LAKE HOUSE

MERCER ISLAND, WA

PROJECT DATA

PROJECT ADDRESS:

3310 97TH AVE SE
MERCER ISLAND, WA 98040

LEGAL DESCRIPTION:

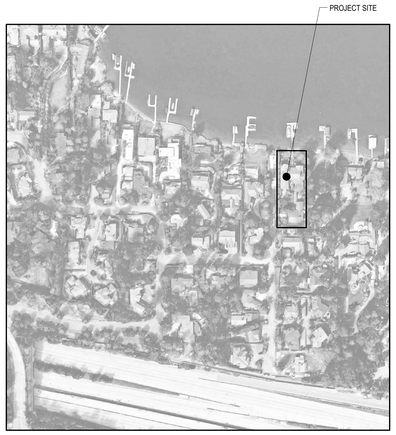
CONSOLIDATED LOT PER MI LOT CONSOLIDATION FOR NANESS REC # 200104169000004 SD CONSOLIDATION BEING W 100 FT OF E 921.44 FT OF GL 5 LESS S 770 FT

KING COUNTY ASSESSOR'S PARCEL NUMBER:

072405-9038

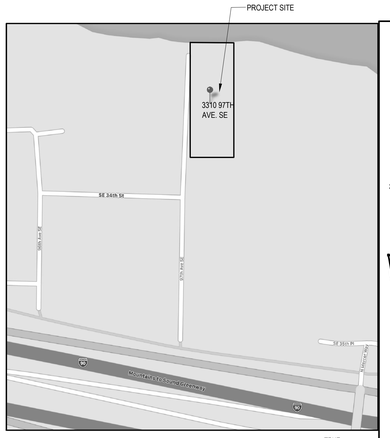
PROJECT DESCRIPTION:

RENOVATE EXISTING HOME AND DETACHED ACCESSORY STRUCTURE: MAIN HOUSE IMPROVEMENTS INCLUDE: A COMPLETE RENOVATION TO THE UPPER LEVEL; THE ADDITION OF A NEW OUTDOOR SWIMMING POOL; IMPROVEMENTS TO THE SOUTH COURTYARD; AND, MAIN HOUSE LOWER LEVEL INTERIOR RENOVATIONS. DETACHED ACCESSORY STRUCTURE TO INCLUDE THE REMOVAL OF THE UPPER LEVEL, AND REMOVAL OF A PORTION OF THE NORTHERN GROUND FLOOR LEVEL



1 REGIONAL MAP
N.T.S.

TRUE NORTH



2 VICINITY MAP
N.T.S.

TRUE NORTH

GENERAL INFORMATION

OWNER:

HEIDI ORR, TIMIUM TRUST
9226 SE 33RD PL, MERCER ISLAND, WA 98040
CONTACT: KEN BROOKS / NORTHBROOK CONSTRUCTION MANAGEMENT
PHONE: (206) 310-5801

ARCHITECT:

ROBERT EDSON SWAIN, INC.
2300 W COMMODORE WAY, STE 201
SEATTLE, WA 98199
PROJECT CONTACT: YE SUN
DIRECT LINE : 206-527-7416
YES@BOBSWAIN.COM

STRUCTURAL ENGINEER:

IL GROSS STRUCTURAL ENGINEERS
23914 56TH AVENUE WEST
SUITE 200
MONTLAKE TERRACE, WA 98043-5263
(206) 623-0769
CONTACT: MARK SPEIDEL

CIVIL ENGINEER:

LPD ENGINEERING
1932 1ST AVE #201
SEATTLE, WA 98101
(206) 725-1211
CONTACT: LAURIE PFARR

GEOTECHNICAL ENGINEER:

TERRA ASSOCIATES INC
12220 113TH AVENUE, STE 130
KIRKLAND, WA 98034
(425) 821-7777
CONTACT: CAROLYN S. DECKER, P.E.

SURVEYOR

TERRANE
10801 MAIN STREET, SUITE 102
BELLEVUE, WA 98004
(425) 458-4488
CONTACT: KATHERINE RYG

CONSTRUCTION MANAGEMENT

NORTHBROOK CONSTRUCTION MANAGEMENT
13212 409TH AVE SE
NORTH BEND, WA 98045
PHONE: (206) 310-5801
CONTACT: KEN BROOKS

ARCHITECTURAL SYMBOLS

- BREAK MARK
- FINISH TAG (B1)
- SECTION TAG (#/A#)
- DETAIL TAG (#/A# R)
- ELEVATION TAG (#/A3.#)
- SPOT ELEVATION (# LOCATION)
- NORTH ARROW (TRUE NORTH)
- ASSEMBLY TAG (W#)
- INTERIOR ELEVATION TAG - MULTIPLE (A3.## 1 / A3.##)
- INTERIOR ELEVATION TAG - SINGLE (A3.## 1)
- GRID LINE (1)
- SINGLE STEP (# ")
- VENTILATION (CFM)
- SMOKE DETECTOR (SD)
- CARBON MONOXIDE DETECTOR (CM)
- SMOKE & CARBON MONOXIDE COMBINED DETECTOR (SC)
- WINDOW TAG (#)
- DOOR TAG (#)
- CEILING HEIGHT TAG / FINISH TAG (8'-11" / C1)

CODE ANALYSIS

GENERAL:

1. JURISDICTION	CITY OF MERCER ISLAND
2. BUILDING CODE	2015
3. ZONING CLASSIFICATION	R-9.6
4. OCCUPANCY	R-3
5. CONSTRUCTION TYPE	TYPE VB
6. ACTIVE CODES:	2015 INTERNATIONAL RESIDENTIAL CODE
	2015 INTERNATIONAL ENERGY CONSERVATION CODE
	2015 INTERNATIONAL MECHANICAL CODE
	2015 UNIFORM PLUMBING CODE
	2020 WASHINGTON CITIES ELECTRICAL CODE
	2015 INTERNATIONAL FIRE CODE
	2015 NATIONAL FUEL GAS CODE
	2015 INTERNATIONAL RESIDENTIAL CODE

SETBACKS:

PER MICC 19.02.020 (C)

MINIMUM FRONT YARD SETBACK:	20'
MINIMUM REAR YARD/SHORELINE SETBACK:	25'
MINIMUM SUM OF SIDE YARD SETBACK:	17'
MINIMUM SIDE YARD:	5.61'
PROPOSED FRONT YARD SETBACK:	20'
PROPOSED SHORELINE SETBACK:	25'
PROPOSED SIDE YARD SETBACK:	11' + 6'

BUILDING HEIGHT:

MICC 19.02.020(E)

MAXIMUM BUILDING HEIGHT:	30'-0" FROM FROM ABE
MAXIMUM BUILDING HEIGHT ON DOWNHILL BUILDING FACADE:	30'-0"
MAXIMUM ACCESSORY BUILDING/STRUCTURE HEIGHT:	17'

PROPOSED BUILDING HEIGHT:

* SEE T2.01 FOR AVERAGE BUILDING ELEVATION DIAGRAM

BUILDING FLOOR AREA

HEATED FLOOR AREA

MAIN BUILDING UPPER FLOOR	4,060 SF
MAIN BUILDING HEATED BASEMENT	2,886 SF
	SUBTOTAL: 6,946 SF

UNHEATED FLOOR AREA

MAIN BUILDING LOWER LEVEL BASEMENT	319 SF
DETACHED GARAGE GROUND FLOOR	715 SF
	SUBTOTAL: 1,034 SF

TOTAL BUILDING FLOOR AREA : 6,946 SF +1,034 SF = 7,980 SF

GROSS FLOOR AREA

MAXIMUM GROSS FLOOR AREA FOR R-9.6

PER MICC 19.02.020(D)(1)	8,000 SF
40% LOT AREA OR 8000 SF WHICHEVER IS LESS	
40% (27,543) = 11,017.2 > 8,000 SF	
PROPOSED GROSS FLOOR AREA	**7,988 SF**
SEE SHEET T2.01 #2&#3 FOR DETAILED INFORMATION	

LOT SLOPE:

HIGHEST POINT ELEVATION	46.8'
LOWEST POINT ELEVATION	18.6'
DIFFERENCE:	28.2'
DISTANCE BETWEEN TWO POINTS	279'
LOT SLOPE = 28.2' / 279' = 10.8%	

LOT COVERAGE:

PER MICC 19.02.020(F)(3)(a)	
LOT AREA:	27,739 SF
MAXIMUM ALLOWABLE LOT COVERAGE PER MICC 19.02.020(F)(3)(a)	
40% (LOT AREA)	
40% (27,739) =	11,096 SF
PROPOSED LOT COVERAGE:	**11,047 SF<11,096 SF**

* SEE T2.02 #2 FOR LOT COVERAGE DIAGRAM AND CALCULATION

HARDSCAPE:

PER MICC 19.02.020(F)(3)(b)

LOT AREA:	27,739 SF
MAXIMUM ALLOWABLE HARDSCAPE PER MICC 19.02.020(F)(3)(a)	
9% (LOT AREA)	
9% (27,739) =	2,497 SF
PROPOSED HARDSCAPE:	**2,417 SF < 2,497 SF**

* SEE T2.02 FOR LOT COVERAGE DIAGRAM AND CALCULATION

ENERGY CODE:

FROM TABLE R402.1.1 INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT FOR PRESCRIPTIVE ENERGY CODE COMPLIANCE FOR CLIMATE ZONE MARINE 4

FENESTRATION U-FACTOR:	.3
SKYLIGHT U-FACTOR:	.5
GLAZED FENESTRATION SHGC:	NR
CEILING R-VALUE:	49
WOOD FRAME WALL R-VALUE	21 INT
FLOOR R-VALUE	30
BELOW GRADE WALL R-VALUE	10/15/21 INT + TB
SLAB R-VALUE & DEPTH	10, 2 FT

ENERGY CREDIT, PER 2015 WSEC TABLE 406.2, 4.5 CREDIT: 2b, 3c, 4, 5b
ALL WORK SHALL CONFORM WITH THE 2015 WASHINGTON STATE ENERGY CODE, PLUMBING. MECHANICAL, ELECTRICAL WORK TO BE PERMITTED SEPARATED.
SEE SHEET T1.02 FOR ENERGY AND VENTILATION CALCULATIONS AND NOTES.
SEE A9.01 & A9.02 WINDOW/DOOR SCHEDULES FOR APPLICATION OF U-VALUES.

GENERAL NOTES

1. CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND JOB CONDITIONS RELATED TO THIS WORK. ALL DIMENSIONS SHALL BE CONSIDERED "NOMINAL" UNLESS NOTED OTHERWISE (U.N.O). DO NOT SCALE DRAWINGS. USE WRITTEN DIMENSIONS ONLY. DIMENSIONS ON LARGE SCALE DRAWINGS OR DETAILS WILL PREVAIL OVER SMALLER SCALED DRAWINGS. WRITTEN DIMENSIONS ARE DRAWN TO FINISHED FACE, U.N.O. VERIFY ALL ROUGH-IN DIMENSIONS FOR EQUIPMENT, PROVIDE ALL BUCK OUTS, BLOCKING, AND JACKS AS REQUIRED BY THE DRAWINGS AND OTHER TRADES. ANY DISCREPANCY IN DIMENSIONS SHALL BE REPORTED IN WRITING TO THE ARCHITECT FOR CLARIFICATION, OR APPROVAL OF MODIFICATION BEFORE COMMENCING WORK. THE RESPONSIBILITY TO THE PROJECT MANAGER/ARCHITECT, SHALL REST WITH THE CONTRACTOR OR ANY OTHER PERSON APPROVING SUCH A CHANGE.
2. THE GENERAL CONTRACTOR, ALL SUB-CONTRACTORS AND ALL MAJOR SUPPLIERS SHALL SUBMIT TO THE OWNER WITHIN 30 DAYS AFTER COMPLETION ALL "RELEASE OF LIENS" FOR ALL WORK PERFORMED PRIOR TO FINAL PAYMENT. PARTIAL LIEN WAIVERS TO BE SUBMITTED WITH MONTHLY DRAW REQUEST.
3. ALL WORK SHALL BE IN COMPLIANCE WITH THE INTERNATIONAL RESIDENTIAL CODE, UNIFORM PLUMBING CODE, AND NATIONAL ELECTRIC CODE AS ADOPTED AND MODIFIED BY THE CITY OF MERCER ISLAND AND ALL OTHER LAWS, CODES, ORDINANCES AND REGULATIONS OF THE COUNTY, STATE, AND FEDERAL JURISDICTIONS. (LATEST EDITION AND AMENDMENTS)
4. ALL MANUFACTURERS AND/OR SUPPLIERS SHALL SUBMIT SHOP DRAWINGS AND/OR MATERIAL SAMPLES TO THE OWNER/ARCHITECT FOR APPROVAL PRIOR TO FABRICATIONS.
5. ALL WOOD IN CONTACT WITH MASONRY OR CONCRETE OR EXPOSED TO WEATHER SHALL BE PRE-PRESSURE TREATED. WOOD SPECIFICATIONS TO CONFORM TO SPECIFICATIONS, STRUCTURAL PLANS, NOTES, AND GENERAL CONDITIONS.
6. ALL COLORS AND PATTERNS OF FINISHES AND OTHER MATERIALS OF DESIGN SHALL BE APPROVED OR SELECTED BY THE OWNER/ARCHITECT.
7. ALL OF THE GENERAL CONTRACTOR'S EQUIPMENT (SCAFFOLDING HOISTS, ETC, SHALL BE AVAILABLE TO THE OWNER/ARCHITECT AND THEIR STAFF FOR INSPECTION OF ANY AND ALL WORK DURING NORMAL HOURS.
8. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR ALL DELIVERY POINTS, HOISTS LOCATIONS, ACCESS TO AND FROM THE SITE OF THE BUILDING AND UTILITY SERVICES.
9. BID TO INCLUDE ALL NECESSARY AND REQUIRED PERMITS, LICENSES, FEES AND INSURANCE- EVIDENCE OF WHICH MUST BE SUBMITTED TO THE OWNER PRIOR TO CONSTRUCTION.
10. PROVIDE AND INSTALL INSULATION AT EXTERIOR WALLS, ROOF & FLOOR LOCATIONS AS SHOWN, SPECIFIED AND IN ACCORDANCE WITH WASHINGTON STATE ENERGY CODE. WATER PIPES TO BE INSULATED IN ALL UNHEATED AREAS. INSULATE ALL ROUGH-IN PLUMBING IN WALLS, FLOORS, AND CEILINGS FOR SOUND TRANSMISSION AS APPROVED BY OWNER/ARCHITECT.
11. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SUB-CONTRACTORS WORKING AT JOB SITE AND FOR ALL COORDINATION OF WORK. THE MECHANICAL, PLUMBING AND ELECTRICAL CONTRACTOR SHALL FULLY COORDINATE ALL EQUIPMENT WITH OTHER TRADES. THESE CONTRACTORS SHALL BE RESPONSIBLE FOR FINAL HOOK-UP OF ALL EQUIPMENT NOT FURNISHED BY THEM BUT REQUIRED FOR FINAL COMPLETION.
12. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR SECURITY OF ALL MATERIALS AT JOB SITE UNTIL FINAL ACCEPTANCE OF WORK BY OWNER.
13. PAINTING SPECIFICATION PER PROJECT OUTLINE SPECIFICATIONS OR APPROVED EQUIVALENT.
14. ANY SUB-CONTRACTOR CUTTING INTO WORK ALREADY COMPLETED, CUTTING CHASES AND TRENCHES FOR THE INTRODUCTION OF HIS WORK AND EQUIPMENT IN THE BUILDING SHALL PERFORM OR SEE THAT THERE IS PROPER RESTORATION OF WALLS, FLOOR, AND ANY OTHER DAMAGES, BY SUCH A COMPANY. ALL REPAIRS SHALL MATCH EXISTING SURFACES.
15. CAULKING AND SEALANTS SHALL BE GUARANTEED WATERTIGHT. EXTERIOR METAL WORK, INCLUDING WINDOWS AND DOOR FRAMES AND ALL JUNCTIONS BETWEEN MASONRY, CONCRETE, AND METAL SHALL BE SEALED WITH NEOPRENE OR POLYURETHANE FILLER AND APPROVED SEALANT COMPOUNDS.
16. INTERIOR FINISHES AND CABINETRY: SEE FINISH SCHEDULES, INTERIOR DRAWINGS AND SPECIFICATIONS. INTERIOR FINISHES AND CABINETRY TO BE SELECTED BY OWNER/ARCHITECT, FURNISHED AND INSTALLED BY GENERAL CONTRACTOR.
17. GYPSUM WALLBOARD: ALL INTERIOR GYPSUM WALLBOARD SHALL BE 5/8" AT WALLS, 5/8" AT CEILINGS. (U.N.O.) THICK X 48" WIDE BY HEIGHT REQUIRED, APPLIED VERTICALLY ON FURRING STRIPS AT INSIDE OF EXTERIOR MASONRY/CONCRETE WALLS AND AT CEILING AS INDICATED. ALL JOINTS SHALL BE TAPED, SPACKLED, AND FINISHED SMOOTH. ALL GYPSUM BOARD CONSTRUCTION SHALL BE CORRECTED PLUMB, LEVEL, SQUARE, STRAIGHT AND SECURELY INSTALLED WITH ALL SEAMS TO BE VERTICAL. ALL JOINTS ON EXPOSED SURFACES SHALL BE FLUSH, TIGHT, AND NEATLY CUT AND CLOSELY FIT AT OPENINGS FOR THE WORK OF OTHER TRADES AND AT INTERSECTIONS OF GYPSUM BOARD AND OTHER MATERIALS. CORNER BEADS SHALL BE USED AT ALL EXPOSED GYPSUM BOARD CORNERS AND ENDS. ALL BATHROOMS SHALL HAVE MOISTURE RESISTANT GYPSUM WALLBOARD. APPLY AS PER MANUFACTURER'S RECOMMENDATIONS.
18. PROVIDE GALVANIC INSULATION BETWEEN ALL DISSIMILAR METALS.
19. ALL NEW CONSTRUCTION ADJACENT TO EXISTING CONSTRUCTION SHALL BLEND TO MEET THE EXISTING CONDITIONS, AND THERE SHALL NOT BE ANY ABRUPT CHANGES IN SURFACES OR UNFINISHED SURFACES.
20. COMPACTION SPECIFICATION PER STRUCTURAL NOTES.
21. SEE STRUCTURAL DRAWINGS FOR SIZES AND REINFORCING OF SLABS, FOUNDATION WALLS, FOOTINGS, RETAINING WALLS AND STRUCTURAL BEAMS.
22. STRUCTURAL WOOD: QUALITY OF WOOD TO CONFORM WITH I.B.C. REQUIREMENTS AND STRUCTURAL DOCUMENTS. CONFIRM WOOD GRADE WITH ARCHITECTURAL CONSTRUCTION DOCUMENTS AND SPECIFICATIONS. ANY DISCREPANCY IN GRADE SHALL BE RECORDED IN WRITING TO THE ARCHITECT FOR CLARIFICATION.
23. CERAMIC TILE TO BE SELECTED BY OWNER/ARCHITECT, AND FURNISHED AND INSTALLED BY CONTRACTOR (SEE FINISH SCHEDULE AND INTERIOR ELEVATIONS).
24. SPECIALTIES: FINISH HARDWARE/PLUMBING FIXTURES AND BATHROOM ACCESSORIES TO BE SELECTED BY OWNER/ARCHITECT AND FURNISHED AND INSTALLED BY CONTRACTOR (SEE SCHEDULES AND INTERIOR ELEVATIONS.)
25. GENERAL CONTRACTOR TO VERIFY SIZE OF ALL DOOR AND WINDOW ROUGH OPENINGS AND EXACT DOOR SWING AS PER FLOOR PLAN AND CONTACT THE ARCHITECT IF ANY DISCREPANCIES ARE FOUND BEFORE ORDERING DOORS, WINDOWS, AND/OR FRAMES.
26. NO SUBSTITUTIONS ARE ALLOWED FOR MATERIALS WHERE SPECIFIC MANUFACTURERS ARE INDICATED, UNLESS APPROVED BY THE OWNER/ARCHITECT. REQUESTS FOR SUBSTITUTIONS SHALL BE MADE IN WRITING PRIOR TO ORDERING MATERIALS OR COMMENCING WORK. SUCH REQUESTS SHALL INCLUDE THE DATE, SCOPE OF WORK, ANY ADDITIONAL COSTS TO THE OWNER, AND ANY ANTICIPATED DELAYS CAUSED BY SUCH CHANGES.
27. NO EXTRA WORK OR CHANGE SHALL BE DONE UNLESS A WRITTEN CHANGE ORDER IS SUBMITTED AND SIGNED BY THE OWNER AND ARCHITECT. THE ORDER SHALL STATE THAT THE OWNER HAS AUTHORIZED THE EXTRA WORK OR CHANGE. AND NO CLAIM FOR AN ADDITIONAL SUM SHALL BE VALID UNLESS SO OFFERED AS DESCRIBED ABOVE.
28. UNLESS OTHERWISE NOTED, PROVIDE ALL MISCELLANEOUS FASTENERS, HARDWARE AND ACCESSORIES AS REQUIRED FOR COMPLETE INSTALLATION. EVEN THOUGH SUCH ITEMS MAY NOT HAVE BEEN SPECIFICALLY MENTIONED IN THE DRAWINGS AND SPECIFICATIONS, NOTIFY THE ARCHITECT OF ANY REVISIONS OR ADDITIONAL INFORMATION OBTAINED FROM THE MANUFACTURER OF SPECIFIED MATERIALS OR EQUIPMENT THAT MAY AFFECT THE CONTRACT TIME, COST, OR QUALITY OF WORK.
29. CLEANING: DURING CONSTRUCTION: GENERAL CONTRACTOR TO OVERSEE CLEANING AND ENSURE THAT BUILDING GROUNDS ARE MAINTAINED FREE FROM ACCUMULATIONS OF WASTE MATERIALS AND RUBBISH. REMOVE WASTE MATERIALS, RUBBISH, AND DEBRIS DAILY FROM THE SITE AND LEGALLY DISPOSE OF AT PUBLIC OR PRIVATE DUMPING AREAS OFF THE JOB SITE. SPECIAL CLEANING: BESIDES GENERAL BROOM CLEANING, PERFORM THE FOLLOWING SPECIAL CLEANING AT THE COMPLETION OF WORK (FOR ALL TRADES) USING ONLY CLEANING MATERIAL RECOMMENDED BY MANUFACTURER OF SURFACE TO BE CLEANED AND ONLY ON SURFACES RECOMMENDED BY CLEANING MATERIAL MANUFACTURER: REMOVE PUTTY STAINS AND PAINT FROM ALL GLASS. CARE SHALL BE TAKEN NOT TO SCRATCH GLASS. REMOVE ALL MARKS, STAINS, FINGERPRINTS, AND OTHER SOIL AND/OR DIRT FROM ALL PAINTED, DECORATED AND STAINED WORK. CLEAN AND POLISH ALL HARDWARE AND FIXTURES FOR ALL TRADES UPON COMPLETION, INCLUDING REMOVAL OF ALL STAINS, DUST, ETC.
30. ALL WORKMANSHIP AND MATERIALS SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM THE DATE OF CERTIFICATE OF OCCUPANCY UNLESS SPECIFIED FOR A LONGER PERIOD OF TIME ON SPECIFIED ITEMS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING OR REPAIRING HIS OWN DEFECTIVE WORK AS WELL AS PAY ALL COSTS INCIDENTAL THERETO INCLUDING DAMAGE TO OTHER WORK, FURNISHINGS OR EQUIPMENT. ALL WARRANTIES OR GUARANTEES AS TO MATERIALS OR WORKMANSHIP ON OR WITH RESPECT TO THE OWNERS WORK SHALL BE CONTAINED IN THE CONTRACT OR SUBCONTRACT, WHICH SHALL BE SO WRITTEN THAT SUCH GUARANTEE OR WARRANTIES SHALL INSURE TO THE BENEFIT OF OWNER.
31. INSURANCE: PRIOR TO THE COMMENCEMENT OF WORK THE GENERAL CONTRACTOR SHALL DELIVER TO THE OWNER CERTIFICATES OF INSURANCE FOR BOTH COMPREHENSIVE GENERAL LIABILITY AND WORKMAN'S COMPENSATION INCLUDING THE TOTAL AMOUNT OF COVERAGE AND CONDITIONS STIPULATED AND AGREED BY BOTH PARTIES.
32. THE OWNER SHALL BE RESPONSIBLE FOR PAYING THE BUILDING PERMIT FEE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL OTHER PERMITS REQUIRED OR NECESSARY FOR THE COMPLETION OF THE WORK FROM THE RESPECTIVE AGENCIES. THE CONTRACTOR SHALL NOTIFY THE GOVERNING AGENCIES AS REQUIRED FOR INSPECTION OF THE WORK TO BE INSTALLED.
33. ALL MATERIALS AND EQUIPMENT INCORPORATED IN THE CONSTRUCTION SHALL BE INSTALLED ACCORDING TO THE MANUFACTURER'S WRITTEN INSTRUCTIONS.
34. ALL PRODUCTS SHOWN OR SPECIFIED IN THIS DOCUMENT SHALL BE SUBMITTED TO THE ARCHITECT AND THE OWNER FOR APPROVAL. THE CONTRACTOR SHALL PROVIDE FULL SIZE SAMPLES OF ALL FINISHES TO THE ARCHITECT AND OWNER FOR APPROVAL BEFORE INSTALLATION.
35. ALL TRADES SHALL REFER TO THE ARCHITECTURAL DRAWINGS REGARDING LOCATIONS OF WORK TO BE INSTALLED.
36. SMOKE DETECTORS SHALL BE INSTALLED IN ACCORDANCE TO ALL APPLICABLE CODES. SMOKE ALARMS AND CARBON MONOXIDE ALARMS ARE REQUIRED AND MUST BE CONNECTED TO THE MAIN ELECTRICAL SYSTEM WITH BATTERY BACKUP
37. SECURITY REQUIREMENTS: MINIMUM 1/2" THROW ON DEAD BOLT OR DEAD LATCH FOR DOORS. VISITOR OBSERVATION PORT FOR EXTERIOR DOORS.
38. INSTALL DRAFT STOPS IN FLOOR-CEILING ASSEMBLIES SO THAT CONCEALED SPACE DOES NOT EXCEED 1,000 SQ FT. FIRE BLOCKS PER R302.11
39. SOURCE SPECIFIC VENTILATION SHALL BE REQUIRED IN BATHROOM, THE MINIMUM SOURCE SPECIFIC VENTILATION EFFECTIVE EXHAUST CAPACITY SHALL BE NOT LESS THAN THE CURRENT CODE REQUIREMENTS.
40. NO SEDIMENT SHALL BE TRACKED ONTO PAVED STREETS OR ROADWAYS. SEDIMENT SHALL BE REMOVED FROM TRUCKS & EQUIPMENT PRIOR TO LEAVING THE CONSTRUCTION SITE. IN THE EVENT OF FAILURE OF THE TESC SYSTEM RESULTING IN SEDIMENT TRACKING ONTO PAVEMENT, THE CONTRACTOR SHALL IMPLEMENT MEASURES IMMEDIATELY TO CORRECT THE SITUATION. THESE MEASURES MAY NOT INCLUDE WASHING THE SEDIMENT INTO STORM DRAINS OR OTHER UTILITY INLETS.
41. ALL EXPOSED EARTH WILL BE LANDSCAPED WITH SUITABLE VEGETATION TO PREVENT EROSION.
42. ALL FINAL SURFACE GRADING SHALL BE COMPLETED TO FACILITATE POSITIVE DRAINAGE AWAY FROM THE BUILDING UNLESS NOTED OTHERWISE.
43. GLACING LOCATED WITHIN 24" ADJACENT TO A DOOR MUST BE APPROVED TEMPERED LAMINATED SAFETY GLASS OR WIRED GLASS.
44. HOUSE FIRE SPRINKLER SYSTEM TO BE UPGRADED TO CURRENT CODES. SEPARATE PERMIT TO BE SUBMITTED AS REQUIRED. AUTOMATIC FIRE SPRINKLER SYSTEM TO BE DESIGNED AND INSTALLED BY CONTRACTORS, LOCATIONS TO BE REVIEWED BY ARCHITECTS.
45. OPENINGS AROUND BATHTUBS, SHOWERS, WATER CLOSETS, PIPES, WIRES OR OTHER OBJECTS THAT PENETRATE CONCRETE SLABS, OR OTHER FLOOR ASSEMBLIES, SHALL BE FILLED WITH A POLYURETHANE CAULK OR EQUIVALENT SEALANT APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
46. ALL CONTROL JOINTS, ISOLATION JOINTS, CONSTRUCTION JOINTS, AND ANY OTHER JOINTS IN CONCRETE SLABS OR BETWEEN SLABS AND FOUNDATION WALLS SHALL BE SEALED WITH A CAULK OR SEALANT. GAPS AND JOINTS SHALL BE CLEARED OF LOOSE MATERIAL AND FILLED WITH POLYURETHANE CAULK OR OTHER ELASTOMERIC SEALANT APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
47. OPENINGS AROUND ALL PENETRATIONS THROUGH FLOORS ABOVE CRAWL SPACES SHALL BE CAULKED OR OTHERWISE FILLED TO PREVENT AIR LEAKAGE.
48. ACCESS DOORS AND OTHER OPENINGS OR PENETRATIONS BETWEEN BASEMENTS AND ADJOINING CRAWL SPACES SHALL BE CLOSED, GASKETED OR OTHERWISE FILLED TO PREVENT AIR LEAKAGE..

ABBREVIATIONS

AC	AIR CONDITIONING	GYP BD	GYPSUM BOARD	VEST	VESTIBULE
ACC	ACCESSIBLE	H	HIGH	VIF	VERIFY IN FIELD
ACP	ACOUSTICAL CEILING PANEL	HB	HOSE BIBB	VNR	VENEER
ACST	ACOUSTICAL	HCWD	HOLLOW CORE WOOD	VR	VAPOR RETARDER
AD	AREA DRAIN	HD	HAND DRYER	VW	VIDEO WALL
ADDM	ADDENDUM	HDBD	HARDBOARD	W	WEST, WIDE, WATT
ADJ	ADJUSTABLE	HDW	HARDWARE	W/	WITH
AFF	ABOVE FINISHED FLOOR	HDWD	HARDWOOD	W/O	WITHOUT
AFG	ABOVE FINISHED GRADE	HM	HOLLOW METAL	WC	WATER CLOSET,
AHU	AIR HANDLING UNIT	HORIZ	HORIZONTAL		WALLCOVERING
ALT	ALTERNATE	HP	HIGHEST POINT	WD	WOOD
ALUM	ALUMINUM	HT	HEIGHT	WH	WALL HYDRANT
ANOD	ANODIZED	HVAC	HEATING VENTILATING AND AIR CONDITIONING	WP	WEATHERPROOF, WATERPROOF,
AOR	ARCHITECT OF RECORD	ID	INSIDE DIAMETER		WATERPROOFING,
APPROX	APPROXIMATE	IN	INCH		WORK POINT
ARCH	ARCHITECT, ARCHITECTURAL	INCL	INCLUDE, INCLUDING	WR	WATER RESISTANT,
AUTO	AUTOMATIC	INFO	INFORMATION		WASTE RECEPTACLE
AV	AUDIO VISUAL	INSUL	INSULATE, INSULATION	WT	WEIGHT
BB	BULLETIN BOARD	INT	INTERIOR	XFMR	TRANSFORMER
BD	BOARD	IWD	INDIRECT WASTE DRAIN		
BLDG	BUILDING	JT	JOINT		
BLKG	BLOCKING	L	LONG		
BLW	BELOW	LAM	LAMINATE, LAMINATED		
BO	BOTTOM OF	LAV	LAVATORY		
BOH	BACK OF HOUSE	LCP	LUMINOUS CEILING PANEL		
BOT	BOTTOM	LL	LANDLORD		
BRG	BEARING	LP	LOWEST POINT		
BRZ	BRONZE	LT	LIGHT		
BSMT	BASEMENT	LTG	LIGHTING		
CB	CATCH BASIN	MAS	MASONRY		
CEM	CEMENT, CEMENTITIOUS	MATL	MATERIAL		
CG	CORNER GUARD	MAX	MAXIMUM		
CJ	CONTROL JOINT	MECH	MECHANICAL		
CJP	CAST-IN-PLACE	MED	MEDIUM		
CL	CENTERLINE	MEMB	MEMBRANE		
CLG	CEILING	MEZZ	MEZZANINE		
CLO	CLOSET	MFR	MANUFACTURE		
CLR	CLEAR	MIN	MINIMUM, MINUTE		
CMU	CONCRETE MASONRY UNIT	MISC	MISCELLANEOUS		
CO	CLEAN OUT, CASED OPENING	MR	MIRROR		
COL	COLUMN	MTD	MOUNTED		
COMM	COMMUNICATION	MTL	METAL		
CONC	CONCRETE	MVBL	MOVABLE		
CONN	CONNECTION, CONNECT	N	NORTH		
CONSTR	CONSTRUCTION	NIC	NOT IN CONTACT		
CONT	CONTINUOUS, CONTINUE	NO	NUMBER		
CORR	CORRIDOR	NOM	NOMINAL		
CPT	CARPET	NTS	NOT TO SCALE		
CSWK	CASEWORK	OC	ON CENTER		
CTR	CENTER	O	OWNER		
CU	CUBIC	OC	ON CENTER		
D	DEEP, DEPTH	OCC	OCCUPANT, OCCUPANTS		
DAB	DETACHED ACCESSORY BUILDING	OH	OVERHEAD		
DBL	DOUBLE	OD	OUTSIDE DIAMETER		
DEMO	DEMOLISH, DEMOLITION	OPNG	OPENING		
DET	DETAIL	OPP	OPPOSITE		
DIA	DIAMETER	ORD	OVERFLOW ROOF DRAIN		
DIAG	DIAGONAL, DIAGRAM	OTS	OPEN TO STRUCTURE ABOVE		
DIM	DIMENSION	PRCST	PRECAST		
DIV	DIVIDE, DIVISION	PERP	PERPENDICULAR		
DMPF	DAMP PROOF	PLAM	PLASTIC LAMINATE		
DN	DOWN	PLAS	PLASTER		
DR	DOOR, DRESSING ROOM	PLYWD	PLYWOOD		
DS	DOWNSPOUT	PNL	PANEL		
DW	DISHWASHER	PL	PROPERTY LINE		
DWG	DRAWING	PROP	PROPERTY		
DWR	DRAWER	PT	POINT, PRESSURE TREATED		
E	EAST	PTD	PAPER TOWEL DISPENSER		
EJ	EXPANSION JOINT	PTD/WR	PAPER TOWEL DISPENSER/ WASTE RECEPTACLE		
EL	ELEVATION	PTN	PARTITION		
ELEC	ELECTRIC, ELECTRICAL	R	RADIUS, RISER		
ENCL	ENCLOSE, ENCLOSURE	RCP	REFLECTED CEILING PLAN		
EOR	ENGINEER OF RECORD	RD	ROOF DRAIN, ROAD		
EP	ELECTRIC PANEL	REF	REFER TO, REFERENCE, REFRIGERATOR		
EQ	EQUAL	REINF	REINFORCED, REINFORCING		
EQUIP	EQUIPMENT	REQD	REQUIRED		
EX	EXISTING	REV	REVISED, REVISION		
EXH	EXHAUST	RFG	ROOFING		
EXP	EXPANSION, EXPOSED	RM	ROOM		
EXIST, (E)	EXISTING	RO	ROUGH OPENING		
FA	FIRE ALARM	RS	REMOTE STOCK		
FCIO	FURNISHED BY CONTRACTOR, INSTALLED BY OWNER	RT	RIGHT		
FD	FLOOR DRAIN	S	SOUTH		
FDC	FIRE DEPARTMENT CONNECTION	SC	SCUPPER		
FDTN	FOUNDATION	SCD	SEAT COVER DISPENSER		
FE	FIRE EXTINGUISHER	SCHED	SCHEDULE		
FEC	FIRE EXTINGUISHER CABINET	SD	STORM DRAIN, SOAP DISPENSER		
FF	FINISH FLOOR	SECT	SECTION		
FH	FIRE HYDRANT	SF	SQUARE FOOT, SQUARE FEET		
FHC	FIRE HOSE CABINET	SGL	SINGLE		
FIN	FINISH, FINISHED	SHTHG	SHEATHING		
FLR	FLOOR, FLOORING	SIM	SIMILAR		
FLUOR	FLUORESCENT	SPEC	SPECIFICATION		
FO	FACE OF, FINISHED OPENING	SPKLR1	SPRINKLER		
FOH	FRONT OF HOUSE	SQ	SQUARE		
FOIC	FURNISHED BY OWNER, INSTALLED BY CONTRACTOR	SST	STAINLESS STEEL, SERVICE SINK		
FOIO	FURNISHED BY OWNER, INSTALLED BY OWNER	STD	STANDARD		
FP	FIRE PROTECTION, FIREPROOF, FLOOR PLAN	STL	STEEL		
FR	FRAME, FIRE RATED	STRUCT	STRUCTURAL		
FRMG	FRAMING	SUSP	SUSPENDED		
FRT	FIRE RETARDANT TREATED	T&G	TONGUE AND GROOVE		
FT	FOOT, F

ENERGY AND VENTILATION CALCULATION

CITY OF MERCER ISLAND

DEVELOPMENT SERVICES GROUP
9611 SE 36TH STREET | MERCER ISLAND, WA 98040
PHONE: 206.275.7605 | www.mercergov.org
Inspection Requests: Online: www.MyBuildingPermits.com VM: 206.275.7730

2015 WSEC & IRC Ventilation Worksheet (Effective July 1, 2016)

INFORMATION IN THESE WORKSHEETS MUST BE INCLUDED IN THE CONSTRUCTION DOCUMENTS

This set of worksheets has been developed to assist permit applicants with documenting compliance with the 2015 Washington State Energy Code. The following worksheets provide much of the required documentation for plan review. **The details, systems, and ratings noted here must also be shown on the drawings.**

PRESCRIPTIVE ENERGY CODE COMPLIANCE FOR CLIMATE ZONE MARINE 4

Component	Fenestration [1]		Ceiling w/ Attic	Vaulted Ceiling	Wood Framed Wall (Int.)[2]	Mass Wall (Above grade)	Below-Grade Wall [2,3]	Framed Floor	Slab R-Value & Depth
	Vertical	Overhead							
Prescriptive Value	U. 0.30 max.	U. 0.50 max.	R-49 min.	R-38 min.	R-21 min.	R-21 min.	R- 10/15/21 Int. + TB	R-30 min.	R-10 min. 2'

[1] *Fenestration is defined as skylights, roof windows, vertical windows (fixed or moveable), opaque doors, glazed doors, glazed block and combination opaque/glazed doors. Fenestration includes products with glass and non-glass glazing materials.*

[2] *Int. (intermediate framing) denotes standard framing 16" o.c. with headers insulated with a minimum R-10 insulation.*

[3] *10/15/21 +TB" means R-10 continuous insulation on the exterior of the wall, or R-15 on the continuous insulation on the interior of the wall, or R-21 cavity insulation plus a thermal break between the slab and the basement wall at the interior of the basement wall. "10/15/21 +TB" shall be permitted to be met with R-13 cavity insulation on the interior of the basement wall plus R-5 continuous insulation on the interior or exterior of the wall. "TB" means thermal break between floor slab and basement wall.*

Whole House Ventilation (Prescriptive)

Please check the appropriate box to describe which of the four prescriptive Whole House Ventilation Systems you will be using AND fill in the required whole house ventilation rate in CFM's. (See "2015 Residential Whole House Ventilation Rate" Handout.) A complete system required by one of the sections noted below must be specified on the drawings.

	WHOLE HOUSE VENTILATION METHOD	Whole House Ventilation Rate
☐	Intermittent Whole House Ventilation Using Exhaust Fans & Fresh Air Inlets. (IRC M1507.3.4)	
☐	Intermittent Whole House Ventilation Integrated with a Forced Air System. (IRC M1507.3.5)	
☐	Intermittent Whole House Ventilation using a Supply Fan. (IRC M1507.3.6)	
☑	Intermittent Whole House Ventilation Using a Heat Recovery Ventilation System (IRC M1507.3.7)	480

Source Specific Exhaust Ventilation & Fan Efficiency

Required in each kitchen, bathroom, water closet compartment, laundry room, indoor swimming pool, spa and other rooms where water vapor or cooking odor is produced. (IRC M 1507.4) Fan efficiency from WAC 51-11R – Table R403.6.1. Kitchen Hoods greater than 400 cfm require makeup air per IRC M1503.4

Minimum Source Specific Ventilation Capacity Requirements

	Bathrooms – Utility Rooms		Kitchens	In-line fan
Intermittently operating	50 cfm min		100 cfm min	
Continuous operation	20 cfm min		25 cfm min	
Minimum Efficacy (cfm/watt)	1.4 cfm/watt if <90cfm	2.8 cfm/watt if >90cfm	2.8 cfm/watt	2.8 cfm/watt

Energy Efficiency Credits

Each dwelling unit shall comply with sufficient options from WSEC Table R406.2 so as to achieve the following minimum number of credits as described on the reverse side of this page.

- ☐ **Small Dwelling Unit: 1.5 credits** (Dwelling units less than 1500 SF in conditioned floor area with less than 300 square feet of fenestration area. Additions to existing building that are greater than 500 SF of heated floor area, but less than 1500 SF. **TOTAL SQUARE FEET OF FENESTRATION:** __________ (doors, windows, skylights)
- ☐ **Medium Dwelling Unit: 3.5 credits** (All dwelling units not included in #1 or #3. Exception: Dwelling units serving R-2 occupancies shall require 2.5 credits.
- ☑ **Large Dwelling Unit: 4.5 credits** (Dwelling Units exceeding 5000 SF of conditioned floor area.
- ☐ **Additions less than 500 SF: 0.5 credits**

S:\DSG\FORMS\2017\Building\2015_WSEC_IRC_Ventilation.pdf

2015 WSCE – Table R406.2 – circle the options that you will be using for this project

OPTION	DESCRIPTION	CREDIT(S)
1a ☐	**EFFICIENT BUILDING ENVELOPE 1a:** Vertical fenestration U = 0.28 Floor R-38 Slab on grade R-10 perimeter and under entire slab Below grade slab R-10 perimeter and under entire slab. **OR** Compliance based on Section R402.1.4: Reduce the Total UA by 5%.	0.5
1b ☐	**EFFICIENT BUILDING ENVELOPE 1b:** Vertical fenestration U = 0.25 Wall R-21 plus R-4 Floor R-38 Basement wall R-21 int plus R-5 ci Slab on grade R-10 perimeter and under entire slab Below grade slab R-10 perimeter and under entire slab. **OR** Compliance based on Section R402.1.4: Reduce the Total UA by 15%.	1.0
1c ☐	**EFFICIENT BUILDING ENVELOPE 1c:** Prescriptive compliance is based on Table R402.1.1 with the following modifications: Vertical fenestration U = 0.22 Ceiling and single-rafter or joist-vaulted R-49 advanced Wood frame wall R-21 int plus R-12 ci Floor R-38 Basement wall R-21 int plus R-12 ci Slab on grade R-10 perimeter and under entire slab Below grade slab R-10 perimeter and under entire slab **OR** Compliance based on Section R402.1.4: Reduce the Total UA by 30%.	2.0
1d ☐	**EFFICIENT BUILDING ENVELOPE 1d:** Prescriptive compliance is based on Table R402.1.1 with the following modifications: Vertical fenestration U = 0.24. Projects using this option may not use Option 1a, 1b or 1c.	0.5
2a ☐	**AIR LEAKAGE CONTROL AND EFFICIENT VENTILATION 2a:** Compliance based on R402.4.1.2: Reduce the tested air leakage to 3.0 air changes per hour maximum **AND** All whole house ventilation requirements as determined by Section M1507.3 of the *International Residential Code* shall be met with a high efficiency fan (maximum 0.35 watts/cfm), not interlocked with the furnace fan. Ventilation systems using a furnace including an ECM motor are allowed, provided that they are controlled to operate at low speed in ventilation only mode. ***To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the maximum tested building air leakage and shall show the qualifying ventilation system.***	0.5
2b ☑	**AIR LEAKAGE CONTROL AND EFFICIENT VENTILATION 2b:** Compliance based on Section R402.4.1.2: Reduce the tested air leakage to 2.0 air changes per hour maximum **AND** All whole house ventilation requirements as determined by 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. ***To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the maximum tested building air leakage and shall show the heat recovery ventilation system.***	1.0
2c ☐	**AIR LEAKAGE CONTROL AND EFFICIENT VENTILATION 2c:** Compliance based on Section R402.4.1.2: Reduce the tested air leakage to 1.5 air changes per hour maximum. **AND** All whole house ventilation requirements as determined by Section M1507.3 of the *International Residential Code* shall be met with a heat recovery ventilation system with minimum sensible heat recovery efficiency of 0.85. ***To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the maximum tested building air leakage and shall show the heat recovery ventilation system.***	1.5
3a ☐	**HIGH EFFICIENCY HVAC EQUIPMENT 3a:** Gas, propane or oil-fired furnace with minimum AFUE of 94%, or Gas, propane or oiled-fired boiler with minimum AFUE of 92%. Projects may only include credit from one space heating option, 3a, 3b, 3c or 3d. When a housing unit has two pieces of equipment (i.e., two furnaces) both must meet the standard to receive the credit. ***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.***	1.0
3b ☐	**HIGH EFFICIENCY HVAC EQUIPMENT 3b:** Air-source heat pump with minimum HSPF of 9.0. Projects may only include credit from one space heating option, 3a, 3b, 3c or 3d. When a housing unit has two pieces of equipment (i.e., two furnaces) both must meet the standard to receive the credit. ***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.***	1.0
3c ☑	**HIGH EFFICIENCY HVAC EQUIPMENT 3c:** Closed-loop ground source heat pump; with a minimum COP of 3.3 **OR** Open loop water source heat pump with a maximum pumping hydraulic head of 150 feet and minimum COP of 3.6. Projects may only include credit from one space heating option, 3a, 3b, 3c or 3d. When a housing unit has two pieces of equipment (i.e., two furnaces) both must meet the standard to receive the credit. ***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.***	1.5
3d ☐	**HIGH EFFICIENCY HVAC EQUIPMENT 3d:** Ductless Split System Heat Pumps, Zonal Control: In homes where the primary space heating system is zonal electric heating, a ductless heat pump system shall be installed and provide heating to the largest zone of the housing unit. Projects may only include credit from one space heating option, 3a, 3b, 3c or 3d. When a housing unit has two pieces of equipment (i.e., two furnaces) both must meet the standard to receive the credit. ***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.***	1.0

2015 WSCE – Table R406.2 - Continued

OPTION	DESCRIPTION	CREDIT(S)
4 ☑	**HIGH EFFICIENCY HVAC DISTRIBUTION SYSTEM:** All heating and cooling system components installed inside the conditioned space. This includes all equipment and distribution system components such as forced air ducts, hydronic piping, hydronic floor heating loop, convectors and radiators. All combustion equipment shall be direct vent or sealed combustion. For forced air ducts: A maximum of 10 linear feet of return ducts and 5 linear feet of supply ducts may be located outside the conditioned space. All metallic ducts located outside the conditioned space must have both transverse and longitudinal joints sealed with mastic. If flex ducts are used, they cannot contain splices. Flex duct connections must be made with nylon straps and installed using a plastic strapping tensioning tool. Ducts located outside the conditioned space must be insulated to a minimum of R-8. Locating system components in conditioned crawl spaces is not permitted under this option. Electric resistance heat and ductless heat pumps are not permitted under this option. Direct combustion heating equipment with AFUE less than 80% is not permitted under this option. ***To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the heating equipment type and shall show the location of the heating and cooling equipment and all the ductwork.***	1.0
5a ☐	**EFFICIENT WATER HEATING 5a:** All showerhead and kitchen sink faucets installed in the house shall be rated at 1.75 GPM or less. All other lavatory faucets shall be rated at 1.0 GPM or less. Plumbing Fixtures Flow Ratings. Low flow plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following requirements: 1. Residential bathroom lavatory sink faucets: Maximum flow rate - 3.8 L/min (1.0 gal/min) when tested in accordance with ASME A112.18.1/CSA B125.1. 2. Residential kitchen faucets: Maximum flow rate - 6.6 L/min (1.75 gal/min) when tested in accordance with ASME A112.18.1/CSA B125.1. 3. Residential showerheads: Maximum flow rate - 6.6 L/min (1.75 gal/min) when tested in accordance with ASME A112.18.1/CSA B125.1. ***To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the maximum flow rates for all showerheads, kitchen sink faucets, and other lavatory faucets.***	0.5
5b ☑	**EFFICIENT WATER HEATING 5b:** Water heating system shall include one of the following: Gas, propane or oil water heater with a minimum EF of 0.74 **OR** Water heater heated by ground source heat pump meeting the requirements of Option 3c. **OR** For R-2 occupancy, a central heat pump water heater with an EF greater than 2.0 that would supply DHW to all the units through a ce minimum pipe insulation. ***To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the water heater equipment type and the minimum equipment efficiency.***	1.0
5c ☐	**EFFICIENT WATER HEATING 5c:** Water heating system shall include one of the following: Gas, propane or oil water heater with a minimum EF of 0.91 **OR** Solar water heating supplementing a minimum standard water heater. Solar water heating will provide a rated minimum savings of 85 therms or 2000 kWh based on the Solar Rating and Certification Corporation (SRCC) Annual Performance of OG-300 Certified Solar Water Heating Systems **OR** Electric heat pump water heater with a minimum EF of 2.0 and meeting the standards of NEEA's Northern Climate Specifications for Heat Pump Water Heaters ***To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the water heater equipment type and the minimum equipment efficiency and, for solar water heating systems, the calculation of the minimum energy savings.***	1.5
5d ☐	EFFICIENT WATER HEATING 5d: A drain water heat recovery unit(s) shall be installed, which captures waste water heat from all the showers, and has a minimum efficiency of 40% if installed for equal flow or a minimum efficiency of 52% if installed for unequal flow. Such units shall be rated in accordance CSA B55.1 and be so labeled. ***To qualify to claim this credit, the building permit drawings shall include a plumbing diagram that specified the drain water heat recovery units and the plumbing layout needed to install it and labels or other documentation shall be provided that demonstrates that the unit complies with the standard.***	0.5
6 ☐	**RENEWABLE ELECTRIC ENERGY:** For each 1200 kWh of electrical generation per each housing unit provided annually by on-site wind or solar equipment a 0.5 credit shall be allowed, up to 3 credits. Generation shall be calculated as follows: For solar electric systems, the design shall be demonstrated to meet this requirement using the National Renewable Energy Laboratory calculator PVWATTs. ***Documentation noting solar access shall be included on the plans.*** For wind generation projects designs shall document annual power generation based on the following factors: The wind turbine power curve; average annual wind speed at the site; frequency distribution of the wind speed at the site and height of the tower. ***To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall show the photovoltaic or wind turbine equipment type, provide documentation of solar and wind access, and include a calculation of the minimum annual energy power production.***	0.5

IN TOTAL : 4.5 CREDITS

Fenestration Schedule see A9.01&A9.02 for Fenestration Schedule, and weighted average

Please check the applicable boxes and complete the information below

☑ **Weighted Average:** Using the Prescriptive Method, all glazing must have an "area weighted average" U-Factor of 0.30. This means that some windows can have a higher U-factor than 0.30 and some can have a lower U-factor than 0.30, as long as the area weighted average is U-0.30 or lower you may need to complete this form to document glazing compliance when applying for your building permit.

☐ **Dwelling units less than 1500 SF in conditioned floor area:** If using the option for new dwellings less than 1500 SF of conditioned floor area with no more than 300 SF fenestration

Electronic version available at: http://www.energy.wsu.edu/Documents/2015%20Glazing%20Schedule.xlsx

Exemptions	Ref	Glazing U-Factor	Qt.	Width Feet	Width Inch	Height Feet	Height Inch	Glazing Area	Glazing UA
Swing Door (24 SF Max)									
Glazed Fenestration (15 SF Max)									

VERTICAL FENESTRATION (WINDOWS AND GLAZED DOORS)

Plan ID	Component Description	Ref	Glazing U-Factor	Qt.	Width Feet	Width Inch	Height Feet	Height Inch	Glazing Area	Glazing UA

Sum of Vertical Fenestration Area and UA: 2343 | 700

Area Weighted U = UA/Area: 0.299

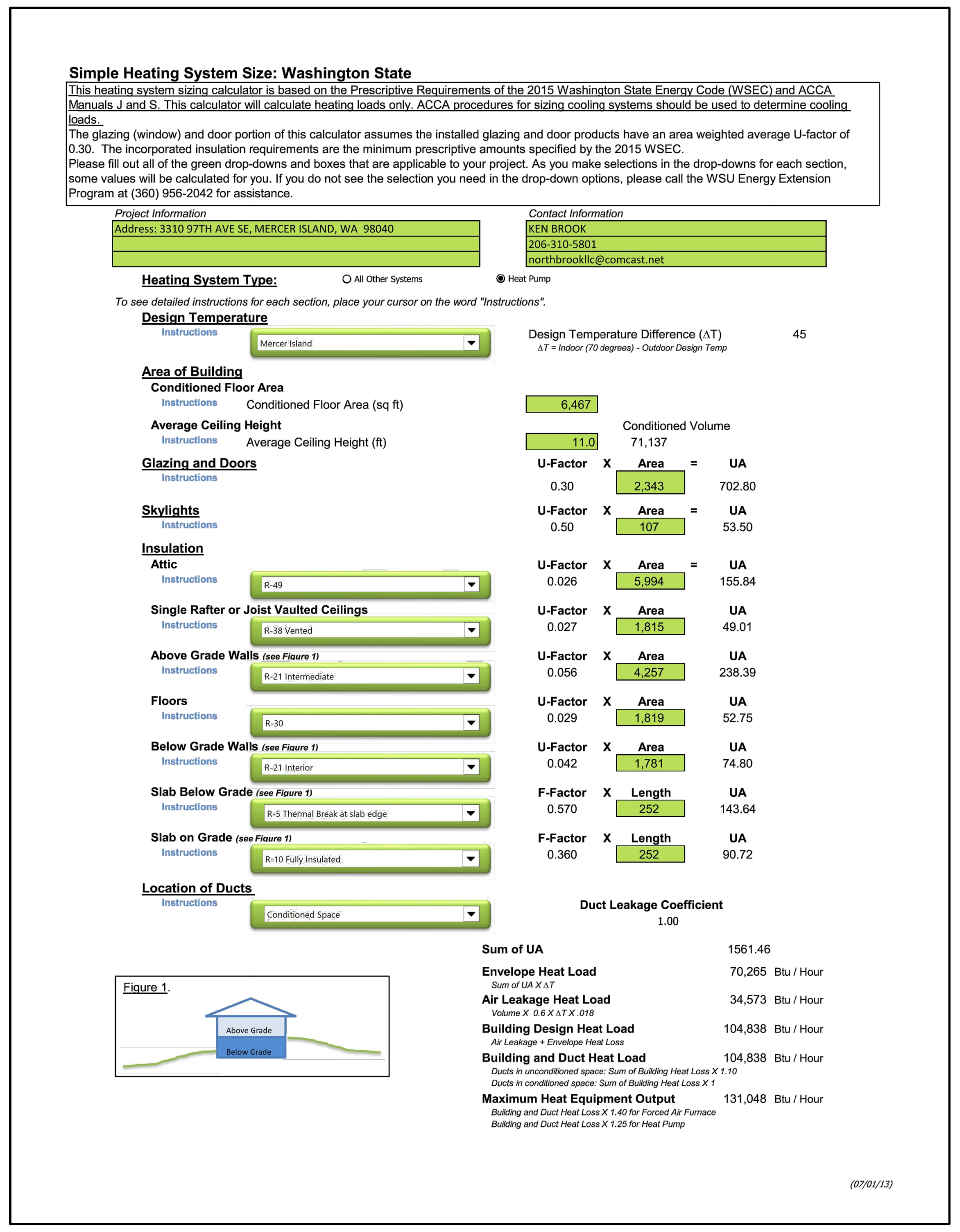
OVERHEAD GLAZING (SKYLIGHT)

Plan ID	Component Description	Ref	Glazing U-Factor	Qt.	Width Feet	Width Inch	Height Feet	Height Inch	Glazing Area	Glazing UA

Sum of Overhead Glazing Area and UA: 107 | 51

Area Weighted U = UA/Area: 048

Total Sums of Area and UA for Vertical Fenestration and Overhead Glazing Area and UA: 2450 | 751



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.
The glazing (window) and door portion of this calculator assumes the installed glazing and door products have an area weighted average U-factor of 0.30. The incorporated insulation requirements are the minimum prescriptive amounts specified by the 2015 WSEC.
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
Address: 3310 97TH AVE SE, MERCER ISLAND, WA 98040

Contact Information
KEN BROOK
206-310-5801
northbrookllc@comcast.net

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): 6,467
Average Ceiling Height — Instructions — Average Ceiling Height (ft): 11.0
Conditioned Volume: 71,137

Section	Selection	U-Factor / F-Factor	X	Area / Length	=	UA
Glazing and Doors		0.30	X	2,343	=	702.80
Skylights		0.50	X	107	=	53.50
Insulation — Attic	R-49	0.026	X	5,994	=	155.84
Single Rafter or Joist Vaulted Ceilings	R-38 Vented	0.027	X	1,815		49.01
Above Grade Walls *(see Figure 1)*	R-21 Intermediate	0.056	X	4,257		238.39
Floors	R-30	0.029	X	1,819		52.75
Below Grade Walls *(see Figure 1)*	R-21 Interior	0.042	X	1,781		74.80
Slab Below Grade *(see Figure 1)*	R-5 Thermal Break at slab edge	F-Factor 0.570	X	Length 252		143.64
Slab on Grade *(see Figure 1)*	R-10 Fully Insulated	F-Factor 0.360	X	Length 252		90.72

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

Sum of UA	1561.46	
Envelope Heat Load *Sum of UA X ΔT*	70,265	Btu / Hour
Air Leakage Heat Load *Volume X 0.6 X ΔT X .018*	34,573	Btu / Hour
Building Design Heat Load *Air Leakage + Envelope Heat Loss*	104,838	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*	104,838	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*	131,048	Btu / Hour

Figure 1.

(07/01/13)

ENERGY AND VENTILATION NOTES:

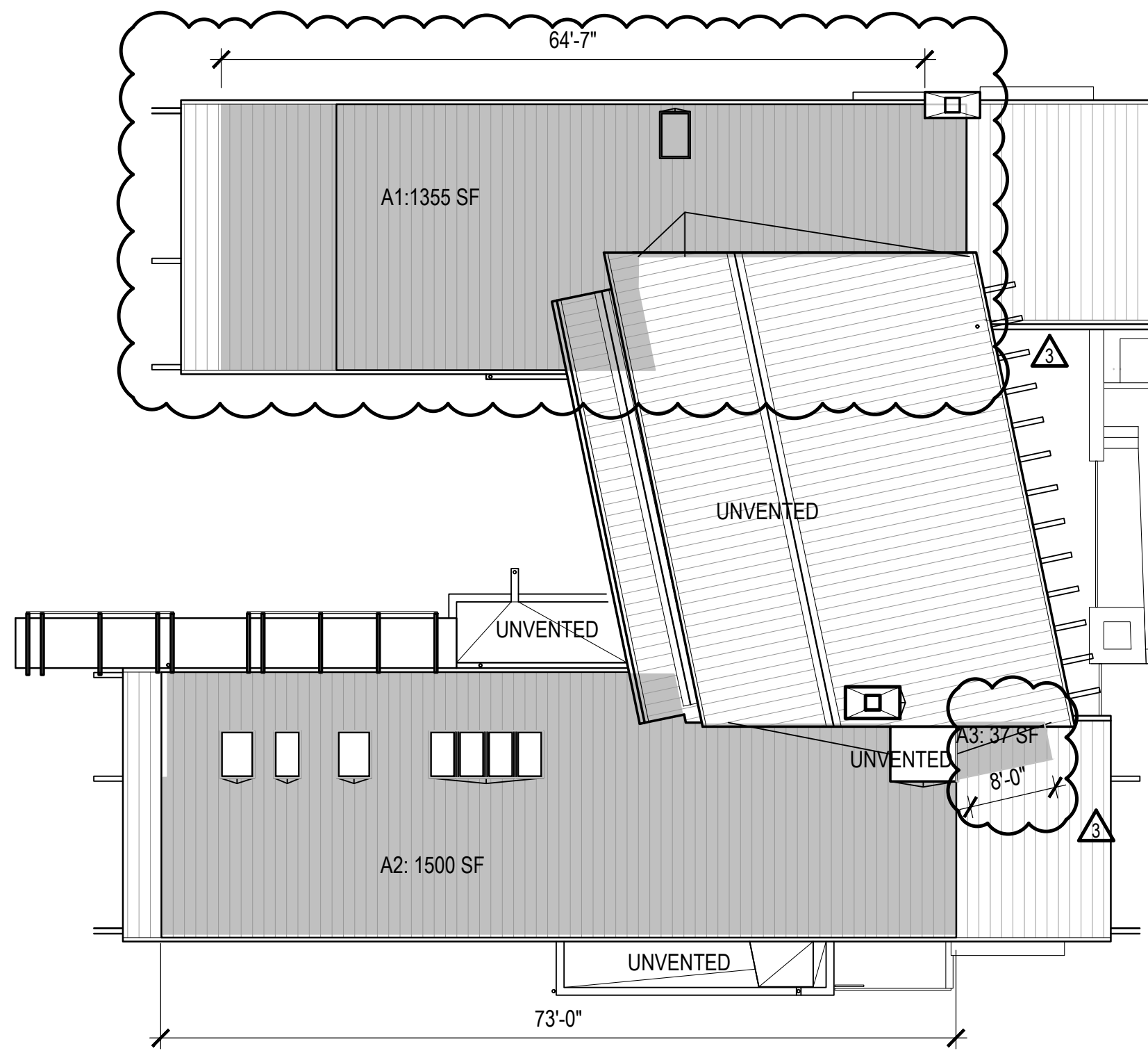
1. A MINIMUM OF 75% OF LAMPS PERMANENTLY INSTALLED LIGHTING FIXTURES SHALL BE HIGH-EFFICACY LAMPS PER WSEC R404.1
2. ALL THE DUCTS TO BE LEAK TESTED EITHER IN POST-CONSTRUCTION TEST OR ROUGH-IN TEST, IN ACCORDANCE WITH 2015 WSEC R402.4.1 WITH REDUCING THE TESTED AIR LEAKAGE TO 2.0 AIR CHANGES PER HOUR MAXIMUM, TO MEET REQUIREMENTS OF OPTION 2B FROM WSEC TABLE R406.2. △3
3. PER 2015 WSEC R401.3, A PERMANENT CERTIFICATE SHALL BE COMPLETED BY THE BUILDER OR THE ARCHITECT AND POSTED ON A WALL IN THE SPACE WHERE THE FURNACE IS LOCATED, A UTILITY ROOM OR AN APPROVED LOCATION INSIDE THE BUILDING.THE CERTIFICATE SHALL LIST THE PREDOMINANT R-VALUES OF INSULATION INSTALLED IN OR ON CEILING/ROOF, WALLS, FOUNDATION (SLAB, BELOW-GRADE WALL, AND/OR FLOOR) AND DUCTS OUTSIDE 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 DONE ON THE BUILDING.THE CERTIFICATE SHALL LIST THE TYPES AND EFFICIENCIES OF HEATING, COOLING AND SERVICE WATER HEATING EQUIPMENT.
4. A CONTINUOUS AIR BARRIER SHALL BE INSTALLED IN THE BUILDING ENVELOPE.
5. EXTERIOR THERMAL ENVELOPE CONTAINS A CONTINUOUS AIR BARRIER.
6. BREAKS OR JOINTS IN THE AIR BARRIER SHALL BE SEALED.
7. ACCESS OPENINGS, DROP DOWN STAIR OR KNEE WALL DOORS TO UNCONDITIONED ATTIC SPACES SHALL BE SEALED.
8. THE JUNCTION OF THE FOUNDATION AND SILL PLATE SHALL BE SEALED. THE JUNCTION OF THE TOP PLATE AND TOP OF EXTERIOR WALLS SHALL BE SEALED. KNEE WALLS SHALL BE SEALED.
9. THE SPACE BETWEEN WINDOW/DOOR JAMBS AND FRAMING AND SKYLIGHTS AND FRAMING SHALL BE SEALED.
10. RIM JOISTS SHALL INCLUDE THE AIR BARRIER AND BE INSULATED
11. THE AIR BARRIER SHALL BE INSTALLED AT ANY EXPOSED FLOOR EDGE OF INSULATION.
12. DUCT SHAFTS, UTILITY PENETRATIONS, AND FLUE SHAFTS OPENING TO EXTERIOR OR UNCONDITIONED SPACE SHALL BE SEALED.
13. RECESSED LIGHT FIXTURES INSTALLED IN THE BUILDING THERMAL ENVELOPE SHALL BE SEALED TO THE DRYWALL.
14. ALL CAVITIES IN THE THERMAL ENVELOPE SHALL BE FILLED WITH INSULATION. THE DENSITY OF THE INSULATION SHALL BE AT THE MANUFACTURERS' PRODUCT RECOMMENDATION AND SAID DENSITY SHALL BE MAINTAINED FOR ALL VOLUME OF EACH CAVITY. BATT TYPE INSULATION WILL SHOW NO VOIDS OR GAPS AND MAINTAIN AN EVEN DENSITY FOR THE ENTIRE CAVITY. BATT INSULATION SHALL BE INSTALLED IN THE RECOMMENDED CAVITY DEPTH. WHERE AN OBSTRUCTION IN THE CAVITY DUE TO SERVICES, BLOCKING, BRACING OR OTHER OBSTRUCTION EXISTS, THE BATT PRODUCT WILL BE CUT TO FIT THE REMAINING DEPTH OF THE CAVITY. WHERE THE BATT IS CUT AROUND OBSTRUCTIONS, LOOSE FILL INSULATION SHALL BE PLACED TO FILL ANY SURFACE OR CONCEALED VOIDS, AND AT THE MANUFACTURERS' SPECIFIED DENSITY. WHERE FACED BATT IS USED, THE INSTALLATION TABS MUST BE STAPLED TO THE FACE OF THE STUD. THERE SHALL BE NO COMPRESSION TO THE BATT AT THE EDGES OF THE CAVITY DUE TO INSET STAPLING INSTALLATION TABS.
15. INSULATION THAT UPON INSTALLATION READILY CONFORMS TO AVAILABLE SPACE SHALL BE INSTALLED FILLING THE ENTIRE CAVITY AND WITHIN THE MANUFACTURERS' DENSITY RECOMMENDATION.
16. BATT INSULATION INSTALLED IN ATTIC ROOF ASSEMBLIES MAY BE COMPRESSED AT EXTERIOR WALL LINES TO ALLOW FOR REQUIRED ATTIC VENTILATION.
17. CAVITIES WITHIN CORNERS AND HEADERS OF FRAME WALLS SHALL BE INSULATED BY COMPLETELY FILLING THE CAVITY WITH A MATERIAL HAVING A THERMAL RESISTANCE OF R-3 PER INCH MINIMUM.
18. EXTERIOR THERMAL ENVELOPE INSULATION FOR FRAMED WALLS SHALL BE INSTALLED IN SUBSTANTIAL CONTACT AND CONTINUOUS ALIGNMENT WITH THE AIR BARRIER.
19. RIM JOISTS SHALL BE INSULATED.
20. THE INSULATION IN ANY DROPPED CEILING/SOFFIT SHALL BE ALIGNED WITH THE AIR BARRIER
21. BATTS IN NARROW CAVITIES SHALL BE CUT TO FIT AND INSTALLED TO THE CORRECT DENSITY WITHOUT ANY VOIDS OR GAPS OR COMPRESSION, OR NARROW CAVITIES SHALL BE FILLED BY INSULATION THAT ON INSTALLATION READILY CONFORMS TO THE AVAILABLE CAVITY SPACE.
22. RECESSED LIGHT FIXTURES INSTALLED IN THE BUILDING THERMAL ENVELOPE SHALL BE AIR TIGHT AND IC RATED.
23. BATT INSULATION SHALL BE CUT NEATLY TO FIT AROUND WIRING AND PLUMBING IN EXTERIOR WALLS. THERE SHALL BE NO VOIDS OR GAPS OR COMPRESSION WHERE CUT TO FIT. INSULATION THAT ON INSTALLATION READILY CONFORMS TO AVAILABLE SPACE SHALL EXTEND BEHIND PIPING AND WIRING.
24. HEADERS IN INTERMEDIATE FRAMED WALLS SHALL BE INSULATED TO MIN.R-10.

ATTIC VENT LOCATION AND CALCULATION:

1. ATTIC VENT TO BE LOCATED AT UPPER END OF THE PROPOSED VENTED ATTIC AREA, BETWEEN TRUSSES. SEE 3/A6.01 FOR TYP VENT DETAIL.
2. THE MINIMUM NET FREE VENTILATING AREA SHALL BE 1/150 OF THE AREA OF VENTED SPACE.
3. UNVENTED ROOF AREA SHALL USE AIR-IMPERMEABLE INSULATION, APPLIED IN DIRECT CONTACT WITH THE UNDERSIDE OF THE STRUCTURAL ROOF SHEATHING, AND NO INTERIOR CLASS I VAPOR RETARDER ARE INSTALLED ON THE CEILING SIDE OF THE UNVENTED ENCLOSED ROOF FRAMING ASSEMBLY.

VENTED SPACE	AREA (SQ.FT.)	UPPER END EXTEROR WALL LENGTH (FT)	MIN. VENT OPENING (SQ.IN.)	MIN. OPENING AREA / 2 FT
A1	1355	64'-7"	1301	40.3
A2	1512	73'	1452	40.3
A3	37	8'	36	8.9

△3



WHOLE HOUSE VENTILATION RATE CALCULATION:

PROPOSED HEATED FLOOR AREA: 6631 SF
NUMBER OF BEDROOMS : 4
AIRFLOW REQUIRED FOR CONTINUOUS VENTILATION: 120 CFM
VENTILATION RATE FACTOR = 4 (33% RUN TIME PERCENTAGE IN EACH 4 HOUR SEGMENT)

WHOLE HOUSE VENTILATION RATE = 120CFM X 4 =480 CFM

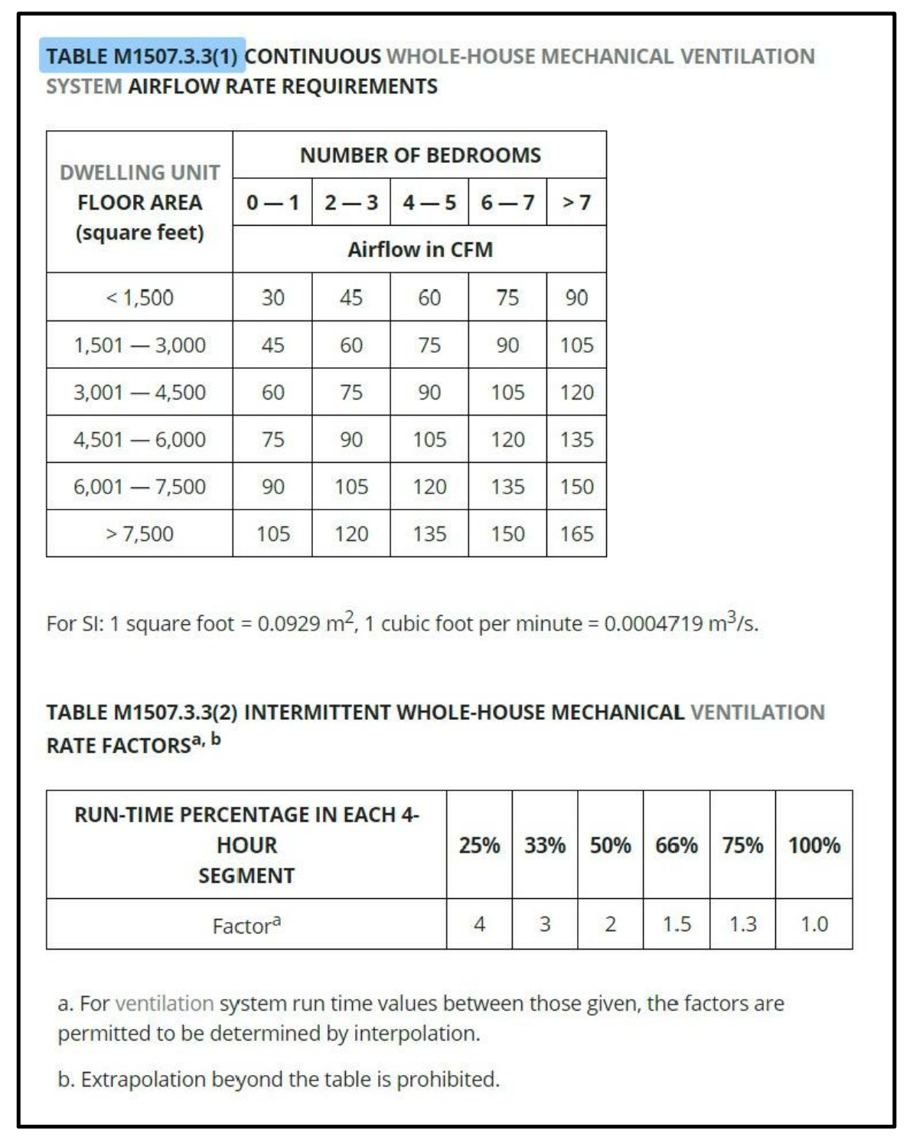


TABLE M1507.3.3(1) CONTINUOUS WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM AIRFLOW RATE REQUIREMENTS

DWELLING UNIT FLOOR AREA (square feet)	NUMBER OF BEDROOMS				
	0 — 1	2 — 3	4 — 5	6 — 7	> 7
	Airflow in CFM				
< 1,500	30	45	60	75	90
1,501 — 3,000	45	60	75	90	105
3,001 — 4,500	60	75	90	105	120
4,501 — 6,000	75	90	105	120	135
6,001 — 7,500	90	105	120	135	150
> 7,500	105	120	135	150	165

For SI: 1 square foot = 0.0929 m^2, 1 cubic foot per minute = 0.0004719 m^3/s.

TABLE M1507.3.3(2) INTERMITTENT WHOLE-HOUSE MECHANICAL VENTILATION RATE FACTORS[a, b]

RUN-TIME PERCENTAGE IN EACH 4-HOUR SEGMENT	25%	33%	50%	66%	75%	100%
Factor[a]	4	3	2	1.5	1.3	1.0

a. For ventilation system run time values between those given, the factors are permitted to be determined by interpolation.

b. Extrapolation beyond the table is prohibited.

MECHANICAL SYSTEM DESCRIPTION:

NOTE: MECHANICAL TO BE UNDER SEPARATE PERMIT.

A. HEATING SYSTEM FOR THE HOME WILL BE HYDRONIC RADIANT FLOOR HEAT. ALL PIPING AND EQUIPMENT TO BE LOCATED WITHIN CONDITIONED SPACE. HEATING EQUIPMENT TO BE CLOSED LOOP GROUND SOURCE WATER TO WATER HEATPUMP WITH MINIMUM COP OF 3.6.

B. VENTILATION FOR THE BUILDING WILL BE THROUGH A HEAT RECOVERY VENTILATOR WITH A RECOVERY EFFICIENCY OF 0.70. AIR LEAKAGE TEST TO MEET 2.0 AIR CHANGES PER HOUR.

C. DOMESTIC HOT WATER HEATER TO BE CENTRAL HEAT PUMP WITH AN EF GREATER THAN 2.0.

△3 △3

ROBERT
EDSON
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ARCHITECTURE
+
DESIGN

2300 W COMMODORE WAY
SEATTLE, WA 98199

6241
REGISTERED ARCHITECT
Robert E. Swain
ROBERT EDSON SWAIN
STATE OF WASHINGTON

BUILDING PERMIT SUBMITTAL

LAKE HOUSE
3310 97TH AVE. SE
MERCER ISLAND, WA 98040

Robert Edson Swain, Inc. Seattle, Washington, © 2021

PROJECT NO.: 1811
DRAWN:

ISSUE	DATE
	12-18-20

REVISIONS	DATE
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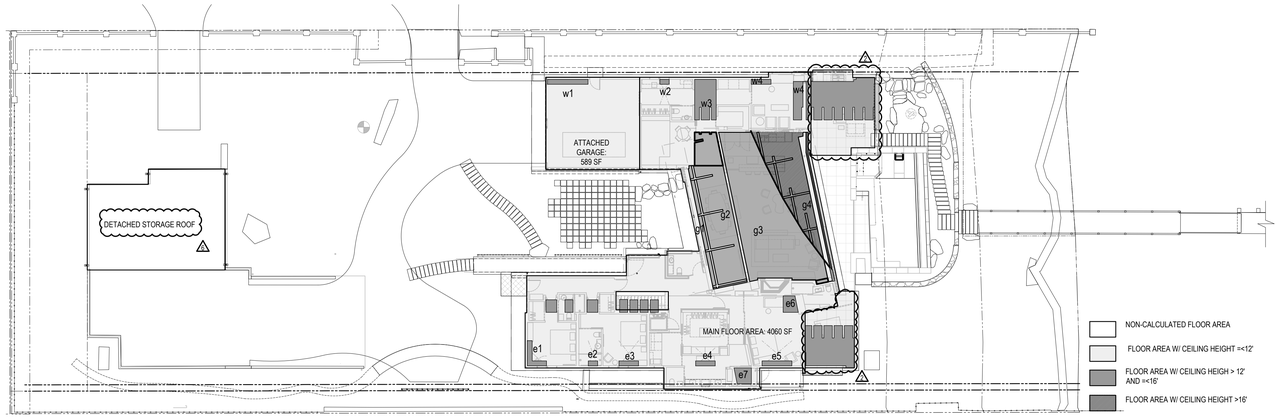
△2 LAND USE & CIVIL CORRECTIONS	06/11/21
△3 BUILDING CORRECTIONS	07/08/21
△4 BUILDING CORRECTIONS	07/26/21

ENERGY CODE INFORMATION

T1.02



3 MAIN LEVEL GROSS FLOOR AREA CALCULATION - ACCESSORY BLDG AND MAIN BLDG
1/16" = 1'-0"

TURE NORTH

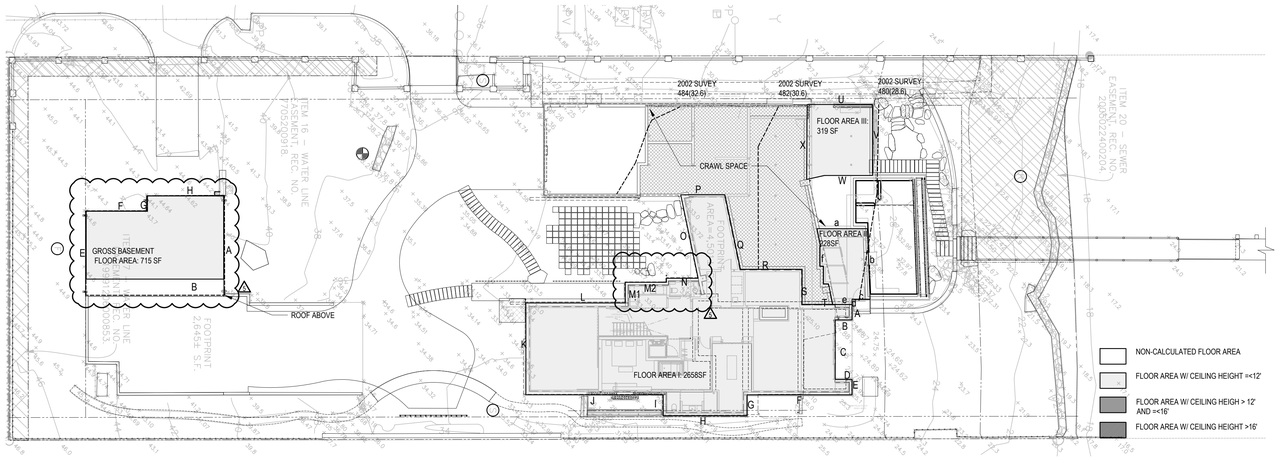
MAIN FLOOR HEIGHT MODIFIER SPREADSHEET

NAME	ZONE	AREA (SF)	REMARK
150% GFA MODIFIER	w1	14	VAULTED CEILING
	w2	3	LIGHT SCOOP
	w3	57	VAULTED CEILING
	w4	36	VAULTED CEILING
WEST WING SUBTOTAL		109	
	g1	315	VAULTED CEILING
	g2		
	g3	583	VAULTED CEILING
GREAT ROOM SUBTOTAL		898	
	e1	13	VAULTED CEILING
	e2	3	LIGHT SCOOP
	e3	7	LIGHT SCOOP
	e4	7	LIGHT SCOOP
	e5	10	LIGHT SCOOP
	e6	15	LIGHT SCOOP
	e7	17	LIGHT SCOOP
EAST WING SUBTOTAL		72	
	l1	9	SKYLIGHT
	l2	7	SKYLIGHT
	l3	9	SKYLIGHT
	l4	7	SKYLIGHT
	l5	7	SKYLIGHT
	l6	7	SKYLIGHT
	l7	7	SKYLIGHT
SKYLIGHT SUBTOTAL		53	
	D1	162	VAULTED CEILING
	D2	128	VAULTED CEILING
TERRACE SUBTOTAL		290	
TOTAL 150% GFRA MODIFIER		**1,422**	

200% GFA MODIFIER	g4	223	VAULTED CEILING
TOTAL 200% GFRA MODIFIER		**223**	

GROSS FLOOR AREA CALCULATION SUMMARY

NAME	PROPOSED AREA(SF)	REMARK
MAIN FLOOR	4,060	WITHOUT STAIR WELL
GROSS BASEMENT AREA	3,205	WITH STAIR WELL
GARAGE/CARPORT	589	ATTACHED GARAGE
SUBTOTAL FLOOR AREA	7,854	
ACCESSORY BUILDING	715	STORAGE SPACE
2ND&3RD STORY ROOFED DECK	564	
BASEMENT AREA EXCLUDED(MAIN)	1,660	
BASEMENT AREA EXCLUDED(ACCESSORY)	419	
150% GFA MODIFIER(MAIN)	1,422	
200% GFA MODIFIER(MAIN)	223	
150%&200% GFA MODIIER (ACCESSORY)	-	
STAIRCASE GFA MODIFIER	-	
MAIN BUILDING GFA	7,692	
ACCESSORY BUILDING GFA	296	
TOTAL GFA	**7,988.00**	< 8,000 MAX. ALLOWED



2 BASEMENT GROSS FLOOR AREA CALCULATION - ACCESSORY BLDG AND MAIN BLDG
1/16" = 1'-0"

TURE NORTH

MAIN BUILDING BASEMENT EXEMPTION CALCULATIONS

WALL HEIGHT	9.63 (west side) 8.1 (east side)		
SEGAMENT	LENGTH (FT)	COVERAGE	LENGTH X COVERAGE (FT)
A	4	0%	0.0
B	4.3	0%	0.0
C	15.3	0%	0.0
D	4.3	0%	0.0
E	4	0%	0.0
F	27.2	11%	2.9
G	5.5	19%	1.0
H	21.9	33%	7.2
I	5.4	42%	2.3
J	35.8	66%	23.7
K	24	100%	24.0
L	28.8	89%	25.5
M1+M2	16	89%	14.2
N	9.3	89%	8.2
O	22	99%	21.8
P	11.4	67%	7.6
Q	19.8	59%	11.7
R	15.8	55%	8.7
S	9	50%	4.5
T	13	44%	5.8
SUM=	-	296.8	- 169.0
BASEMENT AREA I=	2658 SF		
EXCLUDED AREA=	2658X(169/296.8) =		1513 SF

a	13.8	37%	5.1
b	18.25	31%	5.7
c	4.7	0%	0.0
d	1.45	0%	0.0
e	5	0%	0.0
f	22	45%	10.0
SUM=	- 65.2	-	20.8
BASEMENT AREA II=	227.8 SF		
EXCLUDED AREA =	236.6X(22.32/66.7) =		73 SF

U	17	2%	0.4
V	18.4	19%	3.4
W	18.5	31%	5.7
X	18.4	40%	7.3
SUM=	- 72.3	-	16.8
BASEMENT AREA III=	319 SF		
EXCLUDED AREA=	315.6X(16.8/70.8)=		74 SF

TOTAL BASEMENT FLOOR AREA= 3205
TOTAL EXCLUDED AREA= 1660
BASEMENT GFA= 1545

ACCESSORY BLDG BASEMENT EXEMPTION CALCULATIONS

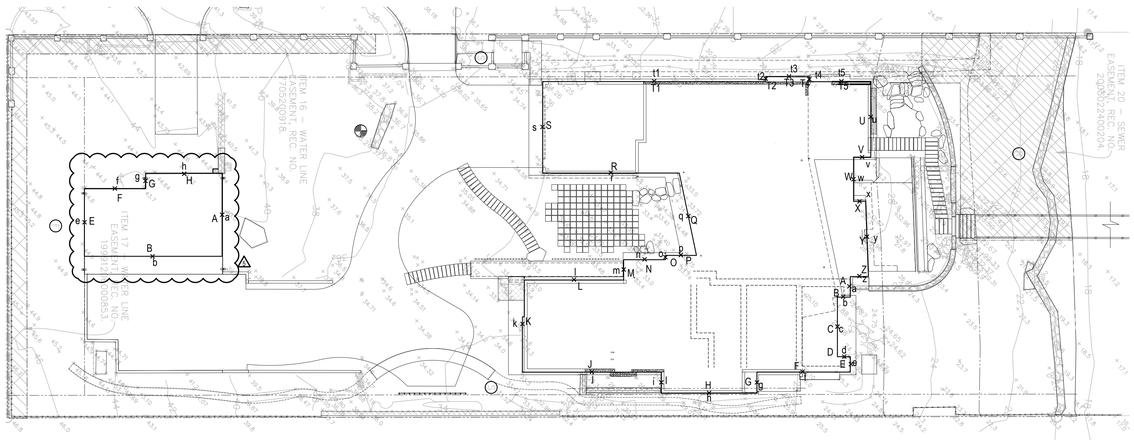
WALL HEIGHT	10'		
SEGAMENT	LENGTH(FT)	COVERAGE	LENGTH X COVERAGE (FT)
A	21.7	53%	11.5
B	35.9	0%	0.0
C	-	-	-
D	-	-	-
E	17.7	99%	17.5
F	15.9	95%	15.1
G	3.9	93%	3.6
H	19.9	99%	19.7
SUM=	- 115.00	-	67.5
BASEMENT AREA=	715 SF		
Excluded Basement Floor Area=	1738X(140.2/175.4) =		419.4 SF

TOTAL BASEMENT FLOOR AREA= 715
TOTAL EXCLUDED AREA= 419
BASEMENT GFA= 296

NOTES:

CRAWL SPACE GRADE REFERS TO 2002 PRE-DEVELOPMENT SURVEY, PER DSG POLICY MEMORANDUM ADMINISTRATIVE INTERPRETATION #DCI12-004.

THE 2002 SURVEY IS ATTACHED IN THE PLAN SET, SEE SHEET INDEX



1 AVERAGE BUILDING ELEVATION - ACCESSORY BLDG AND MAIN BLDG
1/16" = 1'-0"

TURE NORTH

MAIN BUILDING ABE CALCULATIONS

WALL SEGMENT	SEGMENT LENGTH	MIDPOINT	ELEVATION	LENGTH X ELEVATION
A	5.4	a	27.0	145.8
B	3.3	b	24.9	82.1
C	15.6	c	25.0	389.7
D	3.4	d	24.8	84.3
E	4.0	e	24.9	99.7
F	24.4	f	25.5	622.2
G	5.5	g	26.5	145.8
H	24.9	h	27.8	692.2
I	5.5	i	26.2	144.1
J	36.3	j	26.3	954.7
K	24.1	k	34.6	833.9
L	25.9	l	33.5	867.7
M	5.3	m	33.5	177.6
N	10.8	n	33.7	364.0
O	1.2	o	33.7	40.4
P	8.1	p	33.8	273.8
Q	21.9	q	34.5	755.6
R	35.6	r	33.5	1192.6
S	23.9	s	34.4	822.2
T1	58.3	t1	31.5	1834.9
T2	1.3	t2	28.0	36.4
T3	11.5	t3	27.5	316.3
T4	1.3	t4	27.1	35.2
T5	16.0	t5	26.7	427.2
U	19.7	u	28.0	551.6
V	4.5	v	34.5	155.3
W	11.5	w	28.4	326.6
X	3.1	x	28.4	88.0
Y	19.6	y	28.0	548.8
Z	4.7	z	27.5	129.3
SUM =	- 436.6	-	-	13137.5
ABE =	30.1			

ACCESSORY BLDG ABE CALCULATIONS

WALL SEGMENT	SEGMENT LENGTH	MIDPOINT	ELEVATION	LENGTH X ELEVATION
A	21.7	a	40	868
B	35.9	b	34.7	1245.73
C	-	c	-	-
D	-	d	-	-
E	17.7	e	44.6	789.42
F	15.9	f	44.2	702.78
G	3.9	g	44	171.6
H	19.9	h	44.6	887.54
SUM =	- 115.0	-	-	4665.1
ABE =	40.6			

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6241 REGISTERED ARCHITECT ROBERT EDSON SWAIN STATE OF WASHINGTON

BUILDING PERMIT SUBMITTAL

LAKE HOUSE
3310 97TH AVE. SE
MERCER ISLAND, WA 98040

PROJECT NO.: 1811
DRAWN: YS

ISSUE	DATE
	12-18-20

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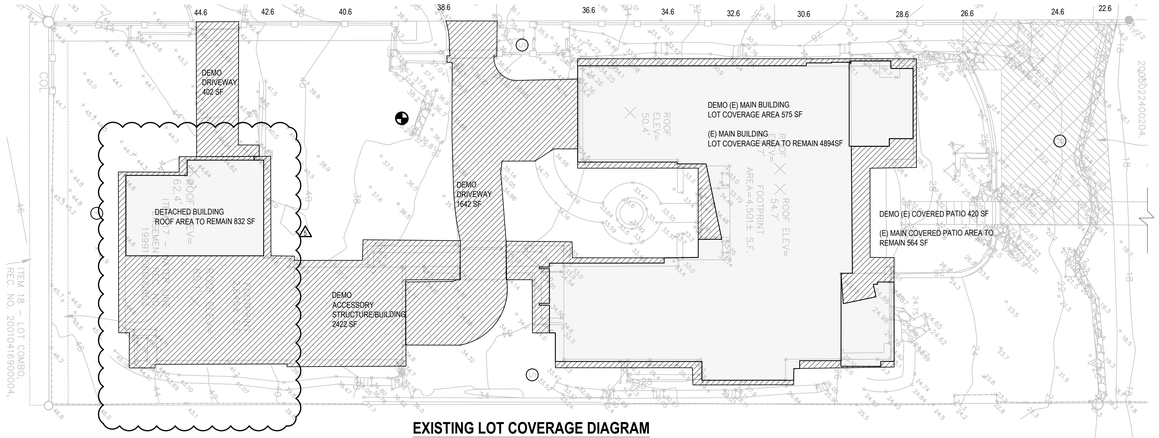
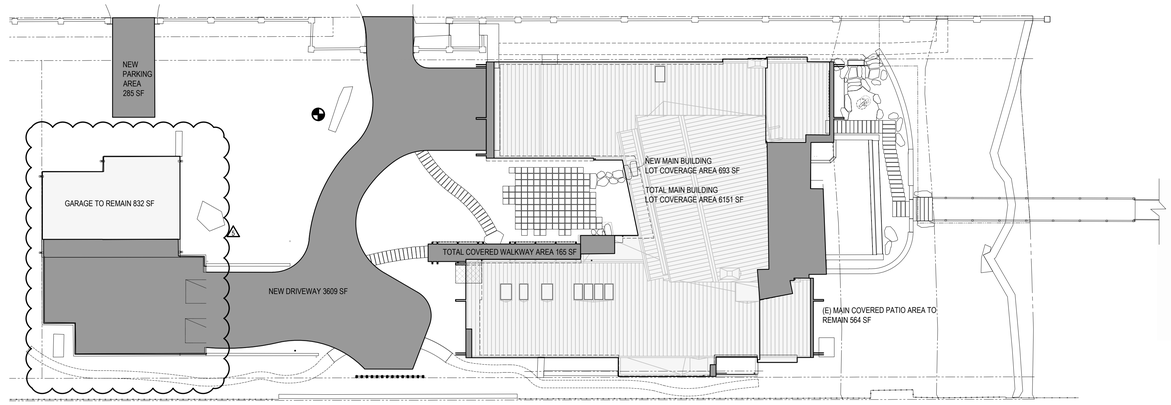
1 LAND USE & CIVIL CORRECTIONS	06/11/21
1 BUILDING CORRECTIONS	07/08/21
1 BUILDING CORRECTIONS	07/26/21
1 POST-PERMIT REVISIONS	12/17/21
1 PPV CORRECTION	02/14/22

CODE DIAGRAMS

T2.01



EXISTING LOT COVERAGE DIAGRAM



NEW LOT COVERAGE DIAGRAM

LEGEND

(E) LOT COVERAGE AREA TO BE REMOVED

(E) LOT COVERAGE TO REMAIN

NEW LOT COVERAGE

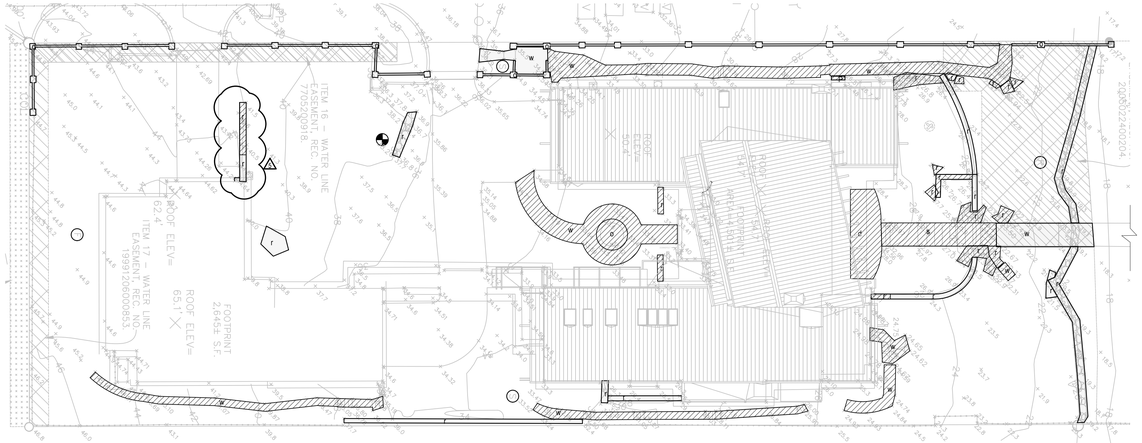
A. GROSS LOT AREA :	**27739 SF**
B. NET LOT AREA :	**27739 SF**
C. ALLOWED LOT COVERAGE AREA:	**40% OF LOT**
D. ALLOWED LOT COVERAGE AREA :	**11096 SF**
E. TOTAL (E) LOT COVERAGE AREA :	**11731 SF (42.4% OF LOT)**
1. MAIN STRUCTURE ROOF AREA:	5469 SF
2. ACCESSORY BUILDING ROOF AREA :	3254 SF
3. VEHICULAR USE :	2044 SF
4. COVERED PATIO & COVERED DECKS:	984 SF

F. TOTAL LOT COVERAGE AREA REMOVED :	**5461SF**
1. MAIN STRUCTURE ROOF AREA:	575 SF
2. ACCESSORY BUILDING ROOF AREA :	2422 SF
3. VEHICULAR USE:	2044 SF
4. COVERED PATIO & COVERED DECKS:	420 SF

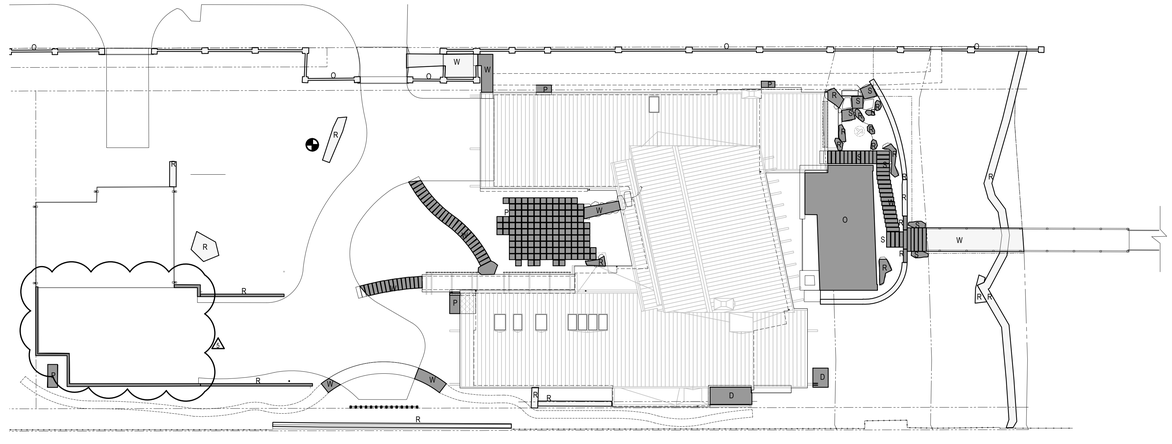
G. PROPOSED ADJUSTMENT FOR SINGLE STORY (AREA):	**0 SF**
H. PROPOSED ADJUSTMENT FOR FLAG LOT:	**0 SF**
I. TOTAL NEW LOT COVERAGE AREA:	**4757 SF**
1. MAIN STRUCTURE ROOF AREA:	693 SF
2. ACCESSORY BUILDING ROOF AREA :	165 SF
3. VEHICULAR USE:	3899 SF
4. COVERED PATIO & COVERED DECKS:	0 SF
J. TOTAL PROJECT LOT COVERAGE AREA:	**11047 SF < 11096 SF, MAX ALLOWED LOT COVERAGE AREA**
K. PROPOSED LOT COVERAGE AREA:	**39.8 % OF LOT**

2 LOT COVERAGE CALCULATION AND DIAGRAM

1/16" = 1'-0"



EXISTING HARDSCAPE DIAGRAM



NEW HARDSCAPE DIAGRAM

LEGEND

(E) HARDSCAPE AREA TO BE REMOVED

(E) HARDSCAPE TO REMAIN

NEW HARDSCAPE

A. GROSS LOT AREA :	**27739 SF**
B. NET LOT AREA :	**27739 SF**
C. AREA BORROWED FROM LOT COVERAGE :	**0SF**
D. ALLOWED HARDSCAPE AREA :	**9% + C**
E. ALLOWED HARDSCAPE AREA :	**2497SF**
F. TOTAL (E) HARDSCAPE AREA :	**2712 SF 9.8% OF LOT**
1. d - UNCOVERED DECK :	178 SF
2. p - UNCOVERED PATIO :	4 SF
3. w - WALKWAYS :	1406 SF
4. s - STAIRS :	181 SF
5. r - ROCKERIES&RETAINING WALL :	700 SF
6. o - OTHER : FENCE+FOUNTAIN	243 SF

G. TOTAL HARDSCAPE AREA REMOVED:	**1814 SF**
1. d - UNCOVERED DECK:	178 SF
2. p - UNCOVERED PATIO:	4 SF
3. w - WALKWAYS:	1168 SF
4. s-STAIRS :	181 SF
5. r - ROCKERIES&RETAINING WALL:	231 SF
6. o - OTHER : FOUNTAIN	52 SF

H. TOTAL NEW HARDSCAPE AREA:	**1519 SF**
1. D - UNCOVERED DECK:	69 SF
2. P - UNCOVERED PATIO:	355 SF
3. W - WALKWAYS:	268 SF
4. S - STAIRS :	151 SF
5. R - ROCKERIES&RETAINING WALL:	163 SF
6. O - OTHER: POOL	513 SF
I. TOTAL PROJECT HARDSCAPE AREA:	**2417 SF < 2497 SF, MAX. ALLOWED HARDSCAPE AREA 8.71% OF LOT**
1. D - UNCOVERED DECK:	69 SF
2. P - UNCOVERED PATIO:	355 SF
3. W - WALKWAYS:	506 SF
4. S - STAIRS :	151 SF
5. R - ROCKERIES&RETAINING WALL:	632 SF
6. O - OTHER: POOL+FENCE	704 SF

1 HARDSCAPE AREA CALCULATION AND DIAGRAM

1/16" = 1'-0"

TURE NORTH

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1 POST-PERMIT REVISIONS	12/17/21

CODE DIAGRAMS

T2.02

TOPOGRAPHIC & BOUNDARY SURVEY

LEGAL DESCRIPTION

THAT PORTION OF GOVERNMENT LOT 5, SECTION 7, TOWNSHIP 24 NORTH, RANGE 5 EAST, WILLAMETTE MERIDIAN, IN KING COUNTY, WASHINGTON, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT 821 44 FEET WEST AND 770.00 FEET NORTH OF THE SOUTHEAST CORNER OF SAID GOVERNMENT LOT 5, SAID POINT BEGGING THE SOUTHEAST CORNER OF THAT CERTAIN TRACT OF LAND CONVEYED TO O.L. PABST BY DEED RECORDED UNDER KING COUNTY AUDITOR'S FILE NUMBER 2885565 (SAID TRACT TO BE HEREINAFTER REFERRED TO AS THE PABST TRACT);

THENCE WEST, ALONG THE SOUTH LINE OF SAID PABST TRACT, 100.00 FEET TO AN INTERSECTION WITH THE WEST LINE OF SAID PABST TRACT;

THENCE NORTH, ALONG THE WEST LINE OF SAID PABST TRACT, 282.00 FEET, MORE OR LESS, TO THE PRESENT SHORELINE OF LAKE WASHINGTON;

THENCE EASTERLY, ALONG SAID SHORELINE 100.00 FEET, MORE OR LESS, TO AN INTERSECTION WITH THE EAST LINE OF SAID PABST TRACT, THENCE SOUTH, ALONG THE EAST LINE OF SAID PABST TRACT 285.00 FEET, MORE OR LESS, TO THE TRUE POINT OF BEGINNING,

TOGETHER WITH SECOND CLASS SHORELANDS ADJOINING SAID PREMISES;

(ALSO KNOWN AS NANESS LOT CONSOLIDATION, RECORDED UNDER RECORDING NUMBER 20010416900004)

BASIS OF BEARINGS

ACCEPTED A BEARING OF N00°05'04"E ALONG THE CENTERLINE OF 97TH AVE SE

REFERENCES

1. NANESS LOT CONSOLIDATION, RECORDING NUMBER 20010416900004

VERTICAL DATUM

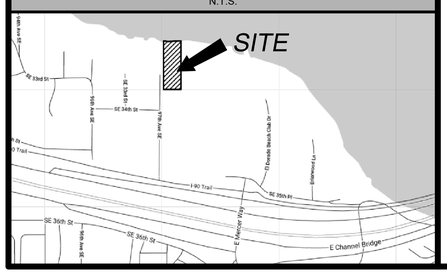
NAVD 88, CITY OF MERCER ISLAND CONTROL POINT# 2068, ELEVATION=63.18', REBAR & CAP LS# 2634 (DOWN 0.8'), LOCATED AT THE CENTERLINE OF 97TH AVENUE SE, 100'S OF SE 34TH STREET

SURVEYOR'S NOTES

1. THE TOPOGRAPHIC SURVEY SHOWN HEREON WAS PERFORMED IN DECEMBER OF 2015. THE FIELD DATA WAS COLLECTED AND RECORDED ON MAGNETIC MEDIA THROUGH AN ELECTRONIC THEODOLITE. THE DATA FILE IS ARCHIVED ON DISC OR CD. WRITTEN FIELD NOTES MAY NOT EXIST. CONTOURS ARE SHOWN FOR CONVENIENCE ONLY. DESIGN SHOULD RELY ON SPOT ELEVATIONS.
2. BURIED UTILITIES SHOWN BASED ON RECORDS FURNISHED BY OTHERS AND VERIFIED WHERE POSSIBLE IN THE FIELD. GEODIMENSIONS ASSUMES NO LIABILITY FOR THE ACCURACY OF THOSE RECORDS OR ACCEPT RESPONSIBILITY FOR UNDERGROUND LINES WHICH ARE NOT MADE PUBLIC RECORD. FOR THE FINAL LOCATION OF EXISTING UTILITIES IN AREAS CRITICAL TO DESIGN CONTACT THE UTILITY OWNER/AGENCY. AS ALWAYS, CALL 1-800-424-5555 BEFORE CONSTRUCTION.
3. SUBJECT PROPERTY TAX PARCEL NO. 0724059038
4. SUBJECT PROPERTY UPLAND AREA PER THIS SURVEY IS 27739± S.F. (0.64± ACRES)
5. THE PROPERTY DESCRIBED HEREON IS THE SAME AS THE PROPERTY DESCRIBED IN WFG NATIONAL TITLE COMPANY, ORDER NO. 17-115848, WITH AN EFFECTIVE DATE OF OCTOBER 1, 2018 AND THAT ALL EASEMENTS, COVENANTS AND RESTRICTIONS REFERENCED IN SAID TITLE COMMITMENT OR APPARENT FROM A PHYSICAL INSPECTION OF THE PROPERTY OR OTHERWISE KNOWN TO ME HAVE BEEN PLOTTED HEREON OR OTHERWISE NOTED AS TO THEIR EFFECT ON THE PROPERTY.
6. INSTRUMENTATION FOR THIS SURVEY WAS A TRIMBLE ELECTRONIC DISTANCE MEASURING UNIT. PROCEDURES USED IN THIS SURVEY WERE DIRECT AND REVERSE ANGLES, NO CORRECTION NECESSARY. MEETS STATE STANDARDS SET BY WAC 332-130-090.
7. TREE INFORMATION PER GREENFOREST INC. ARORIST REPORT DATED JANUARY 26, 2021.

VICINITY MAP

N.T.S.



SCHEDULE B ITEMS

13. EASEMENT AND THE TERMS AND CONDITIONS THEREOF AFFECTING A PORTION OF SAID PREMISES, AS RECORDED UNDER 5998357 OF OFFICIAL RECORDS.
IN FAVOR OF: MERCER ISLAND SEWER DISTRICT, A MUNICIPAL CORPORATION
FOR: SEWER PUMPING STATION, SEWER PIPELINE AND ALL NECESSARY CONNECTIONS AND APPURTENANCES THERETO
(EXTINGUISHED BY EASEMENT, REC. NO. 20050224000204)

14. EASEMENT AND THE TERMS AND CONDITIONS THEREOF AFFECTING A PORTION OF SAID PREMISES, AS RECORDED UNDER 6533605 OF OFFICIAL RECORDS.
IN FAVOR OF: MUNICIPALITY OF METROPOLITAN SEATTLE
FOR: SEWER LINE
(CAN NOT PLOT, FALLS IN LAKE)

15. EASEMENT AND THE TERMS AND CONDITIONS THEREOF AFFECTING A PORTION OF SAID PREMISES, AS RECORDED UNDER 5028722 OF OFFICIAL RECORDS.
IN FAVOR OF: MERCER ISLAND SEWER DISTRICT, A MUNICIPAL CORPORATION
FOR: INSTALLING, CONSTRUCTING, MAINTAINING, OPERATING, REPAIRING AND REPLACING SEWER PIPELINE OR LINES AND ALL NECESSARY CONNECTIONS AND APPURTENANCES
(BLANKET IN NATURE OVER SECOND CLASS SHORELANDS)

16. EASEMENT AND THE TERMS AND CONDITIONS THEREOF AFFECTING A PORTION OF SAID PREMISES, AS RECORDED UNDER 7705200918 OF OFFICIAL RECORDS.
FOR: WATER LINE
(PLOTTED)

17. EASEMENT AND THE TERMS AND CONDITIONS THEREOF AFFECTING A PORTION OF SAID PREMISES, AS RECORDED UNDER 7705200919 OF OFFICIAL RECORDS.
FOR: UNDERGROUND WATER LINE AND AN ABOVEGROUND WATER METER
(BLANKET IN NATURE OVER SOUTH 96.0' OF SUBJECT PARCEL)

SAID INSTRUMENT WAS (MODIFIED, CORRECTED, OR AMENDED) BY INSTRUMENT RECORDED ON DECEMBER 6, 1999, IN 19991206000853, OF OFFICIAL RECORDS.
(PLOTTED)

18. ALL COVENANTS, CONDITIONS,RESTRICTIONS, EASEMENTS AND LIABILITY TO ASSESSMENTS, IF ANY, DISCLOSED BY THE LOT CONSOLIDATION, RECORDED ON APRIL 16, 2004, IN 20010416900004, OF OFFICIAL RECORDS.
(PLOTTED, NOTE: DOCUMENT 7808150801 NOT LISTED IN TITLE, MAY NO LONGER AFFECT PROPERTY)

19. INDEMNIFICATION AND HOLD HARMLESS AGREEMENT AND THE TERMS AND CONDITIONS THEREOF, RECORDED AS 20030710002825, OF OFFICIAL RECORDS.
(NOT SURVEY RELATED)

20. PERMANENT ACCESS AND USE EASEMENT AND THE TERMS AND CONDITIONS THEREOF AFFECTING A PORTION OF SAID PREMISES, AS RECORDED UNDER 20050224000204 OF OFFICIAL RECORDS.
IN FAVOR OF: CITY OF MERCER ISLAND
FOR: UTILITY
(PLOTTED)

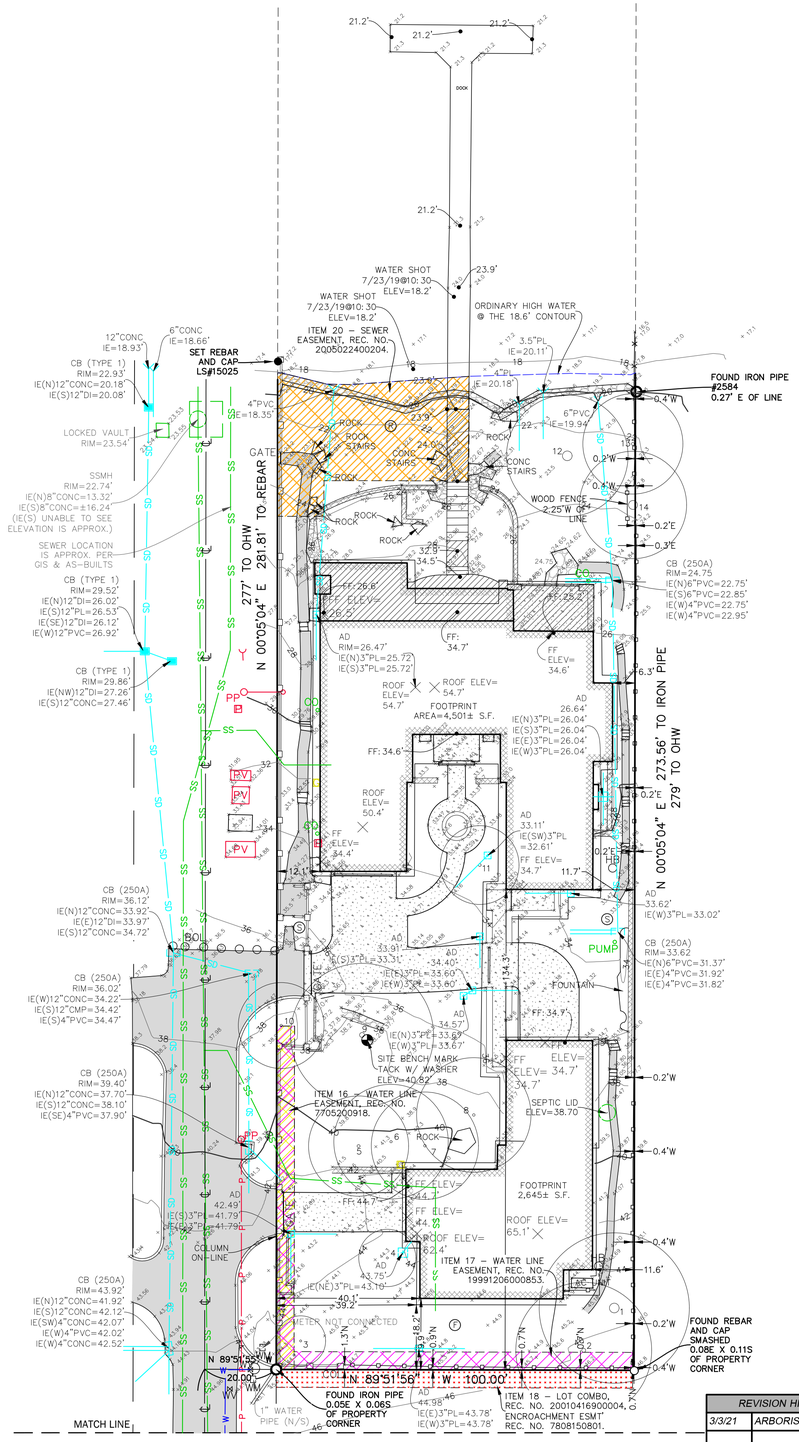
LEGEND

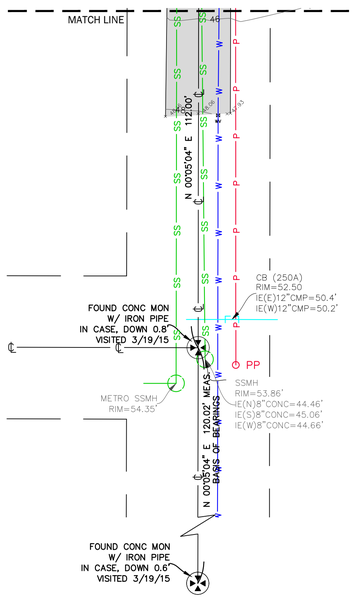
- AREA DRAIN
- ASPHALT SURFACE
- BUILDING
- CENTERLINE ROW
- CONCRETE SURFACE
- CONCRETE WALL
- CONTOUR (MAJOR)
- CONTOUR (MINOR)
- DECK
- FENCE LINE (CHAIN LINK)
- FENCE LINE (WOOD)
- GAS METER
- INLET (TYPE 250A)
- INLET (TYPE 250B)
- GUY POLE
- MONUMENT IN CASE (FOUND)
- POWER METER
- POWER (OVERHEAD)
- ROCKERY
- SEWER MAINTENANCE
- STORM DRAIN LINE
- TREE (TYPE, SIZE)
- WATER METER
- WATER VALVE
- IRON PIPE (FOUND)
- BENCH MARK
- EAVE LINE
- 5' MIN/15' TOTAL SIDE SETBA
- 20' FRONT SETBACK
- 25' REAR SETBACK
- ITEM 20 – SEWER EASEMENT, REC. NO. 20050224000204.
- ITEM 16 – WATER LINE ESM'T, REC. NO. 7705200918.
- ITEM 17 – WATER LINE ESM'T, REC. NO. 19991206000853.
- ITEM 18 – LOT CONSOLIDATION, REC. NO. 20010416900004, ENCROACHMENT ESM'T REC. NO. 7808150801. (NOTE: DOCUMENT 7808150801 NOT LISTED IN TITLE, MAY NO LONGER AFFECT PROPERTY)

20 0 10 20

(IN FEET)
1 inch = 20 ft.

IMPERVIOUS SURFACES		
TYPE	COVERAGE S.F.	LOT COVERAGE
BUILDINGS	9,829	35.47%
CONCRETE	3,053	11.02%
ASPHALT	922	03.33%
TOTALS	13,804	49.81%





TREE TABLE

Tree No.	DBH (in.)	Species	Dripline (R')
1	32	Douglas-fir	21
2	13	Red maple	19
3	7	Alaska weeping cedar	7
4	7	Alaska weeping cedar	8
5	9.8	Jacquemontii birch	14
6	7.4	Jacquemontii birch	16
7	8.8	Jacquemontii birch	15
8	8.5	Jacquemontii birch	16
9	16.5	Red maple	20
10	8.6	Katsura	12
11	9.5	Paperbark maple	11
12	32	Western red-cedar	17
13	9.6	Oregon ash	14
14	30	Western red-cedar	15

measure success

TOPOGRAPHIC & BOUNDARY SURVEY
NE 1/4 OF THE SE 1/4 OF SEC. 07, TWP. 24N., RGE. 05E., W.M.
TAX PARCEL NO. 0724059038

LAKE HOUSE
3310 97TH AVE SE
MERCER ISLAND, WA

GOODMAN MILLER NORTHWEST LAND SURVEYOR STATE OF WASHINGTON 18595 REGISTERED PROFESSIONAL LAND SURVEYOR
09/09/21

Terrane
10801 Main Street, Suite 102, Bellevue, WA 98004
phone 425.458.4488 support@terrane.net
www.terrane.net

JOB NUMBER:	20017
DATE:	12/1/2015
DRAFTED BY:	AB/RLS
CHECKED BY:	EJG/JGM
SCALE:	1"= 20'
REVISION HISTORY	
7/30/19	ADD'N SPOT ELEV
7/16/20	DRAINAGE UPDATE
7/28/20	DRAIN ADDED
8/20/20	STORM UPDATED
11/20/20	TITLE REVIEW
SHEET NUMBER	
1 OF 1	

REVISION HISTORY	
3/3/21	ARBORIST REPORT

FOR LAND USE REFERENCE,
NOT FOR CONSTRUCTION

TOPOGRAPHIC & BOUNDARY SURVEY

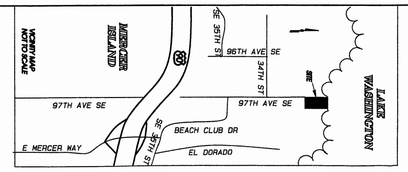
IN THE NE 1/4 OF THE SE 1/4
SEC. 7, TWP. 24N., RGE 5E., W.M.
CITY OF MERCER ISLAND, KING COUNTY, WA.

VERTICAL DATUM:

ASSUMED AN ELEVATION OF 500.00' ON A FOUND PK NAIL SET IN RAILROAD TIE RETAINING WALL, AT THE SW PROPERTY CORNER.

BEARING MERIDIAN:

A BEARING OF N0?05'04"E BETWEEN TWO FOUND MONUMENTS ON THE CENTERLINE OF 97TH AVE SE AS PER RECORD OF SURVEY NO.8108139001 RECORDED IN BOOK 28 OF SURVEYS, PAGE 215, KING COUNTY, WA.



GRAPHIC SCALE 1"=10'
0 10

SE 34TH ST
DRIVEWAY APRON
CATCH BASIN RIM EL=491.03' IE 12" N=489.2' IE 4" W=489.4' IE 3" W=489.9' IE 12" S=489.5'
EDGE OF ASPHALT
N0?05'04"E
120.03' MEAS.
120.00' RECORD
112.00' CALC'D
20.00' CALC'D
POB
TBM (SITE BENCH MARK) PK NAIL IN RAILROAD TIE RETAINING WALL AT SOUTH WEST PROPERTY CORNER ELEVATION=500.00'
97TH AVE SE
EDGE OF ASPHALT
5.0' WATER LINE EASEMENT PER REC.# 7705200918
96.00'
N0?05'04"E
FOUND PK NAIL IN RAILROAD TIE RETAINING WALL ON LINE (ACCEPTED)
0.7' WIDE RAILROAD TIE RETAINING WALL
5.0' EASEMENT FOR THE ENCROACHMENT OF THE CONCRETE WALK, PATIO AND ROOF EAVE'S OVERHANG PER REC. # 7808150801
3.1'
TOE
TOP
S89?51'56"E 100.00'
92.7'
0.4'
FENCE CORNER IS 0.5' S OF LINE
36" DIA.
FOUND 5/8" BAR & CAP " LS#20764" 0.1' S OF CORNER, ACCEPTED.
POINT DESCRIBED AS BEING 821.44' W AND 770.00' N OF SE CORNER OF GOVERNMENT LOT 5, SEC. 7-24-5E
N0?05'04"E 95.00'
DRIVEWAY APRON
CONCRETE DRIVEWAY APRON
CONCRETE DRIVEWAY
CONCRETE SLAB
CONCRETE BARBECUE
CATCH BASIN: RIM ELEVATION=489.91' IE 12" S=489.41' IE 12" W=488.2' IE 12" W=487.8' IE 4" S=488.5'
END OF APSHALT
EDGE OF ASPHALT
FOUND 5/8" BAR & CAP "LS# 20764" 0.1' W OF CORNER, ACCEPTED.
S89?51'56"E 100.00'
FOUND 5/8" BAR & CAP "LS#20764" 0.1' NORTH OF CORNER, ACCEPTED.
CONCRETE POST
FRUITLAND WATERFRONT PARK ACCESS
CHAIN GATE
FOUND 6" PVC VERTICAL PURPOSE UNKNOWN
WOOD SIGN
0.8' DIA. METAL CASE (PURPOSE UNKNOWN)
VAULT (PURPOSE UNKNOWN)
FENCE IS 1.4' W OF LINE
BRICK COLUMN LIGHT POLE
ROCKERY
SWALE
2" METAL PIPES PURPOSE UNKNOWN
N0?05'04"E 189.00'
CATCH BASIN RIM EL=483.51' IE 12" NW=482.0'
N0?05'04"E 186.00'
178.41'
FENCE IS ON LINE
183.28'
GROUP OF 3 60" DIA.
CATCH BASIN RIM EL=482.25' IE 12" S=480.5' IE 6" W=480.9' IE 12" SE=480.9' IE 12" N=479.8'
20'
6" DIA. VERTICAL PIPE (CAPPED) (PURPOSE UNKNOWN)
VAULT (PURPOSE UNKNOWN)
RAILROAD TIE BULKHEAD
WOOD BENCH
SET 5/8" BAR & CAP "GEOD LS#15025 AT EDGE OF WATER.
TRASH CAN ON CONCRETE PAD
10' (NORTH AND SOUTH) BY 16' (EAST AND WEST) EASEMENT GRANTED TO THE MERCER ISLAND SEWER DISTRICT. TOGETHER WITH AN ACCESS EASEMENT ACROSS THE DOCK PER REC.#5998357
NOTE:
THIS EASEMENT (UNDER THE SAME NUMBER) INCLUDES A 24 FOOT SPACE ON THE WEST SIDE OF THE DOCK FOR MOORAGE.
S88?25'15"E 8.73'
WOOD DOCK
N84?30'17"E 7.41'
S88?23'13"E 27.00'
GRAVEL BEACH
ORDINARY HIGH WATER LINE PER THIS SURVEY
N88?24'58"E 100.04'
N87?34'56"E 28.22' OHW
N82?35'25"E 28.96' OHW
SET 5/8" BAR & CAP "GEOD LS#15025 " AT EDGE OF WATER.
LAKE WASHINGTON
12/26/2002 WATER LEVEL ELEV. 471.0

LEGAL DESCRIPTION

THAT PORTION OF GOVERNMENT LOT 5, SECTION 7, TOWNSHIP 24, NORTH, RANGE 5 EAST, W.M., IN KING COUNTY, WASHINGTON, MORE PARTICULARLY DESCRIBED AS FOLLOWS:
BEGINNING AT A POINT 821.44 FEET WEST AND 770.00 FEET NORTH OF THE SOUTHEAST CORNER OF SAID GOVERNMENT LOT 5, SAID POINT BEING THE SOUTHEAST CORNER OF THAT CERTAIN TRACT OF LAND CONVEYED TO O.L. PABST BY DEED RECORDED UNDER KING COUNTY AUDITOR'S FILE NO. 2885565, SAID TRACT TO BE HEREINAFTER REFERRED TO AS THE PABST TRACT;
THENCE WEST, ALONG THE SOUTH LINE OF SAID PABST TRACT, 100.00 FEET TO AN INTERSECTION WITH THE WEST LINE OF SAID PABST TRACT;
THENCE NORTH, ALONG THE WEST LINE OF SAID PABST TRACT, 282.00 FEET, MORE OR LESS, TO THE PRESENT SHORE-LINE OF LAKE WASHINGTON;
THENCE EASTERLY ALONG SAID SHORE-LINE 100.00 FEET, MORE OR LESS TO AN INTERSECTION WITH THE EAST LINE OF SAID PABST TRACT;
THENCE SOUTH, ALONG THE EAST LINE OF SAID PABST TRACT 285.00 FEET, MORE OR LESS, TO THE TRUE POINT OF BEGINNING.
TOGETHER WITH THE 2ND CLASS SHORELAND'S ADJOINING SAID PREMISES.

AREA PER THIS SURVEY 27,543 SQ. FT.

SURVEYOR'S NOTES:

1) SUBJECT TO AN EASEMENT FOR THE PURPOSE OF A SEWER LINE ACROSS THE SECOND CLASS SHORELANDS PER REC# 5028720. THE LEGAL DESCRIPTION CONTAINED IN THE TITLE REPORT THEREIN IS INSUFFICIENT TO SPECIFICALLY LOCATE SAID EASMENT.

2) SUBJECT TO AN EASEMENT FOR THE PURPOSE OF A SEWER LINE OVER THE BED OF LAKE WASHINGTON PER REC# 6533605. THE LEGAL DESCRIPTION CONTAINED IN THE TITLE REPORT THEREIN IS INSUFFICIENT TO SPECIFICALLY LOCATE SAID EASEMENT.

3) AS PER TRANSNATION TITLE INS. CO. ORDER NO. 3116930A. EASEMENT AND THE TERMS AND CONDITIONS THEREOF:
DISCLOSED BY: INSTRUMENTS RECORDED UNDER RECORDING NO'S. 7705200919 AND 199912060000853
PURPOSE: EXISTING UNDERGROUND WATER LINE AND AN ABOVE GROUND WATER METER
THE DESCRIPTION CONTAINED THEREIN IS NOT SUFFICIENT TO DETERMINE ITS EXACT LOCATION WITHIN THE PROPERTY HEREIN DESCRIBED.
(IN THE EVENT A REPLACEMENT WATER LINE IS REQUIRED, AN EASEMENT SHALL BE GRANTED ALONG THE WESTERLY AND SOUTHERLY 5 FEET OF SAID PREMISES.)

LEGEND

- FOUND MONUMENT IN CASE
- FOUND EXISTING PROPERTY CORNER
- SET 5/8" BAR & CAP "GEOD LS#15025"
- SET PK NAIL IN CONCRETE
- WATER METER
- FIRE HYDRANT
- IRRIGATION CONTROL BOX
- SANITARY SEWER MANHOLE
- ELECTRIC METER
- MAIL BOX
- CATCH BASIN
- FINISHED FLOOR ELEVATION
- POST AS NOTED
- WATER VALVE
- FOUND PIPE AS NOTED
- DRAIN BASIN
- DECIDUOUS TREE (TRUNK DIA. SHOWN, NOT TO SCALE)
- CONIFER TREE (TRUNK DIA. SHOWN , NOT TO SCALE)
- UTILITY POLE & GUY WIRE
- WOOD FENCE
- TOP/TOE OF SLOPE AS NOTED
- ROCKERY
- ORDINARY HIGH WATER
- CONCRETE AREA
- ASPHALT SURFACE

METHOD OF SURVEY:

DIRECT OBSERVATION
NO ADJUSTMENT NECESSARY

INSTRUMENTATION

3" GEODIMETER 600 TOTAL STATION SURVEY ACCURACY MEETS OR EXCEEDS W.A.C. 332-130-090

REVISED 1/2/2003

TOPOGRAPHIC & BOUNDARY SURVEY

HOBART PROPERTY TRUST
3310 & 3330 97TH AVE SE
MERCER ISLAND, WA.

DWN. BY D.A.H.	DATE 12/26/2002	JOB NO. 20017
CHKD. BY E.J.G.	SCALE 1"=10'	SHEET 1 OF 1

GeoDimensions
17923 NE 127TH STREET
REDMOND, WA. 98052
PHONE (425) 883-6896
FAX (425)882-9450

LAND SURVEYOR'S CERTIFICATE

THIS MAP CORRECTLY REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECTION IN CONFORMANCE WITH THE REQUIREMENTS OF THE SURVEY RECORDING ACT AT THE REQUEST OF MR. LEVEN IN DECEMBER OF 2002.

EDWIN J. GREEN JR. CERTIFICATE NO. 15025 — DATE 3/5/03

11/25/04

Thu, Jan 2, 2003 — C:\AAACON_2\20017\20017L_T2.prc

NO. DATE REVISION

CURTIS GELOTTE Architects
150 Lake St. S.
Suite 200
Kirkland, WA 98033
T 425.822.3081
F 425.822.3152

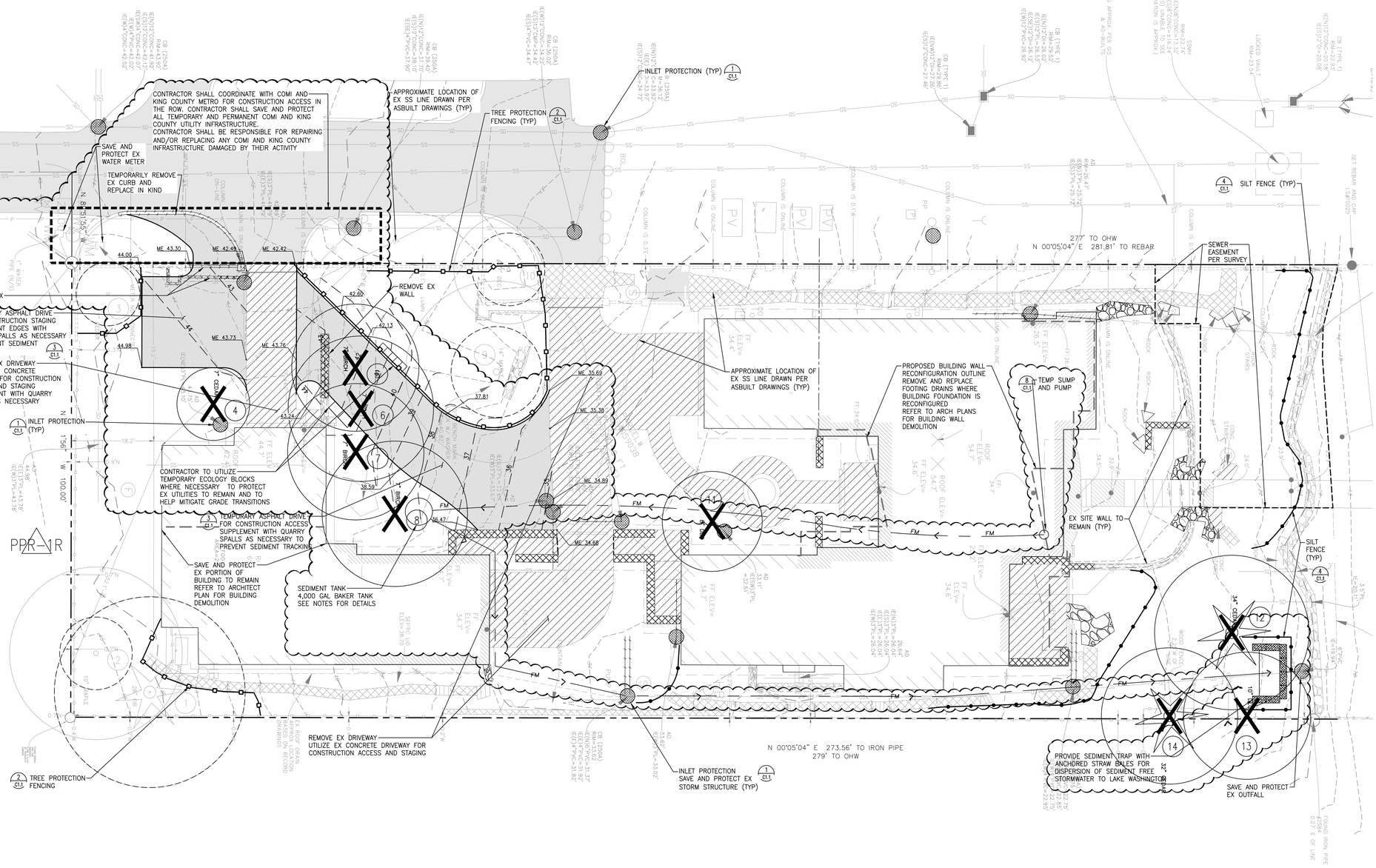
15511 REGISTERED ARCHITECT CURTIS GELOTTE STATE OF WASHINGTON

HOBART PROPERTY TRUST

3310 97TH AVE. SE
MERCER ISLAND, WA 98040

SURVEY

DATE: 03-05-2003
JOB NUMBER: 0238
FILE: A1.2.dwg
SHEET NO: A1.2



LEGEND

- PROPERTY LINE
- EX CONTOUR (INDEX)
- EX CONTOUR
- EX BUILDING
- PROPOSED BUILDING OUTLINE
- BUILDING/STRUCTURE REMOVAL
- SAWCUT LINE
- ASPHALT REMOVAL
- CONCRETE REMOVAL
- TEMPORARY ASPHALT DRIVE
- SITE WALL REMOVAL
- CONSTRUCTION FENCING
- SILT FENCE
- EX TREE TO REMAIN
- EX TREE TO BE REMOVED UNDER SEPARATE PERMIT
- TREE PROTECTION
- EX CURB TO BE REMOVED
- EX UTILITY TO BE REMOVED
- INLET PROTECTION
- TEMP FORCE MAIN

TESC NOTES

1. CONTRACTOR TO VIDEO INVESTIGATE EX SD DRAIN TO VERIFY LOCATION AND INVERT ELEVATION. CONTRACTOR TO PROVIDE VIDEO TO ENGINEER FOR REVIEW OF EXISTING CONDITION PRIOR TO CONSTRUCTION.
2. PROVIDE 4,000 GALLON BAKER POLY TANK OR EQUAL AS NECESSARY FOR STORMWATER SEDIMENT CONTROL PRIOR TO BIOCHARGE FROM THE SITE.
3. CONTRACTOR TO PROVIDE CONSTRUCTION FENCING AS NECESSARY TO SECURE MATERIALS, EQUIPMENT AND ALL AREAS BEING DISTURBED.
4. FOR ANY UTILITY TRENCHES OR OTHER IMPROVEMENTS WITHIN THE CRITICAL ROOT ZONE OF AN EXISTING TREE, THE CONTRACTOR SHALL AIR SPADE OR DIG BY HAND EXCAVATIONS. CONTRACTOR SHALL ONLY CUT REQ'D ROOTS LESS THAN 2"± THAT INTERFERE WITH THE INSTALLATION OF THE PROPOSED IMPROVEMENTS.

TREE REMOVAL UNDER SEPARATE PERMIT
PERMIT #2103-187 APPROVED TO REMOVE
TREE NUMBER 4, 5, 6, 7, 11, 12, 13, 14

REFER TO A101 FOR SITE PLAN AND LOT COVERAGE AND HARDSCAPE CALCULATIONS AT SHORELINE SETBACKS
REFER TO T2.02 FOR LOT COVERAGE AND HARDSCAPE CALCULATIONS

811 Know what's **below.** **Call** before you dig. Dial 811

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1932 First Ave
Suite 201
Seattle, WA 98101
p. 206.725.1211
f. 206.973.5344
www.lpdengineering.com

ROBERT EDSON SWAIN
ARCHITECTURE + DESIGN
2300 W COMMODORE WAY
SEATTLE, WA 98199

BUILDING PERMIT SUBMITTAL

LAURIE J. PEARE — STATE OF WASHINGTON — REGISTERED LANDSCAPE ARCHITECT — 22011 — 12-18-2020

LAKE HOUSE
3310 97TH AVE. SE
MERCER ISLAND, WA 98040

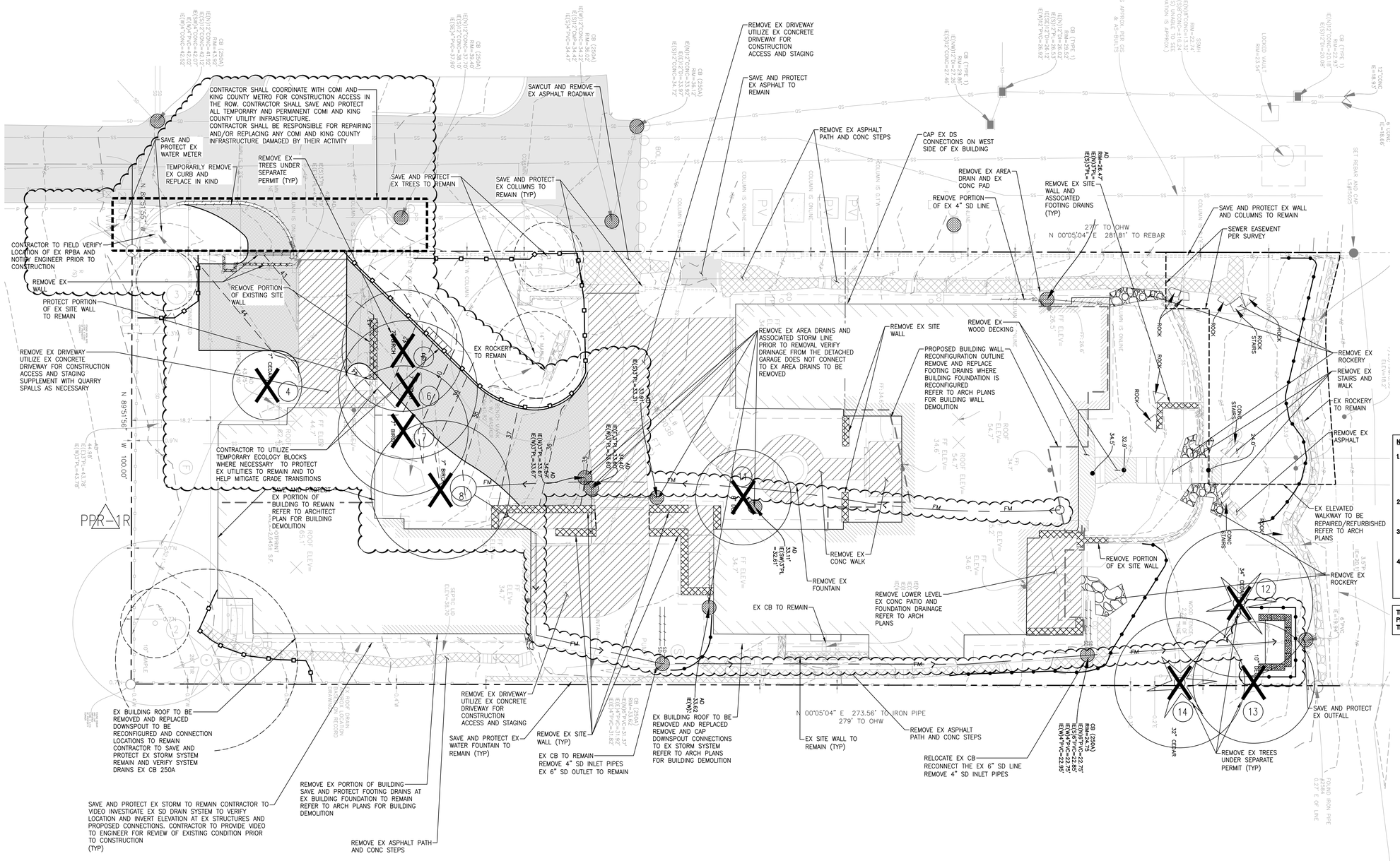
PROJECT NO.: 1811
DRAWN:

ISSUE	DATE
	12-18-2020

REVISIONS	DATE
1 PERMIT REVISION 06/09/21	
2 POST-PERMIT REVISION 1	12/07/21
3 POST-PERMIT REVISION 2	12/17/21
4 POST-PERMIT REVISION 1 RESUBMITTAL	1/24/22
5 POST-PERMIT REVISION 2 RESUBMITTAL	2/11/22

TESC PLAN

C1.0A



LEGEND

- PROPERTY LINE
- EX CONTOUR (INDEX)
- EX CONTOUR
- EX BUILDING
- PROPOSED BUILDING OUTLINE
- BUILDING/STRUCTURE REMOVAL
- SAWCUT LINE
- ASPHALT REMOVAL
- CONCRETE REMOVAL
- TEMPORARY ASPHALT DRIVE
- SITE WALL REMOVAL
- CONSTRUCTION FENCING
- SILT FENCE
- EX TREE TO REMAIN
- EX TREE TO BE REMOVED UNDER SEPARATE PERMIT
- TREE PROTECTION
- EX CURB TO BE REMOVED
- EX UTILITY TO BE REMOVED
- INLET PROTECTION

NOTES

1. CONTRACTOR TO VIDEO INVESTIGATE EX SD DRAIN SYSTEM TO VERIFY LOCATION AND INVERT ELEVATION AT EX STRUCTURES AND PROPOSED CONNECTIONS. CONTRACTOR TO PROVIDE VIDEO TO ENGINEER FOR REVIEW OF EXISTING CONDITION PRIOR TO CONSTRUCTION.
2. PROVIDE 4,000 GALLON BAKER TANK AS NECESSARY FOR STORMWATER SEDIMENT CONTROL PRIOR TO BIOCHARGE FROM THE SITE.
3. CONTRACTOR TO PROVIDE CONSTRUCTION FENCING AS NECESSARY TO SECURE MATERIALS, EQUIPMENT AND ALL AREAS BEING DISTURBED.
4. FOR ANY UTILITY TRENCHES OR OTHER IMPROVEMENTS WITHIN THE CRITICAL ROOT ZONE OF AN EXISTING TREE, THE CONTRACTOR SHALL AIR SPADE OR DIG BY HAND EXCAVATIONS. CONTRACTOR SHALL ONLY CUT RECYD ROOTS LESS THAN 2" THAT INTERFERE WITH THE INSTALLATION OF THE PROPOSED IMPROVEMENTS.

TREE REMOVAL UNDER SEPARATE PERMIT
PERMIT #2103-187 APPROVED TO REMOVE TREE NUMBER 4, 5, 6, 7, 11, 12, 13, 14

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BUILDING PERMIT SUBMITTAL

LAURIE J. PEARE — STATE OF WASHINGTON — REGISTERED LANDSCAPE ARCHITECT — 2022

LAKE HOUSE
3310 97TH AVE. SE
MERCER ISLAND, WA 98040

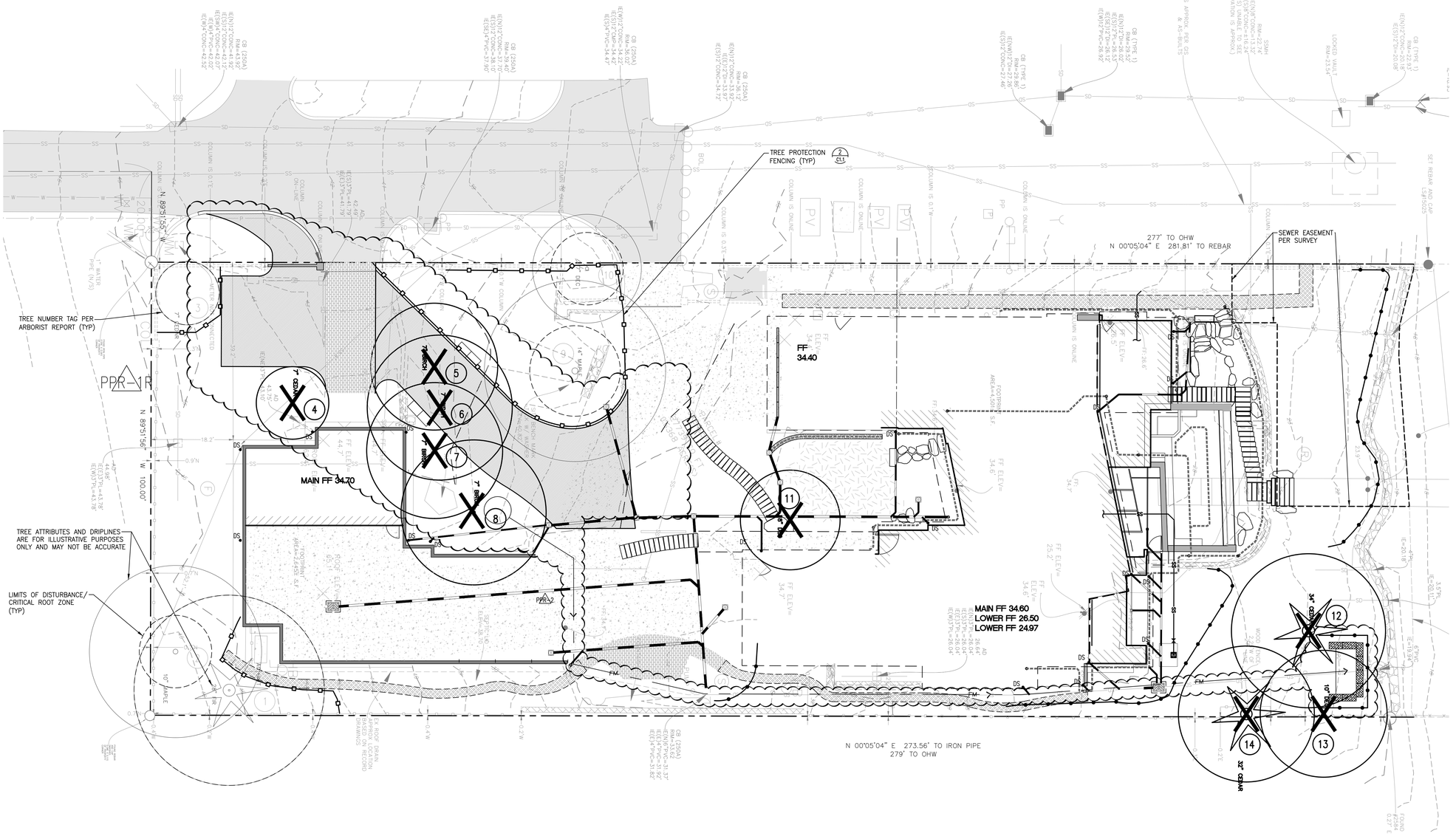
PROJECT NO.: 1811
DRAWN:

ISSUE	DATE
	12-18-2020

REVISIONS	DATE
1 PERMIT REVISION	06/09/21
2 POST-PERMIT REVISION 1	12/07/21
3 POST-PERMIT REVISION 2	12/17/21
4 POST-PERMIT REVISION 1 RESUBMITTAL	1/24/22
5 POST-PERMIT REVISION 2 RESUBMITTAL	2/11/22

DEMOLITION PLAN

C1.0B



LEGEND

- PROPERTY LINE
- EX CONTOUR (INDEX)
- EX CONTOUR
- PROPOSED CONTOUR (INDEX)
- PROPOSED CONTOUR
- EX BUILDING
- PROPOSED BUILDING
- CONCRETE PAVEMENT
- DRIVEWAY PAVERS
- STONE TERRACE PER ARCH
- MULCH
- SITE WALL
- AREA/YARD DRAIN
- TRENCH/CHANNEL DRAIN
- CATCH BASIN TYPE 1
- STORM DRAINAGE PIPE
- FOOTING/SUBSURFACE DRAIN
- STORM DRAIN CLEANOUT
- FOOTING DRAIN CLEANOUT
- DOWNSPOUTS
- SEWER BACKWATER VALVE
- SIDE SEWER PIPE
- EXCEPTIONAL TREE LARGER THAN 24"
- EX TREE TO REMAIN
- EX TREE TO BE REMOVED
- TREE PROTECTION
- SILT FENCE

TREE REMOVAL UNDER SEPARATE PERMIT PERMIT #2103-187 APPROVED TO REMOVE TREE NUMBER 4, 5, 6, 7, 11, 12, 13, 14

TESC NOTES

1. CONTRACTOR TO VIDEO INVESTIGATE EX SD DRAIN TO VERIFY LOCATION AND INVERT ELEVATION. CONTRACTOR TO PROVIDE VIDEO TO ENGINEER FOR REVIEW OF EXISTING CONDITION PRIOR TO CONSTRUCTION.
2. PROVIDE 1,750 GALLON BAKER TANK AS NECESSARY FOR STORMWATER SEDIMENT CONTROL PRIOR TO BIOCHARGE FROM THE SITE.
3. CONTRACTOR TO PROVIDE CONSTRUCTION FENCING AS NECESSARY TO SECURE MATERIALS, EQUIPMENT AND ALL AREAS BEING DISTURBED.
4. FOR ANY UTILITY TRENCHES OR OTHER IMPROVEMENTS WITHIN THE CRITICAL ROOT ZONE OF AN EXISTING TREE, THE CONTRACTOR SHALL AIR SPADE OR DIG BY HAND EXCAVATIONS. CONTRACTOR SHALL ONLY CUT REQ'D ROOTS LESS THAN 2"ø THAT INTERFERE WITH THE INSTALLATION OF THE PROPOSED IMPROVEMENTS.

ADDITIONAL NOTES

1. PER ARBORIST REPORT, NO WORK IS CURRENTLY PROPOSED WITHIN CRITICAL ROOT ZONE OF TREE. ANY DISTURBANCE WITH CRITICAL ROOT ZONE SHALL BE REVIEWED, APPROVED AND MONITORED BY PROJECT ARBORIST.
2. TREE PROTECTION SHALL BE APPLIED TO TREES ADJACENT TO THE SITE DEVELOPMENT. FENCING SHALL BE PLACED ALONG TREE DRIP LINE.
3. SEE SHEET C1.0A FIR TESC PLAN.
4. SEE SHEET C2.0 FOR PROPOSED DRAINAGE PLAN.
5. SEE SHEET C3.0 FOR PROPOSED UTILITY PLAN

TREE PROTECTION MEASURES AND SPECIAL INSTRUCTIONS AROUND RETAINED TREES

1. PRIOR TO ANY SITE WORK OR DEMOLITION, TREE PROTECTION FENCING (TPF) SHALL BE ERECTED AROUND RETAINED TREES AS SHOWN. TPF SHALL BE SIX (6) FOOT TEMPORARY CHAIN-LINK FENCE AND SHALL BE INSTALLED COMPLETELY ENCIRCLING THE RETAINED TREES.
2. A CITY PLANNER MUST APPROVE ANY MODIFICATIONS TO THE FENCING MATERIAL AND LOCATION.
3. THE AREA PROTECTED BY THE TPF IS OFF LIMITS TO ALL CONSTRUCTION RELATED ACTIVITY.
4. NO STOCKPILING OF MATERIALS, VEHICULAR OR PEDESTRIAN TRAFFIC, MATERIAL STORAGE OR USE OF EQUIPMENT OR MACHINERY SHALL BE ALLOWED WITHIN THE PROTECTIVE FENCING.
5. ANY WORK, ACTIVITY OR SOIL DISTURBANCE WITHIN THE PROTECTION FENCING, OR CRITICAL ROOT ZONE, SHALL BE REVIEWED, APPROVED AND MONITORED BY THE PROJECT ARBORIST.
6. FENCING SHALL NOT BE MOVED OR REMOVED UNLESS APPROVED BY A CITY PLANNER.
7. BRANCH PRUNING SHALL BE PERFORMED, BY THE CURRENT GARDENER OR AN APPROVED ISA CERTIFIED ARBORIST, WHERE LIMBS OVERHANG THE TPF TO REDUCE INJURY FROM EQUIPMENT.

811 Know what's **below.** **Call** before you dig. Dial 811

LPD engineering pllc
1932 First Ave
Suite 201
Seattle, WA 98101
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ROBERT EDSON SWAIN
ARCHITECTURE + DESIGN
2300 W COMMODORE WAY
SEATTLE, WA 98199

BUILDING PERMIT SUBMITTAL

LAURIE J. PEARE
STATE OF WASHINGTON
REGISTERED LANDSCAPE ARCHITECT
2022

LAKE HOUSE
3310 97TH AVE. SE
MERCER ISLAND, WA 98040

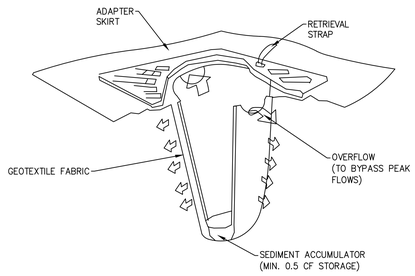
PROJECT NO.: 1811
DRAWN:

ISSUE	DATE
	12-18-2020

REVISIONS	DATE
1 PERMIT REVISION	06/09/21
2 POST-PERMIT REVISION 1	12/07/21
3 POST-PERMIT REVISION 2	12/17/21
4 POST-PERMIT REVISION 1 RESUBMITTAL	1/24/22
5 POST-PERMIT REVISION 2 RESUBMITTAL	2/11/22

SITE TREE RETENTION PLAN

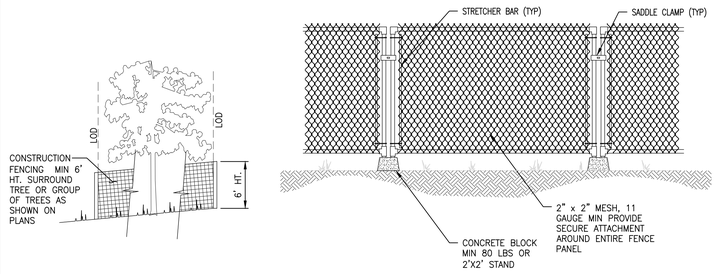
C1.0C



SCHEMATIC DETAIL

PROVIDE "STREAMGUARD SEDIMENT CATCH BASIN INSERT" OR APPROVED EQUAL
MANUFACTURER'S NAME: BOWHEAD ENVIRONMENTAL & SAFETY
ADDRESS: P.O. BOX 375 PRESTON, WA 98050
TELEPHONE: FOR INFORMATION: (800) 909-3677
WWW.SHOPBOWHEAD.COM

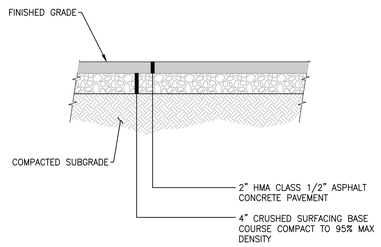
NTS INLET PROTECTION 1



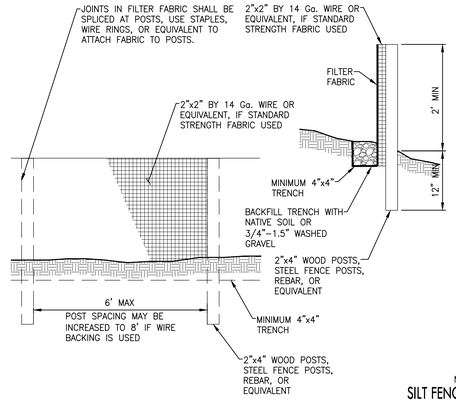
NOTES:

1. A 6 FOOT HIGH TEMPORARY FENCE MUST BE PLACED PRIOR TO THE COMMENCEMENT OF CLEARING OR EARTHWORK. NOTIFY THE CLEARING AND GRADING INSPECTOR TO GET BOTH THE INSPECTION AND WRITTEN APPROVAL OF FLAGGED TREES AND TEMPORARY PROTECTION FENCING AROUND TREES TO BE SAVED PER THE APPROVED CLEARING AND GRADING PLAN.
2. NO STOCKPILING OF MATERIAL AND NO VEHICULAR TRAFFIC ARE ALLOWED WITHIN THE LIMITS OF THE DISTURBANCE (LOD), THE TEMPORARY FENCING, UNLESS APPROVED BY THE ARBORIST. FILLING, EXCAVATION, AND CLEARING MUST BE ACCOMPLISHED BY HAND METHODS ONLY UNLESS APPROVED BY ARBORIST.
3. ROOTS OF TREES TO BE SAVED WHICH ARE DAMAGED DURING CONSTRUCTION MUST BE TREATED IN THE FOLLOWING WAY: FOR DAMAGED ROOTS OVER 1" IN DIAMETER, MAKE A CLEAN, STRAIGHT CUT TO REMOVE THE DAMAGED PORTION OF THE ROOT ALL EXPOSED ROOTS WILL BE TEMPORARILY COVERED WITH DAMP BURLAP OR WOOD SHAVINGS TO PREVENT DRYING AND COVERED WITH EARTH AS SOON AS POSSIBLE.

NTS TREE PROTECTION 2



NTS TEMPORARY ASPHALT SECTION DETAIL 3



NTS SILT FENCE 4

EROSION AND SEDIMENTATION CONTROL NOTES

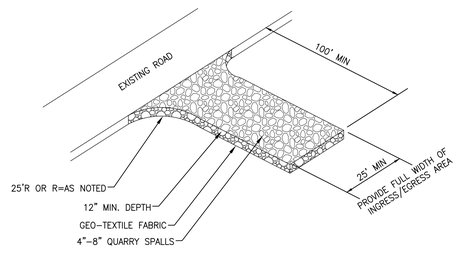
1. THE IMPLEMENTATION OF THESE EROSION SEDIMENTATION CONTROL (ESC) PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR UNTIL ALL CONSTRUCTION IS APPROVED.
2. THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES IN SUCH A MANNER AS TO INSURE THAT SEDIMENT-LADEN WATER DOES NOT ENTER THE DRAINAGE SYSTEM OR VIOLATE APPLICABLE WATER STANDARDS, AND MUST BE COMPLETED PRIOR TO ALL OTHER CONSTRUCTION.
3. THE ESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED (E.G. ADDITIONAL SUMPS, RELOCATION OF DITCHES AND SILT FENCES), AS NEEDED FOR UNEXPECTED STORM EVENTS. ADDITIONALLY MORE ESC FACILITIES MAY BE REQUIRED TO ENSURE COMPLETE SILTATION CONTROL. THEREFORE, DURING THE COURSE OF CONSTRUCTION IT SHALL BE THE OBLIGATION AND RESPONSIBILITY OF THE CONTRACTOR TO ADDRESS ANY NEW CONDITIONS THAT MAY BE CREATED BY THEIR ACTIVITIES AND TO PROVIDE ADDITIONAL FACILITIES OVER AND ABOVE THE MINIMUM REQUIREMENTS AS MAY BE NEEDED.
4. THE ESC FACILITIES SHALL BE INSPECTED DAILY DURING NON-RAINFALL PERIODS, EVERY HOUR (DAYLIGHT) DURING A RAINFALL EVENT AND AT THE END OF EVERY RAINFALL BY THE PERMIT HOLDER/CONTRACTOR AND MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTIONING. IN ADDITION, TEMP. SILTATION PONDS AND ALL TEMP. SILTATION CONTROLS SHALL BE MAINTAINED IN A SATISFACTORY CONDITION UNTIL SUCH TIME THAT CLEARING AND OR CONSTRUCTION IS COMPLETED, PERMANENT DRAINAGE FACILITIES ARE OPERATIONAL, AND THE POTENTIAL FOR EROSION HAS PASSED.
5. ANY AREA STRIPPED OF VEGETATION, INCLUDING ROADWAY EMBANKMENTS WHERE NO FURTHER WORK IS ANTICIPATED FOR A PERIOD OF SEVEN (7) DAYS, SHALL BE IMMEDIATELY STABILIZED WITH THE APPROVED ESC METHODS (E.G. SEEDING, MULCHING, NETTING, EROSION, BLANKETS, ETC.)
6. ANY AREAS NEEDING ESC MEASURES, NOT REQUIRING IMMEDIATE ATTENTION, SHALL BE ADDRESSED WITHIN SEVEN (7) DAYS.
7. THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN THE 48 HOURS FOLLOWING A STORM EVENT.
8. AT NO TIME SHALL MORE THAN ONE FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT LADEN WATER INTO DOWNSTREAM SYSTEM.
9. WHERE SEEDING FOR TEMPORARY EROSION CONTROL IS REQUIRED, FAST GERMINATING GRASSES SHALL BE APPLIED AT AN APPROPRIATE RATE (E.G. ANNUAL OR PERENNIAL RYE APPLIED AT APPROXIMATELY 80 POUNDS PER ACRE).
10. WHERE STRAW MULCH FOR TEMPORARY EROSION CONTROL IS REQUIRED, IT SHALL BE APPLIED AT A MINIMUM THICKNESS OF THREE INCHES.
11. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CITY OF MERCER ISLAND STANDARDS AND SPECIFICATIONS.
12. EROSION/SEDIMENTATION CONTROL FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DETAILS IN DEPARTMENT OF ECOLOGY STORMWATER MANAGEMENT MANUAL, UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
13. A COPY OF THE APPROVED EROSION CONTROL PLANS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
14. TEMPORARY EROSION/SEDIMENTATION CONTROLS SHALL BE INSTALLED & OPERATING PRIOR TO ANY GRADING OR LAND CLEARING.
15. WHEREVER POSSIBLE, MAINTAIN NATURAL VEGETATION FOR SILT CONTROL.
16. ALL CUT AND FILL SLOPES 5:1 (5 FEET HORIZONTAL TO 1 FOOT VERTICAL) OR STEEPER THAT WILL BE LEFT EXPOSED FOR MORE THAN 7 DAYS SHALL BE PROTECTED BY JUTE MATTING, PLASTIC SHEETING, MULCH, OR OTHER APPROVED STABILIZATION METHOD AND PROVIDED WITH ADEQUATE RUNOFF CONVEYANCE TO INTERCEPT RUNOFF AND CONVEY IT TO AN APPROVED STORM DRAIN.
17. OFF-SITE STREETS MUST BE KEPT CLEAN AT ALL TIMES. IF DIRT IS DEPOSITED ON THE PUBLIC STREET, THE STREET SHALL BE CLEANED. ALL VEHICLES SHALL LEAVE THE SITE BY WAY OF THE CONSTRUCTION VEHICLE ENTRANCE AND SHALL BE CLEANED OF MUD PRIOR TO EXITING ONTO THE STREET. SILT SHALL BE CLEANED FROM ALL CATCH BASINS WHEN THE BOTTOM HALF BECOMES FILLED WITH SILT.
18. ANY CATCH BASIN COLLECTING WATER FROM THE SITE, WHETHER THEY ARE ON OR OFF OF THE SITE, SHALL HAVE THEIR GRATES COVERED WITH FILTER FABRIC DURING CONSTRUCTION.
19. IF ANY PORTION OF THE EROSION/SEDIMENTATION CONTROL ELEMENTS ARE DAMAGED OR NOT FUNCTIONING, OR IF THE CLEARING LIMIT BOUNDARY BECOMES NON-DEFINED, IT SHALL BE REPAIRED IMMEDIATELY.

EROSION AND SEDIMENTATION CONTROL NOTES 9

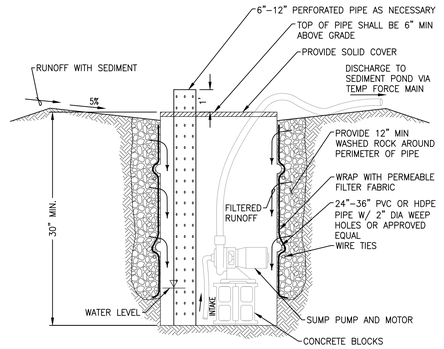
CITY OF MERCER ISLAND NOTES

1. ANY CHANGES TO THE APPROVED PLANS REQUIRES CITY APPROVAL THROUGH A REVISION.
2. APPLICANT IS RESPONSIBLE FOR ANY DAMAGES TO UNDERGROUND UTILITIES CAUSED FROM THIS CONSTRUCTION.
3. CATCH BASIN FILTERS SHOULD BE PROVIDED FOR ALL STORM DRAIN CATCH BASIN/INLETS DOWNSLOPE AND WITHIN 500 FEET OF THE CONSTRUCTION AREA. CATCH BASIN FILTERS SHOULD BE DESIGNED BY THE MANUFACTURER FOR USE AT CONSTRUCTION SITES AND APPROVED BY THE CITY INSPECTOR. CATCH BASIN FILTERS SHOULD BE INSPECTED FREQUENTLY, ESPECIALLY AFTER STORM EVENTS. IF THE FILTER BECOMES CLOGGED, IT SHOULD BE CLEANED OR REPLACED.
4. CONTRACTORS SHALL VERIFY LOCATIONS AND DEPTHS OF UTILITIES.
5. AT LEAST 48 HOURS PRIOR TO CONSTRUCTION, CALL "ONE CALL" AT 1.800.425.5555.
6. DO NOT BACKFILL WITH NATIVE MATERIAL ON PUBLIC RIGHT-OF-WAY. ALL MATERIAL MUST BE IMPORTED.
7. EROSION CONTROL: ALL "LAND DISTURBING ACTIVITY" IS SUBJECT TO PROVISIONS OF MERCER ISLAND ORDINANCE 95C-118 "STORM WATER MANAGEMENT." SPECIFIC ITEMS TO BE FOLLOWED AT YOUR SITE.
8. PROTECT ADJACENT PROPERTIES FROM ANY INCREASED RUNOFF OR SEDIMENTATION DUE TO THE CONSTRUCTION PROJECT THROUGH THE USE OF APPROPRIATE "BEST MANAGEMENT PRACTICES" (BMP) EXAMPLES INCLUDE, BUT ARE NOT LIMITED TO, SEDIMENT TRAPS, SEDIMENT PONDS, FILTER FABRIC FENCES, VEGETATIVE BUFFER STRIPS OR BIOENGINEERED SWALES.
9. CONSTRUCTION ACCESS TO SITE SHOULD BE LIMITED TO ONE ROUTE. STABILIZE ENTRANCE WITH QUARRY SPALLS TO PREVENT SEDIMENT FROM LEAVING THE SITE OR ENTERING THE STORM DRAINS.
10. PREVENT SEDIMENT, CONSTRUCTION DEBRIS, PAINTS, SOLVENTS, ETC., OR OTHER TYPES OF POLLUTION FROM ENTERING PUBLIC STORM DRAINS. KEEP ALL POLLUTION ON YOUR SITE.
11. ALL EXPOSED SOILS SHALL REMAIN DENUDED FOR NO LONGER THAN SEVEN (7) DAYS AND SHALL BE BE STABILIZED WITH MULCH, HAY, OR THE APPROPRIATE GROUND COVER. ALL EXPOSED SOILS SHALL BE COVERED IMMEDIATELY DURING ANY RAIN EVENT.
12. INSTALLATION OF CONCRETE DRIVEWAYS, TREES, SHRUBS, IRRIGATION, BOULDERS, BERMS, WALLS, GATES, AND OTHER IMPROVEMENTS ARE NOT ALLOWED IN THE PUBLIC RIGHT-OF-WAY WITHOUT PRIOR APPROVAL, AND AN ENCROACHMENT AGREEMENT AND RIGHT OF WAY PERMIT FROM THE SENIOR DEVELOPMENT ENGINEER.
13. OWNER SHALL CONTROL DISCHARGE OF SURFACE DRAINAGE RUNOFF FROM EXISTING AND NEW IMPERVIOUS AREAS IN A RESPONSIBLE MANNER. CONSTRUCTION OF NEW GUTTERS AND DOWNSPOUTS, DRY WELLS, LEVEL SPREADERS OR DOWNSTREAM CONVEYANCE PIPE MAY BE NECESSARY TO MINIMIZE DRAINAGE IMPACT TO YOUR NEIGHBORS. CONSTRUCTION OF MINIMUM DRAINAGE IMPROVEMENTS SHOWN OR CALLED OUT ON THIS PLAN DOES NOT IMPLY RELIEF FROM CIVIL LIABILITY FOR YOUR DOWNSTREAM DRAINAGE.
14. POT HOLING THE PUBLIC UTILITIES IS REQUIRED PRIOR TO ANY GRADING ACTIVITIES LESS THAN 6" OVER THE PUBLIC MAINS (WATER, SEWER AND STORM SYSTEMS). IF THERE IS A CONFLICT, THE APPLICANT IS REQUIRED TO SUBMIT A REVISION FOR APPROVAL PRIOR TO ANY GRADING ACTIVITIES OVER THE PUBLIC MAINS.
15. REMEMBER: EROSION CONTROL IS YOUR FIRST INSPECTION.
16. ROOF DRAINS MUST BE CONNECTED TO THE STORM DRAIN SYSTEM AND INSPECTED BY THE PUBLIC WORKS DEPARTMENT PRIOR TO ANY BACKFILLING OF PIPE.
17. SILT FENCE: CLEAN AND PROVIDE REGULAR MAINTENANCE OF THE SILT FENCE. THE FENCE IS TO REMAIN VERTICAL AND IS TO FUNCTION PROPERLY THROUGHOUT THE TERM OF THE PROJECT.
18. WORK IN PUBLIC RIGHT OF WAY REQUIRES A RIGHT-OF-WAY USE PERMIT.
19. REFER TO WATER SERVICE PERMIT FOR ACTUAL LOCATION OF NEW WATER METER AND SERVICE LINE DETERMINED BY MERCER ISLAND WATER DEPARTMENT.
20. THE TV INSPECTION OF THE EXISTING SIDE SEWER TO THE CITY SEWER MAIN IS REQUIRED. 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. ALTERNATELY, A PRESSURE TEST OF THE SIDE SEWER, FROM SEWER MAIN TO POINT OF CONNECTION, MAY BE SUBSTITUTED FOR THE VIDEO INSPECTION.
21. NEWLY INSTALLED SIDE SEWER REQUIRES A 4 P.S.I. AIR TEST OR PROVIDE 10' OF HYDROSTATIC HEAD TEST.
22. THE LIMITS AND EXTENTS OF THE PAVEMENT IN THE PUBLIC RIGHT OF WAY SHALL BE DETERMINED BY THE CITY ENGINEER PRIOR TO FINALIZING THE PROJECT.
23. TREE PROTECTION INSPECTION REQUIRED BEFORE ANY WORK BEGINS, CALL 206-275-7713.

NTS CITY OF MERCER ISLAND NOTES 10



NTS STABILIZED CONSTRUCTION ENTRANCE 7



NTS SUMP AND PUMP 8

NTS NOT USED 11

NTS NOT USED 12

NTS NOT USED 13

NTS NOT USED 14

NTS NOT USED 15

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Seattle, WA 98101
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ARCHITECTURE + DESIGN
2300 W COMMODORE WAY
SEATTLE, WA 98199

BUILDING PERMIT SUBMITTAL

LAKE HOUSE
3310 97TH AVE. SE
MERCER ISLAND, WA 98040

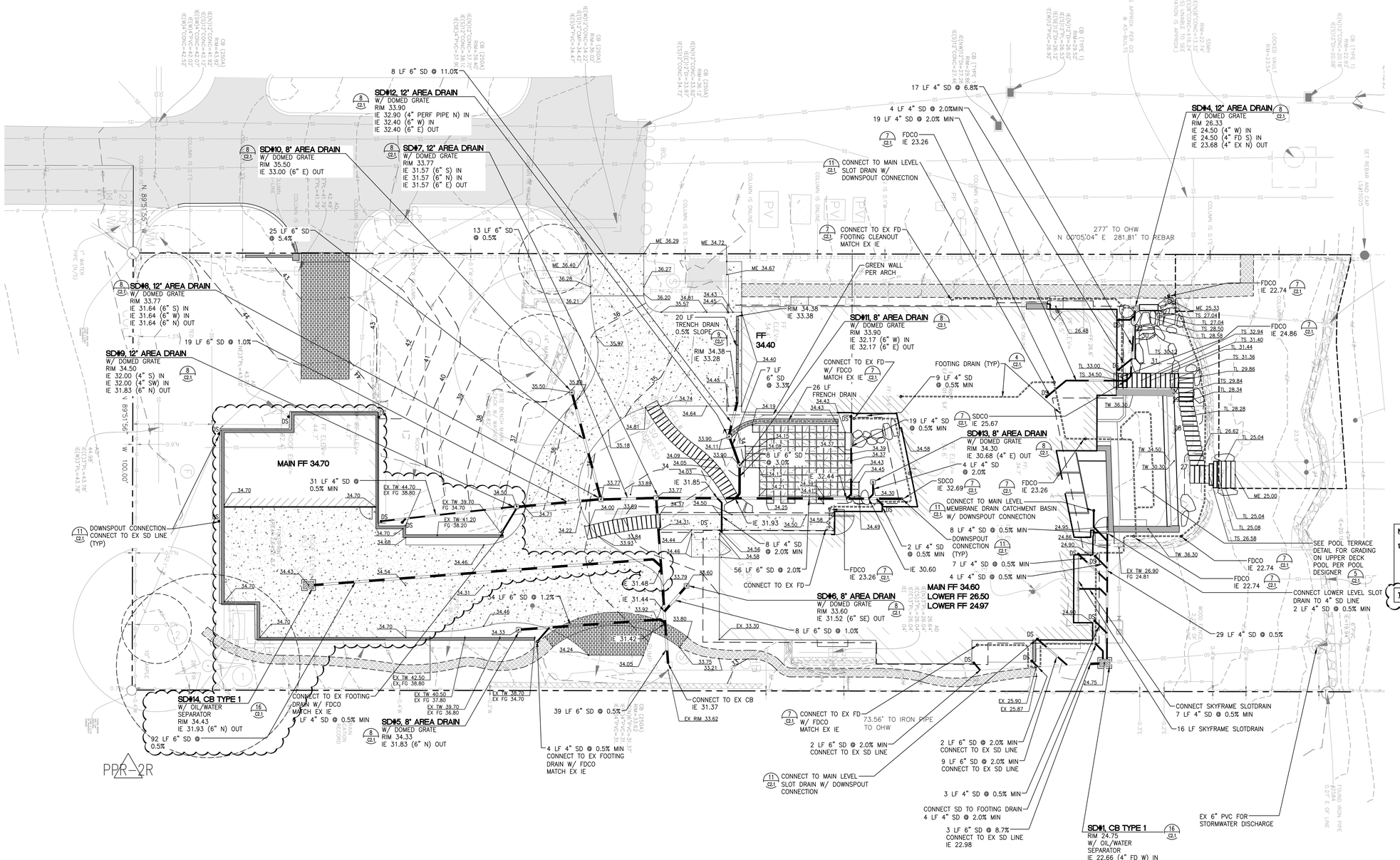
PROJECT NO.: 1811
DRAWN:

ISSUE	DATE
	12-18-2020

REVISIONS	DATE
1 PERMIT REVISION 06/09/21	
2 POST-PERMIT REVISION 1	12/07/21
3 POST-PERMIT REVISION 2	12/17/21
4 POST-PERMIT REVISION 1 RESUBMITTAL	1/24/22
5 POST-PERMIT REVISION 2 RESUBMITTAL	2/11/22

TESC AND DEMOLITION DETAILS

C1.1



10 0 5 10 20

Scale 1"=10'

LEGEND

- PROPERTY LINE
- EX CONTOUR (INDEX)
- EX CONTOUR
- PROPOSED CONTOUR (INDEX)
- PROPOSED CONTOUR
- RIDGE LINE
- SPOT ELEVATION
- FF 78.0 FINISHED FLOOR ELEVATION
- EX BUILDING
- PROPOSED BUILDING
- CONCRETE PAVEMENT
- DRIVEWAY PAVERS
- STONE TERRACE PER ARCH
- MULCH
- SITE WALL
- AREA/YARD DRAIN
- TRENCH/CHANNEL DRAIN
- CATCH BASIN TYPE 1
- STORM DRAINAGE PIPE
- FOOTING/SUBSURFACE DRAIN
- SDCO STORM DRAIN CLEANOUT
- FDCO FOOTING DRAIN CLEANOUT
- DS DOWNSPOUTS
- SEWER BACKWATER VALVE
- SS SIDE SEWER PIPE

NOTES

1. CONTRACTOR TO VIDEO INVESTIGATE EX SD DRAIN SYSTEM TO VERIFY LOCATION AND INVERT ELEVATION AT EX STRUCTURES AND PROPOSED CONNECTIONS. CONTRACTOR TO PROVIDE VIDEO TO ENGINEER FOR REVIEW OF EXISTING CONDITION PRIOR TO CONSTRUCTION.

TOTAL POLLUTION-GENERATING IMPERVIOUS SURFACE = 3,970 SF

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BUILDING PERMIT SUBMITTAL

LAURIE J. PEARL — STATE OF WASHINGTON — 21684 — REGISTERED LANDSCAPE ARCHITECT — 12-18-2020

LAKE HOUSE
3310 97TH AVE. SE
MERCER ISLAND, WA 98040

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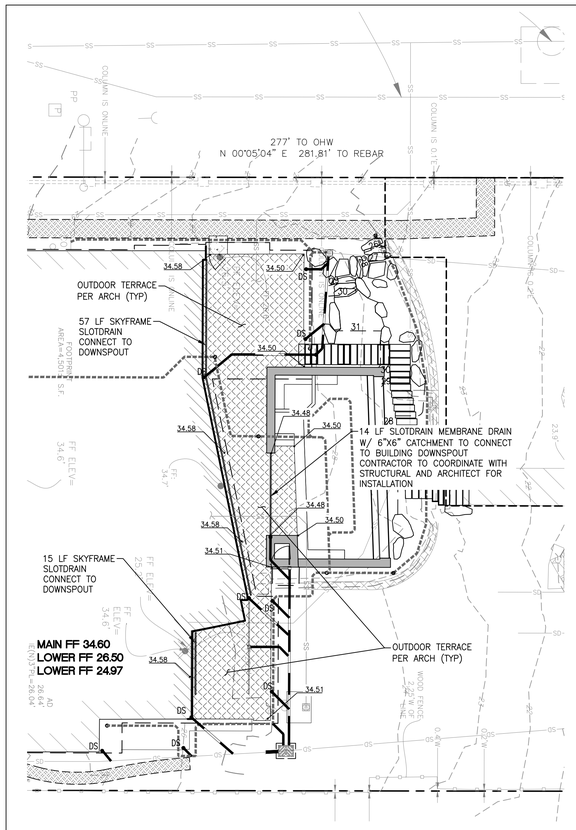
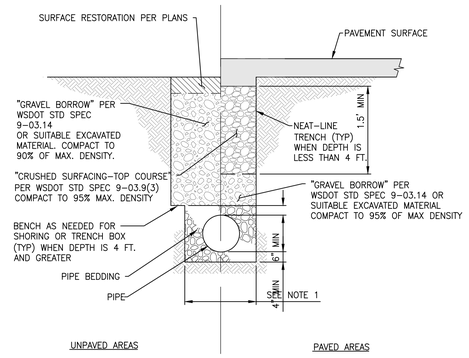
5 POST-PERMIT REVISION 2 RESUBMITTAL	2/11/22

GRADING AND DRAINAGE PLAN

C2.0

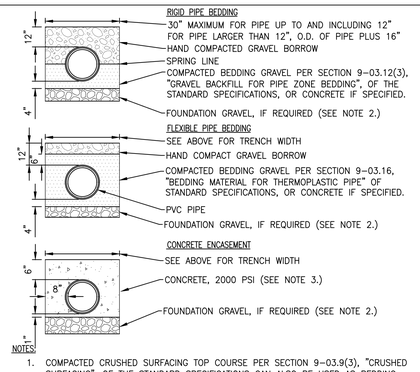


NTS
POOL TERRACE 5



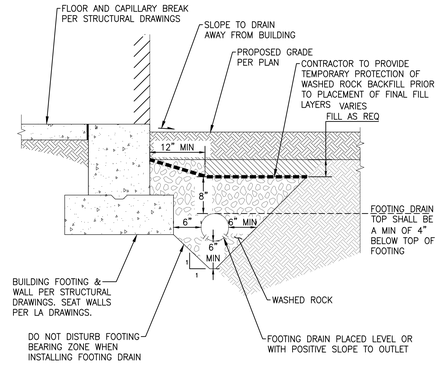
NOTE:
1. MAXIMUM WIDTH OF TRENCH AT TOP OF PIPE
   * 30" FOR PIPE UP TO AND INCLUDING 12" NOMINAL DIAMETER.

NTS
PIPE BEDDING 2

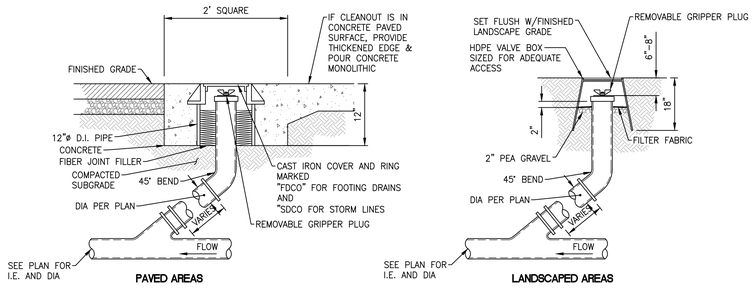


NOTES:
1. COMPACTED CRUSHED SURFACING TOP COURSE PER SECTION 9-03.9(3), "CRUSHED SURFACING", OF THE STANDARD SPECIFICATIONS CAN ALSO BE USED AS BEDDING GRAVEL.
2. EXCAVATE UNSTABLE MATERIAL DOWN TO FIRM SOIL AND REPLACE WITH FOUNDATION GRAVEL PER SECTION 9-03.9(1), "BALLAST", OF THE STANDARD SPECIFICATIONS
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANCHORING PIPE TO PREVENT FLOTATION DURING CONCRETE PLACEMENT.

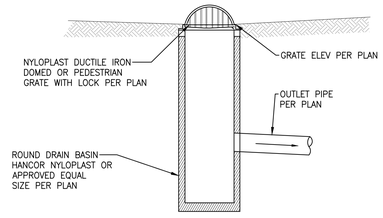
NTS
PIPE TRENCH 3



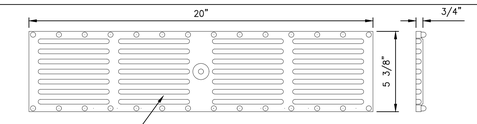
NTS
TYPICAL FOOTING DRAIN 4



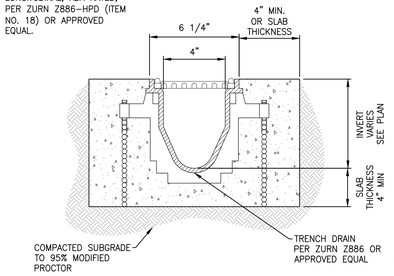
NTS
CLEANOUT 7



NTS
AREA DRAIN 8

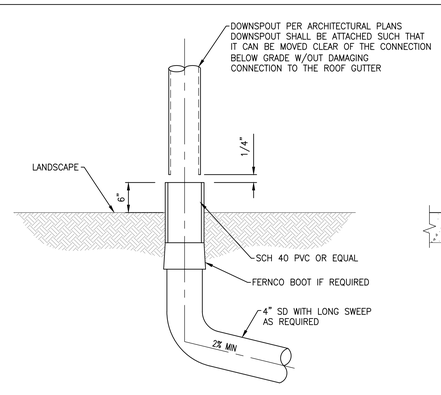


TRENCH DRAIN GRATE
NTS

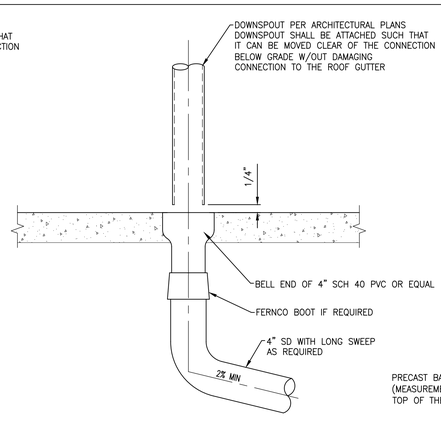


NTS
TRENCH DRAIN 9

NTS
NOT USED 13



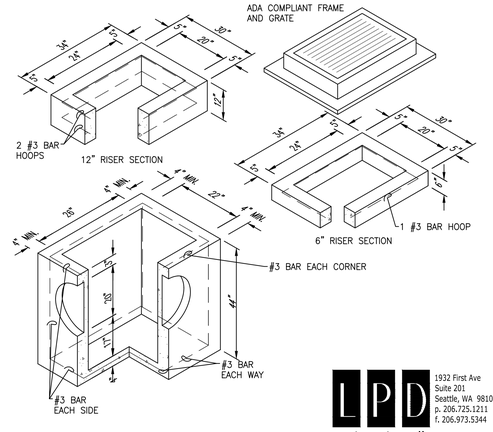
NTS
NOT USED 14



NTS
ROOF DOWNSPOUT CONNECTION 11

NTS
NOT USED 15

NOTES:
1. CATCH BASINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASTM C478 (AASHTO M 199) & C890 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE WSDOT/APWA STANDARD SPECIFICATIONS.
2. AS AN ACCEPTABLE ALTERNATIVE TO REBAR, WELDED WIRE FABRIC HAVING A MIN. AREA OF 0.12 SQUARE INCHES PER FOOT MAY BE USED. WELDED WIRE FABRIC SHALL COMPLY TO ASTM A497 (AASHTO M 221). WIRE FABRIC SHALL NOT BE PLACED IN KNOCKOUTS.
3. ALL REINFORCED CAST-IN-PLACE CONCRETE SHALL BE CLASS 4000.
4. PRECAST BASES SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MIN. ALL PIPE SHALL BE INSTALLED IN FACTORY PROVIDED KNOCKOUTS. UNUSED KNOCKOUTS NEED NOT BE GROUTED IF WALL IS LEFT INTACT.
5. KNOCKOUT OR CUTOUT HOLE SIZE IS EQUAL TO PIPE OUTER DIAM. PLUS CATCH BASIN WALL THICKNESS.
6. ROUND KNOCKOUTS MAY BE ON ALL 4 SIDES, WITH MAX. DIAM. OF 20". KNOCKOUTS MAY BE EITHER ROUND OR "D" SHAPE.
7. THE MAX. DEPTH FROM THE FINISHED GRADE TO THE PIPE INVERT IS 5'-0".
8. THE TAPER ON THE SIDES OF THE PRECAST BASE SECTION AND RISER SECTION SHALL NOT EXCEED 1/2"/FT.
9. CATCH BASIN FRAME AND GRATE SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATIONS AND MEET THE STRENGTH REQUIREMENTS OF FEDERAL SPECIFICATION RR-F-621D. MATING SURFACES SHALL BE FINISHED TO ASSURE NON-ROCKING FIT WITH ANY COVER POSITION.
10. FRAME AND GRATE MAY BE INSTALLED WITH FLANGE DOWN OR CAST INTO RISER.
11. FOR CATCH BASINS IN PARKING LOTS REFER TO WSDOT/APWA STANDARD DWG. B1-b.
12. EDGE OF RISER OR BRICK SHALL NOT BE MORE THAN 2" FROM VERTICAL EDGE OF CATCH BASIN WALL.



NTS
CATCH BASIN TYPE 1 16

LPD engineering pllc
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BUILDING PERMIT SUBMITTAL

LAURIE J. PEARE
STATE OF WASHINGTON
REGISTERED LANDSCAPE ARCHITECT
2-22

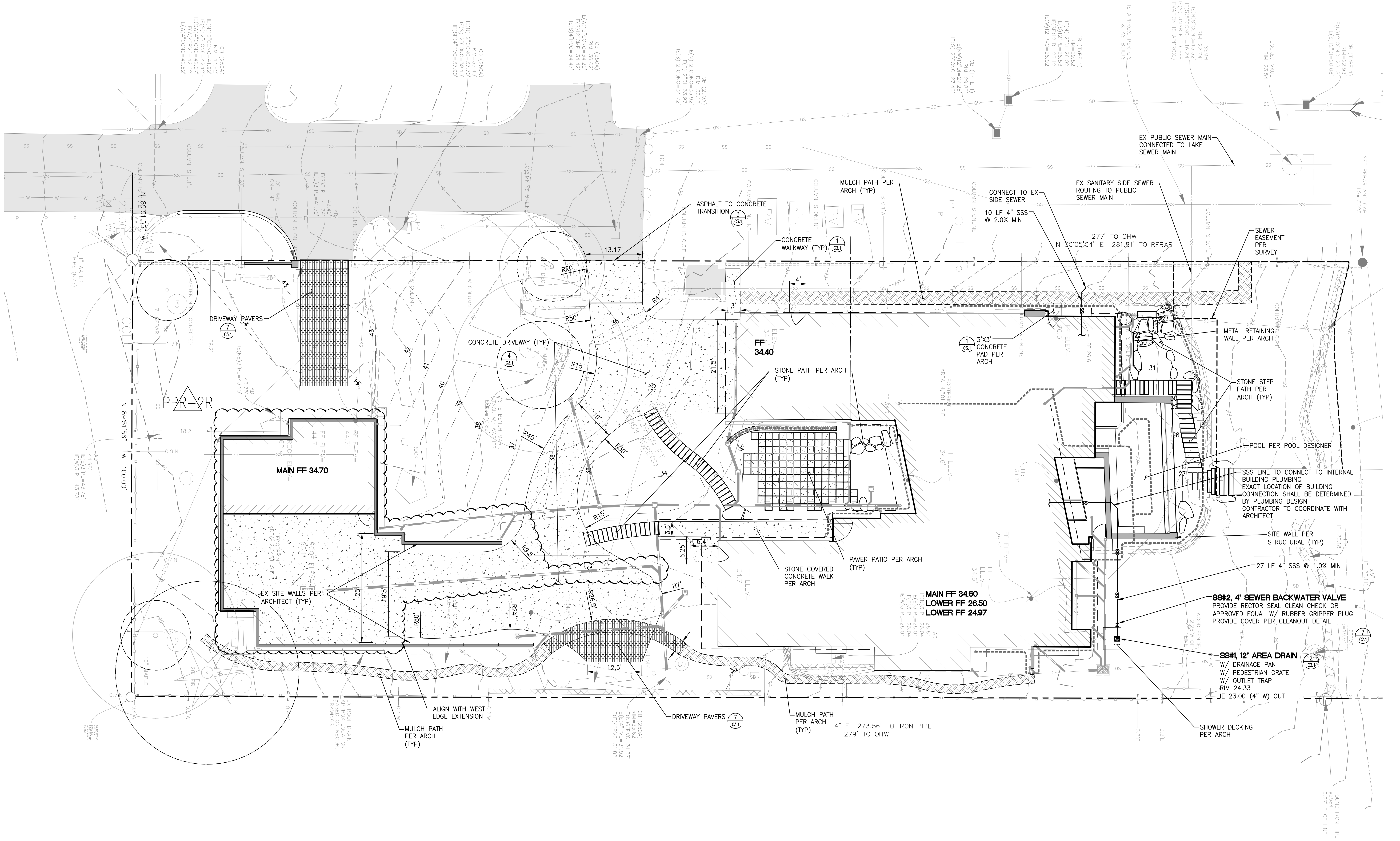
LAKE HOUSE
3310 97TH AVE. SE
MERCER ISLAND, WA 98040

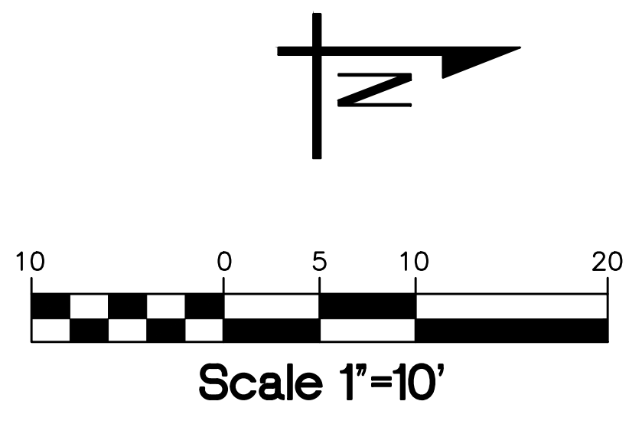
PROJECT NO.: 1811
DRAWN:

ISSUE	DATE
	12-18-2020

REVISIONS	DATE
1 PERMIT REVISION 06/09/21	
2 POST-PERMIT REVISION 1	12/07/21
3 POST-PERMIT REVISION 2	12/17/21
4 POST-PERMIT REVISION 1 RESUBMITTAL	1/24/22
5 POST-PERMIT REVISION 2 RESUBMITTAL	2/11/22

GRADING AND DRAINAGE DETAILS
C2.1





Scale 1"=10'

LEGEND

	PROPERTY LINE
230	EX CONTOUR (INDEX)
231	EX CONTOUR
230	PROPOSED CONTOUR (INDEX)
231	PROPOSED CONTOUR
RIDGE	RIDGE LINE
	SPOT ELEVATION
FF 78.0	FINISHED FLOOR ELEVATION
	EX BUILDING
	PROPOSED BUILDING
	CONCRETE PAVEMENT
	DRIVEWAY PAVERS
	STONE TERRACE PER ARCH
	MULCH
	SITE WALL
	AREA/YARD DRAIN
	TRENCH/CHANNEL DRAIN
	CATCH BASIN TYPE 1
	STORM DRAINAGE PIPE
	FOOTING/SUBSURFACE DRAIN
⊘	STORM DRAIN CLEANOUT
⊘	FOOTING DRAIN CLEANOUT
●	DOWNSPOUTS
⋈	SEWER BACKWATER VALVE
SS	SIDE SEWER PIPE

Know what's **below**.
Call before you dig.
Dial 811

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LAURIE J. FEAR
2-11-2022

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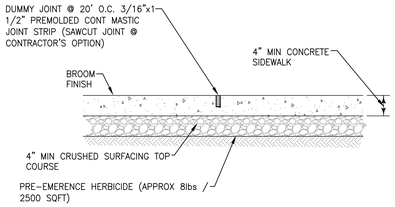
PPR-2	POST-PERMIT REVISION 2	12/17/21
PPR-1R	POST-PERMIT REVISION 1 RESUBMITTAL	1/24/22
PPR-2R	POST-PERMIT REVISION 2 RESUBMITTAL	2/11/22

PAVING AND UTILITIES PLAN

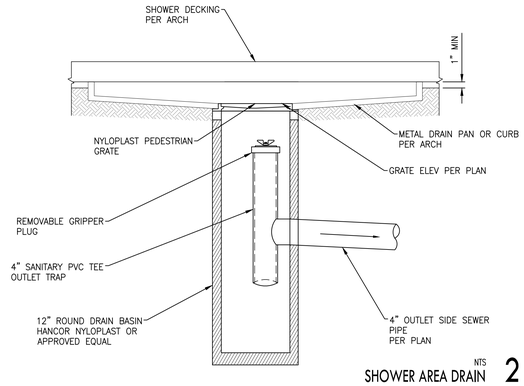
C3.0



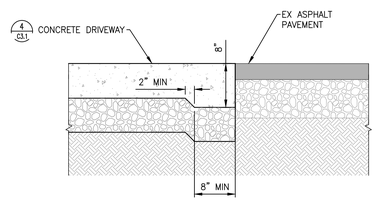
NOTE:

1. MINIMUM CONCRETE 3000 P.S.I (5 1/2 SACK).
2. PLACE TOOL JOINTS @ 5' O.C. TYPICAL UNLESS OTHERWISE NOTED ON ARCHITECTURAL DRAWINGS.
3. IF WALK IS OVER 7' WIDE, PLACE LONGITUDINAL SCORE JOINT. LOCATION OF LONGITUDINAL SHORELINE WILL BE PROVIDED TO OWNER'S REPRESENTATIVE IN SCORING AND JOINT LAYOUT PLAN PRIOR TO CONSTRUCTION.
4. WHERE REPLACING EXISTING WALK. START NEW WALK AT EXISTING JOINT. MATCH EXISTING SCORING PATTERN & CONCRETE FINISH.

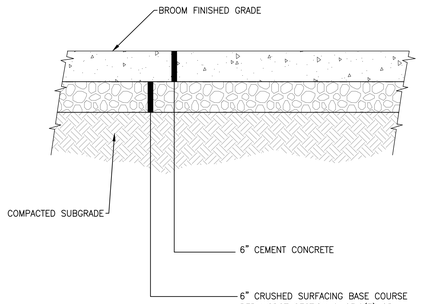
NTS 1
CONCRETE WALKWAY



NTS 2
SHOWER AREA DRAIN



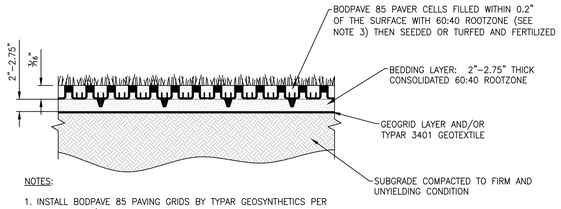
NTS 3
ASPHALT-CONCRETE TRANSITION



NTS 4
CONCRETE DRIVEWAY

NTS 5
NOT USED

NTS 6
NOT USED



NOTES:

1. INSTALL BODPAVE 85 PAVING GRIDS BY TYPAR GEOSYNTHETICS PER MANUFACTURE'S RECOMMENDATIONS.
2. DETERMINATION OF REQUIREMENT FOR PLACEMENT OF AN IMPORTED SUB-BASE FOR THE APPLICATION AND THE REQUIRED THICKNESS OF THAT SUB-BASE MATERIAL SHALL BE DETERMINED BY THE STRENGTH AND CONDITION OF THE EXISTING SOILS, THE EXTENT OF ALLOWABLE EXCAVATION AND IN CONSIDERATION OF THE PROPOSED TRAFFIC LOADINGS.
3. ROOTZONE BEDDING AND PAVER FILL MUST BE A FREE-DRAINING, STRUCTURALLY SOUND PROPRIETY BLEND OF SAND:SOIL OR SAND:COMPOST SUCH AS USED IN SPORTS/GOLF CONSTRUCTION & NORMALLY IDENTIFIED AS A 60:40 OR 70:30 RATIO BLEND. THE USE OF SITE-WON MATERIALS OR IN-SITU SELF-BLENDING IS NOT RECOMMENDED WITHOUT FURTHER ADVICE FROM POLYMER GROUP INC..
4. PROVIDE ANCHORING AS NECESSARY PER MANUFACTURES RECOMMENDATIONS. MAXIMUM ADVISED GRADIENT FOR TRAFFIC APPLICATIONS: 12%. BODPAVE 85 HAS SPECIFIC PEGGING POINTS IF REQUIRED FOR STEEP SLOPE APPLICATIONS. PEGGING IS NOT NECESSARY FOR STANDARD ACCESS ROUTE APPLICATIONS.

NTS 7
DRIVEWAY PAVERS

MERCER ISLAND UTILITY NOTES

1. ALL STAGING AND STORAGE SHALL OCCUR ON SITE.
2. A REDUCED PRESSURE BACKFLOW ASSEMBLY (RPBA) INSTALLATION SHALL BE REQUIRED AND INSTALLED 12 INCHES ABOVE GRADE BEHIND THE WATER MATER FOR ALL NEW AND DEMO REBUILD SINGLE FAMILY, LAKEFRONT PROJECTS. THE RPBA SHALL BE INSPECTED AT TIME OF INSTALLATION AND AT BUILDING FINAL. (A HOT BOX TO PROTECT THE RPBA ASSEMBLY IS OPTIONAL. A DOUBLE CHECK VALVE ASSEMBLY (DCVA) IS REQUIRED ON ALL FIRE SPRINKLER SYSTEMS.
3. POT HOLING THE PUBLIC UTILITIES IS REQUIRED PRIOR TO ANY GRADING ACTIVITIES LESS THAN 6'' OVER THE PUBLIC MAINS (WATER, SEWER AND STORM SYSTEMS), IF THERE IS A CONFLICT, THE APPLICANT IS REQUIRED TO SUBMIT A REVISION FOR APPROVAL PRIOR TO ANY GRADING ACTIVITIES OVER THE PUBLIC MAINS.
4. DO NOT BACKFILL WITH NATIVE MATERIAL ON PUBLIC RIGHT OF WAY. ALL MATERIAL MUST BE IMPORTED.
5. REFER TO WATER SERVICE PERMIT FOR ACTUAL LOCATION OF NEW WATER METER AND SERVICE LINE DETERMINED BY MERCER ISLAND WATER DEPARTMENT.
6. THE EXISTING WATER SERVICE MUST BE ABANDONED AT THE CITY WATER MAIN WHEN A NEW SERVICE IS INSTALLED. THE HOMEOWNER IS RESPONSIBLE FOR ALL COST ASSOCIATED WITH THE ABANDONMENT OF THE EXISTING WATER SERVICE.
7. NO ADS FLEXIBLE PIPE SHALL BE ALLOWED.
8. SAND COLLARS ARE REQUIRED FOR GROUTING PVC PIPE TO CONCRETE STRUCTURES. THIS ALSO APPLIES TO ADS N-12 PIPES AND HDPE PIPES.
9. OWNER SHALL CONTROL DISCHARGE OF SURFACE DRAINAGE RUNOFF FROM EXISTING AND NEW IMPERVIOUS AREAS IN A RESPONSIBLE MANNER. CONSTRUCTION OF NEW GUTTERS AND DOWNSPOUTS, DRY WELLS, LEVEL SPREADERS OR DOWNSTREAM CONVEYANCE PIPE MAY BE NECESSARY TO MINIMIZE DRAINAGE IMPACT TO YOUR NEIGHBORS. CONSTRUCTION OF MINIMUM DRAINAGE IMPROVEMENTS SHOWN OR CALLED OUT ON THE PLAN DOES NOT IMPLY RELIEF FROM CIVIL LIABILITY FOR YOUR DOWNSTREAM DRAINAGE.
10. THE CONTRACTOR MUST POT HOLE ALL UTILITIES PRIOR TO MAKING CONNECTIONS TO VERIFY MATERIAL, DIAMETER, ALIGNMENTS, ETC. PRIOR TO MAKING CONNECTIONS, CONTRACTOR SHALL HAVE ALL NECESSARY PARTS, MATERIALS AND EQUIPMENT ON SITE. CONTACT SITE & UTILITIES INSPECTOR TO VERIFY.
11. CATCH BASIN FILTERS SHOULD BE PROVIDED FOR ALL STORM DRAIN CATCH BASINS/INLETS DOWNSLOPE AND WITHIN 500 FEET OF THE CONSTRUCTION AREA. CATCH BASIN FILTERS SHOULD BE DESIGNED BY THE MANUFACTURER FOR USE AT CONSTRUCTION SITES AND APPROVED BY THE CITY INSPECTOR. CATCH BASIN FILTERS SHOULD BE INSPECTED FREQUENTLY, ESPECIALLY AFTER STORM EVENTS. IF THE FILTER BECOMES CLOGGED, IT SHOULD BE CLEANED OR REPLACED.
12. THE TV INSPECTION OF THE EXISTING SIDE SEWER TO THE CITY SEWER MAIN IS REQUIRED. IF THE RESULT OF THE TV INSPECTION IS NOT IN SATISFACTORY CONDITION BY THE CITY OF MERCER ISLAND INSPECTOR, THE REPLACEMENT OF THE EXISTING SIDE SEWER IS REQUIRED.
13. INFORM THE MERCER ISLAND CITY SITE/UTILITY INSPECTOR AT 206.275-7714 OF THE ANTICIPATED START DATE OF IN-WATER WORK PRIOR TO COMMENCEMENT OF CONSTRUCTION.
14. FIELD LOCATE THE SEWER MAIN (LAKELINE) UNDERLYING THE LAKEBED AND MARK CLEARLY PRIOR TO THE START OF CONSTRUCTION. CONTACT THE MERCER ISLAND SITE/UTILITY INSPECTOR AT 206.275-7714 FOR AVAILABLE INFORMATION ABOUT THE LAKELINE AND ASSISTANCE WHERE POSSIBLE WITH IDENTIFYING THE GENERAL LOCATION OF THE LAKELINE PRIOR TO CONSTRUCTION. GIS MAPPING MAY BE AVAILABLE BY CALLING 206.236-3471. THE APPLICANT SHALL BE RESPONSIBLE OF ANY DAMAGE TO SAID SEWER MAIN RESULTING FROM CONSTRUCTION.

NTS 12
UTILITY NOTES

NTS 9
NOT USED

NTS 10
NOT USED

NTS 11
NOT USED

NTS 13
NOT USED

NTS 14
NOT USED

NTS 15
NOT USED

NTS 16
NOT USED

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PAVING AND UTILITIES DETAILS

C3.1

LEGEND

- PROPERTY LINE
- SETBACK
- ORDINARY HIGH WATER MARK
- BUILDING EXTERIOR WALL OUTLINE
- EASEMENT
- 30 (E) CONTOUR LINES
- ROOF AREA
- SKYLIGHTS
- STONE PAVER
- WOOD DECK
- CONCRETE SURFACE
- ROCK RETAINING WALL

(E) TREE TO REMAIN

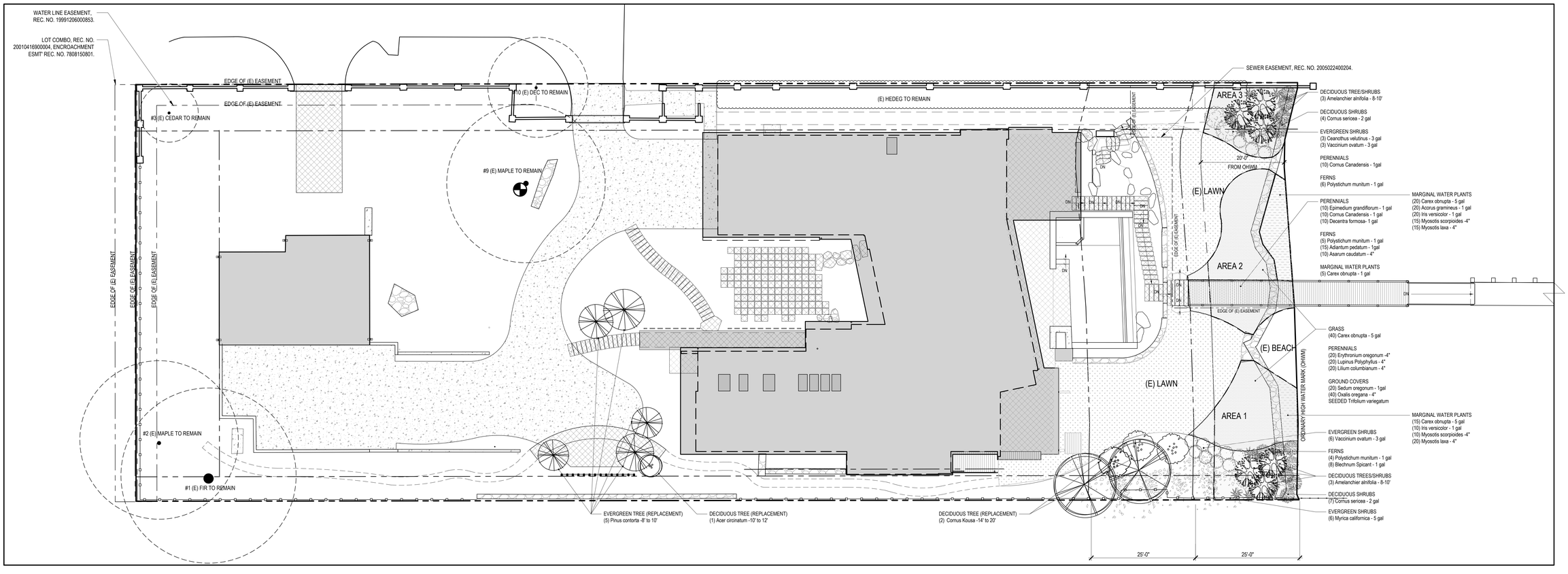
SHORELINE PLANT AND REPLACEMENT PLANT LIST:

Quantity	Group/ Abbreviation	Latin Name	Common Name	Size	REMARKS
	Deciduous Trees				
1	Ac	Acer circinatum	Vine Maple- multi-stem	10-12'	REPLACEMENT TREE
6	Aa	Amelanchier alnifolia	Service berry	8-10'	3 FOR REPLACEMENT
2	Ck	Cornus kousa	Kousa Dogwood	16'-20'	REPLACEMENT TREE
	Evergreen Trees				
2	Pc	Pinus contorta	Shore Pine	10-12'	REPLACEMENT TREES
	Shrubs				
3	Cv	Ceanothus velutinus	Snowbrush	3 gal	
11	Cs	Cornus sericea	Red-twig dogwood	2 gal.	
9	Vo	Vaccinium ovatum	Evergreen Huckleberry	5 gal.	
6	Mc	Myrica californica	Pacific wax myrtle	5 gal.	
	Perennials				
10	Eg	Epimedium grandiflorum	Bishop's hat	1 gal.	
10	Cc	Cornus canadensis	Bunchberry	1 gal.	
20	Eo	Erythronium oreganum	White Fawn Lily	1 gal.	
10	Df	Dicentra formosa	Pacific Bleeding Heart	1 gal.	
20	Lc	Lilium columbianum	Tiger Lily	4"	
20	Lp	Lupinus Polyphyllus	Large Leaved Lupine	4"	
	Grasses				
40	Co	Carex obnupta	Slough Sedge (3-4')	5 gal.	
	Fern				
15	Apm	Adiantum pedatum	Western Maidenhair Fern	1 gal.	
18	Aff	Athyrium filix-femina	Lady Ferns	1 gal.	
15	Pm	Polystichum munitum	Sword Fern	5 gal.	
	Marginal Water Plants				
20	Ags	Acorus gramineus	Green Acorus (1')	1 gal.	
40	Co	Carex obnupta	Slough Sedge (3-4')	5 gal.	
30	Iv	Iris versicolor	Versicolor Blue Iris (1-3')	1 gal.	
35	Mi	Myosotis laxa	Small Forget-me-not	4"	
25	Ms	Myosotis scorpioides	Common Forget-me-not	4"	
	Groundcovers				
10	Aca	Asarum caudatum	Wild Ginger	4"	
40	Oo	Oxalis oregana	Wood Sorrel	4"	
20	So	Sedum Oreganum	Oregon Stonecrop	1 gal.	
		Trifolium variegatum	White-tip cover		SEEDED

NATIVE VEGETATION COVERAGE IN 20' FROM OHWM:

AREA 1: 588 SF
AREA 2: 625 SF
AREA3 : 291 SF
TOTAL: 1,504 SF

AREA OF FIRST 20' FROM OHWM: 2,000 SF
NATIVE VEGETATION COVERAGE: 1,504/2,000 = 75.2%



1 SHORELING PLANTING AND TREE REPLACEMENT PLAN
1" = 10'-0"

TRUE NORTH

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SEATTLE, WA 98199

6241 REGISTERED ARCHITECT ROBERT EDSON SWAIN STATE OF WASHINGTON

BUILDING PERMIT SUBMITTAL

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1 BUILDING CORRECTIONS	07/08/21
1 BUILDING CORRECTIONS	07/26/21
1 POST-PERMIT REVISIONS	12/17/21

PLANTING PLAN

L1.01

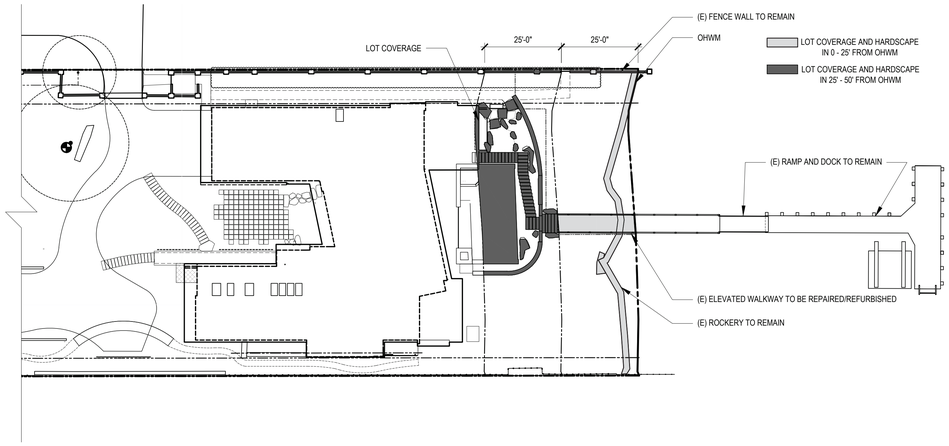
1

LEGEND

- PROPERTY LINE
- SETBACK
- ORDINARY HIGH WATER MARK
- BUILDING EXTERIOR WALL OUTLINE
- EASEMENT
- 30 (E) CONTOUR LINES
- ROOF AREA
- SKYLIGHTS
- STONE PAVER
- WOOD DECK
- CONCRETE SURFACE
- ROCK RETAINING WALL
- (E) TREE TO REMAIN

SITE PLAN NOTES

1. DO NOT SCALE THE DRAWING FOR DIMENSIONS.
   1.1 CONTRACTOR WILL CHECK ALL DIMENSIONS ON SITE
   1.2 ARCHITECT WILL BE INFORMED OF ALL DISCREPANCIES IN DIMENSION.
2. THE PROJECT IS EXEMPTED FROM SHORELINE PERMIT PER WAC 173-27-040 (2)(G) AND MICC 19.13.010 (B).
3. EXISTING FENCE AND DOCK TO REMAIN.
4. NO LARGE TREES (CALIPER DIA. OVER 10")AND EXCEPTIONAL TREES TO BE REMOVED
5. LOT AREA = ±27739 SF, SITE SLOPE = (46.8-18.6)/279 = 10.1% SEE SURVEY FOR DETAILED INFORMATION
6. SEE CIVIL DRAWINGS FOR PROPOSED GRADING, DRAINAGE AND SITE DEMOLITION INFORMATION.
7. SEE T2.02 FOR LOT COVERAGE AND HARDSCAPE CALCULATIONS AND DIAGRAMS
8. REFER TO SURVEY FOR PROPERTY LINE DIMENSIONS AND BEARINGS, AND ROADWAY WIDTH ETC.
9. BENCHMARK POINT TO BE UNDISTURBED DURING CONSTRUCTION
10. *RESERVED.*
11. TREE REMOVAL PER TREE PERMIT #2103-187



PROPOSED 25 - 50' FROM OHWM

TOTAL AREA	2500 SF
HARDSCAPE	725 SF
LOT COVERAGE	21 SF
TOTAL HARDSCAPE AND LOT COVERAGE AREA	747 SF < 750 SF
PERCENTAGE OF HARDSCAPE AND LOT COVERAGE AREA	747 / 2500 = 29.9% < 30%

PROPOSED 0 - 25' FROM OHWM (NO CHANGE COMPARING TO 2015 PLAN)

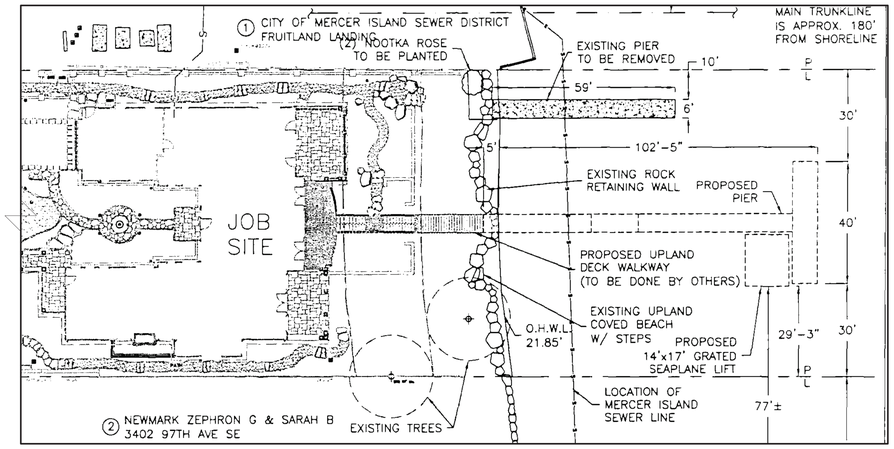
TOTAL AREA	2500 SF
HARDSCAPE	375 SF
LOT COVERAGE	0 SF
TOTAL HARDSCAPE AND LOT COVERAGE AREA	375SF > 250 SF
PERCENTAGE OF HARDSCAPE AND LOT COVERAGE AREA	375 / 2500 = 15% >10% (SEE REMARK #1)

REMARK:

1. THE 0-25' FROM OHWM IS LEGAL NONCONFORMING. THE AS-BUILT SITE PLAN IS THE SAME AS THE PERMITTED PLAN IN 2005. (SEE 2005 PERMITTED SITE PLAN @ #3 A1.0, SEE AS-BUILT DRAWING ON SURVEY).
   PER MICC 19.13.020 A, THE USES AND STURCUTURES 25 FEET LANDWARD FROM THE OHWM WILL BE MAINTAINED, REPLACED AND REPAIRED WITHIN THE EXISTING AREA (375 SF)

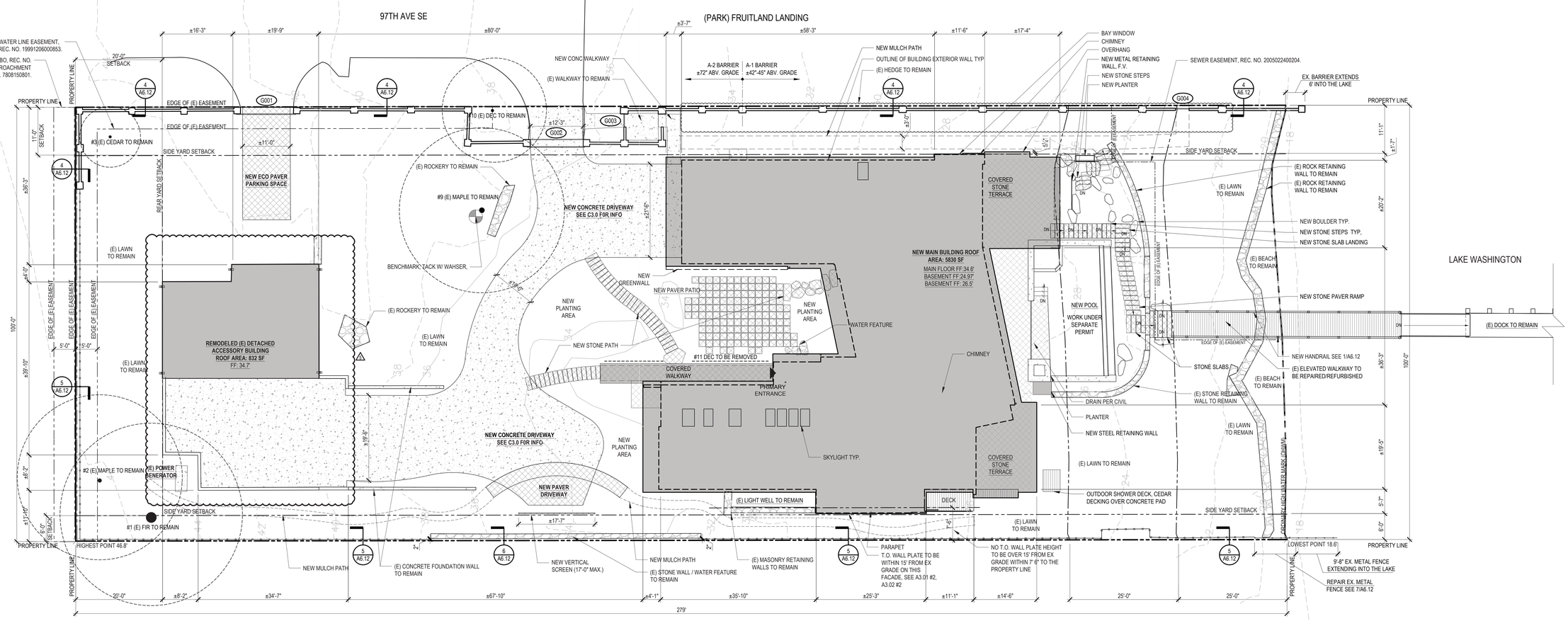
2 HARDSCAPE AND LOT COVERAGE CALCULATION IN SHORELINE SETBACKS

1" = 20'-0"



3 2005 PERMITTED SITE PLAN

1" =20'-0"



1 SITE PLAN

1" = 10'-0"

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SITE PLAN

A1.01

LEGEND

- NEW CONCRETE WALL
- NEW FOOTING
- NEW STONE VENEER
- NEW CMU WALL
- EXISTING CONCRETE WALL TO REMAIN
- EXISTING STONE VENEER
- NEW WOOD FRAMING WALL
- TO BE REMOVED
- CRAWLSPACE
- ###X — DOOR ID TAG
- # — WINDOW ID TAG
- # CFM — VENTILATION ID
- SD — SMOKE DETECTOR
- CM — CARBON MONOXIDE DETECTOR
- SC — SMOKE & CARBON MONOXIDE COMBINED DETECTOR
- X — GRIDLINE
- # / A3.# — EXTERIOR ELEVATION ID
- # / A4.# — SECTION ID

1 / A4.02 BUILDING SECTION

NOTES

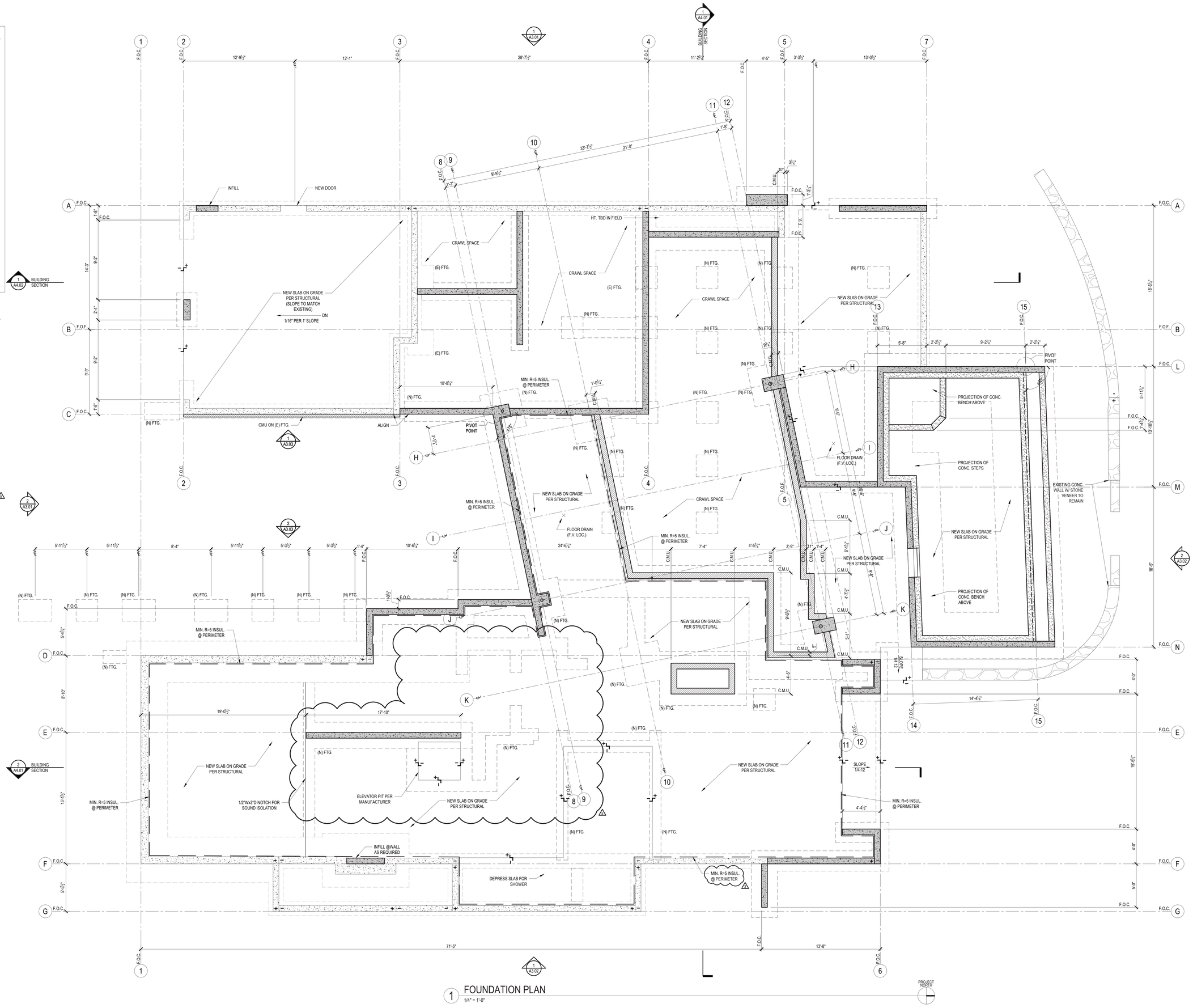
1. ALL DIMENSIONS TO FACE OF CONCRETE OR FRAMING U.N.O.
2. ALL EXTERIOR WALLS 2X6 U.N.O.
3. ALL INTERIOR WALLS 2X4 U.N.O.
4. CONTINUOUSLY OPERATED MECHANICAL EXHAUST VENTILATION IS PROVIDED AT A MIN. RATE EQUAL TO 1 CUBIC FOOT PER MINUTE (0.47 L/s) FOR EACH 50 SQUARE FEET (4.7M²) OF CRAWLSPACE FLOOR AREA. THE VENTILATION SHALL TERMINATE TO THE EXTERIOR.

   CRAWLSPACE AREA A: 1,430SF
   1,430/50 = 28.6
   28.6X0.47 = 13.45
   RATE = **13.45 L/s**

   CRAWLSPACE AREA B: 64.5SF
   64.5/50 = 1.29
   1.29X0.47 = 0.61
   RATE = **0.61 L/s**

5. WITH MECHANICAL VENTILATION IN THE CRAWL SPACE, PER 2015 IRC WASHINGTON AMENDMENTS APPX. F 103.5, PROJECT IS EXEMPT FOR PASSIVE SUBMEMBRANE DEPRESSURIZATION SYSTEM. 1
6. ELEVATOR CONTRACTOR TO GET ELEVATOR PERMIT AND INSPECTION THROUGH L&I

2 / A3.01



1 FOUNDATION PLAN
1/4" = 1'-0"

PROJECT NORTH

ROBERT EDSON SWAIN
ARCHITECTURE + DESIGN
2300 W COMMODORE WAY
SEATTLE, WA 98199
6241 REGISTERED ARCHITECT
ROBERT EDSON SWAIN
STATE OF WASHINGTON

BUILDING PERMIT SUBMITTAL

LAKE HOUSE
3310 97TH AVE. SE
MERCER ISLAND, WA 98040

PROJECT NO.: 1811
DRAWN:

ISSUE	DATE
	12-18-20

REVISIONS	DATE
1 BUILDING CORRECTIONS	06/07/21
1 LAND USE & CIVIL CORRECTIONS	06/11/21
1 BUILDING CORRECTIONS	07/08/21
1 BUILDING CORRECTIONS	07/26/21
1 POST-PERMIT REVISIONS	12/17/21

FOUNDATION PLAN

A2.01

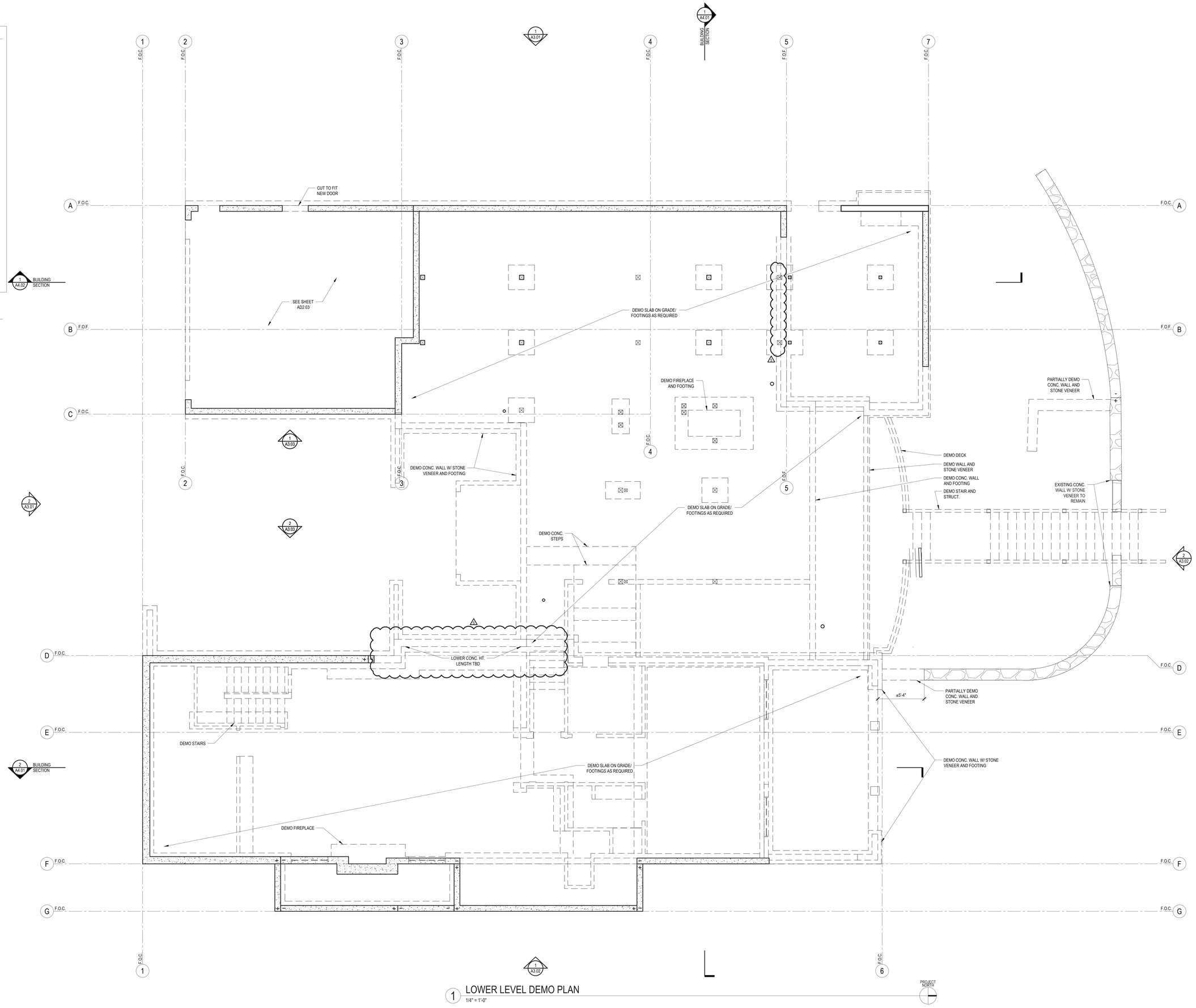
LEGEND

- NEW CONCRETE WALL
- NEW FOOTING
- NEW STONE VENEER
- NEW CMU WALL
- EXISTING CONCRETE WALL TO REMAIN
- EXISTING STONE VENEER
- NEW WOOD FRAMING WALL
- TO BE REMOVED
- CRAWLSPACE

- ###X — DOOR ID TAG
- # — WINDOW ID TAG
- # CFM — VENTILATION ID
- SD — SMOKE DETECTOR
- CM — CARBON MONOXIDE DETECTOR
- SC — SMOKE & CARBON MONOXIDE COMBINED DETECTOR
- X — GRIDLINE
- # / A3.# — EXTERIOR ELEVATION ID
- # / A4.# — SECTION ID
- 1 / A4.02 — BUILDING SECTION

NOTES

1. ALL DIMENSIONS TO FACE OF CONCRETE OR FRAMING U.N.O.
2. ALL EXTERIOR WALLS 2X6 U.N.O.
3. ALL INTERIOR WALLS 2X4 U.N.O.



1 LOWER LEVEL DEMO PLAN
1/4" = 1'-0"

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1 BUILDING CORRECTIONS	07/26/21
1 POST-PERMIT REVISIONS	12/17/21

LOWER LEVEL DEMO PLAN

AD2.02

LEGEND

- NEW CONCRETE WALL
- NEW FOOTING
- NEW STONE VENEER
- NEW CMU WALL
- EXISTING CONCRETE WALL TO REMAIN
- EXISTING STONE VENEER
- NEW WOOD FRAMING WALL
- TO BE REMOVED
- CRAWLSPACE

- ###X — DOOR ID TAG
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- # CFM — VENTILATION ID
- SD — SMOKE DETECTOR
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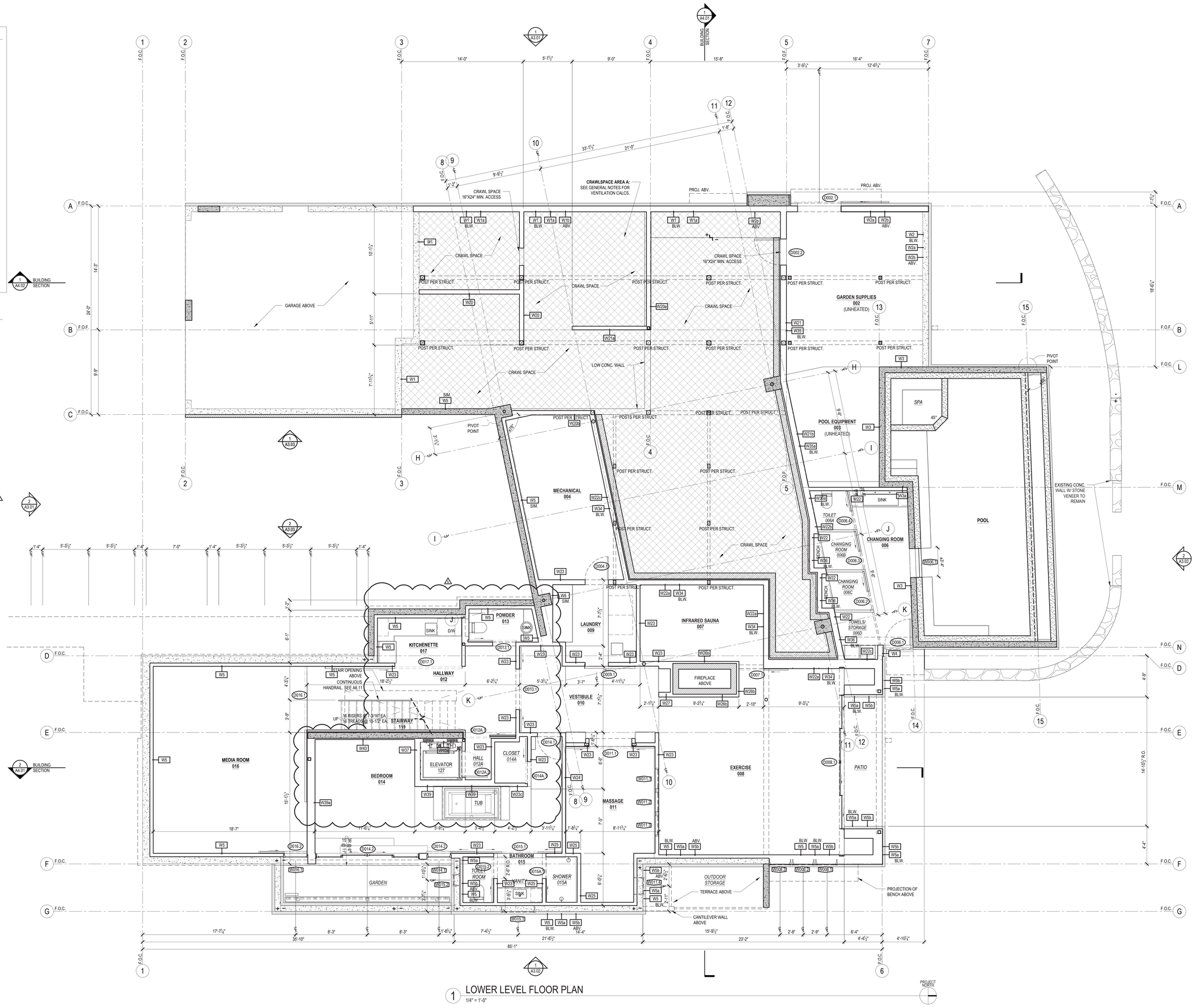
NOTES

1. ALL DIMENSIONS TO FACE OF CONCRETE OR FRAMING U.N.O.
2. ALL EXTERIOR WALLS 2X6 U.N.O.
3. ALL INTERIOR WALLS 2X4 U.N.O.
4. CONTINUOUSLY OPERATED MECHANICAL EXHAUST VENTILATION IS PROVIDED AT A MIN. RATE EQUAL TO 1 CUBIC FOOT PER MINUTE (0.47 L/s) FOR EACH 50 SQUARE FEET (4.7M²) OF CRAWLSPACE FLOOR AREA. THE VENTILATION SHALL TERMINATE TO THE EXTERIOR.

   CRAWLSPACE AREA A: 1,430SF
   1,430/50 = 28.6
   28.6X0.47 = 13.45
   RATE = **13.45 L/s**

   CRAWLSPACE AREA B: 64.5SF
   64.5/50 = 1.29
   1.29X0.47 = 0.61
   RATE = **0.61 L/s**

5. WITH MECHANICAL VENTILATION IN THE CRAWL SPACE, PER 2015 IRC WASHINGTON AMENDMENTS APPX. F 103.5, PROJECT IS EXEMPT FOR PASSIVE SUBMEMBRANE DEPRESSURIZATION SYSTEM. ⚠
6. ELEVATOR CONTRACTOR TO GET ELEVATOR PERMIT AND INSPECTION THROUGH L&I



1 LOWER LEVEL FLOOR PLAN
1/4" = 1'-0"

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BUILDING PERMIT SUBMITTAL

LAKE HOUSE
3310 97TH AVE. SE
MERCER ISLAND, WA 98040

PROJECT NO.: 1811
DRAWN:

ISSUE	DATE
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REVISIONS	DATE
⚠1 BUILDING CORRECTIONS	06/07/21
⚠1 LAND USE & CIVIL CORRECTIONS	06/11/21
⚠1 BUILDING CORRECTIONS	07/08/21
⚠1 BUILDING CORRECTIONS	07/26/21
⚠1 POST-PERMIT REVISIONS	12/17/21

LOWER LEVEL FLOOR PLAN

A2.02

LEGEND

- NEW CONCRETE WALL
- NEW FOOTING
- NEW STONE VENEER
- NEW CMU WALL
- EXISTING CONCRETE WALL TO REMAIN
- EXISTING STONE VENEER
- NEW WOOD FRAMING WALL
- TO BE REMOVED
- CRAWLSPACE
- ###X — DOOR ID TAG
- # — WINDOW ID TAG
- # CFM — VENTILATION ID
- SD — SMOKE DETECTOR
- CM — CARBON MONOXIDE DETECTOR
- SC — SMOKE & CARBON MONOXIDE COMBINED DETECTOR
- X — GRIDLINE
- # / A3.# — EXTERIOR ELEVATION ID
- # / A4.# — SECTION ID
- 1 / A4.02 — BUILDING SECTION

NOTES

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3. ALL INTERIOR WALLS 2X4 U.N.O.

1 MAIN LEVEL DEMO PLAN
1/4" = 1'-0"

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1 BUILDING CORRECTIONS	07/08/21
1 BUILDING CORRECTIONS	07/26/21

MAIN LEVEL DEMO PLAN

AD2.03

LEGEND

- NEW CONCRETE WALL
- NEW FOOTING
- NEW STONE VENEER
- NEW CMU WALL
- EXISTING CONCRETE WALL TO REMAIN
- EXISTING STONE VENEER
- NEW WOOD FRAMING WALL
- TO BE REMOVED
- CRAWLSPACE

- ###X — DOOR ID TAG
- # — WINDOW ID TAG
- # CFM — VENTILATION ID
- SD — SMOKE DETECTOR
- CM — CARBON MONOXIDE DETECTOR
- SC — SMOKE & CARBON MONOXIDE COMBINED DETECTOR
- X — GRIDLINE
- # A3.# — EXTERIOR ELEVATION ID
- # A4.# — SECTION ID

NOTES

1. ALL DIMENSIONS TO FACE OF CONCRETE OR FRAMING U.N.O.
2. ALL EXTERIOR WALLS 2X6 U.N.O.
3. ALL INTERIOR WALLS 2X4 U.N.O.
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   CRAWLSPACE AREA A: 1,430SF
   1,430/50 = 28.6
   28.6X0.47 = 13.45
   RATE = **13.45 L/s**

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   1.29X0.47 = 0.61
   RATE = **0.61 L/s**
5. WITH MECHANICAL VENTILATION IN THE CRAWL SPACE, PER 2015 IRC WASHINGTON AMENDMENTS APPX. F 103.5, PROJECT IS EXEMPT FOR PASSIVE SUBMEMBRANE DEPRESSURIZATION SYSTEM.
6. ELEVATOR CONTRACTOR TO GET ELEVATOR PERMIT AND INSPECTION THROUGH L&I

1 MAIN LEVEL FLOOR PLAN
1/4" = 1'-0"

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PROJECT NO.: 1811
DRAWN:

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	12-18-20

REVISIONS	DATE
1 BUILDING CORRECTIONS	06/07/21
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3 BUILDING CORRECTIONS	07/08/21
4 BUILDING CORRECTIONS	07/26/21
5 POST-PERMIT REVISIONS	12/17/21

MAIN LEVEL FLOOR PLAN

A2.03

LEGEND

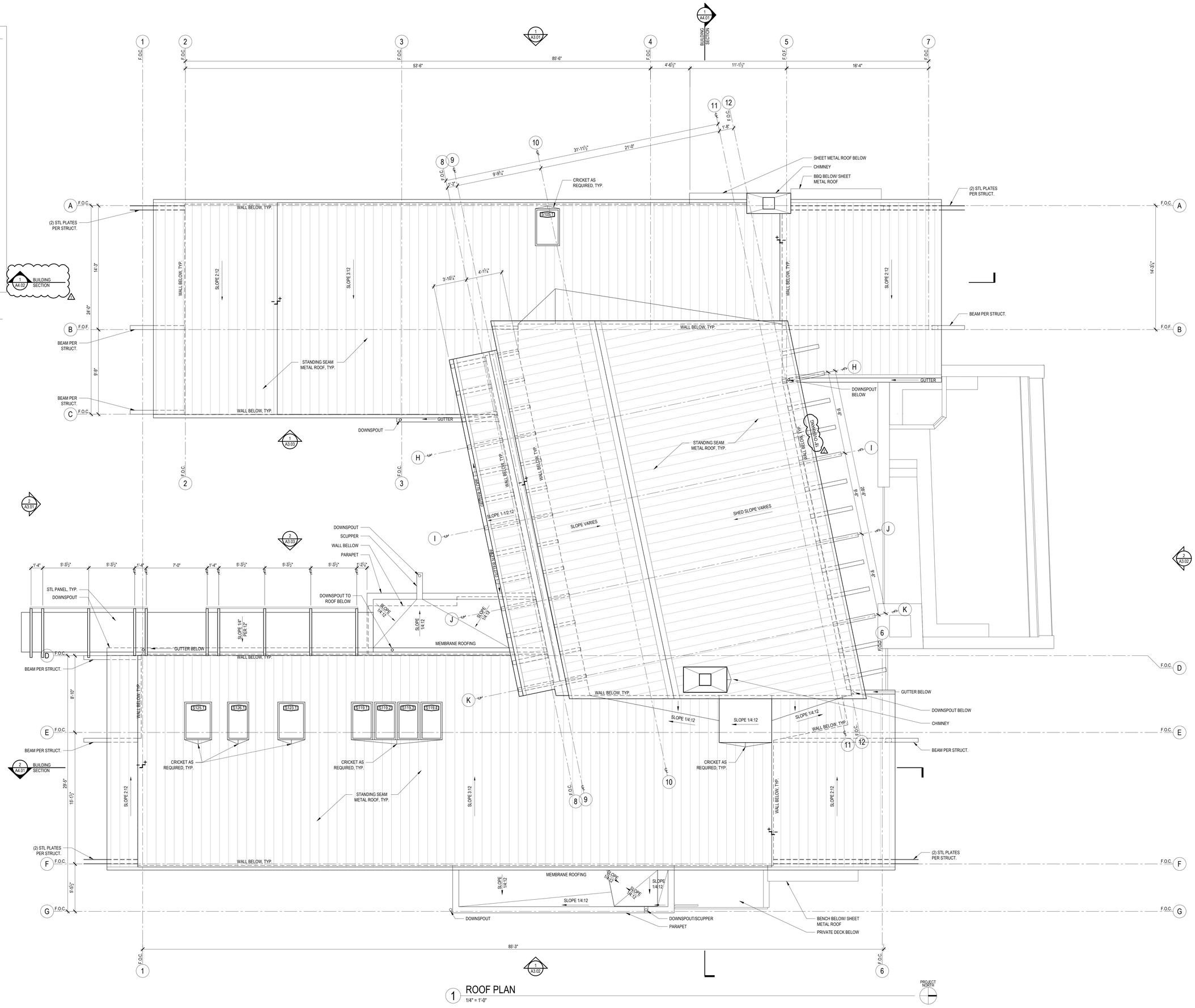
- NEW CONCRETE WALL
- NEW FOOTING
- NEW STONE VENEER
- NEW CMU WALL
- EXISTING CONCRETE WALL TO REMAIN
- EXISTING STONE VENEER
- NEW WOOD FRAMING WALL
- TO BE REMOVED
- CRAWLSPACE

- ###X — DOOR ID TAG
- # — WINDOW ID TAG
- # CFM — VENTILATION ID
- SD — SMOKE DETECTOR
- CM — CARBON MONOXIDE DETECTOR
- SC — SMOKE & CARBON MONOXIDE COMBINED DETECTOR
- X — GRIDLINE
- # / A3.# — EXTERIOR ELEVATION ID
- # / A4.# — SECTION ID

1 / A4.02 BUILDING SECTION

NOTES

1. ALL DIMENSIONS TO FACE OF CONCRETE OR FRAMING U.N.O.
2. ALL EXTERIOR WALLS 2X6 U.N.O.
3. ALL INTERIOR WALLS 2X4 U.N.O.



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

PROJECT NORTH

ROBERT EDSON SWAIN
ARCHITECTURE + DESIGN
2300 W COMMODORE WAY
SEATTLE, WA 98199

6241 REGISTERED ARCHITECT ROBERT EDSON SWAIN STATE OF WASHINGTON

BUILDING PERMIT SUBMITTAL

LAKE HOUSE
3310 97TH AVE. SE
MERCER ISLAND, WA 98040

PROJECT NO.:	1811
DRAWN:	

ISSUE	DATE
	12-18-20

REVISIONS	DATE
1 BUILDING CORRECTIONS	06/07/21
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1 BUILDING CORRECTIONS	07/08/21
1 BUILDING CORRECTIONS	07/26/21

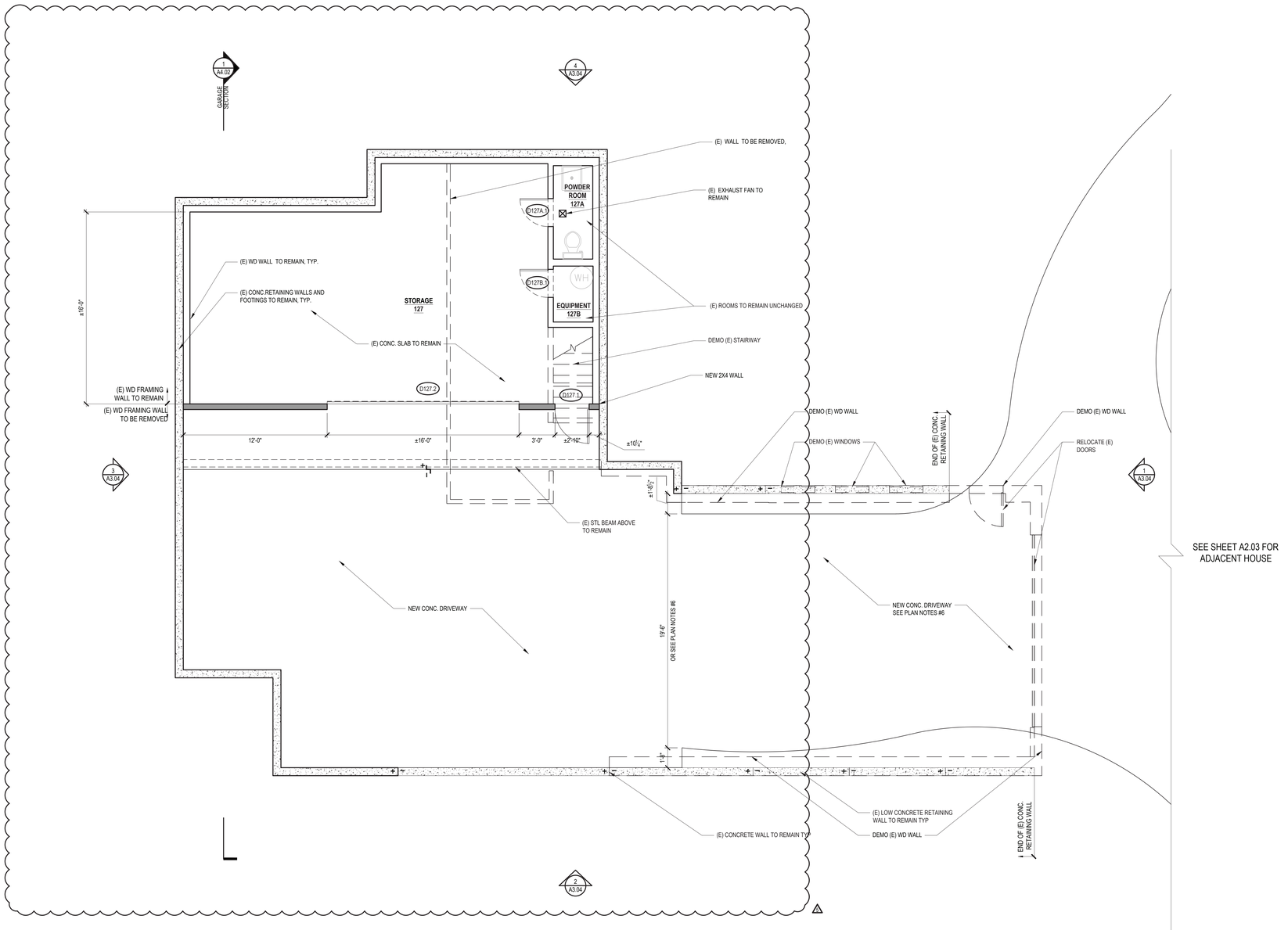
ROOF PLAN
A2.04

LEGEND

- NEW CONCRETE WALL
- NEW FOOTING
- NEW STONE VENEER
- NEW CMU WALL
- (E) CONC. WALL TO REMAIN
- (E) WALL TO REMAIN
- NEW WALL
- TO BE REMOVED
- ###X — DOOR ID TAG
- # — WINDOW ID TAG
- # CFM — VENTILATION ID
- SD — SMOKE DETECTOR
- CM — CARBON MONOXIDE DETECTOR
- SDC — SMOKE & CARBON MONOXIDE COMBINED DETECTOR
- X — GRIDLINE
- # / A3.# — EXTERIOR ELEVATION ID
- # / A#.# — SECTION ID

PLAN NOTES

1. ALL THE EXISTING CONCRETE STRUCTURE TO REMAIN U.N.O.
2. SEE CIVIL DRAWINGS FOR GRADING, DRAINAGE AND SITE DEMOLITION INFORMATION.
3. SEE STRUCTURAL DRAWINGS FOR STRUCTURAL CHANGES.
4. ALL DIMENSIONS TO BE FIELD VERIFIED BY CONTRACTORS
5. FIELD VERIFY DIMENSIONS OF EXISTING FOUNDATIONS. WHERE EXISTING CONCRETE WALLS ARE RETAINING 36" OR MORE OF SOIL, NEW DRIVEWAY SLAB SHALL EXTEND AT LEAST TO THE EDGE OF THE EXISTING FOUNDATION.



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

PROJECT NORTH

ROBERT EDSON SWAIN
ARCHITECTURE + DESIGN
2300 W COMMODORE WAY
SEATTLE, WA 98199

6241 REGISTERED ARCHITECT
ROBERT EDSON SWAIN
STATE OF WASHINGTON

BUILDING PERMIT SUBMITTAL

LAKE HOUSE
3310 97TH AVE. SE
MERCER ISLAND, WA 98040

PROJECT NO.: 1811
DRAWN: YS

ISSUE	DATE
	12-18-20

REVISIONS	DATE
1 BUILDING CORRECTIONS	06/07/21
2 LAND USE & CIVIL CORRECTIONS	06/11/21
3 BUILDING CORRECTIONS	07/08/21
4 BUILDING CORRECTIONS	07/26/21
5 POST-PERMIT REVISIONS	12/17/21

ACCESSORY BLDG FLOOR PLAN

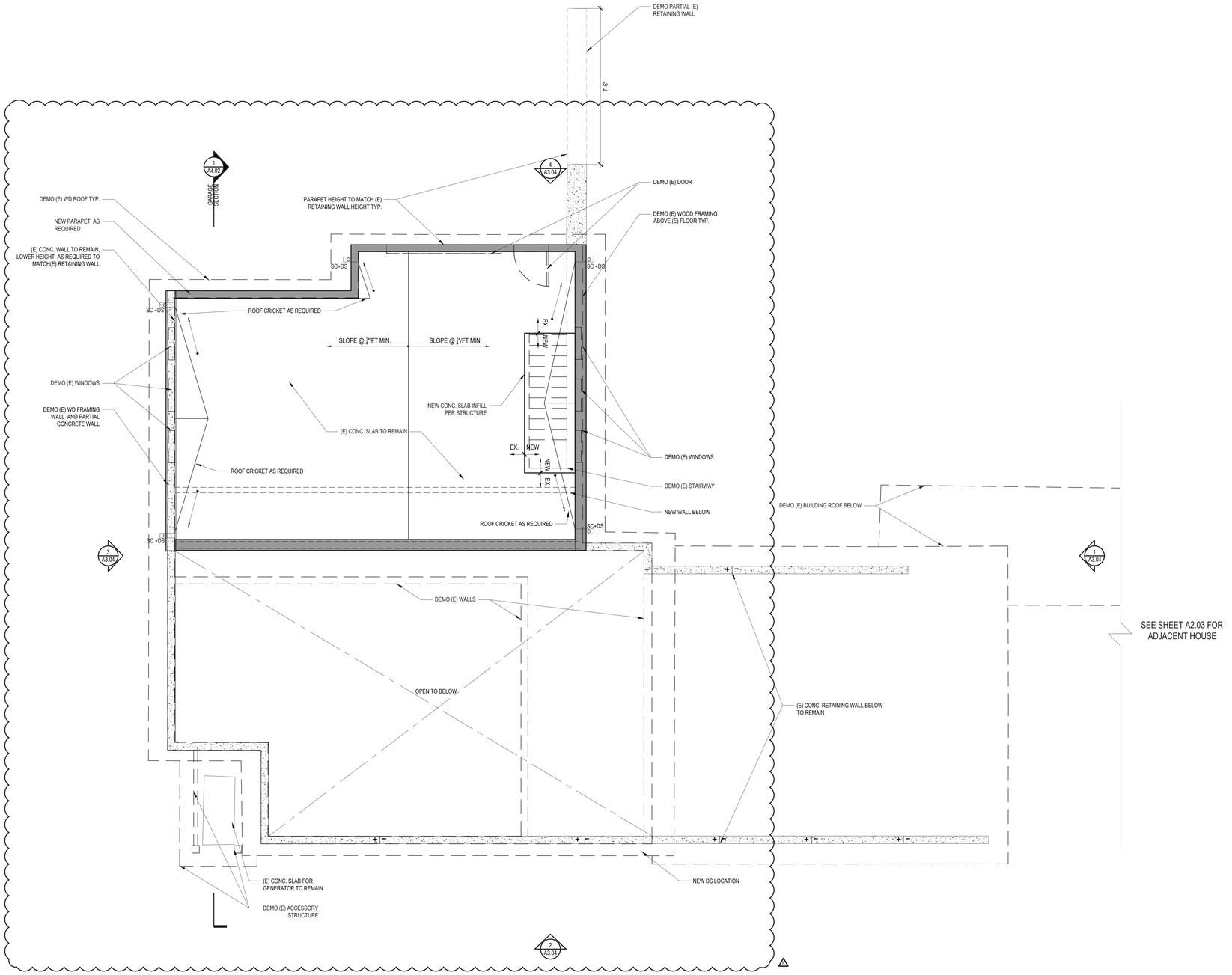
A2.05

LEGEND

- NEW CONCRETE WALL
- NEW FOOTING
- NEW STONE VENEER
- NEW CMU WALL
- (E) CONC. WALL TO REMAIN
- (E) WALL TO REMAIN
- NEW WALL
- TO BE REMOVED
- ###X — DOOR ID TAG
- # — WINDOW ID TAG
- # CFM — VENTILATION ID
- SD — SMOKE DETECTOR
- CM — CARBON MONOXIDE DETECTOR
- SC — SMOKE & CARBON MONOXIDE COMBINED DETECTOR
- X — GRIDLINE
- # / A5.# — EXTERIOR ELEVATION ID
- # / A4.# — SECTION ID

PLAN NOTES

1. ALL THE EXISTING CONCRETE STRUCTURE TO REMAIN U.N.O.
2. SEE CIVIL DRAWINGS FOR GRADING, DRAINAGE AND SITE DEMOLITION INFORMATION.
3. SEE STRUCTURAL DRAWINGS FOR STRUCTURAL CHANGES.
4. ALL DIMENSIONS TO BE FIELD VERIFIED BY CONTRACTORS
5. FIELD VERIFY DIMENSIONS OF EXISTING FOUNDATIONS. WHERE EXISTING CONCRETE WALLS ARE RETAINING 36" OR MORE OF SOIL, NEW DRIVEWAY SLAB SHALL EXTEND AT LEAST TO THE EDGE OF THE EXISTING FOUNDATION.



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

PROJECT NORTH

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4 BUILDING CORRECTIONS	07/26/21
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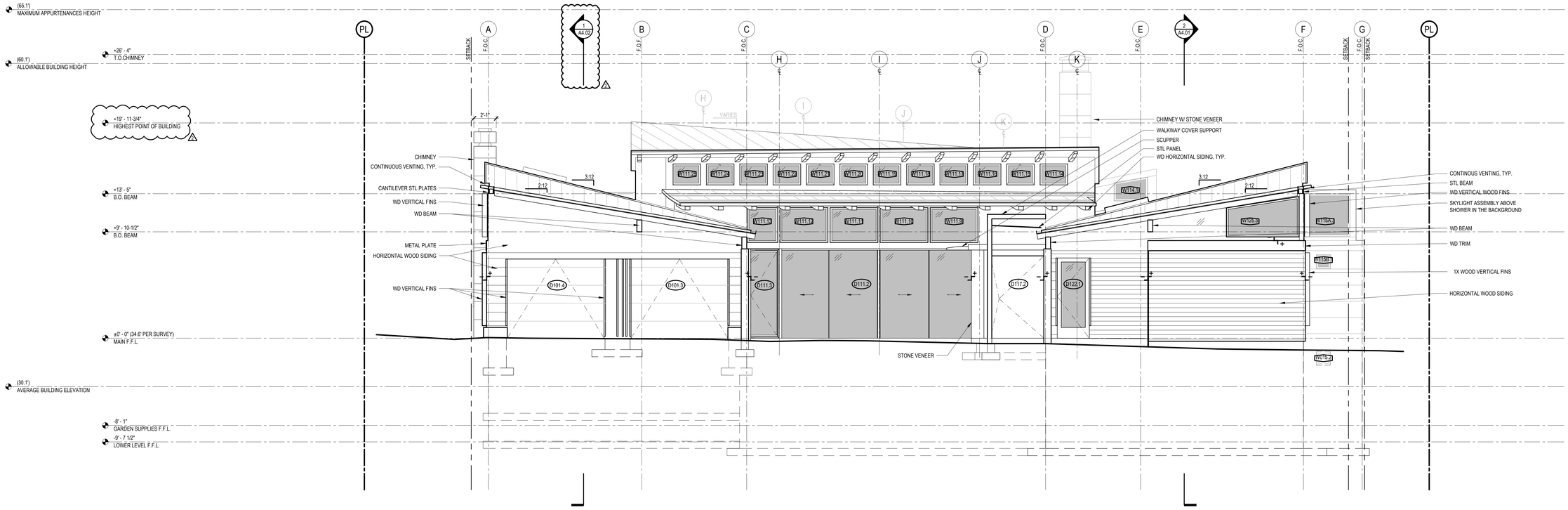
ACCESSORY BLDG ROOF PLAN

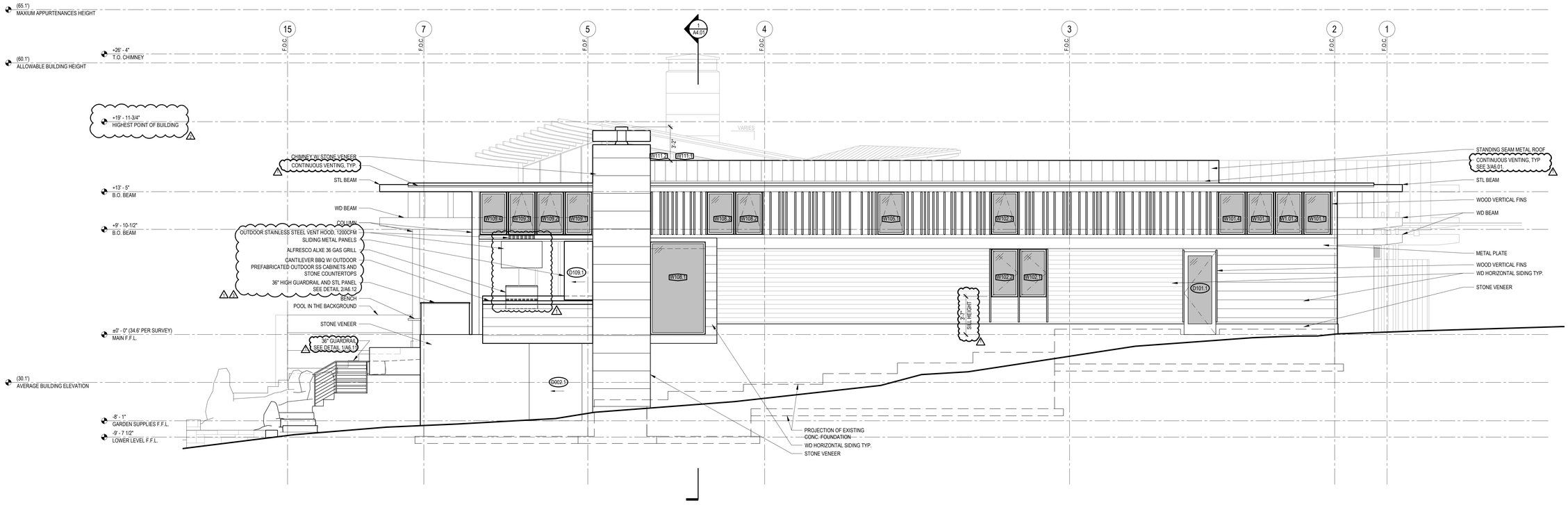
A2.06

NOTES

1. SEE AVERAGE BUILDING ELEVATION CALCULATION IN SHEET T2.01



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



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

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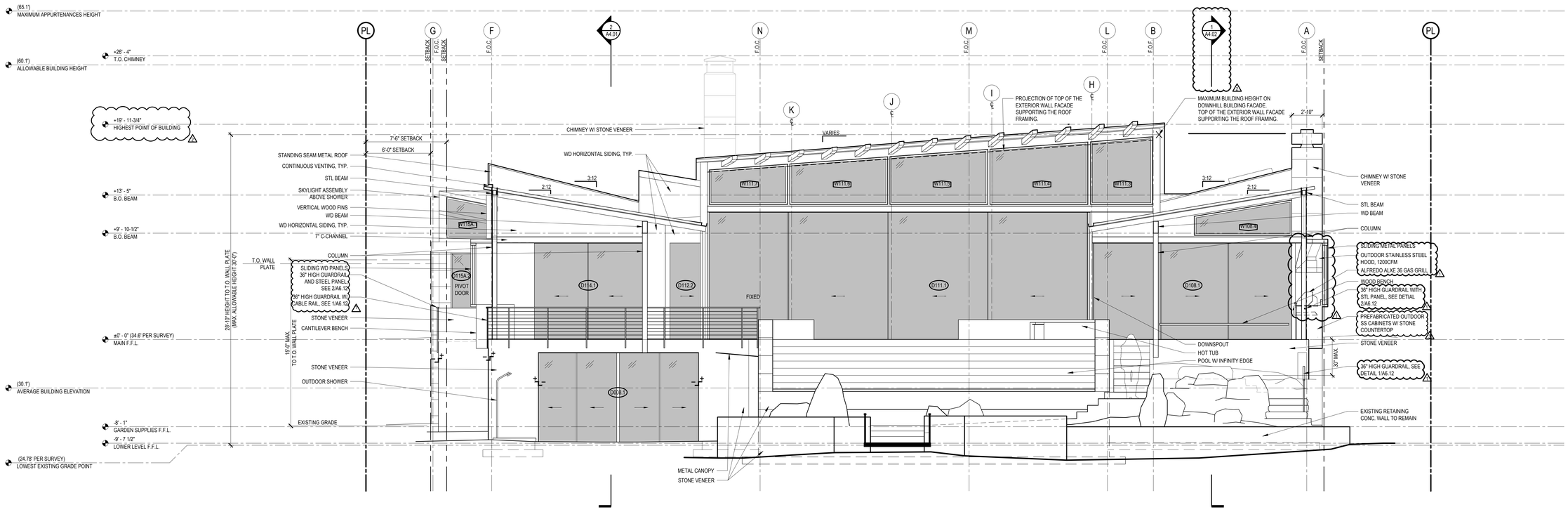
1 BUILDING CORRECTIONS	07/26/21

EXTERIOR ELEVATIONS

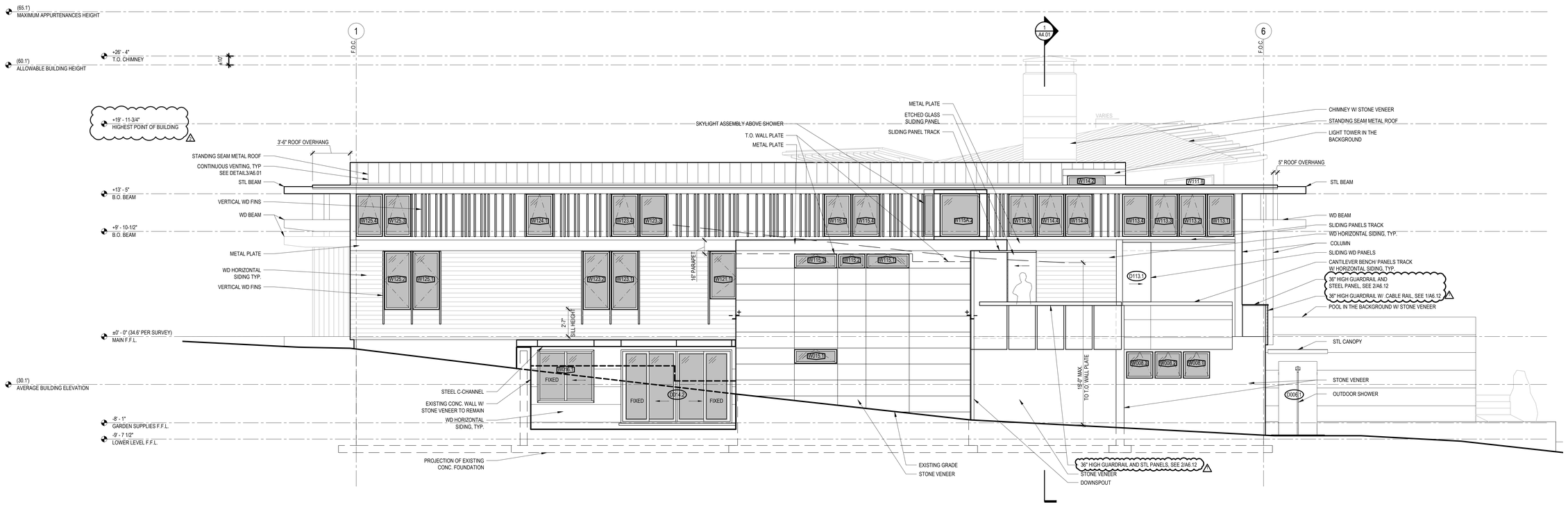
A3.01

NOTES

1. SEE AVERAGE BUILDING ELEVATION CALCULATION IN SHEET T2.01



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



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

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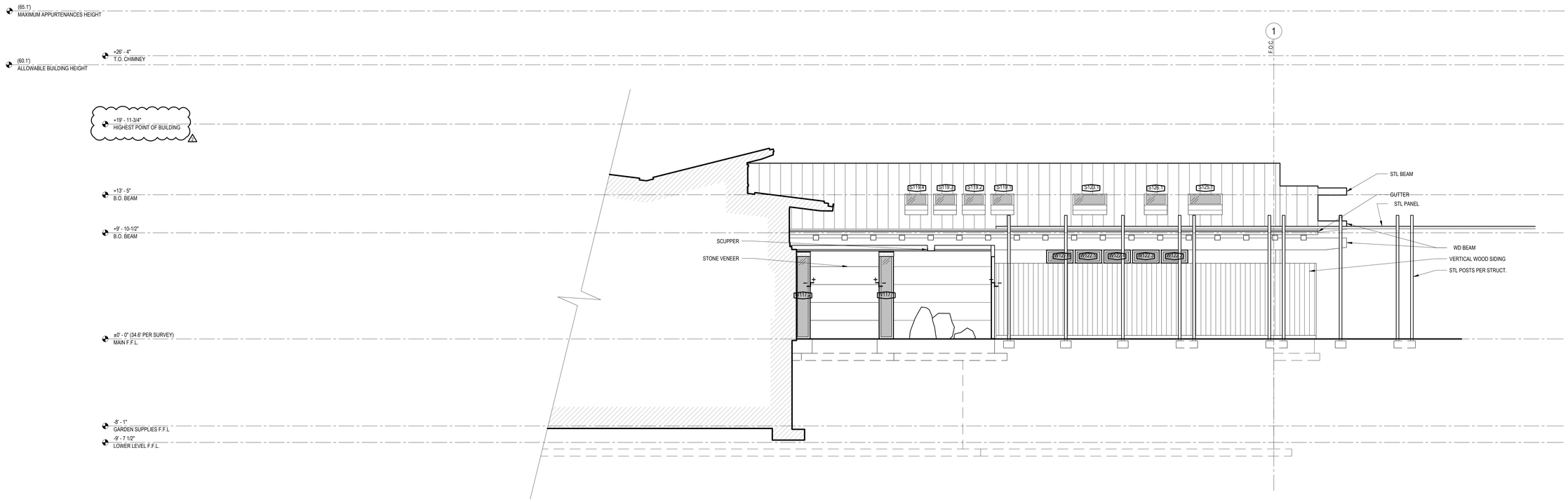
1 BUILDING CORRECTIONS	07/08/21
1 BUILDING CORRECTIONS	07/26/21

EXTERIOR ELEVATIONS

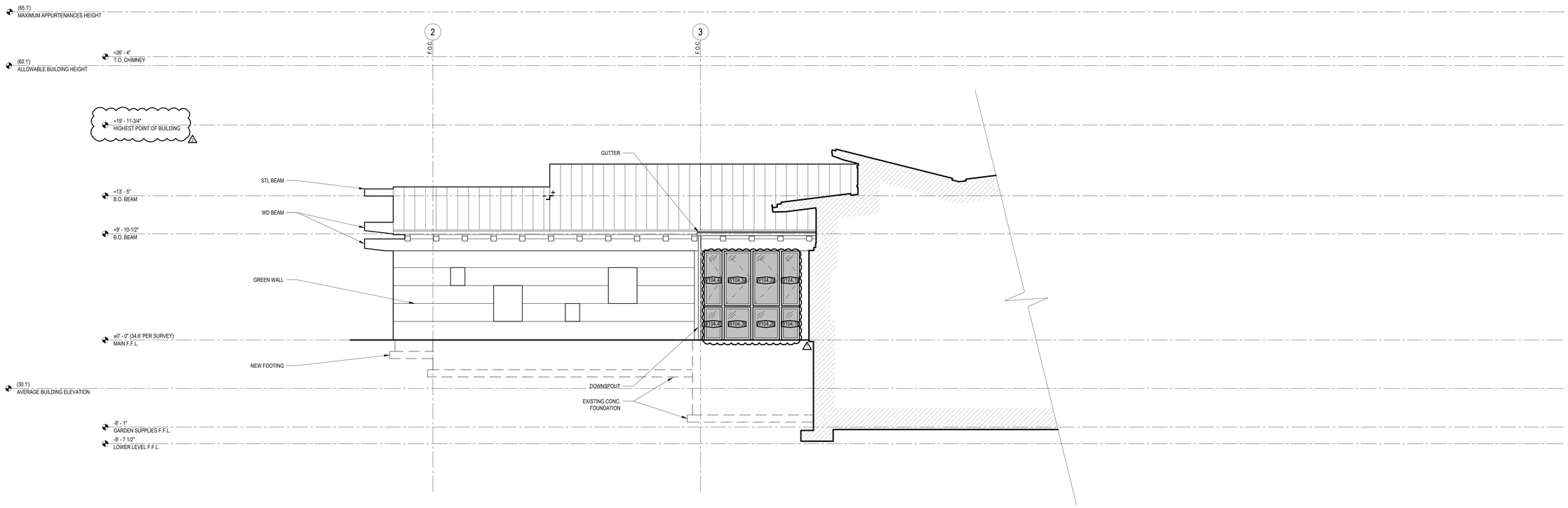
A3.02

NOTES

1. SEE AVERAGE BUILDING ELEVATION CALCULATION IN SHEET T2.01



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



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

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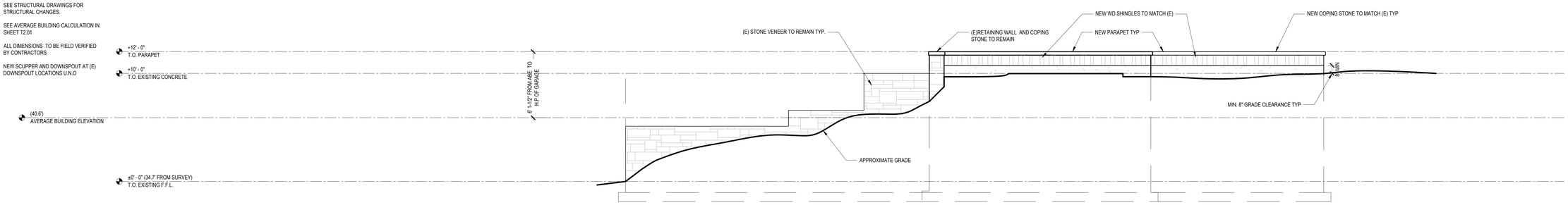
1 BUILDING CORRECTIONS	07/26/21

EXTERIOR ELEVATIONS

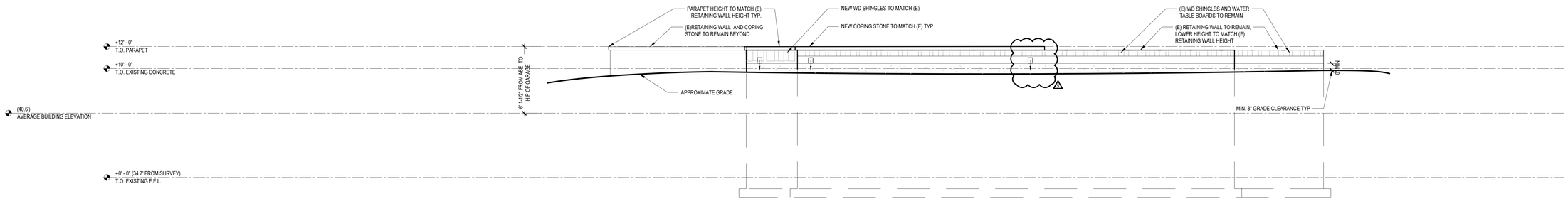
A3.03

NOTES

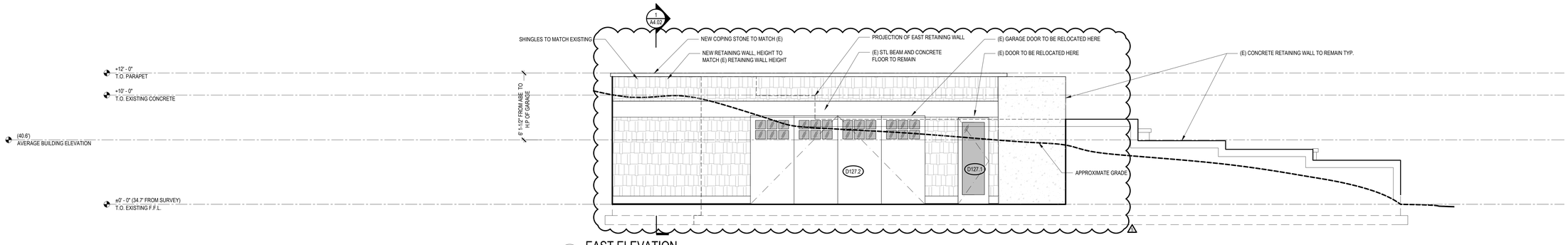
1. ALL THE EXISTING CONCRETE STRUCTURE TO REMAIN U.N.O.
2. SEE CIVIL DRAWINGS FOR GRADING, DRAINAGE AND SITE DEMOLITION INFORMATION.
3. SEE STRUCTURAL DRAWINGS FOR STRUCTURAL CHANGES.
4. SEE AVERAGE BUILDING CALCULATION IN SHEET T2.01
5. ALL DIMENSIONS TO BE FIELD VERIFIED BY CONTRACTORS
6. NEW SCUPPER AND DOWNSPOUT AT (E) DOWNSPOUT LOCATIONS U.N.O



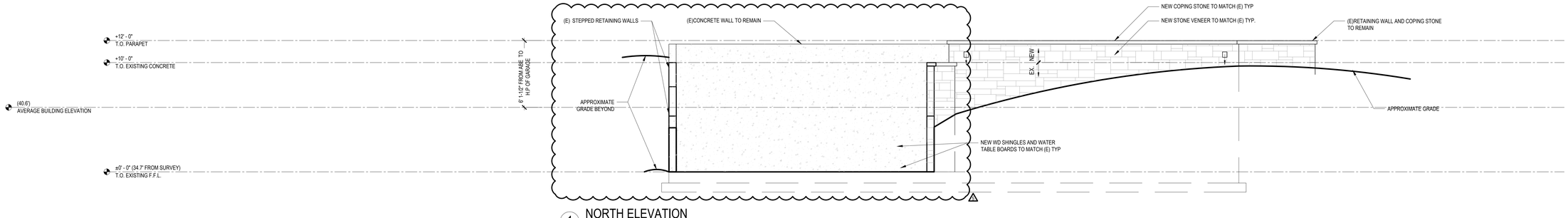
4 WEST ELEVATION
1/4" = 1'-0"



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



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



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

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BUILDING PERMIT SUBMITTAL

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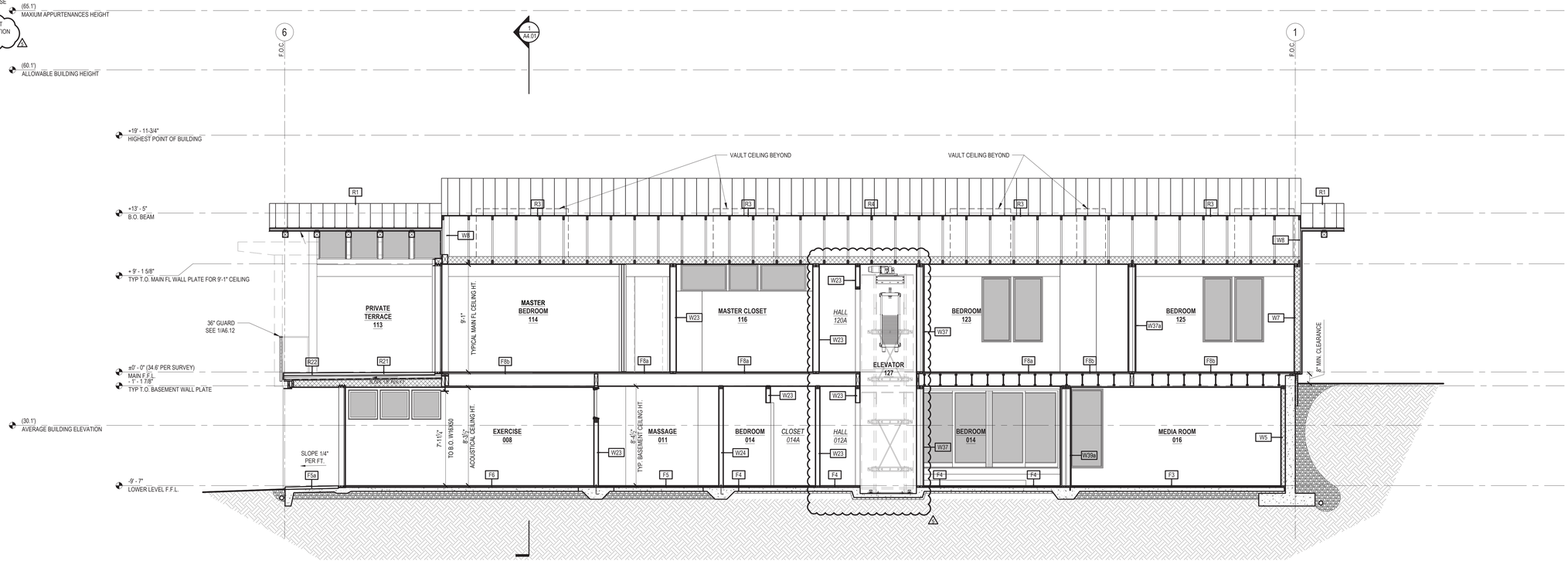
1 LAND USE & CIVIL CORRECTIONS	06/11/21
1 BUILDING CORRECTIONS	07/08/21
1 BUILDING CORRECTIONS	07/26/21
1 POST-PERMIT REVISIONS	12/17/21

GARAGE ELEVATIONS

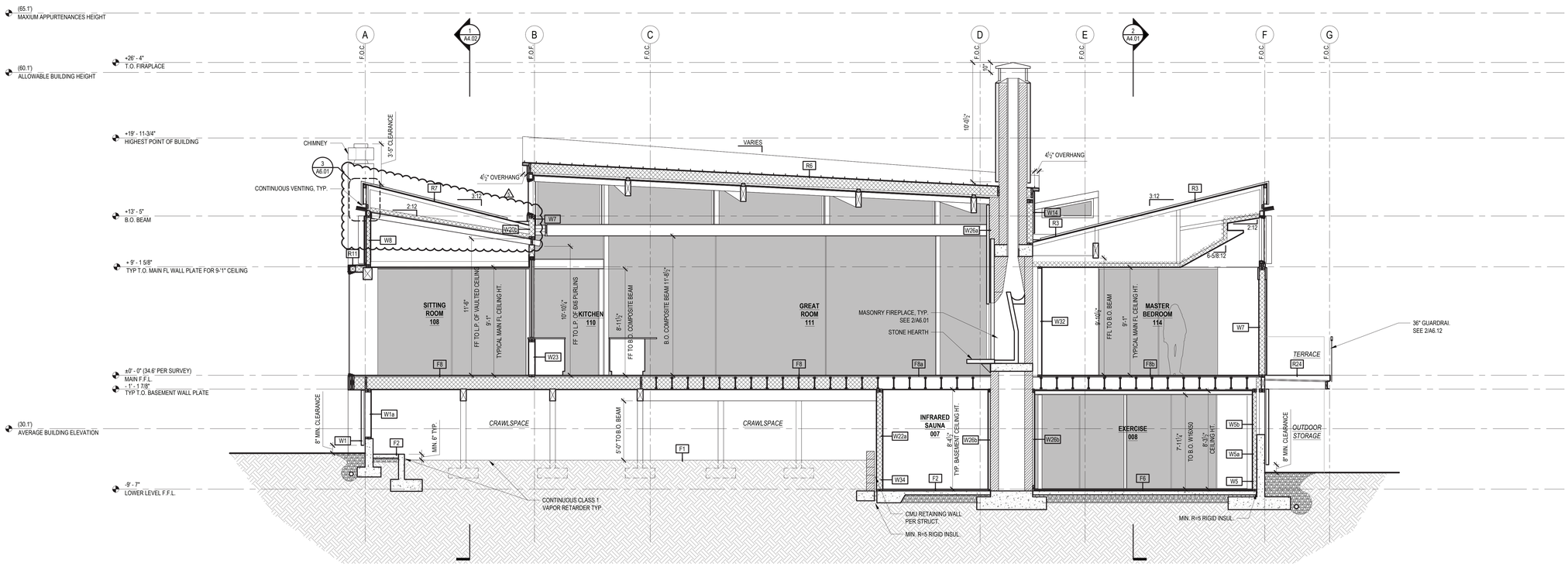
A3.11

NOTES

1. SEE AVERAGE BUILDING CALCULATION IN SHEET T2.01
2. DO NOT SCALE THE DRAWING, USE WRITTEN DIMENSIONS ONLY
3. ELEVATOR CONTRACTOR TO GET ELEVATOR PERMIT AND INSPECTION THROUGH L&I



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



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

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6241 REGISTERED ARCHITECT ROBERT EDSON SWAIN STATE OF WASHINGTON

BUILDING PERMIT SUBMITTAL

LAKE HOUSE
3310 97TH AVE. SE
MERCER ISLAND, WA 98040

PROJECT NO.: 1811
DRAWN:

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	12-18-20

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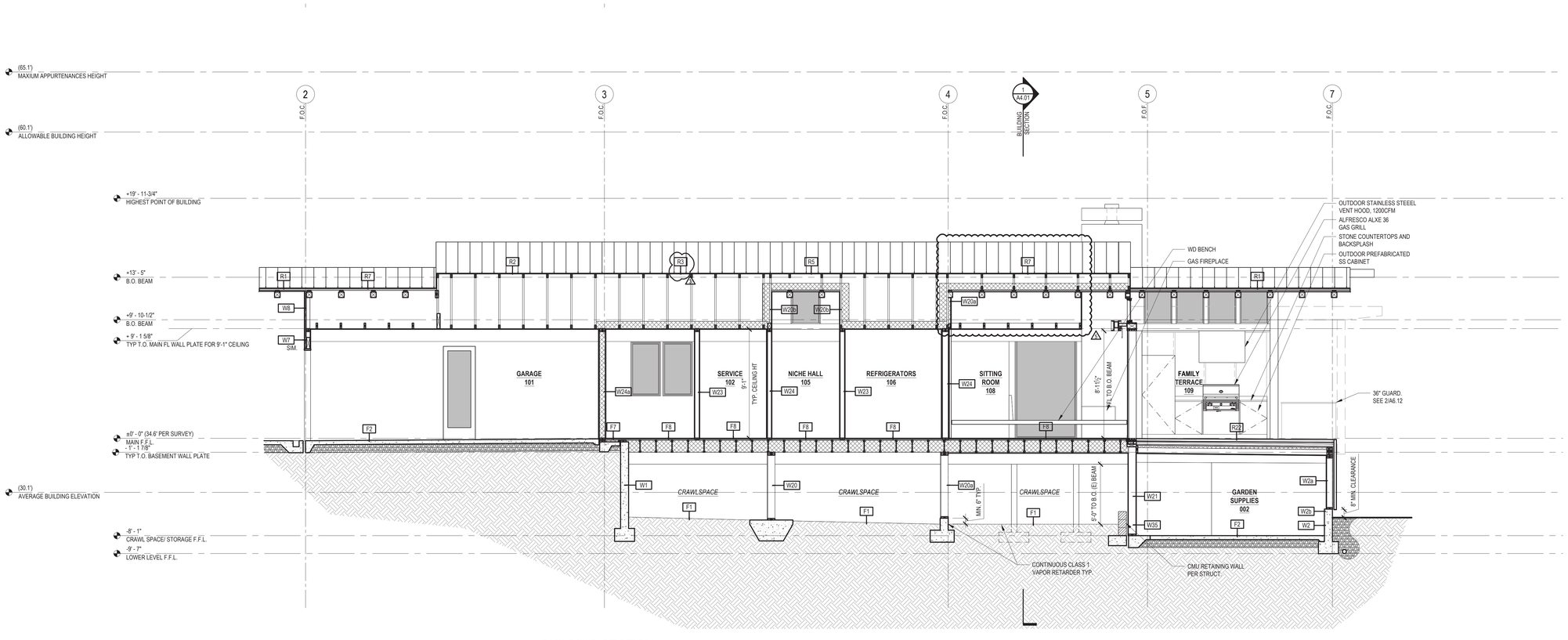
1 BUILDING CORRECTIONS	07/08/21
1 BUILDING CORRECTIONS	07/26/21
1 POST-PERMIT REVISIONS	12/17/21

BUILDING SECTIONS

A4.01

NOTES

1. SEE AVERAGE BUILDING CALCULATION IN SHEET T2.01
2. DO NOT SCALE THE DRAWING, USE WRITTEN DIMENSIONS ONLY



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

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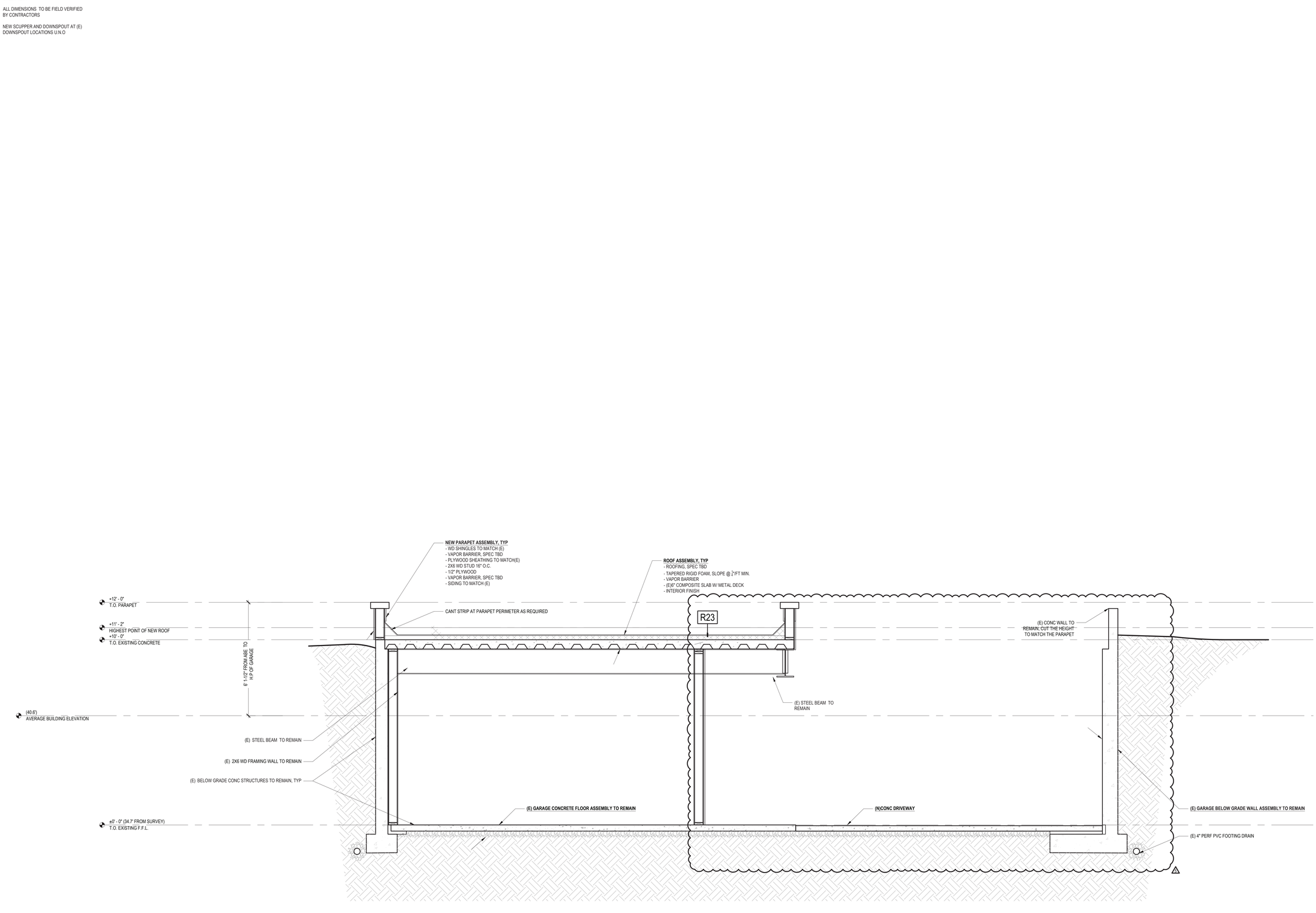
BUILDING SECTIONS

A4.02

NOTES

1. ALL THE EXISTING CONCRETE STRUCTURE TO REMAIN U.N.O.
2. SEE CIVIL DRAWINGS FOR GRADING, DRAINAGE AND SITE DEMOLITION INFORMATION.
3. SEE STRUCTURAL DRAWINGS FOR STRUCTURAL CHANGES.
4. SEE AVERAGE BUILDING CALCULATION IN SHEET T2.01
5. ALL DIMENSIONS TO BE FIELD VERIFIED BY CONTRACTORS
6. NEW SCUPPER AND DOWNSPOUT AT (E) DOWNSPOUT LOCATIONS U.N.O



1 GARAGE SECTION
1/2" = 1'-0"

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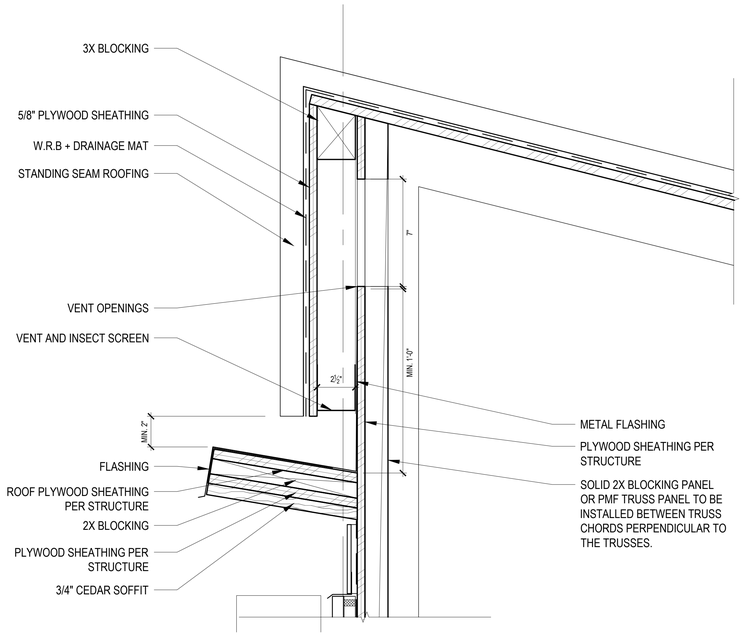
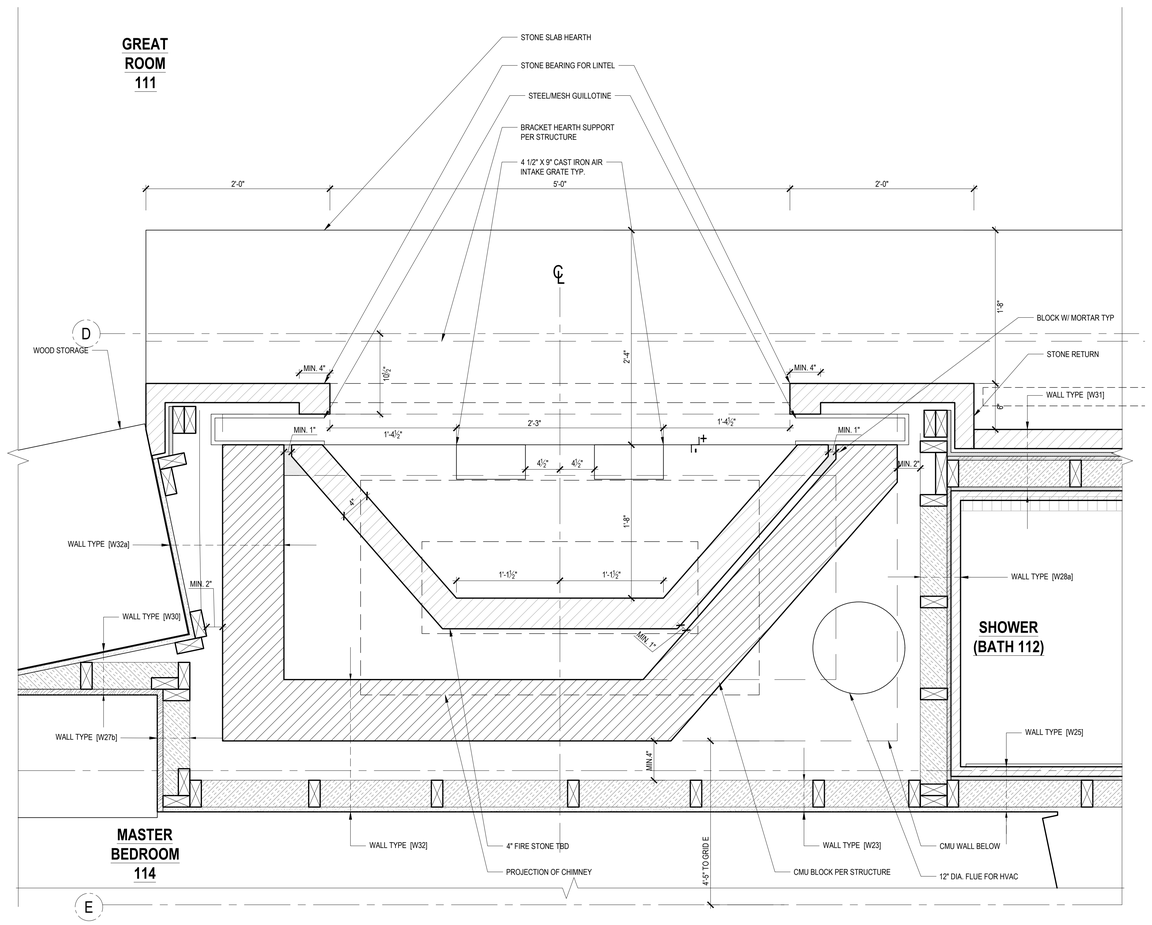
ACCESSORY BLDG SECTION

A4.11



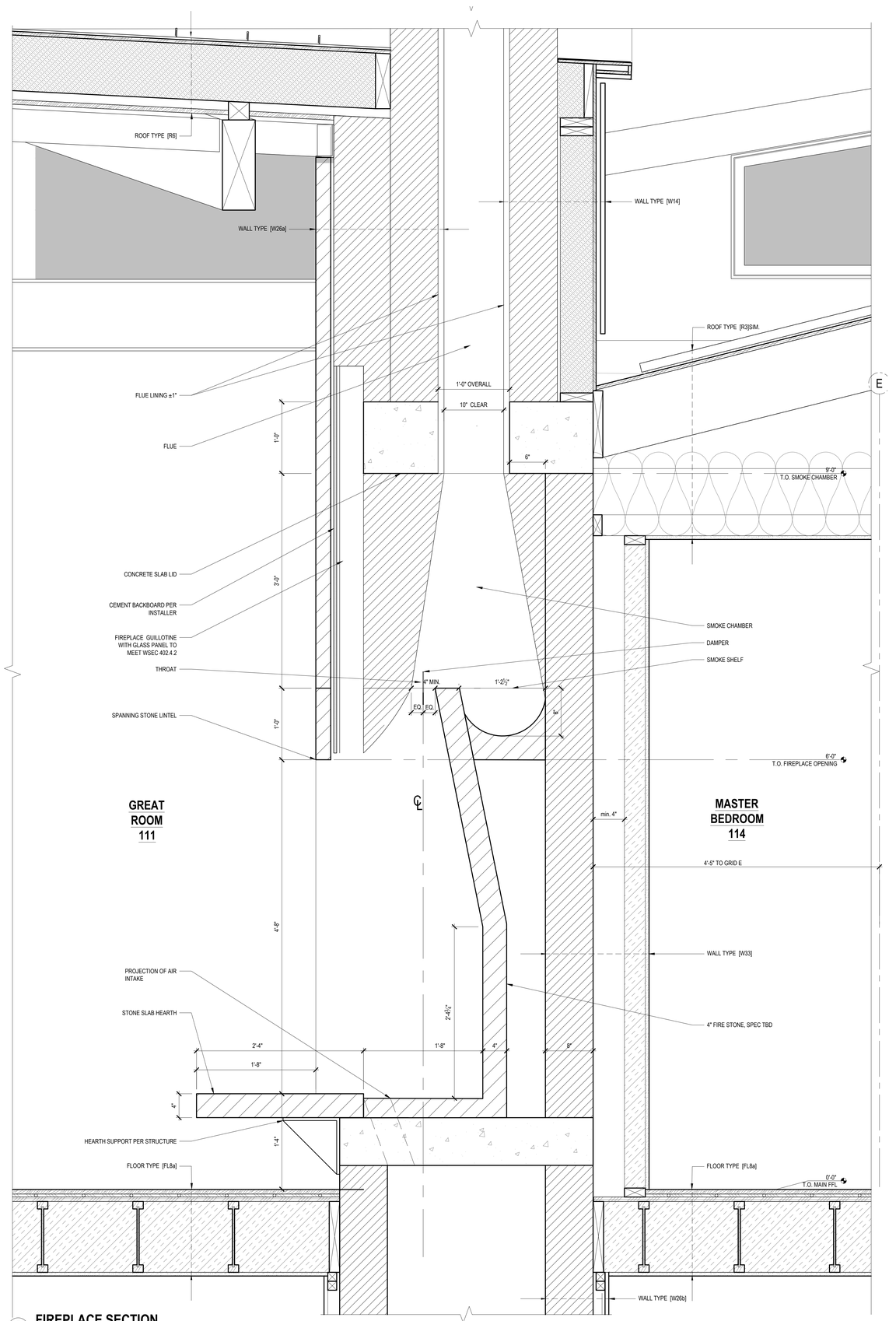
3 ATTIC VENT DETAIL @ UPPER END OF TRUSS ROOF

3" = 1'-0"



1 ENLARGED FIREPLACE PLAN

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



2 FIREPLACE SECTION

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

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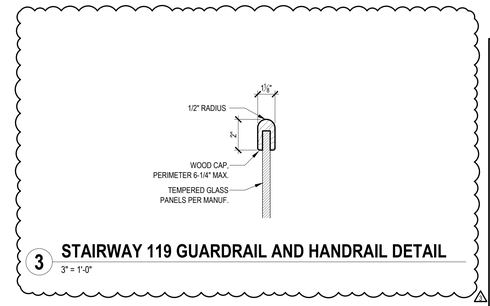
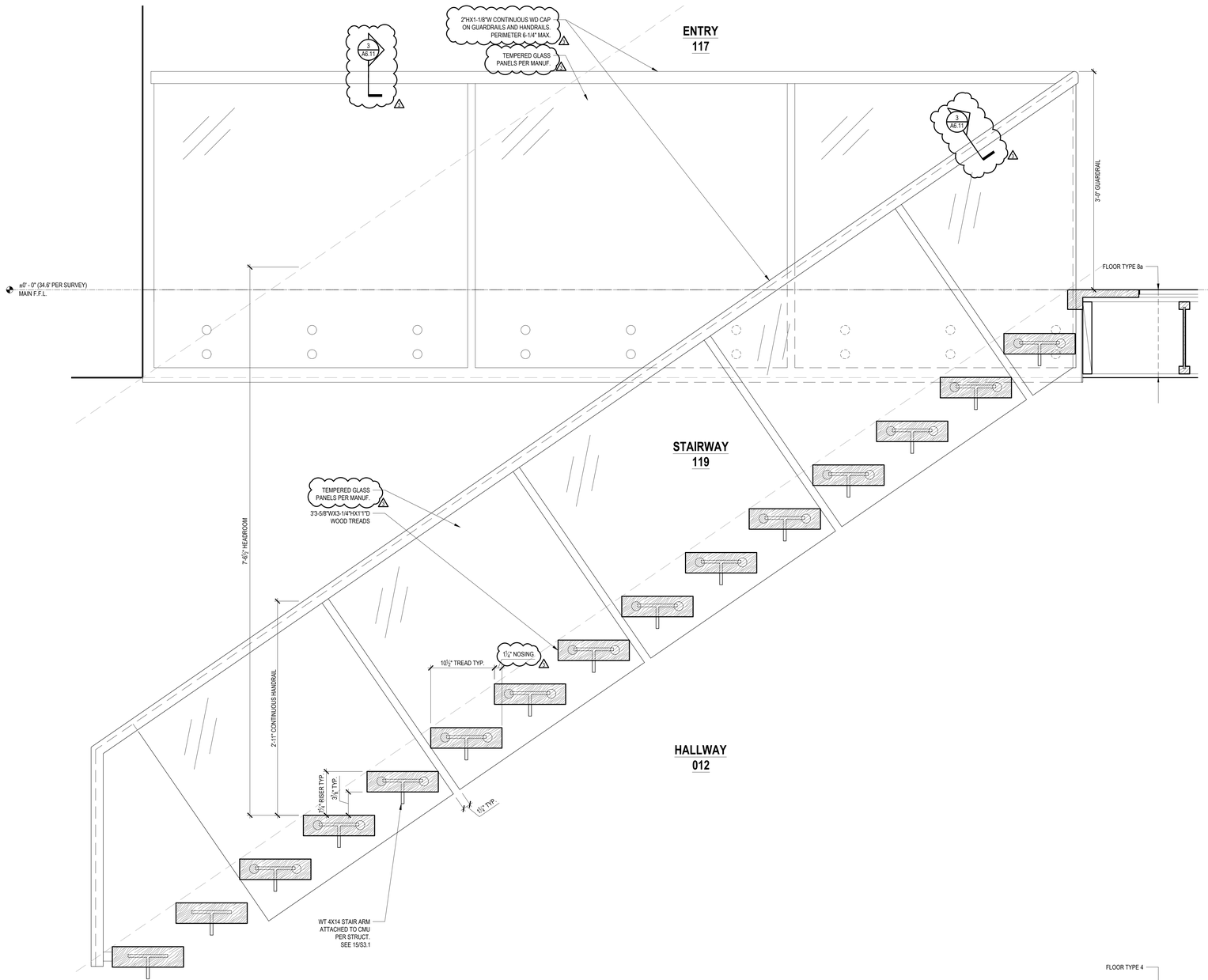
⚠ BUILDING CORRECTIONS	07/26/21

DETAILS

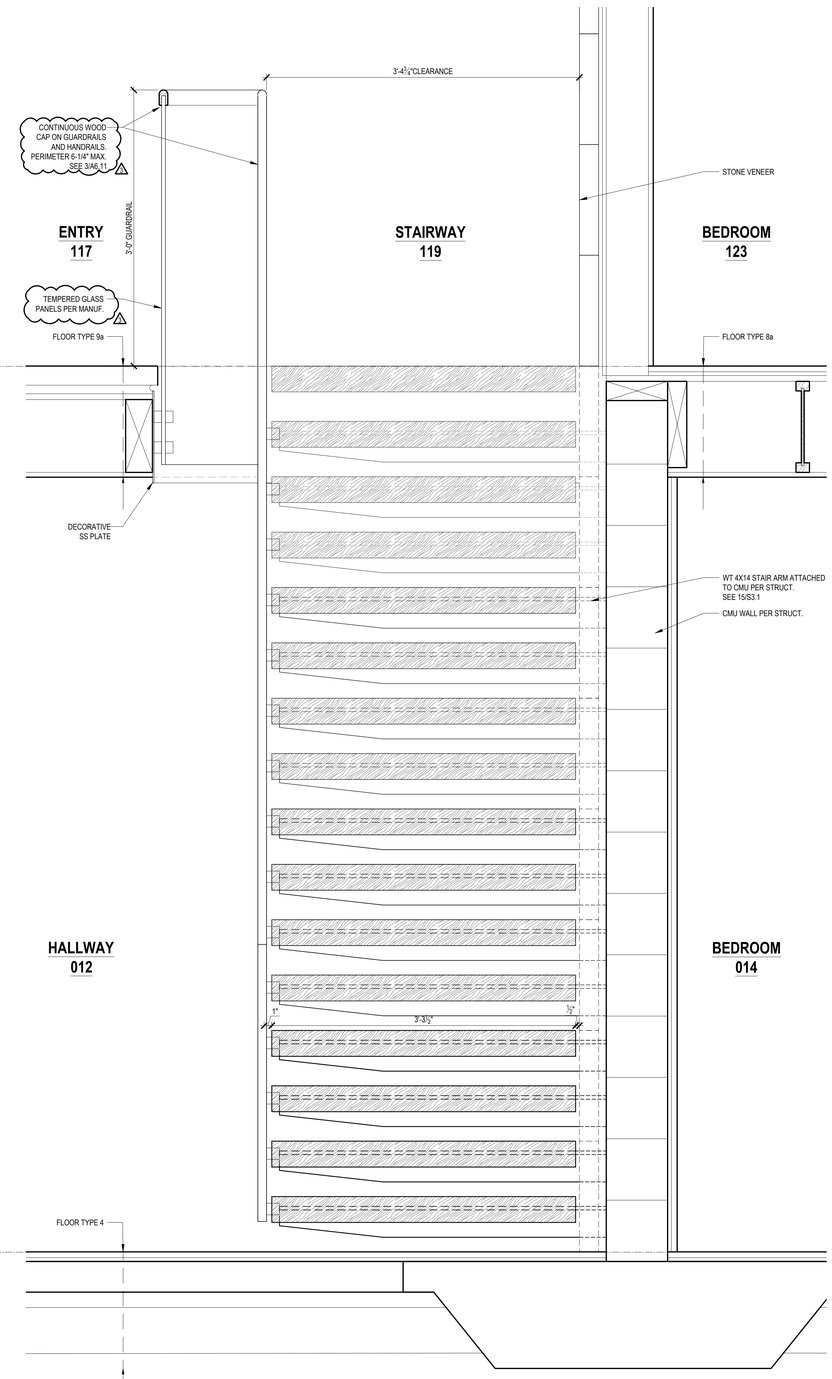
A6.01



3 STAIRWAY 119 GUARDRAIL AND HANDRAIL DETAIL
3" = 1'-0"



2 STAIRWAY 119 SECTION
1-1/2" = 1'-0"



1 STAIRWAY 119 SOUTH ELEVATION
1-1/2" = 1'-0"

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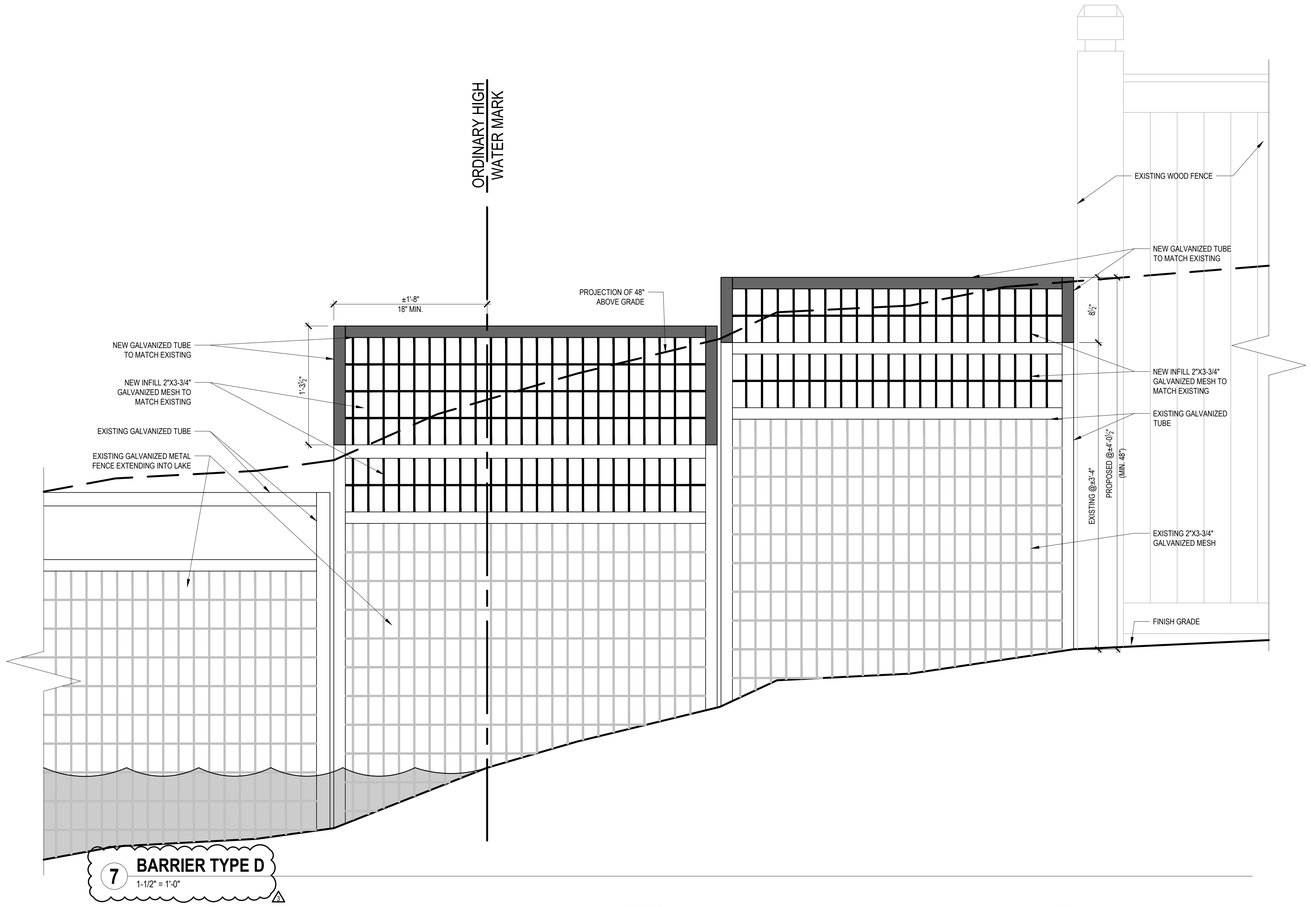
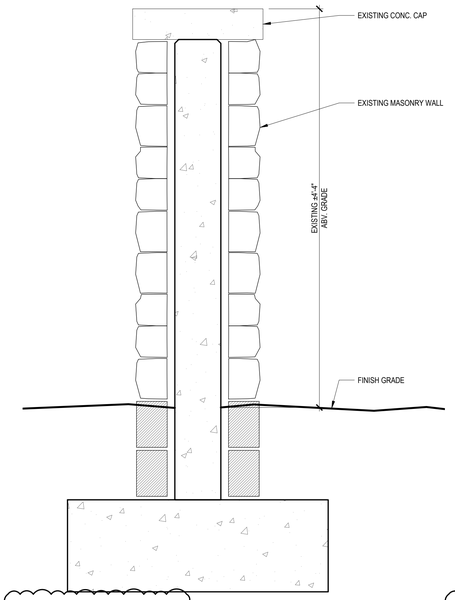
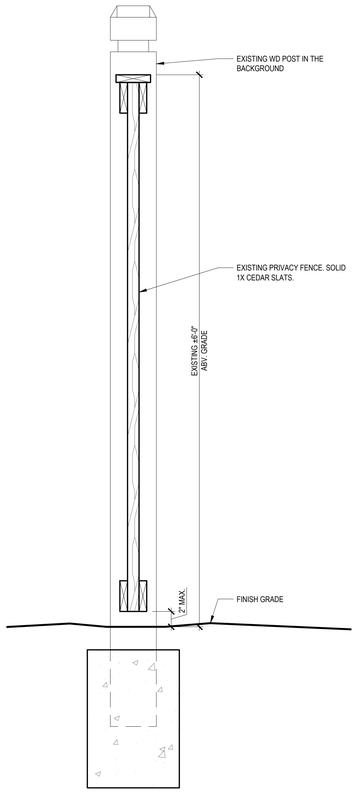
DETAILS
A6.11



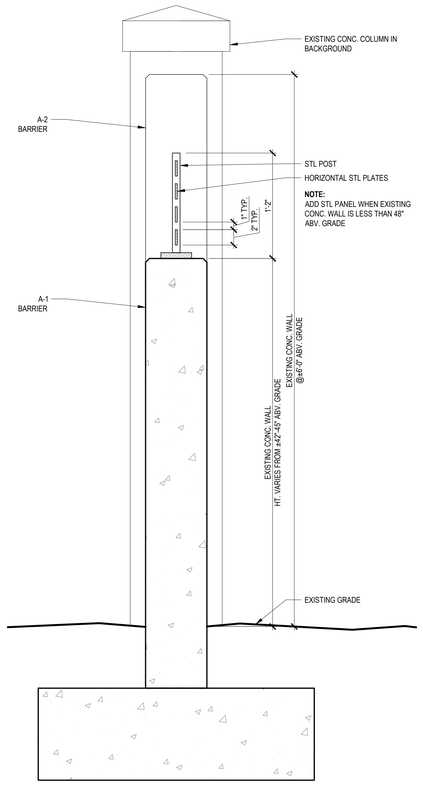
7 BARRIER TYPE D
1-1/2" = 1'-0"



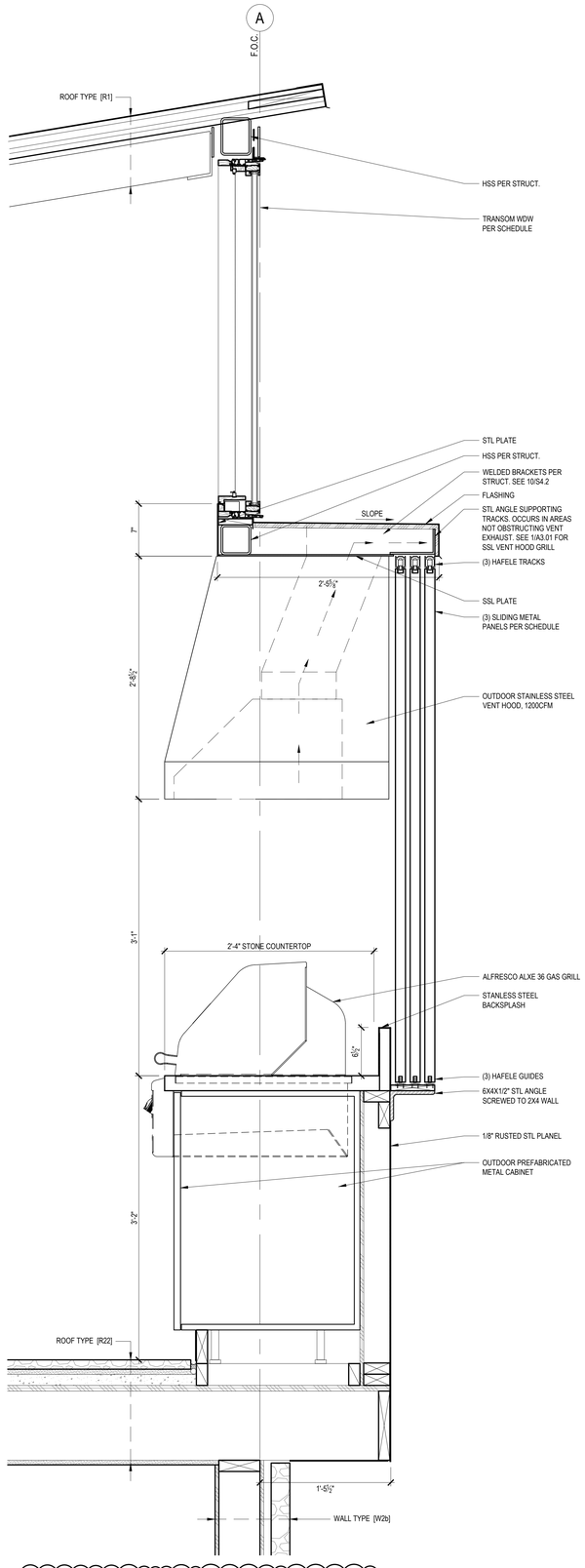
6 BARRIER TYPE C
1-1/2" = 1'-0"



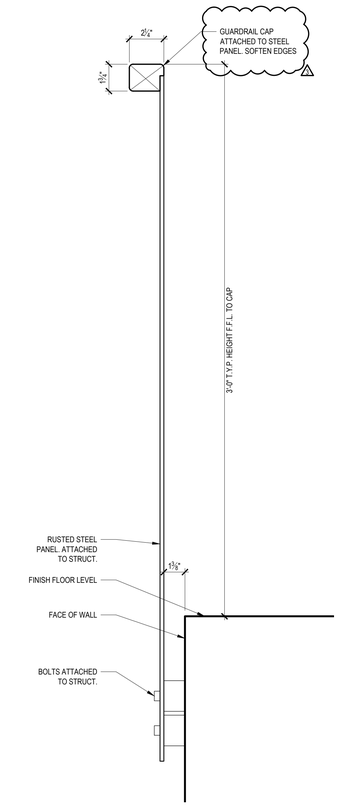
5 BARRIER TYPE B
1-1/2" = 1'-0"



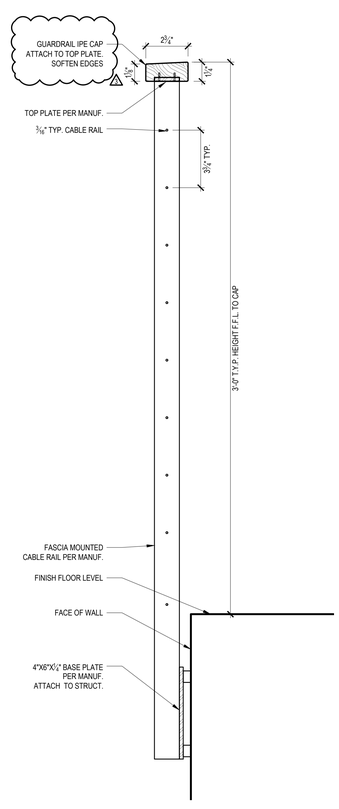
4 BARRIER TYPE A
1-1/2" = 1'-0"



3 FAMILY TERRACE BBQ SECTION DETAIL
1-1/2" = 1'-0"



2 TYPICAL STEEL GUARDRAIL DETAIL
3" = 1'-0"



1 TYPICAL CABLE GUARDRAIL DETAIL
3" = 1'-0"

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DETAILS
A6.12

LEGEND

- NEW CONCRETE WALL
- NEW FOOTING
- NEW STONE VENEER
- NEW CMU WALL
- EXISTING CONCRETE WALL TO REMAIN
- EXISTING STONE VENEER
- NEW WOOD FRAMING WALL
- TO BE REMOVED
- CRAWLSPACE

- ###X — DOOR ID TAG
- # — WINDOW ID TAG
- # CFM — VENTILATION ID
- SD — SMOKE DETECTOR
- CM — CARBON MONOXIDE DETECTOR
- SC — SMOKE & CARBON MONOXIDE COMBINED DETECTOR
- X — GRIDLINE
- # / A3.# — EXTERIOR ELEVATION ID
- # / A4.# — SECTION ID
- 1 / A4.02 — BUILDING SECTION

NOTES

1. ALL DIMENSIONS TO FACE OF CONCRETE OR FRAMING U.N.O.
2. ALL EXTERIOR WALLS 2X6 U.N.O.
3. ALL INTERIOR WALLS 2X4 U.N.O.

1 LOWER LEVEL REFLECTED CEILING PLAN
1/4" = 1'-0"

PROJECT NORTH

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1 BUILDING CORRECTIONS	07/26/21
1 POST-PERMIT REVISIONS	12/17/21

REFLECTED CEILING PLAN

A8.01

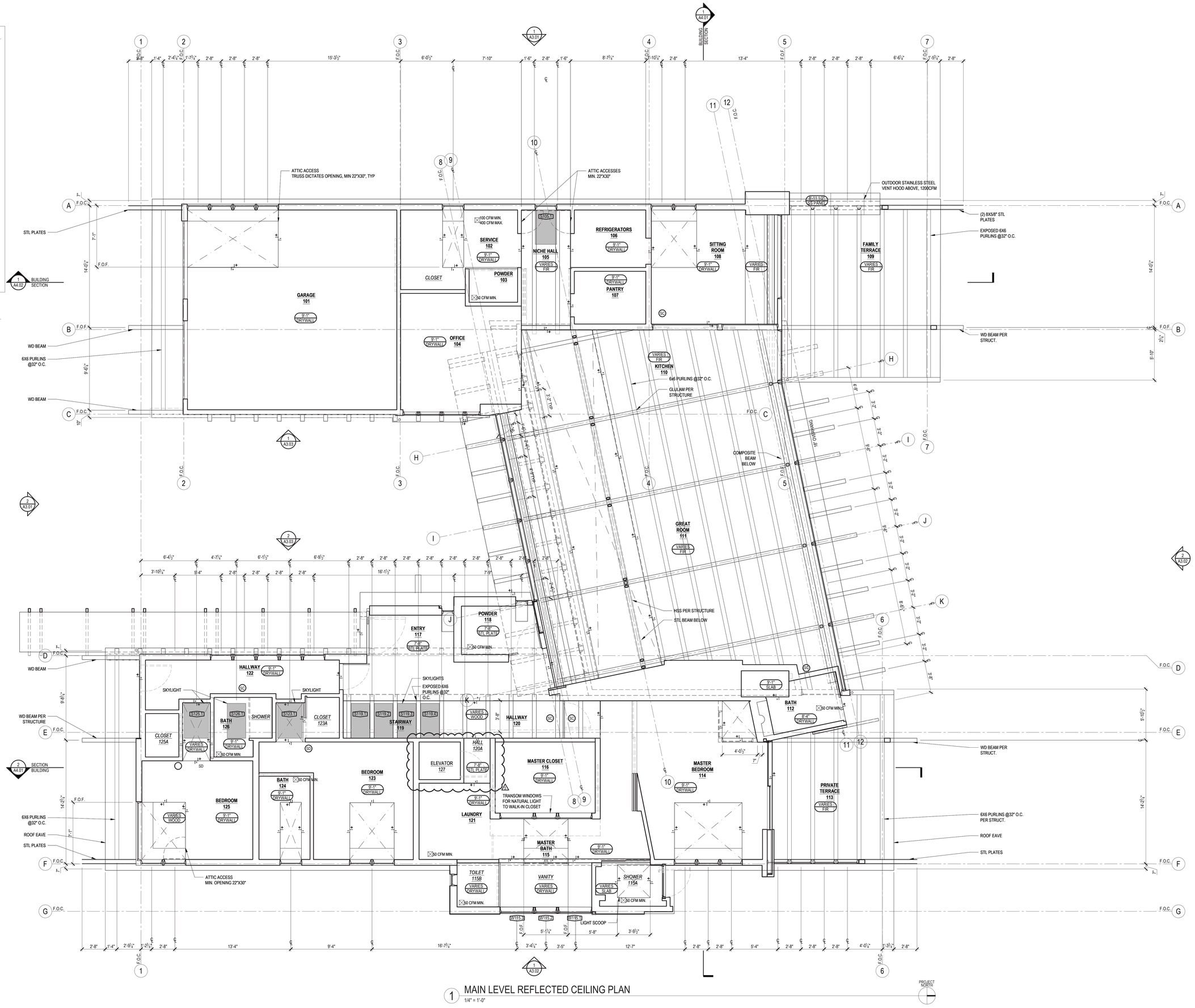
LEGEND

- NEW CONCRETE WALL
- NEW FOOTING
- NEW STONE VENEER
- NEW CMU WALL
- EXISTING CONCRETE WALL TO REMAIN
- EXISTING STONE VENEER
- NEW WOOD FRAMING WALL
- TO BE REMOVED
- CRAWLSPACE

- ###X — DOOR ID TAG
- # — WINDOW ID TAG
- # CFM — VENTILATION ID
- SD — SMOKE DETECTOR
- CM — CARBON MONOXIDE DETECTOR
- SC — SMOKE & CARBON MONOXIDE COMBINED DETECTOR
- X — GRIDLINE
- # / A3.# — EXTERIOR ELEVATION ID
- # / A4.# — SECTION ID

NOTES

1. ALL DIMENSIONS TO FACE OF CONCRETE OR FRAMING U.N.O.
2. ALL EXTERIOR WALLS 2X6 U.N.O.
3. ALL INTERIOR WALLS 2X4 U.N.O.



1 MAIN LEVEL REFLECTED CEILING PLAN
1/4" = 1'-0"

PROJECT NORTH

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REFLECTED CEILING PLAN

A8.02

OVERHEAD FENESTRATION SCHEDULE -SKYLIGHT

MAIN LEVEL - SKYLIGHTS

TAG	LOCATION	OPERATION	MATERIAL	WIDTH (R.O.)	HEIGHT (R.O.)	WIDTH (NET)	HEIGHT (NET)	NET AREA (SF)	QTY.	U-FACTOR	UA	SHGC	MANUFACTURE	MODEL	HARDWARE	REMARKS
S105.1	NICHE HALL	FIXED	COMPOSITE	TBD	TBD	2'-7 1/8"	4'-1 1/2"	10.70	1	0.48	5.14	-	VELUX	FCM	TBD	1,3,4
S119.1	STAIRWAY	FIXED	COMPOSITE	TBD	TBD	2'-7 1/8"	4'-8 1/8"	12.13	1	0.48	5.82	-	VELUX	FCM	TBD	1,3,4
S119.2	STAIRWAY	FIXED	COMPOSITE	TBD	TBD	2'-7 1/8"	4'-8 1/8"	12.13	1	0.48	5.82	-	VELUX	FCM	TBD	1,3,4
S119.3	STAIRWAY	FIXED	COMPOSITE	TBD	TBD	2'-7 1/8"	4'-8 1/8"	12.13	1	0.48	5.82	-	VELUX	FCM	TBD	1,3,4
S119.4	STAIRWAY	FIXED	COMPOSITE	TBD	TBD	2'-7 1/8"	4'-8 1/8"	12.13	1	0.48	5.82	-	VELUX	FCM	TBD	1,3,4
S123.1	BEDROOM	FIXED	COMPOSITE	TBD	TBD	3'-9 5/8"	4'-8 1/8"	17.78	1	0.48	8.54	-	VELUX	FCM	TBD	1,3,4
S125.1	BEDROOM	FIXED	COMPOSITE	TBD	TBD	3'-9 5/8"	4'-8 1/8"	17.78	1	0.48	8.54	-	VELUX	FCM	TBD	1,3,4
S126.1	BATHROOM	OPERABLE	COMPOSITE	TBD	TBD	2'-7 1/8"	4'-8 1/8"	12.13	1	0.52	6.31	-	VELUX	VCE	TBD	1,3,4, ELECTRIC
							SUM OF OVERHEAD FENESTRATION	106.92	8	-	51.81					
							OVERHEAD FENERSTRATION AREA WEIGHTED = UA/AERA =	0.484538396								

REMARKS:
1.TEMPERED GLASS / SAFETY GLAZING
2. OPAQUE/FROSTED GLAZING
3. CUSTOMIZED SHAPE/SIZE
4. SHADE

GENERAL NOTES:
1. CONTRCTOR TO FIELD VERIFY ROUGH OPENINGS PRIOR TO ORDERING WINDOWS AND DOORS
2. SHOP DRAWINGS TO BE REVIEWED AND APPROVED BY OWNER/ARCHTECT PRIOR TO PRODUCTION
3. COLOR AND HARDWARE TO BE SELECTED BY OWNER/ARCHITECT
4. ALL WINDOWS ARE CLEAR GLASS UNLESS NOTED OTHERWISE
5. ALL SKYLIGHTS TO HAVE MIN. 0.5 U-FACTOR

VERTICAL FENESTRATION SCHEDULE - WINDOWS

VERTICAL FENESTRATION SCHEDULE

LOWER LEVEL - WINDOWS

TAG	LOCATION	OPERATION	MATERIAL	WIDTH (R.O.)	HEIGHT (R.O.)	WIDTH (NET)	HEIGHT (NET)	NET AREA (SF)	QTY.	U-FACTOR	UA	SHGC	MANUFACTURE	MODEL	HARDWARE	REMARKS
W006.1	CHANGING ROOM	PICTURE	TBD	-	-	3'-4"	2'-8"	8.89	1	-	-	-	TBD	TBD	-	2, 6
W006.2	N/A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
W008.1	EXERCISE	AWNING	ALUM CLAD , WD, GLASS	±2'-6 1/2"	±2'-6 1/2"	2'-6"	2'-6"	6.25	1	0.25	1.56	-	KOLBE	VISTALUXE COLL WD LINE - AWNINGS - ACCENT	TBD	
W008.2	EXERCISE	AWNING	ALUM CLAD , WD, GLASS	±2'-6 1/2"	±2'-6 1/2"	2'-6"	2'-6"	6.25	1	0.25	1.56	-	KOLBE	VISTALUXE COLL WD LINE - AWNINGS - ACCENT	TBD	
W008.3	EXERCISE	AWNING	ALUM CLAD , WD, GLASS	±2'-6 1/2"	±2'-6 1/2"	2'-6"	2'-6"	6.25	1	0.25	1.56	-	KOLBE	VISTALUXE COLL WD LINE - AWNINGS - ACCENT	TBD	
W011.1	MASSAGE	AWNING	ALUM CLAD , WD, GLASS	±2'-6 1/2"	±2'-6 1/2"	2'-6"	2'-6"	6.25	1	-	-	-	KOLBE	VISTALUXE COLL WD LINE - AWNINGS - ACCENT	TBD	7
W011.2	MASSAGE	AWNING	ALUM CLAD , WD, GLASS	±2'-6 1/2"	±2'-6 1/2"	2'-6"	2'-6"	6.25	1	-	-	-	KOLBE	VISTALUXE COLL WD LINE - AWNINGS - ACCENT	TBD	7
W011.3	MASSAGE	AWNING	ALUM CLAD , WD, GLASS	±2'-6 1/2"	±2'-6 1/2"	2'-6"	2'-6"	6.25	1	-	-	-	KOLBE	VISTALUXE COLL WD LINE - AWNINGS - ACCENT	TBD	7
W011.4	MASSAGE	AWNING	ALUM CLAD , WD, GLASS	±2'-0 1/2"	±1'-6 1/2"	2'-0"	1'-6"	3.00	1	0.25	0.75	-	KOLBE	VISTALUXE COLL WD LINE - AWNINGS - ACCENT	TBD	
W015.1	BATHROOM	AWNING	ALUM CLAD , WD, GLASS	±4'-0 1/2"	±1'-4 1/2"	4'-0"	1'-4"	5.33	1	0.25	1.33	-	KOLBE	VISTALUXE COLL WD LINE - AWNINGS - ACCENT	TBD	
W015.2	BATHROOM	AWNING	ALUM CLAD , WD, GLASS	±1'-4 1/2"	±1'-4 1/2"	1'-4"	1'-4"	1.78	1	0.25	0.44	-	KOLBE	VISTALUXE COLL WD LINE - AWNINGS - ACCENT	TBD	
W016.1	MEDIA ROOM	2-PANEL SLIDING	ALUM CLAD , WD, GLASS	±5'-4 1/2"	±5'-0"	5'-4"	4'-11 7/16"	26.42	1	0.25	6.60	-	KOLBE	VISTALUXE COLL WD LINE - SINGLE SLIDING WINDOWS	TBD	4
							LOWER LEVEL UNHEATED AREA AND INTERIOR WINDOWS TOTAL	27.64	4	-	-					
							LOWER LEVEL EXTERIOR WINDOWS TOTAL	55.28	7	-	13.82					

MAIN LEVEL - WINDOWS

TAG	LOCATION	OPERATION	MATERIAL	WIDTH (R.O.)	HEIGHT (R.O.)	WIDTH (NET)	HEIGHT (NET)	NET AREA (SF)	QTY.	U-FACTOR	UA	SHGC	MANUFACTURE	MODEL	HARDWARE	REMARKS
W101.1	GARAGE	PICTURE	ALUM CLAD , WD, GLASS	±2'-6 1/2"	±4'-0 1/2"	2'-6"	4'-0"	10.00	1	-	-	-	KOLBE	VISTALUXE COLL WD LINE - DIRECT SETS - ACCENT	-	6
W101.2	GARAGE	AWNING	ALUM CLAD , WD, GLASS	±2'-6 1/2"	±4'-0 1/2"	2'-6"	4'-0"	10.00	1	-	-	-	KOLBE	VISTALUXE COLL WD LINE - AWNINGS - ACCENT	TBD	1,6
W101.3	GARAGE	AWNING	ALUM CLAD , WD, GLASS	±2'-6 1/2"	±4'-0 1/2"	2'-6"	4'-0"	10.00	1	-	-	-	KOLBE	VISTALUXE COLL WD LINE - AWNINGS - ACCENT	TBD	1,6
W101.4	GARAGE	PICTURE	ALUM CLAD , WD, GLASS	±2'-6 1/2"	±4'-0 1/2"	2'-6"	4'-0"	10.00	1	-	-	-	KOLBE	VISTALUXE COLL WD LINE - DIRECT SETS - ACCENT	-	6
W102.1	SERVICE	CASEMENT	ALUM CLAD , WD, GLASS	±2'-6 1/2"	±4'-6 1/2"	2'-6"	4'-6"	11.25	1	0.25	2.81	-	KOLBE	VISTALUXE COLL WD LINE - CASEMENTS - ACCENT	TBD	
W102.2	SERVICE	CASEMENT	ALUM CLAD , WD, GLASS	±2'-6 1/2"	±4'-6 1/2"	2'-6"	4'-6"	11.25	1	0.25	2.81	-	KOLBE	VISTALUXE COLL WD LINE - CASEMENTS - ACCENT	TBD	
W102.3	SERVICE	AWNING	ALUM CLAD , WD, GLASS	±2'-6 1/2"	±4'-0 1/2"	2'-6"	4'-0"	10.00	1	0.25	2.50	-	KOLBE	VISTALUXE COLL WD LINE - AWNNINGS - ACCENT	TBD	1
W104.1a	OFFICE	CASEMENT	ALUM CLAD , WD, GLASS	±1'-8 3/4"	±5'-3 1/4"	1'-8 1/4"	5'-2 3/4"	8.82	1	0.25	2.21	-	KOLBE	VISTALUXE COLL WD LINE - CASEMENTS - ACCENT	TBD	4,13
W104.1b	OFFICE	PICTURE	ALUM CLAD , WD, GLASS	±1'-8 3/4"	±3'-1 1/2"	1'-8 1/4"	3'-1"	5.20	1	0.25	1.30	-	KOLBE	VISTALUXE COLL WD DIRECT SETS - ACCENT	-	4,13
W104.2a	OFFICE	CASEMENT	ALUM CLAD , WD, GLASS	±2'-6 1/2"	±5'-3 1/4"	2'-6"	5'-2 3/4"	13.07	1	0.25	3.27	-	KOLBE	VISTALUXE COLL WD LINE - CASEMENTS - ACCENT	TBD	4,13
W104.2b	OFFICE	PICTURE	ALUM CLAD , WD, GLASS	±2'-6 1/2"	±3'-1 1/2"	2'-6"	3'-1"	7.71	1	0.25	1.93	-	KOLBE	VISTALUXE COLL WD DIRECT SETS - ACCENT	-	4,13
W104.3a	OFFICE	CASEMENT	ALUM CLAD , WD, GLASS	±2'-6 1/2"	±5'-3 1/4"	2'-6"	5'-2 3/4"	13.07	1	0.25	3.27	-	KOLBE	VISTALUXE COLL WD LINE - CASEMENTS - ACCENT	TBD	4,13
W104.4b	OFFICE	PICTURE	ALUM CLAD , WD, GLASS	±1'-8 3/4"	±3'-1 1/2"	1'-8 1/4"	3'-1"	5.20	1	0.25	1.30	-	KOLBE	VISTALUXE COLL WD DIRECT SETS - ACCENT	-	4,13
W105.1	NICHE HALL	AWNING	ALUM CLAD , WD, GLASS	±2'-6 1/2"	±4'-0 1/2"	2'-6"	4'-0"	10.00	1	0.25	2.50	-	KOLBE	VISTALUXE COLL WD LINE - AWNINGS - ACCENT	TBD	1,2
W108.1	SITTING ROOM	PICTURE	ALUM CLAD , WD, GLASS	±5'-2 1/2"	±8'-9"	5'-2"	8'-8 1/2"	44.99	1	0.23	10.35	-	KOLBE	VISTALUXE COLL WD LINE - DIRECT SETS - ACCENT	-	2, 4
W108.2	SITTING ROOM	AWNING	ALUM CLAD , WD, GLASS	±2'-6 1/2"	±4'-0 1/2"	2'-6"	4'-0"	10.00	1	0.25	2.50	-	KOLBE	VISTALUXE COLL WD LINE - AWNINGS - ACCENT	TBD	1
W108.3	SITTING ROOM	PICTURE	ALUM CLAD , WD, GLASS	±2'-6 1/2"	±4'-0 1/2"	2'-6"	4'-0"	10.00	1	0.23	2.30	-	KOLBE	VISTALUXE COLL WD LINE - DIRECT SETS - ACCENT	-	
W108.4	SITTING ROOM	PICTURE	ALUM CLAD , WD, GLASS	±9'-1 1/2"	F.V.	9'-1"	SEE ELEV	23.31	1	0.23	5.36	-	KOLBE	VISTALUXE COLL WD LINE - DIRECT SETS - ACCENT	-	2,4
W109.1	FAMILY TERRACE	PICTURE	ALUM CLAD , WD, GLASS	±2'-6 1/2"	±4'-0 1/2"	2'-6"	4'-0"	10.00	1	-	-	-	KOLBE	VISTALUXE COLL WD LINE - DIRECT SETS - ACCENT	-	6
W109.2	FAMILY TERRACE	AWNING	ALUM CLAD , WD, GLASS	±2'-6 1/2"	±4'-0 1/2"	2'-6"	4'-0"	10.00	1	-	-	-	KOLBE	VISTALUXE COLL WD LINE - AWNINGS - ACCENT	TBD	1,6
W109.3	FAMILY TERRACE	AWNING	ALUM CLAD , WD, GLASS	±2'-6 1/2"	±4'-0 1/2"	2'-6"	4'-0"	10.00	1	-	-	-	KOLBE	VISTALUXE COLL WD LINE - AWNINGS - ACCENT	TBD	1,6
W109.4	FAMILY TERRACE	PICTURE	ALUM CLAD , WD, GLASS	±2'-6 1/2"	±4'-0 1/2"	2'-6"	4'-0"	10.00	1	-	-	-	KOLBE	VISTALUXE COLL WD LINE - DIRECT SETS - ACCENT	-	6
W111.1	GREAT ROOM	PICTURE	ALUM CLAD , WD, GLASS	±7'-7"	F.V.	7'-6 1/2"	SEE ELEV.	21.07	1	0.23	4.85	-	KOLBE	VISTALUXE COLL WD LINE - DIRECT SETS - ACCENT	-	4
W111.2	GREAT ROOM	PICTURE	ALUM CLAD , WD, GLASS	±6'-5 7/8"	F.V.	6'-5 3/8"	SEE ELEV.	27.10	1	0.23	6.23	-	KOLBE	VISTALUXE COLL WD LINE - DIRECT SETS - ACCENT	-	2,4
W111.3	GREAT ROOM	PICTURE	ALUM CLAD , WD, GLASS	±5'-10"	F.V.	5'-9 1/2"	SEE ELEV.	35.34	1	0.23	8.13	-	KOLBE	VISTALUXE COLL WD LINE - DIRECT SETS - ACCENT	-	2,4
W111.4	GREAT ROOM	PICTURE	ALUM CLAD , WD, GLASS	±9'-4 1/2"	F.V.	9'-4"	SEE ELEV.	51.42	1	0.23	11.83	-	KOLBE	VISTALUXE COLL WD LINE - DIRECT SETS - ACCENT	-	2,4
W111.5	GREAT ROOM	PICTURE	ALUM CLAD , WD, GLASS	±9'-4 1/2"	F.V.	9'-4"	SEE ELEV.	45.05	1	0.23	10.36	-	KOLBE	VISTALUXE COLL WD LINE - DIRECT SETS - ACCENT	-	2,4
W111.6	GREAT ROOM	PICTURE	ALUM CLAD , WD, GLASS	±9'-4 1/2"	F.V.	9'-4"	SEE ELEV.	38.70	1	0.23	8.90	-	KOLBE	VISTALUXE COLL WD LINE - DIRECT SETS - ACCENT	-	2,4
W111.7	GREAT ROOM	PICTURE	ALUM CLAD , WD, GLASS	±7'-8 3/4"	F.V.	7'-8 1/4"	SEE ELEV.	27.11	1	0.23	6.24	-	KOLBE	VISTALUXE COLL WD LINE - DIRECT SETS - ACCENT	-	2,4
W111.8	GREAT ROOM	PICTURE	ALUM CLAD , WD, GLASS	±4'-8 1/4"	F.V.	4'-7 3/4"	SEE ELEV.	11.37	1	0.23	2.62	-	KOLBE	VISTALUXE COLL WD LINE - DIRECT SETS - ACCENT	-	4
W111.9	GREAT ROOM	PICTURE	ALUM CLAD , WD, GLASS	±4'-7 1/2"	±3'-3 3/4"	4'-7"	3'-3 1/4"	14.99	d	0.23	3.45	-	KOLBE	VISTALUXE COLL WD LINE - DIRECT SETS - ACCENT	-	2,4
W111.10	GREAT ROOM	PICTURE	ALUM CLAD , WD, GLASS	±4'-7 1/2"	±3'-3 3/4"	4'-7"	3'-3 1/4"	14.99	1	0.23	3.45	-	KOLBE	VISTALUXE COLL WD LINE - DIRECT SETS - ACCENT	-	2,4
W111.11	GREAT ROOM	PICTURE	ALUM CLAD , WD, GLASS	±4'-7 1/2"	±3'-3 3/4"	4'-7"	3'-3 1/4"	14.99	1	0.23	3.45	-	KOLBE	VISTALUXE COLL WD LINE - DIRECT SETS - ACCENT	-	2,4
W111.12	GREAT ROOM	PICTURE	ALUM CLAD , WD, GLASS	±4'-7 1/2"	±3'-3 3/4"	4'-7"	3'-3 1/4"	14.99	1	0.23	3.45	-	KOLBE	VISTALUXE COLL WD LINE - DIRECT SETS - ACCENT	-	2,4
W111.13	GREAT ROOM	PICTURE	ALUM CLAD , WD, GLASS	±3'-0"	±3'-3 3/4"	2'-11 1/2"	3'-3 1/4"	9.68	1	0.23	2.23	-	KOLBE	VISTALUXE COLL WD LINE - DIRECT SETS - ACCENT	-	2,4
W111.14	GREAT ROOM	PICTURE	ALUM CLAD , WD, GLASS	±2'-8 1/2"	±2'-0 1/2"	2'-8"	2'-0"	5.33	1	0.23	1.23	-	KOLBE	VISTALUXE COLL WD LINE - DIRECT SETS - ACCENT	-	4
W111.15	GREAT ROOM	AWNING	ALUM CLAD , WD, GLASS	±2'-8 1/2"	±2'-0 1/2"	2'-8"	2'-0"	5.33	1	0.25	1.33	-	KOLBE	VISTALUXE COLL WD LINE - AWNINGS - ACCENT	TBD	1,4
W111.16	GREAT ROOM	PICTURE	ALUM CLAD , WD, GLASS	±2'-8 1/2"	±2'-0 1/2"	2'-8"	2'-0"	5.33	1	0.23	1.23	-	KOLBE	VISTALUXE COLL WD LINE - DIRECT SETS - ACCENT	-	4
W111.17	GREAT ROOM	PICTURE	ALUM CLAD , WD, GLASS	±2'-8 1/2"	±2'-0 1/2"	2'-8"	2'-0"	5.33	1	0.23	1.23	-	KOLBE	VISTALUXE COLL WD LINE - DIRECT SETS - ACCENT	-	4
W111.18	GREAT ROOM	AWNING	ALUM CLAD , WD, GLASS	±2'-8 1/2"	±2'-0 1/2"	2'-8"	2'-0"	5.33	1	0.25	1.33	-	KOLBE	VISTALUXE COLL WD LINE - AWNINGS - ACCENT	TBD	1,4
W111.19	GREAT ROOM	PICTURE	ALUM CLAD , WD, GLASS	±2'-8 1/2"	±2'-0 1/2"	2'-8"	2'-0"	5.33	1	0.23	1.23	-	KOLBE	VISTALUXE COLL WD LINE - DIRECT SETS - ACCENT	-	4
W111.20	GREAT ROOM	PICTURE	ALUM CLAD , WD, GLASS	±2'-8 1/2"	±2'-0 1/2"	2'-8"	2'-0"	5.33	1	0.23	1.23	-	KOLBE	VISTALUXE COLL WD LINE - DIRECT SETS - ACCENT	-	4
W111.21	GREAT ROOM	AWNING	ALUM CLAD , WD, GLASS	±2'-8 1/2"	±2'-0 1/2"	2'-8"	2'-0"	5.33	1	0.25	1.33	-	KOLBE	VISTALUXE COLL WD LINE - AWNINGS - ACCENT	TBD	1,4
W111.22	GREAT ROOM	PICTURE	ALUM CLAD , WD, GLASS	±2'-8 1/2"	±2'-0 1/2"	2'-8"	2'-0"	5.33	1	0.23	1.23	-	KOLBE	VISTALUXE COLL WD LINE - DIRECT SETS - ACCENT	-	4
W111.23	GREAT ROOM	PICTURE	ALUM CLAD , WD, GLASS	±2'-8 1/2"	±2'-0 1/2"	2'-8"	2'-0"	5.33	1	0.23	1.23	-	KOLBE	VISTALUXE COLL WD LINE - DIRECT SETS - ACCENT	-	4
W111.24	GREAT ROOM	AWNING	ALUM CLAD , WD, GLASS	±2'-8 1/2"	±2'-0 1/2"	2'-8"	2'-0"	5.33	1	0.25	1.33	-	KOLBE	VISTALUXE COLL WD LINE - AWNINGS - ACCENT	TBD	1,4
W111.25	GREAT ROOM	PICTURE	ALUM CLAD , WD, GLASS	±2'-8 1/2"	±2'-0 1/2"	2'-8"	2'-0"	5.33	1	0.23	1.23	-	KOLBE	VISTALUXE COLL WD LINE - DIRECT SETS - ACCENT	-	4
W113.1	PRIVATE TERRACE	PICTURE	ALUM CLAD , WD, GLASS	±2'-6 1/2"	±4'-0 1/2"	2'-6"	4'-0"	10.00	1	-	-	-	KOLBE	VISTALUXE COLL WD LINE - DIRECT SETS - ACCENT	-	6
W113.2	PRIVATE TERRACE	AWNING	ALUM CLAD , WD, GLASS	±2'-6 1/2"	±4'-0 1/2"	2'-6"	4'-0"	10.00	1	-	-	-	KOLBE	VISTALUXE COLL WD LINE - AWNINGS - ACCENT	TBD	1,6
W113.3	PRIVATE TERRACE	AWNING	ALUM CLAD , WD, GLASS	±2'-6 1/2"	±4'-0 1/2"	2'-6"	4'-0"	10.00	1	-	-	-	KOLBE	VISTALUXE COLL WD LINE - AWNINGS - ACCENT	TBD	1,6
W113.4	PRIVATE TERRACE	PICTURE	ALUM CLAD , WD, GLASS	±2'-6 1/2"	±4'-0 1/2"	2'-6"	4'-0"	10.00	1	-	-	-	KOLBE	VISTALUXE COLL WD LINE - DIRECT SETS - ACCENT	-	6
W114.1	MASTER BEDROOM	PICTURE	ALUM CLAD , WD, GLASS	±0'-0"	F.V.	3'-2"	SEE ELEV	6.28	1	0.23	1.44	-	KOLBE	VISTALUXE COLL WD LINE - DIRECT SETS - ACCENT	-	4
W114.2	MASTER BEDROOM	PICTURE	ALUM CLAD , WD, GLASS	±3'-7 1/2"	±2'-2 5/8"	3'-7"	2'-2 1/8"	7.80	1	0.23	1.79	-	KOLBE	VISTALUXE COLL WD LINE - DIRECT SETS - ACCENT	-	4
W114.3	MASTER BEDROOM	AWNING	ALUM CLAD , WD, GLASS	±2'-6 1/2"	±4'-0 1/2"	2'-6"	4'-0"	10.00	1	0.25	2.50	-	KOLBE	VISTALUXE COLL WD LINE - AWNINGS - ACCENT	TBD	1
W114.4	MASTER BEDROOM	AWNING	ALUM CLAD , WD, GLASS	±2'-6 1/2"	±4'-0 1/2"	2'-6"	4'-0"	10.00	1	0.25	2.50	-	KOLBE	VISTALUXE COLL WD LINE - AWNINGS - ACCENT	TBD	1
W114.5	MASTER BEDROOM	AWNING	ALUM CLAD , WD, GLASS	±2'-6 1/2"	±4'-0 1/2"	2'-6"	4'-0"	10.00	1	0.25	2.50	-	KOLBE	VISTALUXE COLL WD LINE - AWNINGS - ACCENT	TBD	1
W115.1	MASTER BATH	AWNING	ALUM CLAD , WD, GLASS	±4'-0 1/2"	±1'-4 1/2"	4'-0"	1'-4"	5.33	1	0.25	1.33	-	KOLBE	VISTALUXE COLL WD LINE - AWNINGS - ACCENT	TBD	-
W115.2	MASTER BATH	AWNING	ALUM CLAD , WD, GLASS	±2'-6 1/2"	±1'-4 1/2"	2'-6"	1'-4"	3.33	1	0.25	0.83	-	KOLBE	VISTALUXE COLL WD LINE - AWNINGS - ACCENT	TBD	-
W115.3	MASTER BATH	AWNING	ALUM CLAD , WD, GLASS	±4'-0 1/2"	±1'-4 1/2"	4'-0"	1'-4"	5.33	1	0.25	1.33	-	KOLBE	VISTALUXE COLL WD LINE - AWNINGS - ACCENT	TBD	-
W115.4	MASTER BATH	AWNING	ALUM CLAD , WD, GLASS	±2'-6 1/2"	±4'-0 1/2"	2'-6"	4'-0"	10.00	1	0.25	2.50	-	KOLBE	VISTALUXE COLL WD LINE - AWNINGS - ACCENT	TBD	1
W115.5	MASTER BATH	AWNING	ALUM CLAD , WD, GLASS	±2'-6 1/2"	±4'-0 1/2"	2'-6"	4'-0"	10.00	1	0.25	2.50	-	KOLBE	VISTALUXE COLL WD LINE - AWNINGS - ACCENT	TBD	1
W115A.1	SHOWER	PICTURE	ALUM CLAD, GLASS	±4'-2 1/4"	F.V.	4'-1 3/4"	SEE ELEV	14.22	1	0.24	3.41	-	KOLBE	VISTALUXE COLL AL LINE - DIRECT SETS	-	4
W115A.2	SHOWER	PICTURE	ALUM CLAD , GLASS	±3'-9"	±4'-0"	3'-8 1/2"	3'-11 1/2"	14.68	1	0.24	3.52	-	KOLBE	VISTALUXE COLL AL LINE - DIRECT SETS	-	4
W115A.3	SHOWER	PICTURE	ALUM CLAD , GLASS	±4'-1 1/4"	±4'-0 1/2"	4'-0 3/4"	4'-0"	16.25	1	0.24	3.90	-	KOLBE	VISTALUXE COLL AL LINE - DIRECT SETS	-	,4
W115B.1	TOILET	AWNING	ALUM CLAD , WD, GLASS	±1'-4 1/2"	±1'-4 1/2"	1'-4"	1'-4"	1.78	1	0.25	0.44	-	KOLBE	VISTALUXE COLL WD LINE - AWNNINGS - ACCENT	TBD	-
W116.1	MASTER CLOSET	PICTURE	ALUM CLAD , WD, GLASS	±4'-0 1/2"	±1'-6 1/2"	4'-0"	1'-6"	6.00	1	-	-	-	KOLBE	VISTALUXE COLL WD LINE - DIRECT SETS - ACCENT	-	7
W116.2	MASTER CLOSET	PICTURE	ALUM CLAD , WD, GLASS	±2'-6 1/2"	±1'-6 1/2"	2'-6"	1'-6"	3.75	1	-	-	-	KOLBE	VISTALUXE COLL WD LINE - DIRECT SETS - ACCENT	-	7
W116.3	MASTER CLOSET	PICTURE	ALUM CLAD , WD, GLASS	±4'-0 1/2"	±1'-6 1/2"	4'-0"	1'-6"	6.00	1	-	-	-	KOLBE	VISTALUXE COLL WD LINE - DIRECT SETS - ACCENT	-	7
W117.1	ENTRY	PICTURE	ALUM CLAD , WD, GLASS	±1'-5"	±7'-10 1/2"	1'-4 1/2"	7'-10"	10.77	1	0.23	2.48	-	KOLBE	VISTALUXE COLL WD LINE - DIRECT SETS - ACCENT	-	2,4
W117.2	ENTRY	PICTURE	ALUM CLAD , WD, GLASS	±1'-5"	±7'-10 1/2"	1'-4 1/2"	7'-10"	10.77	1	0.23	2.48	-	KOLBE	VISTALUXE COLL WD LINE - DIRECT SETS - ACCENT	-	2,4
W121.1	LAUNDRY	CASEMENT	ALUM CLAD , WD, GLASS	±2'-6 1/2"	±4'-6 1/2"	2'-6"	4'-6"	11.25	1	0.25	2.81	-	KOLBE	VISTALUXE COLL WD LINE - CASEMENTS - ACCENT	TBD	-
W122.1	HALLWAY	PICTURE	ALUM CLAD , WD, GLASS	±6'-10 1/2"	±1'-4 1/2"	6'-10"	1'-4"	9.11	1	0.23	2.10	-	KOLBE	VISTALUXE COLL WD LINE - DIRECT SETS - ACCENT	-	2
W122.2	HALLWAY	PICTURE	ALUM CLAD , WD, GLASS	±2'-6 1/2"	±1'-4 1/2"	2'-6"	1'-4"	3.33	1	0.23	0.77	-	KOLBE	VISTALUXE COLL WD LINE - DIRECT SETS - ACCENT	-	-
W122.3	HALLWAY	AWNING	ALUM CLAD , WD, GLASS	±2'-6 1/2"	±1'-4 1/2"	2'-6"	1'-4"	3.33	1	0.25	0.83	-	KOLBE	VISTALUXE COLL WD LINE - AWNINGS - ACCENT	TBD	-
W122.4	HALLWAY	PICTURE	ALUM CLAD , WD, GLASS	±2'-6 1/2"	±1'-4 1/2"	2'-6"	1'-4"	3.33	1	0.23	0.77	-	KOLBE	VISTALUXE COLL WD LINE - DIRECT SETS - ACCENT	-	-
W122.5	HALLWAY	AWNING	ALUM CLAD , WD, GLASS	±2'-6 1/2"	±1'-4 1/2"	2'-6"	1'-4"	3.33	1	0.25	0.83	-	KOLBE	VISTALUXE COLL WD LINE - AWNINGS - ACCENT	TBD	-
W122.6	HALLWAY	PICTURE	ALUM CLAD , WD, GLASS	±2'-6 1/2"	±1'-4 1/2"	2'-6"	1'-4"	3.33	1	0.23	0.77	-	KOLBE	VISTALUXE COLL WD LINE - DIRECT SETS - ACCENT	-	-
W123.1	BEDROOM	CASEMENT	ALUM CLAD , WD, GLASS	±2'-6 1/2"	±5'-6 1/2"	2'-6"	5'-6"	13.75	1	0.25	3.4375	-	KOLBE	VISTALUXE COLL WD LINE - CASEMENTS - ACCENT	TBD	5
W123.2	BEDROOM	CASEMENT	ALUM CLAD , WD, GLASS	±2'-6 1/2"	±5'-6 1/2"	2'-6"	5'-6"	13.75	1	0.25	3.4375	-	KOLBE	VISTALUXE COLL WD LINE - CASEMENTS - ACCENT	TBD	
W123.3	BEDROOM	PICTURE	ALUM CLAD , WD, GLASS	±2'-6 1/2"	±4'-0 1/2"	2'-6"	4'-0"	10.00	1	0.23	2.3	-	KOLBE	VISTALUXE COLL WD LINE - DIRECT SETS - ACCENT	-	-
W123.4	BEDROOM	AWNING	ALUM CLAD , WD, GLASS	±2'-6 1/2"	±4'-0 1/2"	2'-6"	4'-0"	10.00	1	0.25	2.5	-	KOLBE	VISTALUXE COLL WD LINE - AWNINGS - ACCENT	TBD	1
W124.1	BATHROOM	AWNING	ALUM CLAD , WD, GLASS	±2'-6 1/2"	±4'-0 1/2"	2'-6"	4'-0"	10.00	1	0.25	2.5	-	KOLBE	VISTALUXE COLL WD LINE - AWNINGS - ACCENT	TBD	1,2
W125.1	BEDROOM	CASEMENT	ALUM CLAD , WD, GLASS	±2'-6 1/2"	±5'-6 1/2"	2'-6"	5'-6"	13.75	1	0.25	3.4375	-	KOLBE	VISTALUXE COLL WD LINE - CASEMENTS - ACCENT	TBD	5
W125.2	BEDROOM	CASEMENT	ALUM CLAD , WD, GLASS	±2'-6 1/2"	±5'-6 1/2"	2'-6"	5'-6"	13.75	1	0.25	3.4375	-	KOLBE	VISTALUXE COLL WD LINE - CASEMENTS - ACCENT	TBD	
W125.3	BEDROOM	AWNING	ALUM CLAD , WD, GLASS	±2'-6 1/2"	±4'-0 1/2"	2'-6"	4'-0"	10.00	1	0.25	2.5	-	KOLBE	VISTALUXE COLL WD LINE - AWNINGS - ACCENT	TBD	1
W125.4	BEDROOM	AWNING	ALUM CLAD , WD, GLASS	±2'-6 1/2"	±4'-0 1/2"	2'-6"	4'-0"	10.00	1	0.25	2.5	-	KOLBE	VISTALUXE COLL WD LINE - AWNINGS - ACCENT	TBD	1
W125.5	BEDROOM	PICTURE	ALUM CLAD , WD, GLASS	±6'-9 3/4"	F.V.	6'-9 1/4"	SEE ELEV.	22.13	1	0.23	5.089532	-	KOLBE	VISTALUXE COLL WD LINE - DIRECT SETS - ACCENT	-	4
							MAIN LEVEL UNHEATED

VERTICAL FENESTRATION SCHEDULE - DOORS

LOWER LEVEL - DOORS

TAG	LOCATION	OPERATION	MATERIAL	WIDTH (R.O.)	HEIGHT (R.O.)	WIDTH (NET)	HEIGHT (NET)	NET AREA (SF)	QTY.	U-FACTOR	UA	SHGC	MANUFACTURE	MODEL	HARDWARE	REMARKS
D00X.1	N/A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D002.1	GARDEN SUPPLIES	1-PANEL SLIDING	WD	TBD	TBD	5'-6"	6'-8"	-	1	-	-	-	TBD	TBD	TBD	4,6
D002.2	GARDEN SUPPLIES	SWING	WD	TBD	TBD	3'-0"	5'-0"	-	1	-	-	-	TBD	TBD	TBD	6, 11
D004.1	MECHANICAL	SWING	WD	TBD	TBD	2'-10"	6'-8"	-	1	-	-	-	TBD	TBD	TBD	7
D006.1	CHANGING ROOM	SWING	TBD	TBD	TBD	3'-0"	7'-0"	-	1	-	-	-	TBD	TBD	TBD	6
D006.2	CHANGING ROOM	1-PANEL SLIDING	WD	TBD	TBD	2'-4"	7'-0"	-	1	-	-	-	TBD	TBD	TBD	7
D006.3	CHANGING ROOM	1-PANEL SLIDING	WD	TBD	TBD	2'-4"	7'-0"	-	1	-	-	-	TBD	TBD	TBD	7
D006.4	CHANGING ROOM	1-PANEL SLIDING	WD	TBD	TBD	2'-4"	7'-0"	-	1	-	-	-	TBD	TBD	TBD	7
D007.1	INFURATED SAUNA	1-PANEL SLIDING	WD	TBD	TBD	2'-10"	7'-0"	-	1	-	-	-	TBD	TBD	TBD	7
D008.1	EXERCISE	4-PANEL SLIDING	ALUM. GLASS	21'-8 1/2"	8'-8 5/8"	21'-8"	8'-8 1/8"	188.00	1	0.34	63.92	-	SKY-FRAME	SKY-FRAME 2 - ORIGINAL SLIDING DOOR	TBD	1,2,4
D009.1	LAUNDRY	1-PANEL SLIDING	WD	TBD	TBD	5'-9 3/4"	8'-4 1/2"	-	1	-	-	-	TBD	TBD	TBD	4,7
D010.1	VESTIBULE	2-PANEL SLIDING	WD	TBD	TBD	5'-4"	7'-0"	-	1	-	-	-	TBD	TBD	TBD	7
D011.1	MASSAGE	2-PANEL SLIDING	WD	TBD	TBD	5'-4"	7'-0"	-	1	-	-	-	TBD	TBD	TBD	7
D012A.1	HALL	1-PANEL SLIDING	WD	TBD	TBD	3'-0"	7'-0"	-	1	-	-	-	TBD	TBD	TBD	7
⚠ D012A.2	HALL	SWING	WD	TBD	TBD	3'-0"	7'-0"	-	1	-	-	-	TBD	TBD	TBD	7
D013.1	POWDER	1-PANEL SLIDING	WD	TBD	TBD	3'-5 1/2"	7'-0"	-	1	-	-	-	TBD	TBD	TBD	7
D014.1	BEDROOM	SWING	WD	TBD	TBD	2'-8"	7'-0"	-	1	-	-	-	TBD	TBD	TBD	7
D014.2	BEDROOM	4-PANEL SLIDING	ALUM CLAD , WD., GLASS	10'-5 1/2"	6'-11 1/4"	10'-5"	6'-10 3/4"	71.83	1	0.28	20.11	-	KOLBE	VISTALUXE COLL. WD LINE - SLIDING PATIO DOORS	TBD	2,4,5
D014A.1	CLOSET	2-PANEL SLIDING	WD	TBD	TBD	5'-4"	7'-0"	-	1	-	-	-	TBD	TBD	TBD	7
D015.1	BATHROOM	3-PANEL SLIDING	WD	TBD	TBD	8'-4 3/8"	8'-4 1/2"	-	1	-	-	-	TBD	TBD	TBD	4,7
D015.2	BATHROOM	1-PANEL SLIDING	WD	TBD	TBD	2'-8"	7'-0"	-	1	-	-	-	TBD	TBD	TBD	7
D015A.1	SHOWER	1-PANEL SLIDING	GLASS	TBD	TBD	2'-8"	7'-0"	-	1	-	-	-	TBD	TBD	TBD	2,7
D016.1	MEDIA ROOM	1-PANEL SLIDING	WD	TBD	TBD	8'-6"	8'-4 1/2"	-	1	-	-	-	TBD	TBD	TBD	4,7
D016.2	MEDIA ROOM	1-PANEL SLIDING	WD	TBD	TBD	5'-8"	4'-11 1/2"	-	1	-	-	-	TBD	TBD	TBD	4,7
⚠ D017.1	KITCHENETTE	1-PANEL SLIDING	WD	TBD	TBD	8'-0"	8'-4 1/2"	-	1	-	-	-	TBD	TBD	TBD	4,7
							LOWER LEVEL UNHEATED AREA AND INTERIOR DOORS TOTAL	-	20	-	-					
							LOWER LEVEL EXTERIOR DOORS TOTAL	259.84	3	-	84.03					

MAIN LEVEL - DOORS

TAG	LOCATION	OPERATION	MATERIAL	WIDTH (R.O.)	HEIGHT (R.O.)	WIDTH (NET)	HEIGHT (NET)	NET AREA (SF)	QTY.	U-FACTOR	UA	SHGC	MANUFACTURE	MODEL	HARDWARE	REMARKS
D101.1	GARAGE	SWING	ALUM CLAD , WD., GLASS	TBD	TBD	2'-8"	7'-0"	-	1	-	-	-	KOLBE	VISTALUXE COLL. WD LINE - ENTRANCE DOOR	TBD	2,3,6
D101.2	GARAGE	1-PANEL SLIDING	WD, STEEL, INSULATION	TBD	TBD	3'-2"	7'-0"	22.17	1	0.16	3.55	-	TBD	TBD	TBD	8
D101.3	GARAGE	OVERHEAD GARAGE	TBD	TBD	TBD	9'-0"	7'-4"	-	1	-	-	-	TBD	TBD	TBD	6
D101.4	GARAGE	OVERHEAD GARAGE	TBD	TBD	TBD	9'-0"	7'-4"	-	1	-	-	-	TBD	TBD	TBD	6
D103.1	POWDER	1-PANEL SLIDING	WD	TBD	TBD	2'-10"	7'-0"	-	1	-	-	-	TBD	TBD	TBD	7
D104.1	OFFICE	3-PANEL SLIDING	WD	TBD	TBD	15'-7 1/2"	9'-0 1/2"	-	1	-	-	-	TBD	TBD	TBD	7
D105.1	NICHE HALL	SWING	STEEL, INSULATION	TBD	TBD	2'-6"	1'-10"	4.58	1	0.048	0.22	-	TBD	-	TBD	12
D105.2	NICHE HALL	SWING	STEEL, INSULATION	TBD	TBD	2'-6"	1'-10"	4.58	1	0.048	0.22	-	TBD	-	TBD	12
D107.1	PANTRY	1-PANEL SLIDING	WD	TBD	TBD	2'-8"	9'-0 1/4"	-	1	-	-	-	TBD	TBD	TBD	7
D108.1	SITTING ROOM	3-PANEL SLIDING	ALUM. GLASS	19'-0 3/4"	9'-3 1/2"	19'-0 1/4"	9'-3"	175.94	1	0.34	59.82	-	SKY-FRAME	SKY-FRAME 2 - ORIGINAL SLIDING DOOR	TBD	1,2,4,14
D108.2	SITTING ROOM	2-PANEL SLIDING	WD	TBD	TBD	4'-0"	SEE ELEV.	-	1	-	-	-	TBD	TBD	TBD	4,7
D108.3	SITTING ROOM	4-PANEL SLIDING	WD	TBD	TBD	8'-4"	6'-9"	-	1	-	-	-	TBD	TBD	TBD	4,7
D108.4	SITTING ROOM	1-PANEL SLIDING	WD	TBD	TBD	3'-2"	9'-1"	-	1	-	-	-	TBD	TBD	TBD	4,7
D109.1	FAMILY TERRACE	4-PANEL SLIDING	STEEL	TBD	TBD	10'-7"	7'-0"	-	1	-	-	-	TBD	TBD	TBD	6
D111.1	GREAT ROOM	3-PANEL SLIDING	ALUM., GLASS	TBD	TBD	36'-4 3/8"	12'-1 7/16"	440.73	1	0.34	149.85	-	SKY-FRAME	SKY-FRAME 2 - ORIGINAL SLIDING DOOR	TBD	1,2,4,14
D111.2	GREAT ROOM	4-PANEL SLIDING	ALUM., GLASS	TBD	TBD	19'-1"	8'-5 5/8"	161.61	1	0.34	54.95	-	SKY-FRAME	SKY-FRAME 2 - ORIGINAL SLIDING DOOR	TBD	1,2,4
D111.3	GREAT ROOM	PIVOT	ALUM., GLASS	TBD	TBD	3'-7 5/8"	8'-7 3/4"	31.43	1	0.55	17.29	-	SKY-FRAME	SKY-FRAME 2 - PIVOT	TBD	2,4
D112.1	BATH	1-PANEL SLIDING	ALUM CLAD , WD, GLASS	TBD	TBD	3'-0"	8'-2 1/8"	24.53	1	0.26	6.38	-	KOLBE	VISTALUXE COLL. WD LINE - SLIDING DOOR	TBD	2,3,4
D112.2	BATH	1-PANEL SLIDING	GLASS	TBD	TBD	3'-0"	8'-4 5/8"	-	1	-	-	-	TBD	TBD	TBD	2,7
D113.1	PRIVATE TERRACE	3-PANEL SLIDING	WD	TBD	TBD	10'-7"	7'-0"	-	1	-	-	-	TBD	TBD	TBD	4, 6
D114.1	MASTER BEDROOM	2-PANEL SLIDING	ALUM., GLASS	10'-3 1/2"	9'-3 1/2"	10'-3"	9'-3"	94.81	1	0.34	32.24	-	SKY-FRAME	SKY-FRAME 2 - ORIGINAL SLIDING DOOR	TBD	1,2,4,5,14
D114.2	MASTER BEDROOM	3-PANEL SLIDING	WD	TBD	TBD	12'-8"	9'-1"	-	1	-	-	-	TBD	TBD	TBD	4,7
D114.3	MASTER BEDROOM	SWING	WD	TBD	TBD	3'-0"	7'-7 5/8"	-	1	-	-	-	TBD	TBD	TBD	4,7
D115.1	MASTER BATH	1-PANEL POCKET	WD	TBD	TBD	2'-10"	8'-0"	-	1	-	-	-	TBD	TBD	TBD	4,7
D115A.1	SHOWER	2-PANEL SLIDING	GLASS	TBD	TBD	5'-6"	8'-0"	-	1	-	-	-	TBD	TBD	TBD	2,4,7
D115A.2	SHOWER	PIVOT	ALUM., GLASS	3'-11 3/4"	8'-5"	3'-11 1/4"	8'-4 1/2"	32.98	1	0.55	18.14	-	SKY-FRAME	SKY-FRAME 2 - PIVOT	TBD	2,4
D115B.1	TOILET	2-PANEL SLIDING	WD	TBD	TBD	2'-8"	8'-0"	-	1	-	-	-	TBD	TBD	TBD	7
D116.1	MASTER CLOSET	1-PANEL POCKET	WD	TBD	TBD	2'-10"	8'-0"	-	1	-	-	-	TBD	TBD	TBD	7
D116.2	MASTER CLOSET	1-PANEL POCKET	WD	TBD	TBD	2'-10"	8'-0"	-	1	-	-	-	TBD	TBD	TBD	7
D117.1	ENTRY	SWING	WD	TBD	TBD	3'-0"	7'-0"	-	1	-	-	-	TBD	TBD	TBD	7
D117.2	ENTRY	PIVOT	ALUM CLAD , WD	TBD	TBD	5'-1 1/2"	7'-8 1/2"	39.51	1	0.46	18.17	-	KOLBE	VISTALUXE COLL. WD LINE - ENTRANCE DOOR	TBD	4,5
D118.1	POWDER	SWING/PIVOT	WD	TBD	TBD	2'-10"	7'-8"	-	1	-	-	-	TBD	TBD	TBD	7
⚠ D120A.1	HALL	SWING	WD	TBD	TBD	3'-0"	7'-0"	-	1	-	-	-	TBD	TBD	TBD	7
D121.1	LAUNDRY	1-PANEL SLIDING	WD	TBD	TBD	3'-6"	8'-0"	-	1	-	-	-	TBD	TBD	TBD	7
D122.1	HALLWAY	SWING	ALUM CLAD , WD, GLASS	TBD	TBD	3'-0"	7'-5"	22.25	1	0.26	5.79	-	KOLBE	VISTALUXE COLL. WD LINE - ENTRANCE DOOR	TBD	2,3,4
D123.1	BEDROOM	SWING	WD	TBD	TBD	2'-8"	7'-0"	-	1	-	-	-	TBD	TBD	TBD	7
D123A.1	CLOSET	2-PANEL SLIDING	WD	TBD	TBD	4'-1"	7'-0"	-	1	-	-	-	TBD	TBD	TBD	7
D124.1	BATH	1-PANEL SLIDING	WD	TBD	TBD	2'-10"	7'-0"	-	1	-	-	-	TBD	TBD	TBD	7
D124.2	SHOWER	2-PANEL SLIDING	GLASS	TBD	TBD	5'-6"	8'-0"	-	1	-	-	-	TBD	TBD	TBD	2,4,7
D125.1	BEDROOM	SWING	WD	TBD	TBD	2'-8"	7'-0"	-	1	-	-	-	TBD	TBD	TBD	7
D125.2	BEDROOM	SWING	STEEL, INSULATION	TBD	TBD	2'-6"	1'-10"	4.58	1	0.048	0.22	-	TBD	-	TBD	12
D125A.1	CLOSET	2-PANEL SLIDING	WD	TBD	TBD	5'-0"	7'-0"	-	1	-	-	-	TBD	TBD	TBD	7
D126.1	SHOWER	2-PANEL SLIDING	GLASS	TBD	TBD	4'-7 1/2"	9'-1"	-	1	-	-	-	TBD	TBD	TBD	2,4,7
D126.2	BATH	2-PANEL SLIDING	WD	TBD	TBD	5'-2"	7'-0"	-	1	-	-	-	TBD	TBD	TBD	7
							MAIN LEVEL UNHEATED AREA AND INTERIOR DOORS TOTAL	-	31	-	-					
							MAIN LEVEL EXTERIOR DOORS TOTAL	1059.71	13	-	366.82					

SUMMARY OF DOORS

SUM UNHEATED AREA AND INTERIOR DOORS	-	51	-	-
SUM EXTERIOR DOORS	1319.54	16	-	450.85

SUMMARY OF VERTICAL FENESTRATION

SUM OF VERTICAL FENESTRATION	2276.76			679.01
VERTICAL FENESTRATION AREA WEIGHTED = UA/AREA =	0.2982			

VERTICAL FENESTRATION SCHEDULE - EXISTING DETACHED GARAGE

GARAGE - DOORS

TAG	LOCATION	OPERATION	MATERIAL	WIDTH (R.O.)	HEIGHT (R.O.)	WIDTH (NET)	HEIGHT (NET)	NET AREA (SF)	QTY.	U-FACTOR	UA	SHGC	MANUFACTURE	MODEL	HARDWARE	REMARKS
D127.1	DETACHED GARAGE	SWING	REUSE	TBD	TBD	2'-10"	7'-10"	22.19	1	-	-	-	EX	EX	(E)	6,10
D127.2	DETACHED GARAGE	OVERHEAD GARAGE	REUSE	TBD	TBD	16'-0"	8'-0"	128.00	1	-	-	-	EX	EX	(E)	6,9
D127A.1	POWDER	SWING	EX TO REMAIN	EX	EX	2'-6"	6'-9"	16.88	1	-	-	-	EX	EX	(E)	6,7
D127B.1	STORAGE	SWING	EX TO REMAIN	EX	EX	2'-6"	6'-9"	16.88	1	-	-	-	EX	EX	(E)	6,7

REMARKS:
1. MOTERIZED
2. SAFETY GLAZING
3. FROSTED GLAZING
4. CUSTOMIZED SHAPE/SIZE
5. EGRESS
6. UNHEATED SPACE
7. INTERIOR
8. 20MIN. FIRE RATED SELF-CLOSING DOOR
9. REUSE EX GARAGE DOOR &HARDWARE
10. REUSE EX MAN DOOR &HARDWARE
11. CRAWL SPACE ACCESS
12. ATTIC SPACE ACCESS
13. MULLED
14. WATER HAZARD ENTRANCE. PROVIDE ALARM IN ACCORDANCE WITH UL 2017 PER 305.4 ISPSC

GENERAL NOTES:
1. CONTRACTOR TO FIELD VERIFY ROUGH OPENINGS PRIOR TO ORDERING WINDOWS AND DOORS
2. SHOP DRAWINGS TO BE REVIEWED AND APPROVED BY OWNER/ARCHTECT PRIOR TO PRODUCTION
3. COLOR AND HARDWARE TO BE SELECTED BY OWNER/ARCHITECT
4. ALL WINDOWS ARE CLEAR GLASS UNLESS NOTED OTHERWISE
5. ALL SHADES LOCATION TBD
6. ALL KOLBE WINDOWS TO HAVE E270 W/ I89 COATING TO MEET U-FACTOR 0.25MIN

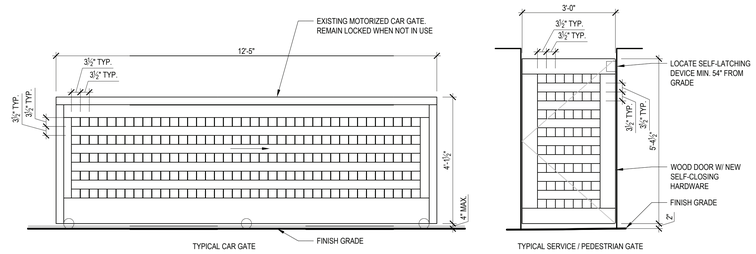
EXTERIOR GATE SCHEDULE & ELEVATIONS

GARAGE - DOORS

TAG	LOCATION	OPERATION	MATERIAL	WIDTH (R.O.)	HEIGHT (R.O.)	WIDTH (NET)	HEIGHT (NET)	NET AREA (SF)	QTY.	U-FACTOR	UA	SHGC	MANUFACTURE	MODEL	HARDWARE	REMARKS
G001	SOUTH GATE	SLIDING	EX TO REMAIN	EX	EX	12'-5"	4'-1 1/2"	51.22	1	-	-	-	EX	EX	(E)	1,2,6,7
G002	MAIN ENTRANCE	SLIDING	EX TO REMAIN	EX	EX	12'-5"	4'-1 1/2"	51.22	1	-	-	-	EX	EX	(E)	1,2,6,7
G003	DUMPSTER AREA	SWING - OUTWARD	EX TO REMAIN	EX	EX	3'-0"	5'-4 1/2"	26.88	1	-	-	-	EX	EX	TBD, REQUIREMENTS SEE REMARK	3,4,5,7
G004	WATERFRONT	SWING - OUTWARD	WOOD	EX	EX	3'-0"	5'-4 1/2"	26.88	1	-	-	-	TBD	-	TBD, REQUIREMENTS SEE REMARK	3,4,5

REMARKS:
1. MOTERIZED
2. KEYPAD FOR ACCESS
3. SELF-CLOSING
4. SELF-LATCHING
5. MAX 2" FROM THE BOTTOM OF THE GATE TO THE GRADE
6. MAX 4" FROM THE BOTTOM OF THE GATE TO THE GRADE
7. REMAIN LOCKED WHEN NOT IN USE

GENERAL NOTES:
1. CONTRACTOR TO FIELD VERIFY ROUGH OPENINGS PRIOR TO ORDERING WINDOWS AND DOORS
2. SHOP DRAWINGS TO BE REVIEWED AND APPROVED BY OWNER/ARCHTECT PRIOR TO PRODUCTION
3. COLOR AND HARDWARE TO BE SELECTED BY OWNER/ARCHITECT



EXTERIOR GATE ELEVATIONS
1/2" = 1'-0"

ROBERT EDSON SWAIN
ARCHITECTURE + DESIGN
2300 W COMMODORE WAY
SEATTLE, WA 98199

6241 REGISTERED ARCHITECT Robert Edson Swain ROBERT EDSON SWAIN STATE OF WASHINGTON

BUILDING PERMIT SUBMITTAL

LAKE HOUSE
3310 97TH AVE. SE
MERCER ISLAND, WA 98040

PROJECT NO.: 1811
DRAWN:

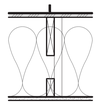
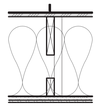
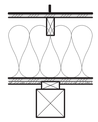
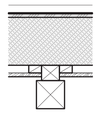
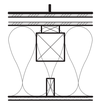
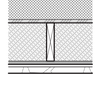
ISSUE	DATE
	12-18-20

REVISIONS	DATE
⚠1 BUILDING CORRECTIONS	06/07/21
⚠1 LAND USE & CIVIL CORRECTIONS	06/11/21
⚠1 BUILDING CORRECTIONS	07/08/21
⚠1 BUILDING CORRECTIONS	07/26/21
⚠1 POST-PERMIT REVISIONS	12/17/21

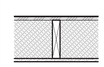
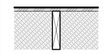
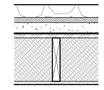
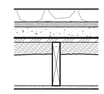
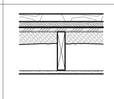
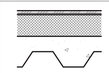
DOOR SCHEDULE

A9.02

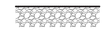
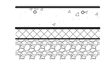
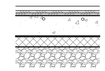
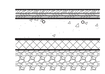
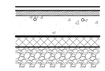
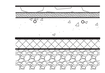
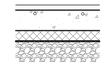
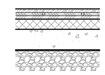
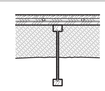
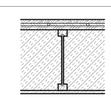
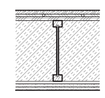
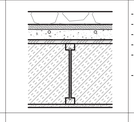
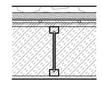
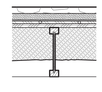
ROOF TYPE SCHEDULE

ROOF/CEILING TYPE	ILLUSTRATIONS	DESCRIPTION	REMARKS	RATED
R1		- STANDING SEAM METAL ROOFING, SPEC TBD - DRAINAGE MAT, TBD - W.R.B., TBD - PLYWOOD ROOF SHEATHING PER STRUCTURE - 1"X4" FURRING @ 24" O.C. W/ 1" RIGID INSULATION - PLYWOOD ROOF SHEATHING PER STRUCTURE - 3/4" DOUGLAS FIR T&G CEILING - PURLIN AND CONNECTION PER STRUCTURE	-UNVENTED - @FAMILY TERRACE109 AND PRIVATE TERRACE 113	
R2		- STANDING SEAM METAL ROOFING, SPEC TBD - DRAINAGE MAT, TBD - W.R.B., TBD - PLYWOOD ROOF SHEATHING PER STRUCTURE - ROOF TRUSSES PER STRUCTURE - 5/8" GWB	- VENTED	
R3		- STANDING SEAM METAL ROOFING, SPEC TBD - DRAINAGE MAT, TBD - W.R.B., TBD - PLYWOOD ROOF SHEATHING PER STRUCTURE - ROOF TRUSSES PER STRUCTURE W/ AIR SPACE FOR ATTIC VENT W/ MIN. R-49 BATT INSULATION - VAPOR BARRIER - 5/8" GWB	- VENTED	
R3 SIM		- STANDING SEAM METAL ROOFING, SPEC TBD - DRAINAGE MAT, TBD - W.R.B., TBD - PLYWOOD ROOF SHEATHING PER STRUCTURE - ROOF FRAMING PER STRUCTURE W/ AIR SPACE FOR ATTIC VENT W/ MIN. R-49 BATT INSULATION - DROPPED CEILING FRAMING - VAPOR BARRIER - 5/8" GWB	- VENTED	
R4		- STANDING SEAM METAL ROOFING, SPEC TBD - DRAINAGE MAT, TBD - W.R.B. TBD - PLYWOOD ROOF SHEATHING PER STRUCTURE - ROOF TRUSSES PER STRUCTURE W/ AIR SPACE FOR ATTIC VENT W/ MIN. R-49 BATT INSULATION - VAPOR BARRIER - 5/8" GWB - 1/8" STL PLATE	- VENTED	
R4 SIM		- STANDING SEAM METAL ROOFING, SPEC TBD - DRAINAGE MAT, TBD - W.R.B., TBD - PLYWOOD ROOF SHEATHING PER STRUCTURE - ROOF FRAMING PER STRUCTURE W/ AIR SPACE FOR ATTIC VENT W/ MIN. R-49 BATT INSULATION - DROPPED CEILING FRAMING - VAPOR BARRIER - 5/8" GWB, PAINT COLOR TBD - 1/8" STL PLATE, FINISH TBD	- VENTED	
R5		- STANDING SEAM METAL ROOFING, SPEC TBD - DRAINAGE MAT, TBD - W.R.B., TBD - PLYWOOD ROOF SHEATHING PER STRUCTURE - ROOF FRAMING PER STRUCTURE W/ AIR SPACE FOR ATTIC VENT W/ MIN. R-49 BATT INSULATION - VAPOR BARRIER - PLYWOOD ROOF SHEATHING PER STRUCTURE - 3/4" DOUGLAS FIR T&G CEILING - PURLIN AND CONNECTION PER STRUCTURE	- VENTED	
R6		- STANDING SEAM METAL ROOFING, SPEC TBD - DRAINAGE MAT, TBD - W.R.B., TBD - PLYWOOD ROOF SHEATHING PER STRUCTURE - ROOF FRAMING PER STRUCTURE W/ MIN. R-38 CLOSE-CELL SPRAY FOAM - ACOUSTIC MATERIAL TBD - 3/4" DOUGLAS FIR T&G CEILING - PURLIN AND CONNECTION PER STRUCTURE	- UNVENTED - @ GREAT ROOM 111 AND KITCHEN 110	
R7		- STANDING SEAM METAL ROOFING, SPEC TBD - DRAINAGE MAT, TBD - W.R.B., TBD - 5/8" PLYWOOD ROOF SHEATHING - 1" BLOCKING @ 24" O.C. - PLYWOOD ROOF SHEATHING PER STRUCTURE - FLAT 2X4 SPACER - PURLIN PER STRUCTURE - AIR SPACE FOR ATTIC VENT W/ MIN. R-49 BATT INSULATION - DROPPED CEILING FRAMING PER STRUCTURE - VAPOR BARRIER - 5/8" GWB	- @GARAGE 101 AND BATH 112 - NO INSULATION @GARAGE 101	
R8		- MEMBRANE ROOFING TBD - COVER BOARD - TAPERED RIGID INSULATION, MIN. R-10 - PLYWOOD ROOF SHEATHING PER STRUCTURE - ROOF RAFTER PER STRUCTURE W/ MIN. R-38 CLOSE-CELL SPRAY FOAM - 5/8" GWB - 1/8" STL PLATE	- UNVENTED - SLOPE TO BE DETERMINED	
R9		- MEMBRANE ROOFING TBD - COVER BOARD - TAPERED RIGID INSULATION, MIN. R-10 - PLYWOOD ROOF SHEATHING PER STRUCTURE - ROOF RAFTER PER STRUCTURE W/ MIN. R-38 CLOSE-CELL SPRAY FOAM - 5/8" GWB	- UNVENTED - SLOPE TO BE DETERMINED	
R10		- MEMBRANE ROOFING TBD - COVER BOARD - TAPERED RIGID INSULATION, MIN. R-10 - PLYWOOD ROOF SHEATHING PER STRUCTURE - ROOF RAFTER PER STRUCTURE W/ MIN. R-38 CLOSE-CELL SPRAY FOAM - 1/2" CEMENT BOARD - 1/2" MECHANICAL ATTACHMENT FOR 3CM SLAB (OR 1/4" MORTAR) - 3CM STONE SLAB (OR 2CM)	-UNVENTED - @ SHOWER 115A	

ROOF TYPE SCHEDULE

ROOF/CEILING TYPE	ILLUSTRATIONS	DESCRIPTION	REMARKS	RATED
R11		- METAL ROOFING, TBD - W.R.B. - DRAINAGE MAT - PLYWOOD ROOF SHEATHING PER STRUCTURE - ROOF RAFTERS PER STRUCTURE W/ MIN. R-38 AIR-IMPERMEABLE INSULATION - 5/8" GWB	- UNVENTED - @ MASTER BEDROOM 116 LIGHT TOWER	
R12		- METAL ROOFING TBD - W.R.B. - DRAINAGE MAT - PLYWOOD ROOF SHEATHING PER STRUCTURE - ROOF RAFTERS PER STRUCTURE W/ MIN. R-38 AIR-IMPERMEABLE INSULATION - 1/2" CEMENT BOARD - 1/2" MECHANICAL ATTACHMENT FOR 3CM SLAB (OR 1/4" MORTAR) - 3CM STONE SLAB (OR 2CM)	- UNVENTED - @ SHOWER 115A LIGHT TOWER	
R21		- 2 1/2" STONE PAVER PER SPEC - MIN. 1" MORTAR SETTING BED, SLOPED - 2" CUSTOMIZED CONCRETE SLAB - W.R.B. TBD - PLYWOOD SHEATHING PER STRUCTURE - FRAMING PER STRUCTURE W/ MIN. R-38 CLOSE-CELL SPRAY FOAM - 5/8" GWB, PAINT COLOR TBD	- UNVENTED	
R22		- 2 1/2" STONE PAVER PER SPEC - MIN. 1" MORTAR SETTING BED, SLOPED - 2" CUSTOMIZED CONCRETE SLAB - W.R.B. TBD - PLYWOOD SHEATHING PER STRUCTURE - FRAMING PER STRUCTURE W/ MIN. 2IN CLOSE-CELL SPRAY FOAM - 5/8" GWB, PAINT COLOR TBD	- UNVENTED	
R22 SIM		- 2 1/2" STONE PAVER PER SPEC - MIN. 1" MORTAR SETTING BED, SLOPED - 2" HIGH-STRENGTH MINI SLAB - W.R.B. TBD - PLYWOOD SHEATHING PER STRUCTURE - FRAMING PER STRUCTURE W/ MIN. 2IN CLOSE-CELL SPRAY FOAM - 5/8" GREENBOARD	- UNVENTED - @ OUTSIDE OF GYM	
R23		- MEMBRANE ROOFING TBD - 1/2" PLYWOOD SHEATHING PER STRUCTURE - TAPERED RIGID INSULATION, SLOPE @ ¼"/FT MIN. - (E)NEW 6" COMPOSITE SLAB W/ METAL DECK - INTERIOR FINISH TO REMAIN/ MATCH (E)	- UNVENTED - @ DETACHED GARAGE	
R23		- DECK MATERIAL TBD - FURRING STRIP - W.R.B. TBD - PT PLYWOOD SHEATHING PER STRUCTURE, SLOPED - FRAMING PER STRUCTURE, PAINTED AS REQUIRED	- @TERRACE OUTSIDE OF MASTER SHOWER	

FLOOR TYPE SCHEDULE

FLOOR TYPE	ILLUSTRATIONS	DESCRIPTION	REMARKS	RATED
F1		- MIN. 6-MIL POLYETHYLENE OR EQUIVALENT VAPOR BARRIER - 4" UNIFORM LAYER OF CLEAN AGGREGATE, PASS THROUGH 2" SIEVE AND BE RETAINED BY 1/4" SIEVE. - NATIVE SOIL	- VAPOR BARRIER TO BE CONTINUOUS. JOINTS SHALL OVERLAP BY 6 INCHES AND SHALL BE SEALED. THE EDGES SHALL EXTEND AT LEAST 6 INCHES UP THE STEM WALL AND SHALL BE SEALED.	
F2		- SEALER FINISH PER SCHEDULE - CONCRETE SLAB PER STRUCTURE W/ RADIANT HEATING TUBES - VAPOR BARRIER - MIN. R-10 RIGID INSULATION - 4" FREE DRAINING MATERIAL	- REMOVE RADIANT HEATING TUBES AND INSULATION IN UNHEATED BASEMENT AREA, INCLUDING 002,003,006,101	
F3		- CARPET W/ PAD - 1/2" PLYWOOD - 1/2" PRESSURE TREATED PLYWOOD SUBFLOOR - CONCRETE SLAB PER STRUCTURE W/ RADIANT HEATING TUBES - VAPOR BARRIER - MIN. R-10 RIGID INSULATION - 4" FREE DRAINING MATERIAL		
F4		- 3/4" WOOD FLOOR - 1/2" PLYWOOD - 1/2" PRESSURE TREATED PLYWOOD SUBFLOOR - CONCRETE SLAB PER STRUCTURE W/ RADIANT HEATING TUBES - VAPOR BARRIER - MIN. R-10 RIGID INSULATION - 4" FREE DRAINING MATERIAL		
F5		- PORCELAIN TILE, TBD - THINSET MORTAR - CONCRETE SLAB PER STRUCTURE W/ RADIANT HEATING TUBES - VAPOR BARRIER - MIN. R-10 RIGID INSULATION - 4" FREE DRAINING MATERIAL		
F5a		- 2CM/3CM STONE, TBD - MORTAR SETTING BED - CONCRETE SLAB PER STRUCTURE W/ RADIANT HEATING TUBES - VAPOR BARRIER - MIN. R-10 RIGID INSULATION - 4" FREE DRAINING MATERIAL	- REMOVE RADIANT HEATING TUBES AND INSULATION IN UNHEATED BASEMENT AREA, SUCH AS THE PATIO OUTSIDE THE GYM	
F6		- MIN. 2" RUBBER FLOOR, TBD - CONCRETE SLAB PER STRUCTURE W/ RADIANT HEATING TUBES- MIN. R-10 RIGID INSULATION - VAPOR BARRIER - 4" FREE DRAINING MATERIAL		
F7		- 3/4" WOOD FLOOR - 1/2" PLYWOOD W/ RADIANT HEAT SYSTEM - PLYWOOD SUBFLOOR PER STRUCTURE - MIN. R-10 RIGID INSULATION - CONCRETE SLAP PER STRUCTURE - VAPOR BARRIER - 4" FREE DRAINING MATERIAL		
F8		- 3/4" WOOD FLOOR - 1/2" PLYWOOD W/ RADIANT HEAT SYSTEM - PLYWOOD SUBFLOOR PER STRUCTURE - FRAMING PER STRUCTURE W/ MIN. R-30 CLOSE-CELL SPRAY FOAM - CRAWLSPACE		
F8a		- 3/4" WOOD FLOOR - 1/2" QUIK TRAK BOARD W/ RADIANT HEAT SYSTEM - PLYWOOD SUBFLOOR PER STRUCTURE - FRAMING PER STRUCTURE W/ ACOUSTIC INSULATION, TBD - 5/8" GWB, U.N.O PER FINISH SCHEDULE		
F8b		- 3/4" WOOD FLOOR - 1/2" QUIK TRAK BOARD W/ RADIANT HEAT SYSTEM - PLYWOOD SUBFLOOR PER STRUCTURE - FRAMING PER STRUCTURE W/ ACOUSTIC INSULATION, TBD - 1/2" GAP FOR LOW PROFILE RSIC CLIPS - (2) 5/8" GWB, U.N.O PER FINISH SCHEDULE		
F9		- 2 1/2" STONE, TBD - MIN. 1" MORTAR - 2" CUSTOMIZED CONCRETE SLAB W/ RADIANT HEATING TUBES - 3/4" PLYWOOD SUBFLOOR - FRAMING PER STRUCTURE W/ ACOUSTIC INSULATION - 5/8" GWB, U.N.O PER FINISH SCHEDULE	- ACOUSTIC INSULATION, TBD	
F10		- 3CM STONE SLAB/2CM STONE SLAB - MIN.1 1/4" MORTAR BED - 1/4" CEMENT BOARD - 1/2" QUIK TRAK BOARD - 3/4" PLYWOOD SUBFLOOR - FRAMING PER STRUCTURE W/ ACOUSTIC INSULATION, TBD - 5/8" GWB	- ¼" PER FT SLOPED MORTAR ABOVE 1/2" PLYWOOD AT SHOWER LOCATION - SHOWER PAN ABOVE THE SLOPED MORTAR	
F10a		- 3CM STONE SLAB/2CM STONE SLAB - MIN.1 1/4" MORTAR BED - 1/4" CEMENT BOARD - 1/2" QUIK TRAK BOARD - 3/4" PLYWOOD SUBFLOOR - FRAMING PER STRUCTURE W/ R-30 SPRAY FOAM INSULATION	- ¼" PER FT SLOPED MORTAR ABOVE 1/2" PLYWOOD AT SHOWER LOCATION - SHOWER PAN ABOVE THE SLOPED MORTAR	

1 ROOF TYPE SCHEDULE

2 FLOOR TYPE SCHEDULE

ROBERT EDSON SWAIN
ARCHITECTURE + DESIGN
2300 W COMMODORE WAY
SEATTLE, WA 98199

6241 REGISTERED ARCHITECT
Robert Edson Swain
ROBERT EDSON SWAIN
STATE OF WASHINGTON

BUILDING PERMIT SUBMITTAL

LAKE HOUSE
3310 97TH AVE. SE
MERCER ISLAND, WA 98040

PROJECT NO.: 1811
DRAWN:

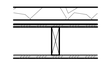
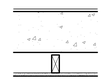
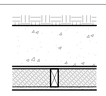
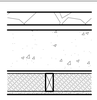
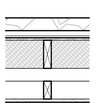
ISSUE	DATE
	12-18-20

REVISIONS	DATE
1 BUILDING CORRECTIONS	06/07/21
1 LAND USE & CIVIL CORRECTIONS	06/11/21
1 BUILDING CORRECTIONS	07/08/21
1 BUILDING CORRECTIONS	07/26/21
1 POST-PERMIT REVISIONS	12/17/21

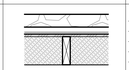
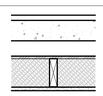
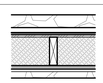
ROOF&FLOOR ASSEMBLY

A9.11

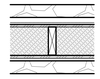
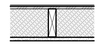
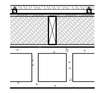
WALL TYPE SCHEDULE

WALL TYPE	ILLUSTRATIONS	DESCRIPTION	REMARKS	RATED
W1		- (E) EARTH - (E) CONCRETE - CRAWL SPACE		
W1 SIM		- (E) EARTH - (N) CONCRETE - CRAWL SPACE		
W1a		- 2 1/2" STONE VENEER - MIN. 1" AIR SPACE - (E) CONCRETE - CRAWL SPACE		
W1b		- 2 1/2" STONE VENEER - MIN. 1" AIR SPACE - W.R.B. TBD - (E) PLYWOOD SHEATHING - (E) FRAMING - CRAWL SPACE		
W2		- (E) EARTH - (E) CONCRETE - 1/2" AIR SPACE - 2X4 FLAT WOOD STUD - PAINTED MDO PLYWOOD		
W2a		- 2 1/2" STONE VENEER - MIN. 1" AIR SPACE - (E) CONCRETE - 1/2" AIR SPACE - 2X4 FLAT WOOD STUD - PAINTED MDO PLYWOOD		
W2b		- 2 1/2" STONE VENEER - MIN. 1" AIR SPACE - W.R.B. TBD - (E) PLYWOOD SHEATHING - (E) FRAMING - PAINTED PLYWOOD		
W3		- POOL FINISH TBD - CONCRETE PER STRUCTURE - SKIM COAT, COLOR TBD		
W3a		- POOL FINISH TBD - CONCRETE PER STRUCTURE - 1/2" AIR SPACE - FRAMING PER PLAN - 5/8" GWB, U.N.O		
W4		- 3/16" RUSTED STEEL PANEL - W.R.B, TBD - PLYWOOD SHEATHING PER STRUCTURE - WALL FRAMING PER PLAN - 5/8" GWB, U.N.O		
W5		- (E) EARTH OR CRAWL SPACE - (E) CONCRETE - W.R.B. TBD - 1/2" AIR SPACE - WALL FRAMING PER PLAN W/ MIN. R-21 CLOSE-CELL SPRAY FOAM - 5/8" GWB, U.N.O	- REPLACE DRYWALL WITH CEMENT BOARD AND 3CM STONE SLAB AT WET LOCATION	
W5 SIM		- (E) EARTH OR CRAWL SPACE - W.R.B. TBD - (N) CONCRETE - 1/2" AIR SPACE - WALL FRAMING PER PLAN W/ MIN. R-21 CLOSE-CELL SPRAY FOAM - 5/8" GWB, U.N.O		
W5a		- 2 1/2" STONE VENEER - 1" AIR SPACE - (E) CONCRETE - W.R.B. TBD - 1/2" AIR SPACE - WALL FRAMING PER PLAN W/ MIN. R-21 CLOSE-CELL SPRAY FOAM - 5/8" GWB, U.N.O	- REPLACE DRYWALL WITH CEMENT BOARD AND 3CM STONE SLAB AT WET LOCATION	
W5b		- 2 1/2" STONE VENEER - 1" AIR SPACE - DRAINAGE MAT, TBD - W.R.B., TBD - (E)PLYWOOD SHEATHING - (E) FRAMING W/ MIN. R21 CLOSE-CELL SPRAY FOAM - AIR SPACE - WALL FRAMING PER PLAN - 5/8" GWB, U.N.O	- REPLACE DRYWALL WITH CEMENT BOARD AND 3CM STONE SLAB AT WET LOCATION - NEW FRAMING AND PLYWOOD SHEATHING @ EXERCISE 008 SOUTH	

WALL TYPE SCHEDULE

WALL TYPE	ILLUSTRATIONS	DESCRIPTION	REMARKS	RATED
W5c		- W.R.B., TBD - (E)PLYWOOD SHEATHING - (E) FRAMING W/ MIN. R21 CLOSE-CELL SPRAY FOAM - AIR SPACE - WALL FRAMING PER PLAN - 5/8" GWB, U.N.O		
W5c SIM		- W.R.B., TBD - (N)PLYWOOD SHEATHING - (N) FRAMING W/ MIN. R21 CLOSE-CELL SPRAY FOAM - AIR SPACE - WALL FRAMING PER PLAN - 5/8" GWB, U.N.O		
W6		- THERMORY CLADDING, ASH, ORIENTATION PER ARCH - 3/4" THERMORY STRIP - DRAINAGE MAT, TBD - W.R.B., TBD - (E) PLYWOOD SHEATHING - (E) FRAMING W/ MIN. R21 CLOSE-CELL SPRAY FOAM - AIR SPACE - WALL FRAMING PER PLAN - 5/8" GWB, U.N.O		
W7		- THERMORY CLADDING, ASH, PER ARCH - THERMORY STRIP - DRAINAGE MAT, TBD - W.R.B., TBD - PLYWOOD SHEATHING PER STRUCTURE - WALL FRAMING PER PLAN W/ MIN. R21 CLOSE-CELL SPRAY FOAM - VAPOR BARRIER - 5/8" GWB, U.N.O	- NO INSULATION @GARAGE 101	
W7 SIM		- THERMORY CLADDING, ASH, PER ARCH - THERMORY STRIP - DRAINAGE MAT, TBD - W.R.B., TBD - PLYWOOD SHEATHING PER STRUCTURE - WALL FRAMING PER PLAN W/ MIN. R21 CLOSE-CELL SPRAY FOAM - VAPOR BARRIER - 5/8" GWB, U.N.O PER FINISH SCHEDULE	- NO INSULATION @GARAGE 101	
W8		- THERMORY CLADDING, ASH, PER ARCH - THERMORY STRIP - DRAINAGE MAT, TBD - W.R.B., TBD - PLYWOOD SHEATHING PER STRUCTURE - ROOF FRAMING PER STRUCTURE W/ MIN. R21 CLOSE-CELL SPRAY FOAM - ATTIC SPACE	- NO INSULATION @GARAGE 101	
W8a		- PAINTED ALUMINUM, TBD - DRAINAGE MAT, TBD - W.R.B., TBD - PLYWOOD SHEATHING PER STRUCTURE - TRUSS PER STRUCTURE W/ MIN. R21 CLOSE-CELL SPRAY FOAM - ATTIC SPACE	- BETWEEN PURLIN ENDS	
W9		- 2 1/2" STONE VENEER - 1" AIR SPACE - DRAINAGE MAT, TBD - W.R.B., TBD - PLYWOOD SHEATHING PER STRUCTURE - WALL FRAMING PER PLAN W/ MIN. R21 CLOSE-CELL SPRAY FOAM - VAPOR BARRIER - 5/8" GWB, U.N.O PER FINISH SCHEDULE		
W9a		- 2 1/2" STONE VENEER - 1" AIR SPACE - DRAINAGE MAT, TBD - W.R.B., TBD - PLYWOOD SHEATHING PER STRUCTURE - WALL FRAMING PER PLAN W/ MIN. R21 CLOSE-CELL SPRAY FOAM - VAPOR BARRIER		
W10		- GREEN WALL, TBD - CMU PER STRUCTURE - 3" AIR SPACE - DRAINAGE MAT, TBD - W.R.B., TBD - PLYWOOD SHEATHING PER STRUCTURE - WALL FRAMING PER PLAN W/ MIN. R21 CLOSE-CELL SPRAY FOAM - VAPOR BARRIER - 5/8" GWB, U.N.O		
W11		- 2 1/2" STONE VENEER - 1" AIR SPACE - DRAINAGE MAT, TBD - W.R.B., TBD - PLYWOOD SHEATHING PER STRUCTURE - WALL FRAMING PER PLAN W/ MIN. R-21 CLOSE-CELL SPRAY FOAM - VAPOR BARRIER (IN WET LOCATION) - 1/2" CEMENT BOARD - 1/2" MECHANICAL ATTACHMENT FOR 3CM SLAB (OR 1/4" MORTAR) - 3CM STONE SLAB (OR 2CM)		
W11 SIM 1		- STEEL PANEL, FINISH TBD - DRAINAGE MAT, TBD - W.R.B., TBD - PLYWOOD SHEATHING PER STRUCTURE - WALL FRAMING PER PLAN W/ MIN. R-21 CLOSE-CELL SPRAY FOAM - VAPOR BARRIER - 1/2" CEMENT BOARD - 1/2" MECHANICAL ATTACHMENT FOR 3CM SLAB (OR 1/4" MORTAR) - 3CM STONE SLAB (OR 2CM)		

WALL TYPE SCHEDULE

WALL TYPE	ILLUSTRATIONS	DESCRIPTION	REMARKS	RATED
W12		- 2 1/2" STONE VENEER - 1" AIR SPACE - DRAINAGE MAT, TBD - W.R.B., TBD - PLYWOOD SHEATHING PER STRUCTURE - WALL FRAMING PER PLAN W/ MIN. R21 CLOSE-CELL SPRAY FOAM - 1/2" PLYWOOD BACKING - 1" AIR SPACE - 2 1/2" STONE VENEER		
W13		- AIR SPACE FOR SKYFRAME - ALUMINUM PANEL TO MATCH SKYFRAME DOOR - PLYWOOD SHEATHING PER STRUCTURE - WALL FRAMING PER PLAN W/ MIN. R-21 CLOSE-CELL SPRAY FOAM - VAPOR BARRIER - 5/8" GWB, U.N.O PER FINISH SCHEDULE		
W14		- THERMORY CLADDING, ASH, PER ARCH - THERMORY STRIP - DRAINAGE MAT, TBD - W.R.B., TBD - PLYWOOD SHEATHING PER STRUCTURE - WALL FRAMING PER PLAN W/ MIN. R21 CLOSE-CELL SPRAY FOAM - 1/2" AIR SPACE - CMU PER STRUCTURE		

1 WALL TYPE SCHEDULE

ROBERT EDSON SWAIN
ARCHITECTURE + DESIGN
2300 W COMMODORE WAY
SEATTLE, WA 98199
6241 REGISTERED ARCHITECT ROBERT EDSON SWAIN STATE OF WASHINGTON

BUILDING PERMIT SUBMITTAL

LAKE HOUSE
3310 97TH AVE. SE
MERCER ISLAND, WA 98040

PROJECT NO.: 1811
DRAWN:

ISSUE	DATE
	12-18-20

REVISIONS	DATE
1 BUILDING CORRECTIONS	06/07/21
1 LAND USE & CIVIL CORRECTIONS	06/11/21
1 BUILDING CORRECTIONS	07/08/21
1 BUILDING CORRECTIONS	07/26/21
1 POST-PERMIT REVISIONS	12/17/21

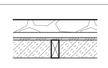
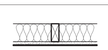
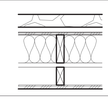
WALL ASSEMBLY

A9.12

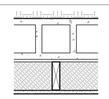
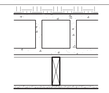
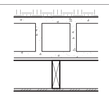
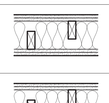
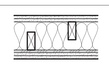
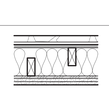
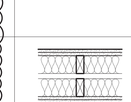
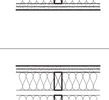
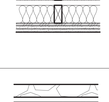
WALL TYPE SCHEDULE

WALL TYPE	ILLUSTRATIONS	DESCRIPTION	REMARKS	RATED
W20		- FRAMING PER PLAN - PLYWOOD SHEATHING PER STRUCTURE	- INTERIOR	
W20a		- FRAMING PER PLAN - PLYWOOD SHEATHING PER STRUCTURE - PAINTED MDO PLYWOOD		
W20b		- FRAMING PER PLAN W/ MIN. R21 CLOSE-CELL SPRAY FOAM - VAPOR BARRIER - 5/8" GWB, U.N.O		
W21		- PAINTED MDO PLYWOOD - FRAMING PER PLAN - PAINTED MDO PLYWOOD		
W21a		- PLYWOOD SHEATHING PER STRUCTURE - FRAMING PER PLAN - PLYWOOD SHEATHING PER STRUCTURE		
W21b		- PLYWOOD SHEATHING PER STRUCTURE - FRAMING PER PLAN - PAINTED MDO PLYWOOD		
W22		- PAINTED MDO PLYWOOD - FRAMING PER PLAN - 5/8" GREENBOARD W/ MIN. R21 CLOSE-CELL SPRAY FOAM - FINISH TBD		
W22a		- PAINTED MDO PLYWOOD - PLYWOOD SHEATHING PER STRUCTURE - FRAMING PER PLAN W/ MIN. R21 CLOSE-CELL SPRAY FOAM - 5/8" GREENBOARD - FINISHI TBD		
W22b		- PAINTED MDO PLYWOOD - FRAMING PER PLAN W/ MIN. R21 CLOSE-CELL SPRAY FOAM - SHEATHING PER STRUCTURE - 5/8" GREENBOARD - FINISHI TBD		
W22c		- PAINTED MDO PLYWOOD - FRAMING PER PLAN W/ MIN. R21 CLOSE-CELL SPRAY FOAM - 5/8" GWB, U.N.O		
W23		- 5/8" GWB, U.N.O - FRAMING PER PLAN W/ ACOUSTIC INSULATION FILLED THE CAVITY - 5/8" GWB, U.N.O		
W23a		- FRAMING PER PLAN - 5/8" GWB, U.N.O		
W23b		- 5/8" GWB, U.N.O - FRAMING PER PLAN W/ MIN. R21 CLOSE-CELL SPRAY FOAM - 5/8" GWB, U.N.O		
W23c		- 5/8" GWB, U.N.O - FRAMING PER PLAN - 5/8" GWB, U.N.O		
W24		- 5/8" GWB, U.N.O - PLYWOOD SHEATHING PER STRUCTURE - FRAMING PER PLAN W/ ACOUSTIC INSULATION - 5/8" GWB, U.N.O		
W24a		- 5/8" GWB, U.N.O. - PLYWOOD SHEATHING PER STRUCTURE - FRAMING PER PLAN W/ MIN. R21 CLOSE-CELL SPRAY FOAM - VAPOR BARRIER - 5/8" GWB, U.N.O		
W24b		- 5/8" GWB, U.N.O - PLYWOOD SHEATHING PER STRUCTURE - FRAMING PER PLAN W/ ACOUSTIC INSULATION - PLYWOOD SHEATHING PER STRUCTURE - 5/8" GWB, U.N.O	- ACOUSTIC INSULATION TBD	
W25		- 2CM OR 3CM SLAB STONE - 1/4" MORTAR OR 1/2" MECHANICAL ATTACHMENT - 1/2" CEMENT BOARD - FRAMING PER PLAN W/ ACOUSTIC INSULATION - 5/8" GWB, U.N.O	- ACOUSTIC INSULATION TBD	
W26		- 2 1/2" STONE VENEER - 1" SPACE FOR ATTACHMENT - CMU PER STRUCTURE - 1/2" AIR SPACE - FURRING STRIP - INTERIOR FINISH PER SCHEDULE	- ACOUSTIC INSULATION TBD	

WALL TYPE SCHEDULE

WALL TYPE	ILLUSTRATIONS	DESCRIPTION	REMARKS	RATED
W26a		- 2 1/2" STONE VENEER - 1" SPACE FOR ATTACHMENT - CMU PER STRUCTURE		
W26b		- CMU PER STRUCTURE - 1/2" AIR SPACE - FLAT FRAMING PER PLAN - 5/8" GWB, U.N.O		
W27		- WOOD WALL FINISH - FRAMING PER PLAN - 5/8" GWB, U.N.O		
W27a		- WOOD WALL FINISH - FRAMING PER PLAN W/ ACOUSTIC INSULATION - 5/8" GWB, U.N.O - 1/8" STL PLATE		
W27b		- FRAMING PER PLAN W/ ACOUSTIC INSULATION - WOOD WALL FINISH		
W28		- 2 1/2" STONE VENEER - 1" SPACE FOR ATTACHMENT - 1/2" PLYWOOD - FRAMING PER PLAN W/ ACOUSTIC INSULATION - 1/2" CEMENT BOARD - 1/2" MECHANICAL ATTACHMENT FOR 3CM SLAB (OR 1/4" MORTAR) - 3CM STONE SLAB (OR 2CM)		
W28a		- FRAMING PER PLAN - PLYWOOD SHEATHING PER STURCUTRE - VAPOR BARRIER - 1/2" CEMENT BOARD - 1/2" MECHANICAL ATTACHMENT FOR 3CM SLAB (OR 1/4" MORTAR) - 3CM STONE SLAB (OR 2CM)		
W29		- 2 1/2" STONE VENEER - 1" SPACE FOR ATTACHMENT - 1/2" PLYWOOD - FRAMING PER PLAN W/ ACOUSTIC INSULATION - 5/8" GWB, U.N.O		
W29a		- 2 1/2" STONE VENEER - 1" SPACE FOR ATTACHMENT - 1/2" PLYWOOD - FRAMING PER PLAN W/ ACOUSTIC INSULATION		
W30		- WOOD WALL FINISH - 5/8" GWB, U.N.O - FRAMING PER PLAN W/ ACOUSTIC INSULATION - 5/8" GWB, U.N.O - 1/8" STL PLATE		
W30a		- CMU PER STRUCTURE - MIN. 1/2" AIR SPACE - FRAMING PER PLAN W/ ACOUSTIC INSULATION - 5/8" GWB, U.N.O - 1/8" STL PLATE		
W30b		- FRAMING PER PLAN W/ ACOUSTIC INSULATION - 5/8" GWB, U.N.O - 1/8" STL PLATE		
W31		- 2 1/2" STONE VENEER - 1" SPACE FOR ATTACHMENT - PLYWOOD SHEATHING PER STRUCTURE - FRAMING PER PLAN W/ ACOUSTIC INSULATION - 1/2" CEMENT BOARD - 1/2" MECHANICAL ATTACHMENT FOR 3CM SLAB (OR 1/4" MORTAR) - 3CM STONE SLAB (OR 2CM)		
W32		- CMU PER STRUCTURE - AIR SPACE - FRAMING PER PLAN - 5/8" GWB, U.N.O.		
W32a		- CMU PER STRUCTURE - MIN. 1/2" AIR SPACE - FRAMING PER PLAN - 5/8" GWB, U.N.O. - 1/8" STL PLATE		
W33		- 2 1/2" STONE VENEER -1" SPACE FOR ATTACHMENT - 1/2" PLYWOOD - 2x6 FRAMING - AIR SPACE PER PLAN -FRAMING PER PLAN - PLYWOOD SHEATHING PER STRUCTURE - 5/8" GWB, U.N.O		
W33a		- 2 1/2" STONE VENEER - 1/2" AIR SPACE - 1/2" CEMENT BOARD - 2X6 WALL FRAMING W/ ACOUSTIC INSULATION FILLED IN THE CAVITY - AIR SPACE PER PLAN - 2X4 WALL FRAMING - 3/4" GRADE PLYWOOD (TBD)		

WALL TYPE SCHEDULE

WALL TYPE	ILLUSTRATIONS	DESCRIPTION	REMARKS	RATED
W34		- EARTH - CMU PER STRUCTURE - MIN. 1/2" AIR SPACE - FRAMING PER PLAN W/ MIN. R21 CLOSE-CELL SPRAY FOAM - VAPOR BARRIER - 5/8" GWB, U.N.O		
W34a		- EARTH - CMU PER STRUCTURE - MIN. 1/2" AIR SPACE - PLYWOOD SHEATHING PER STRUCTURE - FRAMING PER PLAN - 5/8" GWB, U.N.O		
W35		- EARTH - CMU PER STRUCTURE - MIN. 1/2" AIR SPACE - FRAMING PER PLAN - PAINTED MDO PLYWOOD		
W35a		- EARTH - CMU PER STRUCTURE - MIN. 1/2" AIR SPACE - PLYWOOD SHEATHING PER STRUCTURE - FRAMING PER PLAN - PAINTED MDO PLYWOOD		
W36		- EARTH - CMU PER STRUCTURE - MIN. 1/2" AIR SPACE - FRAMING PER PLAN W/ MIN. R21 CLOSE-CELL SPRAY FOAM - 5/8" GREENBOARD - FINISH TBD		
W36a		- EARTH - CMU PER STRUCTURE - MIN. 1/2" AIR SPACE - FRAMING PER PLAN W/ MIN. R21 CLOSE-CELL SPRAY FOAM - SHEATHING PER PLAN - 5/8" GREENBOARD - FINISH TBD		
W37		- (2) 5/8" GWB - STAGGERED 2X4 STUDS ON 2X6 WALL PLATE W/ ACOUSTIC INSULATION FILLED IN THE CAVITY - (2) 5/8" GWB		
W37a		- (2) 5/8" GWB - STAGGERED 2X4 STUDS ON 2X6 WALL PLATE W/ ACCOUSTIC INSULATION FILLED IN THE CAVITY - SHEATHING PER STRUCTURE - (2) 5/8" GWB		
W38		- 3CM STONE SLAB (OR 2CM SLAB) - 1/2" SPACE FOR MECHANICAL ATTACHMENT (OR 1/4" MORTAR) - 1/2" CEMENT BOARD - VAPOR BARIER - STAGGERED 2X4 STUDS ON 2X6 WALL PLATE W/ ACOUSTIC INSULATION FILLED IN THE CAVITY - SHEATHING PER STRUCTURE - (2) 5/8" GWB		
W39		- (2) 5/8" GWB - 2X4 WALL FRAMING W/ ACOUSTICAL INSULATION FILLED IN THE CAVITY - 1" AIR SPACE - 2X4 WALL FRAMING W/ ACOUSTIC INSULATION FILLED IN THE CAVITY - (2) 5/8" GWB		
W39a		- (2) 5/8" GWB - 2X4 WALL FRAMING W/ ACOUSTICAL INSULATION FILLED IN THE CAVITY - 1" AIR SPACE - 2X4 WALL FRAMING W/ ACCOUSTIC INSULATION FILLED IN THE CAVITY - SHEATHING PER STRUCTURE - (2) 5/8" GWB		
W40		- 2 1/2" STONE VENEER - 1" SPACE FOR ATTACHMENT - CONCRETE WALL PER STRUCTURE - MIN. 1/2" AIR SPACE - FURRING STRIP - INTERIOR FINISH PER SCHEDULE		
W40a		- 2 1/2" STONE VENEER - 1" SPACE FOR ATTACHMENT - CONCRETE WALL PER STRUCTURE - 1" AIR SPACE - 2x4 FRAMING W/ ACOUSTIC INSULATION FILLED IN THE CAVITY - 3/4" GRADE PLYWOOD		

1 WALL TYPE SCHEDULE

ROBERT EDSON SWAIN
ARCHITECTURE + DESIGN
2300 W COMMODORE WAY
SEATTLE, WA 98199
6241 REGISTERED ARCHITECT ROBERT EDSON SWAIN STATE OF WASHINGTON

BUILDING PERMIT SUBMITTAL

LAKE HOUSE
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1 BUILDING CORRECTIONS	07/26/21
1 POST-PERMIT REVISIONS	12/17/21

WALL ASSEMBLY
A9.13

GENERAL STRUCTURAL NOTES

(The following apply unless shown otherwise on the plans.)

CRITERIA

1. ALL NEW MATERIALS, WORKMANSHIP, DESIGN, AND CONSTRUCTION SHALL CONFORM TO THE DRAWINGS, SPECIFICATIONS, AND THE INTERNATIONAL BUILDING CODE (2015 EDITION).

2. DESIGN LOADING CRITERIA

ROOF LIVE LOAD (SNOW, IRREDUCIBLE, NOT INCLUDING DRIFT)	25 PSF
FLOOR LIVE LOAD (TYPICAL RESIDENTIAL)	40 PSF
FLOOR LIVE LOAD (INTERIOR GATHERING SPACES)	50 PSF
FLOOR LIVE LOAD (RESIDENTIAL BALCONIES)	60 PSF
FLOOR LIVE LOAD (PARKING, NON REDUCIBLE)	40 PSF UNIFORM, 3000 LB CONCENTRATED
FLOOR LIVE LOAD (STORAGE, NON REDUCIBLE)	125 PSF
FLOOR LIVE LOAD (MECHANICAL AND ELECTRICAL ROOMS, NON-REDUCIBLE).	125 PSF
STAIR AND CORRIDOR LIVE LOAD, NON REDUCIBLE	60 PSF
MECHANICAL UNITS	WEIGHTS FURNISHED BY MANUFACTURER

DESIGN LOADING CRITERIA – LATERAL LOADS

WIND — VULT = 110 MPH (3-SECOND GUST), VASD = 85 MPH (3-SECOND GUST)
ENCLOSED BUILDING, EXPOSURE "C", KZT=1.0
DIRECTIONAL PROCEDURE PER ASCE 7-10 CH27

EARTHQUAKE — RISK CATEGORY 2, IE =1.0
SS =1.38, S1 = 0.53,
SITE CLASS = D (ASSUMED),
SDS = 0.92, SD1 = .53,
SDC = D,
BSFRS = PLYWOOD SHEAR WALLS R = 6.5
CS =.142, R/IO =1.3
DESIGN BASE SHEAR V=.50W.
EQUIVALENT LATERAL FORCE PROCEDURE

DESIGN LOADING CRITERIA – DEAD LOADS

ROOF DEAD LOAD	15 PSF
FLOOR DEAD LOAD (RESIDENTIAL FLOORS)	18 PSF
FLOOR DEAD LOAD (DECK)	15 PSF
WOOD FRAMED WALL DEAD LOAD (INTERIOR/EXTERIOR)	9/0 PSF
CONCRETE WALL DEAD LOAD (8" WALLS)	100 PSF

SEE PLANS FOR ADDITIONAL LOADING CRITERIA

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

   DISCREPANCIES: THE CONTRACTOR SHALL INFORM THE ENGINEER IN WRITING, DURING THE BIDDING PERIOD, OF ANY DISCREPANCIES OR OMISSIONS NOTED ON THE DRAWINGS OR IN THE SPECIFICATIONS OR OF ANY VARIATIONS NEEDED IN ORDER TO CONFORM TO CODES, RULES AND REGULATIONS. UPON RECEIPT OF SUCH INFORMATION, THE ENGINEER WILL SEND WRITTEN INSTRUCTIONS TO ALL CONCERNED. ANY SUCH DISCREPANCY, OMISSION, OR VARIATION NOT REPORTED SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, AND WORK SHALL BE PERFORMED IN A MANNER AS DIRECTED BY THE ENGINEER.

4. CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS, MEMBER SIZES, AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS ARE INTENDED AS GUIDELINES ONLY AND MUST BE FIELD VERIFIED BY THE CONTRACTOR OR THE CONTRACTOR'S SUBCONTRACTOR.

5. CONTRACTOR SHALL PROVIDE TEMPORARY BRACING FOR THE STRUCTURE AND STRUCTURAL COMPONENTS UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH THE PLANS. ERECTION PLANS AND INSTALLATION OF SHORING SYSTEMS ARE THE RESPONSIBILITY OF THE CONTRACTOR AND THE SHORING SUPPLIER. THE SHORING SHALL NOT BE SUPPORTING ON THE EXISTING STRUCTURE.

   CHANGES IN FIELD CONDITIONS DURING CONSTRUCTION WILL REQUIRE RE-EVALUATION BY THE CONTRACTOR AND THEIR SHORING INSTALLER.

6. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES REQUIRED TO PERFORM THE WORK.

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

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

9. ALL STRUCTURAL SYSTEMS WHICH ARE TO BE COMPOSED OF FIELD ERECTED COMPONENTS SHALL BE SUPERVISED BY THE SUPPLIER DURING MANUFACTURING, DELIVERY, HANDLING, STORAGE AND ERECTION IN ACCORDANCE WITH INSTRUCTIONS PREPARED BY THE SUPPLIER.

10. SHOP DRAWINGS FOR
    STRUCTURAL STEEL,
    METAL DECKING,
    GLUED LAMINATED MEMBERS,
    LAMINATED VENEER LUMBER (LVL) MEMBERS,
    PARALLEL STRAND LUMBER (PSL), LAMINATED STRAND LUMBER (LSL) MEMBERS,
    CONNECTOR PLATE WOOD ROOF TRUSSES,
    PLYWOOD WEB JOISTS
    SHALL BE SUBMITTED TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR REVIEW PRIOR TO FABRICATION OF THESE ITEMS.

    CONTRACTOR SHALL SUBMIT WALL ELEVATION DRAWINGS OF AT LEAST 1/8" = 1'-0" SCALE INDICATING CONNECTION EMBEDMENTS AND WALL OPENINGS FOR REVIEW PRIOR TO CONSTRUCTION. CONTRACTOR SHALL COORDINATE WITH REINFORCEMENT SHOP DRAWINGS.

    CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND DETAILS DRAWN BY THE FABRICATOR. SHOP DRAWINGS SHALL BE MINIMUM 24" X 36" SHEETS (HALF SIZE SETS ACCEPTABLE). COPIES OF THE STRUCTURAL DRAWINGS WILL NOT BE ACCEPTED.

11. SHOP DRAWING REVIEW: DIMENSIONS AND QUANTITIES ARE NOT REVIEWED BY THE ENGINEER OF RECORD, THEREFORE MUST BE VERIFIED BY THE CONTRACTOR. CONTRACTOR SHALL REVIEW AND STAMP ALL SHOP DRAWINGS PRIOR TO SUBMITTING FOR REVIEW BY ENGINEER OF RECORD. SUBMISSIONS SHALL INCLUDE A REPRODUCIBLE AND ONE COPY. REPRODUCIBLE WILL BE MARKED AND RETURNED, FOLLOWING CONTRACTOR REVIEW AND APPROVAL. SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD ALLOWING FOR A TURN AROUND TIME OF AT LEAST 14 DAYS.

    RESUBMITTALS OF PREVIOUSLY SUBMITTED SHOP DRAWINGS SHALL HAVE ALL CHANGES CLOUDED AND DATED WITH A SEQUENTIAL REVISION NUMBER. CONTRACTOR SHALL REVIEW AND STAMP ALL REVISED AND RESUBMITTED SHOP DRAWINGS PRIOR TO SUBMITTAL AND REVIEW BY THE ENGINEER OF RECORD ALLOWING FOR A TURN AROUND TIME OF AT LEAST 7 DAYS.

    SHOP DRAWING SUBMITTALS PROCESSED BY THE ENGINEER OF RECORD ARE NOT CHANGE ORDERS. THE PURPOSE OF SHOP DRAWING SUBMITTALS BY THE CONTRACTOR IS TO DEMONSTRATE TO THE ENGINEER THAT THE CONTRACTOR UNDERSTANDS THE DESIGN CONCEPT, THE CONTRACTOR DEMONSTRATES THIS UNDERSTANDING BY INDICATING WHICH MATERIAL THEY INTEND TO FURNISH AND INSTALL AND BY DETAILING THE FABRICATION AND INSTALLATION METHODS THEY INTEND TO USE. IF DEVIATIONS, DISCREPANCIES, OR CONFLICTS BETWEEN SHOP DRAWING SUBMITTALS AND THE CONTRACT DOCUMENTS ARE DISCOVERED EITHER PRIOR TO OR AFTER SHOP DRAWING SUBMITTALS ARE PROCESSED BY THE ENGINEER, THE DESIGN DRAWINGS AND SPECIFICATIONS SHALL CONTROL AND SHALL BE FOLLOWED.

    SHOP DRAWINGS OF ALL DESIGN BUILD COMPONENTS SUCH AS PRE MANUFACTURED OR PRE ENGINEERED ROOF OR FLOOR TRUSSES SHALL INCLUDE THE DESIGNING PROFESSIONAL ENGINEER'S STAMP, STATE OF WASHINGTON AND SHALL BE APPROVED BY THE COMPONENT DESIGNER PRIOR TO CURSORY REVIEW BY THE ENGINEER OF RECORD FOR LOADS IMPOSED ON THE BASIC STRUCTURE. THE COMPONENT DESIGNER IS RESPONSIBLE FOR CODE CONFORMANCE AND ALL NECESSARY CONNECTIONS NOT SPECIFICALLY CALLED OUT ON ARCHITECTURAL OR STRUCTURAL DRAWINGS. SHOP DRAWINGS SHALL INDICATE MAGNITUDE AND DIRECTION OF ALL LOADS IMPOSED ON BASIC STRUCTURE. DESIGN CALCULATIONS SHALL BE INCLUDED IN THE SHOP DRAWING SUBMITTAL.

12. DEFERRED SUBMITTALS SHALL INCLUDE THE DESIGNING PROFESSIONAL ENGINEER'S STAMP, STATE OF WASHINGTON AND BE APPROVED BY THE COMPONENT DESIGNER PRIOR TO CURSORY REVIEW BY THE ENGINEER OF RECORD FOR LOADS IMPOSED ON THE BASIC STRUCTURE. THE COMPONENT DESIGNER IS RESPONSIBLE FOR CODE CONFORMANCE AND ALL NECESSARY CONNECTIONS NOT SPECIFICALLY CALLED OUT ON ARCHITECTURAL OR STRUCTURAL DRAWINGS. DEFERRED SUBMITTALS SHALL INDICATE MAGNITUDE AND DIRECTION OF ALL LOADS IMPOSED ON BASIC STRUCTURE. DESIGN CALCULATIONS SHALL BE INCLUDED IN THE SUBMITTAL. ~~THE ARCHITECT OR CONTRACTOR SHALL FORWARD DEFERRED SUBMITTALS TO THE BUILDING OFFICIAL FOR REVIEW.~~
    DEFERRED SUBMITTALS FOR THIS PROJECT ARE:

    CONNECTOR PLATE WOOD TRUSSES
    PLYWOOD WEB JOISTS

SPECIAL INSPECTIONS

13. STRUCTURAL ELEMENTS

	FREQUENCY OF SPECIAL INSPECTION	CODE REFERENCE
CONCRETE		
REINFORCING STEEL AND PLACEMENT	PERIODIC	IBC 1910.4 & TABLE 1705.3 ITEM 1
SHEAR REINFORCEMENT	CONTINOUS	IBC TABLE 1705.22
OTHER REINFORCING STEEL	PERIODIC	IBC TABLE 1705.22
CAST-IN ANCHOR BOLTS (NON-SEISMIC)	PERIODIC	IBC 1908.5/1909.1 & TABLE 1705.3
DRILLED AND EPOXIED BOLTS, RODS AND ANCHORS	PERIODIC	IBC 1909.1 & TABLE 1705.3
DRILLED AND EPOXIED REINFORCING	CONTINOUS	IBC 1705.11
EXPANSION BOLTS AND THREADED EXPANSION INSERTS	PERIODIC	IBC TABLE 1705.3
CONCRETE & SHOTCRETE PLACEMENT	CONTINOUS	IBC1905.6/1910.7/1910.8 TABLE 1705.3
CONCRETE FORMWORK	PERIODIC	IBC TABLE 1705.3
STRUCTURAL STEEL FABRICATION AND ERECTION	PERIODIC	IBC 1705.2.1, AISC 360, AWS D1.1
HIGH LOAD WOOD SHEAR WALLS AND DIAPHRAGMS (WITH NAILING AT 4" OC OR LESS)	PERIODIC	IBC 1705.5 AND 1705.11
SOIL BEARING CAPCAITY AND COMPACTION MATERIALS AND SUB GRADE PREPERATION BELOW NEW FOUNDATIONS	PERIODIC	IBC 1705.6 AND GEOTECHNICAL REPORT PER NOTE #5

SHALL BE SUPERVISED IN ACCORDANCE WITH SECTION 109, SECTION 1704, AND SECTION 1708 OF THE INTERNATIONAL BUILDING CODE AND THE PROJECT SPECIFICATIONS BY A QUALIFIED TESTING AGENCY DESIGNATED BY THE ARCHITECT. THE ARCHITECT, STRUCTURAL ENGINEER, AND SEATTLE DEPARTMENT OF PLANNING AND DEVELOPMENT SHALL BE FURNISHED WITH COPIES OF ALL INSPECTION REPORTS AND TEST RESULTS.

STEEL FABRICATOR SHALL PROVIDE A QA/QC PLAN FOR REVIEW AND APPROVAL BY THE ENGINEER AND CITY OF MERCER ISLAND PRIOR TO FABRICATION.

14. STATEMENT OF SPECIAL INSPECTIONS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 1705 OF THE 2015 IBC AS FOLLOWS:

    A. THE FOLLOWING SYSTEMS WILL BE SUBJECT TO THE SEISMIC QUALITY ASSURANCE:
    CONCRETE FOUNDATIONS AND WALLS, HIGH STRENGTH PLYWOOD SHEATHED SHEAR WALLS.

    B. SPECIAL INSPECTION AND TESTING OF SPECIAL REINFORCED CONCRETE WALLS AND CONCRETE FOUNDATIONS SHALL CONFORM TO IBC SECTION 1708.

    C. THE TYPE AND FREQUENCY OF TESTING REQUIRED SHALL BE PER IBC SECTION 1708 AND 1704.

    D. THE TYPE AND FREQUENCY OF SPECIAL INSPECTIONS REQUIRED SHALL BE PER IBC SECTION 1706 AND 1704. REFER TO NOTE #13 FOR REQUIRED INSPECTIONS.

    E. THE REQUIRED FREQUENCY AND DISTRIBUTION OF TESTING AND SPECIAL INSPECTION REPORTS SHALL BE THE RESPONSIBILITY OF THE INSPECTION/TESTING AGENCY. REPORTS SHALL BE SUBMITTED TO THE ARCHITECT AND ENGINEER OF RECORD WITHIN 14 DAYS OF INSPECTION.

    F. STRUCTURAL OBSERVATION OF THE LATERAL AND GRAVITY STRUCTURAL SYSTEMS SHALL OCCUR AT APPROPRIATE INTERVALS DURING CONSTRUCTION. THE STRUCTURAL ENGINEER SHALL OBSERVE THAT THE WORK IS PROGRESSING IN GENERAL CONFORMANCE WITH THE CONTRACT DOCUMENTS AND ACCORDING TO THE DESIGN INTENT.

    G. A STRUCTURAL OBSERVATION REPORT SHALL BE SUBMITTED TO THE ARCHITECT OF RECORD AFTER EACH OBSERVATION.

GEOTECHNICAL

15. FOUNDATION AND SLAB NOTES: SUB-GRADE PREPARATION INCLUDING DRAINAGE, EXCAVATION, COMPACTION, AND FILLING REQUIREMENTS, SHALL CONFORM STRICTLY WITH RECOMMENDATIONS GIVEN IN THE SOILS REPORT OR AS DIRECTED BY THE SOILS ENGINEER.

    FOOTINGS SHALL BEAR ON SOLID UNDISTURBED EARTH (CONTROLLED, COMPACTED STRUCTURAL FILL OR BOTH) AT LEAST 18" BELOW LOWEST ADJACENT FINISHED GRADE. FOOTING DEPTHS/ELEVATIONS SHOWN ON PLANS (OR IN DETAILS) ARE MINIMUM AND FOR GUIDANCE ONLY. THE ACTUAL ELEVATIONS OF FOOTINGS MUST BE ESTABLISHED BY THE CONTRACTOR IN THE FIELD WORKING WITH THE TESTING LAB SOILS ENGINEER. BACKFILL BEHIND ALL RETAINING WALLS WITH FREE DRAINING GRANULAR FILL AND PROVIDE FOR SUBSURFACE DRAINAGE AS NOTED IN THE SOILS REPORT.

ALLOWABLE SOIL PRESSURE	2000 PSF (3000 PSF FOR FOOTINGS 36" OR MORE BELOW GRADE)
LATERAL EARTH PRESSURE (UNRESTRAINED)	35 PCF
ADDITIONAL RESTRAINED LATERAL EARTH PRESSURE	100 PSF
PASSIVE EARTH PRESSURE	300 PCF
SEISMIC EARTH PRESSURE	8H
COEFFICIENT OF FRICTION	0.35

SOILS REPORT REFERENCE: REPORT # T-8257 DATED DECEMBER 16, 2019 BY TERRA ASSOCIATES, INC.

RENOVATION

16. DEMOLITION: CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS BEFORE COMMENCING ANY DEMOLITION. SHORING SHALL BE INSTALLED TO SUPPORT EXISTING CONSTRUCTION AS REQUIRED AND IN A MANNER SUITABLE TO THE WORK SEQUENCES. EXISTING REINFORCING SHALL BE SAVED WHERE AND AS NOTED ON THE PLANS. SAW CUTTING, IF AND WHERE USED, SHALL NOT CUT EXISTING REINFORCING THAT IS TO BE SAVED. DEMOLITION DEBRIS SHALL NOT BE ALLOWED TO DAMAGE OR OVERLOAD THE EXISTING STRUCTURE. LIMIT CONSTRUCTION LOADING (INCLUDING DEMOLITION DEBRIS) ON EXISTING FLOOR SYSTEMS TO 40 PSF.

    A. ALL NEW OPENINGS THROUGH EXISTING WALLS, SLABS AND BEAMS SHALL BE ACCOMPLISHED BY SAW CUTTING WHEREVER POSSIBLE.

    B. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND LOCATION OF MEMBERS PRIOR TO CUTTING ANY OPENINGS.

    C. SMALL ROUND OPENINGS SHALL BE ACCOMPLISHED BY CORE DRILLING, IF POSSIBLE.

    D. WHERE NEW REINFORCING TERMINATES AT EXISTING CONCRETE, THREADED BARS INTO THREADED EXPANSION INSERTS IN EXISTING CONCRETE SHALL BE PROVIDED TO MATCH HORIZONTAL OR VERTICAL REINFORCING, UNLESS OTHERWISE NOTED ON PLANS.

17. CONTRACTOR SHALL CHECK FOR DRYROT AT ALL EXTERIOR WALLS, EXISTING TOILET ROOM FLOORS AND WALLS, AREAS SHOWING WATER STAINS, AND ALL WOOD MEMBERS IN BASEMENT AND CRAWL SPACES. ALL ROT SHALL BE REMOVED AND DAMAGED MEMBERS SHALL BE REPLACED OR REPAIRED AS DIRECTED BY THE STRUCTURAL ENGINEER OR ARCHITECT.

CONCRETE

18. CONCRETE SHALL BE MIXED, PROPORTIONED, CONVEYED AND PLACED IN ACCORDANCE WITH IBC SECTION 1905 AND ACI 301. STRENGTHS AT 28 DAYS AND MIX CRITERIA SHALL BE AS FOLLOWS:

TYPE OF CONSTRUCTION	28 DAY STRENGTHS AND EXPOSURE CLASSES PER ACI TABLE 4.2.1(F.C)	MAXIMUM SLUMP	MINIMUM CEMENT CONTENT PER CUBIC YARD
A. FOOTINGS SLABS ON GRADE	2,500 PSI (F0, S0, P0, C1)	6"	5 SACKS
TOPPING SLABS SLABS ON METAL DECK STAIR LANDINGS AND TREADS	2,500 PSI (F1, S0, P0, C2)	6"	5 SACKS
B. CONCRETE WALLS EXPOSED TO WEATHER	4,000 PSI (F1, S0, P0, C1)	5"	5 1/2 SACKS
C. BASEMENT CONCRETE WALLS	4,000 PSI (F0, S0, P0, C1)	5"	5 1/2 SACKS

THE MINIMUM AMOUNTS OF CEMENT AND MAXIMUM AMOUNTS OF WATER MAY BE CHANGED IF A CONCRETE PERFORMANCE MIX IS SUBMITTED TO THE STRUCTURAL ENGINEER AND THE BUILDING DEPARTMENT FOR APPROVAL TWO WEEKS PRIOR TO PLACING ANY CONCRETE. THE PERFORMANCE MIX SHALL INCLUDE THE AMOUNTS OF CEMENT, FINE AND COARSE AGGREGATE, WATER AND ADMIXTURES AS WELL AS THE WATER CEMENT RATIO, SLUMP, CONCRETE YIELD AND SUBSTANTIATING STRENGTH DATA IN ACCORDANCE WITH ACI 318 SECTION 5.3. REVIEW OF MIX SUBMITTALS BY THE ENGINEER OF RECORD INDICATES ONLY THAT INFORMATION PRESENTED CONFORMS GENERALLY WITH CONTRACT DOCUMENTS. CONTRACTOR OR SUPPLIER MAINTAINS FULL RESPONSIBILITY FOR SPECIFIED PERFORMANCE.

ALL CONCRETE WITH SURFACES EXPOSED TO STANDING WATER SHALL BE AIR-ENTRAINED WITH AN AIR-ENTRAINING AGENT CONFORMING TO ASTM C260-06, C494M-05A, C618-05, C989-06, AND C1017M-07. TOTAL AIR CONTENT SHALL BE IN ACCORDANCE WITH ACI 318 TABLE 4.4.1.

19. ALL SHOTCRETE MATERIALS, EQUIPMENT, PROCEDURES, PROPORTIONS, BATCHING AND MIXING AND PLACEMENT SHALL BE IN ACCORDANCE WITH ACI 506R-05, ACI 506.2-95 AND IBC SECTION 1913.

    PRECONSTRUCTION TEST: A MOCK-UP PANEL SHALL BE SHOT, CURED, CORED OR CUT, AND VISUALLY EXAMINED PRIOR TO COMMENCEMENT OF THE PROJECT. A TEST PANEL IS TO BE SHOT BY NOZZLE AND AIR CREW THAT WILL BE ASSIGNED TO THE PROJECT AND WILL BE DOING ALL THE SHOTCRETING WORK. THE MOCK-UP PANEL SHALL REPRESENT THE PROJECT AND SIMULATE JOB CONDITIONS AS CLOSELY AS POSSIBLE. THE PANEL SHALL BE A MINIMUM OF 3'X3' BY THE ACTUAL THICKNESS OF THE AREA REPRESENTED.

    CORES FROM IN-PLACE SHOTCRETE STRUCTURAL WALLS: A MINIMUM OF 3 SACRIFICIAL STEEL LOCATIONS FOR EACH DAY SHOTCRETE IS PLACED. MORE LOCATIONS MAY BE REQUIRED IF ADDITIONAL NOZZLERS ARE UTILIZED. CONTRACTOR MUST BE ABLE TO LOCATE SACRIFICIAL STEEL INTERSECTIONS PRECISELY AFTER THE SHOTCRETE IS PLACED. CORES SHALL BE 4" DIAMETER AND PASS THROUGH ALL STEEL BUT NOT THROUGH THE CONCRETE COVER. WATERPROOF MEMBRANE OR FORM. CORES SHOULD NOT BE CUT UNTIL THE SHOTCRETE HAS BEEN IN PLACE FOR 48 HOURS. ENGINEERS APPROVAL IS REQUIRE FOR AREAS WHERE SACRIFICIAL STEEL CAN BE LOCATED AND CORES TAKEN.

    COMPRESSION STRENGTH TESTS ARE REQUIRED FOR EACH 50 CUBIC YARDS OF SHOTCRETE OR PORTION THEREOF PLACED EACH DAY FROM EACH SHOTCRETE MIX. THESE TESTS MAY BE TAKEN FROM STRENGTH TEST PANELS. PANEL SIZE SHALL BE NOMINAL 12"X12"X6".

    ALL SHOTCRETE WORK SHALL BE CONTINUOUSLY INSPECTED BY A SPECIAL INSPECTOR WITH DEMONSTRATED EXPERIENCE IN THE TESTING AND INSPECTION OF SHOTCRETE INSTALLATION.

20. REINFORCING STEEL SHALL CONFORM TO ASTM A615 (INCLUDING SUPPLEMENT S1), GRADE 60, FY = 60,000 PSI, EXCEPTION: ANY BARS SPECIFICALLY NOTED ON THE DRAWINGS AS "GRADE 40", FY = 40,000 PSI. GRADE 60 REINFORCING BARS INDICATED ON DRAWINGS TO BE WELDED SHALL CONFORM TO ASTM A706. REINFORCING COMPLYING WITH ASTM A615/S1 MAY BE WELDED ONLY IF MATERIAL PROPERTY REPORTS INDICATING CONFORMANCE WITH WELDING PROCEDURES SPECIFIED IN AWS D1.4 ARE SUBMITTED.

    WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185.

    SPIRAL REINFORCEMENT SHALL BE PLAIN WIRE CONFORMING TO ASTM A615, GRADE 60, FY = 60,000 PSI.

21. REINFORCING STEEL SHALL BE DETAILED (INCLUDING HOOKS AND BENDS) IN ACCORDANCE WITH ACI SP-66 (04) AND THE LATEST EDITION OF ACI 318. LAP ALL REINFORCEMENTS IN ACCORDANCE WITH "THE REINFORCING SPLICE AND DEVELOPMENT LENGTH SCHEDULE." PROVIDE CORNER BARS AT ALL WALL AND FOOTING INTERSECTIONS. LAP ADJACENT MATS OF WELDED WIRE FABRIC A MINIMUM OF 8" AT SIDES AND ENDS.

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

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

FOOTINGS AND OTHER UNFORMED SURFACES, EARTH FACE		3"
FORMED SURFACES EXPOSED TO EARTH (I.E. WALLS BELOW GROUND) OR WEATHER	(#6 BARS OR LARGER)	2"
	(#5 BARS OR SMALLER)	1 1/2"
COLUMN TIES OR SPIRALS AND BEAM STIRRUPS		1 1/2"
SLABS AND WALLS (INTERIOR FACE)		3/4"

23. CONCRETE WALL REINFORCING–PROVIDE THE FOLLOWING UNLESS DETAILED OTHERWISE:

6" WALLS	#4 @ 16" HORIZ.	#4 @ 16" VERTICAL	1 CURTAIN
8" WALLS	#5 @ 18" HORIZ.	#5 @ 18" VERTICAL	1 CURTAIN
10" WALLS	#5 @ 16" HORIZ.	#5 @ 16" VERTICAL	1 CURTAIN

24. CAST-IN-PLACE CONCRETE: SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS AND DIMENSIONS OF DOOR AND WINDOW OPENINGS IN ALL CONCRETE WALLS. SEE MECHANICAL DRAWINGS FOR SIZE AND LOCATION OF MISCELLANEOUS MECHANICAL OPENINGS THROUGH CONCRETE WALLS. SEE ARCHITECTURAL DRAWINGS FOR ALL GROOVES, NOTCHES, CHAMFERS, FEATURE STRIPS, COLOR, TEXTURE, AND OTHER FINISH DETAILS AT ALL EXPOSED CONCRETE SURFACES, BOTH CAST-IN-PLACE AND PRECAST.

25. EMBEDDED ITEMS IN CAST-IN-PLACE CONCRETE: EMBEDDED ITEMS IN CAST-IN-PLACE CONCRETE SHALL NOT BE "LET-SET" UNLESS SPECIFICALLY APPROVED BY ENGINEER OF RECORD. THESE ITEMS INCLUDE, BUT ARE NOT LIMITED TO, REINFORCING STEEL, ANCHOR BOLTS, DEFORMED BAR ANCHORS, EMBED PLATES, OR OTHER MISC. STEEL SHAPES TO BE CAST INTO CONCETE.

26. NON- SHRINK GROUT SHALL BE FURNISHED BY AN APPROVED MANUFACTURER AND SHALL BE MIXED AND PLACED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S PUBLISHED RECOMMENDATIONS. GROUT STRENGTH SHALL BE AT LEAST EQUAL TO THE MATERIAL ON WHICH IT IS PLACED (3000 PSI MINIMUM).

27. EPOXY - GROUTED ITEMS SPECIFIED ON THE DRAWINGS SHALL BE GROUTED WITH HIT HY-200 ADHESIVE ANCHOR SYSTEMS AS MANUFACTURED BY HILTI, INC. OR SET-XP HIGH STRENGTH ADHESIVE ANCHOR SYSTEM AS MANFACTURED BY SIMPSON STRONG-TIE OR AN ENGINEER APPROVED ALTERNATE THAT HAS ICC TEST DATA FOR THEIR SPECIFIC PRODUCT AND APPLICATION. INSTALL IN STRICT ACCORDANCE WITH ICC REPORTS FOR SPECIFIC EPOXY UNLESS NOTED OTHERWISE ON THE STRUCTURAL DRAWINGS. HOLE SIZE SHALL BE 1/8" LARGER THAN BAR, ROD OR BOLT SIZE. NOTE: NO WELDING IS TO TAKE PLACE WITHIN 24" OF HARDENED EPOXY.

28. EXPANSION BOLTS INTO CONCRETE SHALL BE KWIK BOLT TZ WEDGE ANCHORS AND THREADED EXPANSION INSERTS INTO CONCRETE OR CONCRETE MASONRY UNIT SHALL BE KWIK BOLT 3 MASONRY ANCHORS AS MANUFACTURED BY HILTI, INC OR APPROVED EQUAL INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S PUBLISHED RECOMMENDATIONS, INCLUDING MINIMUM EMBEDMENT REQUIREMENTS. INSERTS INTO CONCRETE MASONRY UNITS SHALL BE INTO FULLY GROUTED CELLS. SPECIAL INSPECTION IS REQUIRED FOR ALL EXPANSION BOLT AND INSERT INSTALLATION. ANCHORS SHALL HAVE A CURRENT ICC REPORT.

MASONRY

29. CONCRETE MASONRY UNIT WALLS SHALL BE CONSTRUCTED OF GRADE N, TYPE 1 UNITS, CONFORMING TO ASTM C90, LAID IN A RUNNING BOND. MORTAR SHALL BE TYPE 'S' PER TABLE 2105.2.2.1.2 OF THE IBC. GROUT SHALL CONFORM TO IBC REQUIREMENTS AND ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 2,000 PSI AT 28 DAYS, DESIGN F'M = 1500 PSI, PRISM TESTING IS REQUIRED IN ACCORDANCE WITH IBC SECTION 2105.

    UNLESS NOTED OTHERWISE, PROVIDE THE FOLLOWING REINFORCEMENT:

    8" WALLS — #5 @ 48" O.C. VERT. — (2) #5 @ 48" O.C. HORIZ.

    IN ADDITION, PROVIDE (1) #5 (#4 @ 6" WALLS) VERT. AT EACH SIDE OF OPENINGS, AT WALL CORNERS AND INTERSECTIONS AND AT FREE ENDS OF WALLS AND (2) #5 (12"M @ 6" WALLS) HORIZ. AT ELEVATED FLOOR AND ROOF LEVELS, AT TOPS OF WALLS AND ABOVE AND BELOW ALL OPENINGS. ALL HORIZONTAL REINFORCEMENT SHALL BE PLACED IN BOND BEAMS. EXTEND REINFORCEMENT AROUND OPENINGS 2'-0" BEYOND FACE OF OPENING. IF 2'-0" IS UNAVAILABLE EXTEND AS FAR AS POSSIBLE AND HOOK. PROVIDE CORNER BARS TO LAP HORIZONTAL REINFORCING AT CORNERS AND INTERSECTIONS.

    FILL ALL CELLS CONTAINING REINFORCEMENT OR EMBEDDED ITEMS AND ALL CELLS BELOW GRADE WITH GROUT. PROVIDE CLEANOUT HOLES AT THE BOTTOM COURSE OF MASONRY FOR EACH GROUT POUR WHEN THE GROUT LIFT HEIGHT EXCEEDS 5'-1".

30. BRICK OR STONE VENEER EXTENDING MORE THAN 36" ABOVE GRADE SHALL BE ANCHORED TO BACKING WALLS PER THE LATEST EDITION OF ACI 530/ASCE 5/TMS 402, CHAPTER 6 AND SECTION 1405.6 OF THE IBC WITH 1" X 22 GAUGE GALVANIZED SHEET METAL ANCHORS MINIMUM. ANCHOR TIES SHALL BE SPACED SO AS TO SUPPORT NOT MORE THAN TWO SQUARE FEET OF WALL AREA. ANCHOR TIES SHALL BE SPACED NOT MORE THAN 24" O.C. HORIZONTALLY. ANCHOR TIES SHALL HAVE A LIP OR HOOK ON THE EXTENDED LEG THAT WILL ENGAGE OR ENCLOSE A HORIZONTAL JOINT REINFORCEMENT WIRE OF NO. 9 GAUGE OR EQUIVALENT. THE JOINT REINFORCEMENT SHALL BE CONTINUOUS WITH BUTT SPLICES BETWEEN TIES PERMITTED.

31. MASONRY CHIMNEYS SHALL BE CONSTRUCTED OF GRADE N, TYPE 1 UNITS, CONFORMING TO ASTM C90, LAID UP IN RUNNING BOND. MORTAR SHALL BE TYPE 'S' PER TABLE 2105.2.2.1.2 OF THE IBC. GROUT SHALL CONFORM TO IBC REQUIREMENTS AND ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 2,000 PSI AT 28 DAYS, DESIGN F'M = 1500 PSI.

    UNLESS NOTED OTHERWISE, REINFORCE WITH (6) #4 VERTICAL, ONE EACH CORNER AND ONE MID-LENGTH OF LONG WALL. THE BARS SHALL EXTEND THE FULL HEIGHT OF THE CHIMNEY. THE BARS SHALL BE TIED HORIZONTALLY AT 16" INTERVALS WITH NOT LESS THAN 1/4" DIAMETER STEEL TIES. PROVIDE (2) #4 VERTICAL EACH SIDE OF OPENINGS. PROVIDE (2) #4 HORIZONTAL BARS IN BOND BEAM AT TOPS OF WALLS, AT ROOF AND FLOOR LEVELS, AND ABOVE AND BELOW ALL OPENINGS. IF 2'-0" IS UNAVAILABLE EXTEND AS FAR AS POSSIBLE AND HOOK. HOOK ALL REINFORCING INTERRUPTED BY OPENINGS. VERTICAL REINFORCING SHALL BE CENTERED IN WALL. PROVIDE ELBOW BARS TO LAP HORIZONTAL REINFORCING AT CORNERS AND INTERSECTIONS.

    FILL ALL CELLS CONTAINING REINFORCEMENT OR EMBEDDED ITEMS AND ALL CELLS BELOW GRADE WITH GROUT. PROVIDE CLEAN OUT HOLES AT BOTTOM OF ALL CELLS CONTAINING REINFORCEMENT. DOUEL VERTICA

GENERAL STRUCTURAL NOTES CONTINUED:

41. PREFABRICATED CONNECTOR PLATE WOOD ROOF TRUSSES SHALL BE DESIGNED BY THE MANUFACTURER IN ACCORDANCE WITH THE NATIONAL DESIGN STANDARD FOR METAL PLATE CONNECTED WOOD TRUSS CONSTRUCTION, ANSI/TPI 1-2014* BY THE TRUSS PLATE INSTITUTE FOR THE SPANS AND CONDITIONS SHOWN ON THE PLANS. LOADING SHALL BE AS FOLLOWS:

TOP CHORD DEAD LOAD	15 PSF**
TOP CHORD LIVE LOAD	25 PSF
BOTTOM CHORD DEAD LOAD	5 PSF
TOTAL LOAD	40 PSF
BOTTOM CHORD LIVE LOAD (NON-CONCURRENT WITH TOP CHORD LIVE LOAD)	10 PSF

** SEE GSN # 2 FOR ADDITIONAL LOADING REQUIREMENTS

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

42. PLYWOOD SHEATHING SHALL BE GRADE C-D, EXTERIOR GLUE OR STRUCTURAL II, EXTERIOR GLUE IN CONFORMANCE WITH DOC PS1. SEE PLANS FOR THICKNESS, PANEL IDENTIFICATION INDEX AND NAILING REQUIREMENTS.

43. ALL WOOD MEMBERS EXPOSED TO WEATHER OR IN DIRECT CONTACT WITH SOIL SHALL BE PRESSURE-TREATED WITH ALKALINE COPPER QUATERNARY (ACQ). ALL WOOD MEMBERS (INCLUDING PLATES) IN DIRECT CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE-TREATED WITH SODIUM BORATE (SBX).

ALL METAL CONNECTORS IN CONTACT WITH "ACQ" PRESSURE-TREATED LUMBER SHALL BE TYPE 304 OR 316 STAINLESS STEEL. THIS INCLUDES WASHERS, SCREWS, NAILS, HANGERS, AND ANY OTHER MISCELLANEOUS LT. GAGE METAL CONNECTORS. WHERE ACQ LUMBER IS USED IN INTERIOR CONDITIONS, G185 ("HOT-DIP" GALVANIZED TO 1.85 OUNCES PER SQUARE FOOT) METAL CONNECTORS MAY BE USED IN LIEU OF STAINLESS STEEL. METAL CONNECTORS 1/2" THICK OR GREATER NEED NOT BE GALVANIZED FOR INTERIOR USE. METAL CONNECTORS 1/2" THICK PLUS ARE TO BE GALVANIZED FOR EXTERIOR USE, UNLESS SPECIFIED OTHERWISE BY THE ARCHITECT.

44. TIMBER CONNECTORS CALLED OUT BY LETTERS AND NUMBERS SHALL BE "STRONG-TIE" BY SIMPSON COMPANY, AS SPECIFIED IN THEIR CATALOG NOC-2019. EQUIVALENT DEVICES BY OTHER MANUFACTURERS MAY BE SUBSTITUTED, PROVIDED THEY HAVE ICBO APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. PROVIDE NUMBER AND SIZE OF FASTENERS AS SPECIFIED BY MANUFACTURER. CONNECTORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. WHERE CONNECTOR STRAPS CONNECT TWO MEMBERS, PLACE ONE-HALF OF THE NAILS OR BOLTS IN EACH MEMBER. ALL BOLTS IN WOOD MEMBERS SHALL CONFORM TO ASTM A307. PROVIDE WASHERS UNDER THE HEADS AND NUTS OF ALL BOLTS AND LAG SCREWS BEARING ON WOOD, UNLESS NOTED OTHERWISE. ALL NAILS SHALL BE COMMON. ALL SHIMS SHALL BE SEASONED AND DRIED AND THE SAME GRADE (MINIMUM) AS MEMBERS CONNECTED.

ALL JOISTS SHALL BE CONNECTED TO FLUSH BEAMS WITH "U" SERIES JOIST HANGERS. ALL DOUBLE AND TRIPPLE JOIST BEAMS SHALL BE CONNECTED TO FLUSH BEAMS WITH "HU" SERIES JOIST HANGERS.

45. HOLDOWNS CALLED OUT BY LETTERS "HDU", AND "HD", ARE MANUFACTURED BY THE SIMPSON COMPANY, AS SPECIFIED IN THEIR CATALOG NOC-2019. EQUIVALENT DEVICES BY OTHER MANUFACTURERS MAY BE SUBSTITUTED, PROVIDED THEY HAVE ICC APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. EACH SIMPSON HOLD-DOWN SHALL BE BOLTED TO A MINIMUM OF (2) STUDS. SEE SCHEDULE ON PLANS FOR FURTHER STUD REQUIREMENTS. PROVIDE NUMBER AND SIZE OF FASTENERS AS SPECIFIED BY MANUFACTURER. ALL HOLDOWNS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. PROVIDE WASHERS UNDER THE HEADS AND NUTS OF ALL BOLTS AND LAG SCREWS BEARING ON WOOD.

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

A. ALL WOOD FRAMING DETAILS NOT SHOWN OTHERWISE SHALL BE CONSTRUCTED TO THE MINIMUM STANDARDS OF THE INTERNATIONAL BUILDING CODE. MINIMUM NAILING, UNLESS OTHERWISE NOTED, SHALL CONFORM TO TABLE 2304.10.1 OF THE INTERNATIONAL BUILDING CODE. UNLESS NOTED OTHERWISE, ALL NAILS SHALL BE COMMON. COORDINATE THE SIZE AND LOCATION OF ALL OPENINGS WITH MECHANICAL AND ARCHITECTURAL DRAWINGS. PROVIDE WASHERS UNDER THE HEADS AND NUTS OF ALL BOLTS AND LAG SCREWS BEARING ON WOOD.

B. WALL FRAMING: ALL STUD WALLS SHOWN AND NOT OTHERWISE NOTED SHALL BE 2 X 4 STUDS @ 16" O.C. AT INTERIOR WALLS AND 2 X 6 @ 16" O.C. AT EXTERIOR WALLS. TWO STUDS MINIMUM SHALL BE PROVIDED AT THE END OF ALL WALLS AND AT EACH SIDE OF ALL OPENINGS. TWO 2 X 8 HEADERS SHALL BE PROVIDED OVER ALL OPENINGS NOT OTHERWISE NOTED. SOLID BLOCKING FOR WOOD COLUMNS SHALL BE PROVIDED THROUGH FLOORS TO SUPPORTS BELOW. PROVIDE CONTINUOUS SOLID BLOCKING AT MID-HEIGHT OF ALL STUD WALLS OVER 8' IN HEIGHT.

ALL STUD WALLS ATTACHED TO CONCRETE FOUNDATION WALLS SHALL HAVE THEIR LOWER WOOD PLATES BOLTED WITH 5/8" DIAMETER ANCHOR BOLTS @ 6'-0" O.C. WITH 3" X 3" X 1/4" SQUARE WASHERS OR 3" DIAMETER ROUND WASHERS UNLESS OTHERWISE NOTED. LAYOUT OF WALL PLATES, STUDS, AND ANCHORS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 2308.6 OF THE 2015 IBC. ALL SILL PLATE PIECES SHALL HAVE A MINIMUM OF TWO ANCHOR BOLTS EMBEDDED INTO CONCRETE, WITH THE FIRST ANCHOR BOLT LOCATED NOT MORE THAN 12" FROM THE END OF THE PLATE, AND NO CLOSER THAN 4" TO THE END.ALL STUD WALLS SHALL HAVE THEIR LOWER WOOD PLATES ATTACHED TO WOOD FRAMING BELOW WITH 16D NAILS AT 12" O.C. STAGGERED, UNLESS INDICATED OTHERWISE. INDIVIDUAL MEMBERS OF BUILT-UP POSTS SHALL BE NAILED TO EACH OTHER WITH 16D @ 12" O.C. STAGGERED. REFER TO THE PLANS AND SHEAR WALL SCHEDULE FOR REQUIRED SHEATHING AND NAILING. WHEN NOT OTHERWISE NOTED, PROVIDE GYPSUM WALLBOARD ON INTERIOR SURFACES AND PLYWOOD SHEATHING ON EXTERIOR SURFACES NAILED TO ALL STUDS, TOP AND BOTTOM PLATES AND BLOCKING WITH NAILS AT 8" O.C. USE 8D COOLER NAILS FOR 1/2" GWB AND 6D COOLER NAILS FOR 5/8" GWB. USE 8D COMMON 2-1/4" LONG, DIAMOND POINT, GALVANIZED NAILS FOR EXTERIOR SHEATHING.

C. FLOOR AND ROOF FRAMING: PROVIDE DOUBLE JOISTS UNDER ALL PARALLEL PARTITIONS THAT EXTEND MORE THAN ONE-HALF OF THE JOIST LENGTH AND AROUND ALL OPENINGS IN FLOORS OR ROOFS UNLESS OTHERWISE NOTED. PROVIDE BRIDGING @ 8' O.C. AND SOLID BLOCKING AT ALL BEARING POINTS. COORDINATE THE SIZE AND LOCATION OF ALL OPENINGS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.

TOENAIL JOISTS TO SUPPORTS WITH TWO 16D NAILS. ATTACH TIMBER JOISTS TO FLUSH HEADERS OR BEAMS WITH SIMPSON METAL JOIST HANGERS IN ACCORDANCE WITH NOTES ABOVE. NAIL ALL MULTI's JOIST BEAMS TOGETHER WITH 16D @ 12" O.C. STAGGERED.

UNLESS OTHERWISE NOTED ON THE PLANS, PLYWOOD ROOF AND FLOOR SHEATHING SHALL BE LAID UP WITH GRAIN PERPENDICULAR TO SUPPORTS AND NAILED WITH 8D NAILS @ 6" O.C. TO FRAMED PANEL EDGES AND OVER STUD WALLS AS SHOWN ON PLANS AND @ 12" O.C. (10" O.C. AT FLOORS) TO INTERMEDIATE SUPPORTS. PROVIDE APPROVED PLYWOOD EDGE CLIPS CENTERED BETWEEN JOISTS/TRUSSES AT UNBLOCKED ROOF SHEATHING EDGES OR PROVIDE SOLID BLOCKING. ALL FLOOR SHEATHING EDGES SHALL HAVE APPROVED TONGUE-AND-GROOVE JOINTS AT UNBLOCKED EDGES OR SHALL BE SUPPORTED WITH SOLID BLOCKING. TOENAIL BLOCKING TO PLATE WITH 16D @ 12" O.C. OR (2) 16D EACH END AT SUPPORTS UNLESS OTHERWISE NOTED. AT BLOCKED FLOOR AND ROOF DIAPHRAGMS, INSTALL FLAT 2X BLOCKING AT ALL UNFRAMED PANEL EDGES AND NAIL WITH EDGE NAILING SPECIFIED.

D. NAILING: MINIMUM NAIL DIAMETER AND LENGTH SHALL BE AS FOLLOWS:

	NAIL SIZE ON DRAWINGS OR DETAILS	DIAMETER AND LENGTH
SHEATHING NAILS	8D	Ø.131" X 2 1/2"
	10D	Ø.148" X 2 1/2"
FRAMING NAILS	8D	Ø.131" X 2 1/2"
	10D	Ø.148" X 3"
	16D	Ø.161" X 3 1/2"

DRAWING INDEX:

ABBREVIATIONS:

A.B.	ANCHOR BOLT
ADD'L	ADDITIONAL
ALT.	ALTERNATE
ARCH'L	ARCHITECTURAL
ATR	ALL-THREAD ROD
BLDG	BUILDING
BOT	BOTTOM
BM	BEAM
BTWN	BETWEEN
C	CAMBER
CJP	COMPLETE JOINT PENETRATION
CMU	CONCRETE MASONRY UNIT
COL.	COLUMN
CONC	CONCRETE
CONN.	CONNECTION
CONT	CONTINUOUS
CTRD	CENTERED
DIA	DIAMETER
DIAG	DIAGONAL
DWL'S	DOWELS
EA	EACH
E.F.	EACH FACE
EL.	ELEVATION
EMBED	EMBEDMENT
ENGR.	ENGINEER
E.W.	EACH WAY
EX	EXISTING
EXP	EXPANSION
FDN	FOUNDATION
FIN.	FINISH
FTG	FOOTING
GA	GAGE
GEN.	GENERAL
GLB.	GLULAM BEAM
HORIZ	HORIZONTAL
HSS	HOLLOW STRUCTURAL SECTION
LVL	LAMINATED VENEER LUMBER
MATL	MATERIAL
MAX.	MAXIMUM
MB	MACHINE BOLT
MIN	MINIMUM
MTL	METAL
O.C.	ON CENTER
OAH	OPPOSITE HAND
OPP	OPPOSITE
OSB	ORIENTED STRAND BOARD
PL	PLATE
PLYWD	PLYWOOD
PSL	PARALLEL STRAND LUMBER (PARALLAM)
REINF	REINFORCING
REQ'D	REQUIRED
SIM	SIMILAR
STIFF.	STIFFENER
T&G	TONGUE AND GROOVE
T.O.S.	TOP OF STEEL
T.O.W.	TOP OF WALL
THRU	THROUGH
TYP.	TYPICAL
U.O.N.	UNLESS OTHERWISE NOTED
VERT	VERTICAL
W/	WITH
WD	WOOD
WF	WIDE FLANGE
WTS	WELDED TREADED STUDS

LEGEND

INDICATES SHEAR WALL LOCATION AND TYPE. SEE 10/S4.0 FOR SHEAR WALL FRAMING SCHEDULE

INDICATES HOLDOWN OR OTHER CONNECTOR REQUIRED PER PLAN PROVIDE (2) FULL HEIGHT STUDS (MIN) AT EACH HOLDOWN ANCHOR OR SHEAR WALL END. PROVIDE SINGLE FULL HT KING STUD AT ALL HEADERS.

INDICATES THE NUMBER OF END STUDS OR BEARING STUDS REQUIRED. SEE 15/S3.0 FOR CONNECTION REQUIREMENTS

INDICATES BEAM OR HEADER PER PLAN. PROVIDE MIN HEADER REQUIRED PER 15/S4.0 WHERE NO HEADER SIZE IS NOTED. SEE DETAILS 16 AND 19/S4.0 FOR TYPICAL BEAM FRAMING CONNECTIONS

INDICATES FRAMING DIRECTION AND EXTENTS. PROVIDE FLOOR OR ROOF FRAMING AS INDICATED IN PLANS. COORDINATE JOIST AND RAFTER LAYOUT WITH ARCHITECTURAL DETAILS AND PLANS.

INDICATES FOOTING PER SCHEDULE 20/S3.0

SECTION NUMBER
SHEET NUMBER

DETAIL NUMBER
SHEET NUMBER

INDICATES OPENING IN FLOOR - SIZE AND LOCATION PER ARCH'L

INDICATES COLUMN OR POST BELOW SEE 11 OR 12/S4.0 FOR TYPICAL CONNECTION TO BEAM

INDICATES BEARING OR SHEAR WALL BELOW

INDICATES HSS / POST COLUMN PER PLAN
'EX' INDICATES EXISTING POST OR COLUMN TO BE SALVAGED OR RE-USED. VERIFY SIZE AND CONDITION.

SEE DETAILS 13-15/S3.0 FOR HOLDOWN CONNECTION DETAILS AT FOUNDATIONS

SEE DETAIL 16/S3.0 FOR TYPICAL ANCHOR BOLTS SET INTO CONCRETE

SEE DETAIL 8/S3.1 FOR WOOD BEAM HANGER SCHEDULE ATTACHED TO CONCRETE

SEE SHEET S3.2 FOR CMU CHIMNEY AND FIREPLACE REINFORCING AND DETAILS

SEE DETAIL 8/S4.0 FOR ALLOWABLE NOTCHES IN FRAMING STUDS

SEE DETAIL 20/S4.0 FOR TYPICAL WOOD FRAMING HANGER SCHEDULE

SEE DETAILS 7 AND 4/S4.1 FOR OPENINGS AND PENETRATIONS IN CONCRETE WALLS AND FOUNDATIONS

SEE DETAIL 2/S5.1 FOR TYPICAL STEEL BEAM SHEAR TAB SCHEDULE

SEE DETAIL 20/S5.1 FOR STEEL COLUMN BASE PLATE SCHEDULE

SEE DETAIL 3 AND 5/S5.1 FOR TYPICAL WOOD NAILER CONNECTIONS AT STEEL FRAMING

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MARK T. SPEIDEL — STATE OF WASHINGTON — 22711 — REGISTERED PROFESSIONAL ENGINEER

12/2021

BUILDING PERMIT SUBMITTAL
DECEMBER 18, 2020

LAKE HOUSE
3310 97TH AVE. SE
MERCER ISLAND, WA 98040

12-10-21 CD SET

TITLE
GENERAL STRUCTURAL NOTES CONT.

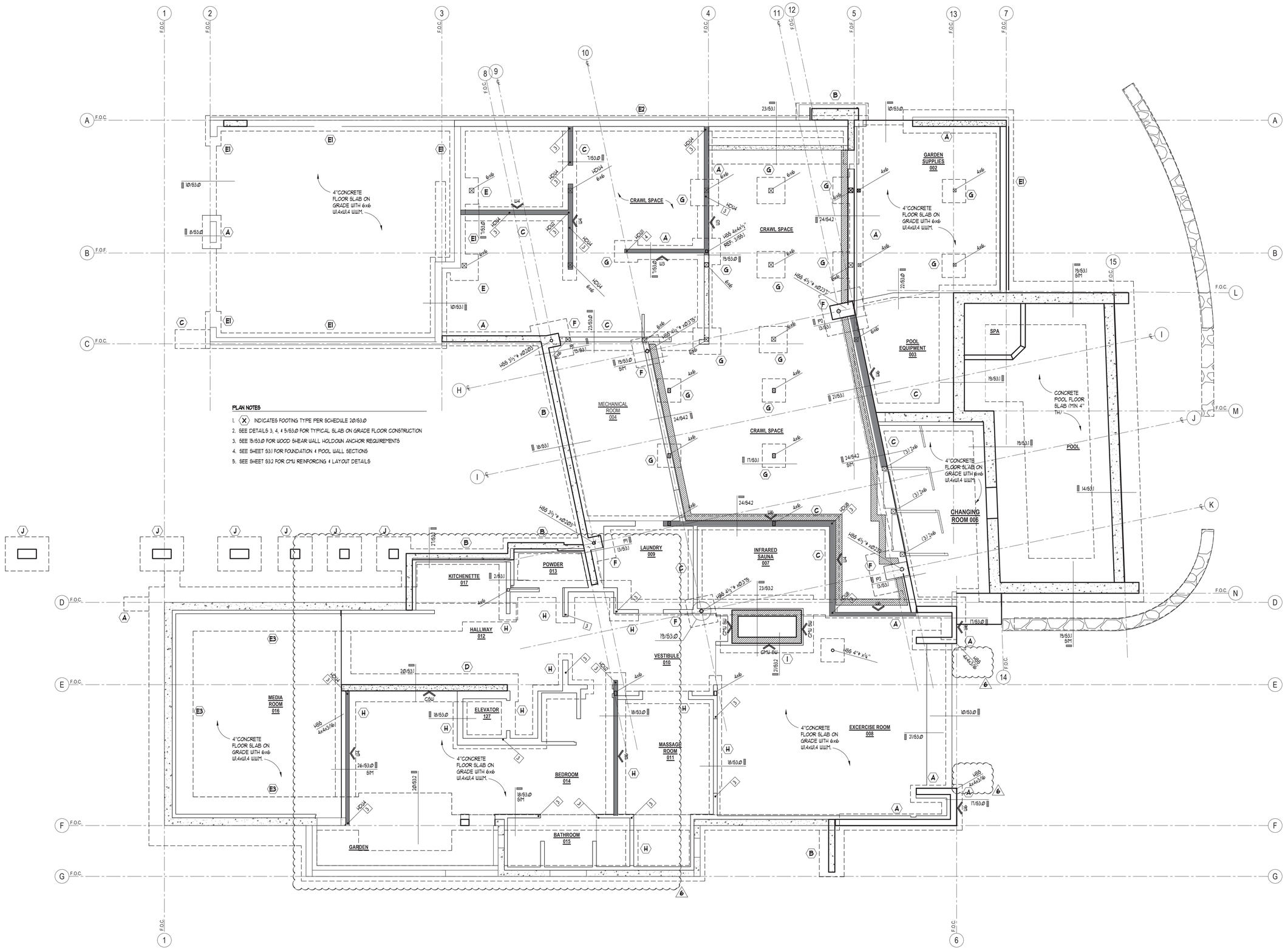
PROJECT NO.:	191966.1
E.O.R.:	Mark Speidel
DESIGNED:	MTS
DRAWN:	KMH

ISSUE	DATE
PERMIT SET	12-18-2020

REVISIONS	DATE
1 PERMIT REV	06/03/21
2 PERMIT REV	07/05/21
3 PERMIT REV	07/23/21
4 PERMIT REV	08/03/21
5 M.I. PERMIT REV	08/20/21
6 CD SET REV	12/10/21

SHEET NO.
S1.1

REVIEW



1 FOUNDATION AND FIRST FLOOR FRAMING PLAN
1/4" = 1'-0"

NORTH

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DECEMBER 18, 2020

LAKE HOUSE
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12-10-21 CD SET

TITLE
FOUNDATION AND FIRST FLOOR PLAN

PROJECT NO.:	191966.1
E.O.R. :	Mark Speidel
DESIGNED:	MTS
DRAWN:	KHH

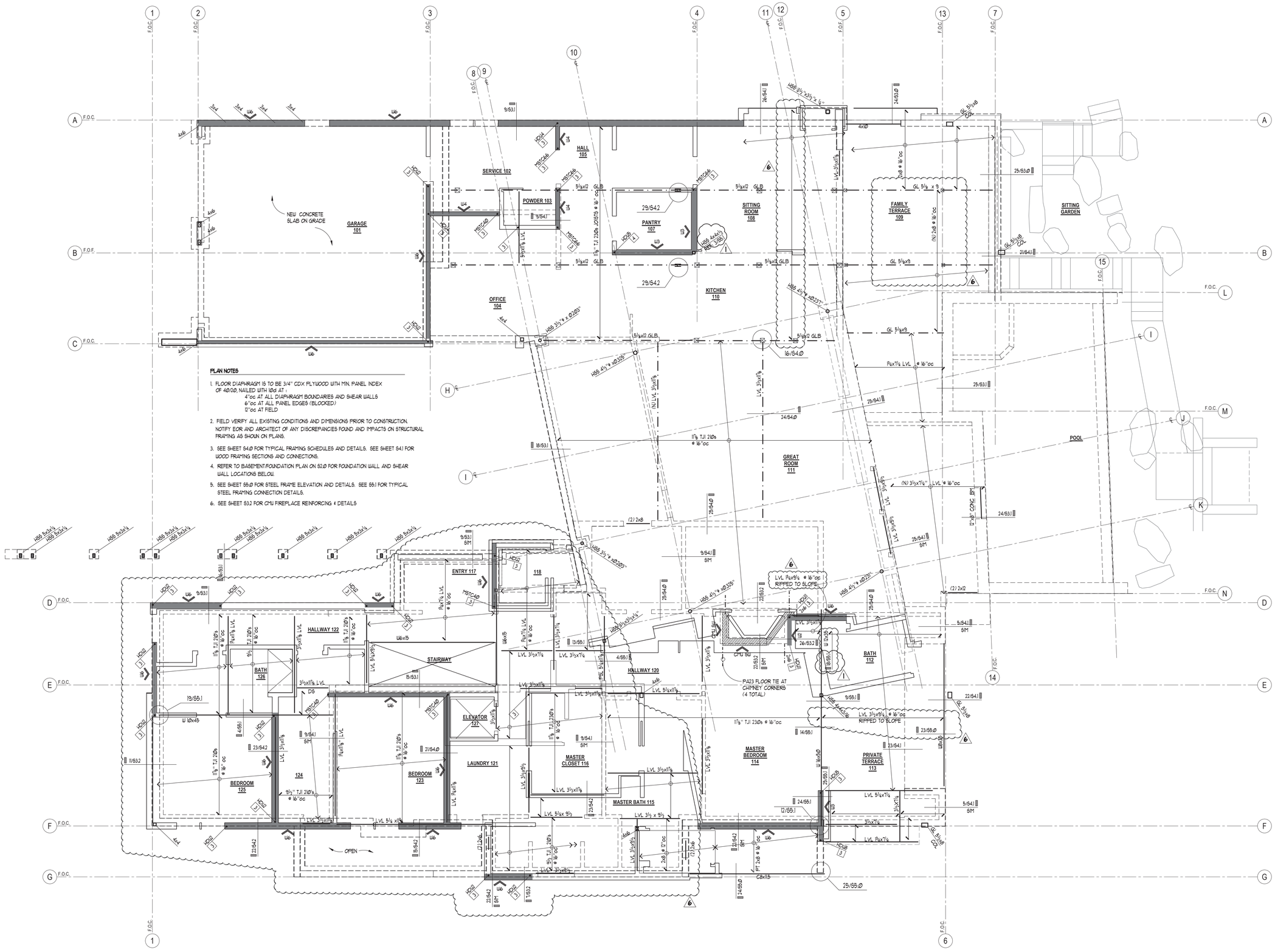
ISSUE	DATE
PERMIT SET	12-18-2020

REVISIONS	DATE
1 PERMIT REV	06/03/21
2 PERMIT REV	07/05/21
3 PERMIT REV	07/23/21
4 PERMIT REV	08/03/21
5 M.I. PERMIT REV	08/20/21
6 CD SET REV	12/10/21

SHEET NO.

S2.0

REVIEW



PLAN NOTES

1. FLOOR DIAPHRAGM IS TO BE 3/4" CDX PLYWOOD WITH MIN. PANEL INDEX OF 40/20, NAILED WITH 10d AT :
   4"oc AT ALL DIAPHRAGM BOUNDARIES AND SHEAR WALLS
   6"oc AT ALL PANEL EDGES (BLOCKED)
   12"oc AT FIELD
2. FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO CONSTRUCTION. NOTIFY EOR AND ARCHITECT OF ANY DISCREPANCIES FOUND AND IMPACTS ON STRUCTURAL FRAMING AS SHOWN ON PLANS.
3. SEE SHEET S4.0 FOR TYPICAL FRAMING SCHEDULES AND DETAILS. SEE SHEET S4.1 FOR WOOD FRAMING SECTIONS AND CONNECTIONS.
4. REFER TO BASEMENT/FOUNDATION PLAN ON S2.0 FOR FOUNDATION WALL AND SHEAR WALL LOCATIONS BELOW.
5. SEE SHEET S5.0 FOR STEEL FRAME ELEVATION AND DETIALS. SEE S5.1 FOR TYPICAL STEEL FRAMING CONNECTION DETAILS.
6. SEE SHEET S3.2 FOR CMU FIREPLACE REINFORCING & DETAILS

1 MAIN FLOOR FRAMING PLAN
1/4" = 1'-0"

NORTH

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DECEMBER 18, 2020

LAKE HOUSE
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MERCER ISLAND, WA 98040

12-10-21 CD SET

TITLE
MAIN FLOOR PLAN

PROJECT NO.:	191966.1
E.O.R. :	Mark Speidel
DESIGNED:	MTS
DRAWN:	KPM

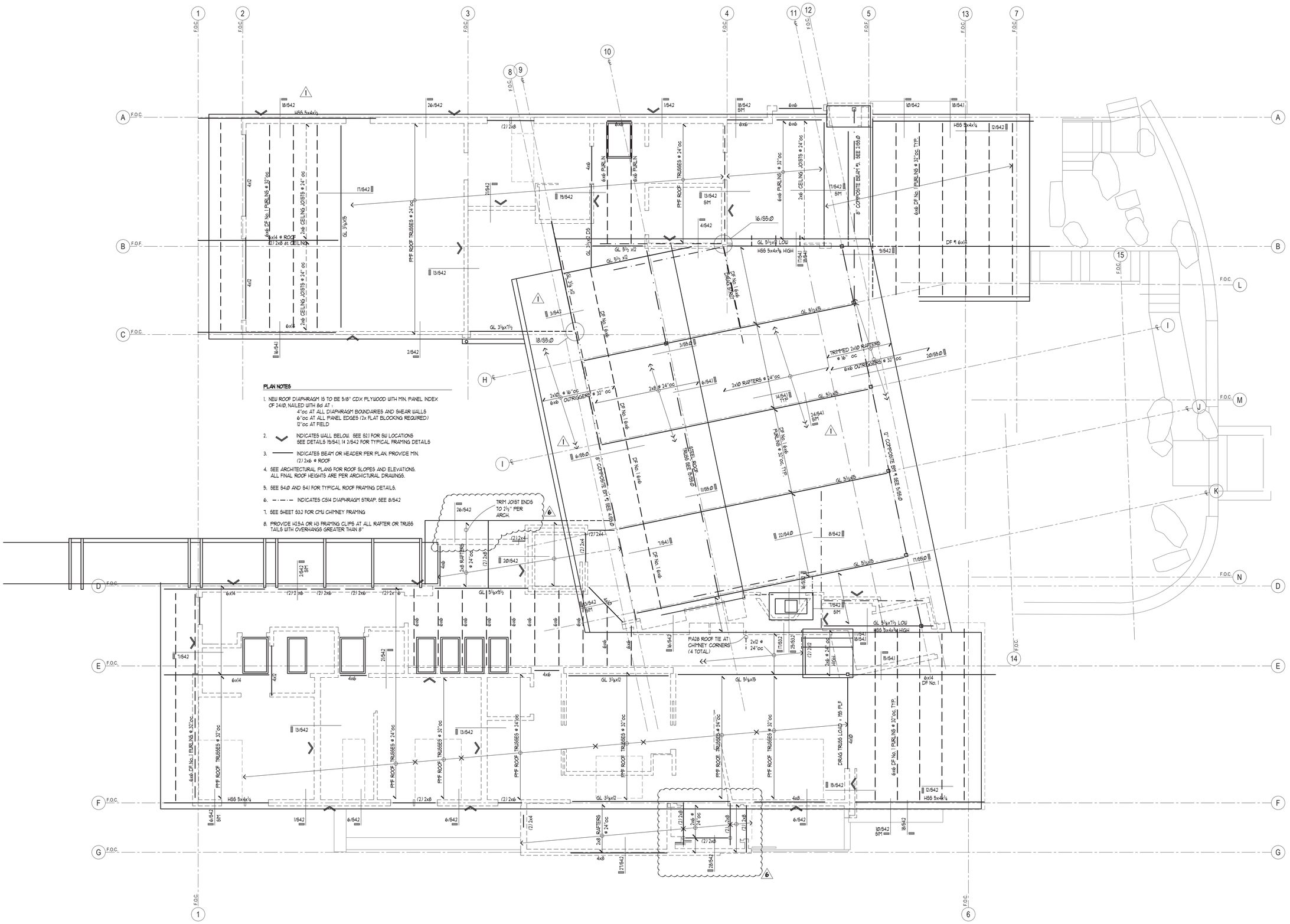
ISSUE	DATE
PERMIT SET	12-18-2020

REVISIONS	DATE
1 PERMIT REV	06/03/21
2 PERMIT REV	07/05/21
3 PERMIT REV	07/23/21
4 PERMIT REV	08/03/21
5 M.I. PERMIT REV	08/20/21
6 CD SET REV	12/10/21

SHEET NO.

S2.1

REVIEW



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DECEMBER 18, 2020

LAKE HOUSE
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12-10-21 CD SET

TITLE
ROOF PLAN

PROJECT NO.:	191966.1
E.O.R. :	Mark Speidel
DESIGNED:	MTS
DRAWN:	KPH

ISSUE	DATE
PERMIT SET	12-18-2020

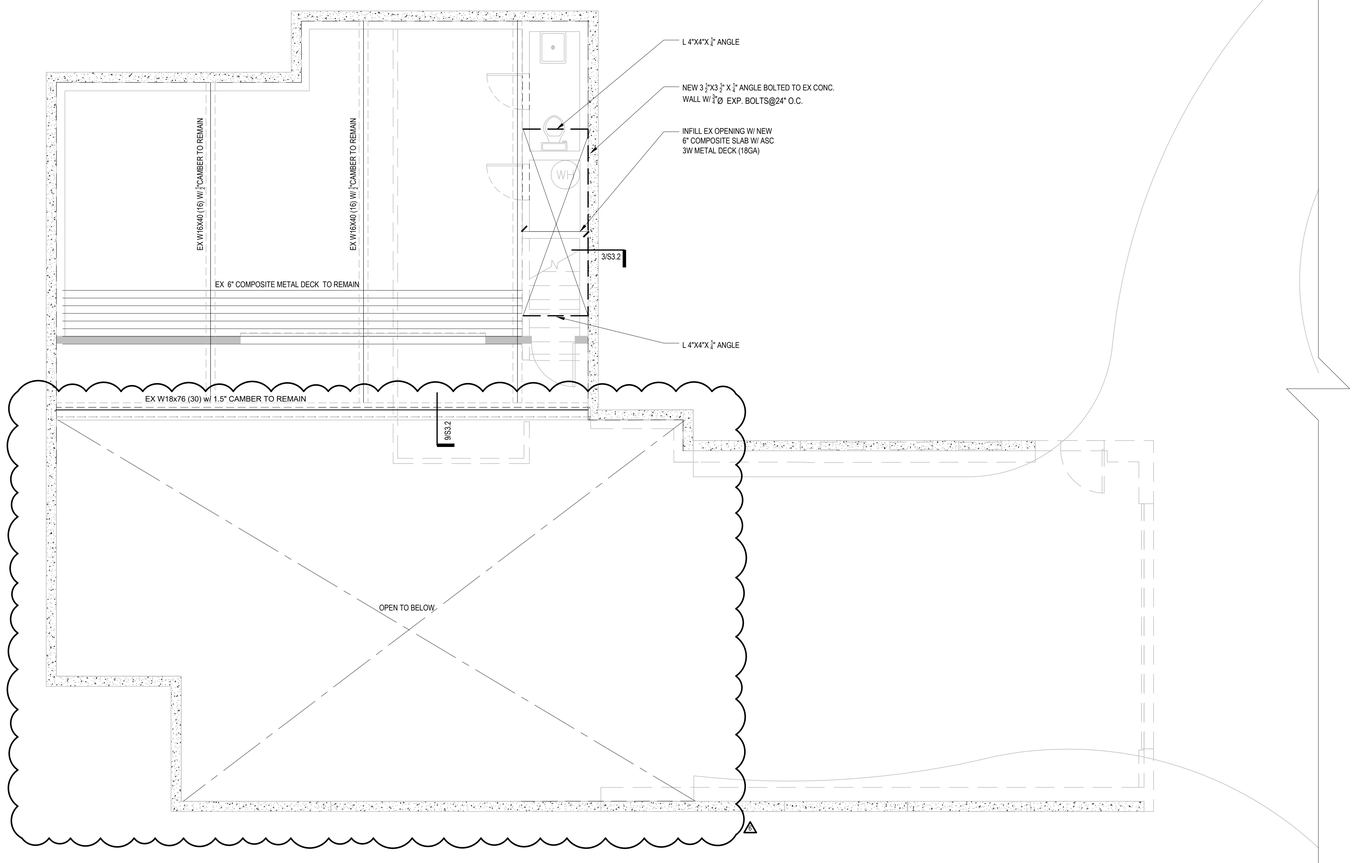
REVISIONS	DATE
1 PERMIT REV	06/03/21
2 PERMIT REV	07/05/21
3 PERMIT REV	07/23/21
4 PERMIT REV	08/03/21
5 M.I. PERMIT REV	08/20/21
6 CD SET REV	12/10/21

SHEET NO.
S2.2

REVIEW

PLAN NOTES:

1. SEE SHEET S3.2 FOR THE DETAILS OF THE COMPOSITE FLOOR SYSTEM



1 ACCESSORY BLDG ROOF FRAMING PLAN
1/4" = 1'-0"

PROJECT NORTH

ROBERT EDSON SWAIN
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PROJECT NO.: 1811
DRAWN:

ISSUE	DATE
	12-18-20

REVISIONS	DATE
1 PERMIT REV	06/03/21
2 CD SET REV	12/10/21

ACCESSORY BLDG ROOF PLAN

S2.3

REINFORCING SPLICE AND DEVELOPMENT LENGTH SCHEDULE

(For Grade 60, Uncoated Bars, Normal Weight Concrete)

I — MINIMUM STRAIGHT DEVELOPMENT LENGTH (ℓ_d) ✳

BAR SIZE	f'c = 2500 PSI TOP BARS	f'c = 2500 PSI OTHER BARS	f'c = 4000 PSI TOP BARS	f'c = 4000 PSI OTHER BARS
#3	16"	13"	14"	12"
#4	22"	17"	19"	15"
#5	27"	21"	23"	18"
#6	35"	27"	31"	24"

✳ "TOP BARS" ARE HORIZONTAL BARS WITH MORE THAN 12" DEPTH OF CONCRETE CAST BELOW THEM.
IF CLEAR CONCRETE COVER IS NOT GREATER THAN THE DIAMETER OF THE BAR OR THE CENTER TO CENTER SPACING IS NOT GREATER THAN 3 BAR DIAMETERS, THEN VALUES SHALL BE INCREASED BY 43%.

II — MINIMUM LAP SPLICE LENGTHS (ℓ_s) ✳

BAR SIZE	f'c = 2500 PSI TOP BARS	f'c = 2500 PSI OTHER BARS	f'c = 4000 PSI TOP BARS	f'c = 4000 PSI OTHER BARS
#3	21"	16"	18"	16"
#4	28"	22"	24"	19"
#5	35"	27"	30"	23"
#6	46"	35"	40"	31"

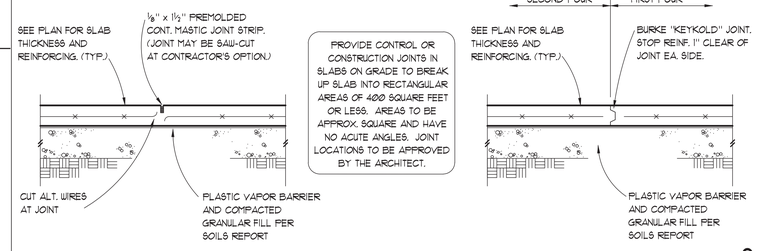
III — MINIMUM EMBEDMENT LENGTHS (ℓ_{dh}) FOR STANDARD END HOOKS

A. for general uses:

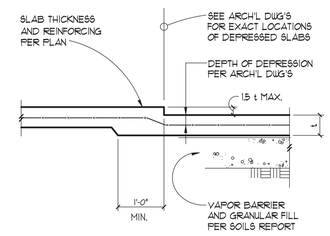
BAR SIZE	f'c = 3000 PSI	f'c = 4000 PSI
#3	6"	6"
#4	8"	7"
#5	10"	9"
#6	12"	10"

1. SIDE COVER MUST BE EQUAL TO OR GREATER THAN 2½".
2. END COVER FOR 90° HOOKS MUST BE EQUAL TO OR GREATER THAN 2".

6

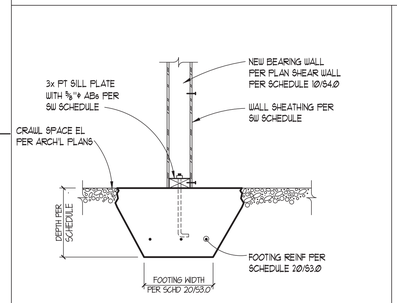


CONTROL JOINT — CONSTRUCTION JOINT — 3

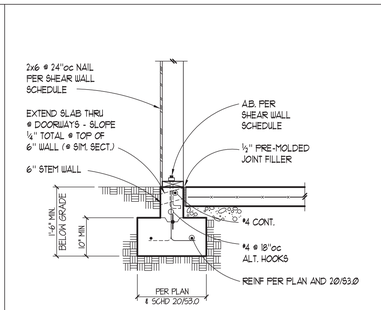


TYPICAL SLAB DEPRESSION — 4

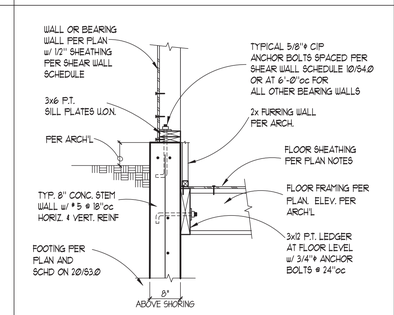
5



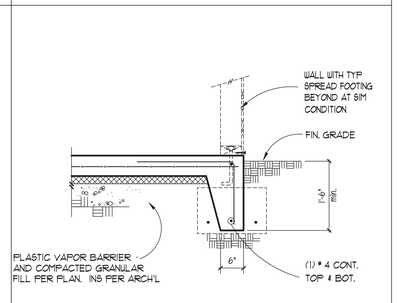
NEW INTERIOR WALL OVER FOOTING AT CRAWLSPACE — 7



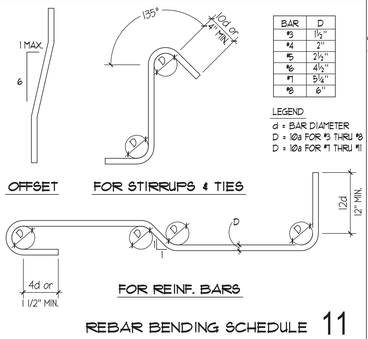
PERIMITER FOOTING W/ SLAB ON GRADE — 8



FRAMED FLOOR TO CONCRETE WALL — 9



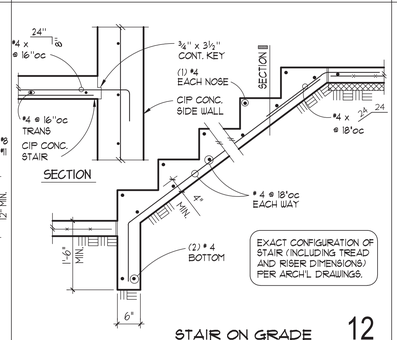
TURNED DOWN SLAB EDGE FOOTING — 10



BAR	D
#3	1½"
#4	2"
#5	2½"
#6	4½"
#7	5¼"
#8	6"

LEGEND
d = BAR DIAMETER
D = 10ø FOR #5 THRU #8
D = 10ø FOR #7 THRU #11

REBAR BENDING SCHEDULE — 11



STAIR ON GRADE — 12

HOLDOWN ANCHOR SCHEDULE

CALLOUT	A.B. SIZE	CAPACITY (Kips)
HDU2	⅝"ø A.B.	3.07
HDU4	⅝"ø A.B.	4.56
HDU5	⅝"ø A.B.	5.64
HDU8	⅞"ø A.B	7.87
HDU11	1"ø A.B.	10.11

HOLDOWNS SPECIFIED ON PLANS ARE MANUFACTURED BY SIMPSON STRONG TIE, INC. UNLESS OTHERWISE NOTED. CAPACITIES ARE BASED ON THE MOST RECENT CATALOGUE AND ICC REPORTS FOR THE MODELS LISTED.

ALTERNATE HOLDOWN ANCHORS MAY BE SUBSTITUTED AT THE CONTRACTOR OR OWNER'S OPTION, PROVIDED THEY ARE APPROVED BY THE ENGINEER OF RECORD AND HAVE A CURRENT ICC REPORT STATING THEIR CAPACITY MEETS OR EXCEEDS THE DESIGN CAPACITY LISTED ABOVE.

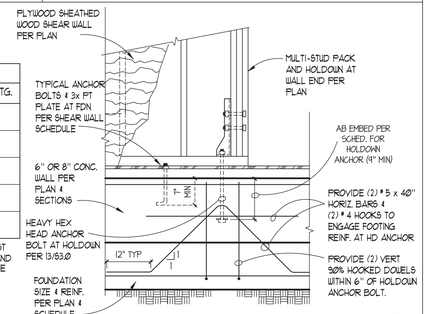
DESIGN CAPACITIES ARE BASED ON Douglas Fir FRAMING LUMBER AS STATED IN TEH GENERAL STRUCTURAL NOTES. SUBSTITUTING ALTERNATE LUMBER GRADES MAY CAUSE HOLDOWNS AND THEIR CONNECTIONS TO FAIL AT LOWER CAPACITIES THAN THOSE DESIGNED FOR.

13

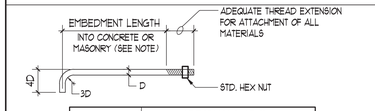
HOLDOWN EMBEDMENTS INTO STEM WALL CONDITIONS

ANCHOR BOLT DIA. 'D' (CAP.)	MINIMUM EMBEDMENT DEPTH (Le) INTO 6" STEM	INTO 8" STEM	INTO MIN. 16" WIDE FTG.
5/8" (5.6k)	14"	12"	9"
3/4" (7.7k)	20"	14"	10"
7/8" (10.1k)	N/A	24"	12"
1" (14.1k)	N/A	N/A	15"
1 1/8" (20.7k)	N/A	N/A	20"

ANCHOR BOLT EMBEDMENTS ARE BASED ON HEAVY HEX HEAD ANCHOR BOLTS CAST INTO CONCRETE WALLS OR FOUNDATIONS. ANCHOR BOLTS SHALL NOT BE WET-SET AND SHOULD NOT BE DRILLED AND EPOXIED INTO CONCRETE WITHOUT APPROVAL BY THE ENGINEER OF RECORD.



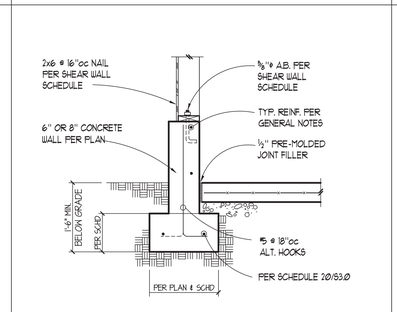
TYPICAL HOLDOWN TO FOUNDATION WALL SECTION — 15



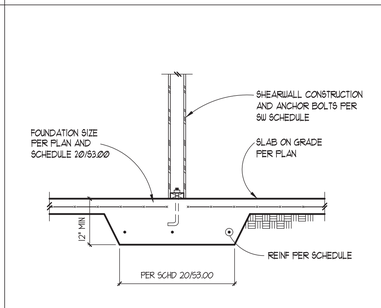
BOLT DIA. 'D'	MINIMUM EMBEDMENT ANCHOR BOLTS IN HORIZ. SURFACE	ANCHOR BOLTS IN VERT. SURFACE
½"	5"	7"
⅝"	5"	7"
¾"	5"	7"
⅞"	6"	8"
1"	7"	9"
1⅛"	8"	10"

NOTE: ANCHOR BOLT EMBEDMENT IN VERTICAL SURFACE APPLIES TO CONCRETE ONLY.

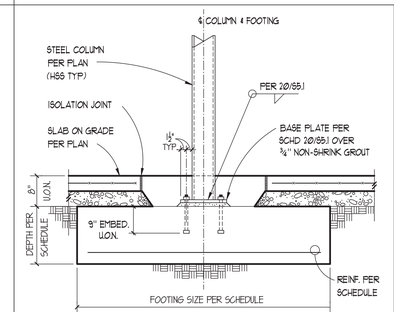
TYP. ANCHOR BOLT — 16



SHORT CONC. WALL SECTION — 17



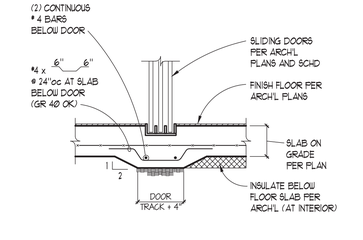
INTERIOR WALL FOOTING SECTION — 18



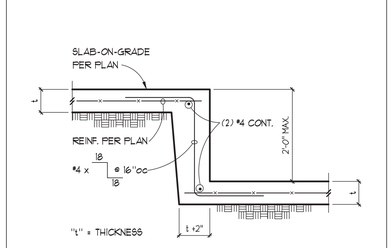
TYPICAL STEEL COLUMN FOUNDATION SECTION — 19

MARK	FOOTING SIZE	DEPTH	REINFORCING / NOTES
A	28" WIDE CONT. STRIP FTG	12" DEEP	(3) # 5 CONT. BOTTOM NEW WALL FOOTING
B	36" WIDE CONT. STRIP FTG.	12" DEEP	(3) # 5 CONT. BOTTOM NEW ENTRY FNDN WALL
C	24" WIDE CONT. STRIP FTG.	12" DEEP	(3) # 5 CONT. BOTTOM NEW EXT. WALL FOOTING
D	36" WIDE CONT. STRIP FTG.	14" DEEP	(4) # 5 CONT. BOTTOM NEW CMU WALL FOOTING
E	EXISTING FOUNDATIONS	12" DEEP	EXISTING FNDNS TO REMAIN IN PLACE U.O.N.
F	54"x 54" PAD FTG.	14" DEEP	(4) #6 BARS E.A. WAY BOTTOM
G	30" x 30" PAD FOOTING	10" DEEP	(3) # 4 BARS E.A. WAY BOTTOM
H	16" WIDE CONT. STRIP FTG.	10" DEEP	(3) # 4 CONT. BOTTOM INTERIOR SLAB FTG
J	30" x 30" PAD FOOTING	10" DEEP	(3) # 4 BARS E.A. WAY BOTTOM

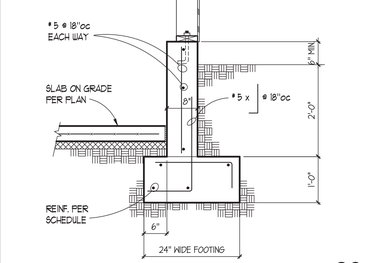
FOUNDATION SCHEDULE — 20



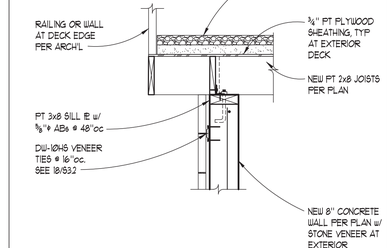
THICKENED SLAB BELOW SLIDING DOOR — 21



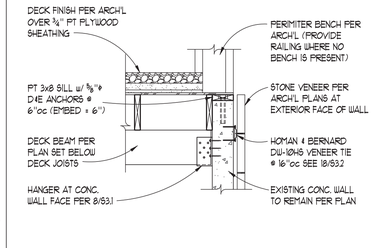
STEP IN SLAB ELEVATION — 22



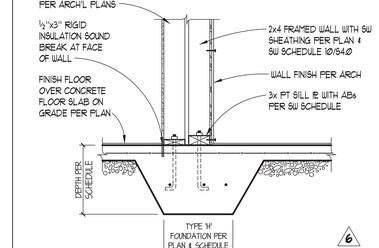
TYPICAL 2' RETAINING WALL FOR CHANGE IN GRADE — 23



CANTILEVERED DECK OVER NEW FOUND WALL — 24



DECK EDGE AT EXISTING WALL — 25



6
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MARK T. SPEIDEL — STATE OF WASHINGTON — 43713 — REGISTERED PROFESSIONAL ENGINEER

12/2021

BUILDING PERMIT SUBMITTAL
DECEMBER 18, 2020

LAKE HOUSE
3310 97TH AVE. SE
MERCER ISLAND, WA 98040

I.L. Gross Structural Engineers, LLC Mountlake Terrace, Washington

12-10-21 CD SET

TITLE
TYPICAL CONCRETE DETAILS AND SCHEDULES

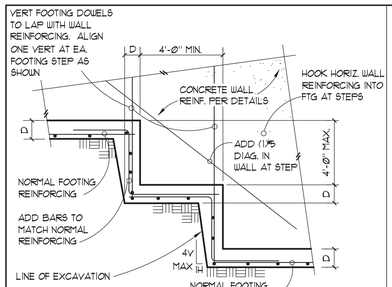
PROJECT NO.: 191966.1
E.O.R. :
DESIGNED: Mark Speidel
DRAWN: MTS
KMH

ISSUE	DATE
PERMIT SET	12-18-2020

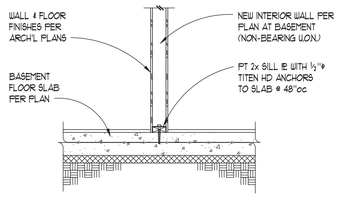
REVISIONS	DATE
PERMIT REV	06/03/21
PERMIT REV	07/05/21
PERMIT REV	07/23/21
PERMIT REV	08/03/21
M.I. PERMIT REV	08/20/21
CD SET REV	12/10/21

SHEET NO.
S3.0

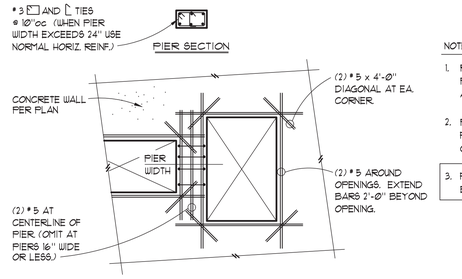
REVIEW



TYPICAL STEPPED FOOTING 1



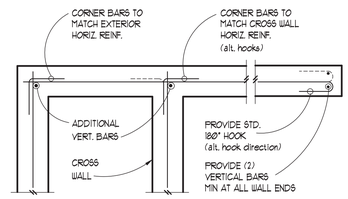
NON-BEARING WALL AT BASEMENT SLAB 2



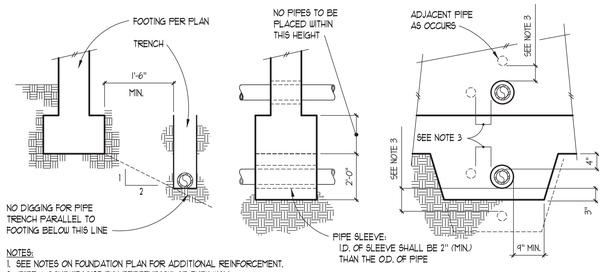
NOTE:

1. REINFORCING SHOWN IS MINIMUM. SEE PLANS AND WALL ELEVATIONS FOR ANY ADDITIONAL REQUIRED REINFORCING.
2. PROVIDE FOR ANY OPENING SIX SQUARE FEET OR LARGER UNLESS OTHERWISE NOTED ON PLANS, ELEVATIONS, OR DETAILS.
3. FOR WALLS THICKER THAN 8" USE # 6 BARS IN LIEU OF # 5 BARS SHOWN.

TYPICAL REINFORCING AROUND OPENING IN CONCRETE WALL 4

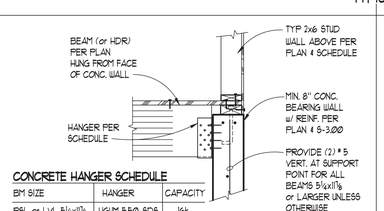


TYPICAL CORNER AND END BAR ARRANGEMENT AT CONCRETE WALLS 5



NOTES:
1. SEE NOTES ON FOUNDATION PLAN FOR ADDITIONAL REINFORCEMENT.
2. PIPE & CONDUIT MUST RUN PERPENDICULAR THRU WALL.
3. VERT. & HORZ. CLEAR SPACE BETWEEN ADJACENT PIPE SLEEVES SHALL NOT BE LESS THAN THE DIAMETER OF THE LARGER SLEEVE.

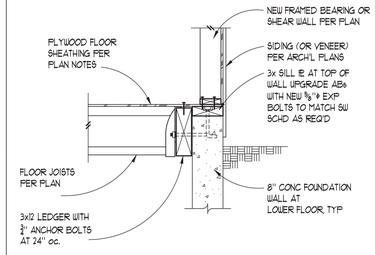
TYPICAL FOOTING AT PIPE OR CONDUIT 7



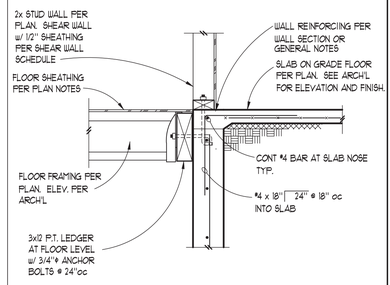
CONCRETE HANGER SCHEDULE

BM SIZE	HANGER	CAPACITY
PSL or LVL 5¼x11⅞ & 5¼x14"	HGUM 5.50-SDS	16k
LVL 3½x11⅞	LGUM 410-SDS	9.6k
GL 5½x12 or 13½	HGUM 5.25-SDS	16k
4x BEAMS OR MEMBERS (TYP.)	HU SERIES w/ ¼"x1¾" TITEN	4.35k
6x BEAMS OR MEMBERS (TYP.)	UM SERIES w/ ¼"x1¾" TITEN	3.4k

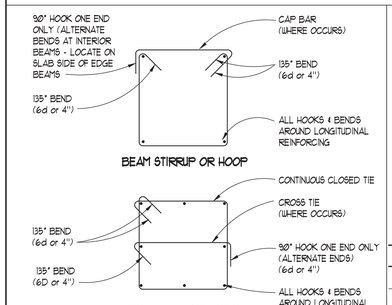
WOOD BEAM TO CONCRETE WALL 8



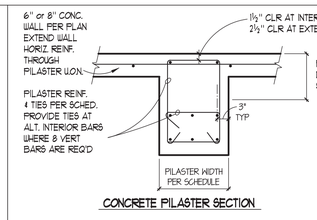
CONCRETE BASEMENT WALL AT FLOOR FRAMING 9



FLOOR SECTION AT TOP OF CONC WALL WITH SLAB 10



TYP. STIRRUP, TIE, HOOP OR CROSS-TIE 11

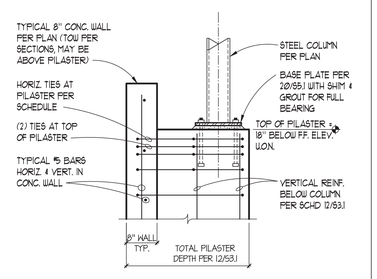


CONCRETE PILASTER SECTION

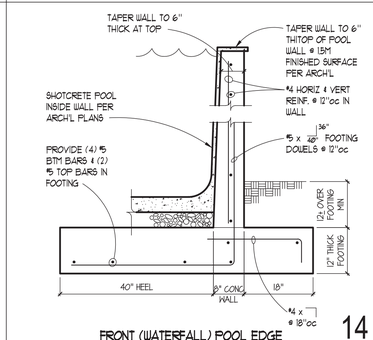
PILASTER SCHEDULE

MARK	DEPTH	WIDTH	VERT REINF.	TIES	NOTES
P1	24"	16"	(6) # 5	# 3 @ 6"oc	PER 13/63.1
P2	30"	18"	(8) # 6	# 3 @ 6"oc	PER 13/63.1

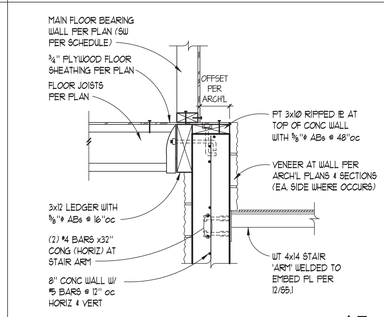
12



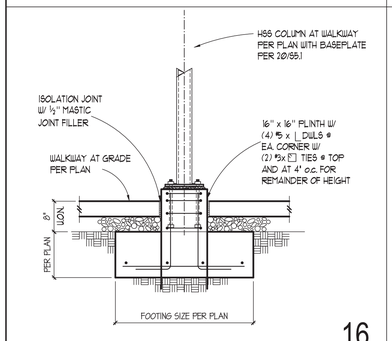
HSS COLUMN ONTO PILASTER 13



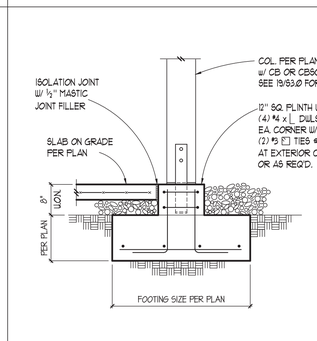
FRONT (WATERFALL) POOL EDGE 14



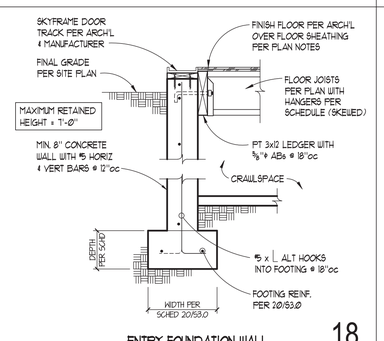
SECTION AT CONCRETE STAIR WALL 15



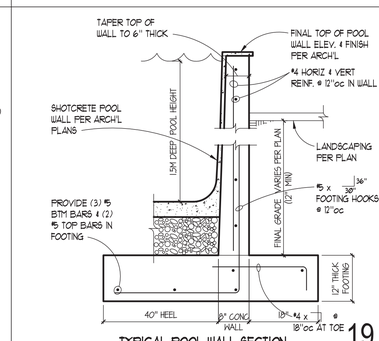
16



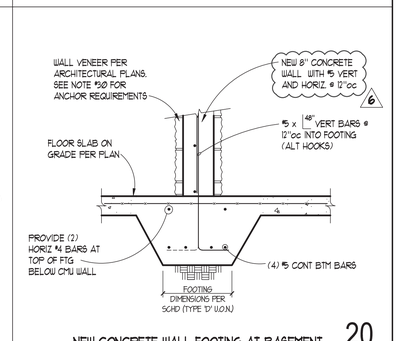
17



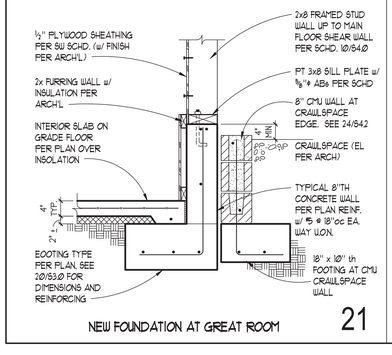
ENTRY FOUNDATION WALL 18



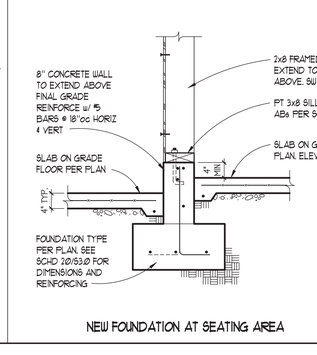
TYPICAL POOL WALL SECTION 19



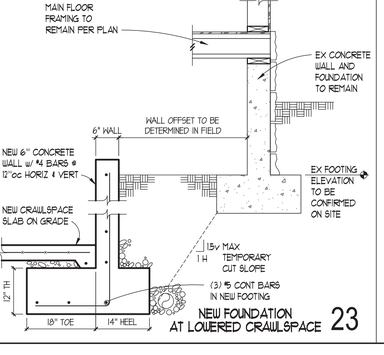
NEW CONCRETE WALL FOOTING AT BASEMENT 20



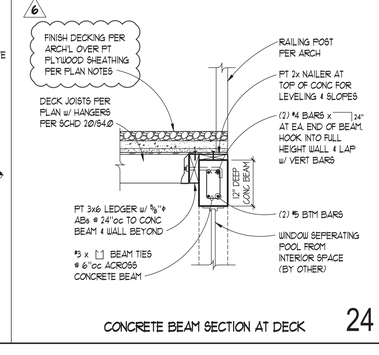
NEW FOUNDATION AT GREAT ROOM 21



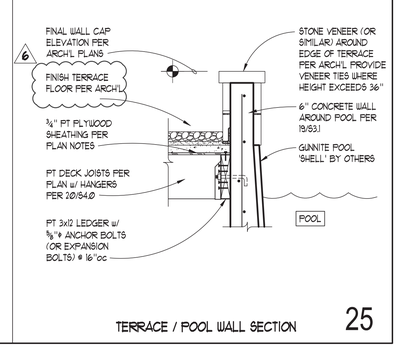
NEW FOUNDATION AT SEATING AREA 22



NEW FOUNDATION AT LOWERED CRAWLSPACE 23



CONCRETE BEAM SECTION AT DECK 24



TERRACE / POOL WALL SECTION 25

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MARK T. SPEIDEL — STATE OF WASHINGTON — 43713 — REGISTERED PROFESSIONAL ENGINEER

12/2021

BUILDING PERMIT SUBMITTAL
DECEMBER 18, 2020

LAKE HOUSE
3310 97TH AVE. SE
MERCER ISLAND, WA 98040

12-10-21 CD SET

TITLE
CONCRETE AND CMU DETAILS

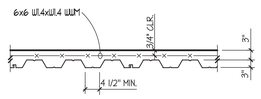
PROJECT NO.: 191966.1
E.O.R.: Mark Speidel
DESIGNED: MTS
DRAWN: KHH

ISSUE	DATE
PERMIT SET	12-18-2020

REVISIONS	DATE
1 PERMIT REV	06/03/21
2 PERMIT REV	07/05/21
3 PERMIT REV	07/23/21
4 PERMIT REV	08/03/21
5 M.I. PERMIT REV	08/20/21
6 CD SET REV	12/10/21

SHEET NO.
S3.1

REVIEW



TYPE = ASC PACIFIC 3WX4, G60 COATING W/ FOLLOWING MIN. PROPERTIES

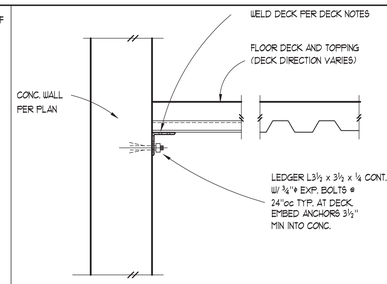
PANEL WIDTH = 36"

18 GA.	
I =	1073 in⁴
S =	.761 in.³
Fy =	50 ksi

SHEAR CAPACITY REQ'D = 1900 #/ft.

1. USE 18 GA. DECK MATCHING PROPERTIES NOTED TO THE LEFT. DECK SHALL HAVE 100 PSF SUPERIMPOSED LOAD CAPACITY. 18 GA. DECK SHALL BE USED FOR ANY SINGLE AND DOUBLE SPAN CONDITIONS EXCEEDING 8'-6" EA. SPAN AND ANY TRIPLE SPAN CONDITIONS EXCEEDING 10'-2" EA. SPAN. MAXIMUM SPAN OF 18 GA. DECK IS 10'-6" FOR SINGLE AND DOUBLE SPAN CONDITIONS AND 11'-6" FOR TRIPLE SPAN CONDITIONS.
2. NOTE 1 ASSUMES SHORING WILL NOT BE USED.
3. PROVIDE (4) ½" DIAMETER EFFECTIVE PUDDLE WELDS PER SHEET TO ALL SUPPORTS PERPENDICULAR TO DECK FLUTES.
4. PROVIDE ½" DIAMETER PUDDLE WELDS AT 12"oc TO ALL STEEL BEAMS. PROVIDE ½" DIAMETER PUDDLE WELDS AT 8"oc TO ALL LEDGERS AND DECK EDGES. PROVIDE ½" DIAMETER PUDDLE WELDS AT 12"oc WHERE DECK ORIENTATION CHANGES AND OTHER SUPPORTS PARALLEL TO DECK FLUTES.
5. CONNECT DECK SEAMS WITH BUTTON PUNCHES @ 36" o.c.
6. DECK TYPE MUST STRICTLY MEET CRITERIA LISTED ABOVE INCLUDING I.C.B.O. RESEARCH REPORT ALLOWABLE SHEAR AND SUPERIMPOSED LOADS. SUBMIT DECK INFORMATION TO ENGINEER PRIOR TO BEGINNING SHOP DRAWINGS.
7. REINFORCE DECK OPENINGS PER 14/S3.2

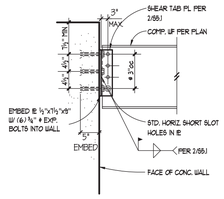
2



TYPICAL DECK LEDGER

TO OCCUR AT ALL INTERSECTIONS OF FLOOR DECK AND CONCRETE WALLS, U.O.N.

3



NEW UF BEAM TO CONCRETE WALL

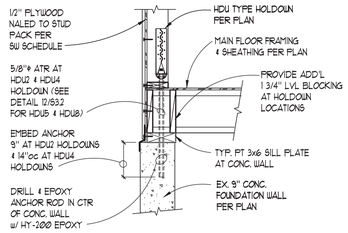
4

SECTION THROUGH NEW COMPOSITE BEAM

5

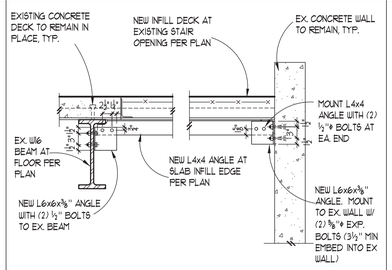
SECTION AT COMPOSITE DECK PARALLEL TO STEEL BEAM

6



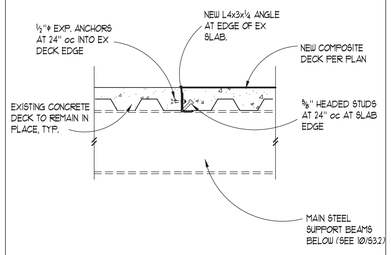
DRILL & EPOXY HOLDOWN ANCHOR DETAIL # 1

7



SECTION AT COMPOSITE FLOOR SLAB INFILL

8

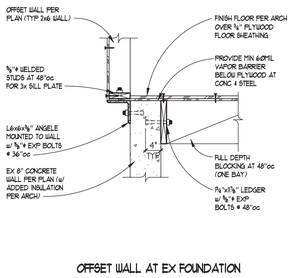


NEW TO EXISTING COMPOSITE SLAB CONNECTION

9

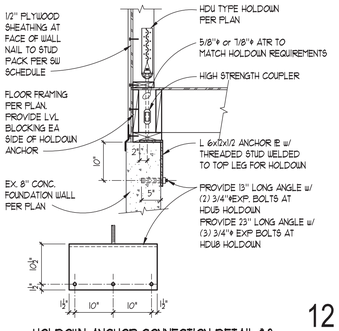
NEW COMPOSITE BEAM CONNECTION TO EX BM END

10



OFFSET WALL AT EX FOUNDATION

11



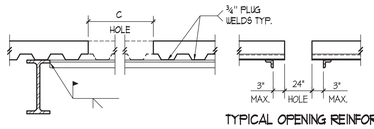
HOLDOWN ANCHOR CONNECTION DETAIL # 2

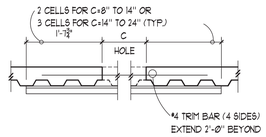
12

1. FOR HOLES 4" DIA. OR LESS, OR 4" SQUARE OR LESS :
NO STRENGTHENING IS REQUIRED PROVIDED THAT HOLES ARE NOT CLOSER THAN 12" O.C.
2. FOR HOLES GREATER THAN 4" UP TO 8" DIA. OR 8" SQUARE :
PROVIDED HOLES ARE NOT CLOSER THAN 3'-0" O.C.

SECTION AT DECK WITH CONC. FILL

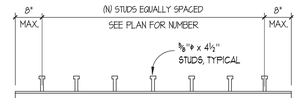
3. FOR HOLES GREATER THAN 8" UP TO 24" DIA. OR 24" SQUARE :
USE L 2 x 2 x 3/16 AS SHOWN BELOW :





TYPICAL OPENING REINFORCING IN COMPOSITE DECK

14



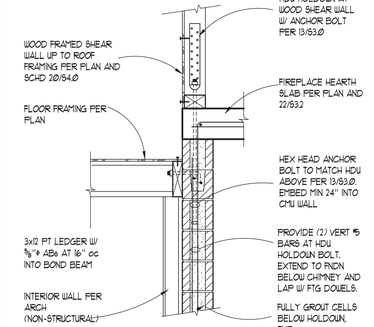
TYPICAL BEAM UNIFORMLY LOADED

NOTES

1. NUMBER OF SHEAR CONNECTORS (STUDS) REQUIRED FOR COMPOSITE BEAMS ARE DESIGNATED (N) ON PLANS.
2. CENTER CONNECTORS OVER BEAMS AND GIRDERS TYPICAL.
3. WHERE DECK FLUTES ARE PERPENDICULAR TO BEAMS USE (2) STUDS PER FLUTE = 3"oc WHERE NUMBER OF STUDS EXCEEDS NUMBER OF FLUTES.

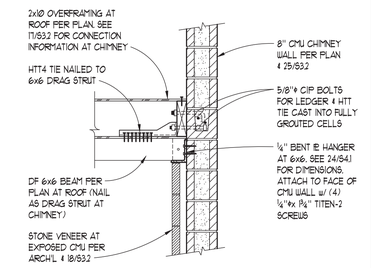
STUD DISTRIBUTION AT COMPOSITE BEAMS

15



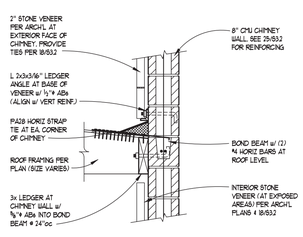
WOOD SHEAR WALL AND HOLDOWN ONTO CMU WALL

26



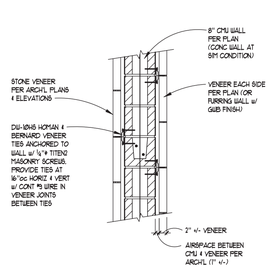
6x6 PURLIN TO CMU CHIMNEY WALL

16



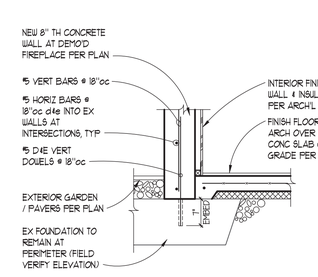
CHIMNEY SECTION AT ROOF

17



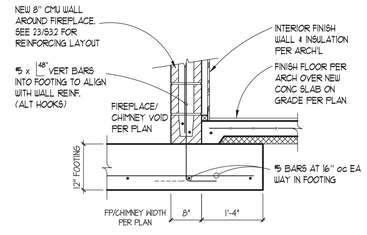
STONE VENEER ANCHORAGE AT CMU WALL

18



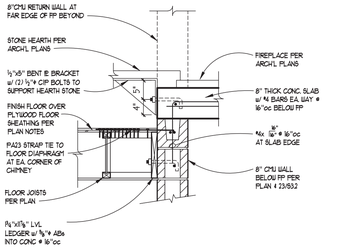
CONCRETE INFILL WALL AT JAPANESE GARDEN

20



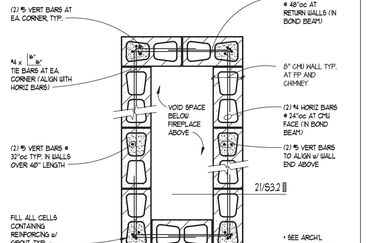
FOOTING 'I' BELOW FIREPLACE

21



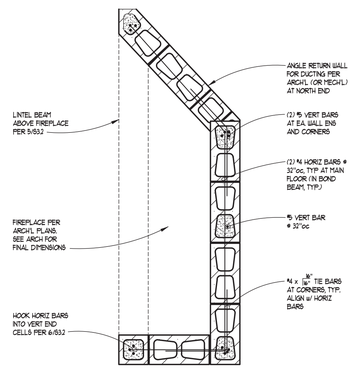
SECTION AT FIREPLACE HEARTH

22



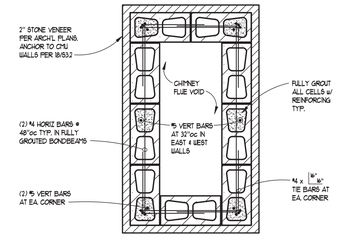
LOWER LEVEL CMU FIREPLACE REINFORCING PLAN

23



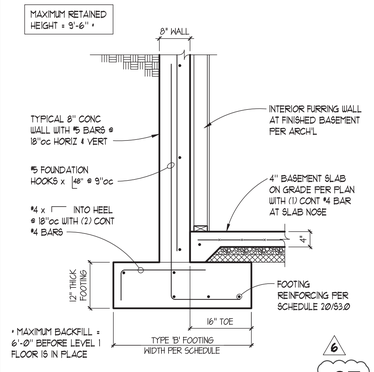
MAIN LEVEL FIREPLACE REINFORCING PLAN

24



CMU CHIMNEY REINFORCING ABOVE ROOF

25



FULL HEIGHT BASEMENT WALL AT ENTRY

6
27

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MARK T. SPEIDEL — STATE OF WASHINGTON — 43713 — REGISTERED PROFESSIONAL ENGINEER

12/2021

BUILDING PERMIT SUBMITTAL
DECEMBER 18, 2020

LAKE HOUSE
3310 97TH AVE. SE
MERCER ISLAND, WA 98040

12-10-21 CD SET

TITLE
COMPOSITE DECK INFILL DETAILS

PROJECT NO.:	191966.1
E.O.R.:	Mark Speidel
DESIGNED:	MTS
DRAWN:	KMH

ISSUE	DATE
PERMIT SET	12-18-2020

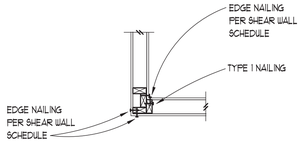
REVISIONS	DATE
1 PERMIT REV	06/03/21
2 PERMIT REV	07/05/21
3 PERMIT REV	07/23/21
4 PERMIT REV	08/03/21
M.I. PERMIT REV	08/20/21
CD SET REV	12/10/21

SHEET NO.
S3.2

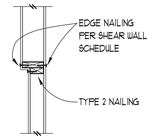
REVIEW

STUD TO STUD NAILING SCHEDULE

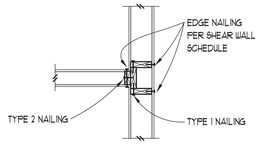
LEVEL	NAILING TYPE	
	TYPE 1	TYPE 2
SECOND	16d @ 12"o.c.	16d @ 6"o.c.
FIRST	16d @ 12"o.c.	16d @ 6"o.c.



INTERIOR WALL CORNER



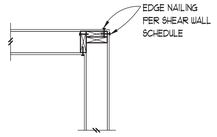
VARYING WALL SIZE



INTERIOR WALL TO EXTERIOR WALL

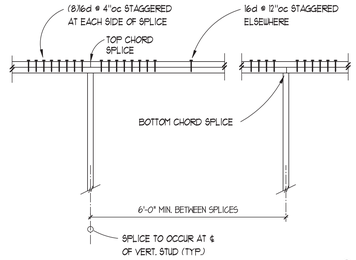
NOTES:

1. WHERE NO STUD TO STUD NAILING IS INDICATED, NAIL STUDS TOGETHER WITH 16d @ 12"o.c. .
2. ADDITIONAL STUDS REQUIRED AS NAILERS, ETC. ARE NOT SHOWN.
3. SEE SHEAR WALL SCHEDULE FOR SHEATHING NAILING REQUIREMENTS.
4. SEE PLAN NOTES FOR STUD SIZE AND SPACING. (VERIFY WITH ARCHITECTURAL)



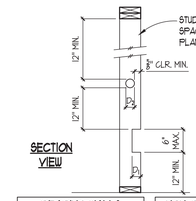
TYPICAL WALL CORNER

7



TYPICAL TOP PLATE SPLICE

3



BEARING WALLS		
STUD SIZE	MAX. D_1 (NOTCH)	MAX. D_2 (NOTCH)
2x4 & 3x4	3/4"	1 1/4"
2x6	1 1/4"	2 1/4"
2x8	1 3/4"	3"

NON-BEARING WALLS		
STUD SIZE	MAX. D_1 (NOTCH)	MAX. D_2 (NOTCH)
2x4 & 3x4	1 1/4"	2"
2x6	2 1/4"	3 1/4"
2x8	3"	4 1/2"

NOTE: HOLE AND NOTCH SIZE FOR NON-BEARING WALLS MAY BE USED FOR BEARING WALLS IF REQUIRED NUMBER OF STUDS ARE DOUBLED. THIS MAY ONLY BE USED AT TWO CONSECUTIVE STUDS IN ANY ONE WALL.

ALLOWABLE HOLES & NOTCHES IN STUDS

8

LABEL	APA RATED SHEATHING (1) (2) (4) (12) (13)	NAIL SIZE & SPACING @ EDGES (4) (5) (16)	STUD & BLOCKING SIZE AT ADJOINING EDGES (3) (6) (14)	RIM JOIST OR BLOCK CONNECTION TO TOP PLATE (7) (8)	2 X BOTTOM PLATE ATTACHMENT			PLF CAPACITY (ASD)
					NAILING TO WOOD BELOW (9)	SILL PLATE ATTACHMENT		
						ANCHOR BOLT TO CONCRETE BELOW (10) (15)	SILL PLATE SIZE AT FOUNDATION (11)	
W6	15/32" ONE SIDE	Ø.148 x 2" @ 6"oc	3X	CLIP @ 24" oc	Ø.162x 3-1/2" @ 5" oc	5/8" ø @ 48" oc	3X	310
W4	15/32" ONE SIDE	Ø.148 x 2" @ 4"oc	3X	CLIP @ 16" oc	Ø.162x 3-1/2" @ 3" oc	5/8" ø @ 32" oc	3X	460
W3	15/32" ONE SIDE	Ø.148 x 2" @ 3"oc	3X	CLIP @ 12" oc	Ø.162x 3-1/2" @ 2-1/2" oc	5/8" ø @ 24" oc	3X	600
W2	15/32" ONE SIDE	Ø.148 x 2" @ 2"oc	3X	CLIP @ 9" oc	Ø.162x 3-1/2" @ 2" oc	5/8" ø @ 20" oc	3X	770
2W4 (2)	15/32" TWO SIDES	Ø.148 x 2" @ 4"oc	3X	CLIP @ 8" oc	Ø.162x 3-1/2" @ 3" oc	5/8" ø @ 16" oc	3X	920
2W3 (2)	15/32" TWO SIDES	Ø.148 x 2" @ 3"oc	3X	CLIP @ 6" oc EACH SIDE	(2) ROWS Ø.162x 3-1/2" @ 2-1/2" oc	5/8" ø @ 12" oc	3X	1200
2W2 (2)	15/32" TWO SIDES	Ø.148 x 2" @ 2"oc	3X	CLIP @ 9" oc EACH SIDE	(2) ROWS Ø.162x 3-1/2" @ 2" oc	5/8" ø @ 10" oc	3X	1540

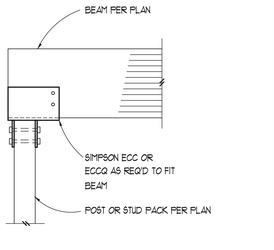
5

NOTES:

(1) INSTALL PANELS EITHER HORIZONTALLY OR VERTICALLY. INSTALL PANELS DIRECTLY TO WALL STUDS.
(2) WHERE SHEATHING IS APPLIED ON BOTH SIDES OF WALL, PANEL EDGE JOINTS ON 2X OR 3X FRAMING SHALL BE STAGGERED SO THAT JOINTS ON THE OPPOSITE SIDES ARE NOT LOCATED ON THE SAME STUDS.
(3) BLOCKING IS REQUIRED AT ALL PANEL EDGES
(4) PROVIDE SHEAR WALL SHEATHING AND NAILING FOR THE ENTIRE LENGTH OF THE WALLS INDICATED ON THE PLANS. ENDS OF FULL HEIGHT WALLS ARE DESIGNATED BY EXTERIOR OF THE BUILDING, CORRIDORS, WINDOWS, OR DOORWAYS OR AS DESIGNATED ON PLANS. SEE PLANS FOR HOLDOWN REQUIREMENTS.
(5) SHEATHING EDGE NAILING IS REQUIRED AT ALL HOLDOWN POSTS. EDGE NAILING MAY ALSO BE REQUIRED TO EACH STUD USED IN BUILT-UP HOLDOWN POSTS. REFER TO THE HOLDOWN DETAILS FOR ADDITIONAL INFORMATION.
(6) INTERMEDIATE FRAMING TO BE WITH 2X MINIMUM MEMBERS. FIELD NAILING 12" O.C.
(7) BASED ON Ø131 X 1-1/2" LONG NAILS USED TO ATTACH FRAMING CLIPS DIRECTLY TO FRAMING. USE Ø131 X 2-1/2" NAILS WHERE INSTALLED OVER SHEATHING
(8) FRAMING CLIPS: A35 OR LTP5 OR APPROVED EQUIVALENT
(9) WHERE PLATE ATTACHMENT SPECIFIES (2) ROWS OF NAILS, PROVIDE DOUBLE JOIST, RIM OR EQUAL. ATTACH PER DETAILS.
(10) ANCHOR BOLTS SHALL BE PROVIDED WITH STEEL PLATE WASHERS 1¼"X3"X3". USE SHORT SLOTTED WASHERS AT 2x6 (OR LARGER) WALLS AND EXTEND WASHER TO WITHIN ½" OF FACE OF WALL SHEATHING. STAGGER ANCHOR BOLT WASHERS AT WALLS WITH SHEATHING AT BOTH FACES. EMBED ANCHOR BOLTS 7" MINIMUM INTO THE CONCRETE.
(11) PRESSURE TREATED MATERIAL CAN CAUSE EXCESSIVE CORROSION IN THE FASTENERS. PROVIDE HOT-DIPPED GALVANIZED (ELECTRO-PLATING IS NOT ACCEPTABLE) NAILS AND CONNECTOR PLATES (FRAMING ANGLES, ETC.) FOR ALL CONNECTORS IN CONTACT WITH PRESSURE TREATED FRAMING MEMBERS
(12) 7/16" APA RATED SHEATHING (OSB) MAY BE USED IN PLACE OF 15/32" SHEATHING PROVIDED THAT ALL STUDS ARE SPACED AT 16" O.C.
(14) AT ADJOINING PANEL EDGES, (2) 2X STUDS NAILED TOGETHER MAY BE USED IN PLACE OF A SINGLE 3X STUD. DOUBLE 2X STUDS MAY BE CONNECTED TOGETHER BY NAILING THE STUDS TOGETHER WITH 3" LONG NAILS OF THE SAME SPACING AND DIAMETER AS THE PLATE NAILING.
(15) CONTACT THE ENGINEER OF RECORD FOR ADHESIVE OR EXPANSION BOLT ALTERNATIVES TO CAST-IN-PLACE ANCHOR BOLTS. (SPECIAL INSPECTION MAY BE REQUIRED)
(16) MINIMUM NAIL LENGTH IS BASED ON REQUIRED PENETRATION INTO FRAMING MEMBER OF 1½"

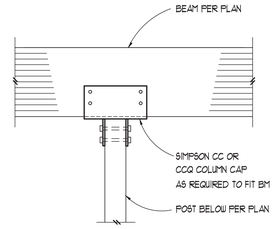
SHEAR WALL SCHEDULE

10



BEAM TO POST BELOW CONNECTION - END CONDITION

11



TYPICAL BEAM TO POST BELOW CONNECTION

12

EXTERIOR WALLS

FOR 6" WALLS (MAX. 8'-6" HIGH): 2x6 STUDS @ 16"oc, DF CONSTR. GRADE
FOR 6" WALLS (MAX. 13' HIGH): 2x6 STUDS @ 12"oc, DF CONSTR. GRADE
FOR 6" WALLS (MAX. 20' HIGH): 2x6 LVL STUDS @ 16"oc
FOR 8" WALLS (MAX. 16' HIGH): 2x8 STUDS @ 16"oc, DF CONSTR. GRADE

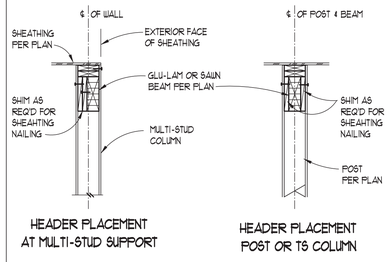
INTERIOR WALLS

FOR 4" WALLS (MAX. 10' HIGH): 2x4 STUDS @ 16"oc, DF CONSTR. GRADE
FOR 4" WALLS (MAX. 13' HIGH): 2x4 STUDS @ 12"oc, DF No 1 GRADE
FOR 6" WALLS (MAX. 13' HIGH): 2x6 STUDS @ 16"oc, DF CONSTR. GRADE

NOTE: REFER TO ARCHITECTURAL DRAWINGS FOR REQUIRED DEPTH OF STUD WALLS. INDIVIDUAL STUD SIZES, GRADES AND SPACING SHOWN IN SCHEDULE ABOVE APPLY U.O.N. ALL MAXIMUM HEIGHTS ARE TO BRACING POINTS OF STUD WALL. TOP PLATE, I.E. BOTTOM OF RAFTERS, ROOF TRUSSES, OR BRACING FRAMING MEMBER.

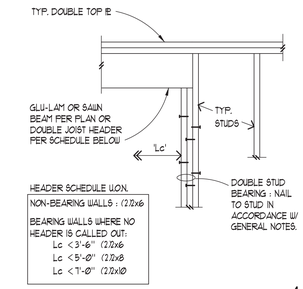
TYPICAL WALL FRAMING SCHEDULE

13



HEADER PLACEMENT AT MULTI-STUD SUPPORT

HEADER PLACEMENT POST OR TS COLUMN

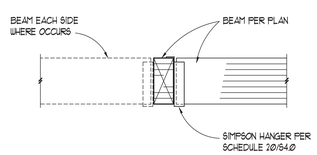


HEADER SCHEDULE U.O.N.

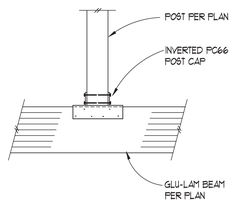
NON-BEARING WALLS : (2)2x6
BEARING WALLS WHERE NO HEADER IS CALLED OUT:
Lc <3'-6" (2)2x6
Lc <5'-0" (2)2x8
Lc <7'-0" (2)2x10

TYPICAL HEADER U.O.N.

15

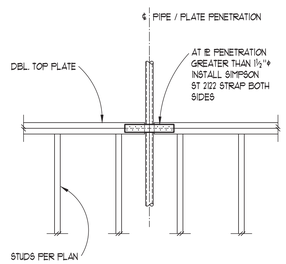


16



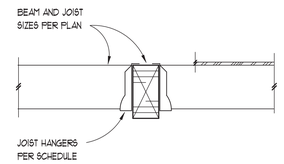
POST TO BEAM BELOW CONNECTION

17



TYPICAL TOP PLATE PENETRATION

18



TYPICAL INTERIOR BEAM SECTION

19

TYPICAL HANGER SCHEDULE

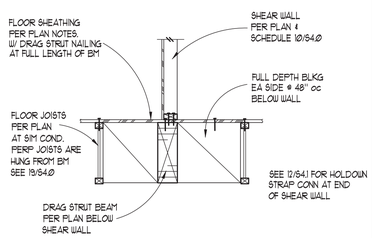
BEAM SIZE	HANGER REQUIRED	CAP. (Kips)
(2) 2x10 OR LESS	LU210-2 (OR SIM.)	1.86
(2) 2X12	HU212-2 (NAIL ALL HOLES)	2.95
3½" x 11⅞" LVL or PSL	HUCQ412-SDS	5.56
5¼x11⅞" LVL OR PSL	HGUS5.50/12	9.15
5¼x 12" (OR 10½") GLB	GLT5	8.16
3⅛x12" (OR 10½") GLB	GLT3	8.16
6¾x12" GLB	LEG1	16.3
4x10 or 4x12 BM	HUCQ410-SDS	3.37
6x10 or 6x12 BM	HUCQ610-SDS	3.37
GL 5¼x6" PURLINS	HUC66	1.54
11 ⅞" or 9½" I-JOISTS	ITS SERIES HANGER	1.45
1¾x9½" LVL	HU1	1.18
3½" x 6" LVL	HUI81/5	7.38

HANGERS SPECIFIED IN SCHEDULE OR ON PLANS ARE MANUFACTURED BY SIMPSON STRONG TIE, INC. UNLESS OTHERWISE NOTED. CAPACITIES ARE BASED ON THE MOST RECENT CATALOGUE AND ICC REPORTS FOR THE MODELS LISTED.

ALTERNATE HANGERS MAY BE SUBSTITUTED AT THE CONTRACTOR OR OWNER'S OPTION, PROVIDED THEY ARE APPROVED BY THE ENGINEER OF RECORD AND HAVE A CURRENT ICC REPORT STATING THEIR CAPACITY MEETS OR EXCEEDS THE DESIGN CAPACITY LISTED ABOVE.

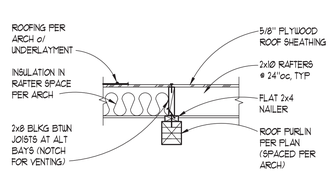
DESIGN CAPACITIES LISTED ARE BASED ON Douglas Fir FRAMING LUMBER AS STATED IN THE GENERAL STRUCTURAL NOTES AND GENERAL FLOOR LOADING.

20



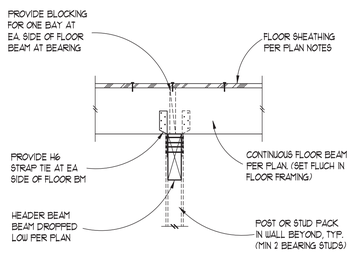
DISCONTINUOUS SHEAR WALL TO BEAM

21



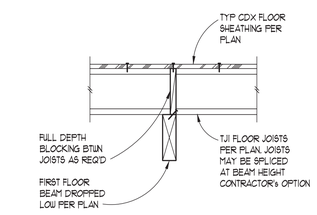
HIGH ROOF SECTION

22



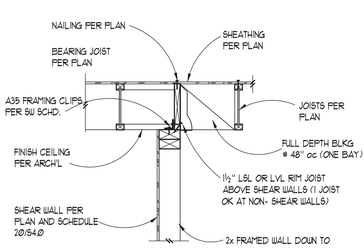
FLOOR BEAM TO LOW BEAM CONNECTION

23



LOW FLOOR SUPPORT BEAM

24



FLOOR FRAMING SECTION AT WALL BELOW

25

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MARK T. SPEIDEL — STATE OF WASHINGTON — 43713 — REGISTERED PROFESSIONAL ENGINEER
12/2021

BUILDING PERMIT SUBMITTAL
DECEMBER 18, 2020

LAKE HOUSE
3310 97TH AVE. SE
MERCER ISLAND, WA 98040

12-10-21 CD SET

TITLE
TYPICAL WOOD FRAMING DETAILS AND SCHEDULES

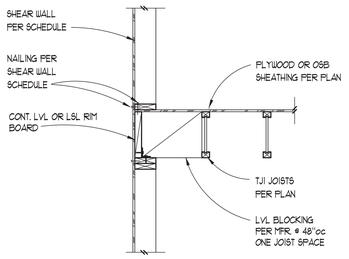
PROJECT NO.: 191966.1
E.O.R. : Mark Speidel
DESIGNED: MTS
DRAWN: KMH

ISSUE	DATE
PERMIT SET	12-18-2020

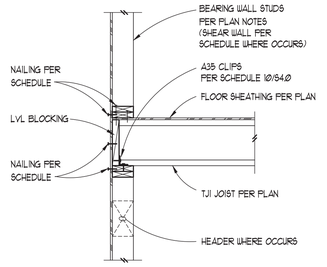
REVISIONS	DATE
1 PERMIT REV	06/03/21
2 PERMIT REV	07/05/21
3 PERMIT REV	07/23/21
4 PERMIT REV	08/03/21
5 M.I. PERMIT REV	08/20/21
6 CD SET REV	12/10/21

SHEET NO.
S4.0

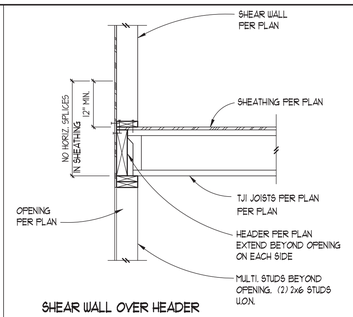
REVIEW



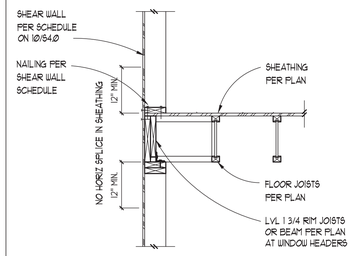
TYPICAL PARALLEL BEARING WALL FRAMING 1



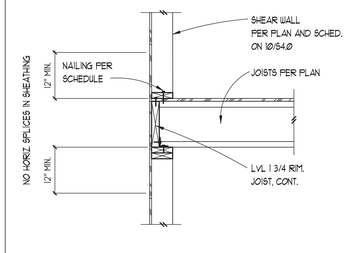
TYPICAL PERPINDICULAR JOIST FRAMING AT BEARING WALL 2



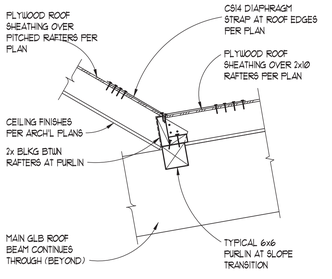
SHEAR WALL OVER HEADER 3



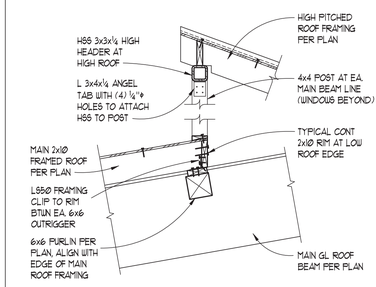
TYPICAL PARALLEL SHEAR WALL FRAMING 4



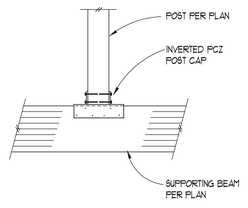
TYPICAL PERPINDICULAR SHEAR WALL FRAMING 5



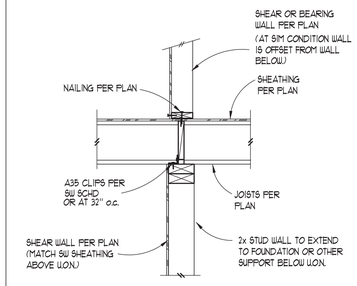
'LIGHTSCOOP' ROOF TRANSITION 6



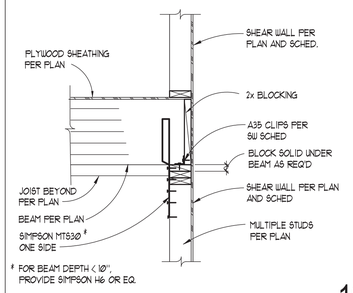
'LIGHTSCOOP' WINDOW SECTION 7



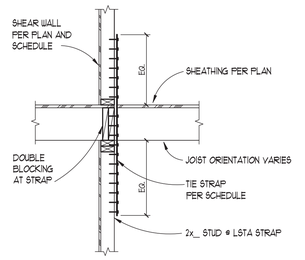
POST TO BEAM BELOW CONNECTION 8



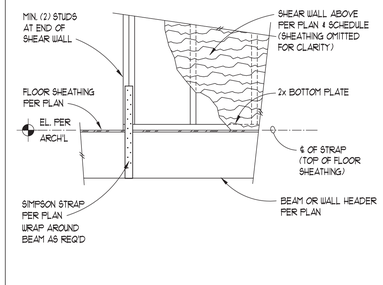
TYP. FLOOR FRAMING TO STUD WALL BELOW 9



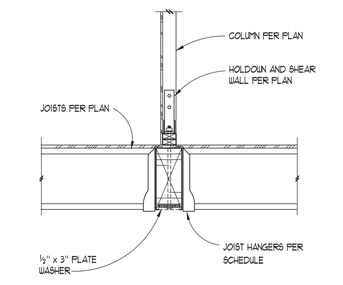
TYPICAL BEAM TO MULTIPLE STUD CONNECTION 10



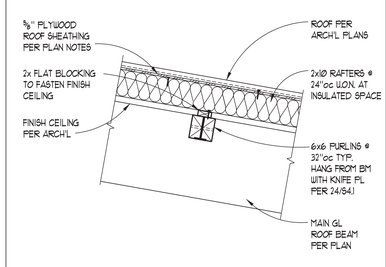
TYPICAL STRAP TIE - WALL ABOVE AND BELOW 11



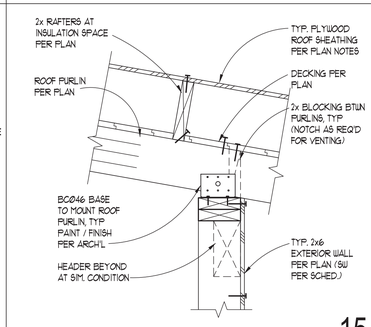
TYPICAL HOLDOWN STRAP CONNECTION AT BEAM / HEADER 12



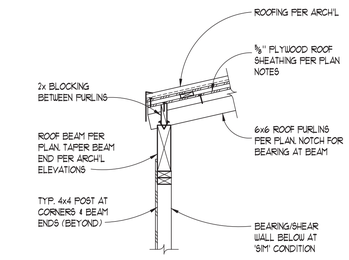
HOLDOWN TO BEAM AT DISCONTINUOUS SHEAR WALL CONNECTION 13



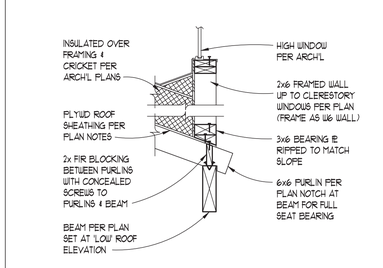
FRAMING ASSEMBLY AT EXPOSED CEILING 14



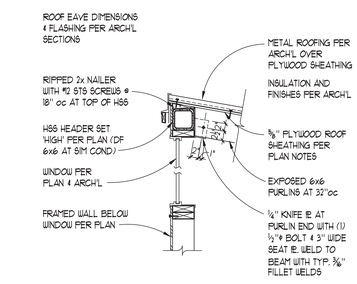
TYPICAL ROOF TO WALL SECTION 15



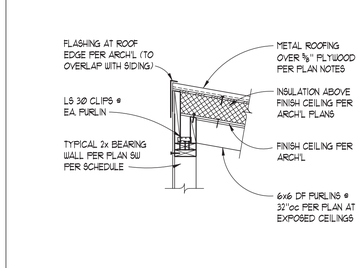
GARAGE ROOF EDGE SECTION 16



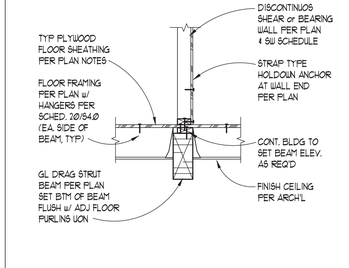
SECTION AT ROOF TRANSITION 17



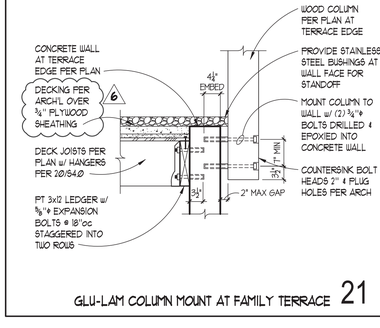
EXPOSED ROOF FRAMING WITH 'HIGH' HEADER 18



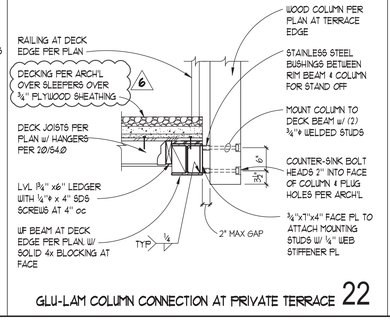
TYPICAL ROOF FRAMING AT EXPOSED CEILING 19



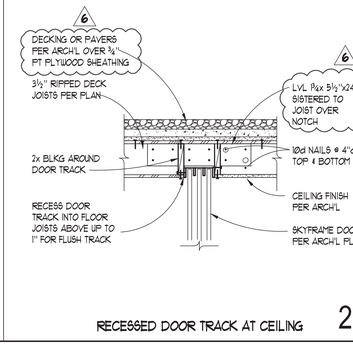
DISCONTINUOS SHEAR WALL SECTION 20



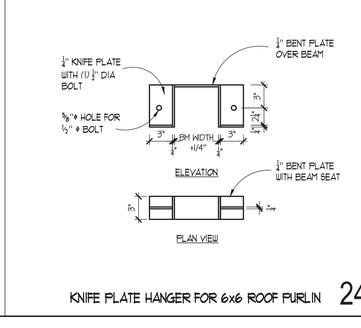
GLU-LAM COLUMN MOUNT AT FAMILY TERRACE 21



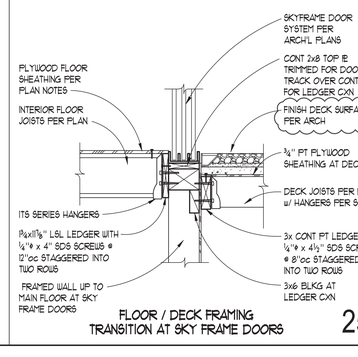
GLU-LAM COLUMN CONNECTION AT PRIVATE TERRACE 22



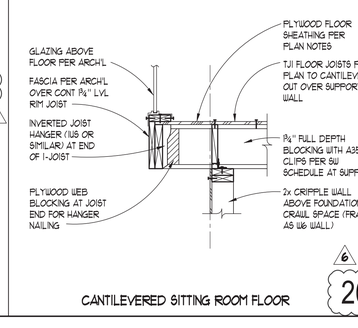
RECESSED DOOR TRACK AT CEILING 23



KNIFE PLATE HANGER FOR 6x6 ROOF PURLIN 24



FLOOR / DECK FRAMING TRANSITION AT SKY FRAME DOORS 25



CANTILEVERED SITTING ROOM FLOOR 26

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12/2021

BUILDING PERMIT SUBMITTAL
DECEMBER 18, 2020

LAKE HOUSE
3310 97TH AVE. SE
MERCER ISLAND, WA 98040

12-16-21 CD SET

TITLE
WOOD FRAMING SECTION DETAILS

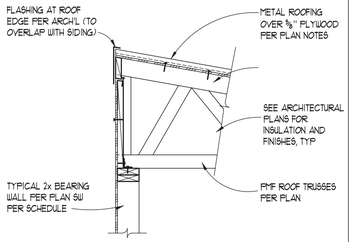
PROJECT NO.: 191966.1
E.O.R.: Mark Speidel
DESIGNED: MTS
DRAWN: KMH

ISSUE	DATE
PERMIT SET	12-18-2020

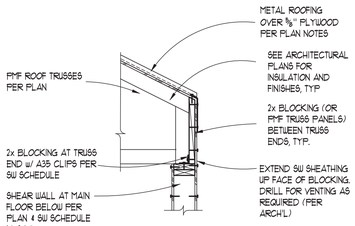
REVISIONS	DATE
1 PERMIT REV	06/03/21
2 PERMIT REV	07/05/21
3 PERMIT REV	07/23/21
4 PERMIT REV	08/03/21
5 M.I. PERMIT REV	08/20/21
6 CD SET REV	12/10/21

SHEET NO.
S4.1

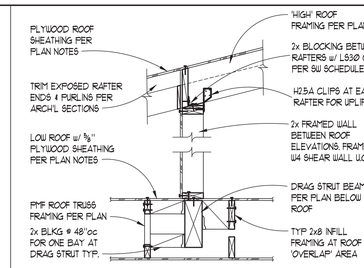
REVIEW



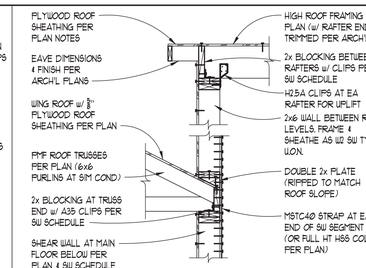
TYPICAL TRUSSED ROOF SECTION AT SHEAR WALL 1



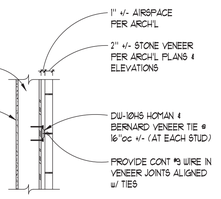
TRUSS ROOF AT SHEAR WALL (AT LOW END) 2



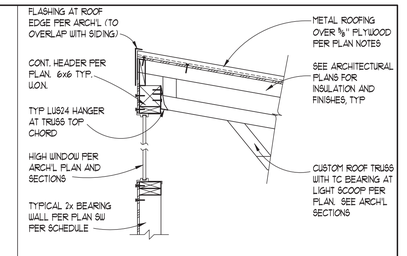
HIGH ROOF SECTION OVER DRAG STRUT BEAM 3



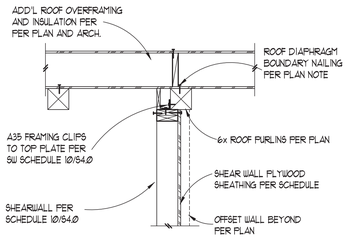
SHEAR WALL SECTION w/ TWO ROOF LEVELS 4



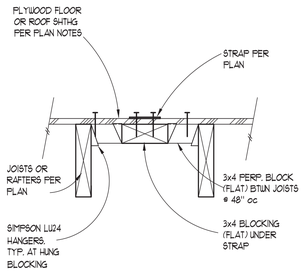
WOOD STUD WALL WITH STONE VENEER 5



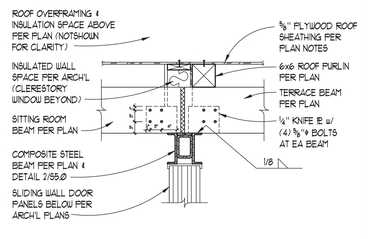
TYPICAL TRUSSED ROOF SECTION AT HIGH WINDOW 6



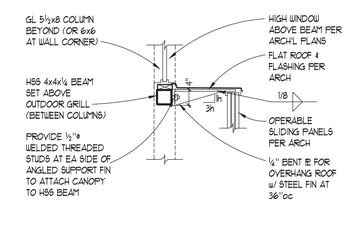
ROOF FRAMING PARALLEL TO SHEAR WALL 7



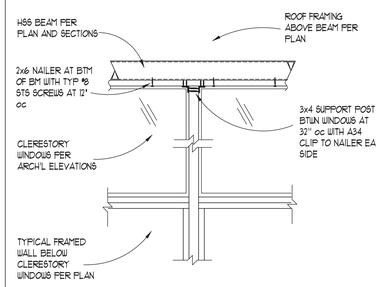
TYPICAL DIAPHRAGM STRAP SECTION 8



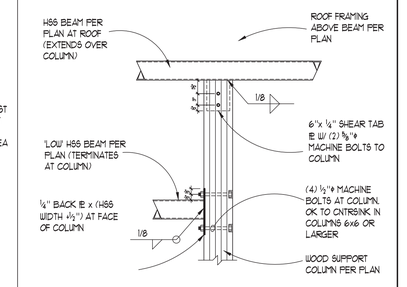
COMPOSITE BEAM w/ ROOF FRAMING AT TERRACE 9



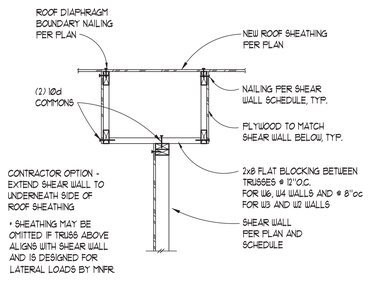
BBQ CANOPY ROOF LOW BEAM SECTION 10



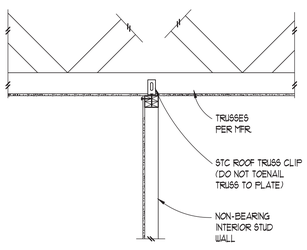
HSS HEADER CONNECTION AT 3x4 BETWEEN CLERESTORY WINDOWS 11



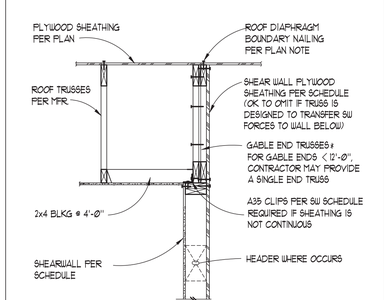
HSS ROOF BEAM ONTO WOOD COLUMN 12



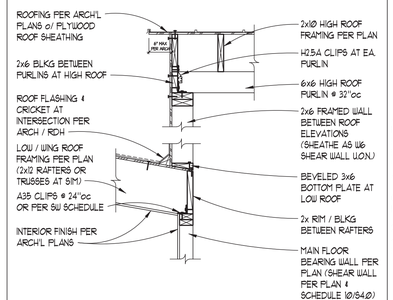
TYPICAL INTERIOR SHEAR WALL TO ROOF AT PARALLEL TRUSSES 13



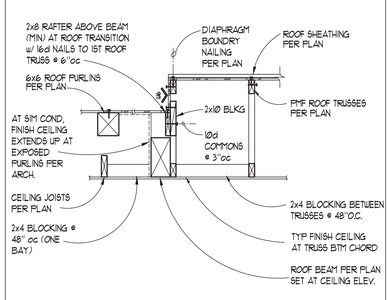
ROOF TRUSS CONNECTION TO NON-BEARING WALLS 14



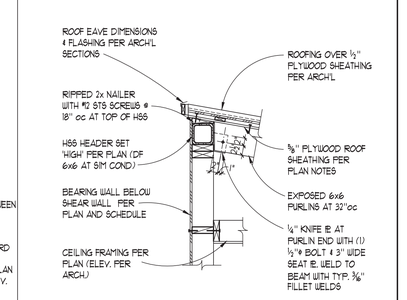
TYPICAL TRUSS FRAMED GABLE END WALL 15



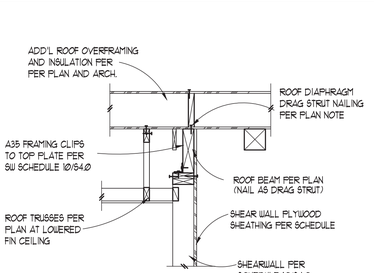
SECTION AT ROOF TRANSITION FRAMING 16



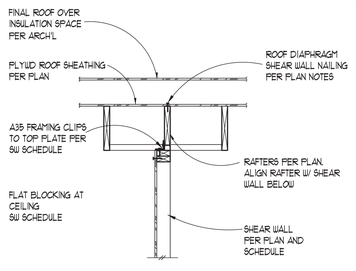
ROOF FRAMING TRANSITION FROM TRUSSES TO PURLINS 17



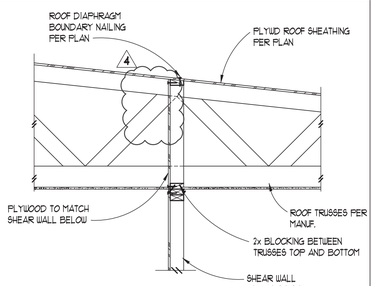
'HIGH' SIDE ROOF FRAMING AT GARAGE 18



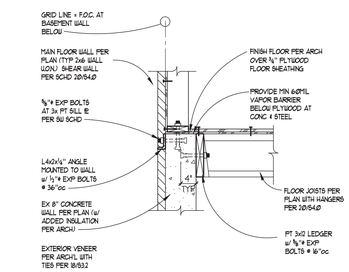
ROOF FRAMING PARALLEL TO SHEAR WALL AT TRANSITION TO TRUSSES 19



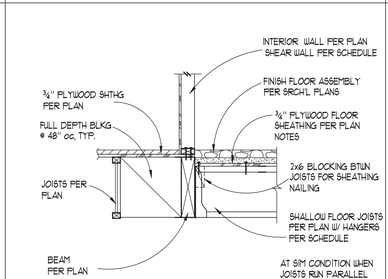
TYPICAL INTERIOR SHEAR WALL TO ROOF AT TYP PARALLEL RAFTERS 20



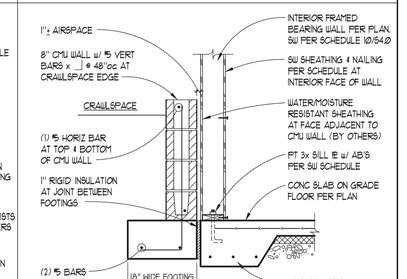
SHEAR WALL AT PERP. ROOF TRUSSES 21



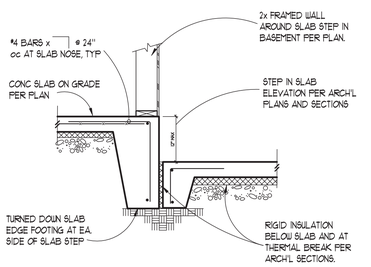
OFFSET FRAMED WALL AT GRID F 22



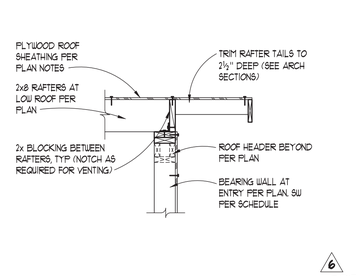
SECTION AT FLOOR FRAMING DEPTH CHANGE 23



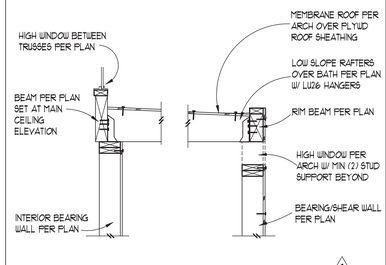
CRAWLSPACE STEP w/ CMU WALL (MAX 36" STEP HEIGHT) 24



STEP IN FLOOR SLAB WITH THERMAL BREAK 25



6
ENTRY ROOF SECTION 26



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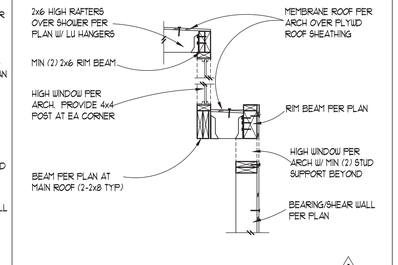
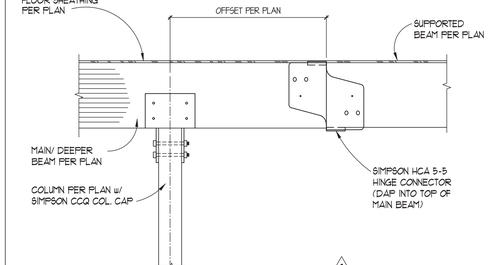
MASTER BATH ROOF SECTION 27



6
POP UP ROOF SECTION AT MASTER BATH SHOWER 28



6
BEAM TO BEAM WITH HINGE CONNECTOR 29

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MARK T. SPEIDEL — STATE OF WASHINGTON — 43713 — REGISTERED PROFESSIONAL ENGINEER

12/2021

BUILDING PERMIT SUBMITTAL
DECEMBER 18, 2020

LAKE HOUSE
3310 97TH AVE. SE
MERCER ISLAND, WA 98040

12-10-21 CD SET

TITLE
WOOD FRAMING SECTION DETAILS

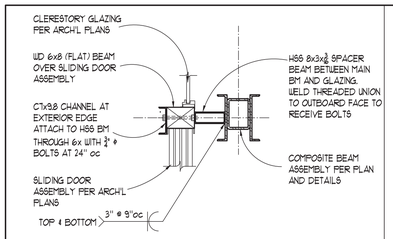
PROJECT NO.: 191966.1
E.O.R. : Mark Speidel
DESIGNED: MTS
DRAWN: KMH

ISSUE	DATE
PERMIT SET	12-18-2020

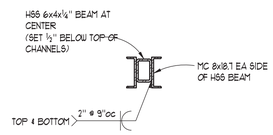
REVISIONS	DATE
1 PERMIT REV	06/03/21
2 PERMIT REV	07/05/21
3 PERMIT REV	07/23/21
4 PERMIT REV	08/03/21
5 M.I. PERMIT REV	09/20/21
6 CD SET REV	12/10/21

SHEET NO.
S4.2

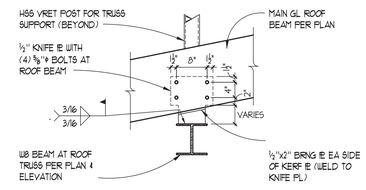
REVIEW



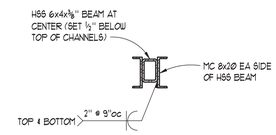
SPACER ASSEMBLY AT SLIDING DOORS 1



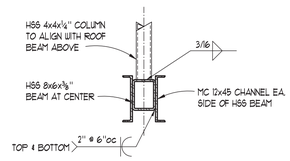
COMPOSITE BEAM #3 SECTION 2



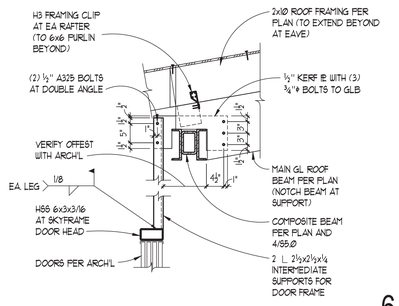
MAIN GL ROOF BEAM AT TRUSS CHORD 3



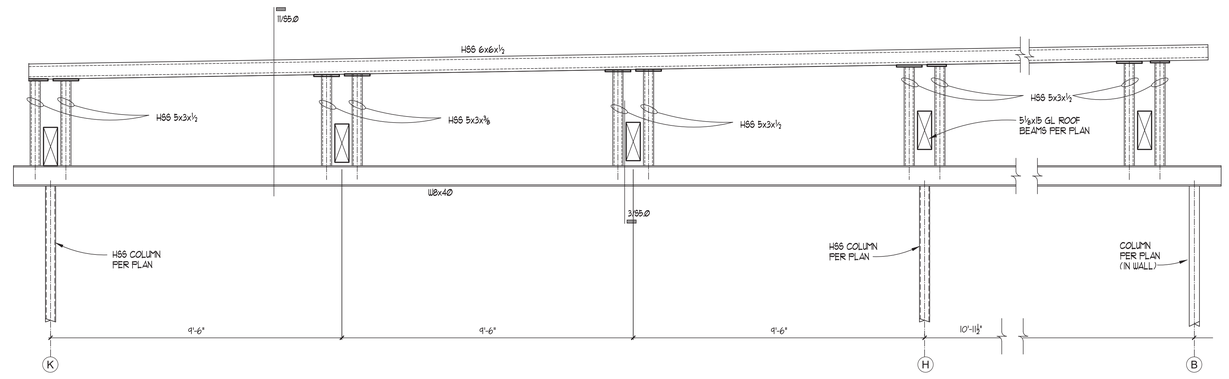
COMPOSITE BEAM #2 SECTION 4



COMPOSITE BEAM #1 SECTION 5

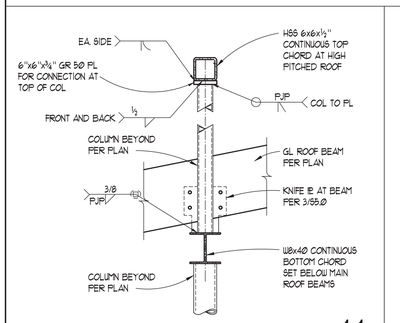


GL ROOF BEAM AT ENTRY 6

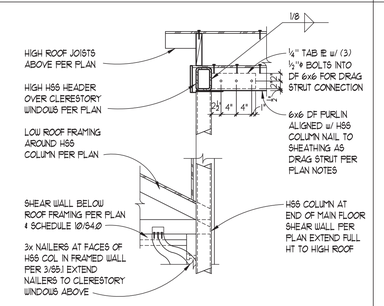


SPLICES REQUIRED FOR FABRICATION, DELIVERY, AND ERECTION SHALL BE COORDINATED WITH AND APPROVED BY ENGINEER OF RECORD.

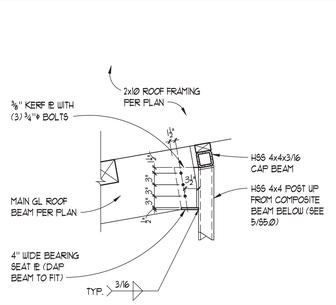
ROOF TRUSS AT GREAT ROOM DORMER 15



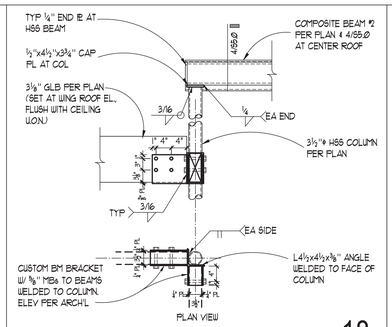
STEEL ROOF TRUSS SECTION 11



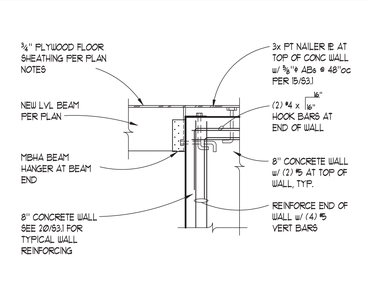
HSS CORNER COLUMN TO EXTEND TO HIGH ROOF 16



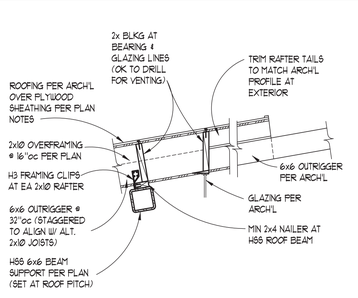
GL ROOF BEAM END CONNECTION (AT WATERFRONT) 17



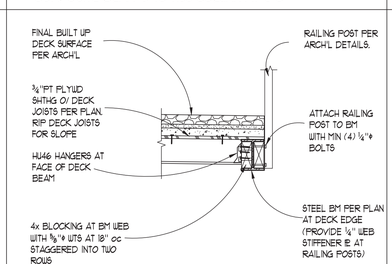
COMPOSITE BEAM #2 TO HSS COLUMN AT 9-C 18



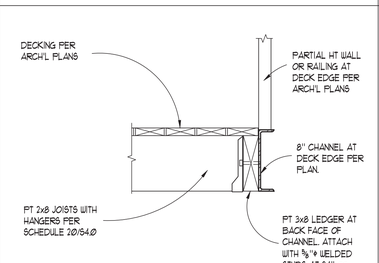
DS BEAM TO END OF CONC WALL 19



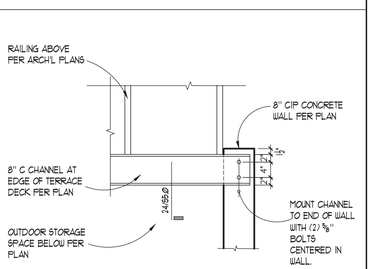
CENTER ROOF-HIGH END EAVE 20



SECTION AT PRIVATE TERRACE EDGE 6 23



SECTION AT BATHROOM TERRACE EDGE 24



BTHRM TERRACE BM CONNECTION TO WALL 25

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12/2021

BUILDING PERMIT SUBMITTAL
DECEMBER 18, 2020

LAKE HOUSE
3310 97TH AVE. SE
MERCER ISLAND, WA 98040

12-10-21 CD SET

TITLE
STEEL TRUSS ELEVATIONS AND DETAILS

PROJECT NO.:	191966.1
E.O.R.:	Mark Speidel
DESIGNED:	MTS
DRAWN:	KSH

ISSUE	DATE
PERMIT SET	12-18-2020

REVISIONS	DATE
1 PERMIT REV	06/03/21
2 PERMIT REV	07/05/21
3 PERMIT REV	07/23/21
4 PERMIT REV	08/03/21
5 M.I. PERMIT REV	08/20/21
6 CD SET REV	12/10/21

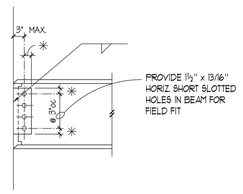
SHEET NO.
S5.0

REVIEW

BEAM SIZE	SPAN C TO C	NO. OF BOLTS	# BOLT SIZE	PLATE THICKNESS	WELD SIZE
W8, W10	ALL	2	3/4"ø	1/4"	1/4"
W12	ALL	3	3/4"ø	5/16"	1/4"
W14	ALL	3	3/4"ø	5/16"	1/4"
W16	ALL	4	3/4"ø	3/8"	5/16"
W18	ALL	4	3/4"ø	3/8"	5/16"

BOLT TYPE = A325X
℄ MATERIAL = A36

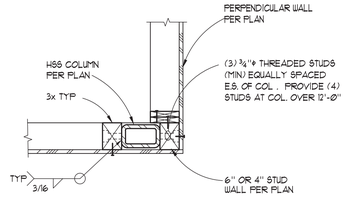
NOTE:
SEE MOMENT FRAME DETAILS AND ELEVATIONS FOR FRAME BEAM TO COLUMN CONNECTIONS



TYPICAL SECTION

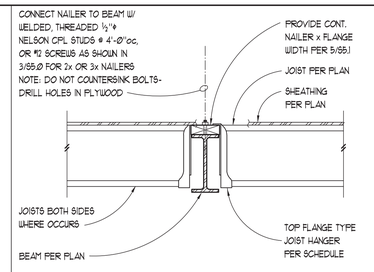
✳ 1½" AT ¾"ø BOLTS

BEAM TO SUPPORTING BEAM (OR COLUMN) TYP. SHEAR CONNECTION SCHEDULE 2

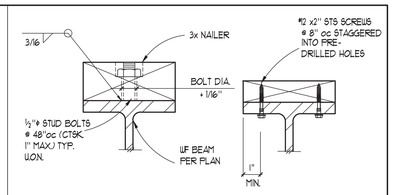


PLAN VIEW

TUBE STEEL AT STUD WALL CORNER 3



TYPICAL STEEL BEAM IN FLOOR FRAMING 4

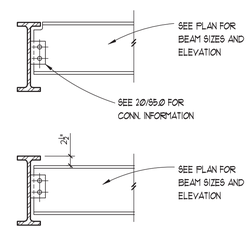


ALTERNATE 1
WELDED THREADED STUDS (WTS)

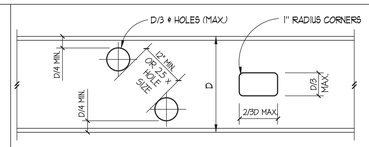
ALTERNATE 2
#12 STS SCREWS WITH 2x NAILER

NOTE: PROVIDE 6" FROM END OF WOOD NAILER TO ℄ OF FIRST SCREW OR BOLT, TYP. NOTCH OR CUT NAILERS AS REQ'D FOR VENTING PER ARCH.

TYPICAL NAILER ON WIDE FLANGE BEAMS 5

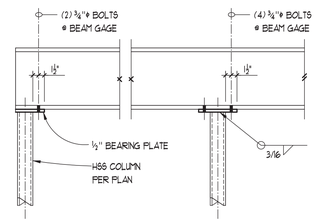


TYPICAL STEEL BM TO STEEL BM CONNECTION 6



1. CONTRACTOR SHALL COORDINATE SIZES AND LOCATIONS OF ALL BEAM PENETRATIONS WITH MECHANICAL DRAWINGS. ALL PENETRATIONS LARGER THAN 2"ø SHALL BE SHOWN ON SHOP DRAWINGS OR SKETCHES AND SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL. FIELD CUTTING NOT PERMITTED WITHOUT APPROVAL.
2. OPENINGS MAY OCCUR IN MIDDLE HALF OF BEAM LENGTH ONLY.
3. NO CUTTING MAY OCCUR IN TOP OR BOTTOM QUARTER OF BEAM DEPTH.
4. ADJACENT OPENINGS MUST BE SPACED AT THE LESSER OF, 12" OR 2.5 x LARGER OPENING SIZE, EDGE TO EDGE.
5. MAXIMUM SIZES OF OPENINGS SHALL BE D/3 ℄ OR D/3 x 2D/3 AS SHOWN.
6. NO OPENINGS SHALL OCCUR WITHIN 12" OF AN ADJACENT BEAM CONNECTION.
7. REQUIRED OPENINGS NOT MEETING ABOVE CRITERIA SHALL BE SUBMITTED TO ENGINEER FOR REINFORCING DESIGN.

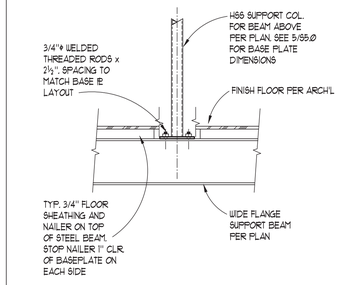
7



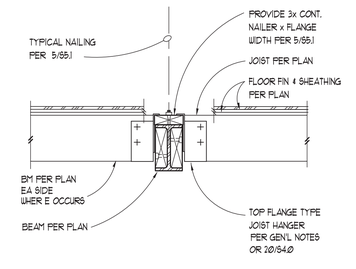
WHERE BEAM STOPS WHERE BEAM CONTINUOUS

NOTE: BEARING PLATE THICKNESS SHALL BE ¾" WHERE DEPTH OF SUPPORTED MEMBER EXCEEDS 24"

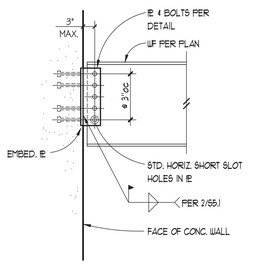
8

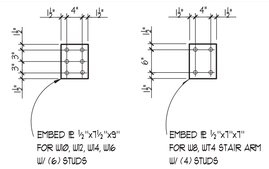


HSS COLUMN ONTO BEAM 9



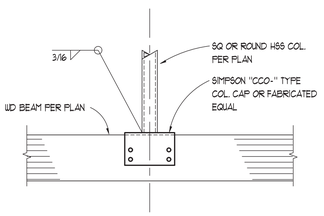
TYPICAL WOOD BEAMS HUNG FROM (FLUSH) STEEL BM 10



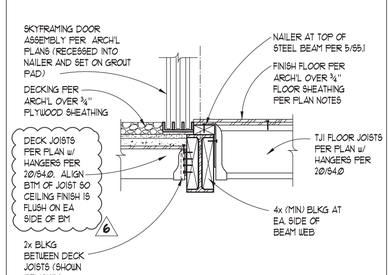


NOTE:
1. ALL STUDS TO BE ¾"ø x 6" U.O.N.
2. DISTANCE FROM EDGE OF CONCRETE TO CENTER OF NEAREST STUD SHALL BE A MINIMUM OF 6" HORIZONTALLY AND 7½" VERTICALLY.
3. PLACE EMBEDDED PLATE IN WALL SUCH THAT ATTACHED PLATE WILL BE VERTICALLY CENTERED.

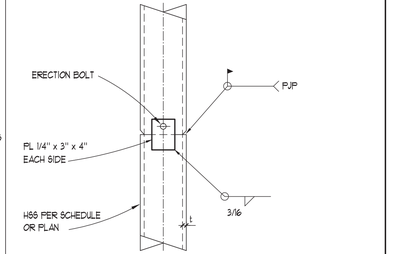
EMBED PLATE SCHEDULE FOR CONCRETE AND MASONRY WALLS 12



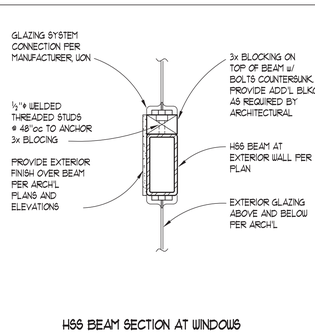
HSS COLUMN SUPPORTED ON WD BEAM 13



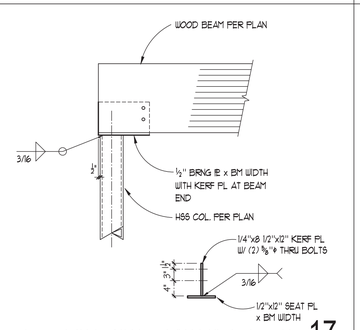
STEEL BEAM SECTION AT MASTER BEDROOM 14



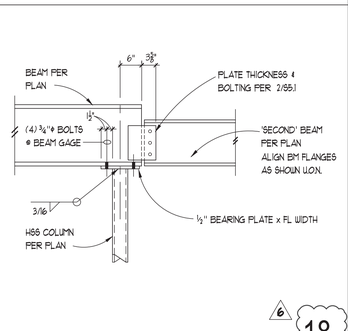
TYPICAL TUBE STEEL COL. SPLICE 15



HSS BEAM SECTION AT WINDOWS 16



WOOD BEAM TO STEEL COLUMN// KERF PL CONN. 17



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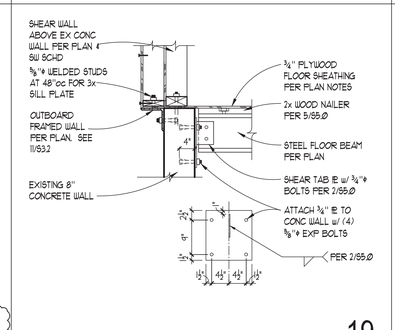
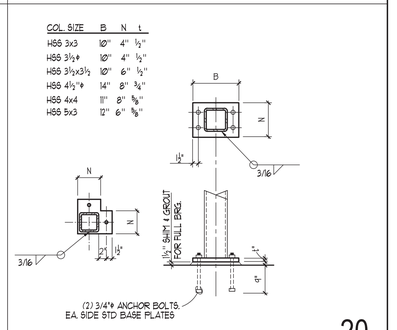
BEAM TO BEAM AND CLOUMN CONN. AT DEPTH CHANGE 18



NEW STEEL BEAM TO EX. CONC WALL 19

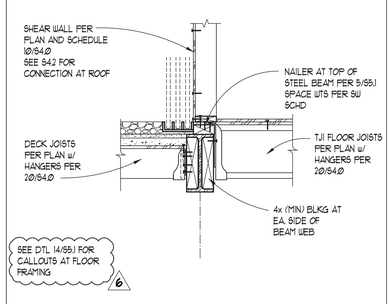


TYPICAL BASEPLATE AT TUBE COLUMNS 20

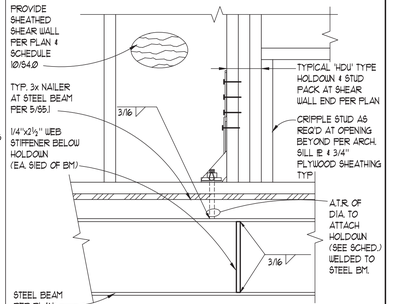
21

22

23



SHEAR WALL ABOVE STEEL BEAM AT MASTER BDRM 24



HOLDOWN ANCHOR TO STEEL FLOOR BEAM 25

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MARK T. SPEIDEL — STATE OF WASHINGTON — 43713 — REGISTERED PROFESSIONAL ENGINEER

12/2021

BUILDING PERMIT SUBMITTAL
DECEMBER 18, 2020

LAKE HOUSE
3310 97TH AVE. SE
MERCER ISLAND, WA 98040

12-10-21 CD SET

TITLE
STEEL DETAILS AND SCHEDULES

PROJECT NO.: 191966.1
E.O.R.: Mark Speidel
DESIGNED: MTS
DRAWN: KMH

ISSUE	DATE
PERMIT SET	12-18-2020

REVISIONS	DATE
1 PERMIT REV	06/03/21
2 PERMIT REV	07/05/21
3 PERMIT REV	07/23/21
4 PERMIT REV	08/03/21
5 M.I. PERMIT REV	08/20/21
6 CD SET REV	12/10/21

SHEET NO.
S5.1

REVIEW