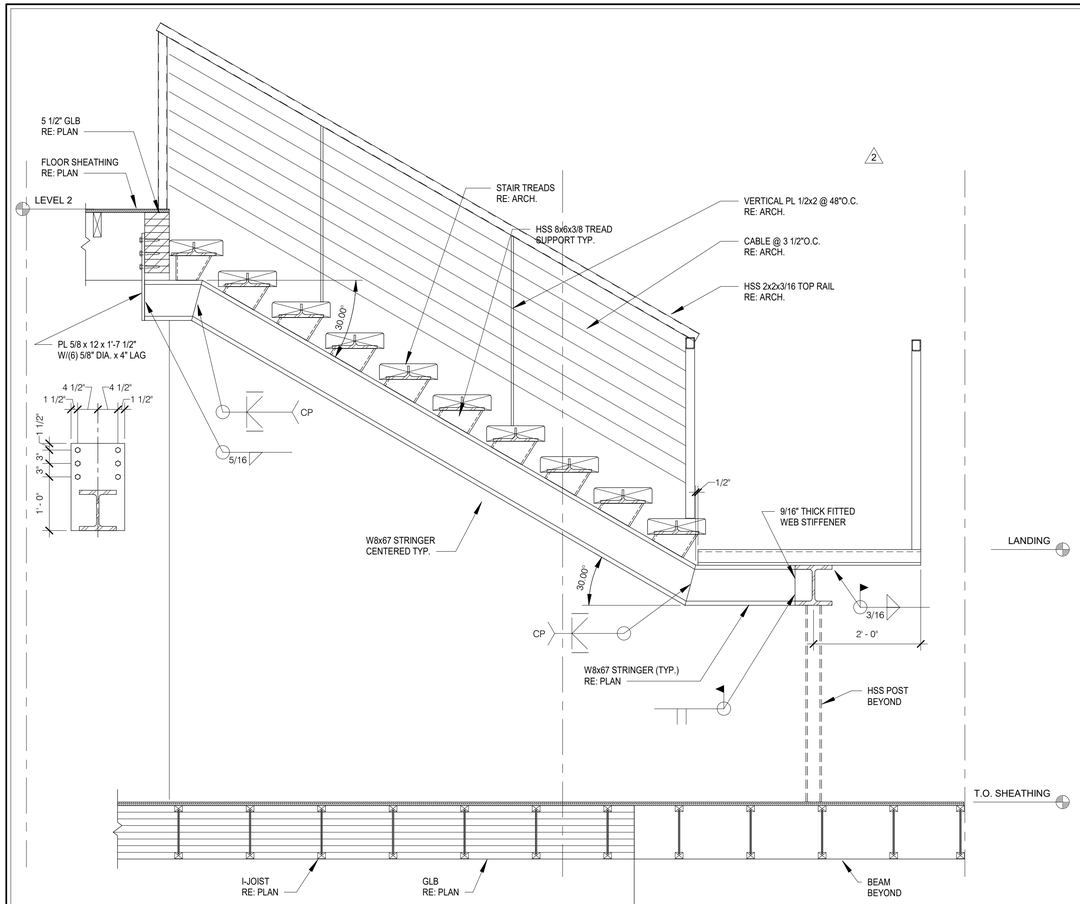
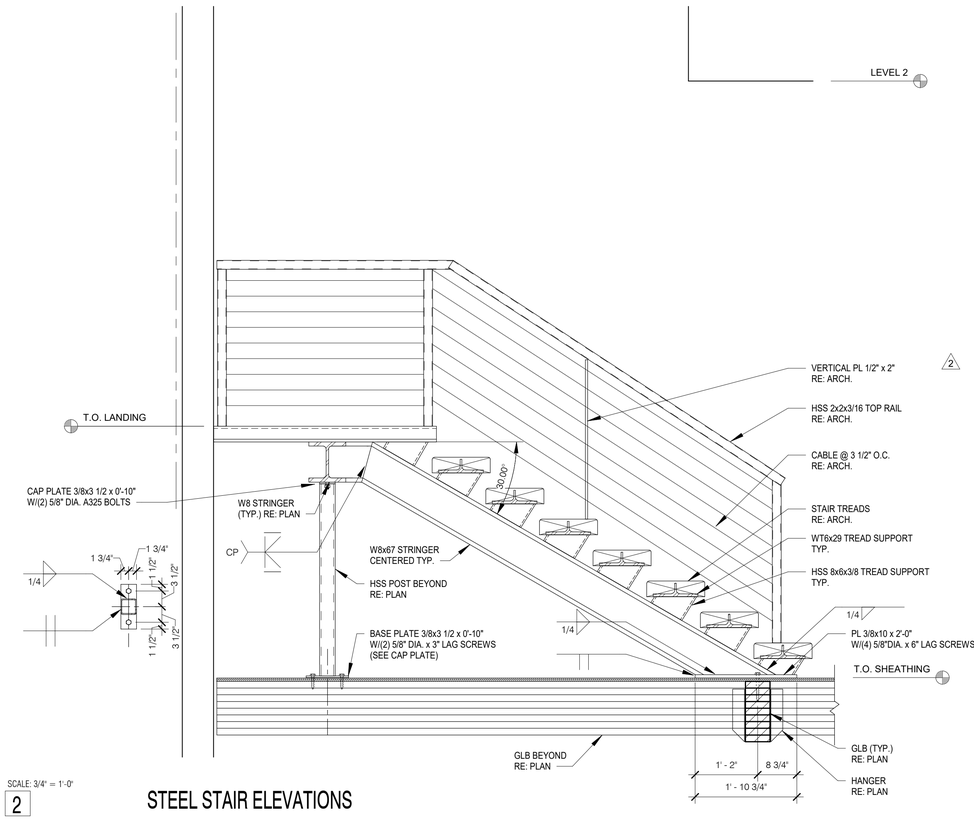


SCALE: 3/4" = 1'-0"

1 STEEL STAIR ELEVATIONS



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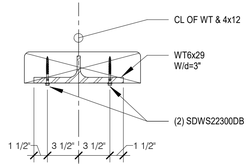
2 STEEL STAIR ELEVATIONS



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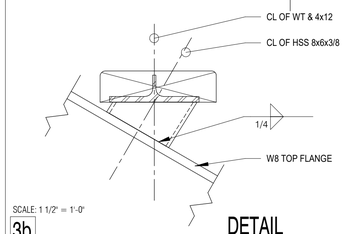
3a DETAIL



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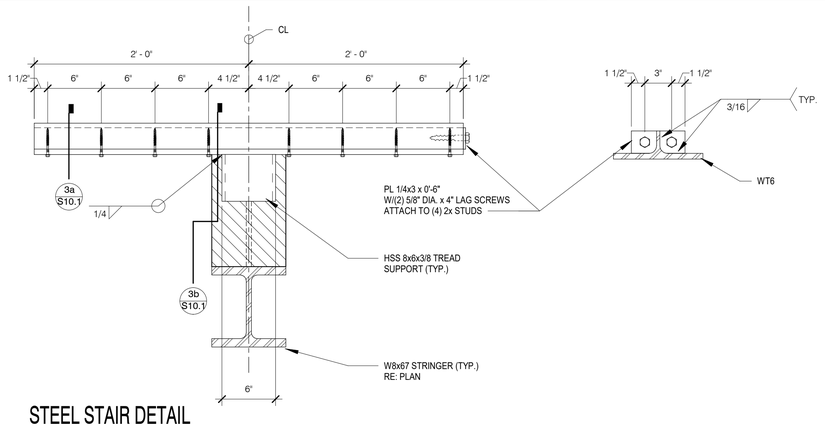
3b DETAIL



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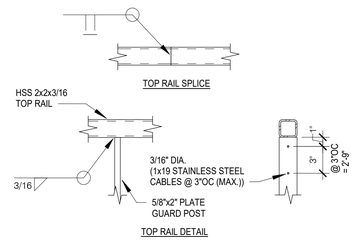
3 STEEL STAIR DETAIL



SCALE: 1 1/2" = 1'-0"

4 GUARD RAIL AND POST

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06/11/20

No.	REVISION	DATE
1	RESPONSE TO CITY COMMENTS	01.08.2021
2	RESPONSE TO CITY COMMENTS	03.16.2021

JOB #:	20025
ENG:	BJM
CAD:	JMA
SCALE:	As indicated

KEY ISSUE DATES:

SD:	SD
DD:	DD
CD:	CD
PERMIT:	06.11.2020
OTHER:	BD

Steel Stair Component Details

Foo Residence
3453 74th Ave SE
Mercer Island, WA 98040

S10.1

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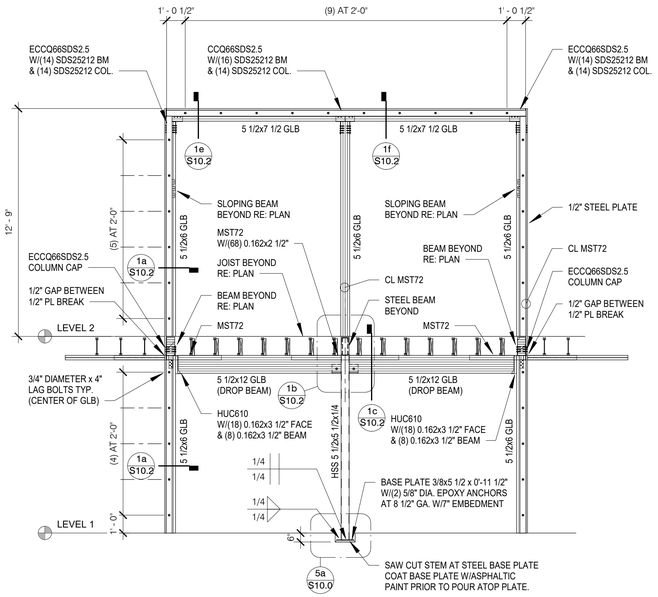

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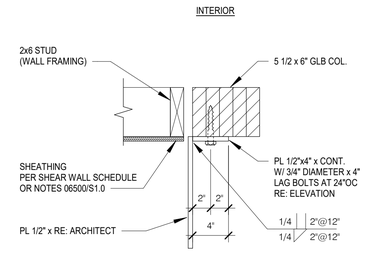
1 FRAME OPENING AT GRID 6



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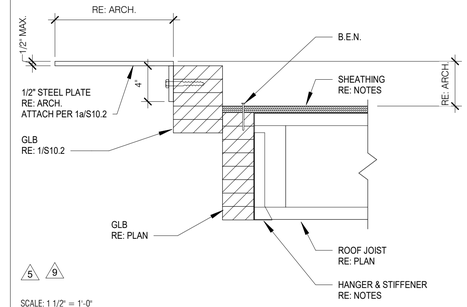
1a TYPICAL STEEL PL AT GLB COLUMN



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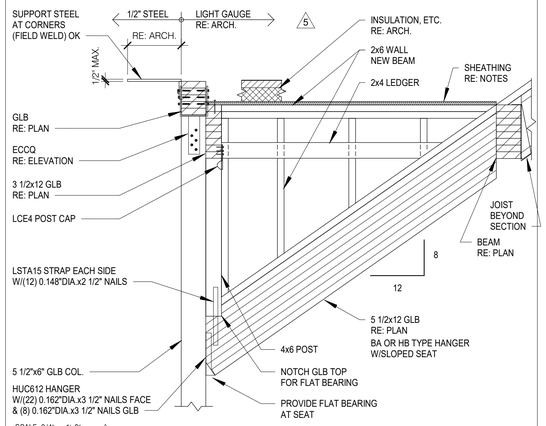
1f DETAIL



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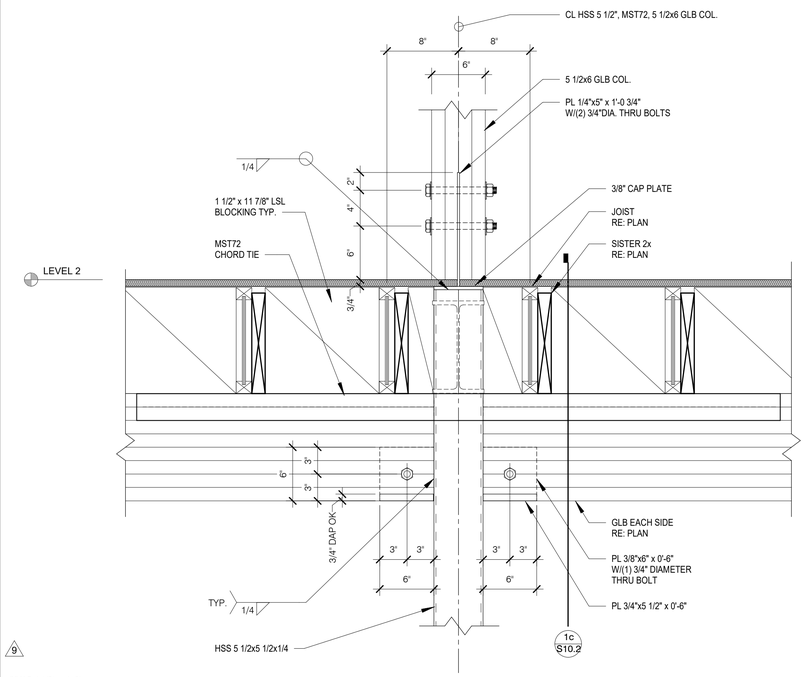

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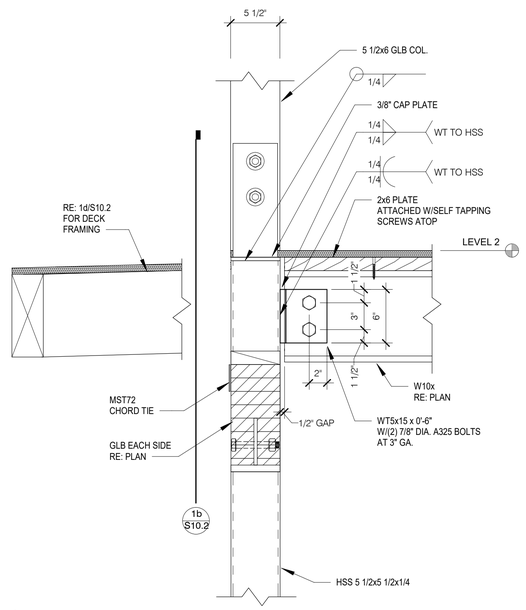
1b DETAIL



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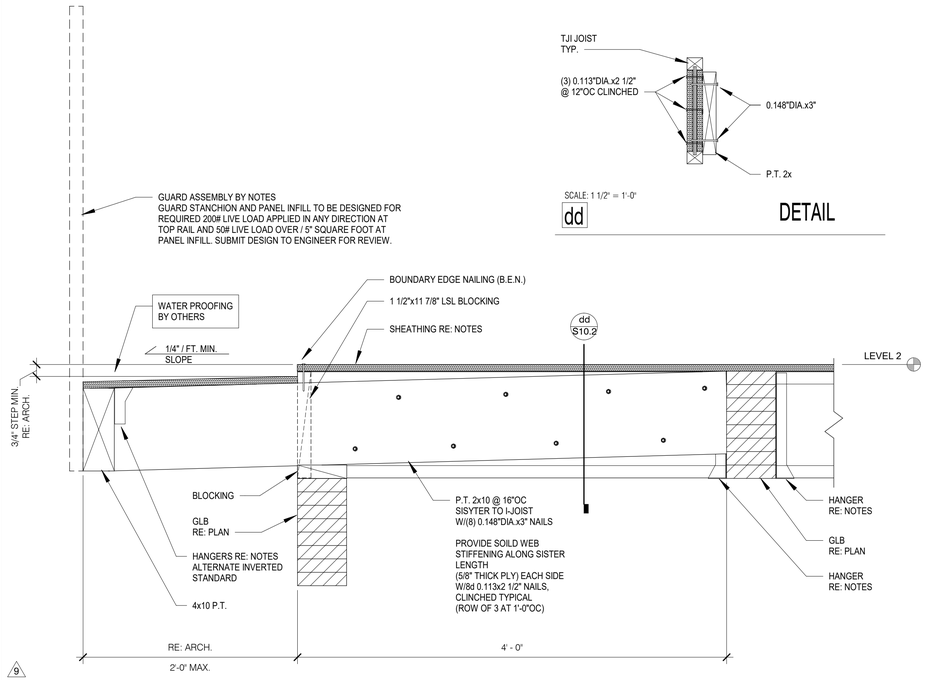
1c DETAIL



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SCALE: 1 1/2" = 1'-0"

dd DETAIL

SCALE: 1 1/2" = 1'-0"

1d DETAIL

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06/08/20

No.	REVISION	DATE
4	VE APPROVED 11.04.2021	12.10.2021
5	VE APPROVED 11.04.2021	12.21.2021
9	CA Re Issue	06.07.2022

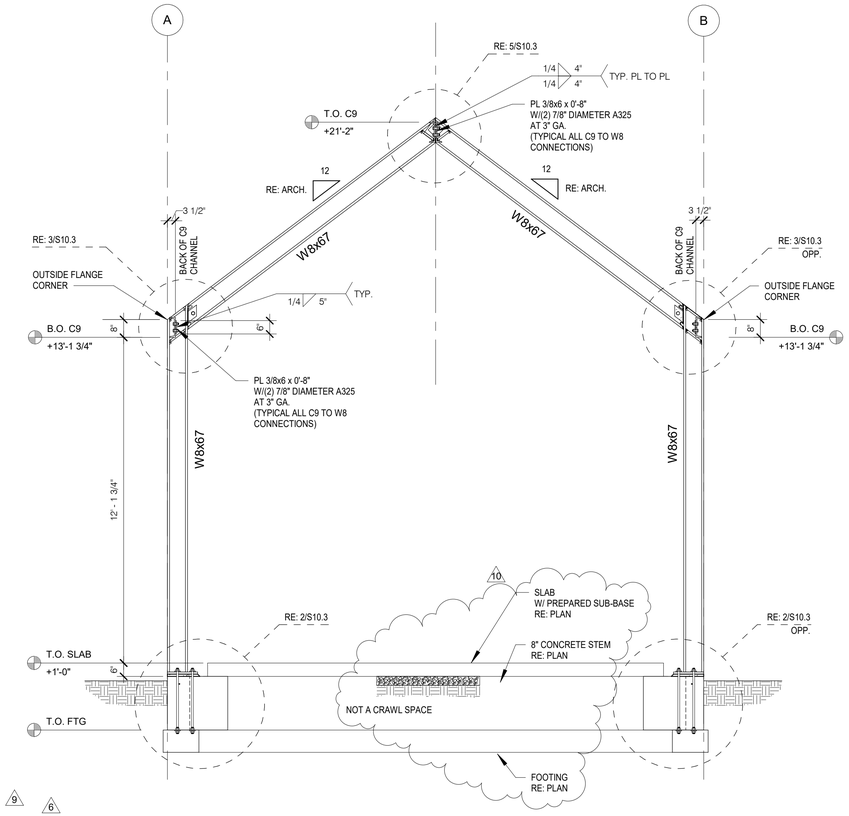
JOB #: 20035
ENG: Designer
CAD: Author
SCALE: As indicated

KEY ISSUE DATES:
SD: SD
DD: DD
CD: CD
PERMIT: 06.11.2020
OTHER: BD

Wood Framing Details

Foo Residence
3453 74th Ave SE
Mercer Island, WA 98040

4 9
S10.2



SCALE: 3/8" = 1'-0"

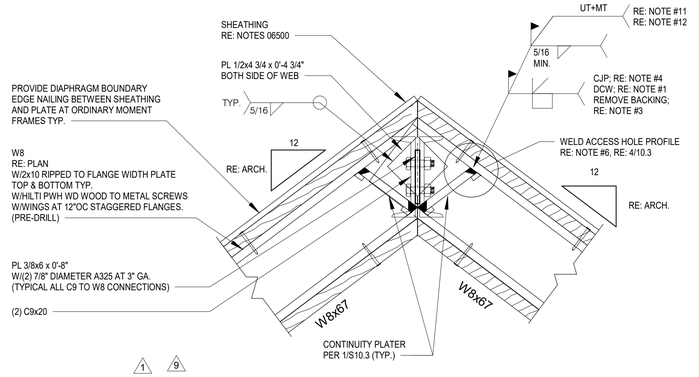
4 OMF ELEVATION

GENERAL OMF DETAIL NOTES:

1. DCW - "DEMAND CRITICAL WELD". RE: NOTES SECTION 5800 SHEET 10.4 FOR REQUIREMENTS.
2. STEEL BACKING USED IN TOP FLANGE CONNECTIONS WITH COMPLETE-JOINT-PENETRATION (CJP) BEAM FLANGE GROOVE WELDS NEED NOT BE REMOVED PROVIDED THE BACKING IS ATTACHED TO THE COLUMN FLANGE BY A CONTINUOUS REINFORCING FILLET WELD ON THE EDGE BELOW THE CJP GROOVE WELD. THE STEEL BRACING SHOULD NOT BE WELDED TO THE UNDERSIDE OF THE BEAM FLANGE. TABS SHALL BE REMOVED.
3. STEEL BACKING AND TABS USED IN BOTTOM FLANGE CONNECTIONS WITH COMPLETE-JOINT-PENETRATION (CJP) BEAM FLANGE GROOVE WELDS SHALL BE REMOVED. FOR REMOVAL OF STEEL BACKING RE: NOTES SECTION 5810. SHEET 10.4.
4. BOTTOM FLANGE WELDING SEQUENCE FOR CJP GROOVE WELDS OF BEAM BOTTOM FLANGE TO COLUMN FLANGE WITH WELD ACCCESS HOLE SHALL BE AS FOLLOWS:
   (a) AS FAR AS IS PRACTICABLE, STARTS AND STOPS SHALL NOT BE PLACED DIRECTLY UNDER THE BEAM WEB.
   (b) EACH LAYER SHALL BE COMPLETED ACROSS THE FULL WIDTH OF THE FLANGE BEFORE BEGINNING THE NEXT LAYER.
   (c) FOR EACH LAYER, THE WELD STARTS AND STOPS SHALL BE ON THE OPPOSITE SIDE OF THE BEAM WEB AS COMPARED TO THE PREVIOUS LAYER.
5. FOR REMOVAL OF TABS RE: NOTES SECTION 5810. SHEET 10.4.
6. FOR WELD ACCESS HOLE REQUIREMENTS RE: NOTES SECTION 5810. SHEET 10.4.
7. DO NOT WELD DOUBLER PLATES, CONTINUITY PLATES OR STIFFENERS IN THE "K"-AREA.
8. AT THE COLUMN WEB, FLANGE JUNCTURE WELD TABS SHALL NOT BE USED.

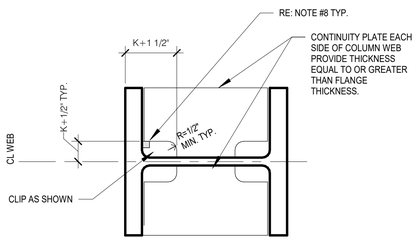
NONDESTRUCTIVE TESTING (NDT) NOTES:

9. NONDESTRUCTIVE TESTING TECHNICIANS SHALL BE QUALIFIED PER AISC 341-05 APPENDIX W, SECTION W3.3.
10. NONDESTRUCTIVE TESTING PROCEDURES SHALL BE PER AISC 341-05 APPENDIX W, SECTION W4.
11. ULTRASONIC TESTING (UT) SHALL BE PERFORMED ON 100 PERCENT OF CJP GROOVE WELDS IN MATERIALS 5/16" THICK OR GREATER. ULTRASONIC TESTING (UT) IN MATERIALS LESS THAN 5/16" THICK IS NOT REQUIRED. DOCUMENTATION IS REQUIRED RE: NOTES SECTION 5830, SHEET 10.4.
12. MAGNETIC PARTICLE TESTING (MT) SHALL BE PERFORMED ON 25 PERCENT OF ALL BEAM-TO-COLUMN CJP GROOVE WELDS. DOCUMENTATION IS REQUIRED RE: NOTES SECTION 5830, SHEET 10.4.
13. MAGNETIC PARTICAL TESTING (MT) SHALL BE PERFORMED ON THE ENDS OF WELDS FROM WHICH THE WELD TABS HAVE BEEN REMOVED. MT IS NOT REQUIRED FOR CONTINUITY PLATE WELD TABS. DOCUMENTATION IS REQUIRED RE: NOTES SECTION 5830, SHEET S10.4.
14. ADDITIONAL NON DESTRUCTIVE TESTING (NDT) MAY BE REQUIRED WHERE THE BASE METAL THICKNESS EXCEEDS 1 1/2" RE: AISC 341-05 CHAPTER Q, SECTION Q5.2.

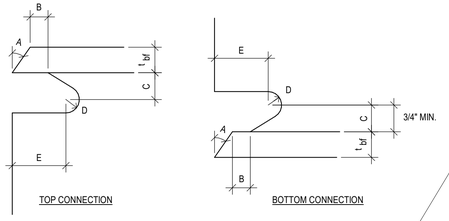


SCALE: 1 1/2" = 1'-0"

5 OMF BEAM TO BEAM



CONTINUITY PLATE PROFILE



TOP CONNECTION BOTTOM CONNECTION

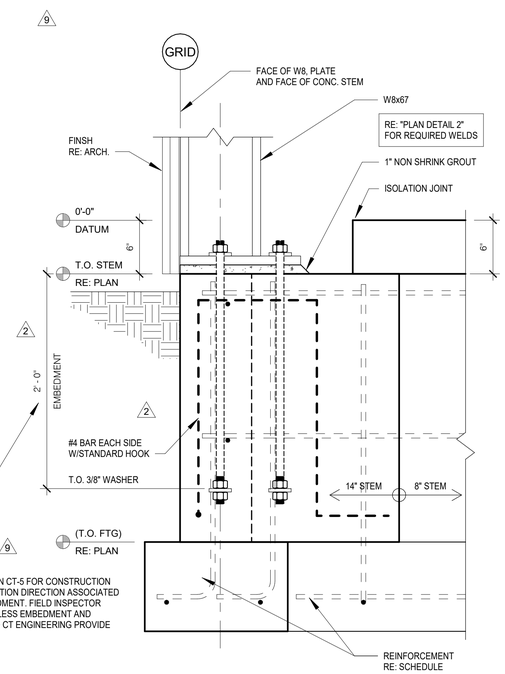
NOTES:
A. BEVEL AS REQUIRED FOR SELECTED GROOVE WELD.
B. LARGER OF tbf OR 1/2 in. (PLUS 1/2 tbf, OR MINUS 1/4 tbf).
C. 3/4 tbf, 3/4 in. MINIMUM (+/- 1/4 in.)
D. 3/8 in MINIMUM RADIUS (PLUS NOT LIMITED, MINUS 0).
E. 2 tbf (+/- 1/2 in).

TOLERANCE SHALL NOT ACCUMULATE TO THE EXTENT THAT THE ANGLE OF THE ACCESS HOLE CUT TO THE FLANGE SURFACE EXCEEDS 25°.

OMF WELD ACCESS HOLE PROFILE

SCALE: 1 1/2" = 1'-0"

1 CONTINUITY PL AND WELD ACCESS HOLES



SCALE: 1 1/2" = 1'-0"

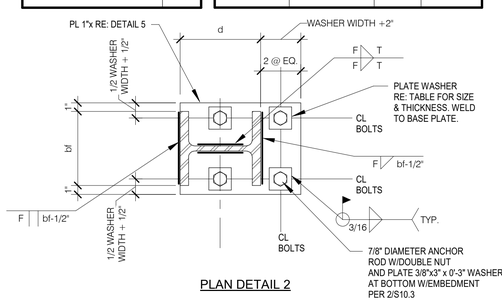
2 OMF COLUMN AT FOOTING

T - PUBLISHED WEB LENGTH EXCLUDING K AREA.
bf - PUBLISHED FLANGE WIDTH.
tf - PUBLISHED FLAGE THICKNESS.
d - PUBLISHED BEAM DEPTH.

NOTES:
1) FILL OVERSIZE HOLES WITH NON-SHRINK GROUT PRIOR TO INSTALLING PLATE WASHERS.

WELD SCHEDULE	
THICKNESS OF THINNER PART JOINED	F
TO 1/4"	1/8"
1/4" TO 1/2"	3/16"
1/2" TO 3/4"	1/4"
OVER 3/4"	5/16"

ANCHOR ROD HOLE IN BASE PLATE AND WASHER SCHEDULE			
ANCHOR ROD DIAMETER	BASE PLATE HOLE DIAMETER	WASHER SIZE	WASHER THICKNESS
3/4"	1 5/16"	2"	1/4"
7/8"	1 9/16"	2 1/2"	5/16"
1"	1 13/16"	3"	3/8"
1 1/4"	2 1/16"	3"	1/2"



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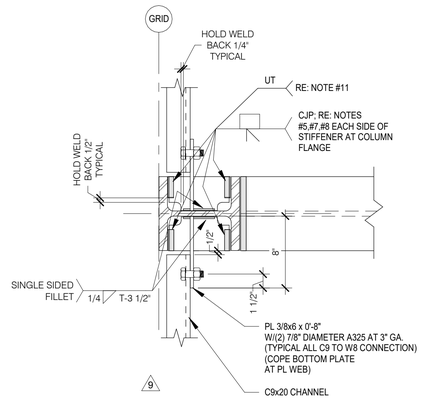
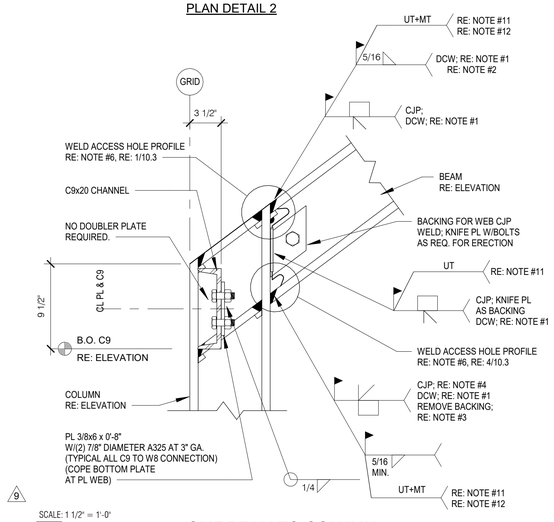


PLAN DETAIL 2



SCALE: 1 1/2" = 1'-0"

3 OMF BEAM TO COLUMN

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06/11/20

No.	REVISION	DATE
1	RESPONSE TO CITY COMMENTS	01.08.2021
2	RESPONSE TO CITY COMMENTS	03.16.2021
4	VE APPROVED 11.04.2021	12.10.2021
6	Steel Shop/Deck Revisions	02.04.2022
9	CA Re Issue	06.07.2022
10	RE:SUBMITTAL	09.06.2022

JOB #:	20035
ENG:	Designer
CAD:	Author
SCALE:	As indicated
KEY ISSUE DATES:	
SD:	SD
DD:	DD
CD:	CD: 09.11.2020
PERMIT:	
OTHER:	BD

Ordinary Moment Frame

Foo Residence
3453 74th Ave SE
Mercer Island, WA 98040

S10.3

9/6/2022 4:17:35 PM
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5800 SLRS - STEEL CONNECTIONS, JOINTS AND FASTENERS

CONNECTIONS, JOINTS AND FASTENERS THAT ARE PART OF THE SEISMIC LOAD RESISTING SYSTEM (SLRS) AS INDICATED IN THE CONSTRUCTION DOCUMENTS SHALL COMPLY WITH AISC 360-10 SPECIFICATION CHAPTER J AND WITH THE ADDITIONAL REQUIREMENTS BELOW.

STEEL BOLTED JOINTS

ALL BOLTS SHALL BE PRETENSIONED HIGH STRENGTH BOLTS AND SHALL MEET THE REQUIREMENTS FOR SLIP-CRITICAL FAYING SURFACES IN ACCORDANCE WITH AISC 360-10 SPECIFICATION SECTION J3.8 WITH A CLASS A SURFACE.

THE FAYING SURFACES FOR END PLATE MOMENT CONNECTIONS ARE PERMITTED TO BE COATED WITH COATINGS NOT TESTED FOR SLIP RESISTANCE OR WITH COATINGS WITH A SLIP COEFFICIENT LESS THAN THAT OF A CLASS A FAYING SURFACE.

BOLTS SHALL BE INSTALLED IN STANDARD HOLES OR IN SHORT-SLOTTED HOLES PERPENDICULAR TO THE APPLIED LOAD. FOR BRACE DIAGONALS, OVERSIZE HOLES SHALL BE PERMITTED WHEN THE CONNECTION IS DESIGNED AS A SLIP CRITICAL JOINT AND THE OVERSIZED HOLE IS IN ONE PLY ONLY. ALTERNATE HOLE TYPES AS SPECIFIED PER AISC 358-05 "PREQUALLIFIED CONNECTIONS FOR SPECIAL AND INTERMEDIATE STEEL MOMENT FRAMES FOR SEISMIC APPLICATIONS" ARE ACCEPTABLE AS NOTED IN THE CONSTRUCTION DOCUMENTS.

DEMAND CRITICAL WELDS

WHERE WELDS ARE SPECIFIED AS DEMAND CRITICAL WELDS (DCW) WITHIN THE CONSTRUCTION DOCUMENTS THEY SHALL BE MADE WITH A FILLER METAL CAPABLE OF PROVIDING A MINIMUM CHARPY V-NOTCH (CVN) TOUGHNESS OF 20 FT-LB AT -20° F AS DETERMINED BY THE APPROPRIATE AWS CLASSIFICATION TEST MEATHOD OR MANUFACTURER CERTIFICATION, AND 40 FT-LB AT 70° F AS DETERMINED BY AISC 341-05 APPENDIX X OR OTHER APPROVED MEATHOD. WHEN THE STEEL FRAME IS NORMALLY ENCLOSED AND MAINTAINED AT A TEMPERATURE OF 50° F OR HIGHER.

SMAW ELECTRODES CLASSIFIED IN AWS A5.1 AS E7018 OR E7018-X, SMAW ELECTRODES CLASSIFIED IN AWS A5.5 AS E7018-C3L OR E8018-C3, AND GMAW SOLID ELECTRODES ARE EXEMPTED FROM PRODUCTION LOT TESTING WHEN THE CVN TOUGHNESS OF THE ELECTRODE EQUALS OR EXCEEDS 20FT-LB AT A TEMPERATURE NOT EXCEEDING -20° F AS DETERMINED BY AWS CLASSIFICATION TEST MEATHODS. THE MANUFACTURER'S CERTIFICATE OF COMPLIANCE SHALL BE CONSIDERED SUFFICIENT EVIDENCE OF MEETING THIS REQUIREMENT.

MINIMUM DCW AT MOMENT FRAMES:

DEMAND CRITICAL WELDS SHALL BE PROVIDED AS A MINIMUM AT SPECIAL AND INTERMEDIATE MOMENT FRAMES AT THE FOLLOWING CJP GROOVE WELDS:

1. WELDS OF BEAM FLANGES TO COLUMNS
2. WELDS OF SINGLE PLATE SHEAR CONNECTIONS TO COLUMNS
3. WELDS OF BEAM WEBS TO COLUMNS
4. COLUMN SPLICE WELDS, INCLUDING COLUMN BASES

DEMAND CRITICAL WELDS AS A MINIMUM SHALL BE PROVIDED AT ORDINARY MOMENT FRAMES PER ITEMS 1, 2, AND 3 ABOVE.

MINIMUM DCW AT ECCENTRICALLY BRACED FRAMES:

1. CJP GROOVE WELDS BETWEEN LINK BEAMS AND COLUMNS
2. WELDS THAT JOIN THE WEB PLATE TO FLANGE PLATES IN BUILT UP EBF LINK BEAMS
3. CJP GROOVE WELDS AT COLUMN SPLICES

PROTECTED ZONE

WHERE A "PROTECTED ZONE" IS SPECIFIED WITHIN THE CONSTRUCTION DOCUMENTS IT SHALL COMPLY WITH THE FOLLOWING:

1. WITHIN THE PROTECTED ZONE, DISCONTINUITIES CREATED BY FABRICATION OR ERECTION OPERATIONS, SUCH AS TACK WELDS, ERECTION AIDS, AIR-ARC GOUGING AND THERMAL CUTTING SHALL BE REPAIRED AS REQUIRED BY THE ENGINEER OF RECORD.
2. WELDED SHEAR STUDS AND DECKING ATTACHMENTS THAT PENETRATE THE BEAM FLANGE SHALL NOT BE PLACED ON BEAM FLANGES WITHIN THE PROTECTED ZONE. DECKING ARCH SPOT WELDS AS REQUIRED TO SECTURE DECKING SHALL BE PERMITTED.
3. WELDED, BOLTED, SCREWED OR SHOT-IN ATTACHMENTS FOR PERIMITER EDGE ANGLES, EXTERIOR FACADES, PARTITIONS, DUCT WORK, PIPING OR OTHER CONSTRUCTION SHALL NOT BE PLACED WITHIN THE PROTECTED ZONE.

CONTINUITY PLATES AND STIFFENERS

CORNERS OF CONTINUITY PLATES AND STIFFENERS PLACED IN THE WEBS OF ROLLED SHAPES SHALL BE CLIPPED AS DESCRIBED BELOW:

1. ALONG THE WEB THE CLIP SHALL BE DETAILED SO THAT THE CLIP EXTENDS A DISTANCE OF AT LEAST 1 ½" BEYOND THE PUBLISHED K DETAIL DIMENSION FOR THE ROLLED SHAPE.
2. ALONG THE FLANGE THE CLIP SHALL BE DETAILED SO THAT THE CLIP DOES NOT EXTEND A DISTANCE OF ½" BEYOND THE PUBLISHED K1 DETAIL DIMENSION.
3. THE CLIP SHALL BE DETAILED TO FACILITATE SUITABLE WELD TERMINATIONS FOR BOTH THE FLANGE WELD AND THE WEB WELD.
4. IF A CURVED CLIP IS USED, IT SHALL HAVE A MINIMUM RADIUS OF ½".
5. AT THE COLUMN WEB/FLANGE JUNCTURE WELD TABS SHALL NOT BE REMOVED.

5810 ORDINARY MOMENT FRAME (OMF)

WHERE STEEL BACKING IS USED IN FULLY RESTRAINED MOMENT CONNECTIONS WITH COMPLETE-JOINT-PENETRATION (CJP) BEAM FLANGE GROOVE EELDS, STEEL BACKING AND TABS SHALL BE REMOVED EXCEPT THAT TOP-FLANGE BACKING ATTACHED TO THE COLUMN BY A CONTINUOUS FILLET WELD ON THE EDGE BELOW THE CJP GROOVE WELD NEED NOT BE REMOVED.

COMPLETE-JOINT-PENETRATION GROOVE WELDS OF BEAM FLANGES, SHEAR PLATES, AND BEAM WEBS TO COLUMNS SHALL BE DEMAND CRITICAL WELDS PER NOTES SECTION 5800.

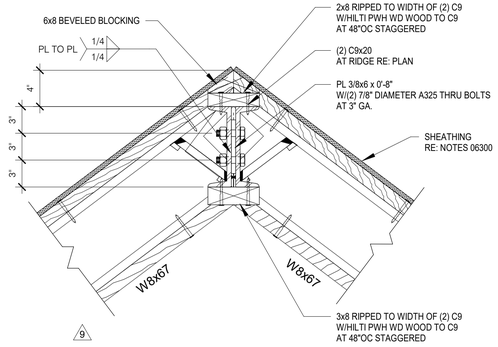
REMOVAL OF STEEL BACKING AND TABS SHALL BE AS FOLLOWS:

FOLLOWING THE REMOVAL OF BACKING, THE ROOT PASS SHALL BE BACKGOUGED TO SOUND WELD METAL AND BACKWELDED WITH A REINFORCING FILLET. THE REINFORCING FILLET SHALL HAVE A MINIMUM LEG SIZE OF 5/16 IN.

WELD TAB REMOVAL SHALL EXTEND TO WITHIN 1/8 IN OF THE BASE METAL SURFACE, EXCEPT AT CONTINUITY PLATES WHERE REMOVAL TO WITHIN ¼ IN OF THE PLATE EDGE IS ACCEPTABLE. EDGES OF THE WELD TAB SHALL BE FINISHED TO A SURFACE ROUGHNESS VALUE OF 500 MICRO (10-6) IN. OR BETTER. GRINDING TO A FLUSH CONDITION IS NOT REQUIRED. GOUGES AND NOTCHES ARE NOT PERMITTED. THE TRANSITIONAL SLOPE OF ANY AREA WHERE GOUGES AND NOTCHES HAVE BEEN REMOVED SHALL NOT EXCEED 1:5. MATERIAL REMOVED BY GRINDING THAT EXTENDS MORE THAN 1/16 IN. BELOW THE SURFACE OF THE BASE METAL SHALL BE FILLED WITH WELD METAL. THE CONTOUR OF THE WELD AT THE ENDS SHALL PROVIDE A SMOOTH TRANSITION, FREE OF NOTCHES AND SHARP CORNERS.

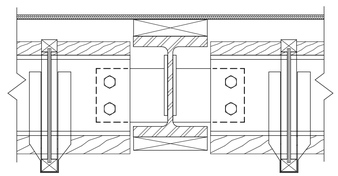
WELD ACCESS HOLES SHALL BE AS SHOWN ON SHEET SX.X. THE WELD ACCESS HOLE SHALL HAVE A SURFACE ROUGHNESS VALUE NOT TO EXCEED 500 MICRO (10-6) IN. AND SHALL BE FREE OF NOTCHES AND GOUGES. NOTCHES AND GOUGES SHALL BE REPAIRED AS REQUIRED BY THE ENGINEER OF RECORD. WELD ACCESS HOLES ARE PROHIBITED IN THE BEAM WEB ADJACENT TO THE END-PLATE IN BOLTED MOMENT END-PLATE CONNECTIONS.

△1



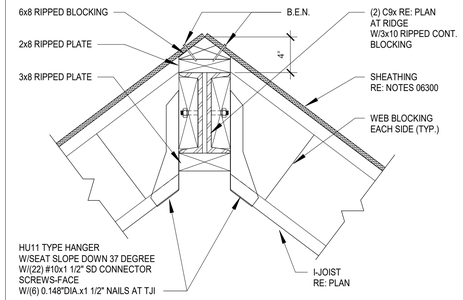
SCALE: 1 1/2" = 1'-0"

6 (2) C9 AT RIDGE BEAM



SCALE: 1 1/2" = 1'-0"

7 SECTION AT RIDGE BEAM



SCALE: 1 1/2" = 1'-0"

8 (2) C9 AT RIDGE BEAM

CT ENGINEERING INC.
Structural Engineers
180 Nickerson Street Suite 302 Seattle, WA 98109
206.285.4512 (V) 206.285.0818 (F)
www.ctengineering.com

06/11/20

No.	REVISION	DATE
1	RESPONSE TO CITY COMMENTS	01.08.2021
9	CA Re Issue	06.07.2022

JOB #: 20035
ENG: Designer
CAD: Author
SCALE: 1 1/2" = 1'-0"

KEY ISSUE DATES:
SD: SD
DD: DD
CD: CD
PERMIT: 06.11.2020
OTHER: BD

Ordinary Moment Frame

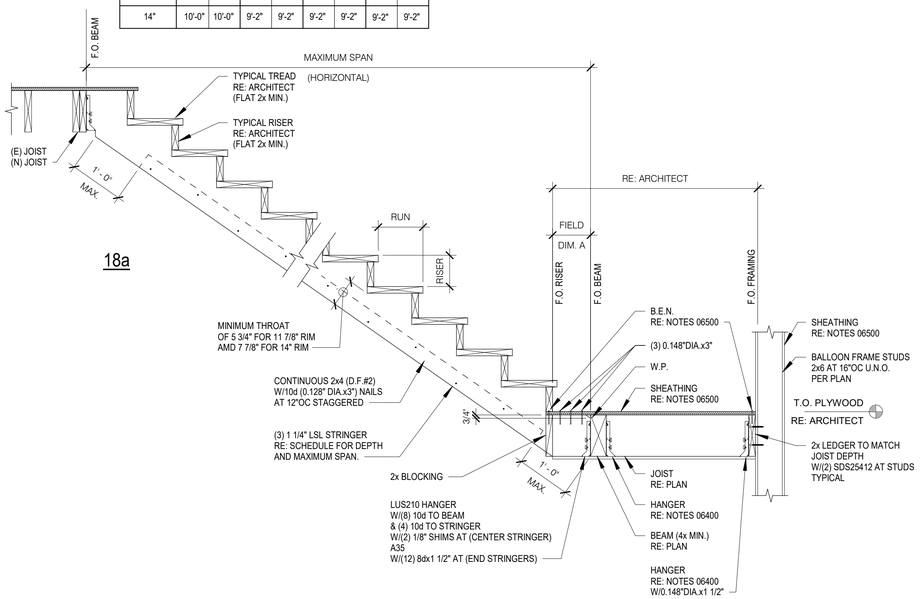
Foo Residence
3453 74th Ave SE
Mercer Island, WA 98040

S10.4

9/6/2022 4:17:37 PM
M:\20035 Foo Residence\STRUCT\20035 Foo Residence (R23) SOG.rvt

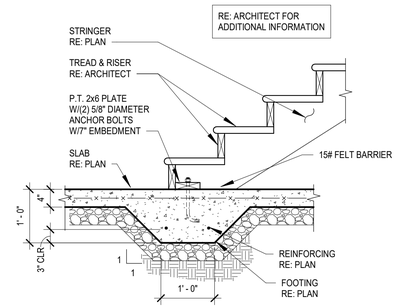
STRINGER MAXIMUM SPAN SCHEDULE								
STRINGER DEPTH	100 PSF LIVE LOAD, 12 PSF DEAD LOAD TREAD WIDTH W/(3) STRINGERS							
	36"		42"		44"		48"	
	NO. REINF.	2x REINF.	NO. REINF.	2x REINF.	NO. REINF.	2x REINF.	NO. REINF.	2x REINF.
11 7/8"	7'-6"	8'-4"	6'-8"	7'-6"	6'-8"	7'-6"	6'-8"	7'-6"
14"	10'-0"	10'-0"	9'-2"	9'-2"	9'-2"	9'-2"	9'-2"	9'-2"

NOTES:
1. "FIELD DIM. A" TO "W.P. " WILL BE THE SAME FOR EACH FLIGHT W/ SIM. STRINGER SIZE AND RISE/RUN DIM.
2. W.P. = WORK POINT.
3. DO NOT OVERCUT STAIR STRINGERS TYPICAL.
4. SUBMIT SUBSTITUTION REQUEST FOR ALTERNATE FRAMING ARRANGEMENTS.



18a

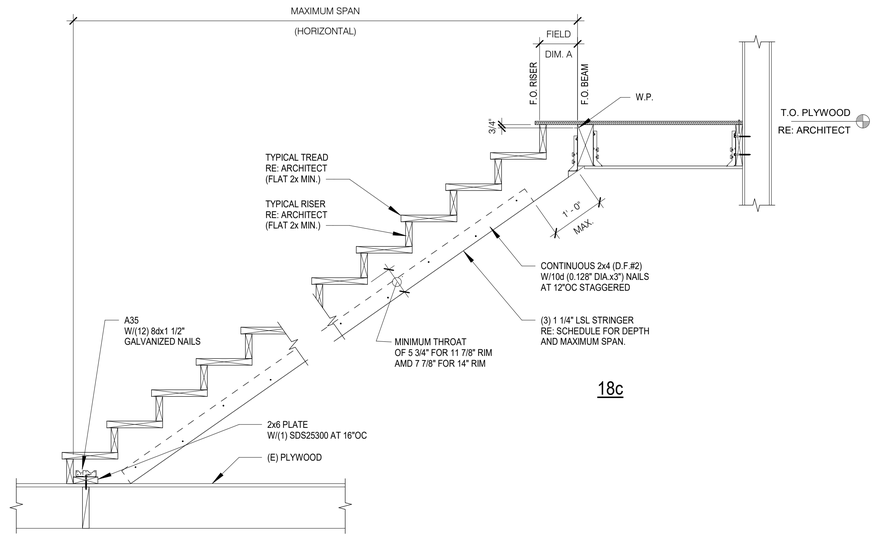
18b



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

18

TYPICAL STAIRS AT SLAB



18c

18d

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

19

TYPICAL STAIR FRAMING

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Structural Engineers
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www.ctengineering.com

06/11/20

No.	REVISION	DATE

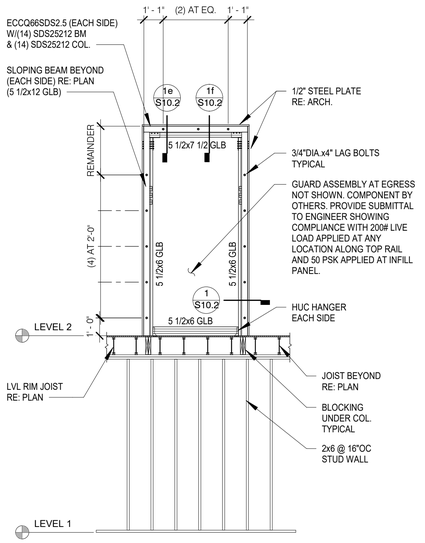
JOB #: 20035
ENG: Designer
CAD: Author
SCALE: 3/4" = 1'-0"

KEY ISSUE DATES:
SD: SD
DD: DD
CD: CD
PERMIT: 06.11.2020
OTHER: BD

Wood Stair Component Details

Foo Residence
3453 74th Ave SE
Mercer Island, WA 98040

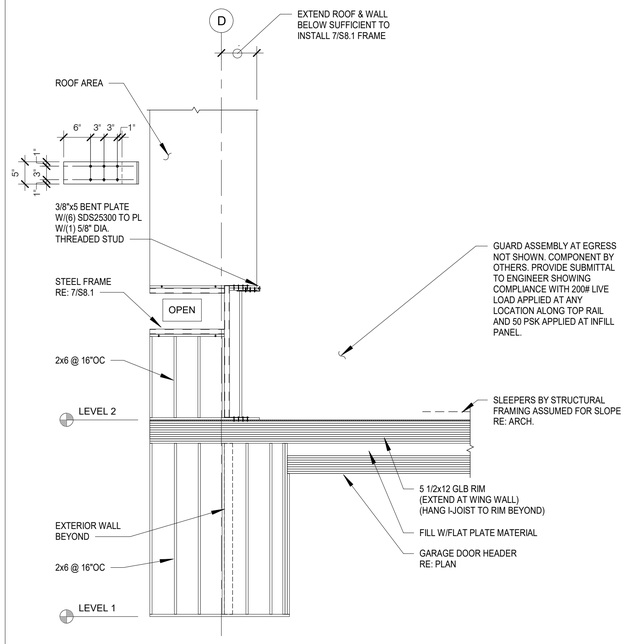
S10.5



5 9

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

1 ELEVATION



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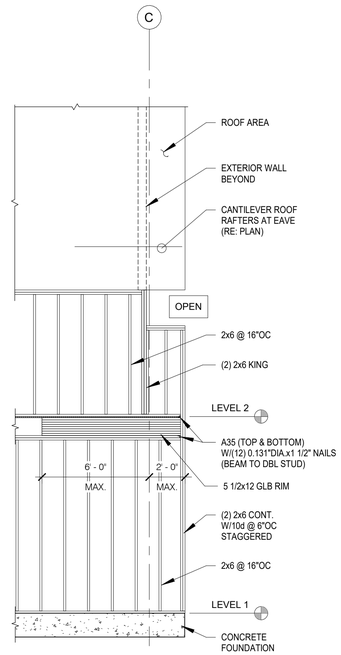
SCALE: 1/4" = 1'-0"

2 ELEVATION



9

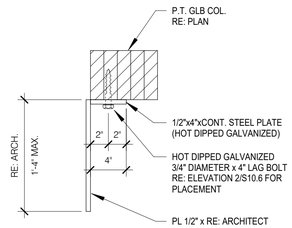
SCALE: 1/4" = 1'-0"

3 WOOD FRAMING SUBSTITUTION (GRID 1 & C)

5

7

INTERIOR

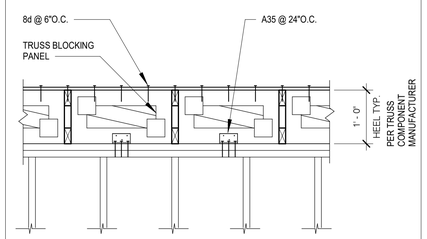


PLAN VIEW

5 9

SCALE: 1 1/2" = 1'-0"

2a TYPICAL STEEL PL AT P.T. GLB COLUMN

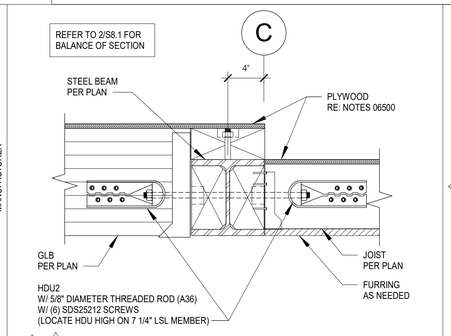


PERPENDICULAR

9

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

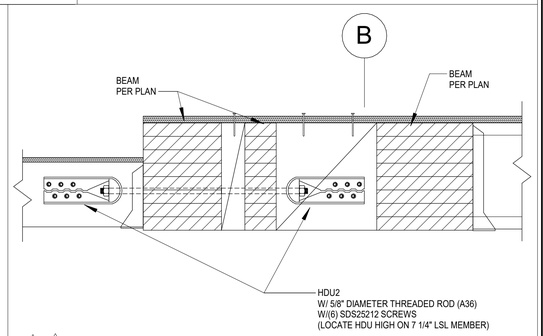
8 TYPICAL EXTERIOR WALL TO TRUSS



8 9

SCALE: 1 1/2" = 1'-0"

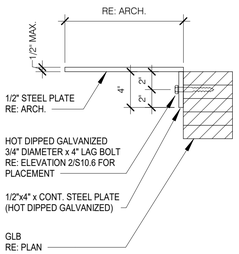
9 COLLECTOR AT DECK HEIGHT TRANSITION



8 9

SCALE: 1 1/2" = 1'-0"

10 COLLECTOR AT DECK HEIGHT TRANSITION



6 9

SCALE: 1 1/2" = 1'-0"

2c DETAIL

CT ENGINEERING INC.
Structural Engineers
180 Nickerson Street Suite 302 Seattle, WA 98109
206.285.4512 (V) 206.285.0818 (F)
www.ctengineering.com

12/08/21

No.	REVISION	DATE
4	VE APPROVED 11.04.2021	12.10.2021
5	VE APPROVED 11.04.2021	12.21.2021
7	Deck Framing Changes	02.07.2022
8	Deck Revision	03.02.2022
9	CA Re Issue	06.07.2022

JOB #:	20035
ENG:	Designer
CAD:	Author
SCALE:	As indicated

KEY ISSUE DATES:

SD:	SD
DD:	DD
CD:	CD
PERMIT:	06.11.2020
OTHER:	BD

Wood Framing Details

Foo Residence
3453 74th Ave SE
Mercer Island, WA 98040

9 4

S10.6

BUILDING PERMIT PLANS FOR

3453 74TH AVE W

FOR JIMMY & SHANNON FOO

VERTICAL DATUM, BENCHMARK & CONTOUR INTERVAL

ELEVATIONS SHOWN ON THIS DRAWING WERE DERIVED FROM INFORMATION PROVIDED BY WCCS SURVEY CONTROL DATABASE.

POINT ID NO. 238

ELEVATION: 324.56 FEET (98.926 METERS) NAVD88

2" BRASS CAP IN MONUMENT CASE AT THE INTERSECTION OF SE 32ND ST & 74TH AVE SE

2.0' CONTOUR INTERVAL – THE EXPECTED VERTICAL ACCURACY IS EQUAL TO 1/2 THE CONTOUR INTERVAL OR PLUS / MINUS 1.0' FOR THIS PROJECT.

BASIS OF BEARING

HELD RECORD OF SURVEY BY MS WEBB SURVEYING AS RECORDED IN VOLUME 135 OF SURVEYS, PAGE 243, RECORDS OF KING COUNTY, WASHINGTON AND RECORDED UNDER RECORDING NUMBER 20000021590011. ACCEPTED A BEARING OF N 90°00'00" W FOR THE CENTERLINE OF SE 32ND STREET BASED ON FOUND MOUNUMENTS IN CASE.

SURVEY NOTES

THIS SURVEY WAS COMPLETED WITHOUT BENEFIT OF A CURRENT TITLE REPORT. EASEMENTS AND OTHER ENCUMBRANCES MAY EXIST ON THIS PROPERTY THAT ARE NOT SHOWN HEREON.

INSTRUMENTATION FOR THIS SURVEY WAS A 3-SECOND NIKON NIVO 5.C TOTAL STATION. PROCEDURES USED IN THIS SURVEY MEET OR EXCEED STANDARDS SET BY WAC 332-130-090.

THE INFORMATION ON THIS MAP REPRESENTS THE RESULTS OF A SURVEY MADE IN JUNE 2018 AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.

UTILITIES SHOWN ON THIS SURVEY ARE BASED UPON ABOVE GROUND OBSERVATIONS AND AS-BUILT PLANS WHERE AVAILABLE. ACTUAL LOCATIONS OF UNDERGROUND UTILITIES MAY VARY AND UTILITIES NOT SHOWN ON THIS SURVEY MAY EXIST ON THIS SITE.

ALL MONUMENTS WERE LOCATED DURING THIS SURVEY UNLESS OTHERWISE NOTED.

LEGAL DESCRIPTION

PARCEL: 130030-1965
LOTS 16 THROUGH 20 AND THE EAST 15 FEET OF LOTS 21 THROUGH 25, BLOCK 7, C.D. CALKINS FIRST ADDITION TO EAST SEATTLE, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 4 OF PLATS, PAGE 88, RECORDS OF KING COUNTY, WASHINGTON; TOGETHER WITH THE WEST HALF OF VACATED 74TH PLACE SE LYING NORTH OF THE SOUTH MARGIN OF SAID PLAT AND SOUTH OF THE EASTERLY EXTENSION OF THE NORTH LINE OF SAID LOT 16, AND TOGETHER WITH THAT PORTION OF VACATED SE 36TH STREET, LYING WITHIN SAID PLAT AND WEST OF THE CENTERLINE OF 74TH PLACE SE AND EAST OF THE SOUTHERLY EXTENSION OF THE WEST LINE OF SAID LOT 20.

SITUATE IN THE CITY OF MERCER ISLAND, COUNTY OF KING, STATE OF WASHINGTON.

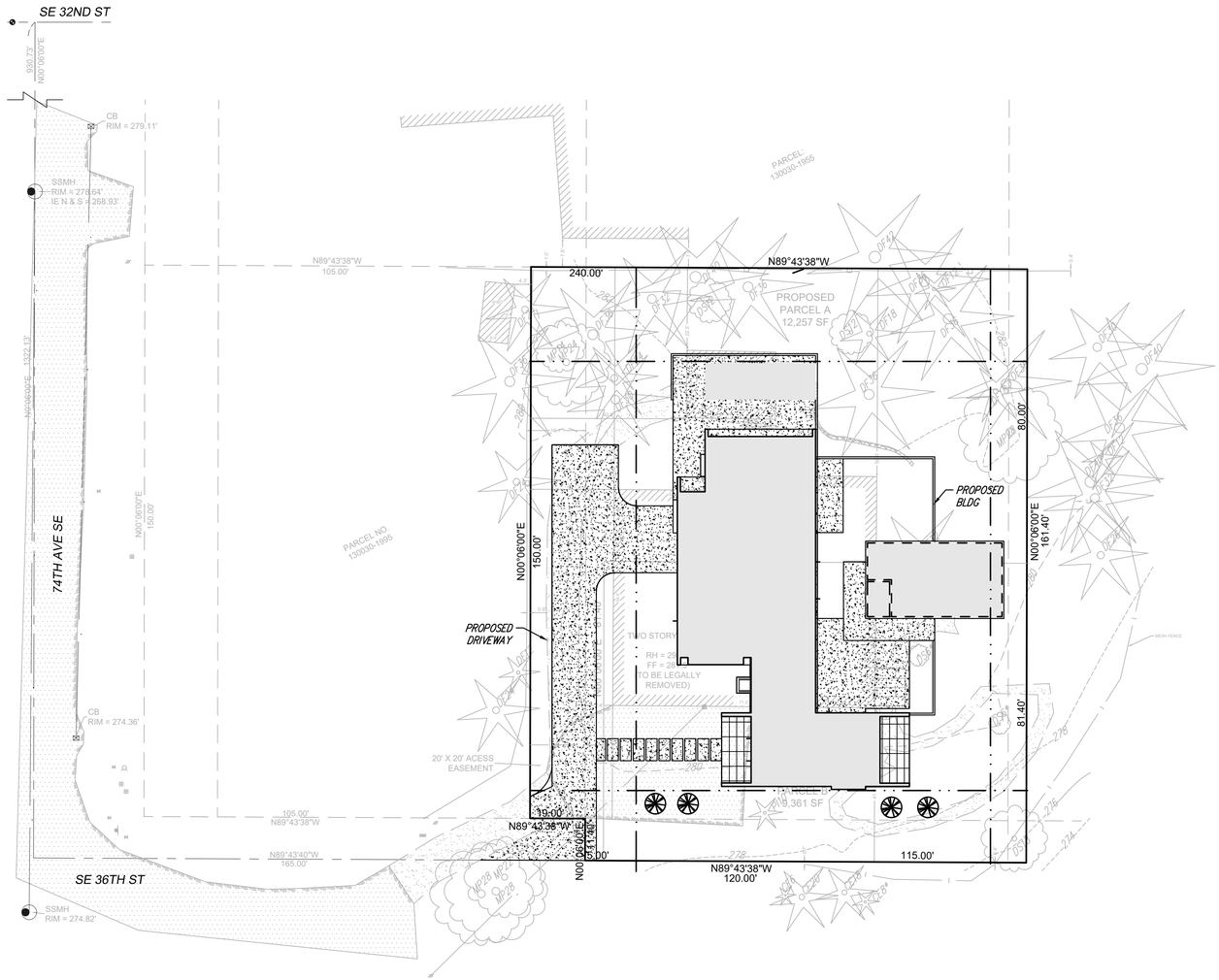
SITE STATISTICS

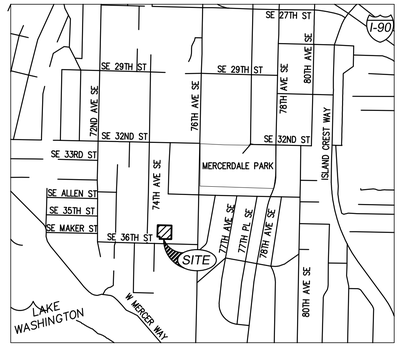
ZONING:	R-8.4 (RESIDENTIAL-SINGLE FAMILY
SITE AREA:	21,618 SF (±0.496 ACRES)
TAX PARCEL:	130030-1965

LEGEND

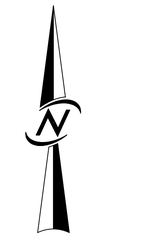
EXISTING

FOUND MONUMENT AS DESCRIBED	CHAINLINK FENCE
FOUND REBAR AS DESCRIBED	WOOD FENCE
TACK IN LEAD FOUND	CONCRETE WALL
SET 5/8" X 24" IRON ROD W/1" YELLOW PLASTIC CAP	ROCKERY
POWER METER	ASPHALT SURFACE
UTILITY POLE	GRAVEL SURFACE
GAS METER	SQ SEQUOIA
SANITARY SEWER MANHOLE	CE CEDAR
WATER VALVE	DF DOUGLAS FIR
FIRE HYDRANT	HE HEMLOCK
WATER METER	MP MAPLE
SIGN	PI PINE
SS APPROXIMATE LOCATION SANITARY SEWER LINE	SP SPRUCE
SD APPROXIMATE LOCATION STORM DRAIN LINE	DS DECIDUOUS
OHP OVERHEAD POWER	* DENOTES MULTI-TRUNK
OHU OVERHEAD UTILITIES	





VICINITY MAP
SCALE: 1:1000



SCALE: 1" = 20'

0 10 20 40

OWNER:

JIMMY & SHANNON FOO
2820 29TH AVE W
SEATTLE, WA 98199
CONTACT: SHANNON FOO
PHONE: (306) 613-5505

ENGINEER

CORE DESIGN INC
12100 NE 195TH ST, SUITE 300
BOTHELL, WASHINGTON 98011
(425) 885-7877
CONTACT : MICHAEL A. MOODY, P.E.

SURVEY:

SITE SURVEYING INC
21923 NE 11TH ST
SAMMAMISH, WASHINGTON 98074
(425) 298-4412

SHEET INDEX

UNDERGROUND LOCATOR SERVICE
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PERMIT #XXXX-XXX

DATE
REVISIONS
NO.

12-10-20

CIVIL ENGINEERING
LANDSCAPE ARCHITECTURE
PLANNING
SURVEYING

CORE DESIGN

12100 NE 195th St, Suite 300 Bothell, Washington 98011 425.885.7877

SITE PLAN
3453 74TH AVE SE

JIMMY & SHANNON FOO
2820 29TH AVE W
SEATTLE, WA 98199

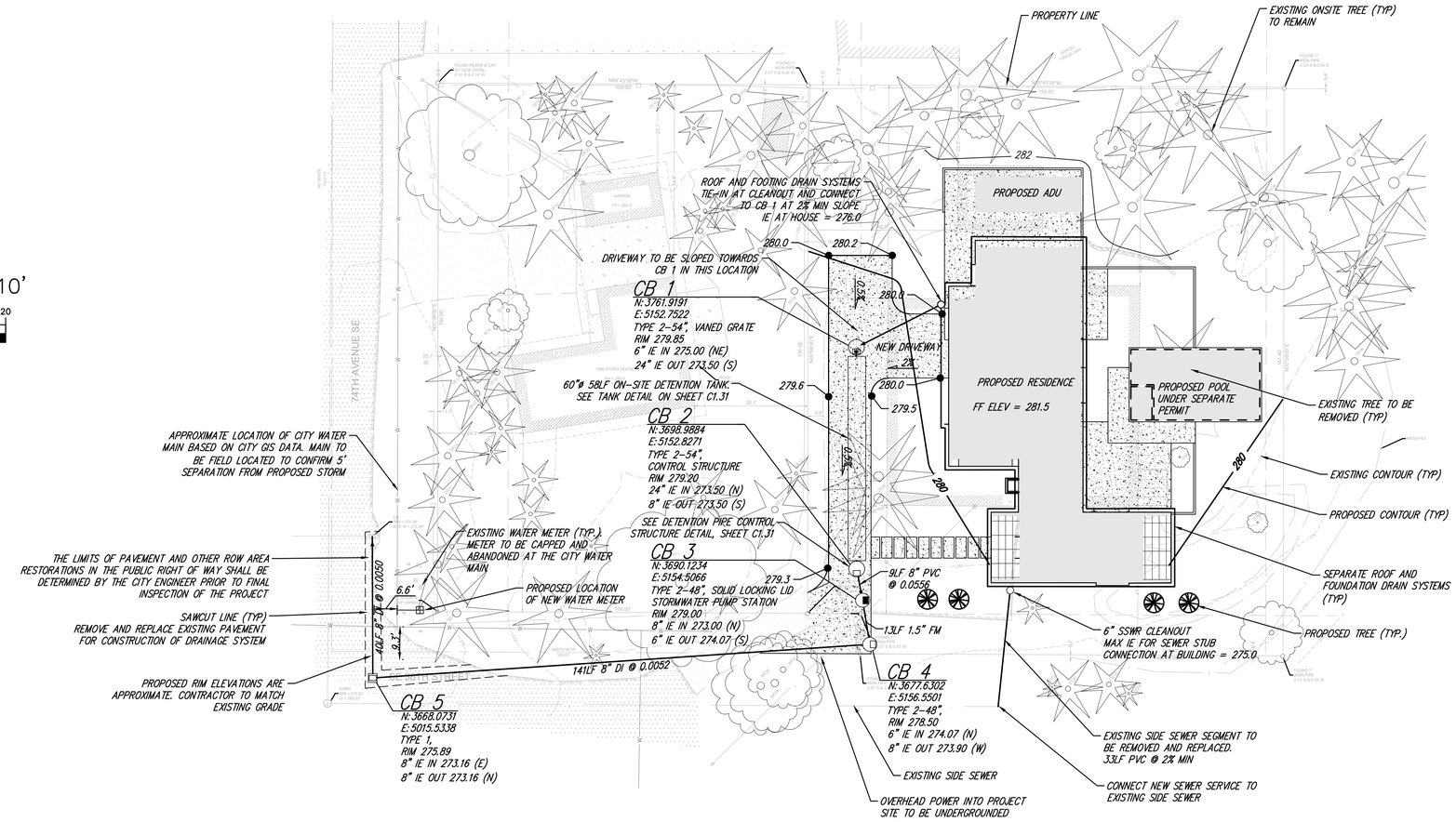
DATE	SEE STAMP DATE
DESIGNED	FLAVIO R. BAINOTTI
DRAWN	MARY MOORE
APPROVED	MICHAEL A. MOODY, PE
	JOSHUA BEARD
	PROJECT MANAGER

SHEET	OF
C1.01	5

PROJECT NUMBER
20034

SCALE: 1" = 10'

0 5 10 20



LOT COVERAGE PROPOSED

LOT	21,618	SQ.FT.
ROOF AREA=	4,053	SQ.FT.
DRIVE / WALK =	5,370	SQ.FT.
TOTAL IMPERVIOUS =	9,423	SQ.FT.
PROPOSED IMPERVIOUS =	43.6%	

BMP T5.13: POST-CONSTRUCTION SOIL QUALITY AND DEPTH DESIGN QUIDELINES

- SOIL RETENTION. RETAIN, IN AN UNDISTURBED STATE, THE DUFF LAYER AND NATIVE TOPSOIL TO THE MAXIMUM EXTENT PRACTICABLE. IN ANY AREAS REQUIRING GRADING REMOVE AND STOCKPILE THE DUFF LAYER AND TOPSOIL ON SITE IN A DESIGNATED, CONTROLLED AREA, NOT ADJACENT TO PUBLIC RESOURCES AND CRITICAL AREAS, TO BE REAPPLIED TO OTHER PORTIONS OF THE SITE WHERE FEASIBLE.
- SOIL QUALITY. ALL AREAS SUBJECT TO CLEARING AND GRADING THAT HAVE NOT BEEN COVERED BY IMPERVIOUS SURFACE, INCORPORATED INTO A DRAINAGE FACILITY OR ENGINEERED AS STRUCTURAL FILL OR SLOPE SHALL, AT PROJECT COMPLETION, DEMONSTRATE THE FOLLOWING:

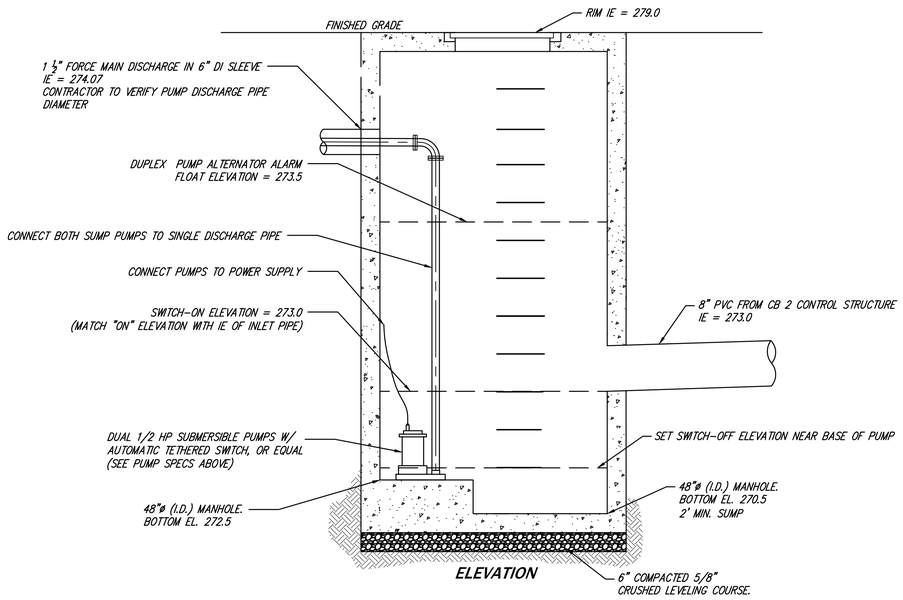
1. A TOPSOIL LAYER WITH MINIMUM ORGANIC MATTER CONTENT OF 10% DRY WEIGHT IN PLANTING BEDS, AND 5% ORGANIC MATTER CONTENT IN TURF AREAS, AND A pH FROM 6.0 TO 8.0 OR MATCHING THE pH OF THE UNDISTURBED SOIL. THE TOPSOIL LAYER SHALL HAVE A MINIMUM DEPTH OF EIGHT INCHES EXCEPT WHERE TREE ROOTS LIMIT THE DEPTH OF INCORPORATION OF AMENDMENTS NEEDED TO MEET THE CRITERIA. SUBSOILS BELOW THE TOPSOIL LAYER SHOULD BE SCARIFIED AT LEAST 4 INCHES WITH SOME INCORPORATION OF THE UPPER MATERIAL TO AVOID STRATIFIED LAYERS, WHERE FEASIBLE.
2. MULCH PLATING BEDS WITH 2 INCHES OF ORGANIC MATERIAL.
3. USE COMPOST AND OTHER MATERIALS THAT MEET THESE ORGANIC CONTENT REQUIREMENTS:
   a. THE ORGANIC CONTENT FROM "PRE-APPROVED" AMENDMENT RATES CAN BE MET ONLY USING COMPOST MEETING THE COMPOST SPECIFICATIONS FOR BMP 17.30: BIORETENTION CELLS, SWALES, AND PLANTER BOXES, WITH THE EXCEPTION THAT THE COMPOST MAY HAVE UP TO 35% BIOSOLIDS OR MANURE. THE COMPOST MUST ALSO HAVE AN ORGANIC MATTER CONTENT OF 40% TO 65% AND A CARBON TO NITROGEN RATIO BELOW 25:1. THE CARBON TO NITROGEN RATIO MAY BE AS HIGH AS 35:1 FOR PLANTINGS COMPOSED ENTIRELY OF PLANTS NATIVE TO THE PUGET SOUND LOWLANDS REGION.
   b. CALCULATED AMENDMENT RATES MAY BE MET THROUGH THE USE OF COMPOSTED MATERIAL (A) ABOVE; OR OTHER ORGANIC MATERIALS AMENDED TO MEET THE CARBON TO NITROGEN RATIO REQUIREMENTS, AND NOT EXCEEDING THE CONTAINMENT LIMITS IDENTIFIED IN TABLE 220-B, TESTING PARAMETERS, IN WAC 173-350-220.

THE RESULTING SOIL SHOULD BE CONDUCIVE TO THE TYPE OF VEGETATION TO BE ESTABLISHED.

- IMPLEMENTATION OPTIONS: THE SOIL QUALITY DESIGN GUIDELINES LISTED ABOVE CAN BE MET BY USING ONE OF THE METHODS LISTED BELOW:

1. LEAVE UNDISTURBED NATIVE VEGETATION AND SOIL, AND PROTECT FROM COMPACTION DURING CONSTRUCTION.
2. AMEND EXISTING SITE TOPSOIL OR SUBSOIL EITHER AT DEFAULT "PRE-APPROVED" RATES, OR AT CUSTOM CALCULATED RATES BASED ON TESTS OF THE SOIL AND AMENDMENT.
3. STOCKPILE EXISTING TOPSOIL DURING GRADING, AND REPLACE IT PRIOR TO PLANTING. STOCKPILED TOPSOIL MUST ALSO BE AMENDED IF NEEDED TO MEET THE ORGANIC MATTER OR DEPTH REQUIREMENTS, EITHER AT A DEFAULT "PRE-APPROVED" RATE OR AT A CUSTOM CALCULATED RATE.
4. IMPORT TOPSOIL MIX OF SUFFICIENT ORGANIC CONTENT AND DEPTH TO MEET THE REQUIREMENTS.

MORE THAN ONE METHOD MAY BE USED ON DIFFERENT PORTIONS OF THE SAME SITE. SOIL THAT ALREADY MEETS THE DEPTH AND ORGANIC MATTER QUALITY STANDARDS, AND IS NOT COMPACTED, DOES NOT NEED TO BE AMENDED.



CB 2 STORMWATER PUMP LIFT STATION DETAIL

NO SCALE

PUMP SPECIFICATIONS AND DETAILS

INSTALL (2) 1/2-HORSEPOWER THERMOPLASTIC SUBMERSIBLE SUMP PUMPS WITH SEPARATE TETHERED AUTOMATIC ON-OFF SWITCH

MINIMUM PUMP REQUIREMENTS:

- DISCHARGE FLOW OF AT LEAST 55.6 GALLONS PER MINUTE (0.124 CFS FOR 25-YEAR STORM) AT 7 FEET DYNAMIC HEAD (PUMP "OFF" ELEVATION TO OUTLET ELEVATION AT FINISHED GRADE)
- MUST FUNCTION AUTOMATICALLY
- MUST BE SUBMERSIBLE

INSTALL DUPLEX PUMP ALTERNATOR WITH ALARM

PROVIDE ON-SITE BACK-UP POWER SUPPLY TO PUMP SYSTEM

PUMP SYSTEM SHALL BE OWNED, OPERATED, MAINTAINED, REPAIRED AND REPLACED (AS NEEDED) BY PROPERTY OWNERS SERVED BY SUCH SYSTEM.

PROPERTY OWNERS SERVED BY THE PUMP SYSTEM SHALL BE RESPONSIBLE FOR ANY AND ALL CLAIMS FOR INJURIES AND DAMAGE DUE TO THE OPERATION OR NON-OPERATION OF THE PUMP SYSTEM.

NOTES

1. SEE PSE PLANS FOR LOCATION OF UTILITIES. PROPOSED DRY UTILITIES WILL BE BURIED.
2. THE LAWN AND LANDSCAPE AREAS ARE REQUIRED TO PROVIDE POST-CONSTRUCTION SOIL QUALITY AND DEPTH IN ACCORDANCE WITH BMP T5.13. THE PROJECT CIVIL ENGINEER MUST PROVIDE A LETTER OF CERTIFICATION TO ENSURE THAT THE LAWN AND LANDSCAPE AREAS ARE MEETING THE POST-CONSTRUCTION SOIL QUALITY AND DEPTH REQUIREMENTS SPECIFIED ON THE APPROVED PLAN SET PRIOR TO FINAL INSPECTION OF THE PROJECT.
3. THE TV INSPECTION OF THE EXISTING SHARED SIDE SEWER TO THE CITY SEWER MAIN ON 74TH AVE SE IS REQUIRED PRIOR TO ANY WORK RELATED TO THE SIDE SEWER. IF THE RESULT OF THE TV INSPECTION IS NOT IN SATISFACTORY CONDITION, AS DETERMINED BY THE CITY OF MERCER ISLAND INSPECTOR, THE REPLACEMENT OF THE EXISTING SIDE SEWER IS REQUIRED.

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PERMIT #XXXX-XXX

NO.	REVISIONS	DATE

12-10-20

CIVIL ENGINEERING
LANDSCAPE ARCHITECTURE
PLANNING
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CORE DESIGN
12100 NE 195th St, Suite 300 Bothell, Washington 98011 425.885.7877

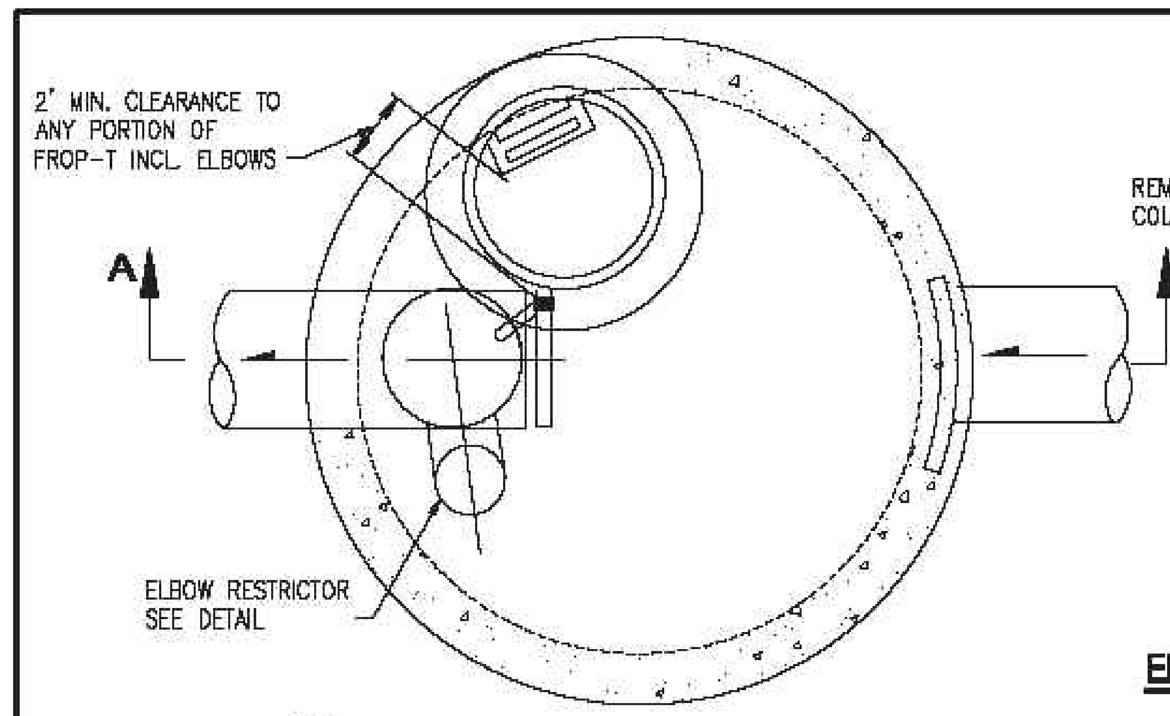
SITE PLAN
3453 74TH AVE SE
JIMMY & SHANNON FOO
2820 29TH AVE W
SEATTLE, WA 98199

DATE	SEE STAMP DATE	
DESIGNED	FLAVIO R. BAINOTTI	
DRAWN	MARY MOORE	
APPROVED	MICHAEL A. MOODY, PE	
	JOSHUA BEARD	PROJECT MANAGER

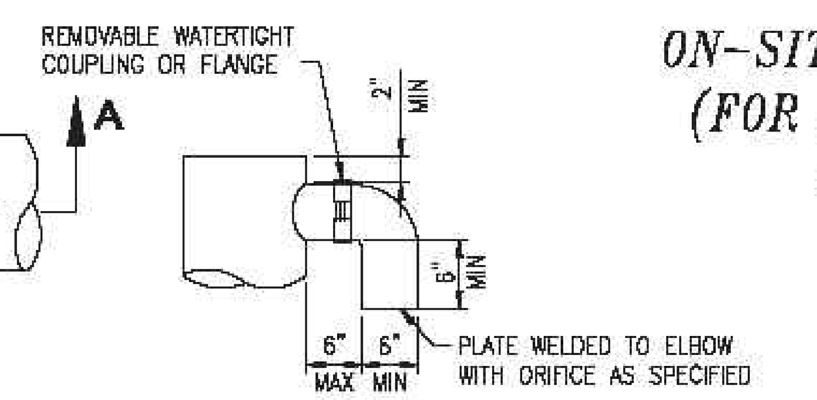
SHEET	OF
C1.03	5

PROJECT NUMBER 20034

ATTACHMENT 1
CITY OF MERCER ISLAND
ON-SITE DETENTION SYSTEM WORKSHEET
(FOR NEW PLUS REPLACED IMPERVIOUS AREA OF 9,500 SF OR LESS)

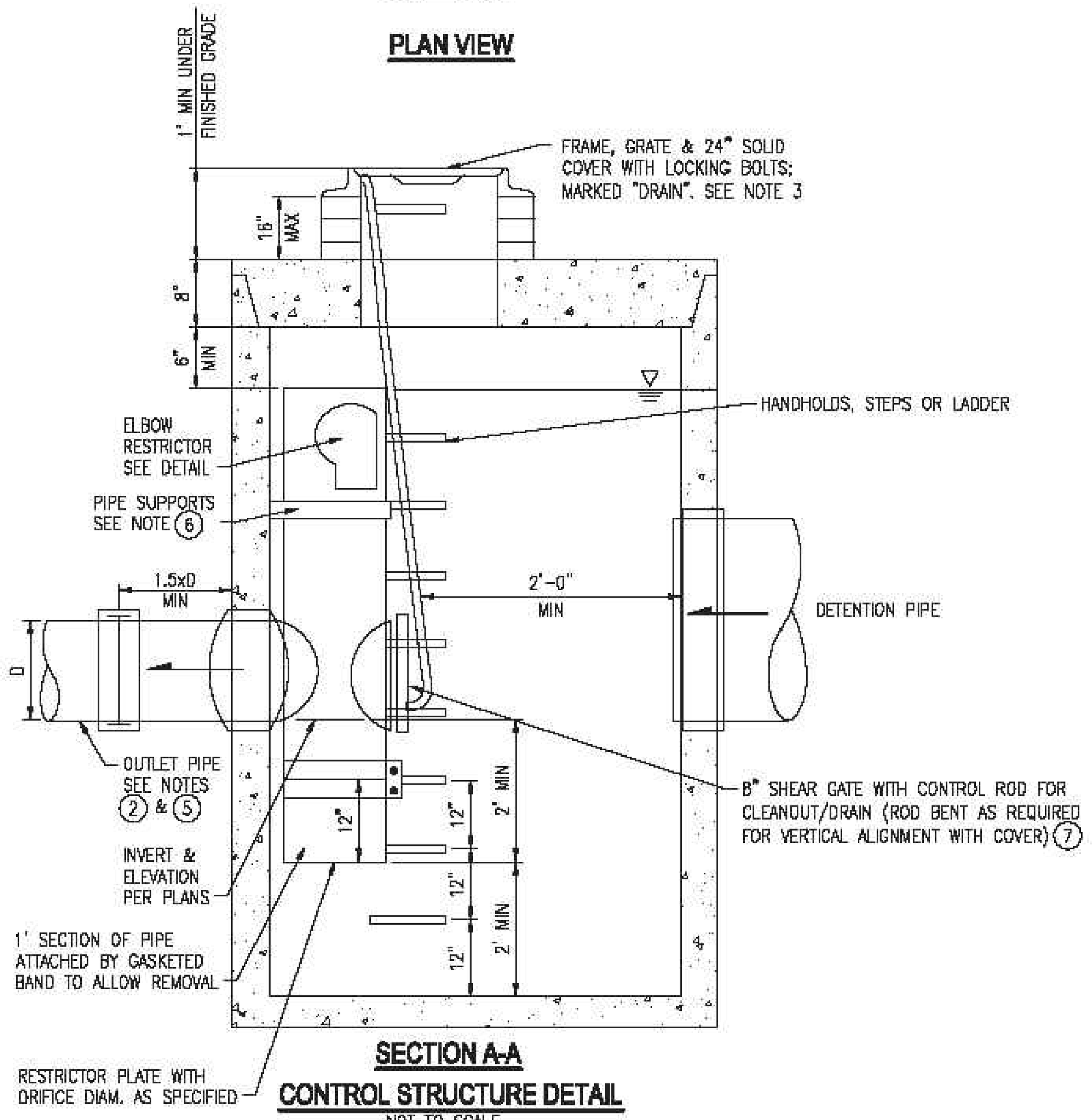


PLAN VIEW



ELBOW RESTRICTOR DETAIL

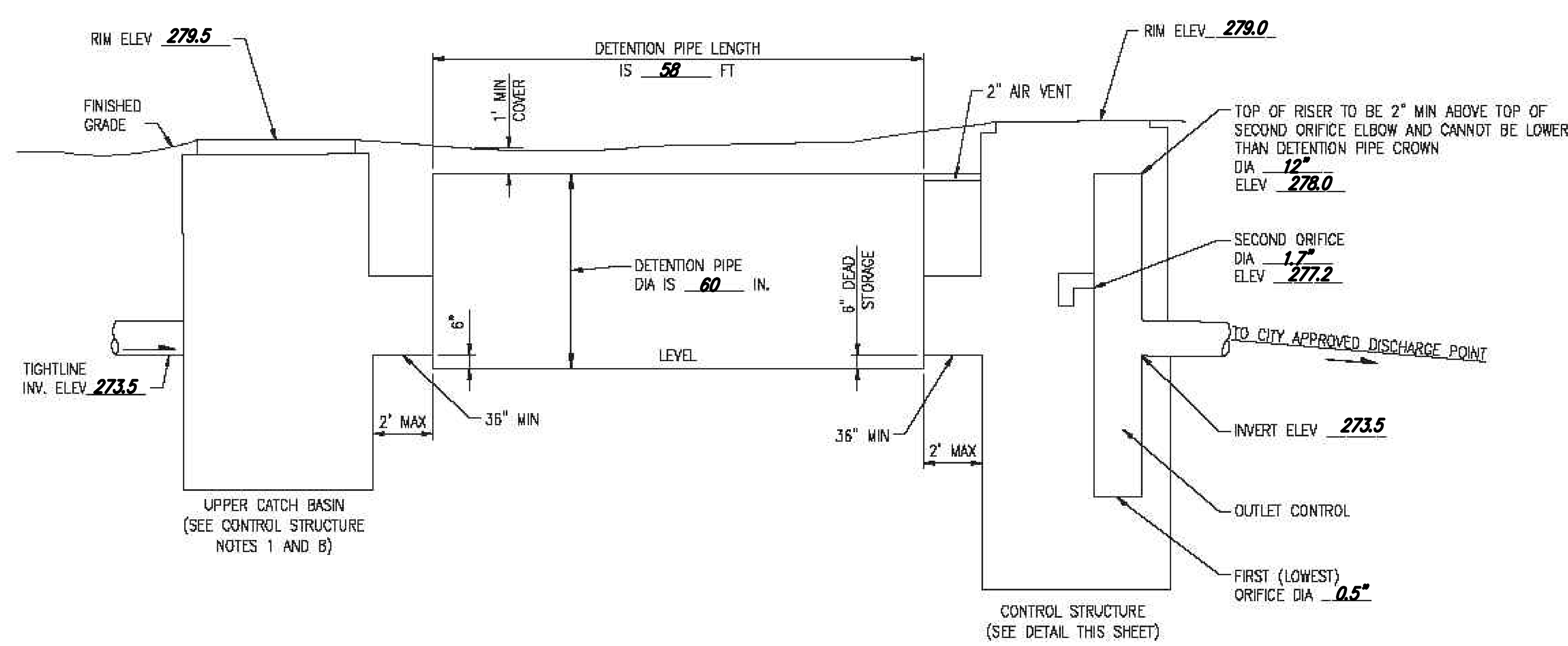
OWNER: JIMMY AND SHANNON FOO	ADDRESS: 3453 74TH AVE W, MERCER ISLAND, WA 98040	PREPARED BY: MICHAEL MOODY, P.E.
PERMIT #:		PHONE: 425-885-7877
		DATE: 12/9/2020
NEW PLUS REPLACED IMPERVIOUS SURFACE AREA (SF): 9,205	DETENTION PIPE DIA (INCH): 60"	DETENTION PIPE LENGTH (FT): 58 / ORIFICE #1 DIA 0.5" INCH, ELEV 273.5
SOIL TYPE: C	PIPE MATERIAL: CMP	ORIFICE #2 DIA 1.7" INCH, ELEV 277.2



SECTION A-A

CONTROL STRUCTURE DETAIL

NOT TO SCALE



ON-SITE DETENTION SYSTEM

NOT TO SCALE (ENGINEER TO FILL IN BLANKS)

CONTROL STRUCTURE NOTES:

1. USE A MINIMUM OF A 54 IN. DIAM. TYPE 2 CATCH BASIN. THE ACTUAL SIZE IS DEPENDENT ON CONNECTING PIPE MATERIAL AND DIAMETER.
2. OUTLET PIPE: MIN. 6 INCH.
3. METAL PARTS: CORROSION RESISTANT. NON-GALVANIZED PARTS PREFERRED. GALVANIZED PIPE PARTS TO HAVE ASPHALT TREATMENT 1.
4. FRAME AND LADDER OR STEPS OFFSET SO:
   A. CLEANOUT GATE IS VISIBLE FROM TOP;
   B. CLIMB-DOWN SPACE IS CLEAR OF RISER AND CLEANOUT GATE;
   C. FRAME IS CLEAR OF CURB.
5. IF METAL OUTLET PIPE CONNECTS TO CEMENT CONCRETE PIPE, OUTLET PIPE TO HAVE SMOOTH O.D. EQUAL TO CONCRETE PIPE I.D. LESS 1/4 IN.
6. PROVIDE AT LEAST ONE 3 X 0.090 GAUGE SUPPORT BRACKET ANCHORED TO CONCRETE WALL WITH 5/8 IN. STANLESS STEEL EXPANSION BOLTS OR EMBEDDED SUPPORTS 2 IN. INTO CATCH BASIN WALL (MAXIMUM 3'-0" VERTICAL SPACING).
7. THE SHEAR GATE SHALL BE MADE OF ALUMINUM ALLOY IN ACCORDANCE WITH ASTM B 26M AND ASTM B 275, DESIGNATION ZG32A; OR CAST IRON IN ACCORDANCE WITH ASTM A 48, CLASS 30B.
   THE LIFT HANDLE SHALL BE MADE OF A SIMILAR METAL TO THE GATE (TO PREVENT GALVANIC CORROSION), IT MAY BE OF SOLID ROD OR HOLLOW TUBING, WITH ADJUSTABLE HOOK AS REQUIRED.
   A NEOPRENE RUBBER GASKET IS REQUIRED BETWEEN THE RISER MOUNTING FLANGE AND THE GATE FLANGE.
   INSTALL THE GATE SO THAT THE LEVEL-LINE MARK IS LEVEL WHEN THE GATE IS CLOSED.
   THE MATING SURFACES OF THE LID AND THE BODY SHALL BE MACHINED FOR PROPER FIT.
   ALL SHEAR GATE BOLTS SHALL BE STAINLESS STEEL.
8. THE UPPER CATCH BASIN IS REQUIRED IF THE LENGTH OF THE DETENTION PIPE IS GREATER THAN 50 FT.

ON-SITE DETENTION SYSTEM NOTES:

1. CALL DEVELOPMENT SERVICES (206-275-7605) 24 HOURS IN ADVANCE FOR A DETENTION SYSTEM INSPECTION BEFORE BACKFILLING AND FOR FINAL INSPECTIONS.
2. RESPONSIBILITY FOR OPERATION AND MAINTANANCE OF DRAINAGE SYSTEMS ON PRIVATE PROPERTY IS RESPONSIBILITY OF THE PROPERTY OWNER. MATERIAL ACCUMULATED IN THE STORAGE PIPE MUST BE REMOVED FROM CATCH BASINS TO ALLOW PROPER OPERATION. THE OUTLET CONTROL ORIFICE MUST BE KEPT OPEN AT ALL TIMES.
3. PIPE MATERIAL, JOINT, AND PROTECTIVE TREATMENT SHALL BE IN ACCORDANCE WITH SECTION 7.04 AND 9.05 OF THE WSDOT STANDARD SPECIFICATION FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION, LATEST VERSION. SUCH MATERIALS INCLUDE THE FOLLOWING, LINED CORRUGATED POLYETHYLENE PIPE (LCPE), ALUMINIZED TYPE 2 CORRUGATED STEEL PIPE AND PIPE ARCH (MEETS AASHTO DESIGNATIONS M274 AND M36), CORRUGATED OR SPIRAL RIB ALUMINUM PIPE, OR REINFORCED CONCRETE PIPE. CORRUGATED STEEL PIPE IS NOT ALLOWED.
4. FOOTING DRAINS SHALL NOT BE CONNECTED TO THE DETENTION SYSTEM.

UNDERGROUND LOCATOR SERVICE
CALL BEFORE YOU DIG!
811

PERMIT #XXXX-XXX

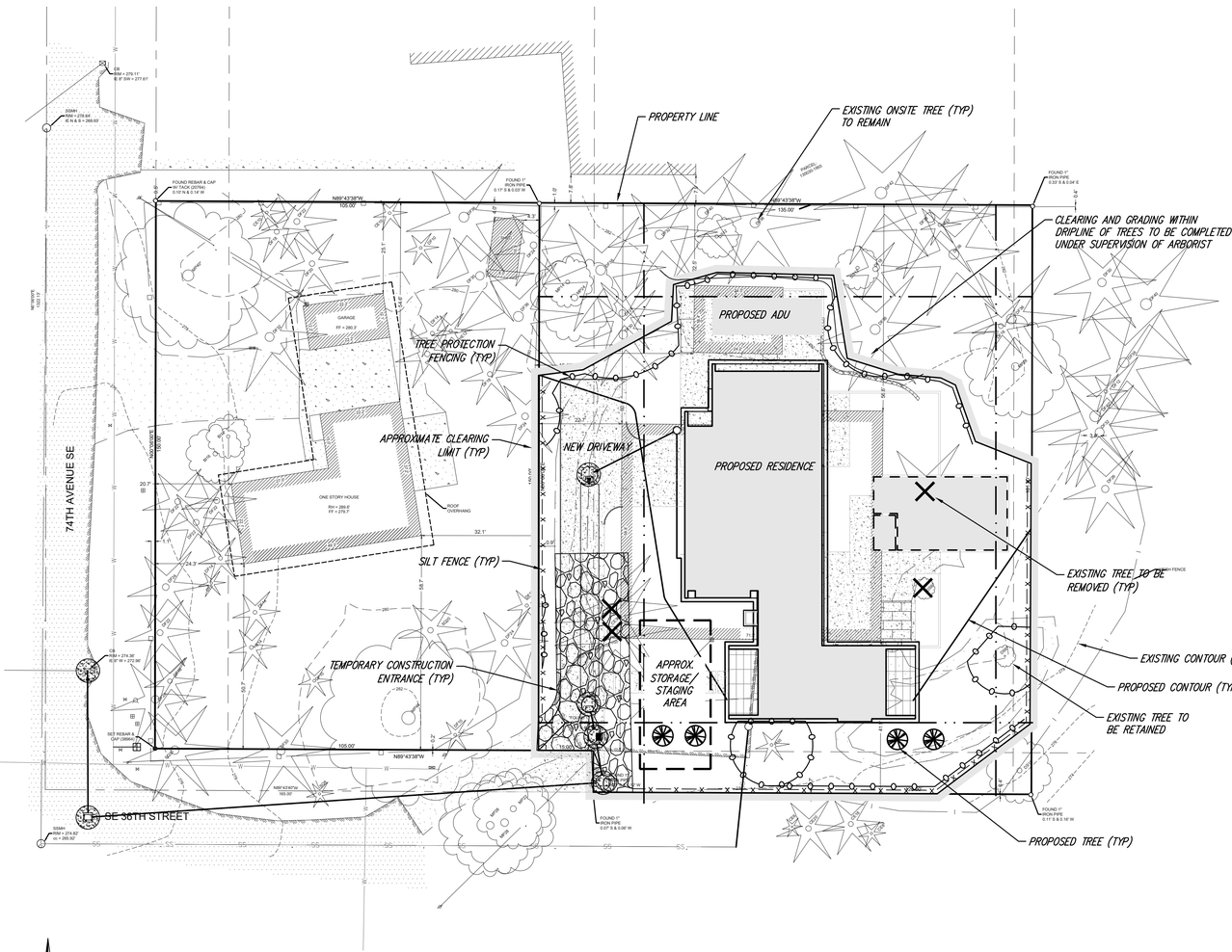
NO. | REVISIONS | DATE

12-10-20

CORE DESIGN
CIVIL ENGINEERING
LANDSCAPE ARCHITECTURE
PLANNING
SURVEYING
12100 NE 195th St, Suite 300 Bothell, Washington 98011 425.885.7877

STORMWATER DETAILS
3453 74TH AVE SE
JIMMY & SHANNON FOO
2820 29TH AVE W
SEATTLE, WA 98199

DATE	SEE STAMP DATE
DESIGNED	FLAVIO R. BAINOTTI
DRAWN	MARY MOORE
APPROVED	MICHAEL A. MOODY, PE
PROJECT MANAGER	JOSHUA BEARD
SHEET	C1.31
OF	5
PROJECT NUMBER	20034



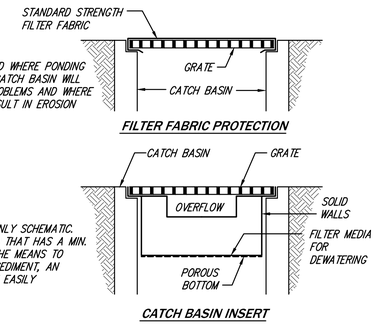
SCALE: 1" = 10'

0 5 10 20

LEGEND

SEE SHEET C2.31 FOR DETAILS, NOTES AND CONSTRUCTION SEQUENCE.

- INLET FILTER (W.S.D.O.T. STD DTL. 1-40.20-00)
- FILTER FABRIC FENCE — x — x —
- CONSTRUCTION ACCESS
- CLEARING LIMITS
- EXISTING CONTOUR 110
- PROPOSED CONTOUR 110
- EX TREE TO BE REMOVED



NOTE: ONLY TO BE USED WHERE PONDING OF WATER ABOVE THE CATCH BASIN WILL NOT CAUSE TRAFFIC PROBLEMS AND WHERE OVERFLOW WILL NOT RESULT IN EROSION OF SLOPES.

FILTER FABRIC PROTECTION

NOTE: THIS DETAIL IS ONLY SCHEMATIC. ANY INSERT IS ALLOWED THAT HAS A MIN. 0.5 C.F. OF STORAGE, THE MEANS TO DEWATER THE STORED SEDIMENT, AN OVERFLOW, AND CAN BE EASILY MAINTAINED.

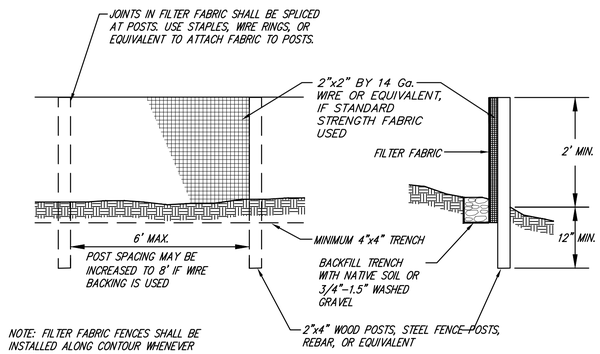
CATCH BASIN INSERT

MAINTENANCE STANDARDS

1. ANY ACCUMULATED SEDIMENT ON OR AROUND THE FILTER FABRIC PROTECTION SHALL BE REMOVED IMMEDIATELY. SEDIMENT SHALL NOT BE REMOVED WITH WATER, AND ALL SEDIMENT MUST BE DISPOSED OF AS FILL ON-SITE OR HAULED OFF-SITE.
2. ANY SEDIMENT IN THE CATCH BASIN INSERT SHALL BE REMOVED WHEN THE SEDIMENT HAS FILLED ONE-THIRD OF THE AVAILABLE STORAGE. THE FILTER MEDIA FOR THE INSERT SHALL BE CLEANED OR REPLACED AT LEAST MONTHLY.
3. REGULAR MAINTENANCE IS CRITICAL FOR BOTH FORMS OF CATCH BASIN PROTECTION. UNLIKE MANY FORMS OF PROTECTION THAT FAIL GRADUALLY, CATCH BASIN PROTECTION WILL FAIL SUDDENLY AND COMPLETELY IF NOT MAINTAINED PROPERLY.

FILTER FABRIC PROTECTION FOR CB's

NO SCALE



NOTE: FILTER FABRIC FENCES SHALL BE INSTALLED ALONG CONTOUR WHENEVER POSSIBLE

FILTER FABRIC FENCE DETAIL

NO SCALE

UNDERGROUND LOCATOR SERVICE
CALL BEFORE YOU DIG!
811

PERMIT #XXXX-XXX

NO.	REVISIONS	DATE

MICHAEL A. MOODY WASHINGTON 19841 REGISTERED PROFESSIONAL ENGINEER

12-10-20

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	JOSHUA BEARD — PROJECT MANAGER

SHEET	OF
C2.01	5

PROJECT NUMBER 20034

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