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: MyBuildingPermit.com
voicemail: (206) 275-7730

NOTE: ALL RECORDS AND DRAWINGS ARE SUBJECT TO PUBLIC DISCLOSURE AS REQUIRED BY RCW 42.56

TO BE COMPLETED BY APPLICANT

CONTACT INFORMATION:
Applicant is to complete the following information.

Applicant Contact Information *prior* to permit issuance:	Applicant Contact Information *post* permit issuance:
Name: Gregg Petrie	Name: SAME
Address: 2431 60th Ave. S.E., Mercer Island, WA 98040	Address: SAME
Phone: (206) 793-3441	Phone:
Email: gpetire@copiersnw.com	Email:

SPECIAL INSPECTIONS & STRUCTURAL OBSERVATION:
It is the Engineer of Record's responsibility to specify all required Special Inspections or Structural Observation (check items below). The owner is responsible for hiring an approved private Special Inspector for the checked inspections noted below. All Special Inspectors (except Geotechnical) must be WABO certified.
When Special Inspection or Structural Observation is required, the report shall be submitted to the City Building Inspector prior to the City Inspection. **Note: Inspection by the City Inspector is required in addition to the Special Inspection or Structural Observation indicated below. Do not cover or conceal any work prior to the City inspection.**

STRUCTURAL OBSERVATION BY ENGINEER OF RECORD (EOR):
Engineer of Record: Stephen Tapp (Lateral) Company: Stephen Tapp Phone: (206) 459-5151
☑ General Conformance to Construction Documents ☑ Other: Anderson Architecture (vertical) 425-672-4963

SOILS / GEOTECHNICAL:
Special Inspector: Carston Curd/Khaled Shawish Company: Nelson Geotechnical Assoc. Phone: (425) 486-1669
☐ Erosion control measures ☐ Subsurface drainage placement
☐ Shoring installation and monitoring ☐ Verify fill material and compaction
☐ Observe and monitor excavation ☐ Rockery installation
☑ Verification of soil bearing ☐ Pile placement (auger cast/driven pile)
☐ Other: ☐ Other:

REINFORCED CONCRETE:
Special Inspector: NA Company: Phone:
☐ Concrete strength ☐ Retaining wall construction
☐ Reinforcing steel and concrete placement ☐ Prestressed / Precast construction
☐ Shotcrete placement ☑ Other: 3000psi conc./weathering-no special insp. req'd.
☐ Other: ☐ Other:

STRUCTURAL STEEL: (AISC 360, Chapter N)
Special Inspector: Company: Phone:
☐ Fabrication and shop welds ☐ Moment Frame construction
☐ Structural steel erection, field welds and bolting ☐ Other:
☐ Other: ☐ Other:

STRUCTURAL MASONRY:
Special Inspector: Company: Phone:
☐ Mortar strength ☐ Glass unit masonry installation
☐ Masonry unit strength ☐ Wall panel and veneer installation
☐ Other: ☐ Other:
☐ Other: ☐ Other:

WOOD:
Special Inspector / Engineer of Record: Stephen Tapp-Lateral Design Company: Stephen Tapp Phone: 206-459-5151
☑ Lateral resisting system construction ☐ High strength diaphragm construction
☑ Other: Anderson Architecture-Vertical Structure ☑ Other: Leif Anderson 425-672-4963

OTHER SPECIAL INSPECTIONS:
Special Inspector: Company: Phone:
☐ Epoxy grout installations ☐ Stucco installation
☐ Expansion anchor installations ☐ Infiltration System
☐ Other post installed anchors ☐ Exterior Insulation Finish System (EIFS) installation
☐ Alternative construction methods: ☐ Other:
☐ Alternative construction materials: ☐ Other:

DEFERRED SUBMITTALS:
The Applicant is required to select all deferred submittals / shop drawings for submittal to the City for review and approval prior to item fabrication / construction.

☑ Connector plate wood trusses ☐ Post tension layout
☐ Metal joist / metal trusses ☐ Exterior cladding
☐ Premanufactured structures (stairs, etc.) ☐ Window wall / curtain wall construction
☐ Precast concrete elements ☑ Other: Safety Glass Guardrail system
☑ Other: Manufactured metal spiral staircase ☐ Other:

ENERGY CODE COMPLIANCE INFORMATION:
Indicate where the following information is located in the drawing set. Alternatively, incorporate or include the Residential Energy Code Prescriptive Compliance (RECPC) Form into the drawing set.

	Sheet:		
☑ Building envelope: WSEC Table 402.1.1 (include U-factors, insulation and moisture control)	1	☑ Air Leakage Testing. IRC Section 1102.4.1.1 / 403 Amendment ☑ Provide air leakage test report verifying air leakage rate does not to exceed 5 air changes per hour.	
☑ Whole house ventilation: IRC Section M1507 M1 Amended (include ventilation option and duct sizing if applicable)	1	☑ Duct Leakage Testing. WSEC 0403.2.2	
☐ Energy Credit Information: WSEC Table 406.2 (include specific, written requirements)		☑ Postconstruction Test. WSEC 0403.2.3.1	
☐ RECPC Form Information: (If incorporated within drawing set) http://www.mercergov.org/files/2012ResidentialEnergyCodeForm.pdf		☑ Rough-in Test. WSEC 0403.2.3.2	

FILE NAME: DSG CVR 2016 24x36.PDF

TO BE COMPLETED BY DSG

PROJECT ALERTS:
Construction of the project shall be from ***approved plans only***. No deviation from the approved project plans is allowed without prior approval from the City of Mercer Island. Approved plans must be kept on site and maintained in good condition.

☑ Refer to "Conditions of Permit Approval" provided at permit issuance for required construction rules and regulations, including:
- Site Considerations
- Hours of Work
- Construction Vehicle Parking Restrictions
- Acess Road Requirements
- ROW restrictions
- Drainage Requirements
- Sewer Requirements
- Water Service Requirements
- Additional Fire Code Requirements
- Planning Requirements
- Noise Abatement Certification
- Tree Requirements

☐ Refer to "Preconstruction Meeting Checklist" provided at the preconstruction meeting for development related requirements.
☑ Temporary site address with minimum 6" high numbers visible from the street must be installed.
☑ Erosion control measures must be as shown on approved project drawings. All erosion control is to be in place and inspected prior to the start of any site work.
☑ A City of Mercer Island Business License is required for all subcontractors. Call (206) 275-7783 for more information.

TREE PROTECTION REQUIREMENTS:
☑ Tree protection as shown on approved drawings shall be installed at tree dripline prior to start of any site work and must remain in place throughout the project.
☑ No trees shall be cut without a City of Mercer Island tree permit.
☐ Replacement trees must be a minimum of six feet tall at installation. They must be planted and approved prior to final inspection.
☐ For this project, N/A trees are authorized to be removed and replaced with N/A trees.
☐ This project appears to be within a protected eagle nest area. Contact Federal Fish and Wildlife at (360) 534-9304 or visit their website at http://www.fws.gov/pacific/eagle

FIRE PROTECTION REQUIREMENTS:
Separate Permits are required for ALL fire protection systems. For more information, see http://www.mercergov.org/Page.asp?NavID=2614

☐ Fire Sprinkler
☐ NFPA 13D
☐ Plus
☐ NFPA 13R
☐ NFPA 13
☐ Approved Fire Code Alternatives:
☐ FCA1
☐ FCA2
☐ Monitored Household Fire Alarm per NFPA 72
☐ Monitored Sprinkler Water Flow Alarm
☐ Other:
☐ FCA3
☐ FCA4

WATER SUPPLY REQUIREMENTS:
☐ Fire sprinkler design calculations must be provided prior to determining water supply system requirements.
☐ Water Supply system upgrade required
☐ City Installation.
☐ Applicant Installation.
Required Service Line Size: N/A (water main to meter) Required Supply Line Size: N/A (water main to house) Required Meter Size: N/A
☐ Abandonment of existing service and meter required at main.
☑ Pressure reducing valve required if pressure exceeds 80 psi.
☑ Reduced pressure backflow assembly (RPBA) required for all lots with waterfront or non-city water supply (private wells or lake irrigation).
☐ Additional water supply requirements:

STORMWATER REQUIREMENTS:
☐ On site detention system required. ☐ Direct discharge into the lake.
☐ On site infiltration system required. ☐ No Storm Water permit required.
☐ As-built Utility drawings required. ☐ Connection to public storm drainage conveyance system req'd.
☐ Full Size drawings required. ☐ Other:

SIDE SEWER REQUIREMENTS:
☑ Side sewer requires a backflow preventer when connecting to the lake line or when the elevation of the lowest plumbing fixture is lower than the elevation of the upstream manhole rim or when side sewer is shared with one or more properties.
☐ Video tape of existing sewer required (see standard details)
☐ New connection. ☐ Connect to existing. Disconnect permit required. ☐ Reconnect permit required.
☐ Other:
Note: When side sewer is to be connected to the lake line you will need to schedule three (3) days in advance with the City of Mercer Island Maintenance Department at (206) 275-7800.

APPROVED CONSTRUCTION PLANS:
Code alternatives must be inspected. Refer to the Inspection Checklist
☐ CA1: ☐ CA2:

SURVEY REQUIREMENTS:
Surveyor shall verify points chosen for height calculations and point verification shall be submitted at the time of City foundation inspection. A property survey may be required to verify setbacks and in some cases buildings must be surveyed onto the lot. The City reserves the right to request an impervious area survey at any time prior to issuance of Certificate of Occupancy.

Surveyor: Phone:
☐ Building height survey
☐ Building setback survey
☐ Impervious surface survey
☐ Other:
☐ **MAXIMUM 40 PERCENT ALTERATION INSPECTION:** WAC 51-51-0105(5)(b)(ii)
A Building Inspection prior to demolition is required for all legally nonconforming single family dwelling to ensure no more than 40 percent of the dwelling's exterior walls are structurally altered. Contact the Building Inspector at (206) 275-7730.
☐ Civil / Drainage ☐ LUP / Setback requirements

SEASONAL DEVELOPMENT LIMITATION:
Land clearing, grading, filling and foundation work within geologic hazard areas is **NOT PERMITTED** between October 1 and April 1 without an approved Seasonal Development Limitation Waiver.

☐ Geotechnical Report provided. All construction must comply with the recommendations of the Geotechnical Report. A copy of report and other geotechnical information must be kept on site at all times.
Geotechnical Engineer *Phone*

SEASONAL DEVELOPMENT LIMITATION RESTRICTION:
☐ Applies (Geologic Hazard area). Grading not permitted between October 1 through April 1.
☐ Waiver approved. Grading and excavation permitted subject to all conditions noted in Seasonal Development Limitation Waiver Permit.
Permit number *Approved by* *Date*

TO BE COMPLETED BY DSG

REQUIRED CONSTRUCTION INSPECTIONS:
It is the applicant's responsibility to contact DSG to schedule ALL inspections appropriate for the project. Request inspections online at www.MyBuildingPermit.com or by calling the Inspection Hotline at (206) 275-7730. Allow at least 24 hours (48 hours for Reinforcing steel) in advance of desired inspection. Be specific as to type of inspection.

Inspector shall initial and date appropriate inspection *only* if approved. Note: ***Items marked with an "•" require a separate permit.*** It is the applicants responsibility to apply for and obtain all City of Mercer Island permits.

INSPECTIONS: (Listed in order of typical sequencing)

Inspector	Date	Approved	
		☐	Pre-construction Meeting to Review Conditions of Permit Approval.
		☐	Tree protection
		☐	Erosion control
		☐	• Sewer disconnect and cap. If applicable, separate side-sewer permit required
		☐	• Right-of-way use or work / easement, material delivery, etc. If applicable, separate ROW permit required
		☐	Land clearing, grading and demolition
		☐	Temporary power
		☐	Pilings / Shoring / Shotcrete. If applicable, provide survey letter (property line); Geotechnical Engineer / Special Inspector reports of inspections (pile and shoring installation, etc.)
		☐	Footings, setbacks, UFER ground. If applicable, provide survey letter (building height and setbacks); Special Inspector reports of inspections (soil bearing capacity, compaction, earthwork, pile installation, etc.)
		☐	Foundation walls / concrete columns
		☐	Roof and footing drains
		☐	Foundation dampproofing
		☐	Storm drainage, including (but not limited to): • Connections to storm main in ROW • Detention systems • Infiltration systems • Catch basins including oil-water separator tees • Area drains • Conveyance piping / cleanouts • Storm drain in ROW • Control structures / manholes • Pump systems • Retaining wall drainage
		☐	• Water Service
		☐	Water Supply
		☐	Water as-built drawings
		☐	• Side sewer installation, including (but not limited to): • Connections to side sewer main • Connections to existing side sewer • Back-flow valves • Grinder pump systems • Sewer manholes
		☐	Driveway / Access road
		☐	Underslab electrical / mechanical / plumbing
		☐	Underslab insulation / vapor barrier / reinforcing
		☐	Underfloor framing
		☐	Nailing-Roof sheathing. If applicable, provide Special Inspection letter for lateral wood inspection.
		☐	Nailing-Exterior wall and Shearwall. If applicable, provide Special Inspection letter for lateral wood inspection.
		☐	Rough hydronic installation
		☐	Rough electric installation
		☐	• Rough fire alarm (wiring inspection)
		☐	Rough plumbing installation (DWV, water)
		☐	Rough mechanical
		☐	Gas Piping
		☐	• Rough fire sprinkler / hydrostatic and flow (bucket) test
		☐	Framing and glazing. If applicable, provide Special Inspection letter for lateral wood inspection, welding epoxy anchors, etc.
		☐	Masonry construction (fireplace / walls / veneer / etc.)
		☐	Insulation installation
		☐	Stucco (paper and lath)
		☐	Shower pan (or tub)
		☐	Miscellaneous
		☐	Code Alternative CA1:
		☐	Code Alternative CA2:
		☐	Impact Fees Paid (if applicable)
		☐	Final Inspection: Tree Restoration ☐ TT
		☐	Final Inspection: Fire protection, including (but not limited to): ☐ TF • Sprinkler • Access Road • Fire Code Alternatives (see below) ☐ FCA1: ☐ FCA2: ☐ FCA3: ☐ FCA4: • Fuel Tank Installation • Fire Extinguishing System • Fire Alarm System
		☐	Final Inspection: Water supply protection, including (but not limited to) backflow devices for: ☐ TW • Waterfront property • Fire / lawn sprinkler • Well water on property • Boiler
		☐	Final Inspection: Site and utility: includes landscape, utilities and ROW. Site restoration complete and as-built drawings ready for submittal. ☐ TS
		☐	Final Inspection: Building, including electrical / mechanical / plumbing. If applicable, provide closeout (summary) letters from Engineer, Special Inspectors, Geotechnical Engineer, and exterior wall cladding inspectors (EIFS). ☐ TB

30 DAY TEMPORARY CERTIFICATE OF OCCUPANCY (TCO):
Applicant option. Additional fees will be required and must be approved prior to occupancy. TCO requires tree plantings be completed.
Approved *Start Date* *End Date*

ADDITIONAL REQUIRED CITY INSPECTIONS:
Call the appropriate contact to arrange the inspection.

Required Inspection(s):	Contact:	Phone:	Scheduling:

IMPACT FEES:
If applicable,
☐ Impact fees apply and are due *prior* to Final Inspection or on _____, whichever occurs first.
Date

PLAN REVIEW APPROVALS:
Not all review disciplines may be required to review the documents.

☐ DC	☐ RP	☐ N/A	☐ N/A	☐ N/A
Building	Planning	Engineering	Tree	Fire

REVISED: JULY 2019

SF

PERMIT NUMBER

Issued after all required inspections have been performed and approved.
Approved *Date*

PROJECT NAME: Gregg Petrie Residence
PROJECT ADDRESS: 2431 60th Ave. S.E.

APPROVED DRAWINGS MUST BE KEPT ON THE BUILDING SITE AT ALL TIMES

REVIEWED FOR CODE COMPLIANCE
Approved *Date*

ENERGY CREDITS:

MAIN RESIDENCE: < THAN 5000 S.F.

REQUIRES 3.5 CREDITS

CREDIT OPTIONS: 3a, 4, 5c

DETACHED ADU: < THAN 1500 S.F.

REQUIRES 1.5 CREDITS

CREDIT OPTIONS: 1a, 3a

NOTE: REQUIRED CALCULATIONS & EQUIPMENT SPECIFICATONS FOR ALL CREDITS TO BE A DEFERRED SUBMITTAL PER IRC SECTION 106 BY AIR-TIGHT MECHANICAL, LLC

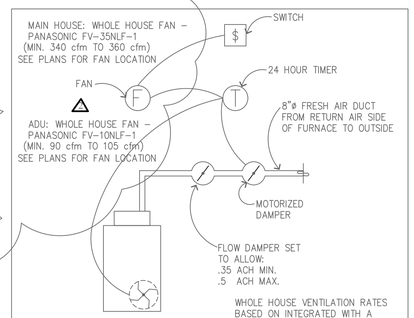


DIAGRAM OF VENTILATION SYSTEM

A/1 THE MECHANICAL SYSTEM DESIGN AND SPECIFICATIONS FOR M1507.3.5 WILL BE SUBMITTED AS A DEFERRED SUBMITTAL PER IRC SECTION 106

DESIGN CRITERIA:

2015 INTERNATIONAL BUILDING CODE

2015 INTERNATIONAL RESIDENTIAL CODE

R-3 OCCUPANCY GROUP

V-N TYPE CONSTRUCTION

SEISMIC ZONE #3

LATERAL LOAD-RESISTING FACTOR RW = 5.5

BASIC WIND SPEED = 80 M.P.H.

EXPOSURE 'C'

LIVE LOADS FOR EXIT FACILITIES = 40 P.S.F.

NOTE:

THE MECHANICAL CONTRACTOR AND THE INSTALLER OF ALL CENTRAL FORCED AIR SYSTEM COMPONENTS ARE REQUIRED TO PROVIDE ALL NECESSARY DESIGN DOCUMENTS AND SPECIFICATIONS TO THE BUILDING OFFICIAL FOR REVIEW AS A DEFERRED SUBMITTAL PER THE INTERNATIONAL RESIDENTIAL CODE SECTION R106. SEE DETAIL A/1

HARDSCAPE CALCULATION:

A. GROSS LOT AREA	18,591 S.F.
B. NET LOT AREA	18,591 S.F.
C. AREA BORROWED FROM LOT COVERAGE	2,439 S.F.
D. ALLOWED HARDSCAPE AREA (9% + C)	22.12 %
E. ALLOWED HARDSCAPE AREA	4,112 S.F.
F. TOTAL EXISTING HARDSCAPE AREA (1–7)	0 S.F.
1. UNCOVERED DECKS	0 S.F.
2. UNCOVERED PATIOS	325 S.F.
3. WALKWAYS	930 S.F.
4. STAIRS	0 S.F.
5. ROCKERIES & RETAINING WALLS	730 S.F.
6. OTHER	0 S.F.
7. TOTAL EXISTING HARDSCAPE AREA	1,985 S.F.
G. (TOTAL HARDSCAPE AREA REMOVED)	1,985 S.F.
H. TOTAL NEW HARDSCAPE AREA (PER MERCER ISLAND)	
1. UNCOVERED DECKS	555 S.F.
2. UNCOVERED PATIOS	1,240 S.F.
3. WALKWAYS (833 SF–552 SF)	281 S.F.
4. STAIRS	95 S.F.
5. ROCKERIES & RETAINING WALLS	541 S.F.
6. OTHER (POOL & COPING)	637 S.F.
7. TOTAL NEW HARDSCAPE AREA	3,349 S.F.
I. TOTAL PROJECT HARDSCAPE AREA	3,349 S.F.
J. TOTAL PROJECT HARDSCAPE AREA	18.01 %

GROSS FLOOR AREA: (GFA)

R-8.4 ZONING

LOT AREA (GROSS LOT=18,591 S.F.)	18,591 S.F. (NET)
BUILDING FOOTPRINT PER MERCER ISLAND CALC'S (INCLUDING MAIN FLOOR, UPPER FLOOR, BASEMENT & GARAGE W/ALLOW. BASEMENT DEDUCTION OF 750 S.F.) (MAIN FLOOR=1642 SF, UPPER FLOOR=1204 SF, LOWER FLOOR =1240 SF, GARAGE=578 SF, –750 S.F. BASEMENT DEDUCTION)	3,914 S.F.
ADU GARAGE	490 S.F.
ADU LIVING	529 S.F.
TOTAL GROSS FLOOR AREA	4,933 S.F.
ALLOWABLE PERCENTAGE OF GROSS FLOOR AREA (5,000 S.F.)	< 40 %
ACTUAL PERCENTAGE OF GROSS FLOOR AREA (4,933 S.F.)	26.53 %

DESIGN LOADS:

FLOOR	50#/ S.F. TOTAL LOAD (65 S.F. @ STONE)
ROOF (25#/ S.F. LIVE, 25#/ S.F. DEAD)	50#/ S.F. TOTAL LOAD
ROOF (TRUSSES OR VAULTED CEILING)	20#/ S.F. DEAD LOAD 30#/ S.F. LIVE LOAD
CEILING JOISTS	15#/ S.F. TOTAL LOAD
INTERIOR PARTITION WALL (2x4 STUDS @ 16" O.C.)	50#/ L.F.
INTERIOR WALL (2x6 STUDS @ 16" O.C./ 8'–0" TALL)	70#/ L.F.
EXTERIOR WALL (2x4 STUDS @ 16" O.C./ 8'–0" TALL)	90#/ L.F.
EXTERIOR WALL (2x6 STUDS @ 16" O.C./ 8'–0" TALL)	110#/ L.F.
DECKS	70#/ S.F.
ROOF DECKS	80#/ S.F.
SOIL BEARING CAPACITY (MIN.) – SEE SOILS REPORT BY NELSON GEOTECHNICAL ASSOCIATES (NGA) DATED 3–10–2020	2,000#/ S.F.

ENERGY CODE SUMMARY

ANALYSIS IS BASED ON 2015 WASHINGTON STATE ENERGY CODE, CHAPTER 6, DESIGN BY PERSCRIPTIVE REQUIREMENTS FOR GROUP R-3 OCCUPANCY (TABLE 6–1, CLIMATE ZONE 1)

OPTION III

PERCENTAGE OF GLAZING TO TOTAL FLOOR AREA	UNLIMITED
MAXIMUM GLAZING U-VALUE (VERTICAL)	.28
MAXIMUM GLAZING U-VALUE (OVERHEAD)	.50
MAXIMUM DOOR U-VALUE (606.6 EXCEPTION 2)	.20
CEILINGS	R-49
CEILINGS (VAULTED)	R-38
WALLS ABOVE GRADE	R-21 (INT.)
FLOORS	R-38
SLAB ON GRADE	R-10

FIRE REQUIREMENTS NOTE:

1– PROJECT TO BE NFPA 13–R MODIFIED
2– PROVIDE MONITORED WATER FLOW ALARM
3– PROVIDE FIRE RETARDANT COATING IN ATTIC AND CRAWLSPACE

AVERAGE GRADE CALCS.

MAIN RESIDENCE

	LENGTH	ELEVATION	TOTAL
A	10.5	55.00	577.50
B	7	55.00	385.50
C	10	55.00	550.00
D	24	55.50	1332.00
E	24	56.75	1362.00
F	64	52.50	3360.00
G	2	46.42	92.84
H	4	46.42	185.68
I	11	46.42	510.62
J	4	46.42	185.68
K	2	46.42	92.84
L	3	43.50	130.50
M	8.5	43.50	369.75
N	8	43.50	348.00
O	5	43.50	217.50
P	1.5	43.50	65.25
Q	11.5	43.50	500.25
R	1.5	43.50	65.25
S	5	43.50	217.50
T	38	50.00	1900.00
U	14	55.00	770.00
V	3.5	55.00	192.50
W	7	55.00	385.00
X	3.5	55.00	192.50
TOTAL	272.5		13,988.16

13,988.16/272.5 = 51.33'

AVERAGE GRADE = 51.33'

MAX. BUILDING HEIGHT = 51.33' + 30' = 81.33'

PROPOSED BUILDING HEIGHT = 78.37'

LEGAL DESCRIPTION:

LOTS 10, 11, 12 & 13, BLOCK 1, LAKE VIEW PLACE EAST SEATTLE, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 8 OF PLATS, PAGE 49, RECORDS OF KING COUNTY, WASHINGTON EXCEPT THE NORTH 15 FEET OF SAID LOTS 10 & 13; TOGETHER WITH THE SHORELANDS OF THE SECOND CLASS IN FRONT THEREOF

AVERAGE GRADE CALCS.

ACCESSORY DWELLING UNIT (ADU)

	LENGTH	ELEVATION	TOTAL
A	24.5	57.50	1408.75
B	20	58.00	1160.00
C	1.5	57.50	86.25
D	6	57.50	345.00
E	11.5	57.50	661.25
F	2	57.75	115.50
G	11.5	57.50	661.25
H	24	57.00	1368.00
TOTAL	101		5,806.00

5,806.00/101 = 57.44'

AVERAGE GRADE ELEVATION = 57.44'

MAX. BUILDING HEIGHT = 57.44' + 30' = 87.44'

PROPOSED BUILDING HEIGHT = 77.54'

SHEET INDEX

ARCHITECTURAL DRAWINGS

STRUCTURAL ENGINEER DRAWINGS

NOTE:

SEE CIVIL ENGINEERING DRAWINGS FOR ALL SITE DRAINAGE SPECIFICATIONS, NOTES, DETAILS AND TEMPORARY EROSION CONTROL REQUIREMENTS.

DRAINAGE SWALE NOTE:

PROVIDE DRAINAGE SWALE @ HOUSE PERIMETER FOR SITE DRAINAGE AWAY FROM RESIDENCE AND AWAY FROM ADJACENT PROPERTIES.

NOTE:

PRIOR TO STAKING FOUNDATION, A LICENSED SURVEYOR MUST VERIFY THAT THE DIMENSIONS SHOWN ON ARCHITECT'S FOUNDATION PLAN PROPERLY CLOSE. ANY DISCREPANCY SHALL BE IMMEDIATELY REPORTED TO ARCHITECT PRIOR TO PRECEDING WITH THE WORK.

HEIGHT RESTRICTION:

MAIN RESIDENCE

MAX. ALLOWABLE BUILDING HEIGHT (30')	81.33'
ACTUAL BUILDING HEIGHT (SEE NORTH, SOUTH, EAST & WEST ELEV'S SHTS. # 10 & #11)	78.37

HEIGHT RESTRICTION:

ACCESSORY DWELLING UNIT (ADU)

MAX. ALLOWABLE BUILDING HEIGHT (30')	87.44'
ACTUAL BUILDING HEIGHT (SEE NORTH, SOUTH, EAST & WEST ELEVATIONS SHT. # 19)	77.54'

BASEMENT GFAR CALCS.

MAIN RESIDENCE BASEMENT REDUCTION

WALL	ELEVATION	LENGTH	% COVERAGE	RESULT
BA	54.00	11.25	100	11.25
BB	49.50	1.25	62	.78
BC	49.50	12.83	62	7.96
BD	51.60	15.33	83	12.72
BE	49.5	13.67	62	8.48
BF	49.50	13.67	62	8.48
BG	43.5	9.75	0	0
BH	43.50	5.50	0	0
BI	43.50	21.50	0	0
BJ	50.00	35.50	67	23.79
BK	54.50	14.00	100	14.00
BL	54.50	3.50	100	3.50
BM	54.50	7.00	100	7.00
BN	54.50	3.50	100	3.50
	TOTAL=168.25			TOTAL= 101.46

101.46/168.25 = .603

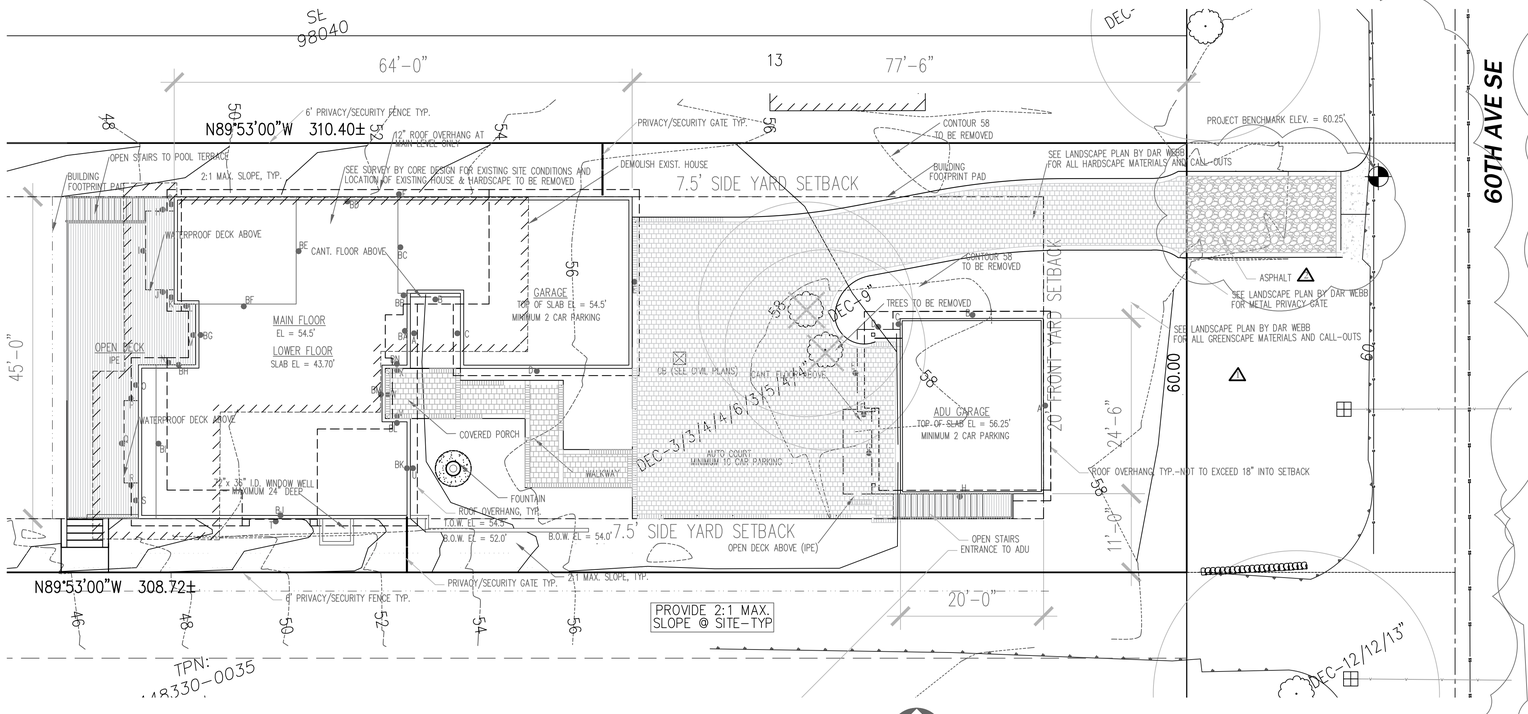
BASEMENT AREA : 1244 S.F. X .603 = 750.17 S.F.

BASEMENT GFAR REDUCTION = 750 S.F.

BASEMENT AREA FOR GFAR: 1244 S.F.–750 S.F. = 494 S.F.

NOTE:

PER MICC 19.02.020(F)(3)(d) ALL JAPENESE KNOTWOOD (POLYGONUM CUSPIDATUM) & REGULATED CLASS A, REGULATED CLASS B, AND REGULATED CLASS C WEEDS IDENTIFIED ON THE KING COUNTY NOXIOUS WEED LIST, AS AMNDED, SHALL BE REMOVED FROM REQUIRED LANDSCAPING AREAS. NEW LANDSCAPING ASSOCIATED WITH NEW SINGLE–FAMILY HOME SHALL NOT INCORPORATE ANY WEEDS IDENTIFIED ON THE KING COUNTY NOXIOUS WEED LIST, AS AMENDED. PROVIDED THAT REMOVAL SHALL NOT BE REQUIRED IF THE REMOVAL WILL RESULT IN INCREASED SLOPE INSTABILITY OR RISK OF LANDSLIDE OR EROSION.



SITE PLAN

0 5' 10' 20' 30'

1"= 10'

R–8.4 ZONING

EXISTING BUILDING TO BE REMOVED - FINISHED GRADING - HEIGHT RESTRICTION - BASEMENT GFA DEDUCTION - BUILDING PAD

NOTE:

ALL SAFETY GLASS RAILINGS AND GUARDRAILS ARE TO BE BY 'eGLASS'. INSTALL PER MFR'S INSTALLATION REQUIREMENTS – TYPICAL.

LOT COVERAGE:

A. GROSS LOT AREA	18,591 S.F.
B. NET LOT AREA	18,591 S.F.
C. ALLOWED LOT COVERAGE AREA	7,436 S.F.
D. ALLOWED LOT COVERAGE	40 %
E. EXISTING LOT COVERAGE:	
1. MAIN STRUCTURE ROOF AREA	1,876 S.F.
2. ACCESSORY BUILDING ROOF AREA	0 S.F.
3. VEHICULAR USE (DRIVEWAY, PAVED ACCESS EASEMENTS–PORTION USED BY THE LOT–PARKING	6,074 S.F.
4. COVR'D DECKS & PATIOS	0 S.F.
5. TOTAL EXIST'G LOT COVERAGE AREA	7,950 S.F.
F. TOTAL LOT COVERAGE AREA REMOVED	7,950 S.F.
G. PROPOSED ADJUSTMENT FOR SINGLE STORY	0 S.F.
H. PROPOSED ADJUSTMENT FOR FLAG LOT	0 S.F.
I. TOTAL NEW LOT COVERAGE AREA: (PER MERCER ISLAND)	
1. MAIN STRUCTURE ROOF AREA	2,497 S.F.
2. ACCESSORY BUILDING ROOF AREA	709 S.F.
3. VEHICULAR USE (DRIVEWAY, PAVED ACCESS EASEMENTS–PORTION USED BY THE LOT–PARKING	1,758 S.F.
4. COVERED PATIOS AND COVERED DECKS	33 S.F.
5. TOTAL NEW LOT COVERAGE AREA	4,997 S.F.
I. TOTAL PROJECT LOT COVERAGE AREA:	4,997 S.F.
I. PROPOSED LOT COVERAGE AREA:	26.88%

LOT SLOPE CALCULATION:

HIGHEST ELEVATION	58.375'
LOWEST ELEVATION	18.0'
ELEVATION DIFFERENCE	40.375'
HORIZONTAL DIFFERENCE BETWEEN HIGHEST & LOWEST ELEVATION	300 L.F.
LOT SLOPE	13.46%

AREA SUMMARY (ALL AREAS ARE APPROX.)

LOWER FLOOR	1,240 S.F.
MAIN FLOOR	1,642 S.F.
UPPER FLOOR	1,204 S.F.
TOTAL FINISHED AREA	4,086 S.F.
OPEN DECK W/ IPE DECKING	555 S.F.
COVERED PORCH @ ENTRY	25 S.F.
GARAGE	578 S.F.
WATERPROOF DECKS	144 S.F.
ADU GARAGE	490 S.F.
ADU UPPER FLOOR	529 S.F.
TOTAL ADU FINISHED AREA	529 S.F.
WATERPROOF DECK	46 S.F.

NOTE:
THE FINISHED SQUARE FOOTAGE SUMMARY HAS BEEN BASED ON THE "SQUARE FOOTAGE METHOD FOR CALCULATING" FOR SINGLE FAMILY RESIDENTIAL BUILDINGS, PER ANSI Z7265–1996 GUIDELINES. FINISHED SQUARE FOOTAGE CALCULATIONS FOR THIS RESIDENCE WERE MADE BASED ON PLAN DIMENSIONS ONLY AND MAY VARY FROM THE FINISHED SQUARE FOOTAGE OF THE HOUSE AS BUILT.

NOTE TO SITE PLAN

CONTENTS OF ARCHITECT'S SITE PLAN ARE FOR ORIENTATION PURPOSES ONLY AND NOT FOR CONSTRUCTION. ALL SITE PLAN DIMENSIONS AND CONDITIONS, BUILDING DIMENSIONS, AND SITE DEVELOPMENT MUST BE VERIFIED BY A PROFFESIONAL SURVEYOR PRIOR TO EXCAVATION TO PREVENT ENCROACHMENT AND ASSURE COMPLIANCE WITH BUILDING SETBACK REQUIREMENTS, BUILDING HEIGHT RESTRICTIONS, PROPERTY LINES, EASEMENTS AND OTHER SITE RESTRICTIONS WHICH APPLY.

SITE PLAN IS BASED SOLEY ON THE FOLLOWING DOCUMENTS MADE AVAILABLE TO THE ARCHITECT.

PLAT MAP	N	DATED:	BY:
SURVEY	Y	DATED: 2019	BY: CORE DESIGN
TITLE	Y	DATED 2019	BY: FIDELITY NATIONAL TITLE

NO SEARCH OF PUBLIC RECORDS WAS MADE NOR ANY OTHER ACT PREFORMED TO DETERMINE THE POSSIBLE EXISTENCE OF ANY RECORDED OR UNRECORDED CLAIM AGAINST THE SUBJECT PROPERTY.

Anderson Architecture
Leif Anderson Architect
20822 Damson Road, Lynnwood, WA 98036
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l.andersonarchitecture@gmail.com

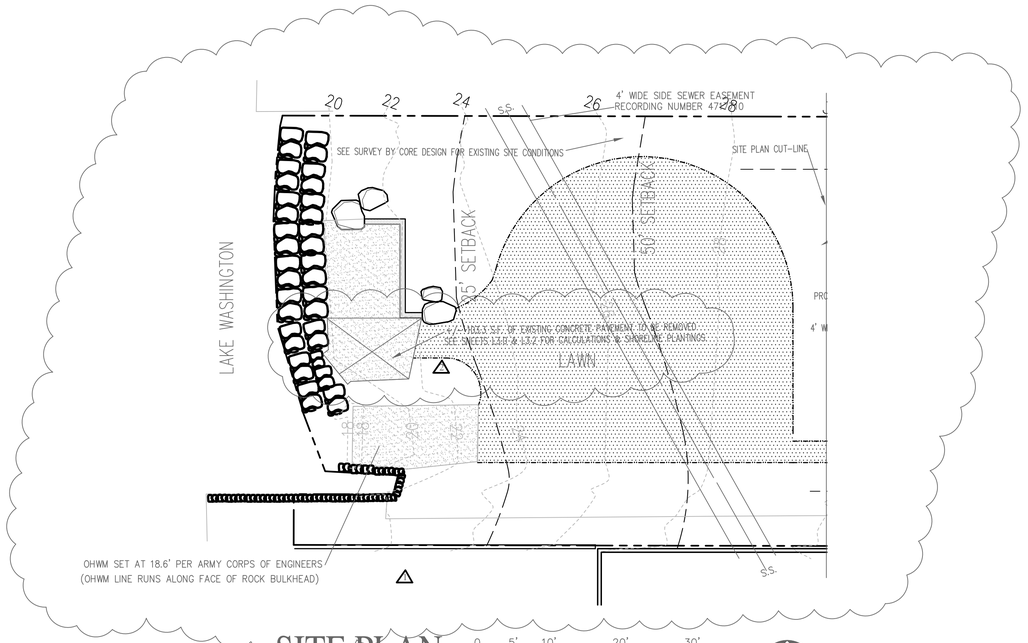
2015 REGISTERED ARCHITECT
LEIF E. ANDERSON
STATE OF WASHINGTON

A Custom Residence for
Gregg Petrie
2431 60th Avenue SE, Mercer Island WA

DATE:
05-14-2020
03-30-2021
06-07-2021

JOB NO.
19-10.103

SHEET NO.
1
OF 28



SITE PLAN

0 5' 10' 20' 30'

1"= 10'

LOT COVERAGE:

A. GROSS LOT AREA	18,591 S.F.
B. NET LOT AREA	18,591 S.F.
C. ALLOWED LOT COVERAGE AREA	7,436 S.F.
D. ALLOWED LOT COVERAGE	40 %
E. EXISTING LOT COVERAGE:	
1. MAIN STRUCTURE ROOF AREA	1,876 S.F.
2. ACCESSORY BUILDING ROOF AREA	0 S.F.
3. VEHICULAR USE (DRIVEWAY, PAVED ACCESS EASEMENTS–PORTION USED BY THE LOT–PARKING	6,074 S.F.
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5. TOTAL NEW LOT COVERAGE AREA	4,997 S.F.
I. TOTAL PROJECT LOT COVERAGE AREA:	4,997 S.F.
I. PROPOSED LOT COVERAGE AREA:	26.88%

HARDSCAPE CALCULATION:

A. GROSS LOT AREA	18,591 S.F.
B. NET LOT AREA	18,591 S.F.
C. AREA BORROWED FROM LOT COVERAGE	2,439 S.F.
D. ALLOWED HARDSCAPE AREA (9% + C)	22.12 %
E. ALLOWED HARDSCAPE AREA	4,112 S.F.
F. TOTAL EXISTING HARDSCAPE AREA (1–7)	0 S.F.
1. UNCOVERED DECKS	0 S.F.
2. UNCOVERED PATIOS	325 S.F.
3. WALKWAYS	930 S.F.
4. STAIRS	0 S.F.
5. ROCKERIES & RETAINING WALLS	730 S.F.
6. OTHER	0 S.F.
7. TOTAL EXISTING HARDSCAPE AREA	1,985 S.F.
G. (TOTAL HARDSCAPE AREA REMOVED)	1,985 S.F.
H. TOTAL NEW HARDSCAPE AREA (PER MERCER ISLAND)	
1. UNCOVERED DECKS	555 S.F.
2. UNCOVERED PATIOS	1,240 S.F.
3. WALKWAYS (833 SF–552 SF)	281 S.F.
4. STAIRS	95 S.F.
5. ROCKERIES & RETAINING WALLS	541 S.F.
6. OTHER (POOL & COPING)	637 S.F.
7. TOTAL NEW HARDSCAPE AREA	3,349 S.F.
I. TOTAL PROJECT HARDSCAPE AREA	3,349 S.F.
J. TOTAL PROJECT HARDSCAPE AREA	18.01 %

NOTE TO SITE PLAN:

SEE SHEET # 1 FOR ALL SITE RELATED NOTES, SPECIFICATIONS, AND DETAILS NOT INCLUDED ON THIS SHEET. ALSO, SEE SURVEY BY CORE DESIGN.

LOT SLOPE CALCULATION:

HIGHEST ELEVATION	58.375'
LOWEST ELEVATION	18.0'
ELEVATION DIFFERENCE	40.375'
HORIZONTAL DIFFERENCE BETWEEN HIGHEST & LOWEST ELEVATION	300 L.F.
LOT SLOPE	13.46%

NOTE TO SITE PLAN

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PLAT MAP	N	DATED:	BY:
SURVEY	Y	DATED: 2019	BY: CORE DESIGN
TITLE	Y	DATED 2019	BY: FIDELITY NATIONAL TITLE

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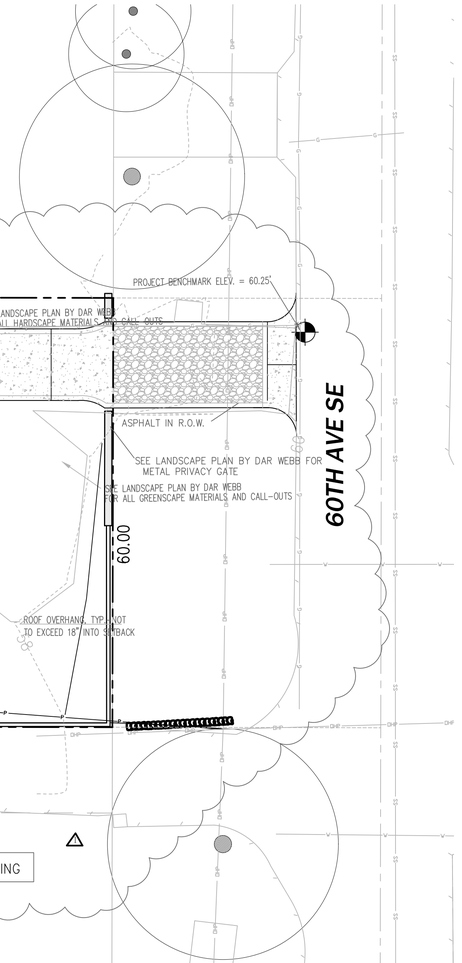


NOTE:

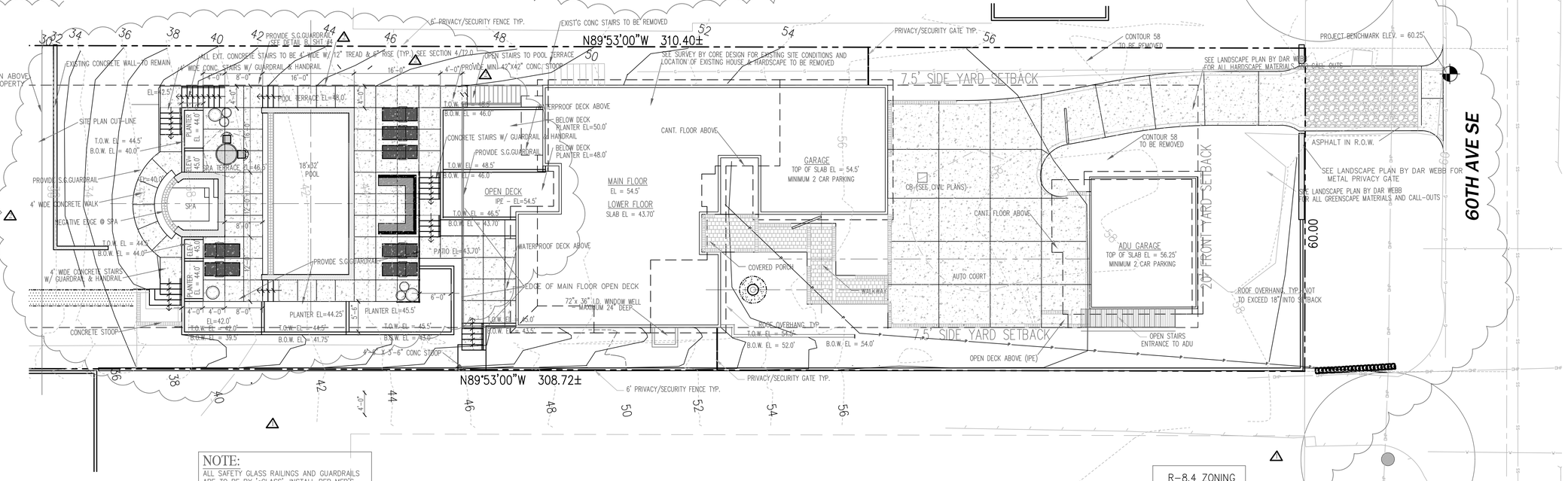
ALL LANDSCAPE PLANTERS ARE TO HAVE NON–SOLID BOTTOMS, AND ARE ALSO TO HAVE A MINIMUM OF 2 FOOT OF SOIL DEPTH–TYPICAL

DRAINAGE SWALE NOTE:

PROVIDE DRAINAGE SWALE @ HOUSE PERIMETER FOR SITE DRAINAGE AWAY FROM RESIDENCE AND AWAY FROM ADJACENT PROPERTIES.

NOTE:

SEE CIVIL ENGINEERING DRAWINGS FOR ALL SITE DRAINAGE SPECIFICATIONS, NOTES, DETAILS AND TEMPORARY EROSION CONTROL REQUIREMENTS.



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R–8.4 ZONING

SITE PLAN

0 5' 10' 20' 30'

1"= 10'

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2019 REGISTERED ARCHITECT
LEIF E. ANDERSON
STATE OF WASHINGTON

A Custom Residence for
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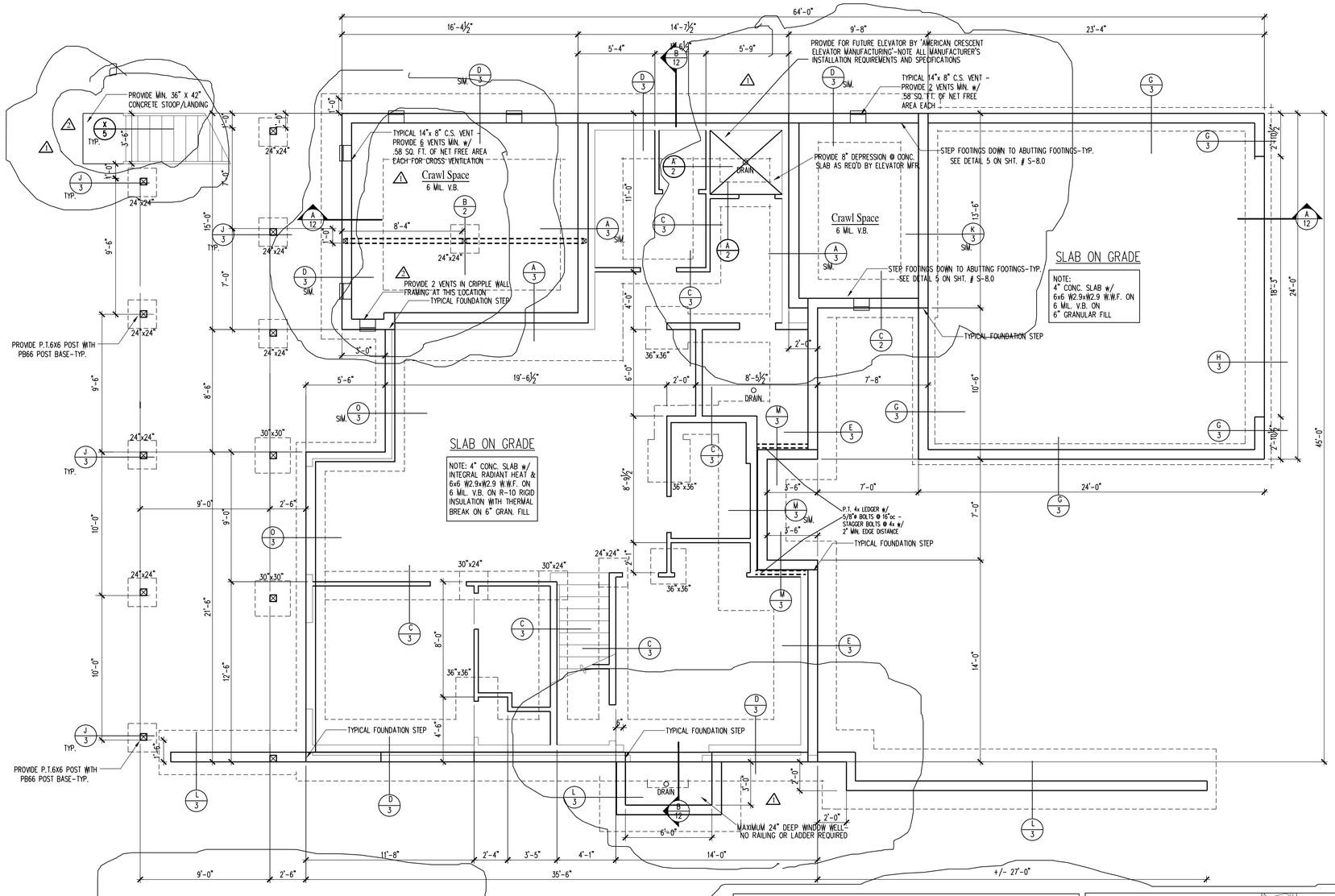
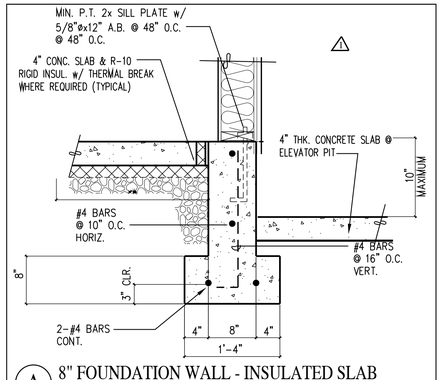


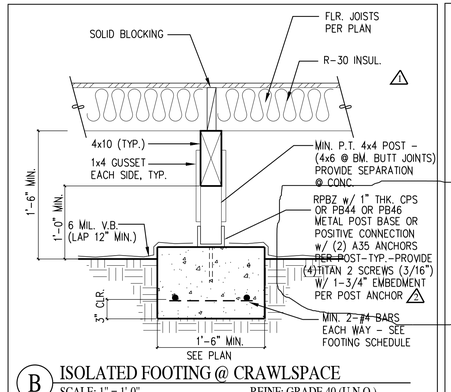
Foundation Plan

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



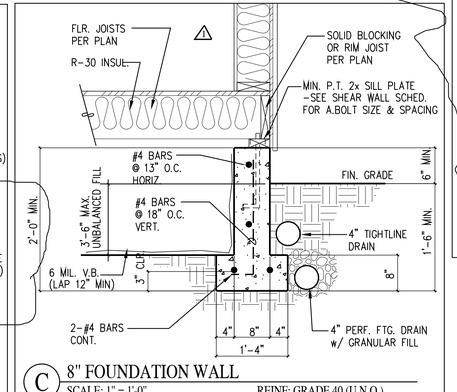
A 8" FOUNDATION WALL - INSULATED SLAB

SCALE: 1" = 1'-0" REINF: GRADE 40 (U.N.O.)



B ISOLATED FOOTING @ CRAWLSPACE

SCALE: 1" = 1'-0" REINF: GRADE 40 (U.N.O.)



C 8" FOUNDATION WALL

SCALE: 1" = 1'-0" REINF: GRADE 40 (U.N.O.)

FOUNDATION PLAN NOTES:

1. PROVIDE 1/2" AIRSPACE BETWEEN CONCRETE AND ALL NON-PRESSURE TREATED WOOD.
2. EXTERIOR FOOTINGS TO BE INTRENCHED 18" MIN. BELOW FINISHED GRADE, AND BEAR ON UNDISTURBED SOIL. STEP FOOTINGS AS SITE CONDITIONS REQUIRE.
3. ANCHOR BOLTS TO BE 5/8"ø X 12" @ 48"OC (UNO). PROVIDE BP 3" x 3" x 1/4" BEARING PLATES @ ANCHOR BOLTS.
4. PROVIDE MIN. 4"ø PERFORATED PERIMETER DRAIN IN 6" GRANULAR FILL AT BOTTOM OF FOOTINGS.
5. PROVIDE MIN. 4"ø ROOF TIGHT LINE DRAIN CONNECTING TO DOWN SPOUTS SEE ROOF FRAMING PLAN FOR DOWN SPOUT LOCATIONS.
6. BACKFILL AT EXTERIOR WALLS MAY REQUIRE COMPACTION IN THE PRESENCE OF A LICENSED ENGINEER, (FIELD VERIFY)
7. SEE GENERAL NOTES, DIVISION #6, FOR LUMBER GRADING, SPECIES AND DESIGN VALUES.
8. PROVIDE "NERVASTRAL" WATERPROOFING MEMBRANE BETWEEN CONCRETE SLAB AND WOOD FRAMING WHERE NEEDED.
9. PROVIDE INTEGRAL RADIANT HEATING TUBES AT LOWER FLOOR CONCRETE SLAB W/ CONTINUOUS R-10 RIGID INSULATION.
10. PROVIDE 3000 psi CONCRETE FOR MODERATE WEATHERING, NO SPECIAL INSPECTION REQUIRED.

NOTE:

THE CONTRACTOR IS TO VERIFY THE HOLDOWN LOCATIONS NOTED ON THE SHEAR WALL DRAWINGS WITH THE FOUNDATION CONTRACTOR AND THE FRAMING CONTRACTOR PRIOR TO PLACING ANY HOLDOWNS OR HOLDOWN ANCHOR BOLTS. WINDOW AND DOOR ROUGH OPENINGS AND LOCATIONS ARE ALSO TO BE VERIFIED BY THE CONTRACTOR AND THE FRAMING CONTRACTOR PRIOR TO PLACING ANY HOLDOWNS OR HOLDOWN ANCHOR BOLTS.

NOTE:

PRIOR TO STAKING FOUNDATION, A LICENSED SURVEYOR MUST VERIFY THAT THE DIMENSIONS SHOWN ON ARCHITECT'S FOUNDATION PLAN PROPERLY CLOSE. ANY DISCREPANCY SHALL BE IMMEDIATELY REPORTED TO ARCHITECT PRIOR TO PRECEEDING WITH THE WORK.

NOTE:

VERIFY THE REQUIRED MINIMUM CONCRETE EMBEDMENT AND CONCRETE COVERAGE FOR ALL SIMPSON HOLDOWNS WITH THE MOST RECENT EDITION OF THE SIMPSON CATALOG. PROVIDE A MIN. OF 3" CLEAR @ BOTTOM OF THE HOLDOWN, COLUMN BASE AND/OR ANCHOR BOLT. PROVIDE ALL REQUIRED REINFORCING AS SPECIFIED IN THE CATALOG, OR SHOWN AND NOTED IN THE DETAILS AND THE DRAWINGS.

NOTE:

SEE SHEAR WALL DETAILS, NOTES, SCHEDULES AND FOUNDATION HOLDOWN PLAN FOR MINIMUM 3X SILL PLATE REQUIREMENTS AND LOCATIONS.

NOTE:

SEE ENGINEERING DRAWINGS AND SHEAR WALL SCHEDULES FOR ALL REQUIRED ANCHOR BOLT SIZES AND SPACINGS. PROVIDE MINIMUM 5/8"ø x 10" LONG ANCHOR BOLTS @ 48" O.C. FOR WALLS NOT DENOTED ON PLANS.

NOTE:

SEE SHEETS S-1 THRU S-8 FOR SPECIAL FRAMING NOTES, CONSTRUCTION NOTES AND DETAILS NOT NOTED ON THIS SHEET.

FOOTING SCHEDULE

18	WOOD POST ON 18"ø x 12" THK. CONC. FTG. W/ 2-#4 BARS E.W.
24	WOOD POST ON 24"ø x 12" THK. CONC. FTG. W/ 2-#4 BARS E.W.
30	WOOD POST ON 30"ø x 12" THK. CONC. FTG. W/ 3-#4 BARS E.W.
18	WOOD POST ON 18"x18"x12" THK. CONC. FTG. W/ 2-#4 BARS E.W.
24	WOOD POST ON 24"x24"x12" THK. CONC. FTG. W/ 3-#4 BARS E.W.
30	WOOD POST ON 30"x30"x12" THK. CONC. FTG. W/ 4-#4 BARS E.W.

ALL WOOD POST TO BE 4x4 (4x6 AT BEAM BUTT JOINTS) UNLESS NOTED OTHERWISE (U.N.O.) ALL RECTANGULAR FTGS. NOT SHOWN ON FOOTING SCHEDULE TO BE 12" THK. W/#4 BARS @ 6" O.C. EACH WAY U.N.O.

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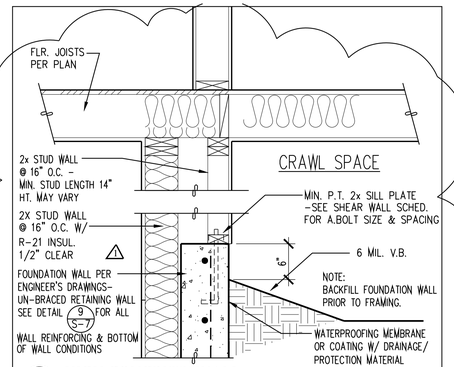
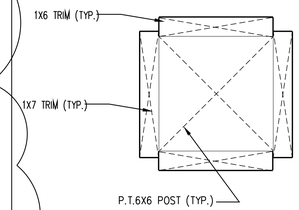
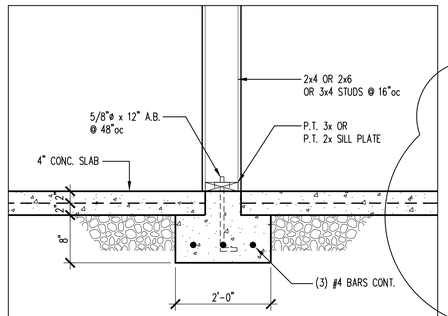


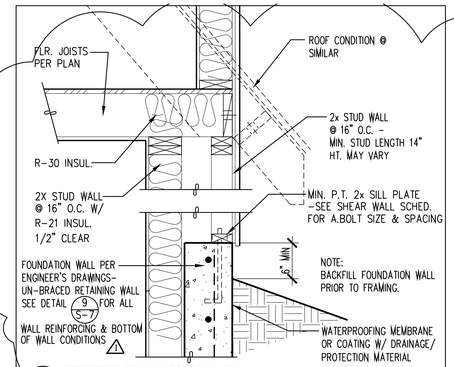
A HIGH CONCRETE WALL (INTERIOR w/ PONY WALL)
SCALE: 1" = 1'-0"



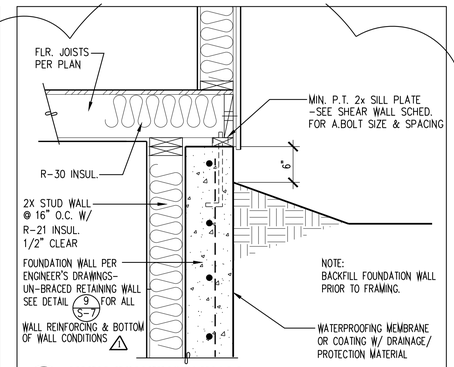
B POST/TRIM DETIAL
NO SCALE



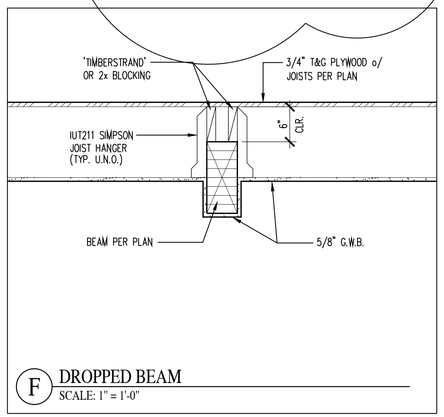
C DETAIL - INTERIOR BEARING WALL
SCALE: 1" = 1'-0" REINF: GRADE 40 (U.N.O.)



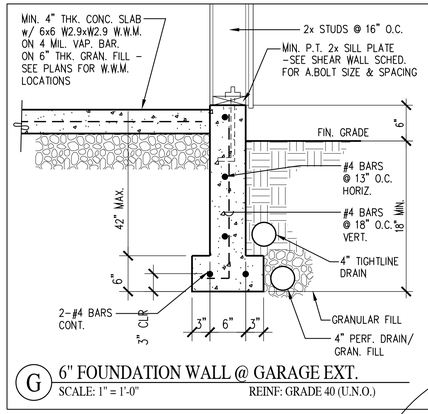
D HIGH CONCRETE WALL (w/ PONY WALL & INTERIOR FRAMED WALL)
SCALE: 1" = 1'-0"



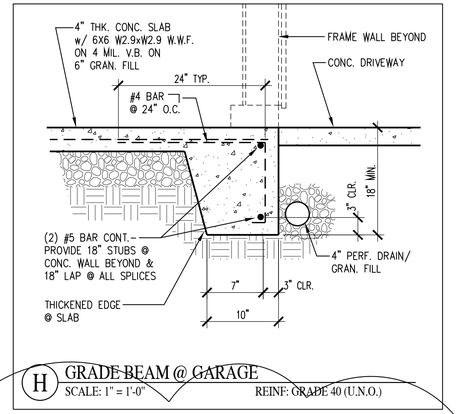
E HIGH CONCRETE WALL
SCALE: 1" = 1'-0"



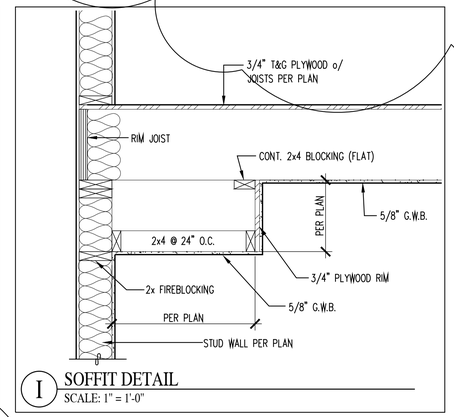
F DROPPED BEAM
SCALE: 1" = 1'-0"



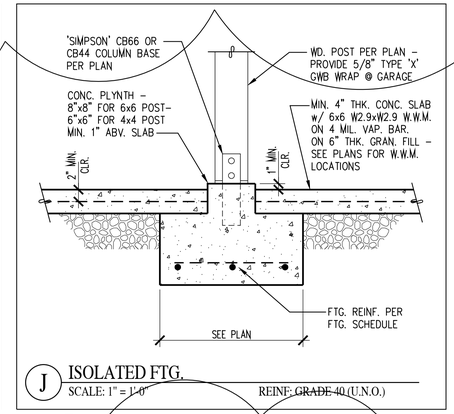
G 6" FOUNDATION WALL @ GARAGE EXT.
SCALE: 1" = 1'-0" REINF: GRADE 40 (U.N.O.)



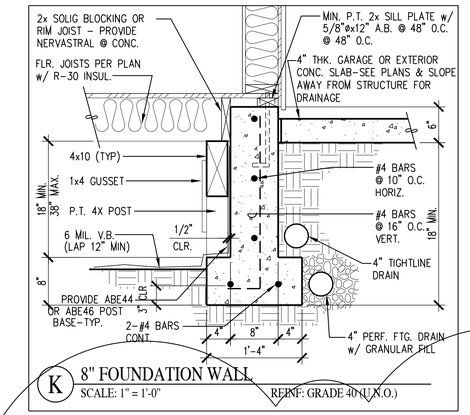
H GRADE BEAM @ GARAGE
SCALE: 1" = 1'-0" REINF: GRADE 40 (U.N.O.)



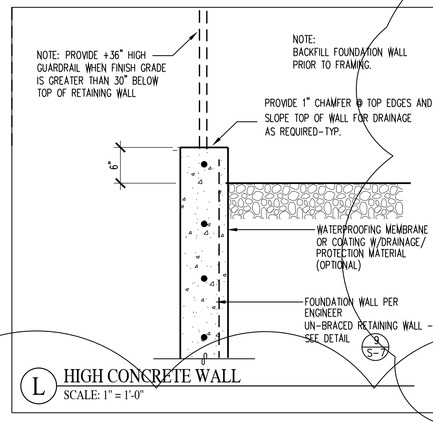
I SOFFIT DETAIL
SCALE: 1" = 1'-0"



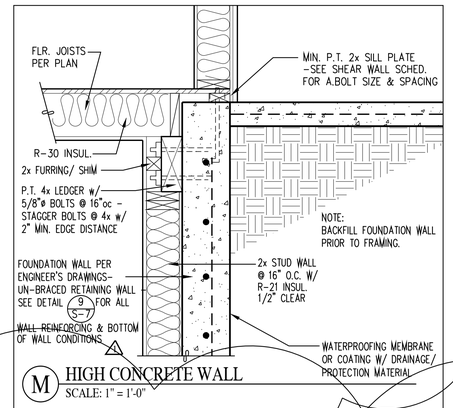
J ISOLATED FTG.
SCALE: 1" = 1'-0" REINF: GRADE 40 (U.N.O.)



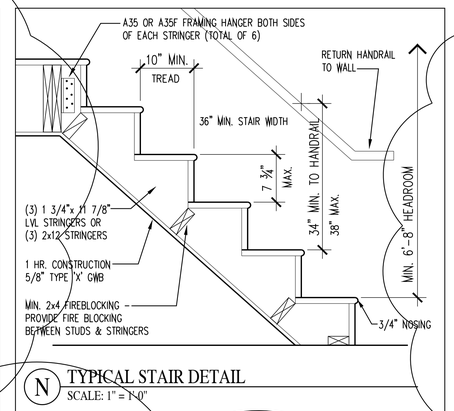
K 8" FOUNDATION WALL
SCALE: 1" = 1'-0" REINF: GRADE 40 (U.N.O.)



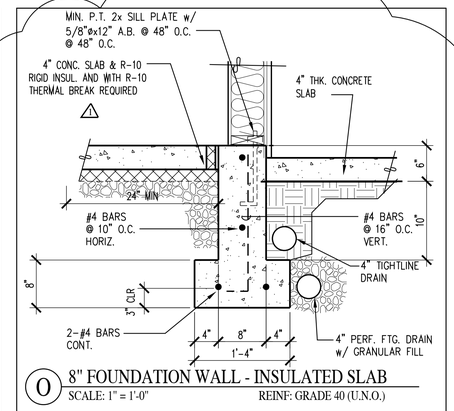
L HIGH CONCRETE WALL
SCALE: 1" = 1'-0"



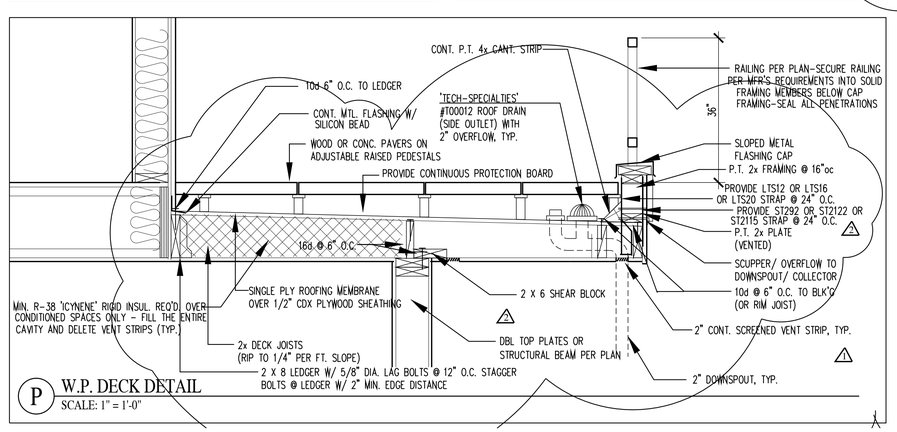
M HIGH CONCRETE WALL
SCALE: 1" = 1'-0"



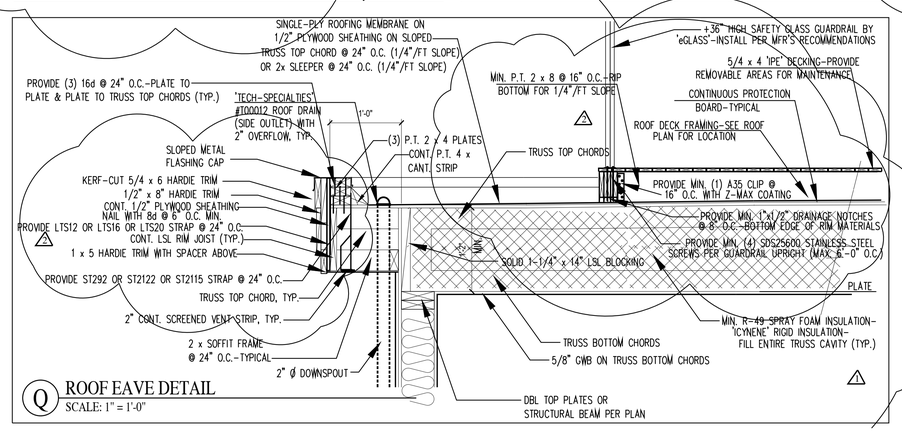
N TYPICAL STAIR DETAIL
SCALE: 1" = 1'-0"



O 8" FOUNDATION WALL - INSULATED SLAB
SCALE: 1" = 1'-0" REINF: GRADE 40 (U.N.O.)



P W.P. DECK DETAIL
SCALE: 1" = 1'-0"



Q ROOF EAVE DETAIL
SCALE: 1" = 1'-0"

NOTE:
PRIOR TO STAKING FOUNDATION, A LICENSED SURVEYOR MUST VERIFY THAT THE DIMENSIONS SHOWN ON ARCHITECT'S FOUNDATION PLAN PROPERLY CLOSE. ANY DISCREPANCY SHALL BE IMMEDIATELY REPORTED TO THE ARCHITECT PRIOR TO PRECEDING WITH THE WORK.

NOTE:
VERIFY THE REQUIRED MINIMUM CONCRETE EMBEDMENT AND CONCRETE COVERAGE FOR ALL SIMPSON HOLDOWNS WITH THE MOST RECENT EDITION OF THE SIMPSON CATALOG. PROVIDE A MIN. OF 3" CLEAR @ BOTTOM OF THE HOLDOWN, COLUMN BASE AND/OR ANCHOR BOLT AS SPECIFIED IN THE CATALOG, OR SHOWN AND NOTED IN THE DETAILS AND THE DRAWINGS.

NOTE:
SEE SHEAR WALL DETAILS, NOTES, SCHEDULES AND FOUNDATION HOLDOWN PLAN FOR MINIMUM 3X SILL PLATE REQUIREMENTS AND LOCATIONS.

NOTE:
SEE ENGINEERING DRAWINGS AND SHEAR WALL SCHEDULES FOR ALL REQUIRED ANCHOR BOLT SIZES AND SPACINGS. PROVIDE MINIMUM 5/8"ø 12" LONG ANCHOR BOLTS @ 48" O.C. FOR WALLS NOT DENOTED ON PLANS.

NOTE:
SEE SHEETS S-1 THRU S-8 FOR SPECIAL FRAMING NOTES, CONSTRUCTION NOTES AND DETAILS NOT NOTED ON THIS SHEET.

NOTE:
ALL FASTENERS FOR PRESSURE TREATED WOOD SHOULD BE ZMAX HOT-DIPPED GALVANIZED (G185) OR STAINLESS STEEL PER IBC 2304.9.5

NOTE:
PROVIDE 3000 PSI CONCRETE FOR ALL GARAGE SLABS, CARPORT SLABS, CONCRETE SLABS AND CONCRETE WALLS EXPOSED TO WEATHERING. NO SPECIAL INSPECTION REQUIRED.

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2019 REGISTERED ARCHITECT
LEIF E. ANDERSON
STATE OF WASHINGTON

A Custom Residence for
Gregg Petrie
2431 60th Avenue SE, Mercer Island WA

DATE:
05-14-2020
03-30-2021 2
06-07-2021 3

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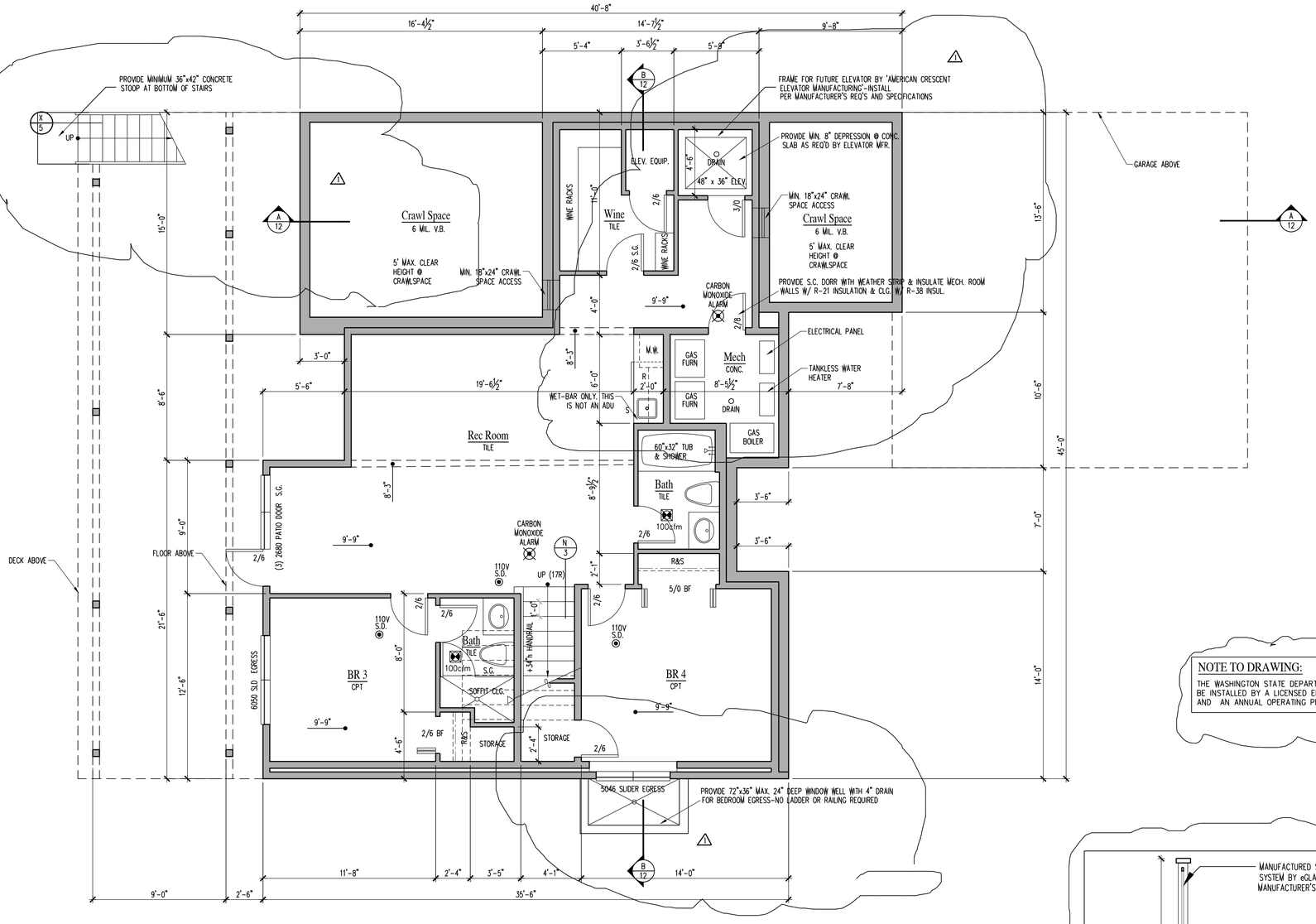


Lower Floor Plan

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

LOWER FLOOR AREA = 1240 S.F.

FLOOR PLAN NOTES

1. TYPICAL PLATE HEIGHT TO BE 9'-9" (U.N.O.). NON-STANDARD PLATE LOCATIONS ARE NOTED ON THE MAIN FLOOR PLAN, THE UPPER FLOOR PLAN, THE UPPER FLOOR FRAMING PLAN, THE UPPER FLOOR CEILING FRAMING PLAN AND THE ROOF FRAMING PLAN.
2. VENT EXHAUST FANS, COOKTOPS/ HOODS AND DRYER TO THE EXTERIOR. EXHAUST FAN CAPACITIES NOTED ON PLANS ARE MINIMUM REQUIREMENTS.
3. WINDOWS TO BE BY: 'WEATHERSHIELD' - ALUMINUM CLAD. SEE WINDOW DESIGNATIONS ON SHEETS #4, #6, & #8 FOR WINDOW MFR. ROUGH OPENINGS & SIZES. VERIFY ALL ROUGH OPENINGS WITH MANUFACTURER PRIOR TO FRAMING.
4. DOORS TO BE 8'-0" HIGH SOLID CORE WITH RAISED PANELS (U.N.O.)
5. ALL GLAZING SUBJECT TO HUMAN IMPACT SHALL BE SAFETY GLAZING. ALL GLAZING IN FIXED OR OPERABLE PANELS ADJACENT TO A DOOR WHERE THE NEAREST EXPOSED EDGE OF THE GLAZING IS WITHIN A 24" ARC AND WHERE THE BOTTOM EDGE OF THE GLAZING IS LESS THAN 60" ABOVE THE WALKING SURFACE SHALL BE SAFETY GLAZING.
6. SEE 'GENERAL NOTES', DIVISION #6, FOR LUMBER GRADING, SPECIES AND ALLOWABLE DESIGN VALUES.
7. FIRE BLOCK ALL PLUMBING PENETRATIONS. FIRE BLOCK AT 10'-0" INTERVALS (VERTICAL AND HORIZONTAL) IN WALLS.
8. TYPICAL WALL STUDS TO BE 2x6 @ 16" O.C. AT EXTERIOR INSULATED WALLS (U.N.O.). INTERIOR WALLS ARE TYPICALLY 2x4 STUDS @ 16" O.C. (U.N.O.). SEE SHEETS #5, #7 & #9 FOR NON-STANDARD STUD LOCATIONS.
9. CONTRACTOR TO INSTALL IN ACCORDANCE WITH U.L. APPROVED MANUFACTURER'S SPECIFICATIONS, ALL PREFABRICATED FIREPLACES, STOVES AND RELATED ASSEMBLIES.

NOTE TO WINDOWS:

ALL WINDOW SIZES ARE NOMINAL. CONTRACTOR TO VERIFY ALL SIZES AND ROUGH OPENINGS WITH WINDOW MANUFACTURER PRIOR TO FRAMING.

NOTE TO DRAWING:

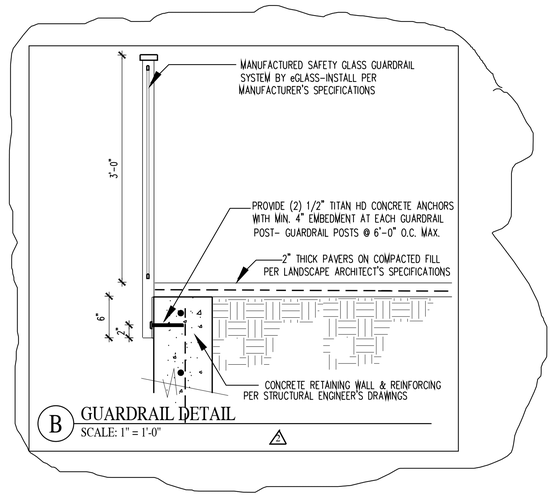
PROVIDE INTEGRAL HYDRONIC RADIANT HEATING AT LOWER FLOOR CONCRETE SLAB WITH CONTINUOUS R-10 SLAB INSULATION.

NOTE TO DRAWING:

PROVIDE SOFFIT CEILINGS AT LOWER FLOOR FOR MECHANICAL DUCTING (TYPICAL).

NOTE TO DRAWING:

THE WASHINGTON STATE DEPARTMENT OF LABOR AND INDUSTRIES REQUIRES THAT THE ELEVATOR BE INSTALLED BY A LICENSED ELEVATOR CONTRACTOR; YEARLY SAFETY INSPECTIONS ARE REQUIRED, AND AN ANNUAL OPERATING PERMIT FOR THE ELEVATOR SHALL BE ISSUED BY L & I.



B GUARDRAIL DETAIL
SCALE: 1" = 1'-0"

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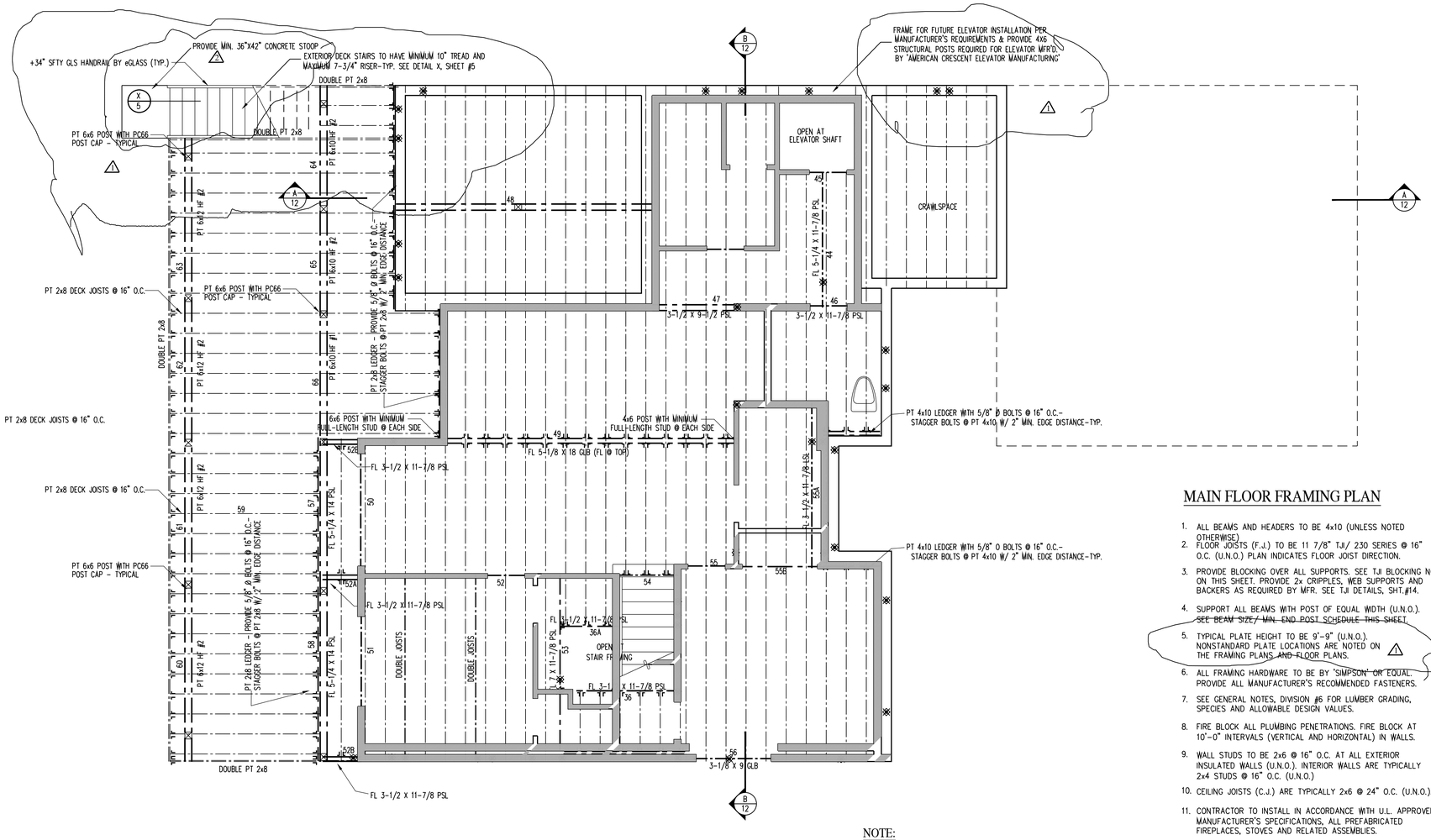
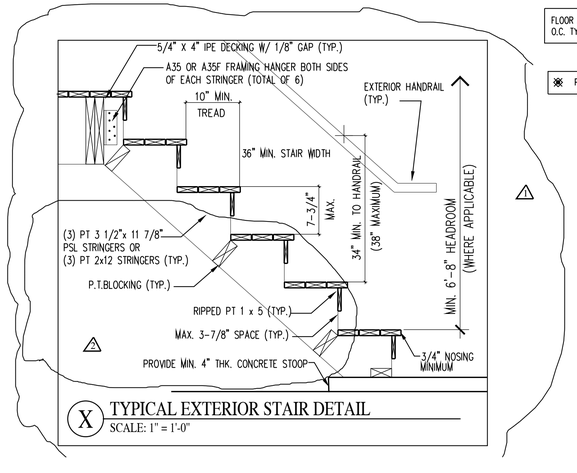


Main Floor Framing Plan

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

FLOOR JOISTS TO BE 11 7/8" TJI/ 230 SERIES @ 16" O.C. TYPICAL, U.N.O.

※ POINT LOAD FROM ABOVE



X TYPICAL EXTERIOR STAIR DETAIL

SCALE: 1" = 1'-0"

NOTE:

SEE SHEAR WALL DETAILS, NOTES, SCHEDULES AND FOUNDATION HOLDOWN PLAN FOR MINIMUM 3 X SILL PLATE REQUIREMENTS AND LOCATIONS (TYPICAL-U.N.O.).

NOTE:

SEE SHEET # 14 FOR ALLOWABLE LOCATIONS OF ROUND, SQUARE AND RECTANGULAR HOLES THROUGH THE WEBS OF TJI ENGINEERED WOOD I-JOISTS. FOLLOW ALL THE MANUFACTURER'S RECOMMENDATIONS REGARDING SIZES, SPACINGS AND QUANTITY OF HOLES AND PENETRATIONS FOR TJI I-JOISTS/FRAMING MEMBERS.

NOTE:

ALL FASTENERS FOR PRESSURE TREATED WOOD SHALL BE ZMAX HOT-DIPPED GALVANIZED (G185) OR STAINLESS STEEL PER IBC 2304.9.5.

NOTE:

PONY WALLS OR CRIPPLE WALLS THAT ARE DIRECTLY BELOW A MAIN FLOOR SHEAR WALL ARE TO BE SHEATHED AND NAILED THE SAME AS THE SHEAR WALL ABOVE. ANY OPENINGS OR PENETRATIONS THROUGH THESE LOWER LEVEL SHEAR WALLS ARE TO BE IN THE MIDDLE AREAS OF THE STRUCTURAL SHEATHING (TYPICAL).

MAIN FLOOR FRAMING PLAN

1. ALL BEAMS AND HEADERS TO BE 4x10 (UNLESS NOTED OTHERWISE)
2. FLOOR JOISTS (F.J.) TO BE 11 7/8" TJI/ 230 SERIES @ 16" O.C. (U.N.O.) PLAN INDICATES FLOOR JOIST DIRECTION.
3. PROVIDE BLOCKING OVER ALL SUPPORTS. SEE TJI BLOCKING NOTES ON THIS SHEET. PROVIDE 2x CRIPPLES, WEB SUPPORTS AND BACKERS AS REQUIRED BY MFR. SEE TJI DETAILS, SHT.#14.
4. SUPPORT ALL BEAMS WITH POST OF EQUAL WIDTH (U.N.O.). ~~SEE BEAM SIZE/ MIN. END POST SCHEDULE THIS SHEET.~~
5. TYPICAL PLATE HEIGHT TO BE 9'-9" (U.N.O.). NONSTANDARD PLATE LOCATIONS ARE NOTED ON THE FRAMING PLANS ~~AND FLOOR PLANS~~. ⚠1
6. ALL FRAMING HARDWARE TO BE BY 'SIMPSON' OR EQUAL. PROVIDE ALL MANUFACTURER'S RECOMMENDED FASTENERS.
7. SEE GENERAL NOTES, DIVISION #6 FOR LUMBER GRADING, SPECIES AND ALLOWABLE DESIGN VALUES.
8. FIRE BLOCK ALL PLUMBING PENETRATIONS. FIRE BLOCK AT 10'-0" INTERVALS (VERTICAL AND HORIZONTAL) IN WALLS.
9. WALL STUDS TO BE 2x6 @ 16" O.C. AT ALL EXTERIOR INSULATED WALLS (U.N.O.). INTERIOR WALLS ARE TYPICALLY 2x4 STUDS @ 16" O.C. (U.N.O.)
10. CEILING JOISTS (C.J.) ARE TYPICALLY 2x6 @ 24" O.C. (U.N.O.).
11. CONTRACTOR TO INSTALL IN ACCORDANCE WITH U.L. APPROVED MANUFACTURER'S SPECIFICATIONS, ALL PREFABRICATED FIREPLACES, STOVES AND RELATED ASSEMBLIES.

TJI BLOCKING NOTE:

PROVIDE TJI BLOCKING (MIN) OVER ALL SUPPORTS.

SUPPORTS WITH ONE BEARING WALL ABOVE
PROVIDE "TIMBERSTRAND" LSL BLOCKING (UNO)

SUPPORTS WITH TWO BEARING WALLS ABOVE
PROVIDE DOUBLE "TIMBERSTRAND" LSL BLOCKING (UNO)

SUPPORTS WITH POINT LOAD ABOVE
PROVIDE DOUBLE "TIMBERSTRAND" LSL BLOCKING OR 2X4/2X6 SQUASH BLOCKS (UNO)

NOTE:

PROVIDE CONTINUOUS 1 1/4" TIMBER STRAND LSL RIM JOIST AT ALL EXTERIOR WALLS, UNO.

NOTE:

SEE SHEET #14 FOR TYPICAL FRAMING DETAILS AND NOTES TO FRAMING DETAILS FOR TJI ENGINEERED WOOD I-JOISTS. SEE MANUFACTURERS RECOMMENDATIONS FOR JOB SITE STORAGE AND INSTALLATION. PROVIDE SIMPSON STRONG-TIE CONNECTORS MANUFACTURED FOR USE WITH TJI ENGINEERED PRODUCTS, AND PROVIDE ALL MANUFACTURERS RECOMMENDED FASTENERS.

NOTE:

SEE SHEETS S-1 THRU S-8 FOR SPECIAL FRAMING NOTES, CONSTRUCTION NOTES AND DETAILS NOT NOTED ON THIS SHEET.

BEAM SIZE	MIN. END POST
4x12 DF#2/4x10 DF#2	4x4 DF#2/OR (2) 2x4 STUDS STITCHED @ 12"OC W/ (2) 8d NAILS
6x10 DF#1 6x12 DF#1	4x6/6x6 DF#1 4x6/6x6 DF#1
3 1/8" GLB/3 1/2"x PSL/LSL	4x4 DF#1
5 1/8" GLB/5 1/4"x PSL/LSL	4x6/6x6 DF#1
6 3/4" GLB/7"x PSL/LSL	4x8/8x8 DF#1

MINIMUM HANGER POST/CAP REQUIRED (U.N.O.)

2x6	CJ	U26
2x8	CJ	U26
2x10	CJ	LU28
2x12	CJ	LU210
2x8	FJ	U26
2x10	FJ	LU28
2x12	FJ	LU210
2-2x8	FJ	U26-2
2-2x10	FJ	U210-2
2-2x12	FJ	U210-2
3-2x8	FJ	U26-3
3-2x10	FJ	U210-3
3-2x12	FJ	U210-3
4x6	Beam/Hdr	U46
4x8	Beam/Hdr	U46
4x10	Beam/Hdr	U410
4x12	Beam/Hdr	U410
6x8	Beam/Hdr	U66
6x10	Beam/Hdr	U610
1-3/4"x9-1/2" PSL/LVL		HU9 min.
1-3/4"x11-7/8"PSL/LVL		HU11 min.
3-1/2"x9-1/2"PSL/LSL		HU410 max.
3-1/2"x11-7/8"PSL/LSL		HU412 max.
5-1/4"x9-1/2"PSL		HHUS5.50/10
5-1/4"x11-7/8"PSL		HHUS5.50/10
4x4	Post Cap	AC4 max.
6x6	Post Cap	AC6 max.
GLB	Beam/Post	CC col. Cap
PSL	Beam/Post	CC col. Cap

NOTE:

PROVIDE SOLID FRAMING "SQUASH" BLOCKS AT BEARING FOR ALL FRAMING MEMBERS TO MATCH WIDTH OF POSTED MEMBER FROM ABOVE. SEE BEAM/SIZE AND MINIMUM END POST SCHEDULE ON THE FRAMING PLANS.

NOTE:

ALL SIMPLE SPAN GLU-LAMINATED BEAMS (GLB) ARE TO BE 24F-V4 GRADE OR BETTER (Fv=240psi, Fb=2400psi, AND E=1,800,000 psi). ALL CONTINUOUS GLB'S AND ALL CANTILEVER GLB'S ARE TO BE 24F-V8 GRADE OR BETTER (Fv=240psi, Fb=2400psi, AND E=1,800,000 psi).

NOTE:

PROVIDE FIREBLOCKING FOR ALL ELECTRICAL, PLUMBING AND MECHANICAL PENETRATIONS. PROVIDE FIREBLOCKING AT 10'-0" INTERVALS BOTH HORIZONTALLY AND VERTICALLY IN WALLS AND CHASES WITH MIN. SOLID 2X FIREBLOCKING OR 5/8" TYPE 'X' GWB (TYPICAL).

NOTE:

PROVIDE TEMPORARY POSTING OF ALL ENGINEERED WOOD BEAMS, INCLUDING EXPOSED BEAMS AND FLUSH BEAMS AS REQUIRED TO PREVENT DEFLECTION OF MEMBERS UNTIL THE REQUIRED MOISTURE CONTENT OF THE MEMBERS IS ACHIEVED.

NOTE:

FINGER JOINED STUDS SHALL NOT BE USED AT ANY HOLDOWN OR LATERAL RESISTING STRAP LOCATION.

NOTE:

SOFFIT CEILINGS AS REQUIRED FOR MECHANICAL - VERIFY ALL REQUIREMENTS WITH MECHANICAL CONTRACTOR.

DEFERRED SUBMITTAL NOTE:

THE MANUFACTERERS OF ALL FLOOR TRUSS COMPONENTS ARE REQUIRED TO PROVIDE ALL NECESSARY DESIGN DOCUMENTS AND SPECIFICATIONS TO THE BUILDING OFFICIAL FOR REVIEW AS A DEFERRED SUBMITTAL PER IBC SECT. 106.

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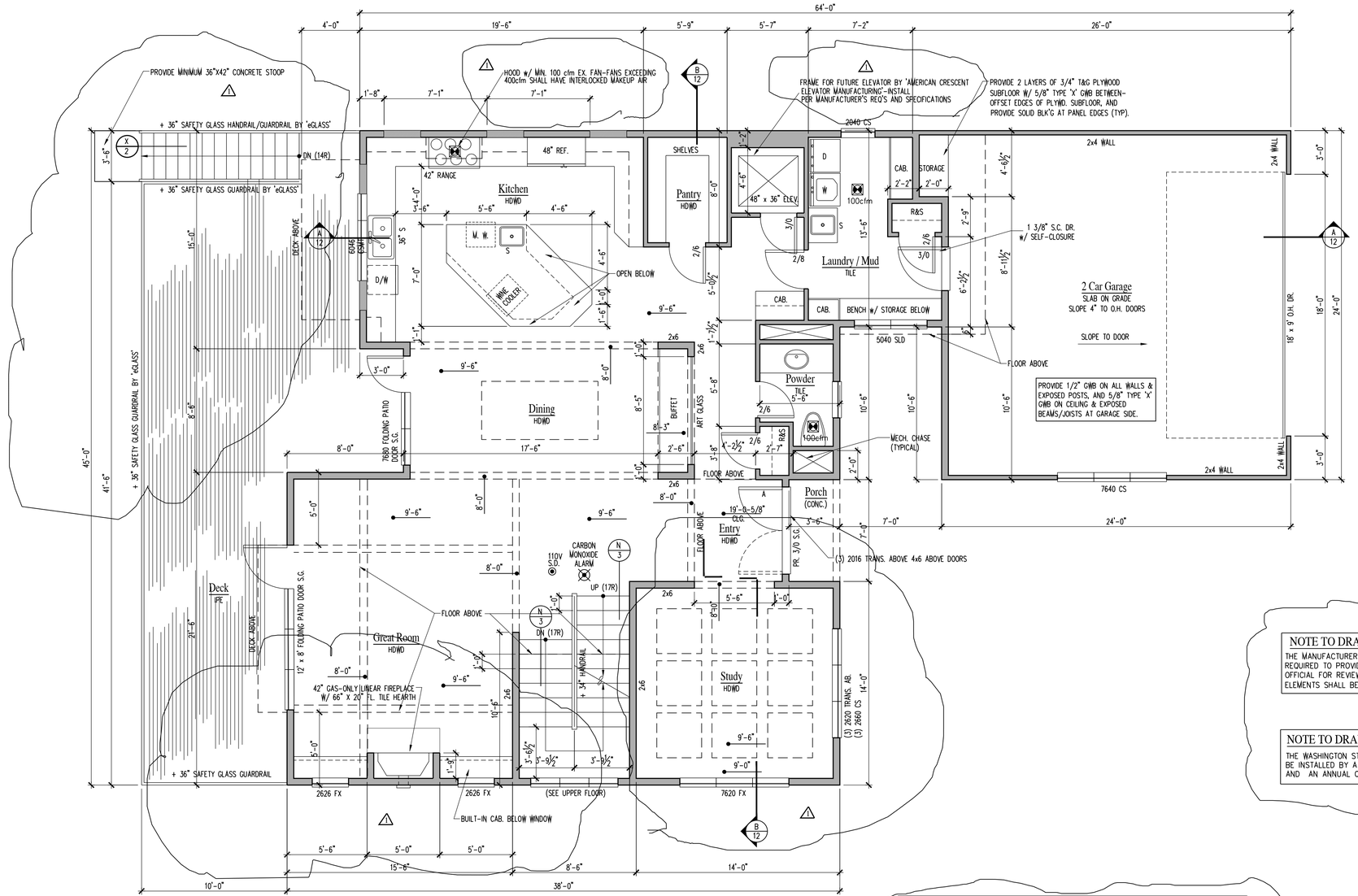


Main Floor Plan

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

MAIN FLOOR AREA = 1642 S.F.

GARAGE AREA = 578 S.F.

MAIN FLOOR PLAN NOTES

1. TYPICAL PLATE HEIGHT TO BE 9'-6" (U.N.O.). NON-STANDARD PLATE LOCATIONS ARE NOTED ON THE MAIN FLOOR PLAN, THE UPPER FLOOR PLAN, THE UPPER FLOOR FRAMING PLAN, THE UPPER FLOOR CEILING FRAMING PLAN AND THE ROOF FRAMING PLAN.
2. VENT EXHAUST FANS, COOKTOPS/ HOODS AND DRYER TO THE EXTERIOR. EXHAUST FAN CAPACITIES NOTED ON PLANS ARE MINIMUM REQUIREMENTS.
3. WINDOWS TO BE BY: 'WEATHERSHIELD' - ALUMINUM CLAD

   SEE WINDOW DESIGNATIONS ON SHEETS #4, #6, & #8 FOR WINDOW MANUFACTURER ROUGH OPENINGS & SIZES. VERIFY ALL ROUGH OPENINGS WITH MANUFACTURER PRIOR TO FRAMING.
4. DOORS TO BE 8'-0" HIGH SOLID CORE PANELED (U.N.O.)
5. ALL GLAZING SUBJECT TO HUMAN IMPACT SHALL BE SAFETY GLAZING. ALL GLAZING IN FIXED OR OPERABLE PANELS ADJACENT TO A DOOR WHERE THE NEAREST EXPOSED EDGE OF THE GLAZING IS WITHIN A 24" ARC AND WHERE THE BOTTOM EDGE OF THE GLAZING IS LESS THAN 60" ABOVE THE WALKING SURFACE SHALL BE SAFETY GLAZING.
6. SEE 'GENERAL NOTES', DIVISION #6, FOR LUMBER GRADING, SPECIES AND ALLOWABLE DESIGN VALUES.
7. FIRE BLOCK ALL PLUMBING PENETRATIONS. FIRE BLOCK AT 10'-0" INTERVALS (VERTICAL AND HORIZONTAL) IN WALLS.
8. TYPICAL WALL STUDS TO BE 2x6 @ 16" O.C. AT EXTERIOR INSULATED WALLS (U.N.O.). INTERIOR WALLS ARE TYPICALLY 2x4 STUDS @ 16" O.C. (U.N.O.). SEE SHEETS #5, #7 & #9 FOR NON-STANDARD STUD LOCATIONS.
9. CONTRACTOR TO INSTALL IN ACCORDANCE WITH U.L. APPROVED MANUFACTURER'S SPECIFICATIONS, ALL PREFABRICATED FIREPLACES, STOVES AND RELATED ASSEMBLIES.
10. ALL SKYLIGHTS ARE TO HAVE LAMINATED SAFETY GLASS, AND THE CONTRACTOR IS TO INSTALL ALL SKYLIGHTS PER IRC R308.6, AND IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

NOTE TO WINDOWS:

ALL WINDOW SIZES ARE NOMINAL.
CONTRACTOR TO VERIFY ALL SIZES AND ROUGH OPENINGS WITH WINDOW MANUFACTURER PRIOR TO FRAMING.

NOTE TO DRAWING:

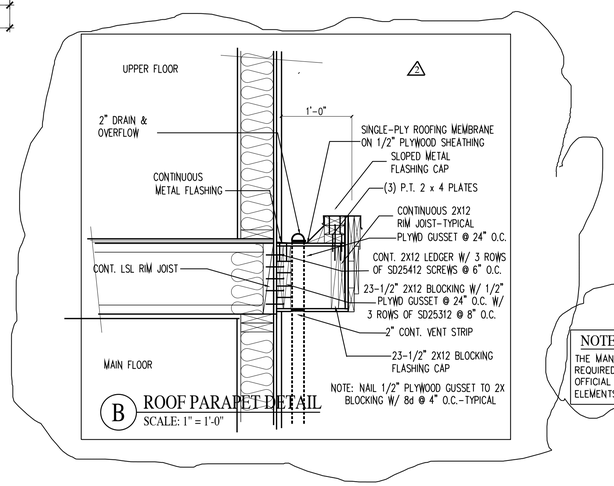
PROVIDE 1/4" OR 1/2" WONDERBOARD ON TOP OF 3/4" PLYWOOD SUBFLOOR AT ALL AREAS TO RECEIVE TILE OR STONE SEE PLANS FOR FINISH FLOOR LOCATIONS.

NOTE TO DRAWING:

THE MANUFACTURERS OF ALL SAFETY GLASS GUARDRAILS AND GUARDRAIL COMPONENTS ARE REQUIRED TO PROVIDE ALL NECESSARY DESIGN DOCUMENTS AND SPECIFICATIONS TO THE BUILDING OFFICIAL FOR REVIEW AS A DEFERRED SUBMITTAL PER I.B.C. SECTION 106. ALL THE GUARDRAIL ELEMENTS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

NOTE TO DRAWING:

THE WASHINGTON STATE DEPARTMENT OF LABOR AND INDUSTRIES REQUIRES THAT THE ELEVATOR BE INSTALLED BY A LICENSED ELEVATOR CONTRACTOR; YEARLY SAFETY INSPECTIONS ARE REQUIRED, AND AN ANNUAL OPERATING PERMIT FOR THE ELEVATOR SHALL BE ISSUED BY L & I.



B ROOF PARAPET DETAIL
SCALE: 1" = 1'-0"

NOTE TO DRAWING:

THE MANUFACTURERS OF ALL SAFETY GLASS GUARDRAILS AND GUARDRAIL COMPONENTS ARE REQUIRED TO PROVIDE ALL NECESSARY DESIGN DOCUMENTS AND SPECIFICATIONS TO THE BUILDING OFFICIAL FOR REVIEW AS A DEFERRED SUBMITTAL PER I.B.C. SECTION 106. ALL THE GUARDRAIL ELEMENTS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

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NOTE:

PROVIDE TEMPORARY POSTING OF ALL ENGINEERED WOOD BEAMS, INCLUDING EXPOSED BEAMS AND FLUSH BEAMS, AS REQUIRED TO PREVENT DEFLECTION OF THESE MEMBERS UNTIL THE DESIRED MOISTURE CONTENT OF THE MEMBERS IS ACHIEVED.

NOTE:

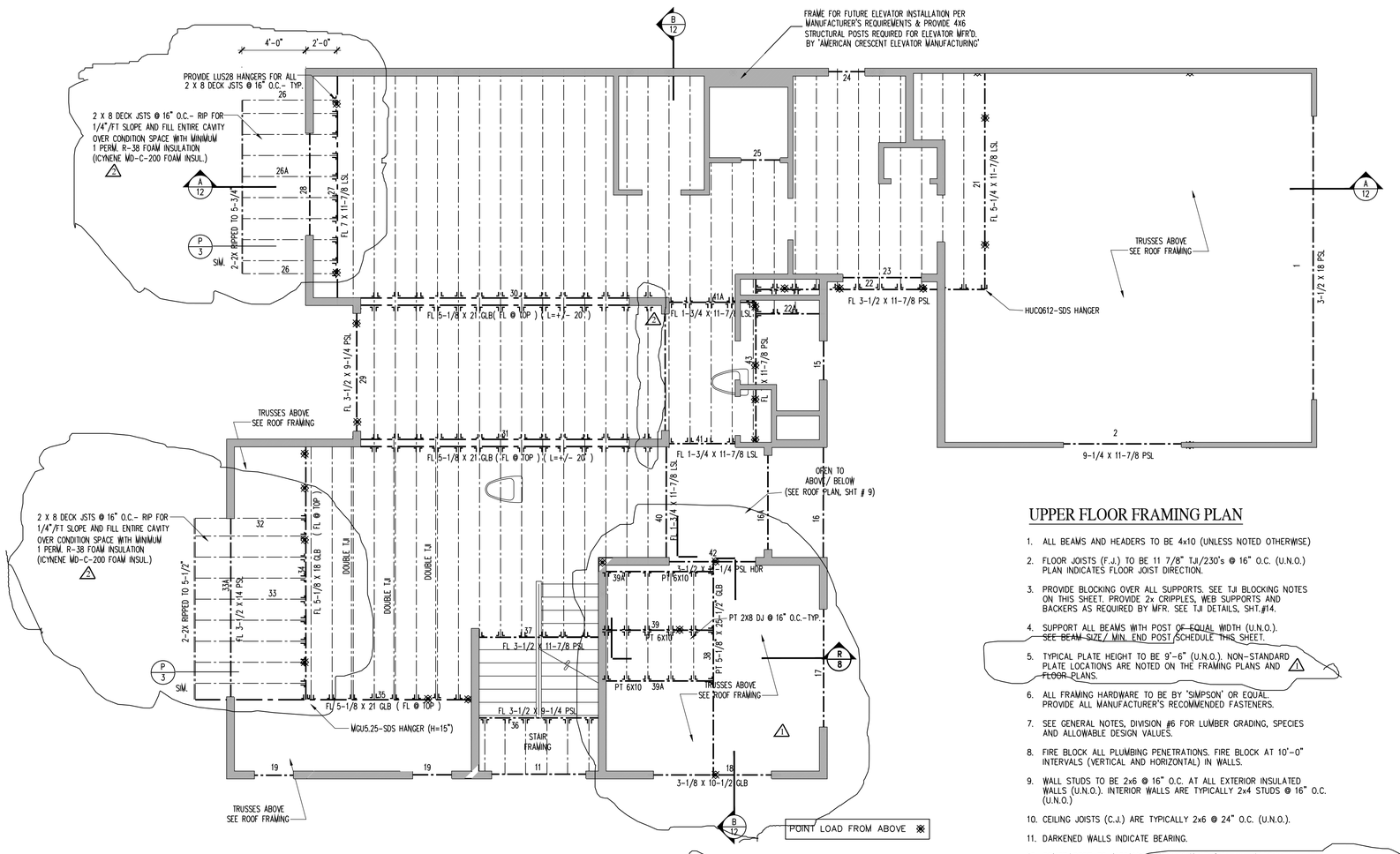
FINGER JOINTED STUDS SHALL NOT BE USED AT ANY HOLDOWN OR LATERAL RESISTING STRAP LOCATION.

NOTE:

SEE SHEETS S-1 THRU S-8 FOR SPECIAL FRAMING NOTES, CONSTRUCTION NOTES, CONSTRUCTION DETAILS, AND SHEAR WALL REQUIREMENTS NOT NOTED ON THIS SHEET.

NOTE:

THE MANUFACTURERS OF ALL FLOOR TRUSS COMPONENTS ARE REQUIRED TO PROVIDE ALL NECESSARY DESIGN DOCUMENTS AND SPECIFICATIONS TO THE BUILDING OFFICIAL FOR REVIEW AS A DEFERRED SUBMITTAL PER I.B.C. SECTION 106.



UPPER FLOOR FRAMING PLAN

1. ALL BEAMS AND HEADERS TO BE 4x10 (UNLESS NOTED OTHERWISE)
2. FLOOR JOISTS (F.J.) TO BE 11 7/8" TJI/230's @ 16" O.C. (U.N.O.) PLAN INDICATES FLOOR JOIST DIRECTION.
3. PROVIDE BLOCKING OVER ALL SUPPORTS. SEE TJI BLOCKING NOTES ON THIS SHEET. PROVIDE 2x CRIPPLES, WEB SUPPORTS AND BACKERS AS REQUIRED BY MFR. SEE TJI DETAILS, SHT.#14.
4. SUPPORT ALL BEAMS WITH POST OF EQUAL WIDTH (U.N.O.). SEE BEAM SIZE/ MIN. END POST SCHEDULE THIS SHEET.
5. TYPICAL PLATE HEIGHT TO BE 9'-6" (U.N.O.). NON-STANDARD PLATE LOCATIONS ARE NOTED ON THE FRAMING PLANS AND FLOOR PLANS.
6. ALL FRAMING HARDWARE TO BE BY 'SIMPSON' OR EQUAL. PROVIDE ALL MANUFACTURER'S RECOMMENDED FASTENERS.
7. SEE GENERAL NOTES, DIVISION #6 FOR LUMBER GRADING, SPECIES AND ALLOWABLE DESIGN VALUES.
8. FIRE BLOCK ALL PLUMBING PENETRATIONS. FIRE BLOCK AT 10'-0" INTERVALS (VERTICAL AND HORIZONTAL) IN WALLS.
9. WALL STUDS TO BE 2x6 @ 16" O.C. AT ALL EXTERIOR INSULATED WALLS (U.N.O.). INTERIOR WALLS ARE TYPICALLY 2x4 STUDS @ 16" O.C. (U.N.O.)
10. CEILING JOISTS (C.J.) ARE TYPICALLY 2x6 @ 24" O.C. (U.N.O.).
11. DARKENED WALLS INDICATE BEARING.
12. CONTRACTOR TO INSTALL IN ACCORDANCE WITH U.L. APPROVED MANUFACTURER'S SPECIFICATIONS, ALL PREFABRICATED FIREPLACES, STOVES AND RELATED ASSEMBLIES.

FLOOR JOISTS TO BE 11 7/8" TJI/ 230 SERIES @ 16" O.C. TYPICAL, U.N.O.

TJI BLOCKING NOTE:

PROVIDE TJI BLOCKING (MIN) OVER ALL SUPPORTS.

SUPPORTS WITH ONE BEARING WALL ABOVE
PROVIDE "TIMBERSTRAND" LSL BLOCKING (UNO)

SUPPORTS WITH TWO BEARING WALLS ABOVE
PROVIDE DOUBLE "TIMBERSTRAND" LSL BLOCKING (UNO)

SUPPORTS WITH POINT LOAD ABOVE
PROVIDE DOUBLE "TIMBERSTRAND" LSL BLOCKING OR 2X4/2X6 SQUASH BLOCKS (UNO)

NOTE:

PROVIDE CONTINUOUS 1 1/4" 'TIMBERSTRAND' LSL RIM JOIST AT ALL EXTERIOR WALLS (TYPICAL-U.N.O.).

NOTE:

SEE SHEET# 14 FOR TYPICAL FRAMING DETAILS AND NOTES TO FRAMING DETAILS FOR TJI ENGINEERED WOOD I-JOISTS. SEE MANUFACTURERS RECOMMENDATIONS FOR JOB SITE STORAGE AND INSTALLATION. PROVIDE SIMPSON STRONG-TIE CONNECTORS MANUFACTURED FOR USE WITH TJI ENGINEERED PRODUCTS, AND PROVIDE ALL MANUFACTURERS RECOMMENDED FASTENERS.

NOTE:

ALL FASTENERS FOR PRESSURE TREATED WOOD SHALL BE ZMAX HOT-DIPPED GALVANIZED (G185) OR STAINLESS STEEL PER IBC 2304.9.5.

BEAM SIZE	MIN. END POST
4X10 DF#2/4x12 DF#2	4x4 DF#2/OR (2) 2x4 STUDS STITCHED @ 12"OC W/ (2) 8d NAILS
6x10 DF#1 6x12 DF#1	4x6/6x6 DF#1
3 1/8" GLB/3 1/2"x PSL/LSL	4x4 DF#1
5 1/8" GLB/5 1/4"x PSL/LSL	4x6/6x6 DF#1
6 3/4" GLB/7"x PSL	4x8/8x8 DF#1

NOTE:

PROVIDE SOLID FRAMING "SQUASH" BLOCKS AT BEARING FOR ALL FRAMING MEMBERS TO MATCH WIDTH OF POSTED MEMBER FROM ABOVE. SEE BEAM/SIZE AND MINIMUM END POST SCHEDULE ON THE FRAMING PLANS.

NOTE:

ALL SIMPLE SPAN GLU-LAMINATED BEAMS (GLB) ARE TO BE 24F-V4 GRADE OR BETTER (Fv=240psi, Fb=2400psi, AND E=1,800,000 psi). ALL CONTINUOUS GLB'S AND ALL CANTILEVER GLB'S ARE TO BE 24F-V8 GRADE OR BETTER (Fv=240psi, Fb=2400psi, AND E=1,800,000 psi).

NOTE:

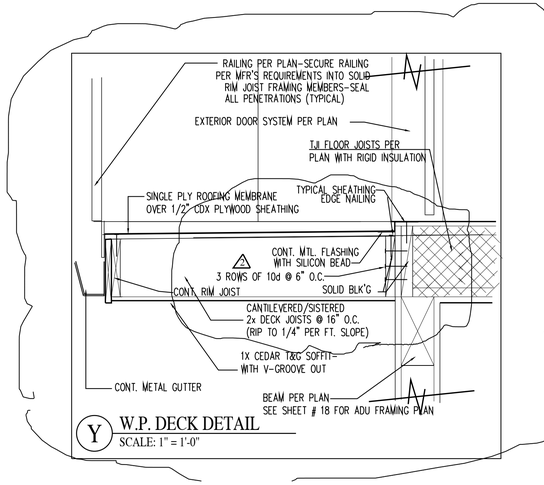
PROVIDE FIREBLOCKING FOR ALL ELECTRICAL, PLUMBING AND MECHANICAL PENETRATIONS. PROVIDE FIREBLOCKING AT 10'-0" INTERVALS, BOTH VERTICALLY AND HORIZONTALLY IN WALLS AND CHASES WITH MINIMUM SOLID 2X FRAMING/BLOCKING OR 5/8" TYPE 'X' GYPSUM WALL BOARD (G.W.B.) - TYPICAL.

NOTE:

SEE SHEET # 14 FOR ALLOWABLE LOCATIONS OF ROUND, SQUARE AND RECTANGULAR HOLES THROUGH THE WEBS OF TJI ENGINEERED WOOD I-JOISTS. FOLLOW ALL THE MANUFACTURER'S RECOMMENDATIONS REGARDING SIZES, SPACINGS AND QUANTITY OF HOLES AND PENETRATIONS FOR TJI I-JOISTS/FRAMING MEMBERS.

MINIMUM HANGER POST/CAP REQUIRED (U.N.O.)

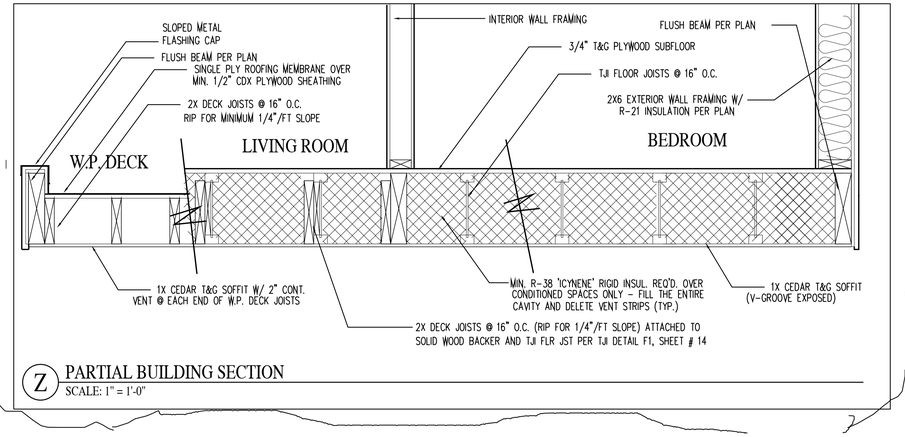
2x6	CJ	U26
2x8	CJ	U26
2x10	CJ	LU28
2x12	CJ	LU210
2x8	FJ	U26
2x10	FJ	LU28
2x12	FJ	LU210
2-2x8	FJ	U26-2
2-2x10	FJ	U210-2
2-2x12	FJ	U210-2
3-2x8	FJ	U26-3
3-2x10	FJ	U210-3
3-2x12	FJ	U210-3
4x6	Beam/Hdr	U46
4x8	Beam/Hdr	U46
4x10	Beam/Hdr	U410
4x12	Beam/Hdr	U410
6x8	Beam/Hdr	U66
6x10	Beam/Hdr	U610
1-3/4"x9-1/2" LSL/LVL		HU9 min.
1-3/4"x11-7/8" LSL/LVL		HU11 min.
3-1/2"x9-1/2" PSL/LSL		HU410 max.
3-1/2"x11-7/8" PSL/LSL		HU412 max.
5-1/4"x9-1/2" PSL		HHUS5.50/10
5-1/4"x11-7/8" PSL		HHUS5.50/10
4x4	Post Cap	AC4 max.
6x6	Post Cap	AC6 max.
GLB	Beam/Post	PC/CC col. Cap
PSL	Beam/Post	PC/CC col. Cap



Y W.P. DECK DETAIL
SCALE: 1" = 1'-0"

Upper Floor Framing Plan

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



Z PARTIAL BUILDING SECTION
SCALE: 1" = 1'-0"

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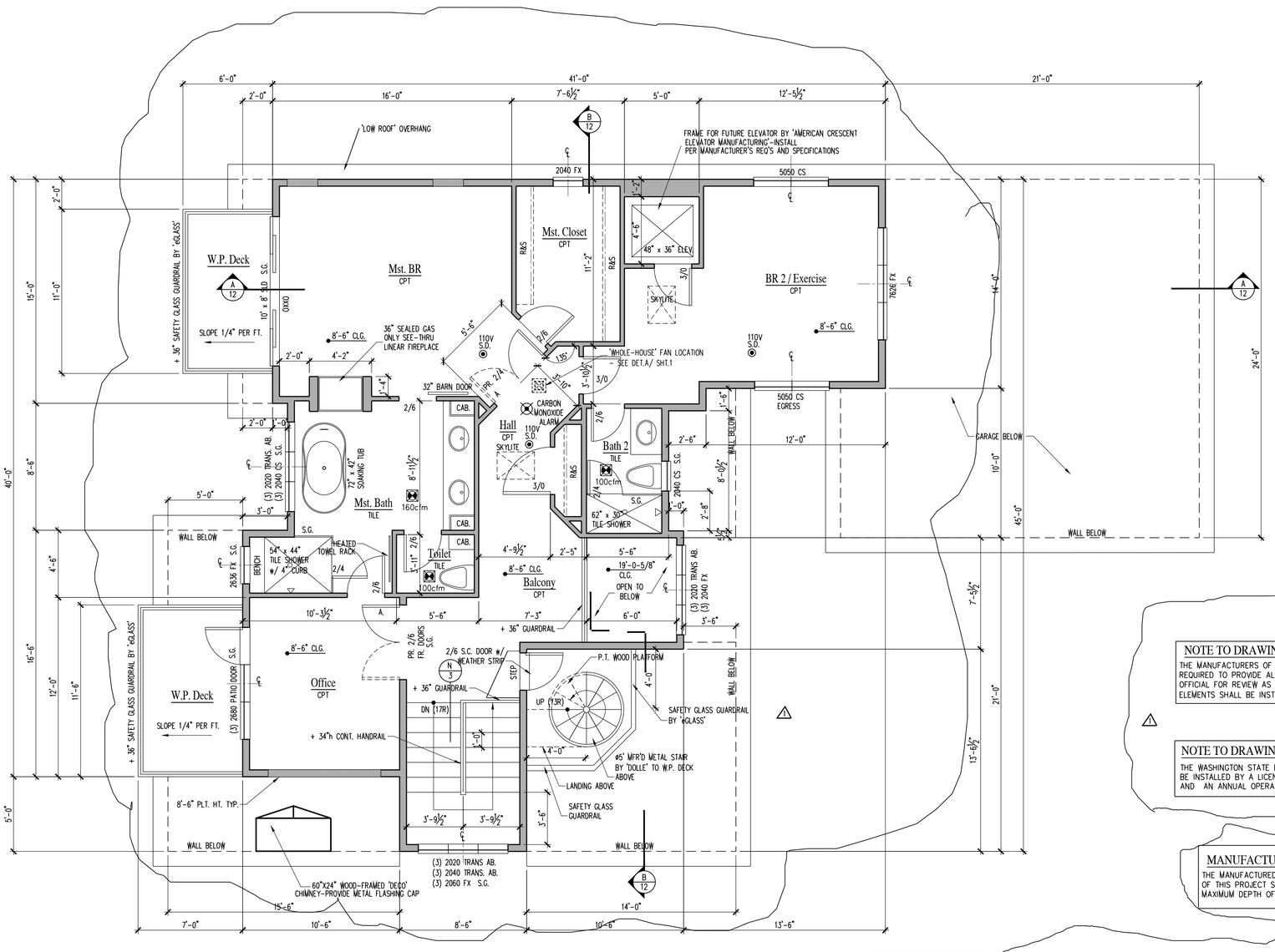


Upper Floor Plan

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

UPPER FLOOR AREA = 1204 S.F.

UPPER FLOOR PLAN NOTES

1. TYPICAL PLATE HEIGHT TO BE 8'-6" (U.N.O.). NON-STANDARD PLATE LOCATIONS ARE NOTED ON THE MAIN FLOOR PLAN, THE UPPER FLOOR PLAN, THE UPPER FLOOR FRAMING PLAN, THE UPPER FLOOR CEILING FRAMING PLAN AND THE ROOF FRAMING PLAN.
2. VENT EXHAUST FANS, COOKTOPS/ HOODS AND DRYER TO THE EXTERIOR. EXHAUST FAN CAPACITIES NOTED ON PLANS ARE MINIMUM REQUIREMENTS.
3. WINDOWS TO BE BY: 'WEATHERSHIELD' - ALUMINUM CLAD

   SEE WINDOW DESIGNATIONS ON SHEETS #4, #6 & #8 FOR WINDOW MANUFACTURER ROUGH OPENINGS & SIZES. VERIFY ALL ROUGH OPENINGS WITH MANUFACTURER PRIOR TO FRAMING.
4. DOORS TO BE 8'-0" HIGH SOLID CORE PANELED (U.N.O.)
5. ALL GLAZING SUBJECT TO HUMAN IMPACT SHALL BE SAFETY GLAZING. ALL GLAZING IN FIXED OR OPERABLE PANELS ADJACENT TO A DOOR WHERE THE NEAREST EXPOSED EDGE OF THE GLAZING IS WITHIN A 24" ARC AND WHERE THE BOTTOM EDGE OF THE GLAZING IS LESS THAN 60" ABOVE THE WALKING SURFACE SHALL BE SAFETY GLAZING.
6. SEE 'GENERAL NOTES', DIVISION #6, FOR LUMBER GRADING, SPECIES AND ALLOWABLE DESIGN VALUES.
7. FIRE BLOCK ALL PLUMBING PENETRATIONS. FIRE BLOCK AT 10'-0" INTERVALS (VERTICAL AND HORIZONTAL) IN WALLS.
8. TYPICAL WALL STUDS TO BE 2x6 @ 16" O.C. AT EXTERIOR INSULATED WALLS (U.N.O.). INTERIOR WALLS ARE TYPICALLY 2x4 STUDS @ 16" O.C. (U.N.O.). SEE SHEETS #4 AND #6 FOR NON-STANDARD STUD LOCATIONS.
9. CONTRACTOR TO INSTALL IN ACCORDANCE WITH U.L. APPROVED MANUFACTURER'S SPECIFICATIONS, ALL PREFABRICATED FIREPLACES, STOVES AND RELATED ASSEMBLIES.
10. ALL SKYLIGHTS ARE TO HAVE LAMINATED SAFETY GLASS, AND THE CONTRACTOR IS TO INSTALL ALL SKYLIGHTS PER IRC R308.6, AND IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

NOTE TO WINDOWS:

ALL WINDOW SIZES ARE NOMINAL.
CONTRACTOR TO VERIFY ALL SIZES AND ROUGH OPENINGS WITH WINDOW MANUFACTURER PRIOR TO FRAMING.

NOTE TO DRAWING:

PROVIDE 1/4" OR 1/2" WONDERBOARD ON TOP OF 3/4" PLYWOOD SUBFLOOR AT ALL AREAS TO RECEIVE TILE OR STONE
SEE PLANS FOR FINISH FLOOR LOCATIONS.

NOTE TO DRAWING:

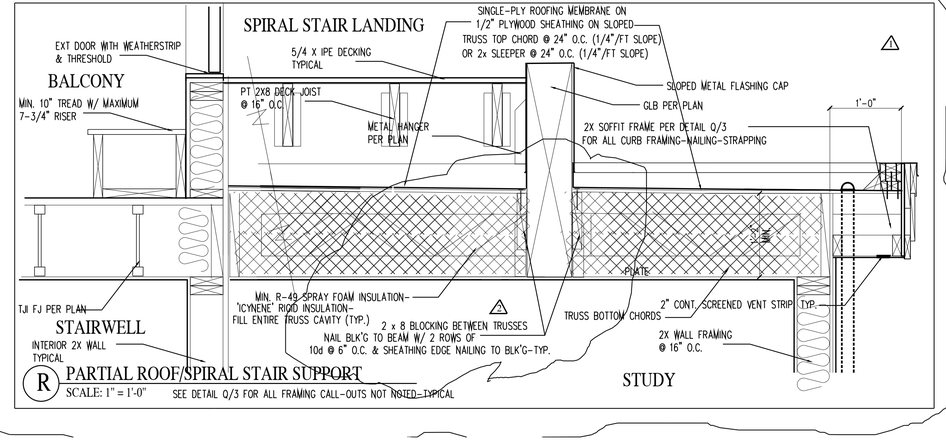
THE MANUFACTURERS OF ALL SAFETY GLASS GUARDRAILS AND GUARDRAIL COMPONENTS ARE REQUIRED TO PROVIDE ALL NECESSARY DESIGN DOCUMENTS AND SPECIFICATIONS TO THE BUILDING OFFICIAL FOR REVIEW AS A DEFERRED SUBMITTAL PER I.B.C. SECTION 106. ALL THE GUARDRAIL ELEMENTS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

NOTE TO DRAWING:

THE WASHINGTON STATE DEPARTMENT OF LABOR AND INDUSTRIES REQUIRES THAT THE ELEVATOR BE INSTALLED BY A LICENSED ELEVATOR CONTRACTOR; YEARLY SAFETY INSPECTIONS ARE REQUIRED, AND AN ANNUAL OPERATING PERMIT FOR THE ELEVATOR SHALL BE ISSUED BY L & I.

MANUFACTURED TRUSS NOTES TO DRAWING:

THE MANUFACTURED ROOF TRUSSES FOR THE MAIN BUILDING OF THIS PROJECT SHALL HAVE A MINIMUM DEPTH OF 1'-2" & A MAXIMUM DEPTH OF 1'-6". SEE TRUSS DESIGN LOADS ON SHT # 1



R PARTIAL ROOF/SPIRAL STAIR SUPPORT

SCALE: 1" = 1'-0" SEE DETAIL Q/3 FOR ALL FRAMING CALL-OUTS NOT NOTED-TYPICAL

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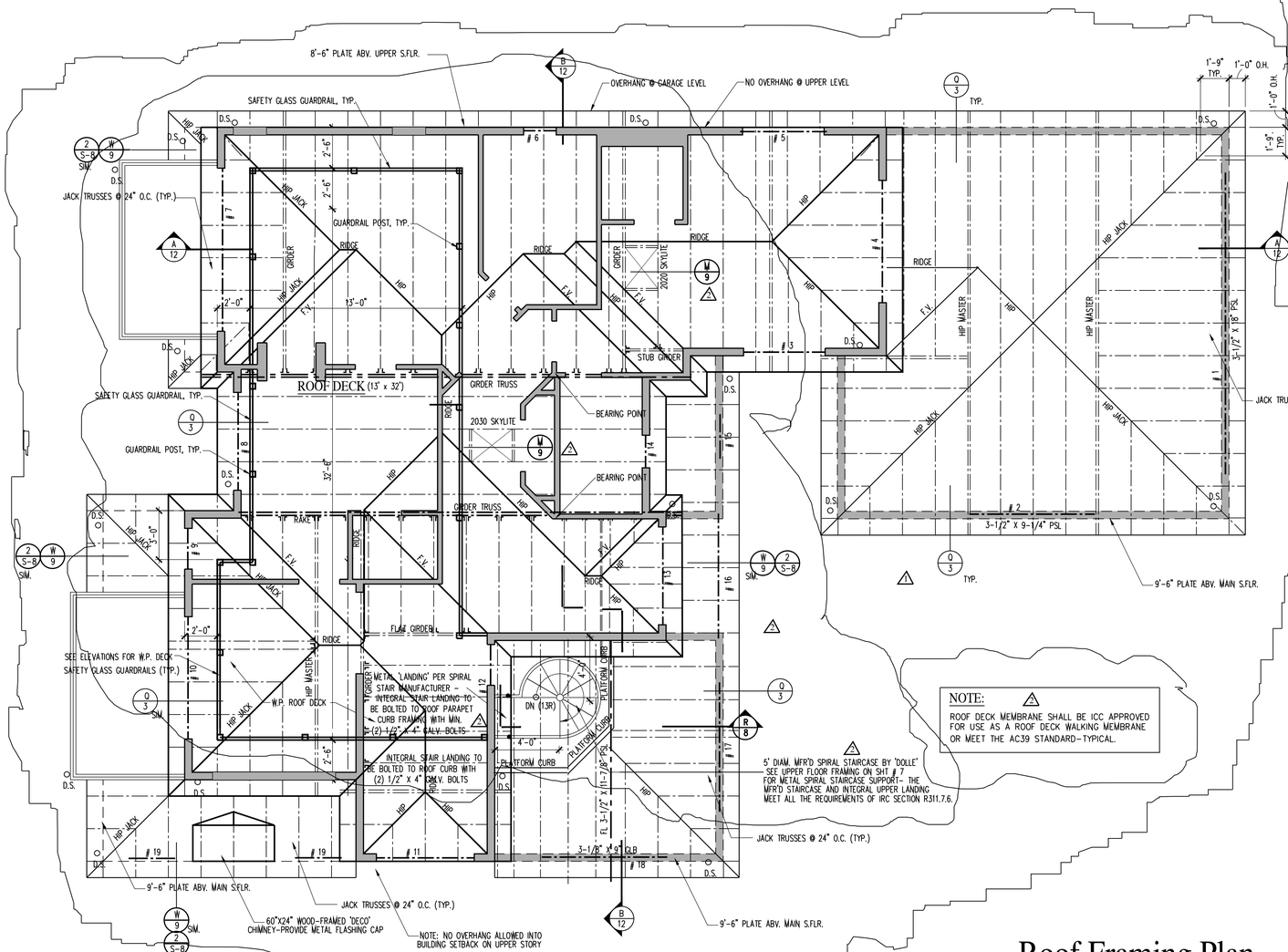


Roof Framing Plan

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

ROOF FRAMING PLAN

1. ALL BEAMS AND HEADERS TO BE 4X10 (UNO).
2. SEE GENERAL NOTES, DIVISON 6 FOR LUMBER GRADING, SPECIES AND ALLOWABLE DESIGN VALUES.
3. SOLID BLOCK OVER ALL SUPPORTS.
4. ALL RAFTERS TO BE 2X8 @ 24"OC (STICKS NOT SHOWN ON PLAN) ALL NON-STANDARD RAFTERS ARE SHOWN AND NOTED ON PLAN.
5. ROOF PITCH TO BE .25 : 12 @ SINGLE-PLY ROOFING AREAS.
6. DARKENED EXTERIOR WALLS ARE LOAD BEARING.
7. TYPICAL ROOF OVERHANGS TO BE 12" @ EAVES & 6" @ GABLES (UNO)
8. SHADED AREAS INDICATE CALIFORNIA OVER FRAMING.
9. PROVIDE SCUPPER (D.S.) WITH MIN. 2" INTEGRAL OVERFLOW .
10.
11. PROVIDE 4 SQ FT OF ATTIC VENTILATION FOR ROOF ABOVE UNCONDITIONED SPACES; 50% AT EAVES AND 50% WITH ROOF JACKS.
12. ROOF SHEATHING TO BE 1/2" CDX PLYWOOD.
13. ⚠1 ROOFING TO BE SINGLE-PLY ROOFING MEMBRANE ON .25"/FT SLOPE. SEE PLANS FOR LOCATIONS AND SEE DETAILS Q/3 & P/3.
14. PROVIDE H-1 HURRICANE ANCHOR AT EACH RAFTER OR TRUSS (TYP @ 24"OC).
15. EXTERIOR SOFFIT MATERIAL TO BE 1X CEDAR T&G (V-GROOVE OUT)-FRONT PORCH AND WATERPROOF DECKS. (SEE PLANS FOR LOC'S.) ALL OTHER EXTERIOR SOFFIT MATERIAL TO BE 'VENTED SMOOTH' HARDIE-SOFFIT PANELS.

MANUFACTURED ROOF TRUSSES

ALL TRUSSES TO BE DESIGNED BY A PROFESSIONAL ENGINEER AND FABRICATED, INSTALLED AND BRACED AS SPECIFIED.

ALL ROOF TRUSSES SHALL CARRY MFR's STAMP.

ROOF TRUSSES SHALL NOT BE FIELD ALTERED WITHOUT PRIOR BUILDING DEPT. APPROVAL OF ENGINEERING CALC.'s. AS SPECIFIED.
PROVIDE TRUSS DESIGN DETAILS AND DRAWINGS ON SITE FOR FRAMING INSPECTION.

ALL ROOF TRUSSES TO HAVE 2x6 TOP CHORDS, UNLESS NOTED OTHERWISE.

TRUSS MFR. TO VERIFY ALL NOTED SETBACKS & DIMENSIONS.

TRUSS MFR. TO SUPPLY ALL METAL HANGERS FOR ALL TRUSS CONNECTIONS.

ALTERATIONS OF TRUSS LAYOUT WILL REQUIRE SUPPORTING STRUCTURAL & FOUNDATION CHANGES BY ARCHITECT.

TRUSSES TO BE DESIGNED FOR 50#/ S.F. TOTAL LOAD. (20#/ S.F. DEAD LOAD & 30#/ S.F. LIVE LOAD.) ⚠2 ⚠1

TRUSSES @ W.P.DECK TO BE DESIGNED FOR 80#/ S.F. TOTAL LOAD (20#/ S.F. DEAD LOAD & 60#/ S.F. LIVE LOAD.)

NOTE: ⚠2
ROOF DECK MEMBRANE SHALL BE ICC APPROVED FOR USE AS A ROOF DECK WALKING MEMBRANE OR MEET THE AC39 STANDARD-TYPICAL.

BEAM SIZE	MIN. END POST
4X10 DF#2/4x12 DF#2	4x4 DF#2/OR (2) 2x4 STUDS STITCHED @ 12"OC W/ (2) 8d NAILS
6x10 DF#1 6x12 DF#1	4x6/6x6 DF#1
3 1/8" GLB/3 1/2"x PSL/LSL	4x4 DF#1
5 1/8" GLB/5 1/4"x PSL/LSL	4x6/6x6 DF#1
6 3/4" GLB/7"x PSL	4x8/8x8 DF#1

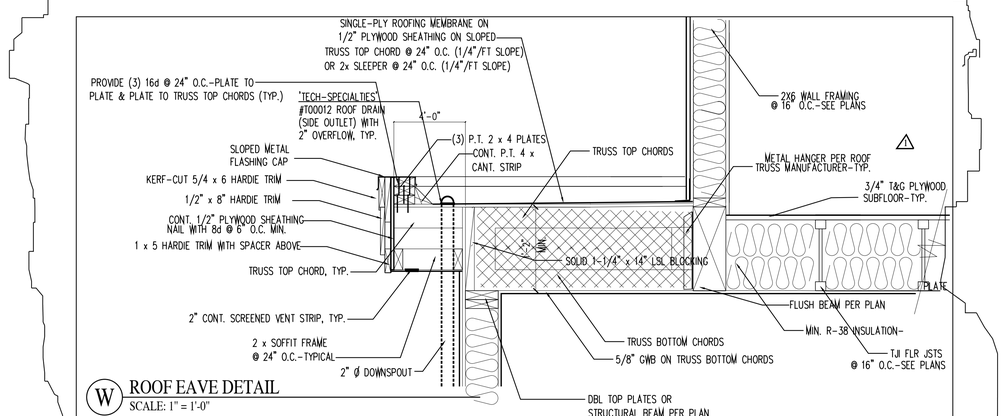
NOTE:
ALL SIMPLE SPAN GLU-LAMINATED BEAMS (GLB) ARE TO BE 24F-V4 GRADE OR BETTER (Fv=240psi, Fb=2400psi, AND E=1,800,000 psi). ALL CONTINUOUS GLB'S AND ALL CANTILEVER GLB'S ARE TO BE 24F-V8 GRADE OR BETTER (Fv=240psi, Fb=2400psi, AND E=1,800,000 psi).

NOTE:
SEE SHEETS S-1 THRU S-8 FOR SPECIAL FRAMING NOTES, CONSTRUCTION NOTES, CONSTRUCTION DETAILS, AND SHEAR WALL REQUIREMENTS NOT NOTED ON THIS SHEET.

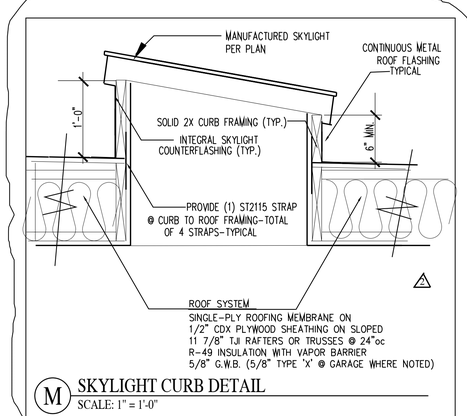
NOTE:
THE MANUFACTURERS OF ALL ROOF TRUSS COMPONENTS ARE REQUIRED TO PROVIDE ALL NECESSARY DESIGN DOCUMENTS AND SPECIFICATIONS TO THE BUILDING OFFICIAL FOR REVIEW AS A DEFERRED SUBMITTAL PER I.B.C. SECTION 106.

NOTE:
PROVIDE TEMPORARY POSTING OF ALL ENGINEERED WOOD BEAMS, INCLUDING EXPOSED BEAMS AND FLUSH BEAMS, AS REQUIRED TO PREVENT DEFLECTION OF THESE MEMBERS UNTIL THE DESIRED MOISTURE CONTENT OF THE MEMBERS IS ACHIEVED. ⚠1

NOTE TO DRAWING:
THE MANUFACTURERS OF ALL SAFETY GLASS GUARDRAILS AND GUARDRAIL COMPONENTS ARE REQUIRED TO PROVIDE ALL NECESSARY DESIGN DOCUMENTS AND SPECIFICATIONS TO THE BUILDING OFFICIAL FOR REVIEW AS A DEFERRED SUBMITTAL PER I.B.C. SECTION 106. ALL THE GUARDRAIL ELEMENTS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.



W ROOF EAVE DETAIL
SCALE: 1" = 1'-0"



M SKYLIGHT CURB DETAIL
SCALE: 1" = 1'-0"

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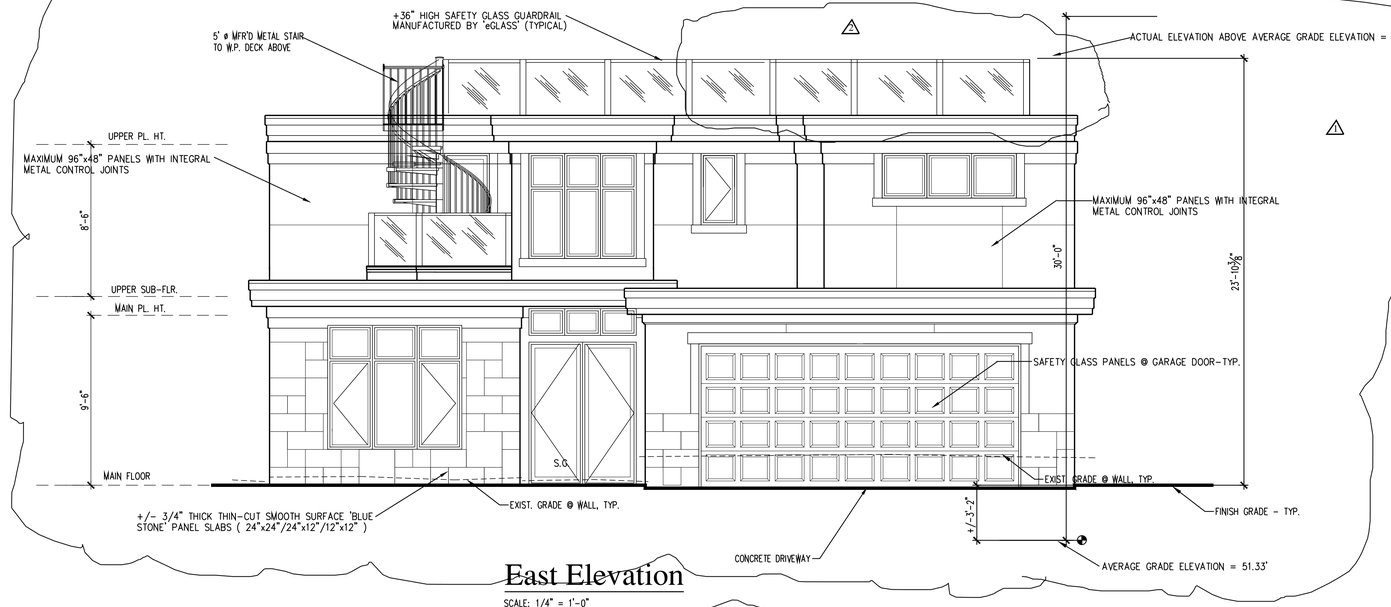
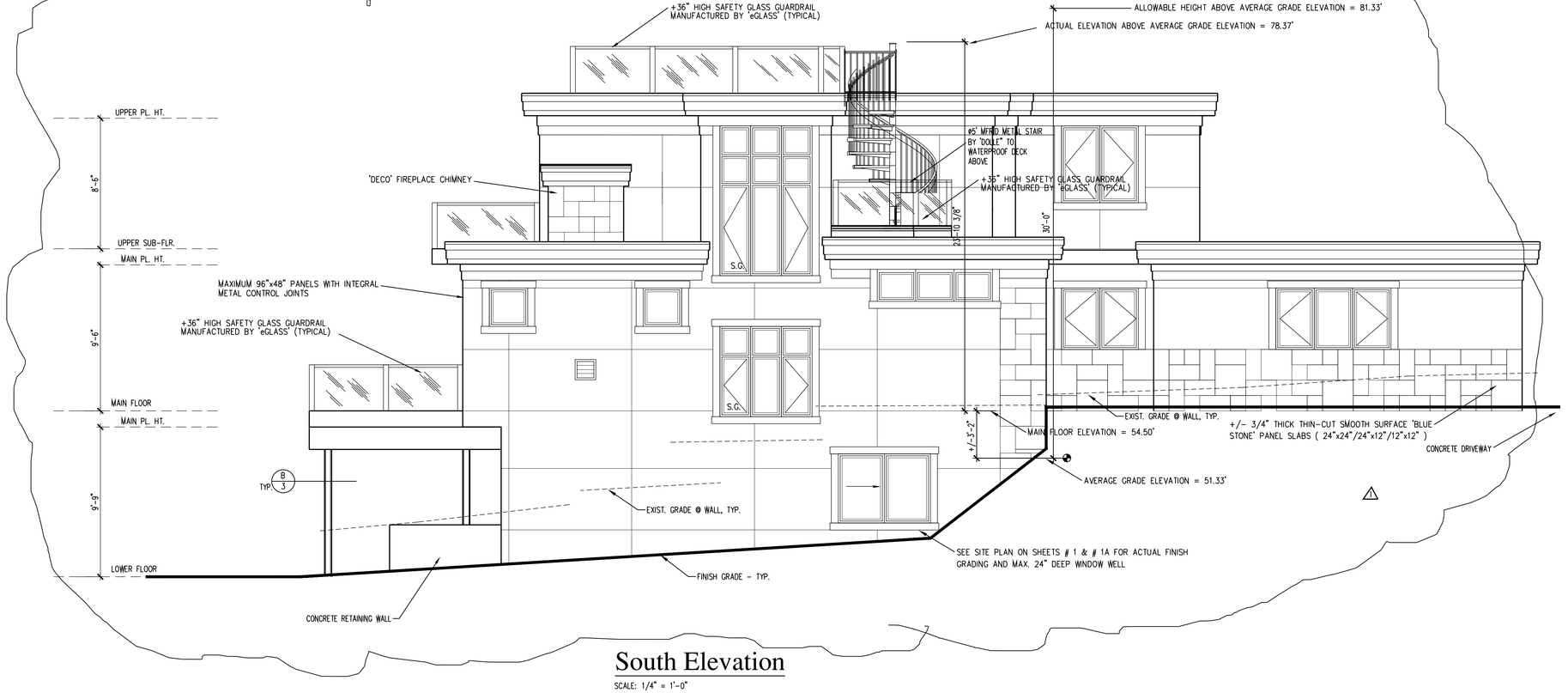


East Elevation

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



South Elevation

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

NOTES TO ELEVATIONS

SIDING TO BE:

3/4" THICK EXTERIOR CEMENT STUCCO WITH WIRE LATH AND 'STO' TRADITIONAL FINE SMOOTH TEXTURE OR 'STOLIT MILANO ULTRA-SMOOTH FINISH - PROVIDE MAXIMUM PANEL SIZE OF 96"x48" WITH INTEGRAL METAL CONTROL JOINTS (SEE ELEVATIONS FOR ALL METAL CONTROL JOINT LOCATIONS) OR +/- 3/4" THICK THIN-CUT SMOOTH SURFACE 'BLUE STONE' PANEL SLABS (24"x24"/24"x12"/12"x12") (SEE ELEVATIONS FOR LOCATIONS).

ROOFING TO BE:

SINGLE-PLY ROOFING MEMBRANE WITH 'TECH-SPECIALTIES' #T00012 ROOF DRAIN (SIDE OUTLET) W/ 2" OVERFLOW

PORCH SOFFITS TO BE 1X6 CLEAR CEDAR T&G WITH V-GROOVE OUT (TYPICAL).

SEE ELEVATIONS & DETAIL 0/3 FOR FASCIA TRIM CALL-OUTS

WINDOWS AND DOORS:

WINDOWS AND DOORS TO BE 'WEATHERSHIELD' ALUMINUM CLAD CASEMENT, FIXED & SLIDING UNITS. SEE ELEVATIONS & PLANS FOR UNIT CALL-OUTS AND OPERATIONS.

SEE ELEVATIONS FOR ALL WINDOW & DOOR TRIMS, AND ALL VERTICAL & HORIZONTAL RUNNING TRIMS.

PROVIDE FLASHING AT ALL OPENINGS EXPOSED TO WEATHER, HORIZONTAL TRIMS AND ROOF TO WALL INTERSECTIONS. (TYP.)

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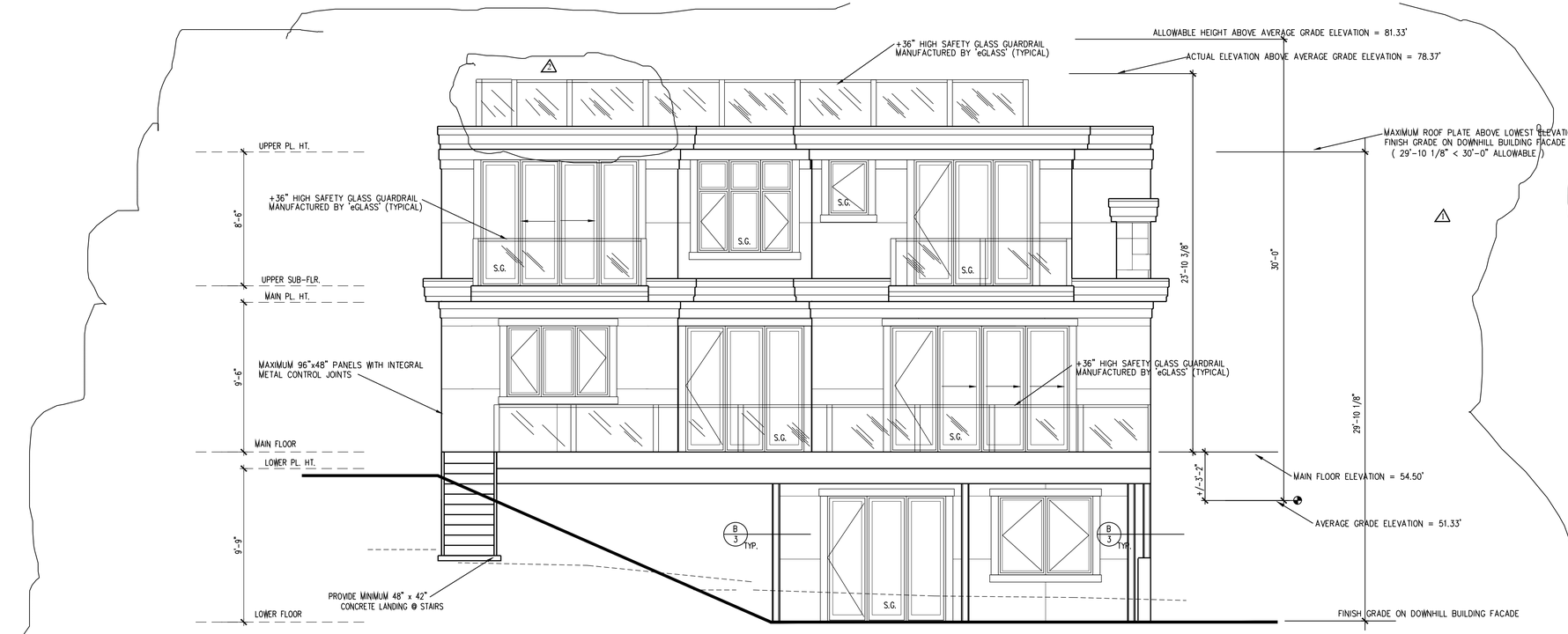

West Elevation

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

NOTE TO DRAWING:

THE MANUFACTURERS OF ALL SAFETY GLASS GUARDRAILS AND GUARDRAIL COMPONENTS ARE REQUIRED TO PROVIDE ALL NECESSARY DESIGN DOCUMENTS AND SPECIFICATIONS TO THE BUILDING OFFICIAL FOR REVIEW AS A DEFERRED SUBMITTAL PER I.B.C. SECTION 106. ALL THE GUARDRAIL ELEMENTS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

North Elevation

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

NOTES TO ELEVATIONS

SIDING TO BE:

3/4" THICK EXTERIOR CEMENT STUCCO WITH WIRE LATH AND 'STO' TRADITIONAL FINE SMOOTH TEXTURE OR 'STOLIT' MILANO ULTRA-SMOOTH FINISH - PROVIDE MAXIMUM PANEL SIZE OF 96"x48" WITH INTEGRAL METAL CONTROL JOINTS (SEE ELEVATIONS FOR ALL METAL CONTROL JOINT LOCATIONS) OR +/- 3/4" THICK THIN-CUT SMOOTH SURFACE 'BLUE STONE' PANEL SLABS (24"x24"/24"x12"/12"x12") (SEE ELEVATIONS FOR LOCATIONS).

ROOFING TO BE:

SINGLE-PLY ROOFING MEMBRANE WITH 'TECH-SPECIALTIES' #T00012 ROOF DRAIN (SIDE OUTLET) W/ 2" OVERFLOW

PORCH SOFFITS TO BE 1X6 CLEAR CEDAR T&G WITH V-GROOVE OUT (TYPICAL)

SEE ELEVATIONS & DETAIL Q/3 FOR FASCIA TRIM CALL-OUTS

WINDOWS AND DOORS:

WINDOWS AND DOORS TO BE 'WEATHERSHIELD' ALUMINUM CLAD CASEMENT, FIXED & SLIDING UNITS. SEE ELEVATIONS & PLANS FOR UNIT CALL-OUTS AND OPERATIONS.

SEE ELEVATIONS FOR ALL WINDOW & DOOR TRIMS, AND ALL VERTICAL & HORIZONTAL RUNNING TRIMS.

PROVIDE FLASHING AT ALL OPENINGS EXPOSED TO WEATHER, HORIZONTAL TRIMS AND ROOF TO WALL INTERSECTIONS. (TYP.)

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NOTES TO DRAWINGS

1. PROVIDE SAFETY GLAZING IN AREAS SUBJECT TO HUMAN IMPACT.
2. ALL GLAZING SUBJECT TO HUMAN IMPACT SHALL BE SAFETY GLAZING. ALL GLAZING IN FIXED OR OPERABLE PANELS ADJACENT TO A DOOR WHERE THE NEAREST EXPOSED EDGE OF THE GLAZING IS WITHIN A 24" ARC OF EITHER VERTICAL EDGE OF THE DOOR IN A CLOSED POSITION AND WHERE THE BOTTOM EDGE OF THE GLAZING IS LESS THAN 60" ABOVE THE WALKING SURFACE SHALL BE SAFETY GLASS.
3. PROVIDE SAFETY GLAZING FOR PANELS WITHIN 24" RADIUS OF DOOR EDGE THAT ARE WITHIN 60" OF WALKING SURFACE.
4. PROVIDE SAFETY GLAZING FOR PANELS OVER 9 SQ FT. AND WITHIN 18" VERTICAL AND 36" HORIZONTAL OF WALKING SURFACE.
5. ALL GLAZING OF SHOWER DOORS, SHOWER ENCLOSURES, BATHTUB ENCLOSURES OR BATHTUB DOORS SHALL BE SAFETY GLAZING. GLASS ENCLOSURE DOORS AND PANELS MUST BE LABELED CATEGORY II , AND DOORS MUST SWING OUTWARD.
6. PROVIDE SAFETY GLAZING FOR TUB ENCLOSURE DOORS AND ADJACENT WALL OPENINGS.
7. ALL GLAZING IN DOORS AND ENCLOSURES FOR HOT TUBS, WHIRLPOOLS, SAUNAS, STEAM ROOMS, BATHTUBS AND SHOWERS SHALL BE SAFETY GLASS. GLAZING IN ANY PORTION OF A BUILDING WALL ENCLOSING THESE COMPARTMENTS WHERE THE BOTTOM EDGE OF THE GLAZING IS LESS THAN 60" ABOVE A STANDING SURFACE AND DRAIN INLET, SHALL ALSO BE SAFETY GLAZING.
8. THE STAIR RISE SHALL BE 7 3/4" MAXIMUM AND 4" MINIMUM, AND THE STAIR RUN OR TREAD SHALL BE 10" MINIMUM. SEE DETAIL N , SHEET # 3.
9. PROVIDE A MINIMUM OF 6'-8" HEAD CLEARANCE @ STAIRS, WITH TYPICAL MINIMUM CLEARANCE BEING MEASURED VERTICALLY FROM THE NOSE OF EACH STAIR TREAD. SEE DETAIL N , SHEET # 3.
10. THE TOP OF ALL STAIR HANDRAILS SHALL BE PLACED NOT LESS THAN 34" OR MORE THAN 38" ABOVE THE NOSING OF TREADS AND LANDINGS. STAIR HANDRAILS SHALL BE CONTINUOUS FOR THE FULL LENGTH OF THE STAIRS, AND THE ENDS OF THE HANDRAIL SHALL BE RETURNED TO THE WALL.
11. THE HANDGRIP PORTION OF STAIR HANDRAILS SHALL NOT BE LESS THAN 1 1/4" OR MORE THAN 2" IN CROSS-SECTIONAL DIMENSION OR THE SHAPE SHALL PROVIDE AN EQUIVALENT GRIPPING SURFACE. THE HANDGRIP PORTION OF HANDRAILS SHALL HAVE A SMOOTH SURFACE WITH NO SHARP CORNERS.
12. ALL GUARDRAILS SHALL HAVE A MINIMUM HEIGHT OF 36" ABOVE THE FINISH FLOOR AND THE SPACING OF ALL INTERMEDIATE RAILS OF OPEN GUARDRAILS SHALL PROVIDE OPENINGS LESS THAN 4" CLEAR. THE SPACING OF ALL INTERMEDIATE RAILS OF OPEN HANDRAILS SHALL ALSO HAVE OPENINGS LESS THAN 4" CLEAR.
13. SUBFLOORS ARE TO BE 3/4" THICK CDX T&G PLYWOOD, AND SHALL BE NAILED WITH 10d @ 6" O.C. AT ALL PANEL EDGES, AND AT 12" O.C. IN THE FIELD.
14. PLYWOOD ROOF SHEATHING IS TO BE 1/2" THICK CDX PLYWOOD AND SHALL BE NAILED WITH 10d @ 6" O.C. AT ALL PANEL EDGES, AND AT 12" O.C. IN THE FIELD.
15. PROVIDE DOUBLE JOISTS (MINIMUM) UNDER ALL PARALLEL BEARING PARTITIONS.
16. ALL POSTS WITHIN THE GARAGE ARE TO BE WRAPPED WITH 5/8" TYPE 'X' G.W.B. AND SHALL HAVE 2"x 2"x 1/8" STEEL ANGLES ATTACHED TO ALL CORNERS FOR A HEIGHT OF 48" ABOVE THE CONCRETE SLAB.
17. FIRE STOPS SHALL BE PROVIDED TO CUT OFF ALL CONCEALED DRAFT OPENINGS, FROM VERTICAL TO HORIZONTAL SPACES, INCLUDING THE STAIRS, TUBS, SHOWERS & FIREPLACES. FIREBLOCK AT 10'-0" INTERVALS (VERT. AND HORIZ.) IN WALLS. PROVIDE FIREBLOCKING AT ALL PLUMBING PENETRATIONS AND ALSO WITHIN THE 1" AIRSPACE BETWEEN THE BRICK VENEER AND THE WALL FRAMING.
18. CRAWLSPACE VENTS @ THE FOUNDATION ARE TO BE 14" x 8" WITH A ¼" CORROSION RESISTANT METAL MESH COVERING, AND SHALL HAVE A NET FREE AREA OF .56 S.F. EACH.
19. ALL EXTERIOR CONCRETE SLABS ON GRADE ARE TO BE A MINIMUM OF 3 ½" THICK.
20. ALL EXTERIOR FOOTINGS ARE TO BE INTRENCHED A MINIMUM OF 18" BELOW FINISHED GRADE AND ARE TO BEAR ON UNDISTURBED SOIL. STEP FOOTINGS AS SITE CONDITIONS REQUIRE.
21. UNENGINEERED CONCRETE FOUNDATION WALLS ARE TO BE A MAXIMUM OF 4'-0" IN HEIGHT, AND SHALL HAVE A MAXIMUM 3'-6" OF UNBALANCED BACKFILL (TYPICAL) .
22. IN ALL CRAWLSPACES, PROVIDE A MINIMUM CLEARANCE OF 12" UNDER ALL BEAMS AND 18" UNDER ALL FLOOR JOISTS.
23. UNDERFLOOR AREAS SHALL BE PROVIDED WITH A MINIMUM 18" X 24" ACCESS OPENING. PIPES, DUCTS, FRAMING, ETC. SHOULD NOT INERFERE WITH ACCESSIBILITY TO THE CRAWLSPACE. ALL CRAWLSPACE ACCESS DOORS OR PANELS BETWEEN CONDITIONED AND UNCONDITIONED SPACES SHALL BE INSULATED AND WEATHERSTRIPPED. CRAWLSPACE ACCESS DOORS AND PANELS THAT PENETRATE ANY WALL OR FLOOR REQUIRED TO BE OF 1 HOUR CONSTRUCTION SHALL ALSO MEET THE REQUIREMENTS OF 1 HOUR CONSTRUCTION.
24. A 22" X 30" ATTIC ACCESS OPENING SHOULD BE PROVIDED FOR EACH SEPARATE ATTIC AREA (INCLUDING OVER GARAGE AREAS). ALL ATTIC ACCESS OPENINGS SHALL HAVE A MINIMUM HEADROOM CLEARANCE OF 30" AND SHOULD BE IN A READILY ACCESSIBLE LOCATION. ALL ATTIC ACCESS DOORS BETWEEN CONDITIONED AND UNCONDITIONED SPACES SHALL BE INSULATED AND WEATHERSTRIPPED. ATTIC ACCESS DOORS THAT PENETRATE ANY WALL OR CEILING REQUIRED TO BE OF 1 HOUR CONSTRUCTION SHALL ALSO MEET THE REQUIRMENTS OF 1 HOUR CONSTRUCTION.
25. ALL WALLS BETWEEN THE GARAGE AND THE RESIDENCE SHALL BE FRAMED AND INSULATED AS EXTERIOR WALLS.
26. INSULATION SHALL BE PROVIDED WITH CLEARANCES FOR VENTING, CHIMNEYS, LIGHTS, ETC. IN ACCORDANCE WITH THE MANUFACTURES SPECIFICATIONS.
27. BLOWN OR POURED INSULATION IN THE ATTIC MAY BE USED WHERE THE SLOPE OF THE CEILING IS NOT MORE 3:12 AND WHERE THERE IS AT LEAST 30" OF CLEAR SPACE. WHERE EAVE VENTS OCCUR, BAFFLING OF THE VENT OPENINGS SHALL BE PROVIDED SO AS TO DEFLECT THE INCOMING AIR ABOVE THE SURFACE OF THE INSULATION. PROPER PROTECTION SHALL BE PROVIDED AROUND ALL RECESSED LIGHT FIXURES SO THAT THE FIXTURES WILL NOT BECOME OVERHEATED.
28. HOT AND COLD WATER HEATER PIPES IN THE GARAGE SHALL BE PROTECTED WITH R-3 INSULATION THAT HAS A FLAME SPREAD OF 25 OR LESS.
29. ALL INSULATION MATERIALS INCLUDING THE FACING SHALL HAVE A FLAME-SPREAD RATING NOT TO EXCEED 25 AND A SMOKE DENSITY RATING NOT TO EXCEED 450.
30. ALL BATT INSULATION WITH AN INTEGRAL VAPOR BARRIER SHALL BE FACE STAPLED PER SECTION 502.1.6.6 OF THE 2015 WASHINGTON STATE ENERGY CODE.
31. PROVIDE POSITIVE ANCHORING OF ALL MECHANICAL APPLIANCES PER IMC SECTION M1307.2. ANCHOR ALL WATER HEATERS WITH NON-RIGID CONNECTIONS TO THE WALL FRAMING WITH A MINIMUM OF (2) 22 GUAGE X 3/4" WIDE METAL STRAPS AT THE UPPER 1/3 AND LOWER 1/3 OF THE TANK.
32. WHEN MORE THAN ONE SMOKE DETECTOR IS REQUIRED TO BE INSTALLED WITHIN AN INDIVIDUAL DWELLING UNIT, THE ALARM DEVICES SHALL BE INTERCONNECTED IN SUCH A MANNER THAT THE ACTIVATION OF ONE ALARM WILL ACTIVATE ALL OF THE ALARMS IN THE INDIVIDUAL UNIT. THE ALARM SHALL BE CLEARLY AUDIBLE IN ALL BEDROOMS OVER BACKGROUND NOISE LEVELS WITH ALL INTERVENING DOORS CLOSED.
33. ALL HEATING DUCTS IN UNCONDITIONED SPACE ARE TO BE INSULATED TO A MINIMUM OF R-8. ALL DUCTWORK SEAM JOINTS ARE TO BE TAPED, SEALED, AND FASTENED WITH THE MINIMUM OF FASTENERS REQUIRED BY THE MECHANICAL CODE.
34. WATER HEATERS WITH NONRIGID WATER CONNECTIONS AND OVER 4'-0" IN HEIGHT SHALL BE ANCHORED OR STRAPPED TO RESIST EARTHQUAKE MOTIONS.
35. WATER HEATERS SHALL ALSO BE EQUIPPED WITH A THERMAL EXPANSION TANK PER U.P.C. 1007
36. APPLIANCES INSTALLED IN GARAGES SHALL BE PROTECTED FROM MECHANICAL DAMAGE BY LOCATING THE EQUIPMENT OUT OF THE NORMAL PATH OF VEHICLES OR BY A PROTECTIVE BARRIER WHICH CONSISTS OF A 3" ROUND PIPE BOLLARD FILLED WITH CONCRETE AND EMBEDDED 18" INTO A CONCRETE FOOTING.
37. ELEMENTS OF APPLIANCES INSTALLED IN GARAGES WHICH CREATE A GLOW, SPARK OR FLAME SHALL BE LOCATED A MINIMUM OF 18" ABOVE THE GARAGE FLOOR.
38. HEATING APPLIANCES SHALL BE EQUIPPED WITH A LISTED SHUT-OFF DEVICE.
39. FUEL BURNING, ELECTRIC HEATING, AND HEAT PUMP APPLIANCES SHALL BE LISTED AND LABELED.

NOTES TO CONSTRUCTION

ROOF CONSTRUCTION:

SINGLE-PLY ROOFING MEMBRANE ON 1/2" CDX PLYWOOD SHEATHING (PROVIDE RIPPED 2x SLEEPERS @ 24" O.C. AS REQ'D. WITH 1/4"/FT SLOPE FOR SINGLE-PLY ROOFING MEMBRANE) ON 2x RAFTERS OR TRUSS TOP CHORDS @ 24" O.C. WITH INTEGRAL 1/4" PER FOOT SLOPE-TYPICAL R-49 INSULATION WITH VAPOR BARRIER (R-38 @ VAULTS) 2x CLG JSTS OR TRUSS BOTTOM CHORDS @ 24" O.C. (U.N.O.) 5/8" G.W.B. (5/8" TYPE 'X' @ GARAGE WHERE NOTED)

WALL CONSTRUCTION:

3/4" THICK EXTERIOR CEMENT STUCCO WITH SELF-FURRING WIRE LATH & 'STO' TRADITIONAL FINE SMOOTH TEXTURE ON MINIMUM 2 LAYERS OF GRADE 'D' BUILDING PAPER OR 3/4" THICK THIN-CUT STONE VENEER ON 'BROWNCOAT' LAYER OF EXTERIOR CEMENT STUCCO WITH SELF-FURRING WIRE LATH ON MINIMUM 2 LAYERS OF GRADE 'D' BUILDING PAPER ON 1/2" CDX PLYWOOD SHEATHING ON 2x6 STUDS @ 16" O.C. AT EXTERIOR WALLS (2x4 STUDS AT 16" O.C. @ INTERIOR WALLS U.N.O.) R-21 INSULATION WITH VAPOR BARRIER 1/2" G.W.B.

FLOOR CONSTRUCTION:

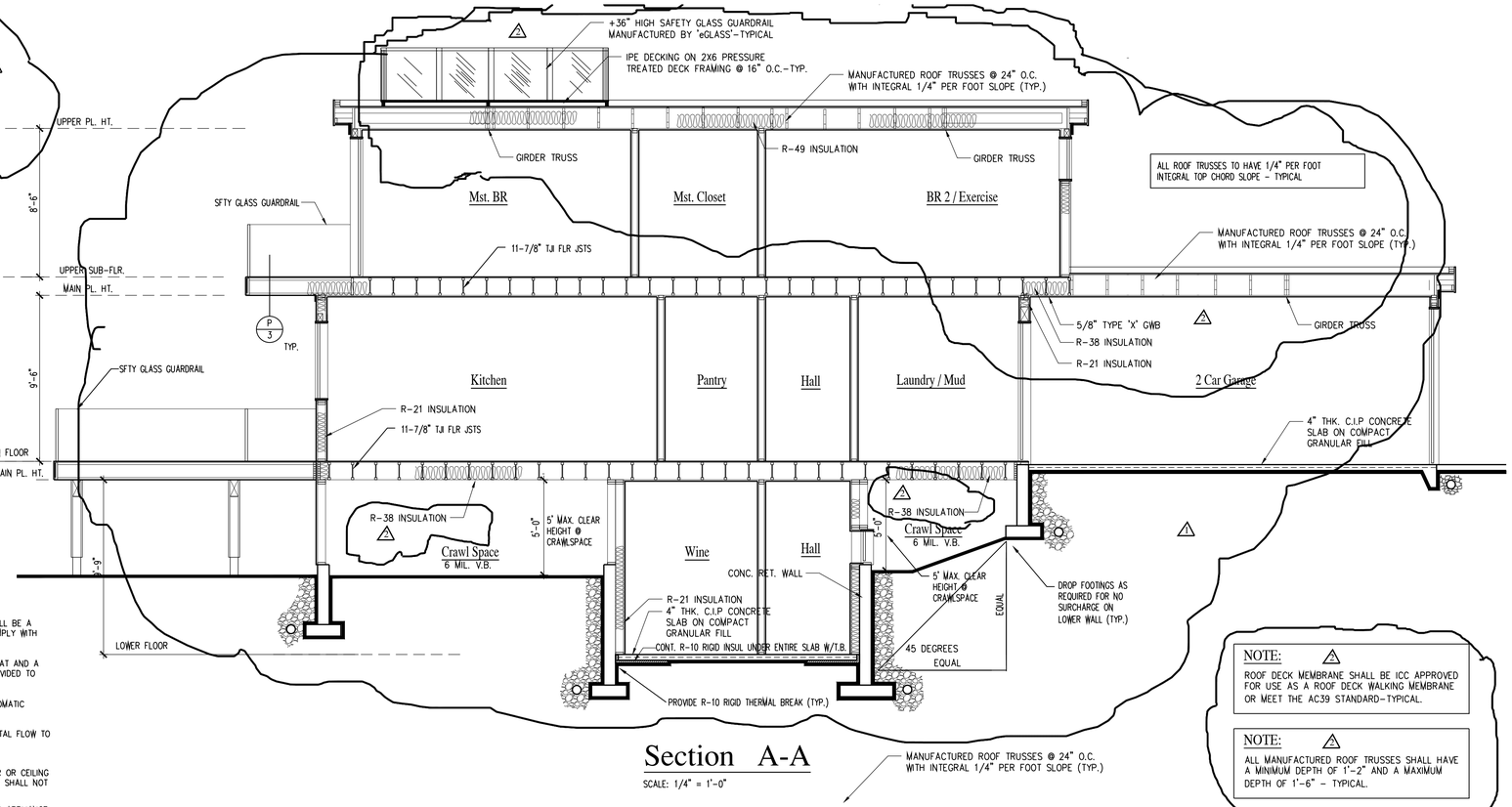
CARPET, STONE, HARDWOOD OR TILE FINISH FLOOR ON 3/4" CDX T&G PLYWOOD SUBFLOOR (SEAL ALL SEAMS) ON 11 7/8" TJI FLOOR JOISTS @ 16" O.C. (U.N.O.) - SEE FRAMING PLANS R-38 INSULATION WITH VAPOR BARRIER

SLAB ON GRADE CONSTRUCTION:

4" THICK CONCRETE SLAB WITH INTERGRAL RADIANT HEAT & 6x6 W2.9 x W2.9 W.W.F. ON R-10 RIGID INSULATION ON 6 MIL. VAPOR BARRIER ON MINIMUM 6" GRANULAR FILL.

GARAGE SLAB: 4" THICK CONCRETE SLAB WITH 6x6 W2.9 x W2.9 W.W.F. ON 4 MIL. VAPOR BARRIER ON MINIMUM 6" GRANULAR FILL-SLOPE SLAB 4" TO O.H. DOORS @ GARAGE

40. WATER HEATERS SHALL BE LABELED AS COMPLYING WITH NAECA.
41. CLEARANCES OF LISTED APPLIANCES FROM COMBUSTABLE MATERIALS SHALL BE A SPECIFIED IN THE LISTING. UNLISTED APPLIANCES CLEARANCES SHALL COMPLY WITH THE I.M.C.
42. THE HEATING SYSTEM SHALL BE PROVIDED WITH A DAY-NIGHT THERMOSTAT AND A SHUT-OFF. ALSO, A READILY ACCESSIBLE MANUAL MEANS SHALL BE PROVIDED TO RESTRICT OR SHUT OFF UNUSED ROOMS OR PORTIONS OF THE BULDING.
43. SERVICE WATER HEATING SHALL BE EQUIPPED WITH AN ADJUSTABLE AUTOMATIC TEMPERATURE CONTROL.
44. SHOWERS SHALL BE EQUIPPED WITH FLOW CONTROL DEVICES TO LIMIT TOTAL FLOW TO A MAX. OF 2.5 GPM PER SHOWER HEAD.
45. AIR DUCTS AND PLENUMS PASSING THROUGH THE GARAGE WALLS, FLOOR OR CEILING TO THE DWELLING SHALL BE OF 26 GA. GALV. SHEET METAL. THE DUCTS SHALL NOT HAVE ANY OPENINGS TO THE GARAGE.
46. OUTDOOR AIR INLETS SHALL NOT BE PLACED CLOSER THAN 10' FROM AN APPLIANCE VENT OUTLET, UNLESS SUCH VENT OUTLET IS 3' ABOVE THE OUTDOOR AIR INLET, NOR LOCATED IN A PLACE WHERE IT WILL PICK UP OBJECTIONABLE ODORS, FUMES OR FLAMMABLE VAPORS, NOR IN A HAZARDOUS OR UNSANITARY LOCATION, NOR IN A ROOM OR SPACE HAVING ANY FUEL-BURNING APPLIANCES.
47. EXHAUST DUCTS SHALL TERMINATE OUTSIDE THE BUILDING AND SHALL BE EQUIPPED WITH BACK-DRAFT DAMPERS.
48. EXHAUST FANS, COOKTOPS AND CLOTHES DRYERS SHALL BE EXHAUSTED TO THE EXTERIOR.
49. EXHAUST DUCTS ARE TO BE CONSTRUCTED OF SMOOTH-BORE, NON-COMBUSTIBLE MATERIALS. APPROVED FLEX CONNECTORS NOT EXCEEDING 6 FT. IN LENGTH MAY BE USED IN CONNECTION WITH DOMESTIC DRYER EXHAUST.
50. ALL SOLID FUEL BURNING APPLIANCES SHALL BE PROVIDED WITH TIGHT FITTING GLASS OR METAL DOORS, AND SHALL HAVE AN OUTSIDE SOURCE OF COMBUSTION AIR DIRECTLY CONNECTED TO THE FIREBOX, OR TESTED AND LISTED PER H.U.D. CARBON-MONOXIDE PERFORMANCE REQUIREMENTS.
51. FIREPLACES SHALL BE PROVIDED WITH TIGHT FITTING FLUE DAMPERS, OPERATED BY A READILY ACCESSIBLE MANUAL OR APPROVED AUTOMATIC CONTROL, AND SHALL HAVE AN OUTSIDE SOURCE FOR COMBUSTION AIR-DUCTED INTO THE FIREBOX (MIN. OF 6 SQ. IN. WITH AN OPERABLE OUTSIDE AIR DUCT DAMPER).
52. ALL FIREPLACES PROVIDED WITH GAS LOG LIGHTERS SHALL HAVE THE DAMPERS WIRED OPEN.
53. ALL EXTERIOR BATH AND/OR SHOWER WALLS RECEIVING GYPSUM 'WONDERBOARD' OR GYPSUM 'HARDI' BACKERBOARD FOR CERAMIC TILE, STONE TILE, OR STONE SLAB SHALL NOT BE INSTALLED OVER A VAPOR BARRIER.
54. WATERPROOF BACKING IS REQUIRED IN ALL SHOWERS AREAS TO A MINIMUM OF 72" ABOVE THE DRAIN.
55. ALL EXTERIOR JOINTS SHALL BE SEALED, CAULKED, GASKETED, OR WEATHER-STRIPPED TO LIMIT AIR LEAKAGE AT THE WINDOW AND DOOR FRAMES, THE OPENINGS BETWEEN WALLS AND FOUNDATION, BETWEEN THE WALLS AND ROOF, OPENINGS AT THE PENETRATION OF UTILITY SERVICES, AND AT ALL OTHER OPENINGS IN THE BUILDING ENVELOPE.
56. THE CEILING AND WALLS OF ANY CLOSET/STORAGE SPACE UNDER STAIRS SHALL BE COVERED WITH 5/8" TYPE 'X' G.W.B.
57. ALL SMOKE DETECTORS SHALL BE HARD-WIRED TO A 110 VOLT SYSTEM, AND EACH SMOKE DETECTOR SHALL BE EQUIPPED WITH A BATTERY BACKUP.
58. ALL WINDOWS AND DOORS SHALL COMPLY WITH THE INTERNATIONAL BUILDING SECURITY CODE.
59. EXIT DOORS SHALL BE OPENABLE FROM THE INSIDE, BUT A NIGHT LATCH, DEAD BOLT OR SECURITY CHAIN MOUNTED AT A HEIGHT OF 48" OR LESS ABOVE THE FINISH FLOOR MAY BE PROVIDED.
60. ALL RECESSED LIGHTING FIXTURES WHICH ARE INSTALLED IN THE BUILDING ENVELOPE SHALL COMPLY WITH THE PROVISIONS OF THE W.S.E.C.
61. RECESSED LIGHTING FIXTURES SHALL BE U.L. LABELED AND I.C. RATED.
62. THE MANUFACTURER'S OF ALL WOOD, METAL & GLASS GUARDRAIL COMPONENTS ARE REQUIRED TO PROVIDE ALL NECESSARY DESIGN DOCUMENTS AND SPECIFICATIONS TO THE BUILDING OFFICIAL FOR REVIEW AS A DEFERRED SUBMITTAL PER IBC SECTION 106.
63. ALL ROOF VENT OPENINGS, INCLUDING EAVE VENT BLOCKS, SHALL BE SCREENED WITH CORROSION-RESISTANT WIRE MESH THAT HAS 1/8" MIN. TO 1/4" MAX. OPENINGS PER IRC SECTION 806.1
64. FOR NEW CONSTRUCTION, AN APPROVED CARBON MONOXIDE ALARM SHALL BE INSTALLED OUTSIDE OF EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS IN DWELLING UNITS WITHIN WHICH FUEL-FIRED APPLIANCES ARE INSTALLED, AND IN DWELLING UNITS THAT HAVE ATTACHED GARAGES.
65. SINGLE STATION CARBON MONOXIDE ALARMS SHALL BE LISTED AS COMPLYING WITH UL 2034 AND SHALL BE INSTALLED IN ACCORDANCE WITH THE IBC, IRC AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
66. THE CONTRACTOR SHALL VERIFY TO THE INSPECTOR THAT ALL GUARDS & RAILINGS SHALL BE CAPABLE OF RESISTING A 200 LB. LOAD ON THE TOP OF THE RAIL ACTING IN ANY DIRECTION PER IRC TABLE R301.5. THE MANUFACTURERS OF ALL GUARDRAIL COMPONENTS ARE REQUIRED TO PROVIDE ALL NECESSARY DESIGN DOCUMENTS AND SPECIFICATIONS TO THE BUILDING OFFICIAL FOR REVIEW AS A DEFERRED SUBMITTAL PER IBC SECTION 106.

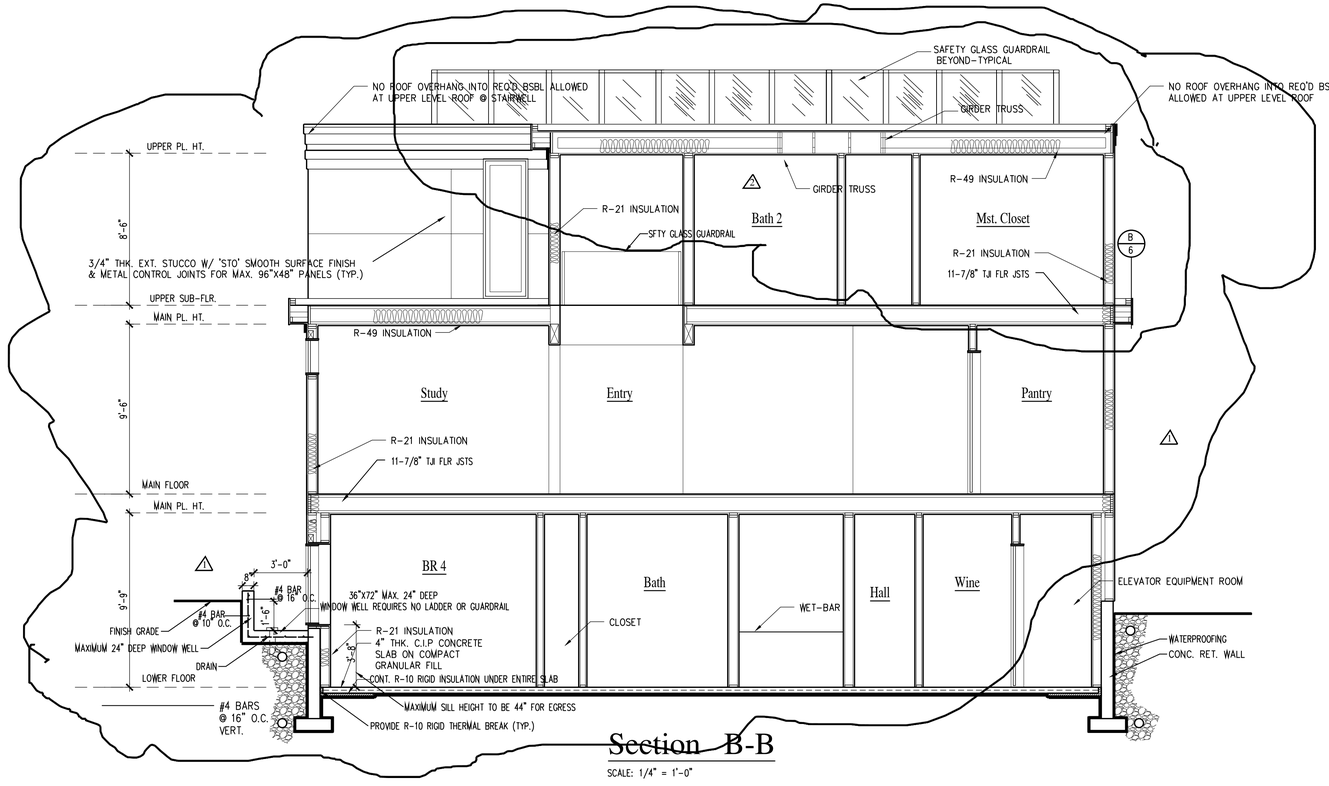


Section A-A

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

NOTE:
ROOF DECK MEMBRANE SHALL BE ICC APPROVED FOR USE AS A ROOF DECK WALKING MEMBRANE OR MEET THE AC39 STANDARD-TYPICAL.

NOTE:
ALL MANUFACTURED ROOF TRUSSES SHALL HAVE A MINIMUM DEPTH OF 1'-2" AND A MAXIMUM DEPTH OF 1'-6" - TYPICAL.



Section B-B

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

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2019 REGISTERED ARCHITECT
LEIF E. ANDERSON
STATE OF WASHINGTON

A Custom Residence for
Gregg Petrie
2431 60th Avenue SE, Mercer Island WA

DATE:
05-14-2020
03-30-2021 (2)
06-07-2021 (3)

JOB. NO.
19-10.103

SHEET NO.
12
OF 28

GENERAL NOTES

Division 1. General Requirements

All work shall comply with the most recently adopted edition of International Building Code, International Residential Code, International Mechanical Code, Uniform Plumbing Code, National Electrical Code, Washington State Energy Code, and all applicable land use codes.

Contractor shall verify all existing site conditions, site development dimensions, and building dimensions prior to proceeding with the work. Building perimeter and floor elevations shall be established and building setback and height restriction compliance shall be verified by licensed surveyor prior to excavation. Any discrepancy in the construction documents shall be immediately brought to the Architect's attention for resolution.

Written dimensions shall have precedence over scaled dimensions.

Division 2. Site Work

Clearing and grading shall conform to all applicable regulations, and shall be conducted such that erosion of soils is minimized.

All footings shall bear on firm undisturbed soil. Foundation design is based upon an assumed average soil bearing value of 1,500 lbs./sq. ft. unless stated otherwise. Provide concrete fill under all over–excavated footings, coarse granular fill under all over–excavated slabs.

Back fill foundation drain at perimeter of building with coarse granular fill (1 1/2"–3/8" clean washed rock) with minimum of 12" wide blanket extending to 6" below finished grade. Protect drain tile and waterproofing.

Compact areas within buildings which are to be covered by concrete slab to 95% of maximum dry density. Compact areas to be covered by paving (walkways, driveways, patios,) to 90% of maximum dry density.

Rough grading shall provide positive drainage away from building. Trench to elevations below frost line for storm drains, water lines, sanitary sewer (or specific system) and irrigation sleeves.

Provide perforated plastic pipe foundation drain where shown on drawings, and connect directly to the storm water system. In addition to the perforated foundation drains, provide separate tight line for roof drains, and connect directly to the storm water system.

Rockeries and retaining walls shall be designed and installed per all applicable codes.

Division 3. Concrete Work

All reinforcing steel shall be grade 40, deformed bars. All tie wire shall be 16 gauge double annealed wire. All anchor bolts, nuts and washers shall be ASTM A–307. Lap all reinforcing bar splices a minimum of 30 bar diameters (U.N.O.).

Minimum concrete compressive strength shall be 2500 P.S.I. at 28 days unless noted otherwise. Footings and foundation walls shall contain a minimum of 5 sacks Portland cement per cubic yard, slabs shall contain a minimum of 4 1/2 sacks per cubic yard. Exposed aggregate slabs shall contain a minimum of 5 1/2 sacks per cubic yard.

Provide broom finish or exposed aggregate finish for all exterior concrete walls, patios, stairs, porches, and driveways. Provide fine float finish for surfaces to be covered be resilient flooring, tile, or carpet. Provide steel trowel finish for interior walking surfaces which will not be covered by flooring.

Slope exterior concrete slabs and garage slabs to drain. Provide wood, plastic, or fiber expansion joints at 20' O.C. max.

Protect all concrete work during curing to minimize evaporation.

Division 4. Masonry

A. Brick Veneer Masonry

Utilize standard size new brick units, ASTM C 216 in running bond unless shown otherwise on drawings. Anchor to wood framing with corrosion–resistant anchor ties, minimum No. 22 gauge x 7/8". Space anchor ties such that ties are attached at each stud, 24" O.C. maximum horizontally, and 12" O.C. maximum vertically. Provide No. 9 wire continous horizontal ties at 12" O.C. maximum, corresponding to anchor tie placement. All veneer masonry shall be fully bedded in type "S" mortar, and provided with weep holes. All exterior joints shall be either rodded or flush.

B. Stone Veneer Masonry

Anchor stone veneer units, 5" maximum thickness, to wood studs or masonry backing with No.22 gauge x 7/8" corrosion resistant sheet metal ties per IRC Sections R703.7.4 and R703.7.4.1.

All stone veneer masonry shall be fully bedded in type "S" mortar, and provided with weep holes.

C. Glass Masonry

Glass masonry units shall be minimum of 3" in thickness and installed with type "S" mortar per section R 610.8 I.R.C.

D. Steel Lintels

Provide steel angle lintels, Fy= 36,000 P.S.I. above all non–arched openings in brick or stone veneer masonry. The following lintel sizes are intended for support of 4" maximum veneer thickness, with no superimposed loads.

Clear Span (Max)	Steel Angle Size
4' –0	L 3 1/2" x 3 1/2" x 5/16"
6' –0	L 4" x 3 1/2" x 5/16"
8' –0	L 5" x 3 1/2" x 5/16"

Provide 6" bearing at each end.

E. Masonry Fireplaces

Construct masonry fireplaces of new standard size clay brick, ASTM C 216 or a combination of brick and concrete masonry units. Fireplace wall thickness shall be minimum of 8", including firebrick lining, ASTM C 27. Chimney wall thickness shall be minimum of 4" and lined with fireclay flue tile, ASTM C 315. Masonry above fireplace opening shall be supported by steel angles or by flue damper assembly designed to support such loads. Provide 6 sq. in. minimum outside combustion air opening, complete with damper. No combustible materials shall be placed within 2" of smoke chambers or interior chimneys, nor within 1" of exterior chimneys. Flues shall be sized in accordance with IRC Section R1001.12 . Chimneys shall be provided reinforcement and seismic anchorages per IRC Section R1001.1 .

No combustible materials shall be placed within 6" of the fireplace opening. Combustible materials within 12" inches of the fireplace opening shall not project more than 1/8" for each 1" clearance from such opening.

Division 5. Metals

Structural Steel:
Conform to ASTM A 36 unless noted otherwise.

Structural bolts, nuts, and washers:
Conform to ASTM A 307 unless noted otherwise.

All work to conform with American Institute of Steel Construction standards.

Division 6. Wood and Plastic

Rough Carpentry

All rough framing members shall be framed, anchored, tied and braced so as to develop the strength and rigidity necessary for the purpose for which they are used.

Nailed connections shall be in accordance with IRC Tables R602.3(1), and R602.3(2) .

All plywood shall be installed per American Plywood Association standards.

All pre–manufactured wood trusses shall be designed by a licensed engineer. Fabrication, handling, storage, installation and bracing shall be per engineer's specifications.

All foundation plates or sills, and all sleepers on concrete or masonry in direct contact with earth shall be pressure treated.

Deck framing shall be pressure treated. Decking and rails shall be pressure treated or cedar.

All joists, rafters, studs, blocking and bracing shall be HEM–FIR #2 or better, see tables on this sheet for design values.

All sawn beams, headers, posts, lintels, and girders, 4" nominal, shall be Douglas Fir– Larch #2 or better, see tables on this sheet for design values. 6" nominal shall be Douglas Fir– Larch #1 or better; Fv= 170 P.S.I., Fb= 1350 P.S.I., E= 1,600,000 P.S.I.

All glued–laminated timber shall be kiln dried Douglas Fir, 24 F–V4 or better; Fv= 240 P.S.I., Fb= 2400 P.S.I., E= 1,800,000 P.S.I.

All plywood shall be C–D grade, exterior glue.

All spaced roof sheathing shall be HEM–Fir #4 common grade or better. Provide 1 x 6 spaced roof sheathing for shake roofs, 1 x 4 for shingle roofs.

All framing lumber shall be kiln dried or air dried to 19% maximum moisture content prior to installation.

Division 7. Thermal and moisture protection

A. Bituminous Damproofing

Apply heavy bodied asphalt bituminous damproofing to exterior of foundation walls, extending up to finish grade, per manufacturer's instructions.

B. Water Repellents

Apply appropriate water repellent to any masonry, cement plaster or stucco per manufacturer's instructions.

C. Insulation

Install building insulation in the following minimum values:

Attic	R–49
Rafter cavity in vaulted ceiling	R–38
Walls	R–21
Framed floors over unheated space	R–30
Slab on grade at perimeter	R–10

D. Vapor Barriers

Provide integral foil or kraft vapor barrier with wall insulation. Provide 6 mil. polyethelene vapor barrier in crawl space.

E. Roofing

1. Red cedar handsplit shakes:

Apply shakes with 30 lb. roofing felt interlay. Shakes shall be laid with weather exposure of 7 1/2" for 18" resawn shakes, 10" for 24" resawn shakes , at roof slopes of 3 in 12 or greater. Provide nailing, flashing, and installation in accordance with Red Cedar Shingle and Handsplit Shake Bureau recommendations.

2. Red Cedar Shingles

Apply No.1 shingles directly over roof sheathing. Shingles shall be laid with weather exposure of 5" for No. 1, 16" shingles, 5 1/2" for No.1, 18" shingles, and 7 1/2" for No.1, 24" shingles, at roof slopes of 3 in 12 or greater. Provide nailing, flashing, and installation in accordance with the Red Cedar Shingle and Handsplit Shakes Bureau recommendations.

3. Asphalt shingles

Apply shingles over solid sheathing with minimum 15 lb. building felt underlay. Install per manufacturer's instructions & IRC Sec. R905.2.

4. Tile roofing

Apply glazed clay or glazed concrete tile in accordance with manufacturer's instructions and IRC Section R905.3 .

5. Built–up roofing

Apply 3–ply built–up roofing in accordance with manufacturer's instructions and IRC Section R905.9 .

6. Single ply roofing

Single ply roofing membranes shall be applied in accordance with the manufacturer's instructions and IRC Sections R905.12 and R905.13.

F. Wood Siding

Install wood siding of the type and orientation shown on the drawings, over minimum 15 lb. building felt or approved water vapor permeable, air infiltration retardant house wrap. See IRC Sec. R703.3.

G. Roof Accessories

Provide prefabricated roof ventilation jacks of galvanized steel or anodized aluminum.

H. Gutters and downspouts

Provide continuously formed aluminum gutters. Provide 2" x 4" rectangular downspouts. Seal all gutter connections and all gutter corner connections with butyl compound. Connect downspouts to drain lines with appropriate transition fittings.

I. Skylights

Provide double paned skylight units of the size and type shown on drawings. Install per manufacturer's instructions, including flashing, and counterflashing.

J. Sealants

Utilize resilient, non–hardening caulking designed for the intended application where it is otherwise impractical to obtain a water–tight or air–tight fitting joint between materials. Provide polyurethane foam backing rod compatible with caulking where joint size dictates.

K. Flashing and Sheet Metal

Provide 20 gauge galvanized steel flashing at roof/chimney, roof/skylight, roof/wall intersections, and wall/deck intersections, where siding is interrupted by major horizontal trim, and at heads of doors and windows exposed to weather. Provide butyl boots at all roof plumbing penetrations.

Division 8. Doors and Windows

A. Doors

Provide doors of the type and size shown on drawings. Hinged exterior doors shall be weatherstripped. Install doors per manufacturer's instructions including flashing, nailing, clearances, and finishing. Provide self closing hardware on doors, which separate residential space from garage space.

B. Windows

Provide window units of the type, size, class, and manufacturer shown on drawings. Install plumb, level, and square and per manufacturer's instructions including flashing, nailing, clearance, and finishing. Provide required documentation of window energy class rating to Bld'g. Official.

C. Glazing

All external glazing shall be double paned, excluding ornamental glazing. All glazing subject to human impact shall be safety glazing. In general, this includes but is not limited to glazing in doors, within 12" of doors, and within 18" of floors.

Glazing in skylights shall be wired glass, laminated glass with an approved interlayer having a minimum thickness of 0.030" or tempered glass, minimum thickness of 7/32".

D. Egress

Sleeping rooms shall be provided with egress windows or doors with a minimum net clear opening of 5.7 sq. ft., with minimum net clear height of 24" and net clear width of 20". Sill height shall not exceed a maximum of 44" above the floor.

E. Light and Ventilation

Window area in habitable rooms shall be not less than 1/12.5 of floor area of such rooms. Operable window (or door) area shall be not less than 1/25 of the floor area of such rooms.

Division 9. Finishes

A. Gypsum Wall Board

Walls, ceilings, and structure separating residential and garage spaces shall be covered with 5/8" type "x" gypsum wall board on garage side, and shall have all joints fire–taped and nails set and compounded.

All other walls and ceilings shall receive 1/2" gypsum wallboard. For ceiling supported by 24" o.c. framing members, verify suitability of 1/2" wallboard with manufacturer.

Walls surrounding tubs or showers shall be covered with water–resistant gypsum wall board, waterproof–surface to a height of 72" above adjacent floor.

B. Cement Plaster or stucco

Apply cement plaster or stucco at areas shown on drawings in accordance with Northwest Wall and Ceiling Bureau recommendations for materials, backing, lath, application techniques, and finish.

Division 15. Mechanical

Plumbing

Plumbing system shall be designed be a competent, experienced mechanical engineer or designer, in accordance with the Uniform plumbing Code and all applicable local codes. Water heater insulation shall conform to ASHRAE Standard 90–A–80. Hot water pipe insulation shall conform to table 5–12 of the Washington State Energy Code.

Heating, Ventilation, and Air Conditioning (HVAC)

HVAC system shall be designed be a competent, experienced mechanical engineer or designer, in accordance with the Uniform Mechanical Code and all applicable local codes. Provide documentation of furnace A.F.U.E. Ductwork insulation shall conform to table 5–11 of Washington State Energy Code. When installed in garage, heating units shall be placed such that all pilot lights, burners, heating elements or switches are located a minimum of 18" above garage floor.

Division 16. Electrical

Electrical systems shall be designed by a competent, experienced electrical engineer or designer, in accordance with the National Electrical Code and all applicable local codes. Electrical plan in architectural drawings is for schematic layout reference only.

2015 NDS DESIGN VALUES FOR BEAMS (single member use)

Species/Grade		Size	Fb	Fv	E
2x	D.F. # 2	2x6	1170	180	1.6
		2x8	1080	180	1.6
		2x10	990	180	1.6
		2x12	900	180	1.6
2x	D.F. # 1	2x6	1300	180	1.7
		2x8	1200	180	1.7
		2x10	1100	180	1.7
		2x12	1000	180	1.7
2x	H.F. # 2	2x6	1105	150	1.3
		2x8	1020	150	1.3
		2x10	935	150	1.3
		2x12	850	150	1.3
2x	H.F. # 1	2x6	1267	150	1.5
		2x8	1170	150	1.5
		2x10	1072	150	1.5
		2x12	975	150	1.5
4X	D.F. # 2	4X6	1170	180	1.6
		4X8	1170	180	1.6
		4X10	1080	180	1.6
		4X12	990	180	1.6
4X	D.F. # 1	4X6	1300	180	1.7
		4X8	1300	180	1.7
		4X10	1200	180	1.7
		4X12	1100	180	1.7
4X	H.F. # 2	4X6	1105	150	1.3
		4X8	1105	150	1.3
		4X10	1020	150	1.3
		4X12	935	150	1.3
4X	H.F. # 1	4X6	1267	150	1.5
		4X8	1267	150	1.5
		4X10	1170	150	1.5
		4X12	1072	150	1.5
6X	D.F. # 2	6X6	875	170	1.3
		6X8	875	170	1.3
		6X10	875	170	1.3
		6X12	875	170	1.3
6X	D.F. # 1	6X6	1350	170	1.6
		6X8	1350	170	1.6
		6X10	1350	170	1.6
		6X12	1350	170	1.6
6X	H.F. # 2	6X6	675	140	1.1
		6X8	675	140	1.1
		6X10	675	140	1.1
		6X12	675	140	1.1
6X	H.F. # 1	6X6	1050	140	1.3
		6X8	1050	140	1.3
		6X10	1050	140	1.3
		6X12	1050	140	1.3

Note:

1. **When sizing roof beams, Fb and Fv shall be multiplied by a snow load Duration Factor (Cd) of 1.15. See 2015 NDS Table 2.3.2 .**
2. **The design values for lumber exposed to service conditions causing the wood to possess more than 19% moisture content shall be reduced as specified by the NDS Wet Service Factor Cm.**
3. **Because governing stresses differ with each situation, the percentage of change for the actual span of a member will vary.**

2015 NDS DESIGN VALUES FOR REPETATIVE FRAMING MEMBERS

Species/Grade		Size	Fb	Fv	E
2x	D.F. # 2	2X4	1552	180	1.6
		2X6	1345	180	1.6
		2X8	1242	180	1.6
		2X10	1138	180	1.6
		2X12	1035	180	1.6
2x	D.F. # 1	2X4	1725	180	1.7
		2X6	1495	180	1.7
		2X8	1380	180	1.7
		2X10	1265	180	1.7
		2X12	1150	180	1.7
2x	H.F. # 2	2X4	1465	150	1.3
		2X6	1270	150	1.3
		2X8	1173	150	1.3
		2X10	1075	150	1.3
		2X12	978	150	1.3
2x	H.F. # 1	2X4	1682	150	1.5
		2X6	1457	150	1.5
		2X8	1345	150	1.5
		2X10	1233	150	1.5
		2X12	1121	150	1.5

Note:

1. **When sizing roof beams, Fb and Fv shall be multiplied by a snow load Duration Factor (Cd) of 1.15. See 2015 NDS Table 2.3.2 .**
2. **The design values for lumber exposed to service conditions causing the wood to possess more than 19% moisture content shall be reduced as specified by the NDS Wet Service Factor Cm.**
3. **Because governing stresses differ with each situation, the percentage of change for the actual span of a member will vary.**
4. **This Table includes repetitive member adjustment factors. Members shall be spaced not more than 24" o.c., not less than three in number, and joined by transverse load–distributing elements per 2015 NDS.**

TABLE R602.3(1)
FASTENING SCHEDULE

ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER[a, c]	SPACING AND LOCATION
	Roof		
1	Blocking between ceiling joists or rafters to top plate	4-8d box (2½" × 0.113") or 3-8d common (2½" × 0.131"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails	Toe nail
2	Ceiling joists to top plate	4-8d box (2½" × 0.113"); or 3-8d common (2½" × 0.131"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails	Per joist, toe nail
3	Ceiling joist not attached to parallel rafter, laps over partitions (see Sections R802.3.1, R802.3.2 and Table R802.5.1(9)]	4-10d box (3" × 0.128"); or 3-10d common (3" × 0.162"); or 4-3" × 0.131" nails	Face nail
4	Ceiling joist attached to parallel rather (heel joint) (see Sections R802.3.1 and R802.3.2 and Table R802.5.1(9)]	Table R802.5.1(9)	Face nail each rafter
5	Collar tie to rafter, face nail or 1½" × 20 ga. ridge strap to rafter	4-10d box (3" × 0.128"); or 3-10d common (3" × 0.148"); or 4-3" × 0.131" nails	Face nail each rafter
6	Rafter or roof truss to plate	3-16d box nails (3½" × 0.135"); or 3-10d common nails (3" × 0.148"); or 4-10d box (3" × 0.128"); or 4-3" × 0.131" nails	2 toe nails on one side and 1 toe nail on opposite side of each rafter or truss[i]
7	Roof rafters to ridge, valley or hip rafters or roof rafter to minimum 2" ridge beam	4-16d (3½" × 0.135"); or 3-10d common (3½" × 0.148"); or 4-10d box (3" × 0.128"); or 4-3" × 0.131" nails	Toe nail
		3-10d box 3½" × 0.135"); or 2-16d common (3½" × 0.162"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails	End nail
8	Stud to stud (not at braced wall panels)	**Wall** 16d common (3½" × 0.162")	24" o.c. face nail
		10d box (3" × 0.128"); or 3" × 0.131" nails	16" o.c. face nail
9	Stud to stud and abutting studs at intersecting wall corners (at braced wall panels)	16d box (3½" × 0.135"); or 3" × 0.131" nails	12" o.c. face nail
		16d common (3½" × 0.162")	16" o.c. face nail
10	Built-up header (2" to 2" header with ½" spacer)	16d common (3½" × 0.162")	16" o.c. each edge face nail
		16d box (3½" × 0.135")	12" o.c. each edge face nail
11	Continuous header to stud	5-8d box (2½" × 0.113"); or 4-8d common (2½" × 0.131"); or 4-10d box (3" × 0.128")	Toe nail
12	Top plate to top plate	16d common (3½" × 0.162")	16" o.c. face nail
		10d box (3" × 0.128"); or 3" × 0.131" nails	12" o.c. face nail
13	Double top plate splice for SDCs A–D, with seismic braced wall line spacing < 25'	8-16d common (3½" × 0.162"); or 12-16d box (3½" × 0.135"); or 12-10d box (3" × 0.128"); or 12-3" × 0.131" nails	Face nail on each side of end joint (minimum 24" lap splice length each side of end joint)
	Double top plate splice SDCs D_0, D_1, or D_2, and braced wall line spacing ≥ 25'	12-16d (3½" × 0.135")	

(continued)

TABLE R602.3(1)—continued
FASTENING SCHEDULE

ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER[a, c]	SPACING AND LOCATION
14	Bottom plate to joist, rim joist, band joist or blocking (not at braced wall panels)	16d box (3½" × 0.135"); or 3" × 0.131" nails	12" o.c. face nail
15	Bottom plate to joist, rim joist, band joist or blocking (at braced wall panel)	3-16d box (3½" × 0.135"); or 2-16d common (3½" × 0.162"); or 4-3" × 0.131" nails	3 each 16" o.c. face nail; 2 each 16" o.c. face nail; 4 each 16" o.c. face nail
16	Top or bottom plate to stud	3-8d box (2½" × 0.113"); or 3-16d box (3½" × 0.135"); or 4-8d common (2½" × 0.131"); or 3-10d box (3" × 0.128"); or 4-3" × 0.131" nails	Toe nail
		3-10d box (3" × 0.128"); or 2-16d common (3½" × 0.162"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails	End nail
17	Top plates, laps at corners and intersections	3-10d box (3" × 0.128"); or 2-10d common (3½" × 0.162"); or 3-3" × 0.131" nails	Face nail
18	1" brace to each stud and plate	3-8d box (2½" × 0.113"); or 2-8d common (2½" × 0.131"); or 2-10d box (3" × 0.128"); or 2 staples 1½"	Face nail
19	1" × 6" sheathing to each bearing	3-8d box (2½" × 0.113"); or 2-8d common (2½" × 0.131"); or 2-10d box (3" × 0.128"); or 2 staples, 1" crown, 16 ga., 1½" long	Face nail
20	1" × 8" and wider sheathing to each bearing	3-8d box (2½" × 0.113"); or 3-8d common (2½" × 0.131"); or 3-10d box (3" × 0.128"); or 4 staples, 1" crown, 16 ga., 1½" long	Face nail
		Wider than 1" × 8" 4-8d box (2½" × 0.113"); or 4-8d box (2½" × 0.131"); or 4-10d box (3" × 0.128"); or 4 staples, 1" crown, 16 ga., 1½" long	Face nail
21	Joist to sill, top plate or girder	**Floor** 4-8d box (2½" × 0.113"); or 3-8d common (2½" × 0.131"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails	Toe nail
22	Rim joist, band joist or blocking to sill or top plate (roof applications also)	8d common (2½" × 0.131"); or 10d box (3" × 0.128"); or 3" × 0.131" nails	6" o.c. toe nail
23	1" × 6" subfloor or less to each joist	3-8d box (2½" × 0.113"); or 2-8d common (2½" × 0.131"); or 3-10d box (3" × 0.128"); or 2 staples, 1" crown, 16 ga., 1½" long	Face nail

(continued)

TABLE 602.3(1)
FASTENING SCHEDULE—continued

ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER[a, b]	SPACING AND LOCATION
		Floor	
24	2" subfloor to joist or girder	16d common (3½" × 0.162")	Blind and face nail
25	2" planks (plank & beam—floor & roof)	3-16d box (3½" × 0.135"); or 2-16d common (3½" × 0.162")	At each bearing, face nail
26	Band or rim joist to joist	3-16d common (3½" × 0.162"); 4-10 box (3" × 0.128"), or 4-3" × 0.131" nails; or 4-3" × 14 ga. staples, ⅞" crown	End nail
27	Built-up girders and beams, 2-inch lumber layers	20d common (4" × 0.192"); or	Nail each layer as follows: 32" o.c. at top and bottom and staggered.
		10d box (3" × 0.128"); or 3" × 0.131" nails	24" o.c. face nail at top and bottom staggered on opposite sides.
		And: 2-20d common (4" × 0.192"); or 3-10d box (3" × 0.128"); or 3-4" × 0.131" nails	Face nail at ends and at each splice
28	Ledger strip supporting joists or rafters	3-16d box (3½" × 0.135"); or 3-16d common (3½" × 0.162"); or 4-10d box (3" × 0.128"); or 4-3" × 0.131" nails	At each joist or rafter, face nail
29	Bridging to joist	2-10d (3" × 0.128")	Each end, toe nail

ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER[a, b]	SPACING OF FASTENERS: Edges (inches)[g]	SPACING OF FASTENERS: Intermediate supports[c, g] (inches)
	Wood structural panels, subfloor, roof and interior wall sheathing to framing and particleboard wall sheathing to framing (see Table R602.3(3)) for wood structural panel exterior wall sheathing to wall framing)			
30	½" – ⅝"	6d common (2" × 0.113") nail (subfloor, wall) 8d common (2½" × 0.131") nail (roof)	6	12[f]
31	¾" – 1"	8d common nail (2½" × 0.131")	6	12[f]
32	1⅛" – 1¼"	10d common (3" × 0.148") nail; or 8d (2½" × 0.131") deformed nail	6	12
		Other wall sheathing[d]		
33	½" structural cellulosic fiberboard sheathing	1½" galvanized roofing nail, ⅞" head diameter, or 1" crown staple 16 ga., 1½" long	3	6
34	½" structural cellulosic fiberboard sheathing	1½" galvanized roofing nail, ⅞" head diameter, or 1" crown staple 16 ga., 1½" long	3	6
35	½" gypsum sheathing[e]	1½" galvanized roofing nail; staple galvanized, 1½" long; 1¼" screws, Type W or S	7	7
36	⅝" gypsum sheathing[e]	1½" galvanized roofing nail; staple galvanized, 1⅝" long; 1¼" screws, Type W or S	7	7
	Wood structural panels, combination subfloor underlayment to framing			
37	½" and less	16d deformed (2" × 0.120") nail; or 8d common (2½" × 0.131") nail	6	12
38	⅝" – 1"	8d common (2½" × 0.131") nail; or 8d deformed (2½" × 0.120") nail	6	12
39	1⅛" – 1¼"	10d common (3" × 0.148") nail; or 8d deformed (2½" × 0.120") nail	6	12

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 mile per hour = 0.447 m/s; 1 ksi = 6.895 MPa.

(continued)

TABLE R602.3(2)
ALTERNATE ATTACHMENTS TO TABLE R602.3(1)

NOMINAL MATERIAL THICKNESS (inches)	DESCRIPTION[a] OF FASTENER AND LENGTH (inches)	SPACING[c] OF FASTENERS: Edges (inches)	SPACING[c] OF FASTENERS: Intermediate supports (inches)
	Wood structural panels subfloor, roof[f] and wall sheathing to framing and particleboard wall sheathing to framing[g]		
Up to ½	Staple 15 ga. 1½"	4	8
	0.097 - 0.099 Nail 2½"	3	6
	Staple 16 ga. 1½"	3	6
⅝[d] and ¾	0.113 Nail 2	3	6
	Staple 15 and 16 ga. 2	4	8
	0.097 - 0.099 Nail 2½"	4	8
	Staple 14 ga. 2	4	8
⅞[d] and 1"	Staple 15 ga. 1¾"	3	6
	0.097 - 0.099 Nail 2½"	4	8
	Staple 16 ga. 2	4	8
	Staple 14 ga. 2½"	4	8
	0.113 Nail 2½"	3	6
1	Staple 15 ga. 2½"	4	8
	0.097 - 0.099 Nail 2½"	4	8

NOMINAL MATERIAL THICKNESS (inches)	DESCRIPTION[a] OF FASTENER AND LENGTH (inches)	SPACING[c] OF FASTENERS: Edges (inches)	SPACING[c] OF FASTENERS: Body of panel[c] (inches)
	Floor underlayment; plywood-hardboard-particleboard-fiber-cement[h]		
	Fiber-cement		
	3d, corrosion-resistant, ring shank nails (finished flooring other than tile)	3	6
	Staple 18 ga., ⅞" long, 7/16" crown	3	6
	1¼" screw (finished flooring other than tile)	—	—
½	1¼" long × .121 shank × .375 head diameter corrosion-resistant (galvanized or stainless steel) roofing nails (for tile finish)	8	8
	1¼" long, No. 8 × .375 head diameter, ribbed wafer-head screws (for tile finish)	8	8
	Plywood		
	1¼" ring or screw shank nail-minimum 12½ ga. (0.099") shank diameter	3	6
	Staple 18 ga., ⅞" long, 7/16" crown width	2	3
½ and ⅝	1¼" ring or screw shank nail-minimum 12½ ga. (0.099") shank diameter	6	8[e]
	Staple 18 ga., 1" long, 7/16" crown width	6	8
⅝[d], ¾, ⅞[d] and 1	1¾" ring or screw shank nail-minimum 12½ ga. (0.099") shank diameter	6	8
⅝[d], ¾, ⅞[d] and 1	Staple 16 ga. 1½"	6	8
	Hardboard[i]		
0.200	1½" long ring-grooved underlayment nail	6	6
	4d cement-coated sinker nail	6	6
	Staple 18 ga., 1" long (plastic coated)	3	6
	Particleboard		
½	6d ring-grooved underlayment nail	3	6
	Staple 18 ga., ⅞" long, 7/16" crown	3	6
⅝	8d ring-grooved underlayment nail	6	10
	Staple 16 ga., 1⅛" long, 7/16" crown	3	6
¾–⅞	6d ring-grooved underlayment nail	6	10
	Staple 16 ga., 1¼" long, 7/16" crown	3	6

(continued)

TABLE R602.3(3)
REQUIREMENTS FOR WOOD STRUCTURAL PANEL WALL SHEATHING USED TO RESIST WIND PRESSURES[a, b, c, f]

MINIMUM NAIL Size	MINIMUM NAIL Penetration (inches)	MINIMUM WOOD STRUCTURAL PANEL SPAN RATING	MINIMUM NOMINAL PANEL THICKNESS (inches)	MAXIMUM WALL STUD SPACING (inches)	PANEL NAIL SPACING: Edges (inches o.c.)	PANEL NAIL SPACING: Field (inches o.c.)	ULTIMATE DESIGN WIND SPEED V_{ult} (mph): Wind exposure category B	C	D
6d Common (2.0" × 0.113")	1.5	24/0	⅜	16	6	12	140	115	110
8d Common (2.5" × 0.131")	1.75	24/16	½	24	6	12	170	140	135
				16	6	12	140	115	110

For SI: 1 inch = 25.4 mm. 1 mile per hour = 0.447 m/s.

a. Panel strength axis parallel or perpendicular to supports. Three-ply plywood sheathing with studs spaced more than 16 inches on center shall be applied with panel strength axis perpendicular to supports.

b. Table is based on wind pressures acting toward and away from building surfaces in accordance with Section R301.2. Lateral bracing requirements shall be in accordance with Section R602.10.

c. Wood structural panels with span ratings of 24/0 or 24/16 shall be permitted as an alternate to panels with a 24/0 span rating. Plywood siding rated 16 o.c. or 24 o.c. shall be permitted as an alternate to panels with a 24/16 span rating. Wall-16 and Plywood siding 16 o.c. shall be used with studs spaced not more than 16 inches on center.

TABLE R602.3(4)
ALLOWABLE SPANS FOR PARTICLEBOARD WALL SHEATHING[a]

THICKNESS (inch)	GRADE	STUD SPACING (inches): When siding is nailed to studs	STUD SPACING (inches): When siding is nailed to sheathing
½	M-1 Exterior glue	16	—
½	M-2 Exterior glue	16	16

For SI: 1 inch = 25.4 mm.

a. Wall sheathing not exposed to the weather. If the panels are applied horizontally, the end joints of the panel shall be offset so that four panel corners will not meet. All panel edges must be supported. Leave a ⅛" inch gap between panels and nail not less than ⅜ inch from panel edge.

TABLE R602.3(2)
ALTERNATE ATTACHMENTS TO TABLE R602.3(1)—continued

For SI: 1 inch = 25.4 mm.

a. Nail is a general description and shall be permitted to be T-head, modified round head or round head.

b. Staples shall have a minimum crown width of ⅞" inch on diameter except as noted.

c. Nails or staples shall be spaced at not more than 6 inches on center at all supports where spans are 48 inches or greater. Nails or staples shall be spaced at not more than 12 inches on center at intermediate supports for floors.

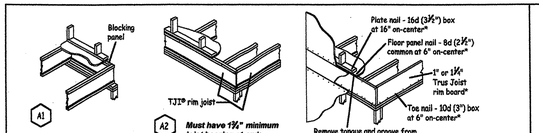
d. Fasteners shall be placed in a grid pattern throughout the body of the panel.

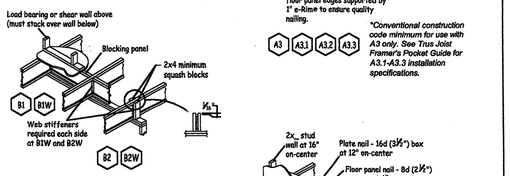
e. For 5-ply panels, intermediate nails shall be spaced not more than 12 inches on center each way.

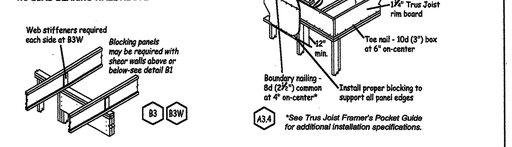
f. Hardboard underlayment shall conform to CPA/ANSI A135.4.

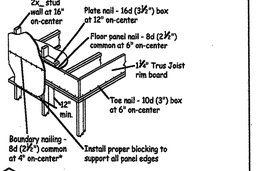
g. Specified alternate attachments for roof sheathing shall be permitted where the ultimate design wind speed is less than 130 mph. Fasteners attaching wood structural panel roof sheathing to gable end wall framing shall be installed using the spacing listed for panel edges.

h. Fiber-cement underlayment shall conform to ASTM C 1288 or ISO 8336, Category C.









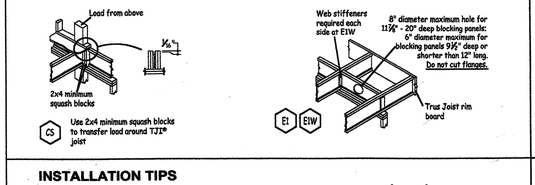
FASTENING of FLOOR PANELS

Nail Size	Closest On-Center Spacing per Row					
	TJI®		Trus Joist rim board	TimberStrand® LSL ½" or wider	Microllam® LVL	Parallam® PSL
	110 and 210	230, 360 and 560				
8d (2½") box	2"	2"	6"	4"		
8d (2½") common	10"	2"	6"	3"	3"	3"
10d (3"), 12d (3 ¼") box	3"	2"	6"	4"		
10d (3"), 12d (3 ¼") common	4½"	3"	6"	4"	4"	4"
16d (3½") common	N.A.	4"	10"	6"(1)	8"	6"

(1) Can be reduced to 4" on-center with maximum nail penetration of ¾" into the narrow edge.

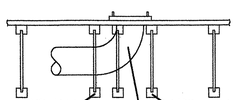
- Recommended nailing is 12" on-center in field and 6" on-center along sheathing edge. Nailing requirements on engineered drawings supersede recommendations.
- Nailing rows must be offset at least ½" and staggered.
- 14 ga. staples may be substituted for 8d (2 ½") nails if minimum penetration of 1" into the TJI® joist or rim board is achieved.

Farthest On-Center Spacing per Row
Maximum spacing of nails is:
- For joist widths 1 ¾" or less: 18" on-center
For joist widths greater than 1 ¾": 24" on-center



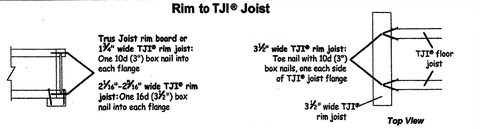
INSTALLATION TIPS

- Subfloor adhesive will improve floor performance, but may not be required.
- When joists are doubled at non-load bearing parallel partitions, space joists apart the width of the wall for plumbing or HVAC.
- Additional joist at plumbing drop (see detail).

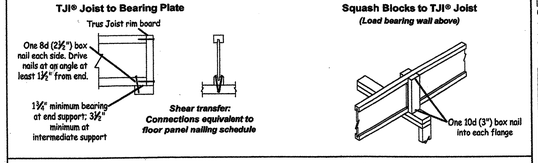


- Squash blocks and blocking panels carry stacked vertical loads (details B1 and B2). Packing out the web of a TJI® joist (with web stiffeners) is not a substitute for squash blocks or blocking panels.

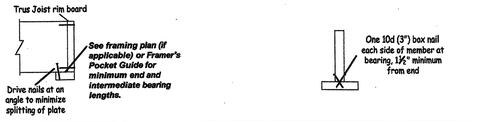
Rim to TJI® Joist

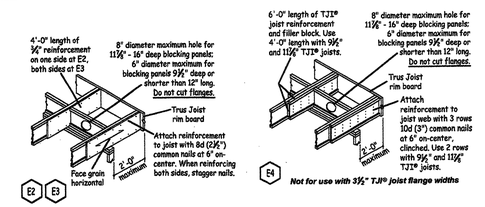


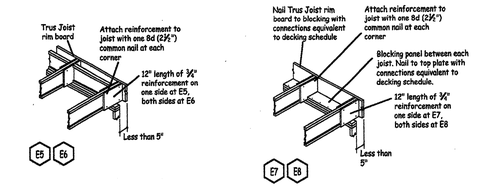
TJI® JOIST ATTACHMENT at BEARING



BEAM ATTACHMENT at BEARING



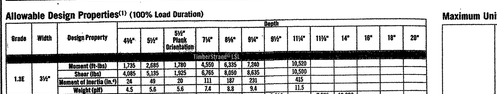




FILLER and BACKER BLOCK SIZES

TJI® Flange Widths	1¾"	2½"				3½"	
Depth	9½" or 11⅞"	14"	9½" or 11⅞"	14" or 16"	18" or 20"	11⅞"	14" or 16"	18" or 20"
Filler Block* (Detail H2)	2x6	2x8	2x6 + ⅜" sheathing	2x8 + ⅜" sheathing		2x6 + ½" sheathing	2x12 + ½" sheathing	Two 2x6	Two 2x8	Two 2x12
Cantilever Filler (Detail E4)	2x6 4'-0" long	2x10 6'-0" long	2x6 + ⅜" sheathing 4'-0" long	2x10 + ⅜" sheathing 6'-0" long		2x6 + ½" sheathing 4'-0" long	2x10 + ½" sheathing 6'-0" long	Not applicable		Not applicable	
Backer Block* (Detail F1 or H2)	⅞" or ¾"		⅞" or ¾"		1" Net			2x6	2x8	2x12

* If necessary, increase filler and backer block height for face mount hangers. Maintain ⅛" gap at top of joist; see detail W. Filler and backer block lengths should accomodate required nailing without splitting (12" minimum for backer blocks and 24" minimum for filler blocks).



DESIGN PROPERTIES

Allowable Design Properties[1] (100% Load Duration)

Grade	Width	Design Property	Depth										
			9½"	11⅞"	9½" Flush Orientation	14"	16"	18"	20"	22"	24"	26"	28"
TimberStrand® LSL													
1.3E	3½"	Moment (ft-lbs)	1,735	2,688	1,760	4,550	5,335	7,260		10,520			
		Shear (lbs)	4,065	5,135	1,925	6,765	8,050	8,635		10,500			
		Moment of Inertia (in.⁴)	14	49	20	111	187	291		615			
		Weight (plf)	4.5	5.6	5.6	7.4	8.8	9.4		11.5			
1.55E	1¾"	Moment (ft-lbs)						5,210		7,875	10,920		
		Shear (lbs)						3,435		4,295	5,065		
		Moment of Inertia (in.⁴)						125		264	469		
		Weight (plf)						5.2		6.5	7.7		
	3½"	Moment (ft-lbs)						10,420		15,955	21,840		
		Shear (lbs)						6,870		8,590	10,125		
		Moment of Inertia (in.⁴)						250		488	800		
		Weight (plf)						10.4		13	15.3		
Microllam® LVL													
1.9E	1¾"	Moment (ft-lbs)		2,125		3,955		5,680	5,895	8,070	8,925	12,100	15,565	19,325	23,505
		Shear (lbs)		1,850		2,430		3,075	3,305	3,740	3,950	4,605	5,320	5,985	6,600
		Moment of Inertia (in.⁴)		24		56		115	125	208	264	400	597	851	1,167
		Weight (plf)		2.8		3.7		4.7	4.8	5.7	6.1	7.1	8.2	9.2	10.2
Parallam® PSL													
2.0E	2½"-3"	Moment (ft-lbs)						9,535	10,025	13,800	15,280	20,855	26,940	33,530	
		Shear (lbs)						4,895	4,935	5,645	6,170	7,275	8,355	9,350	
		Moment of Inertia (in.⁴)						175	192	319	375	615	912	1,305	
		Weight (plf)						7.5	8.0	9.5	10.0	11.8	13.7	15.1	
	3½"	Moment (ft-lbs)						12,415	13,055	17,970	19,900	27,160	34,955	43,665	
		Shear (lbs)						6,380	6,430	7,355	8,035	9,475	10,885	12,180	
		Moment of Inertia (in.⁴)						231	250	415	488	800	1,185	1,700	
		Weight (plf)						9.8	10.4	12.3	13.0	15.3	17.8	19.7	
	5¼"	Moment (ft-lbs)						18,625	19,585	26,955	29,855	40,740	52,430	65,495	
		Shear (lbs)						9,570	9,645	11,032	12,055	14,210	16,330	18,270	
		Moment of Inertia (in.⁴)						346	375	623	733	1,201	1,782	2,552	
		Weight (plf)						15.2	15.6	18.5	19.5	23.0	26.3	29.5	
	7"	Moment (ft-lbs)						24,830	26,115	35,940	39,805	54,325	69,905	87,325	
		Shear (lbs)						12,550	12,855	15,225	16,070	18,945	21,655	24,360	
		Moment of Inertia (in.⁴)						462	500	831	977	1,601	2,389	3,402	
		Weight (plf)						20.2	20.8	24.6	26.0	30.6	35.0	39.4	

(1) For product in beam orientation, unless otherwise noted.

TimberStrand® LSL Grade Verification

TimberStrand® LSL is available in more than one grade. The product will be stamped with its grade information, as shown in the examples below. With The TimberStrand® Beam (1.55E), larger holes can be drilled through the beam. See Allowable Holes on page 36.

Design Stresses

Grade	Orientation	G Shear Modulus of Elasticity (psi)	E Modulus of Elasticity (psi)	F_b Flexural Stress[2] (psi)	F_t Tension Stress[3] (psi)	$F_{c\perp}$ Compression Perpendicular to Grain[4] (psi)	F_{cp} Compression Parallel to Grain (psi)	F_v Horizontal Shear Parallel to Grain (psi)	SG Equivalent Specific Gravity[5]
TimberStrand® LSL									
1.3E	Beam/Column	81,250	1.3×10^6	1,700	1,075	680	1,400	400	0.50[6]
	Plank	81,250	1.3×10^6	1,900[6]	1,075	435	1,400	150	0.50[6]
1.55E	Beam	96,875	1.55×10^6	2,325	1,030[6]	800	2,050	310[6]	0.50[6]
Microllam® LVL									
1.9E	Rim	118,750	1.9×10^6	2,600	1,555	750	2,510	285	0.50
Parallam® PSL									
1.8E	Column	N.A.	1.8×10^6	2,400	N.A.	N.A.	2,560	N.A.	0.50
2.0E	Beam	125,000	2.0×10^6	2,900	2,025	750	2,900	290	0.50

(1) For 12" depth. For other depths, multiply F_b by the appropriate factor as follows:
- For TimberStrand® LSL, multiply by $\left(\frac{12}{d}\right)^{0.167}$
- For Microllam® LVL, multiply by $\left(\frac{12}{d}\right)^{0.125}$
- For Parallam® PSL, multiply by $\left(\frac{12}{d}\right)^{0.111}$

(2) F_b has been adjusted to reflect the volume effects for most standard applications.

(3) $F_{t\perp}$ shall not be increased for duration of load.

(4) For lateral connection design only.

(5) Specific gravity of 0.50 may be used for bolts installed perpendicular to face and loaded perpendicular to grain.

(6) Value shown is for thickness up to 3½".

(7) Value shown accounts for large hole capabilities. See Allowable Holes on page 36.

General Assumptions for iLevel™ Trus Joist® Residential Beams

- Lateral support is required at bearing and along the span at 24" on-center, maximum.
- Bearing lengths are based on each product's bearing stress for applicable grade and orientation.
- All members 7¼" and less in depth are restricted to a maximum deflection of ½".
- Beams that are 1¾" x 16" and deeper require multiple piles.
- No camber.
- Tables on pages 8-15 include load reductions applied in accordance with code.

For applications not covered in this brochure, contact your iLevel representative.

See pages 38 and 39 for multiple-member beam connections.

MULTIPLE-MEMBER CONNECTIONS FOR SIDE-LOADED BEAMS

Maximum Uniform Load Applied to Either Outside Member (PLF)

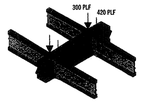
Connector Type	Number of Rows	Connector On-Center Spacing	Connector Pattern	Assembly A	Assembly B	Assembly C	Assembly D	Assembly E	Assembly F
				2½" 2½" 2½" 3¼"	2½" 2½" 2½" 3¼"	2½" 2½" 2½" 3¼"	2½" 2½" 2½" 3¼"	2½" 2½" 3¼"	2½" 2½" 3¼"
				3¼"	3¼"	3¼" 3½" 3¼"	3¼" 3½" 3¼"	3¼"	3¼"
10d (0.128" x 3") Box Nail[1]	2	12"		370	*280*	280	280		
	3	12"		560	*420*	420	420		
¼" ASD/ Timberlok Bolts[2][3]	2	24"		310	380	520	465	860	580
		18"		420	505	695	620	1,075	425
		16"		465	570	780	700	1,290	530
SDS ¼" x 3½" or WSS3½[3]	2	24"		460	*345*	345	*385*		
		18"		575	*430*	430	*580*		
		16"		690	*520*	520	*685*		
SDS ¼" x 6" or WSS6[3]	2	24"					*580*	*460*	*355*
		18"					*760*	*575*	*390*
		16"					*860*	*690*	*460*
5/16" Trusslok[3]	2	24"		525	*395*	395	*495*		
		18"		650	*495*	495	*660*		
		16"		790	*595*	595	*825*		
⅝" Trusslok[3]	2	24"			375	450	*365*	*550*	*365*
		18"			470	515	*495*	*625*	*455*
		16"			565	615	*550*	*750*	*550*
⅝" TrussLok[3]	2	24"					335	500	335
		18"					420	690	420
		16"					505	925	505

(1) Nailed connection values may be doubled for 4" on-center or tripled for 4" on-center nail spacing.
(2) Washers required. Bolt holes to be ⅛" maximum.
(3) ¼" SDS or WS screws can be used with ParaRim® PSL and Microllam® LVL, but are not recommended for TimberStrand® LSL.
(4) 24" on-center bolted and screwed connection values may be doubled for 12" on-center spacing.

General Notes

- Connections are based on NDS® 2001.
- Use specific gravity of 0.5 when designing lateral connections.
- Values listed are for 100% stress level. Increase 15% for snow-loaded roof conditions or 25% for non-snow roof conditions, where code allows.
- ***Bold Italic*** cells indicate **Connector Pattern** must be installed on both sides. Stagger fasteners on opposite side of beam by ½ the required Connector Spacing.
- Verify adequacy of beam in allowable load tables on pages 16–33.
- 7" wide beams should be side-loaded only when loads are applied to both sides of the members (to minimize rotation).
- Minimum end distance for bolts and screws is 6".
- Beams wider than 7" require special consideration by the design professional.

Multiple-Member Connection Example

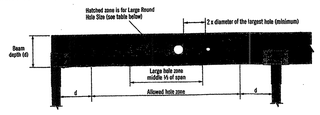


First, check the allowable load tables on pages 16-33 to verify that 3 pieces can carry the total load of 720 plf with proper live load deflection criteria. Maximum load applied to either outside member is 420 plf. For a 3-ply 1¾" assembly, 2 rows of 10d (3") nails at 12" on-center is good for only 280 plf. Therefore, use 3 rows of 10d (3") nails at 12" on-center (good for 420 plf).

Alternates:
2 rows of 16" bolts or SDS 14" x 3½" screws at 19.2" on-center.

ALLOWABLE HOLES

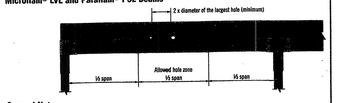
TimberStrand® LSL Headers and Beams



General Notes

- Hole zones shown are suitable for uniformly loaded headers and beams only.
- No rectangular holes.
- No holes in cantilevers.
- No holes in headers or beams in plank orientation.

Microllam® LVL and Parallam® PSL Beams



General Notes

- Allowed hole zone suitable for uniformly loaded beams only.
- No rectangular holes.
- No holes in cantilevers.

Maximum Round Hole Size

Beam Depth	1.3E TimberStrand® LSL	1.55E TimberStrand® LSL	Microllam® LVL and Parallam® PSL
	Maximum Round Hole Size	Large Round Hole Size	Maximum Round Hole Size
4¼"	1½"	–	1½"
5¼"	2"	–	2"
7¼"-9¼"	–	–	2"
9½"	–	2"	2"
11¼"	–	2"	2"
11⅞"	–	3¼"	2"
14"	–	4¼"	2"
16"-20"	–	–	2"

See Illustrations for allowed hole zones.

ALLOWABLE HOLES - TJI® Joists

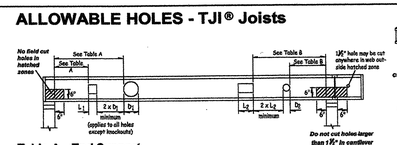


Table A - End Support

Minimum distance from edge of hole to inside face of nearest end support

DEPTH	TJI®	ROUND HOLE SIZE							SQUARE OR RECTANGULAR HOLE SIZE						
		2"	3"	4"	6½"	8½"	11"	13"	2"	3"	4"	6½"	8½"	11"	13"
9½"	110	1'-0"	1'-0"	2'-0"	3'-0"				1'-0"	2'-0"	3'-0"	4'-0"			
	210	1'-0"	1'-0"	2'-0"	3'-0"				1'-0"	2'-0"	3'-0"	4'-0"			
	230	1'-0"	1'-0"	2'-0"	3'-0"				1'-0"	2'-0"	3'-0"	4'-0"			
	360	1'-0"	1'-0"	2'-0"	3'-0"				1'-0"	2'-0"	3'-0"	4'-0"			
11⅞"	110	1'-0"	1'-0"	1'-0"	3'-0"	4'-0"			1'-0"	1'-0"	3'-0"	4'-0"	6'-0"		
	210	1'-0"	1'-0"	1'-0"	3'-0"	4'-0"			1'-0"	1'-0"	3'-0"	4'-0"	6'-0"		
	230	1'-0"	1'-0"	1'-0"	3'-0"	4'-0"			1'-0"	1'-0"	3'-0"	4'-0"	6'-0"		
	360	1'-0"	1'-0"	1'-0"	3'-0"	4'-0"			1'-0"	1'-0"	3'-0"	4'-0"	6'-0"		
14"	110	1'-0"	1'-0"	1'-0"	2'-6"	3'-6"	4'-6"		1'-0"	1'-0"	2'-6"	3'-6"	4'-6"	6'-6"	
	210	1'-0"	1'-0"	1'-0"	2'-6"	3'-6"	4'-6"		1'-0"	1'-0"	2'-6"	3'-6"	4'-6"	6'-6"	
	230	1'-0"	1'-0"	1'-0"	2'-6"	3'-6"	4'-6"		1'-0"	1'-0"	2'-6"	3'-6"	4'-6"	6'-6"	
	360	1'-0"	1'-0"	1'-0"	2'-6"	3'-6"	4'-6"		1'-0"	1'-0"	2'-6"	3'-6"	4'-6"	6'-6"	
	560	1'-0"	1'-0"	1'-0"	2'-6"	3'-6"	4'-6"		1'-0"	1'-0"	2'-6"	3'-6"	4'-6"	6'-6"	
16"	110	1'-0"	1'-0"	1'-0"	2'-4"	3'-4"	4'-4"	5'-4"	1'-0"	1'-0"	2'-4"	3'-4"	4'-4"	6'-4"	10'-0"
	210	1'-0"	1'-0"	1'-0"	2'-4"	3'-4"	4'-4"	5'-4"	1'-0"	1'-0"	2'-4"	3'-4"	4'-4"	6'-4"	10'-0"
	230	1'-0"	1'-0"	1'-0"	2'-4"	3'-4"	4'-4"	5'-4"	1'-0"	1'-0"	2'-4"	3'-4"	4'-4"	6'-4"	10'-0"
	360	1'-0"	1'-0"	1'-0"	2'-4"	3'-4"	4'-4"	5'-4"	1'-0"	1'-0"	2'-4"	3'-4"	4'-4"	6'-4"	10'-0"
	560	1'-0"	1'-0"	1'-0"	2'-4"	3'-4"	4'-4"	5'-4"	1'-0"	1'-0"	2'-4"	3'-4"	4'-4"	6'-4"	10'-0"
		4"	8"	8"	10"	12"	18"	17"	4"	8"	8"	10"	12"	18"	17"
18"	360	1'-0"	1'-0"	1'-0"	2'-0"	2'-0"	10'-0"		1'-0"	1'-0"	2'-0"	2'-0"	10'-0"	11'-0"	13'-6"
	560	1'-0"	1'-0"	1'-0"	2'-0"	2'-0"	11'-0"		1'-0"	1'-0"	2'-0"	2'-0"	11'-0"	12'-0"	14'-6"
20"	360	1'-0"	1'-0"	1'-0"	1'-0"	2'-0"	7'-0"	10'-6"	1'-0"	1'-0"	2'-0"	2'-0"	8'-0"	11'-6"	15'-6"
	560	1'-0"	1'-0"	1'-0"	1'-0"	2'-0"	7'-0"	11'-0"	1'-0"	1'-0"	2'-0"	2'-0"	8'-0"	12'-0"	16'-0"

Table B - Intermediate or Cantilever Support

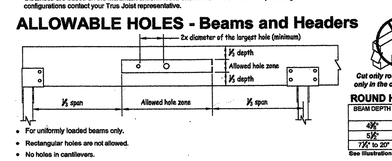
Minimum distance from edge of hole to inside face of nearest intermediate or cantilever support

DEPTH	TJI®	ROUND HOLE SIZE							SQUARE OR RECTANGULAR HOLE SIZE						
		2"	3"	4"	6½"	8½"	11"	13"	2"	3"	4"	6½"	8½"	11"	13"
9½"	110	1'-0"	2'-0"	3'-0"	7'-0"				1'-0"	2'-0"	3'-0"	7'-0"			
	210	2'-0"	2'-0"	3'-0"	7'-0"				2'-0"	3'-0"	4'-0"	7'-0"			
	230	2'-0"	2'-0"	4'-0"	8'-0"				2'-0"	3'-0"	4'-0"	8'-0"			
	360	3'-0"	4'-0"	4'-0"	8'-0"				3'-0"	4'-0"	4'-0"	8'-0"			
11⅞"	110	1'-0"	2'-0"	3'-0"	7'-0"	8'-0"	8'-0"		1'-0"	2'-0"	3'-0"	7'-0"	8'-0"	8'-0"	
	210	1'-0"	2'-0"	3'-0"	7'-0"	8'-0"	8'-0"		1'-0"	2'-0"	3'-0"	7'-0"	10'-0"	10'-0"	
	230	2'-0"	2'-0"	4'-0"	8'-0"	8'-0"	8'-0"		2'-0"	3'-0"	4'-0"	8'-0"	11'-0"	11'-0"	
	360	3'-0"	4'-0"	4'-0"	8'-0"	8'-0"	11'-0"		3'-0"	4'-0"	4'-0"	8'-0"	11'-0"	11'-0"	
14"	110	1'-0"	2'-0"	3'-0"	7'-0"	8'-0"	8'-0"	8'-0"	1'-0"	2'-0"	3'-0"	7'-0"	8'-0"	8'-0"	12'-0"
	210	1'-0"	2'-0"	3'-0"	7'-0"	8'-0"	8'-0"	8'-0"	1'-0"	2'-0"	3'-0"	7'-0"	8'-0"	10'-0"	12'-0"
	230	2'-0"	2'-0"	4'-0"	8'-0"	8'-0"	8'-0"	8'-0"	2'-0"	3'-0"	4'-0"	8'-0"	11'-0"	11'-0"	12'-0"
	360	3'-0"	4'-0"	4'-0"	8'-0"	8'-0"	11'-0"	12'-0"	3'-0"	4'-0"	4'-0"	8'-0"	11'-0"	11'-0"	12'-0"
	560	1'-0"	2'-0"	3'-0"	7'-0"	8'-0"	8'-0"	8'-0"	1'-0"	2'-0"	3'-0"	7'-0"	8'-0"	8'-0"	12'-0"
16"	110	1'-0"	2'-0"	3'-0"	7'-0"	8'-0"	8'-0"	8'-0"	1'-0"	2'-0"	3'-0"	7'-0"	8'-0"	8'-0"	12'-0"
	210	1'-0"	2'-0"	3'-0"	7'-0"	8'-0"	8'-0"	8'-0"	1'-0"	2'-0"	3'-0"	7'-0"	8'-0"	10'-0"	12'-0"
	230	2'-0"	2'-0"	4'-0"	8'-0"	8'-0"	8'-0"	8'-0"	2'-0"	3'-0"	4'-0"	8'-0"	11'-0"	11'-0"	12'-0"
	360	3'-0"	4'-0"	4'-0"	8'-0"	8'-0"	11'-0"	12'-0"	3'-0"	4'-0"	4'-0"	8'-0"	11'-0"	11'-0"	12'-0"
	560	1'-0"	2'-0"	3'-0"	7'-0"	8'-0"	8'-0"	8'-0"	1'-0"	2'-0"	3'-0"	7'-0"	8'-0"	8'-0"	12'-0"
		4"	8"	8"	10"	12"	18"	17"	4"	8"	8"	10"	12"	18"	17"
18"	360	1'-0"	1'-0"	3'-0"	6'-0"	8'-0"	8'-0"		1'-0"	4'-0"	6'-0"	10'-0"	14'-0"	18'-0"	
	560	1'-0"	1'-0"	3'-0"	6'-0"	8'-0"	8'-0"		1'-0"	4'-0"	6'-0"	10'-0"	14'-0"	18'-0"	
20"	360	1'-0"	1'-0"	1'-0"	3'-0"	6'-0"	8'-0"	8'-0"	1'-0"	1'-0"	3'-0"	6'-0"	10'-0"	14'-0"	18'-0"
	560	1'-0"	1'-0"	1'-0"	3'-0"	6'-0"	8'-0"	8'-0"	1'-0"	1'-0"	3'-0"	6'-0"	10'-0"	14'-0"	17'-6"

Rectangular holes based on measurement of longest side.

- Holes may be located vertically anywhere within the web. Leave ⅛" of web (minimum) at top and bottom of hole.
- Knockouts are located in web at approximately 12" on-center; they do not affect hole placement.
- For simple span (0° minimum) uniformly loaded joists meeting the requirements of current Trus Joist product guides, one maximum round hole may be located at the center of the joist span provided no other holes occur in the joist.
- Distances are based on the maximum uniform loads shown in current Trus Joist product guides. For other load conditions or hole configurations contact your Trus Joist representative.

ALLOWABLE HOLES - Beams and Headers



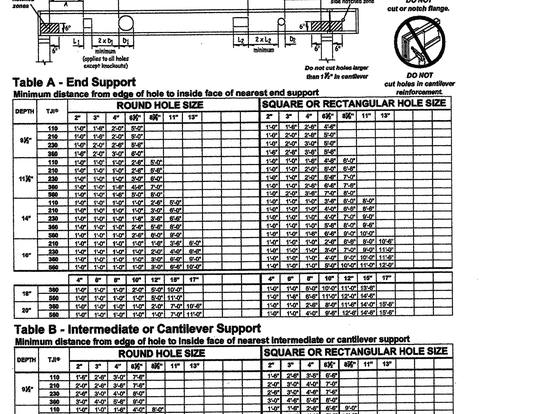
- For uniformly loaded beams only.
- Rectangular holes are not allowed.
- No holes in cantilevers.
No holes in headers or beams in plank orientation.

ROUND HOLE CHART

BEAM DEPTH	MAXIMUM ROUND HOLE SIZE
4½"	1"
5½"	1½"
7¼" to 20"	2"

See Illustration for Allowed Hole Zone

Silent Floor® Joist Framing



WARNING

Joists are unstable until braced laterally

Bracing Includes:

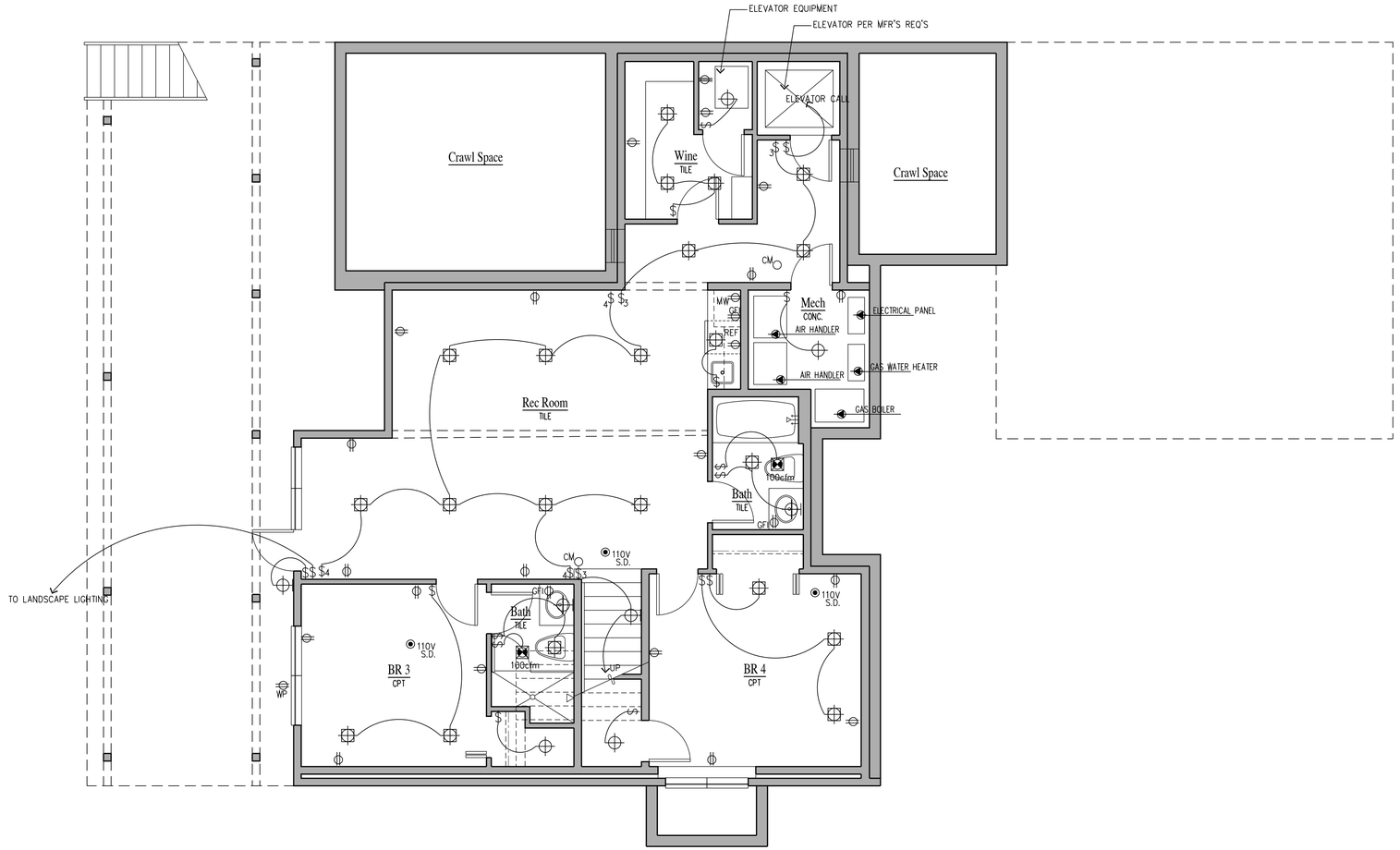
- Blocking
- Hangers
- Strut Lines
- Sheathing
- Rim Board
- Rim Joist

DO NOT allow workers to walk on joists until braced. INJURY MAY RESULT.

DO NOT stack building materials on unsheathed joists. Stack only over beams or walls.

WARNING NOTES:

**Lack of concern for proper bracing during construction can result in serious acc



Lower Floor Electrical Plan

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

ELECTRICAL SYMBOLS

- RECESSED LIGHT FIXTURE
- RECESSED EYEBALL SPOT/ WALL WASHER
- SURFACE MOUNTED FIXTURE (CEILING)
- SURFACE MOUNTED FIXTURE (WALL)
- FLOOD LIGHT
- FLUORESCENT STRIP
- 110V S.D. SMOKE DETECTOR (110V)
- DUPLEX OUTLET (110V)
- WP WATERPROOF OUTLET
- GFI OUTLET (G.F.I.)
- SWITCHED OUTLET
- OUTLET (220V)
- CM CARBON MONOXIDE DETECTOR
- FLOOR OUTLET
- FLOOR TELEPHONE OUTLET
- TELEPHONE OUTLET
- SPECIAL EQUIPEMENT OUTLET
- S STEREO SPEAKER OUTLET
- TV T.V. (CABLE TERMINAL)
- IC INTERCOM
- $ SWITCH
- $3 3 WAY SWITCH
- $4 4 WAY SWITCH
- $D DIMMER SWITCH
- FAN (RECESSED)
- TREAD LITE

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03-30-2021

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19-10.103

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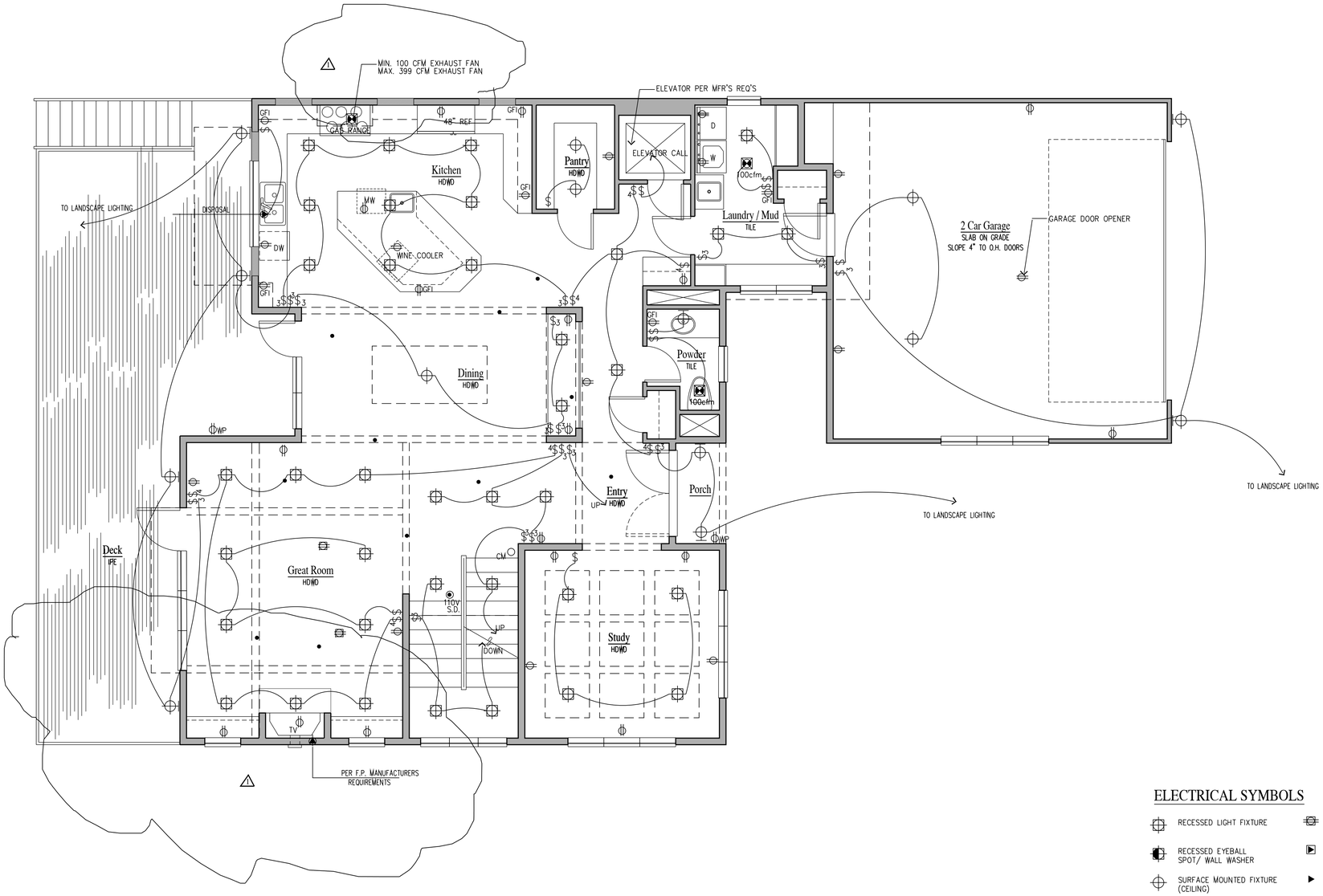

Main Floor Electrical Plan

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

ELECTRICAL SYMBOLS

- RECESSED LIGHT FIXTURE
- RECESSED EYEBALL SPOT/ WALL WASHER
- SURFACE MOUNTED FIXTURE (CEILING)
- SURFACE MOUNTED FIXTURE (WALL)
- FLOOD LIGHT
- FLUORESCENT STRIP
- SMOKE DETECTOR (110V)
- DUPLEX OUTLET (110V)
- WATERPROOF OUTLET
- OUTLET (G.F.I.)
- SWITCHED OUTLET
- OUTLET (220V)
- CARBON MONOXIDE DETECTOR
- FLOOR OUTLET
- FLOOR TELEPHONE OUTLET
- TELEPHONE OUTLET
- SPECIAL EQUIPEMENT OUTLET
- STEREO SPEAKER OUTLET
- T.V. (CABLE TERMINAL)
- INTERCOM
- SWITCH
- 3 WAY SWITCH
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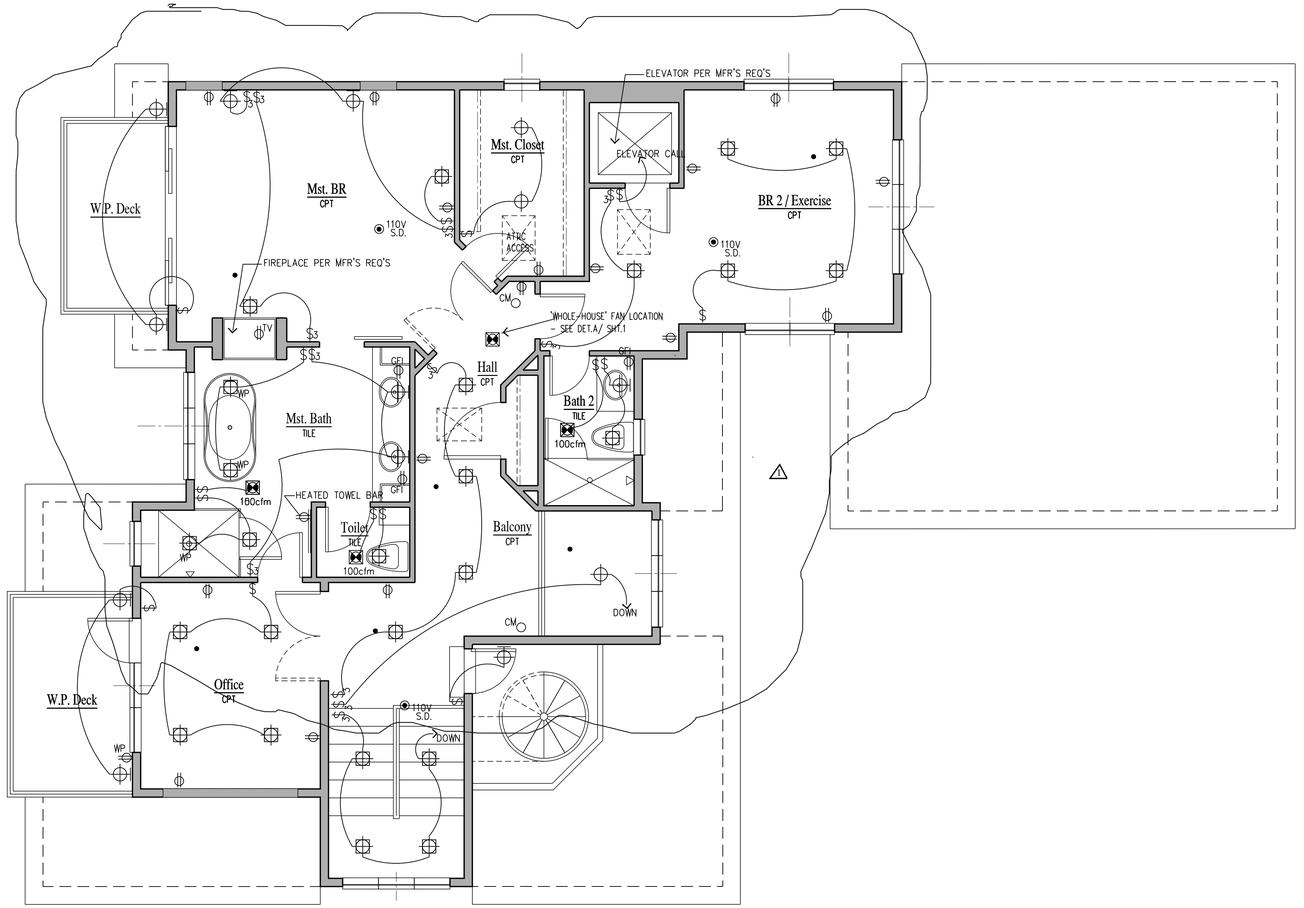

Upper Floor Electrical Plan

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

ELECTRICAL SYMBOLS

- RECESSED LIGHT FIXTURE
- RECESSED EYEBALL SPOT/ WALL WASHER
- SURFACE MOUNTED FIXTURE (CEILING)
- SURFACE MOUNTED FIXTURE (WALL)
- FLOOD LIGHT
- FLUORESCENT STRIP
- 110V S.D. SMOKE DETECTOR (110V)
- DUPLEX OUTLET (110V)
- WP WATERPROOF OUTLET
- GFI OUTLET (G.F.I.)
- SWITCHED OUTLET
- OUTLET (220V)
- CM CARBON MONOXIDE DETECTOR
- FLOOR OUTLET
- FLOOR TELEPHONE OUTLET
- TELEPHONE OUTLET
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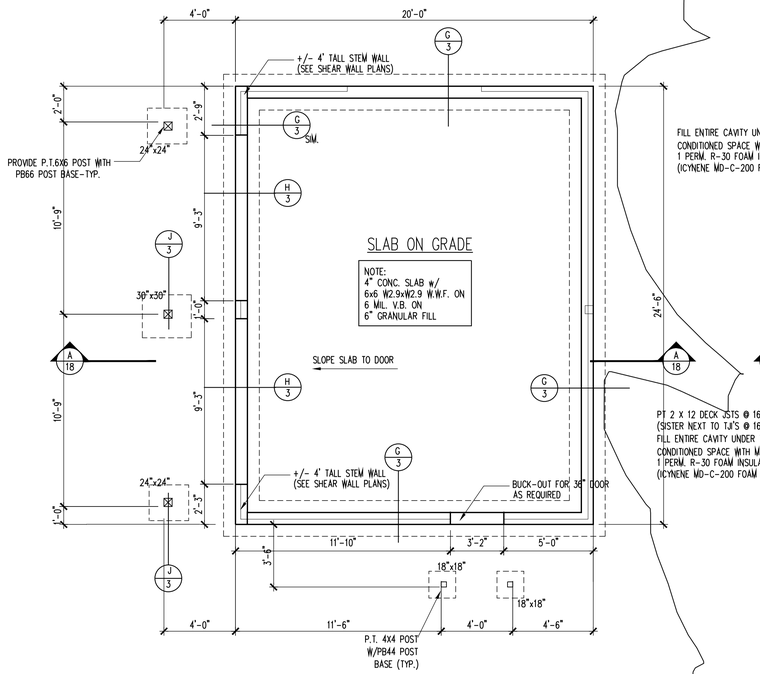
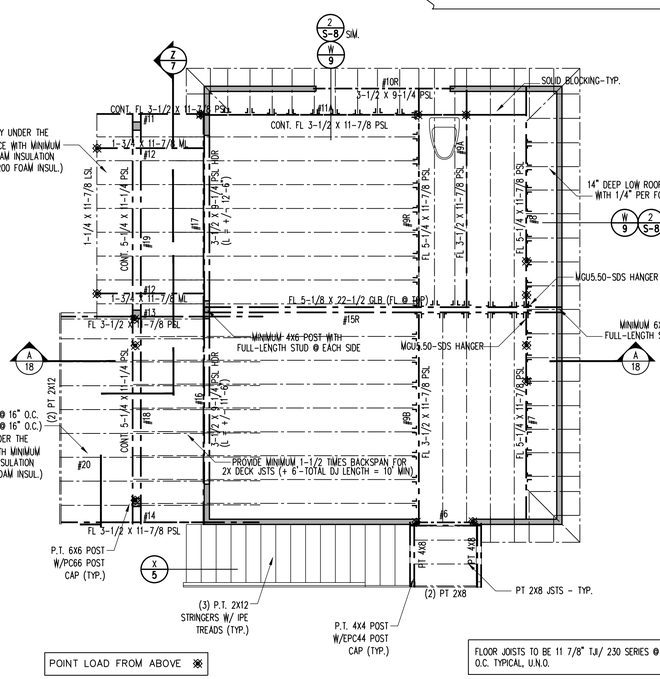


ADU-Foundation Plan

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



POINT LOAD FROM ABOVE ※

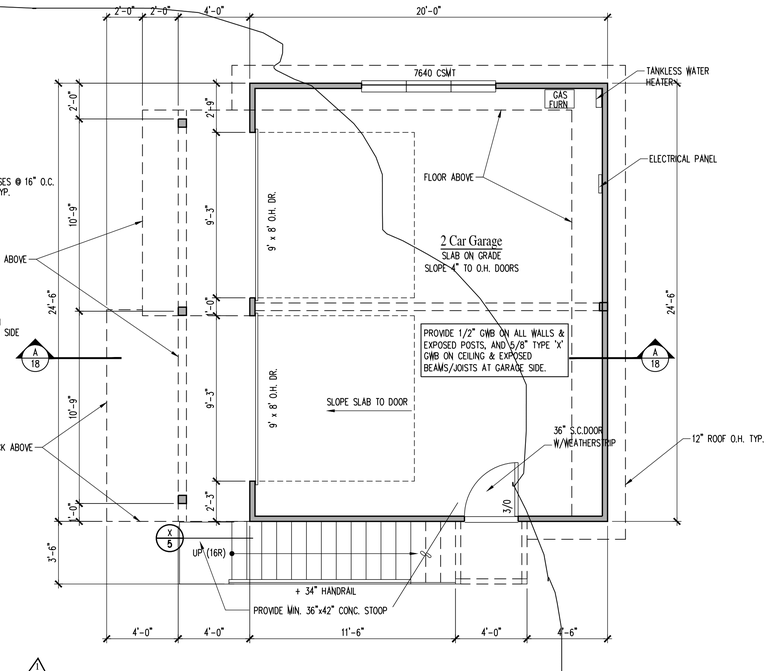
FLOOR JOISTS TO BE 11 7/8" TJI/ 230 SERIES @ 16" O.C. TYPICAL, U.N.O.

ADU-Upper Floor Framing Plan

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

SEE SHEET # 7 FOR ALL APPLICABLE NOTES TO THE ADU UPPER FLOOR FRAMING PLAN

SEE MINIMUM POST CAP AND MINIMUM HANGER TABLE FOR ALL CAPS AND HANGERS THAT ARE NOT SPECIFICALLY CALLED-OUT ON THE FRAMING PLANS-TJI HANGERS ARE TO BE SUPPLIED BY MFR (TYPICAL)



ADU-Garage Floor Plan

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

ADU GARAGE AREA = 490 S.F.

SEE SHEET # 6 FOR ALL APPLICABLE NOTES TO THE ADU MAIN FLOOR PLAN

MANUFACTURED TRUSS NOTES TO DRAWING:

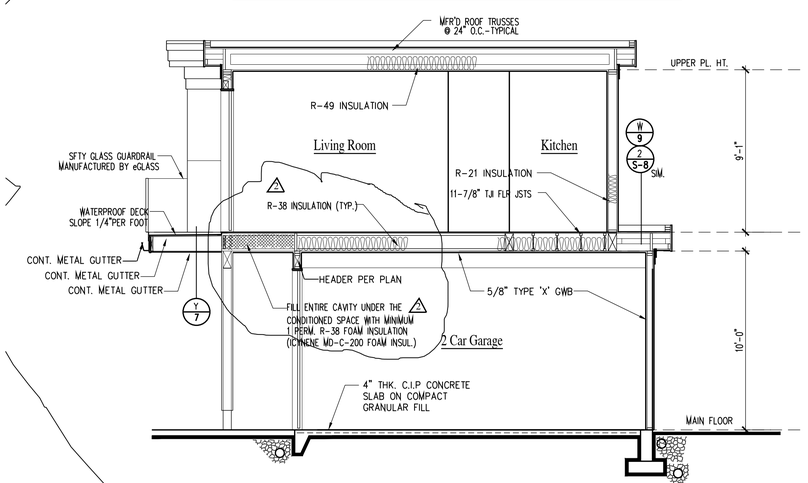
THE MANUFACTURED ROOF TRUSSES FOR THE 'ADU' BUILDING OF THIS PROJECT SHALL HAVE A MINIMUM DEPTH OF 1'-2" & A MAXIMUM DEPTH OF 1'-6". SEE TRUSS DESIGN LOADS ON SHT # 1 ⚠3

ENERGY NOTES TO DRAWING:

SEE SHEET # 1 OF THE DRAWINGS FOR THE 'ADU' ENERGY CREDIT REQUIREMENTS, THE ENERGY CODE SUMMARY, AND THE DIAGRAM OF THE VENTILATION SYSTEM SHOWN IN DETAIL A, SHT # 1. THE 'ADU' REQUIRES 1.5 ENERGY CREDITS, USING OPTIONS 1a & 3a. ⚠3

NOTE TO DRAWING:

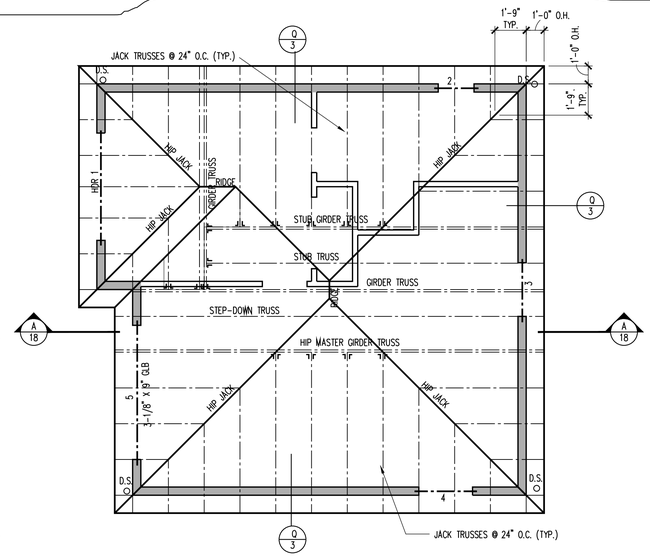
THE MANUFACTURERS OF ALL SAFETY GLASS GUARDRAILS AND GUARDRAIL COMPONENTS ARE REQUIRED TO PROVIDE ALL NECESSARY DESIGN DOCUMENTS AND SPECIFICATIONS TO THE BUILDING OFFICIAL FOR REVIEW AS A DEFERRED SUBMITTAL PER I.B.C. SECTION 106. ALL THE GUARDRAIL ELEMENTS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.



ADU-Section A-A

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

SEE SHEET # 12 & # 18 FOR ALL APPLICABLE NOTES TO THE ADU BUILDING SECTION A-A



ALL ROOF TRUSSES TO HAVE 1/4" PER FOOT INTEGRAL TOP CHORD SLOPE - TYPICAL

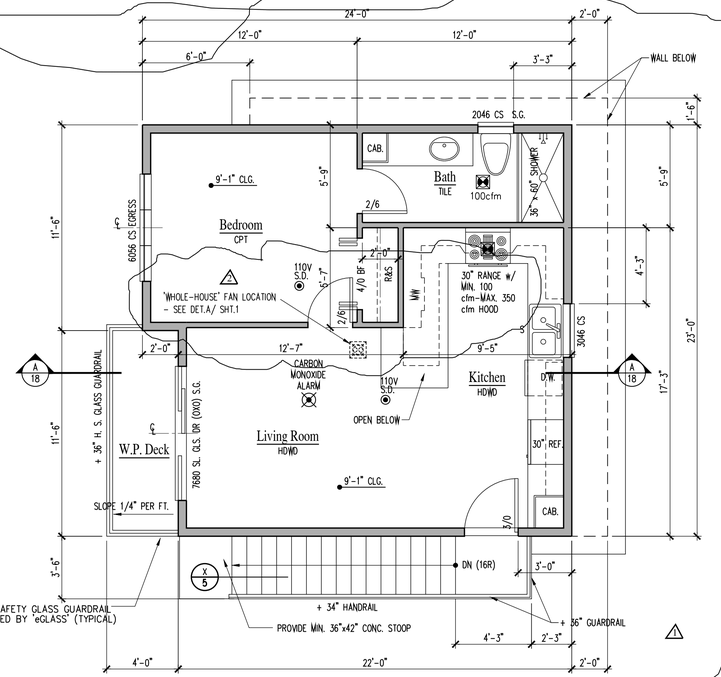
ADU-Roof Framing Plan

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

SEE SHEET # 9 FOR ALL APPLICABLE NOTES TO THE ADU ROOF FRAMING PLAN

NOTE:

THE MECHANICAL CONTRACTOR AND THE INSTALLER OF ALL CENTRAL FORCED AIR SYSTEM COMPONENTS ARE REQUIRED TO PROVIDE ALL NECESSARY DESIGN DOCUMENTS AND SPECIFICATIONS TO THE BUILDING OFFICIAL FOR REVIEW AS A DEFERRED SUBMITTAL PER THE INTERNATIONAL RESIDENTIAL CODE SECTION R106. SEE DETAIL A/1



ADU-Upper Floor Plan

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

ADU FLOOR AREA = 529 S.F.

SEE SHEET # 6 FOR ALL APPLICABLE NOTES TO THE ADU UPPER FLOOR PLAN

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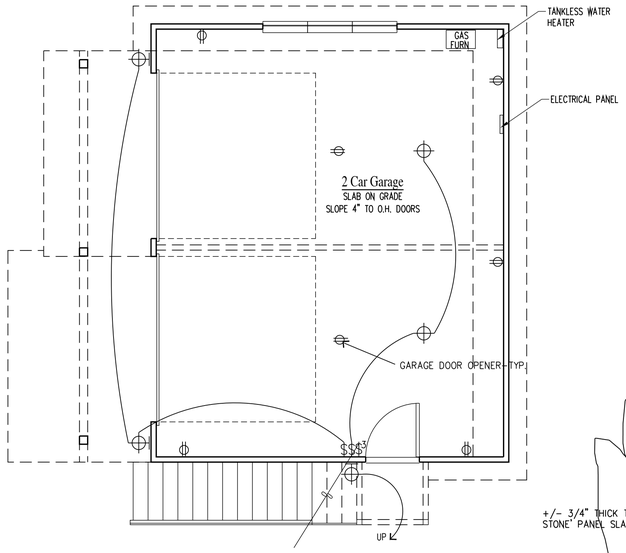


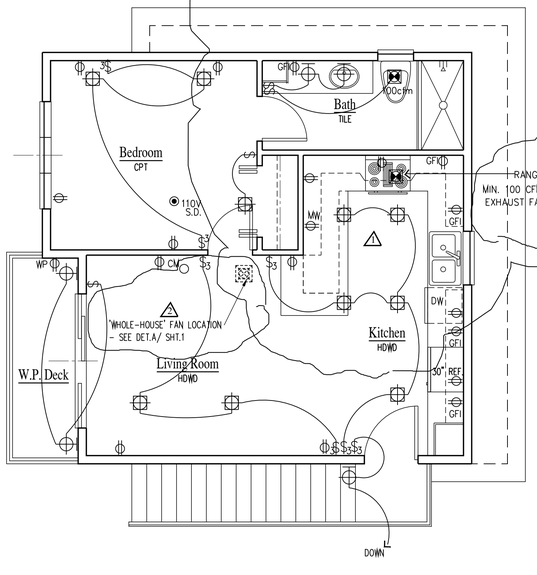
ADU-Garage Electrical Plan

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

SEE SHEET # 16 FOR ALL APPLICABLE NOTES TO THE ADU MAIN FLOOR ELECTRICAL PLAN

ENERGY NOTES TO DRAWING:

SEE SHEET # 1 OF THE DRAWINGS FOR THE 'ADU' ENERGY CREDIT REQUIREMENTS, THE ENRGY CODE SUMMARY, AND THE DIAGRAM OF THE VENTILATION SYSTEM SHOWN IN DETAIL A, SHEET # 1. ⚠2



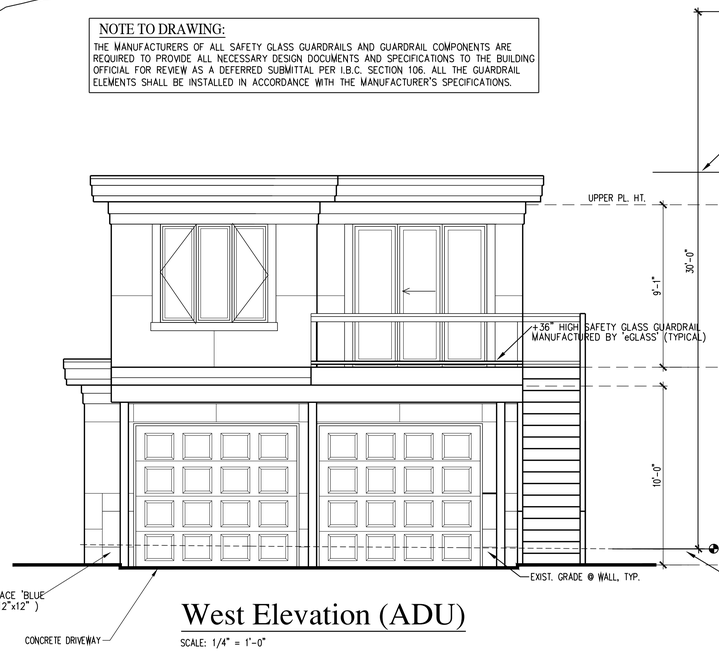
ADU-Upper Floor Electrical Plan

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

SEE SHEET # 16 FOR ALL APPLICABLE NOTES TO THE ADU UPPER FLOOR ELECTRICAL PLAN

NOTE TO DRAWING:

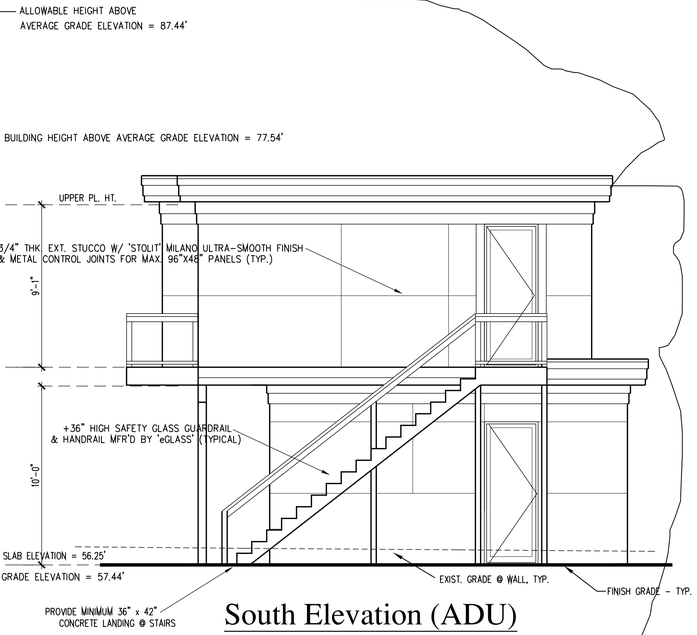
THE MANUFACTURERS OF ALL SAFETY GLASS GUARDRAILS AND GUARDRAIL COMPONENTS ARE REQUIRED TO PROVIDE ALL NECESSARY DESIGN DOCUMENTS AND SPECIFICATIONS TO THE BUILDING OFFICIAL FOR REVIEW AS A DEFERRED SUBMITTAL PER I.B.C. SECTION 106. ALL THE GUARDRAIL ELEMENTS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.



West Elevation (ADU)

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

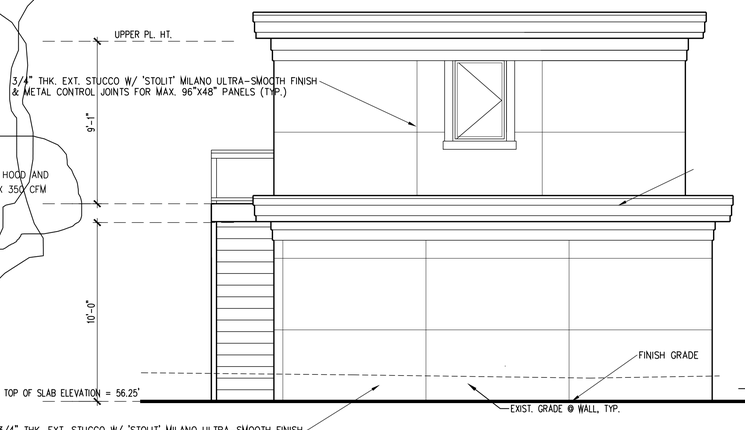
SEE SHEETS # 10 & # 11 FOR ALL APPLICABLE NOTES & CALL-OUTS TO THE ADU ELEVATIONS



South Elevation (ADU)

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

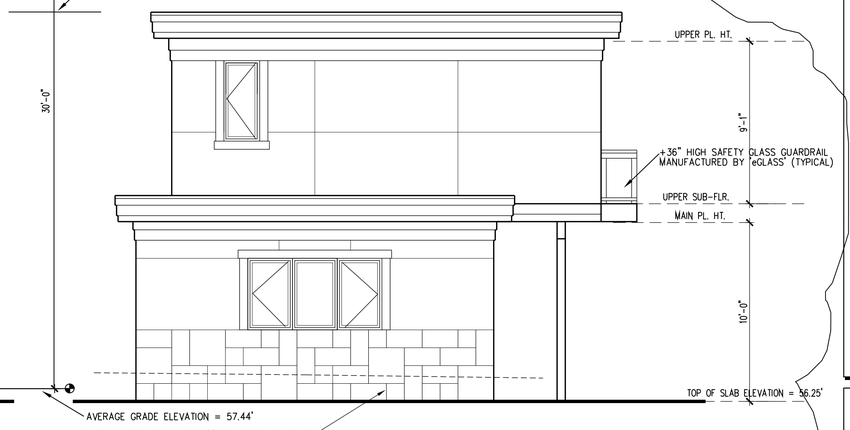
SEE SHEETS # 10 & # 11 FOR ALL APPLICABLE NOTES & CALL-OUTS TO THE ADU ELEVATIONS



East Elevation (ADU)

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

SEE SHEETS # 10 & # 11 FOR ALL APPLICABLE NOTES & CALL-OUTS TO THE ADU ELEVATIONS



North Elevation (ADU)

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

SEE SHEETS # 10 & # 11 FOR ALL APPLICABLE NOTES & CALL-OUTS TO THE ADU ELEVATIONS ⚠1

NOTE TO DRAWING:

THE MANUFACTURERS OF ALL SAFETY GLASS GUARDRAILS AND GUARDRAIL COMPONENTS ARE REQUIRED TO PROVIDE ALL NECESSARY DESIGN DOCUMENTS AND SPECIFICATIONS TO THE BUILDING OFFICIAL FOR REVIEW AS A DEFERRED SUBMITTAL PER I.B.C. SECTION 106. ALL THE GUARDRAIL ELEMENTS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

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Code Requirements
ASCE 7-16

Codes
2015 IBC
AISC/ASD Sixteenth Edition
ACI 318-16
NDS 2015
SEAW Rapid Solutions Methodology for Wind Design

DESIGN LOADS

Wind Design
ANALYSIS PROCEDURE SEAW RAPID SOLUTIONS METHODOLOGY for WIND DESIGN
BUILDING CATEGORY = 1
WIND SPEED = 85 MPH
EXPOSURE = 'B'
TOPOGRAPHIC FACTOR Kzt = 1.3

Building Design Loads
SNOW LOAD = 25 SPF
ROOF (DL) = 15 PSF, (LL) 25 PSF
FLOOR (DL) = 12 PSF, (LL) = 40 PSF
EXTERIOR WALL (DL) = 15 PSF
INTERIOR WALL = 7.5 PSF
EXTERIOR DECK (DL) = 15 PSF, (LL) = 65 PSF
CORRIDORS, STAIRS, EXITS (DL) = 12 PSF, (LL) = 100 PSF

Seismic Design
ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE PROCEDURE

Geotechnical Parameters

SEE SOILS REPORT BY NELSON GEOTECHNICAL ASSOCIATES, INC.
DATED: MARCH 10, 2020

ALLOWABLE SOIL BEARING PRESSURE = 2500 pcf
ACTIVE SOIL BEARING PRESSURE FOR YIELDING WALLS = 40 pcf
ACTIVE SOIL BEARING PRESSURE FOR NON-YIELDING WALLS = 60 pcf
PASSIVE SOIL BEARING PRESSURE = 200 pcf
SAFETY FACTOR = 1.5
COEFFICIENT OF FRICTION = .35
SOIL WEIGHT = 130 pcf

Seismic Considerations
SITE CLASS D
OCCUPANCY CATAGORY = 1
IMPORTANCE FACTOR = 1

S_S = 1.378 g
S_1 = .531
F_a =1.0
F_v = 1.5
$S_{ms} = F_a*S_S$ = 1*1.28 = 1.37
$S_{m1} = F_v*S_1$ = 1.5*.5 = .79
$S_{DS} = S_{MS}*.67$ = 1.28*.67 = .919
$S_{D1} = S_{M1}*.67$ = .75*.67 = .531

SEISMIC RESISTING SYSTEM, NORTH-SOUTH: WOOD PANEL SHEAR WALLS, R-6.5
SEISMIC RESISTING SYSTEM, EAST-WEST: WOOD PANEL SHEAR WALLS, R=6.5

SHEAR WALL NOTES - WALLS

PX-X INDICATES SHEAR WALL. SEE LEGEND.
SEE SHEAR WALL SCHEDULE FOR SHEAR WALL NOTES, ANCHOR BOLT PLACEMENT, PRESSURE TREATED SILL SIZES, AND INSTALLATION DETAILS.
NOTIFY ENGINEER OF ANY REVISIONS TO SHEAR WALL OR FIELD MODIFICATIONS DUE TO UNFORESEEN CONDITIONS BEFORE PROCEEDING WITH CONSTRUCTION.
DIAPHRAGM SHEATHING NAILS SHALL BE DRIVEN SO THAT THEIR HEAD OR CROWN IS FLUSH WITH THE SURFACE OF THE SHEATHING.

THE FASTENERS USED IN THE SHEAR WALL DESIGN ARE 10d COMMONS OR 10d GALVANIZED BOX NAILS. ANY FASTENER SUBSTITUTION WILL HAVE TO BE REVIEWED BY ENGINEER PRIOR TO CONSTRUCTION.

SOLID BLOCK BELOW SHEAR WALLS ABOVE.

◆ INDICATES SHEAR WALL TIE DOWN STRAP BETWEEN THE SHEAR WALL ABOVE AND THE FRAMING ABOVE OR THE WALLS BELOW.

Shear Wall Notes - Foundation

(▲) indicates 'Simpson' holdown location(see manufacturer's installation requirements). Holdown anchors are to be installed at the end of plywood shear panels.

See Shear Wall Schedule for shear wall notes, schedules, anchor bolt placement, and pressure treated sill sizes.

All shear wall panels other than P1-6" are to be installed with pressure treated 3X sills.

All holdown 4X or 6X posts to be Doug fir #2 or better.

Anchor bolts to be minimum 5/8"d. X 10" @ 48" o.c. (unless noted otherwise in Anchor Bolt Shear Wall Schedule, Sheet #S-1).

Concrete strength f'c = 3000 psi for concrete exposed to the elements.
Concrete strength f"c = 2500 psi for concrete not exposed to elements.

Notify engineer of any revisions to shear wall or holdown plan or field modifications due to unforeseen conditions before proceeding with construction.

Increase depth of foundation at holdown anchor bolts to insure proper concrete coverage.

Simpson Strong Tie connectors are specifically required to meet the structural calculations of this plan. Before substituting another brand, confirm load capacity based on reliable published testing data of calculations. The Engineer of Record should evaluate and give approval for substitution prior to installation.

MATERIAL SPECIFICATIONS

Prefabricated Floor Trusses/Floor Joists (if required)
> Submit to engineer of record complete shop drawings and calculations stamped by a Washington State registered professional engineer for approval prior to fabrication.
> Provide for all temporary and permanent truss and joist bracing and bridging (per manufacturer's recommendations).
> Store and erect trusses in accordance with the manufacturer's details and installation recommendations.
> Substitution in prefabricated assemblies to be approved by engineer of record prior to installation.
> Plywood to be glue nailed to top flange of prefab floor joist or truss.
> Provide additional web reinforcing at TJI joists at or over supports.

Floor Loads (See loading table above)

Wood Notes
> New exterior walls to be framed with 2 x 4 or 2 X 6 studs @ 16" O.C. (unless noted otherwise).
> New interior walls to be framed with 2 x 4 studs @ 16" o.c. (unless noted otherwise).
> All frame nailing shall be in accordance with Table No. 2304.9.1, 2015 IBC
> When a girder is spliced over a support, an adequate tie shall be provided.
> Provide solid blocking over all supports.
> Provide fire blocking within framing cavity at 10'-0"vertically and horizontally). Fire stop openings around vents, pipes, ducts, chimneys,etc. with non-combustible materials.
> Framing anchors shall be provided to support joists which frame into the side of a wood girder or framing band.
> Wood members shall have sufficient bearing area based on allowable values for compression perpendicular to grain per 2001 NDS.
> Provide double joists under all interior bearing walls.
> Where boring through studs is required for plumbing or electrical wiring in bearing walls use 2 X 6 or double 2 X 4 studs.
> All joists, studs, blocking, bracing, and rafters shall be Hem Fir #2 or better; Fb = 850 psi (1000 psi repetitive), Fv = 75 psi E = 1, 300,000

> All sawn beams, headers, posts, lintels, and girders which are 4" nominal width shall be Doug-Fir Larch #2 or better; Fb = 850 psi, Fv = 95 psi, E = 1, 600,000.
> All sawn beams, headers, posts, lintels, and girders which are 6" nominal width shall be Doug-Fir Larch #1 or better: Fb = 850 psi, Fv = 85 psi, E = 1, 600,000.
> All glue-laminated timbers to be kiln dried Doug-Fir top and bottom (24 F-V-4) for simple span beams; (24 F-V8) for multiple span or cantilever beams. Fb = 2400 psi, Fv = 165 psi, E = 1,800,000.
> All framing lumber shall be kiln dried to a maximum 19% moisture content prior to installation.
> Steel framing accessories and structural fasteners shall be as manufactured by Simpson Company (or approved equal). Connectors shall be installed in accordance with manufacturer's recommendations. Provide all plan designated manufacturer's connectors.
> Simpson Strong Tie connectors are specifically required to meet the structural calculations of this plan. Before substituting another brand, confirm load capacity based on reliable published testing data of calculations. The Engineer of Record should evaluate and give approval for substitution prior to installation.

Holdowns
> Holdowns to be by Simpson Company or equal. Any substitutions in hardware manufacturer must be approved by the Engineer of Record prior to installation.

Plywood Notes
> All plywood shall be installed per American Plywood Association standards.
> All plywood shall be A.P.A rated C-D Struct 1(min.).
> All panel edges to occur with long edges over wood supports, short edges to be blocked.
> All roof plywood to be ½" thick with span rating 24/0.
> Nail panels with 10d common nails at 12" o.c. in the field, 6" o.c. at all panel edges. Nail at 4" o.c. to all exterior walls and other shear walls.
> All floor plywood to be min ¾" thick with span rating 32/16.
> Nail panels with 10d. galv. nails at 6" o.c. at panel edges, 12" o.c. in the field. See Shear wall schedule for nailing patterns shear walls.
> At floor sub-floor glue floor plywood to floor joists with an approved elastomeric adhesive suitable for use in wet weather.
> See shear wall schedule and notes for wall plywood and nailing schedule.
> All plywood at waterproof decks to be pressure treated.
> Plywood floor and roof sheathing shall be laid up with face grain perpendicular to supports.
> All floor plywood shall be glue nailed to supporting joist in accordance with the American Plywood Association. Glue shall meet the requirements of Adhesive Specification AFG-01.

Concrete/Foundation Notes
> Foundation design is in accordance with chapter 19 of the 2015 IBC
All work shall be performed in accordance with all current building and safety codes.
> Concrete strengths shall be verified by standard 28-day cylinder tests, unless approved otherwise.
> Anchor bolts to be 5/8"diameter with 10" embedment @ 48" o.c. (see shear wall schedule for anchor bolt size and spacing at other than P1-6" shearwalls). All anchor bolts to be ASTM A-307.
> ALLOWABLE SOIL BEARING PRESSURE = 15000 PSF
> Backfill behind unbraced retaining walls prior to attaching floor diaphragm.
> Exterior footings to be entrenched a minimum of 18" below existing grade and bear on firm undisturbed soil.
> All reinforcing bars to be Grade 60 deformed bars. The tie wire is to be 16 Ga. double annealed wire. Lap all reinforcing 36 diameters. At corners of walls extend horizontal bars 2" from outside face of wall and lap with elbow bars of 30 diameters at the same size and spacing. Provide 2-#5 bars around all wall openings. Provide footing dowels to match vertical reinforcing.

Concrete cover

3"	concrete poured against earth
2"	formed concrete with earth backfill
1 1/2"	outside face of walls exposed to weather, slabs on a moisture barrier
1"	walls, outside face

> Provide 4"diameter perforated PVC drain in granular fill at the base of all new exterior footings (existing and new).

Concrete mix
Mix design shall be in conformance with ACI-318-99. Submit mix designs to engineer of record 2 weeks prior to placement indicating where each concrete mix is used and the maximum aggregate size.

type	f'c	max.water/cem.ratio non-air ent.	min. air ent.	sks/cu.yd.
ftgs		.65	.42	6
found.walls	2500			
slab on grade	3000	.65	.50	5 ½

> Water reducing mixtures may be incorporated into the mix designs in accordance with ASTM C 494 and manufacturer's recommendations.
>Water/Cement ratio shall be measured by weight and shall be based on the total cementious material. Water/Cement ration shall be determined by the supplier based on the strength requirements and shall no exceed the maximum water/cement ratio shown above.

General Conditions

> Contractor will call for inspection prior to placing any footing and foundation wall concrete.
> Provide rigid insulation around the perimeter of all slabs within heated spaces.
> Permanent cut and fill slopes should not exceed 2:1 (H:V).
> All reinforcing shall be detailed in accordance with ACI detailers manual.
> All excavations shall be adequately barricaded and marked. All work area and surfaces shall be cleaned upon completion of the project. All debris and waste materials shall be removed off the site to an approved disposal area by the contractor.
-Use air -entrained (3%-6%) in all flat work exposed to weather.- Master flow 928 or equal.
> Provide minimum of 1/2" air space between non-pressure treated wood and concrete, or provide waterproofing membrane between concrete and non-pressure treated wood.
> Top of concrete to be field verified by contractor.
> Contractor to field verify existing grade cut and soil conditions with before proceeding with concrete retaining wall forming and reinforcing steel placement.

> Contractor shall be responsible for all safety precautions and the methods, techniques, sequences or procedures required to perform the work.
>In the case of discrepancies between the drawings and the anticipated field conditions the contractor shall notify the architect before proceeding with construction.
>DO NOT SCALE the architects or engineer's drawings – noted dimensions take precedence over scaled dimensions.

Fasteners
Fasteners for pressure treated wood must be ZMAX hot dipped galvanized (G185) or stainless steel.

Prefabricated Roof Trusses (if required)
> Submit complete shop drawings and calculations stamped by a Washington State registered professional engineer for approval prior to fabrication.
> Design for the spans and conditions shown on plans.
> Deflections under total loads not to exceed L/360.
> Provide for all temporary and permanent truss bracing and bridging.
> Store and erect trusses in accordance with the manufacturer's recommendations.

Roof Dead Load = (15 psf)
Live Load = (25 psf)
Bottom chord Dead Load = 7 psf
Top Chord uplift = 7 psf

STRUCTURAL STEEL/WELDING
STEEL DESIGN, FABRICATION AND ERECTION SHALL CONFORM TO THE REQUIREMENTS OF CHAPTER 22 OF THE 2015 IBC SUBSTITUTION OF MEMBER SIZES OR STEEL GRADE WILL NOT BE ALLOWED WITHOUT PRIOR APPROVAL OF THE ENGINEER OF RECORD.
THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ERECTION AIDS AND JOINT PREPARATIONS THAT INCLUDE BUT ARE NOT LIMITED TO ERECTION ANGLES, LIFT HOLES AND OTHER AIDS, WELDING PROCEDURES REQUIRED ROOT OPENINGS, ROOF FACE DIMENSIONS, GROOVE ANGLES, BACKING BARS, SCOPES, SURFACE ROUGHNESS VALUES AND UNEQUAL PARTS.
EXPANSION BOLTS SHALL BE ICBO APPROVED AND INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS.
UNLESS OTHERWISE SPECIFIED ON DRAWINGS OR DETAILS, SIZE AND EMBEDMENT DEPTHS SHALL BE APPROVED THE THE ENGINEER OF RECORD.

MATERIALS
STRUCTURAL STEEL ATM A 992GRADE50
CONNECTION MATERIAL, ASTM A 36
EMBEDDED ITEMS,
CHANNELS, ANGLES, BASE PLATES
STRUCTURAL TUBES ASTM A 500, GRADE B
STRUCTURAL BOLTS ASTM A 325-N
WOOD CONNECTION BOLTS ASTM A 307
ANCHOR BOLTS ASTM A 307
THREADED RODS ASTM A 36
WELDING ELECTRODES 70ksi, LOW HYDROGEN

BEAM CAMBER NOTED ON DRAWINGS IS THE UPWARD CAMBER REQUIRED IN THE BEAM AS DELIVERED TO THE JOB SITE. THE CONTRACTOR SHALL CONSIDER CAMBER LOSS DUE TO SHIPPING AND HANDLING.

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

SHEAR WALL SCHEDULE - 2015 IBC

WALL SHEATHING TO BE ½" (C-D) STRUCTURAL 1, 24/0
ROOF SHEATHING TO BE ½" (C-D) STRUCTURAL 1, 32/16
USE 10d COMMON NAILS (.148"Ø X 3" LONG)
ALL FRAMING MEMBERS TO BE MAXIMUM 19% MOISTURE CONTENT

PLAN SYMBOL	WALL TYPE	NAIL SIZE	PANEL NAIL SPACING: PANEL EDGES	FIELD STUDS	TOP/BTM PLATES	BLK'G	REQUIRED ANCHORS: PR TR SILL	BTM PLATE	ALLOWABLE UNIT SHEAR (PLF)
6	P1-6"	10d	6"	12"	6"	2X6(4)	⅝"Ø @ 48"	16d @ 6"	262(HF), 320(DF)
4	P1-4"	10d	4"	12"	4"	3X6(4)	⅝"Ø @ 32"	(2) 16d @ 8"	348(HF), 425(DF)
3	P1-3"	10d	3"	12"	3"	3X6(4)	⅝"Ø @ 24"	(2) 16d @ 6"	525(HF), 640(DF)
2	P1-2"	10d	2"	12"	2"	3X6(4)	⅝"Ø @ 24"	(2) 16d @ 5"	599(HF), 730(DF)
2-3	P2-3"	10d	3"	12"	3"	3X6(4)	⅝"Ø @ 16"	(4) 16d @ 6"	1050(HF),1280(DF)

Shear Wall Notes
1. P-1 INDICATES PLYWOOD ON ONE SIDE OF SHEAR WALL ONLY.
2. P-2 INDICATES PLYWOOD ON TWO SIDES OF SHEAR WALL. FRAMING MEMBERS SHALL BE 3X. OFFSET PANEL JOINTS TO FALL ON DIFFERENT STUDS.
3. PLYWOOD MAY BE INSTALLED EITHER HORIZONTALLY OR VERTICALLY ON H M-FIR, OR DOUG FIR STUDS.
4. FOR NAILING AT 4", 3", 2" ON CENTER, USE 3X FRAMING MEMBERS AT ALL P IEL EDGES. STAGGER FASTENERS AT ALL PANEL JOINTS.
5. FOR NAILING AT 4",3",2" ON CENTER USE P.T. 3X SILL AT FOUNDATION.
6. SOLID BLOCK ALL PANEL EDGES WITH FULL DEPTH BLOCKING.
7. USE 10d. COMMON NAILS FOR SHEAR WALL FASTENERS.
8. NAILS MUST BE FLUSH DRIVEN WITH THE DIAPHRAGM SURFACE.
9. ANCHOR BOLTS TO HAVE A MINIMUM 3"X3"X1/4" PLATE WASHERS.
10. FINGER JOINTED STUDS ARE NOT TO BE USED AT HOLDOWN LOCATIONS.
11. NAILS FOR PANEL EDGES SHALL BE 10d COMMON(0.148 X 3" LONG). NAILS FOR PLATES SHALL BE 12d COMMON(0.148X 3 1/4" LONG).
12. WHERE BOTTOM PLATE NAILING REQUIRES (4) NAILS AT A SPECIFIC SPACING, BLOCK FLOOR SPACE BELOW THE SOLE PLATE CONSISTING OF A MINIMUM OF TWO FRAMING MEMBERS. NAILING PATTERN SHALL CONSIST OF TWO ROWS IN EACH MEMBER OFFSET 1/2" AND STAGGERED.
13. DO NOT INSTALL FLOOR DIAPHRAGM NAILING OVER BOTTOM SILL NAILING.
14. ALL STUDS TO BE 2X HEM-FIR OR BETTER.

STATE OF WASHINGTON · STEPHEN T. TAPP · 38396 · REGISTERED PROFESSIONAL ENGINEER
EXPIRES: 1/12/21

revisions
4/6/21
6.16.21

A Custom Residence for
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Seattle, Washington

This work was prepared by me or under my supervision.

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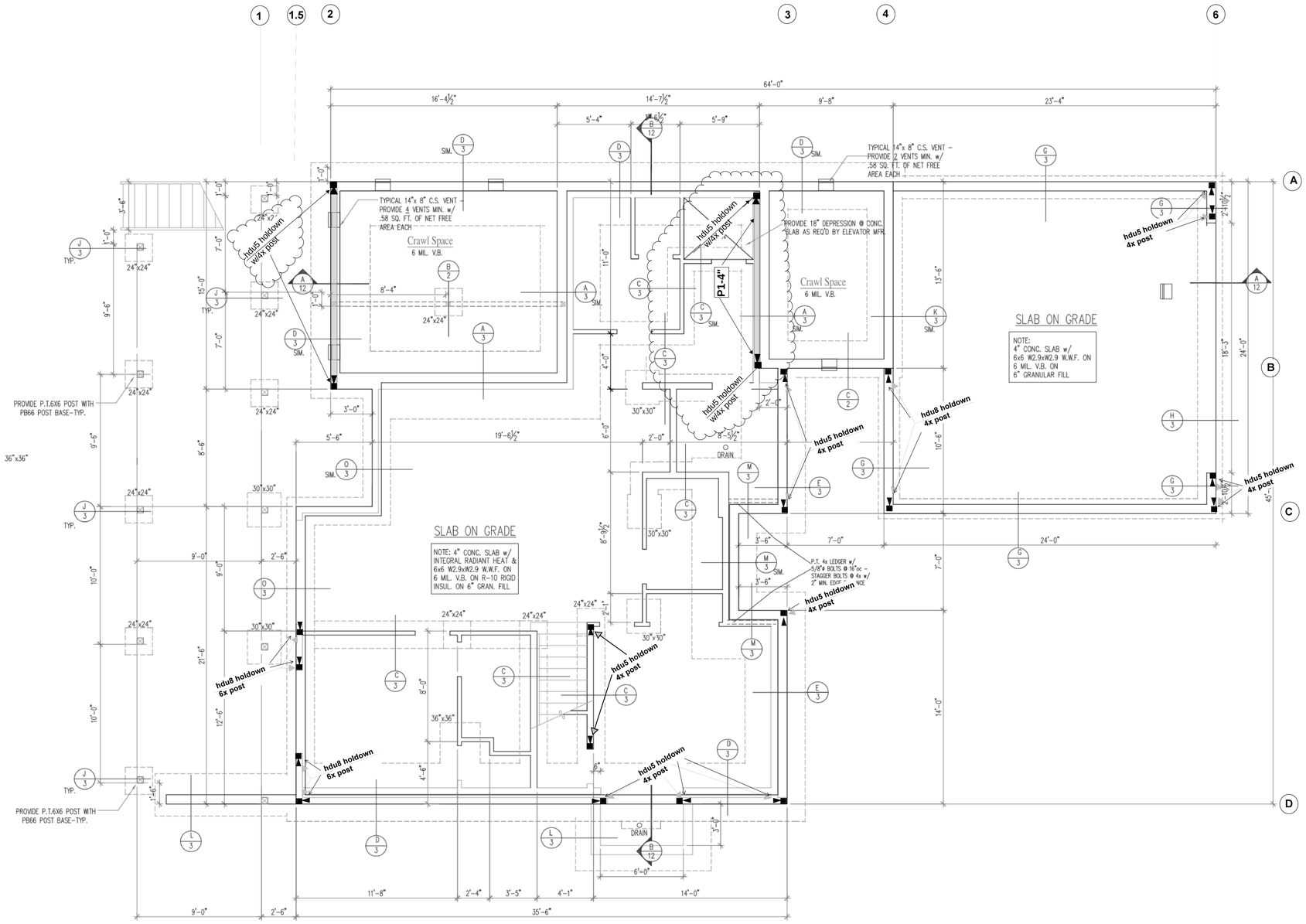

SHEAR WALL NOTES - FOUNDATION

◀ INDICATES 'SIMPSON' HOLDOWN LOCATION (SEE MANUFACTURER'S INSTALLATION REQUIREMENTS). HOLDOWN ANCHORS ARE TO BE INSTALLED AT THE END OF PLYWOOD SHEAR WALL PANELS.

SEE SHEAR WALL SCHEDULE FOR SHEAR WALL NOTES, SCHEDULES, ANCHOR BOLT PLACEMENT, AND PRESSURE TREATED SILL SIZES.

ALL SHEAR WALL PANELS OTHER THAN P1-6" ARE TO BE INSTALLED WITH PRESSURE TREATED 3X SILLS.

ANCHOR BOLTS TO BE MINIMUM 5/8"Ø X 10" @ 48" O.C. (UNLESS NOTED OTHERWISE IN ANCHOR BOLT SCHEDULE, SHEET S-3).

CONCRETE STRENGTH F'C = 3000 PSI FOR CONCRETE EXPOSED TO THE ELEMENTS.
CONCRETE STRENGTH F'C = 2500 PSI FOR CONCRETE NOT EXPOSED TO ELEMENTS.

NOTIFY ENGINEER OF ANY REVISIONS TO SHEAR WALL OR HOLDOWN PLAN OR FIELD MODIFICATIONS DUE TO UNFORESEEN CONDITIONS BEFORE PROCEEDING WITH CONSTRUCTION.

INCREASE DEPTH OF FOUNDATION AT HOLDOWN ANCHOR BOLTS TO INSURE PROPER CONCRETE COVERAGE.

SIMPSON STRONG TIE CONNECTORS ARE SPECIFICALLY REQUIRED TO MEET THE STRUCTURAL CALCULATIONS OF THIS PLAN. BEFORE SUBSTITUTING ANOTHER BRAND, CONFIRM LOAD CAPACITY BASED ON RELIABLE PUBLISHED TESTING DATA OF CALCULATIONS. THE ENGINEER OF RECORD SHOULD EVALUATE AND GIVE APPROVAL FOR SUBSTITUTION PRIOR TO INSTALLATION.

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Holdown Location Plan

1/4" = 1 -0"

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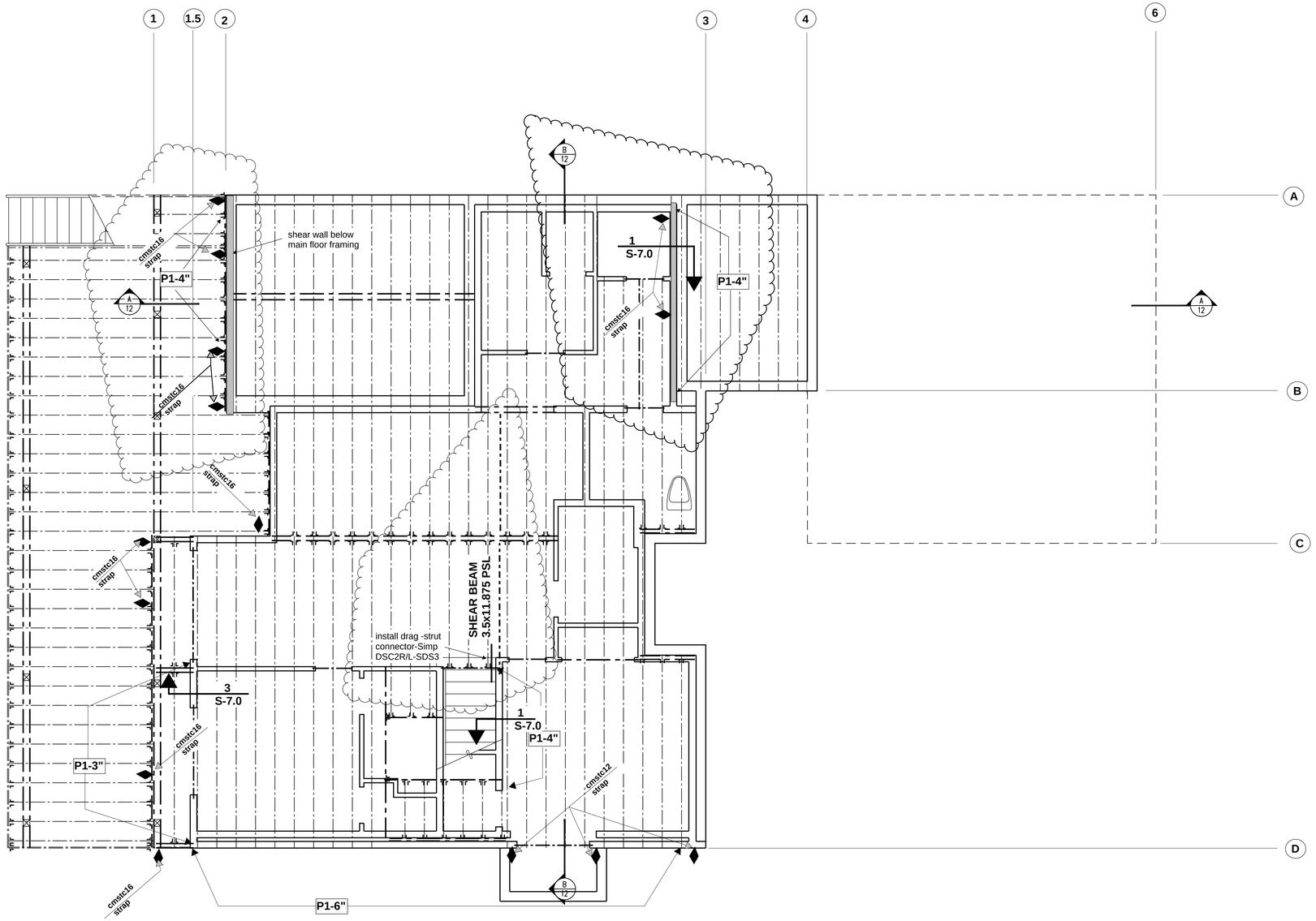

SHEAR WALL NOTES - WALLS

PX-X INDICATES SHEAR WALL. SEE LEGEND.

SEE SHEAR WALL SCHEDULE FOR SHEAR WALL NOTES, ANCHOR BOLT PLACEMENT, PRESSURE TREATED SILL SIZES, AND INSTALLATION DETAILS.

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SOLID BLOCK BELOW SHEAR WALLS ABOVE.

◆ INDICATES SHEAR WALL TIE DOWN STRAP BETWEEN THE SHEAR WALL ABOVE AND THE FRAMING ABOVE OR THE WALLS BELOW.

Lower Floor Shear Wall Plan

1/4" = 1'-0"

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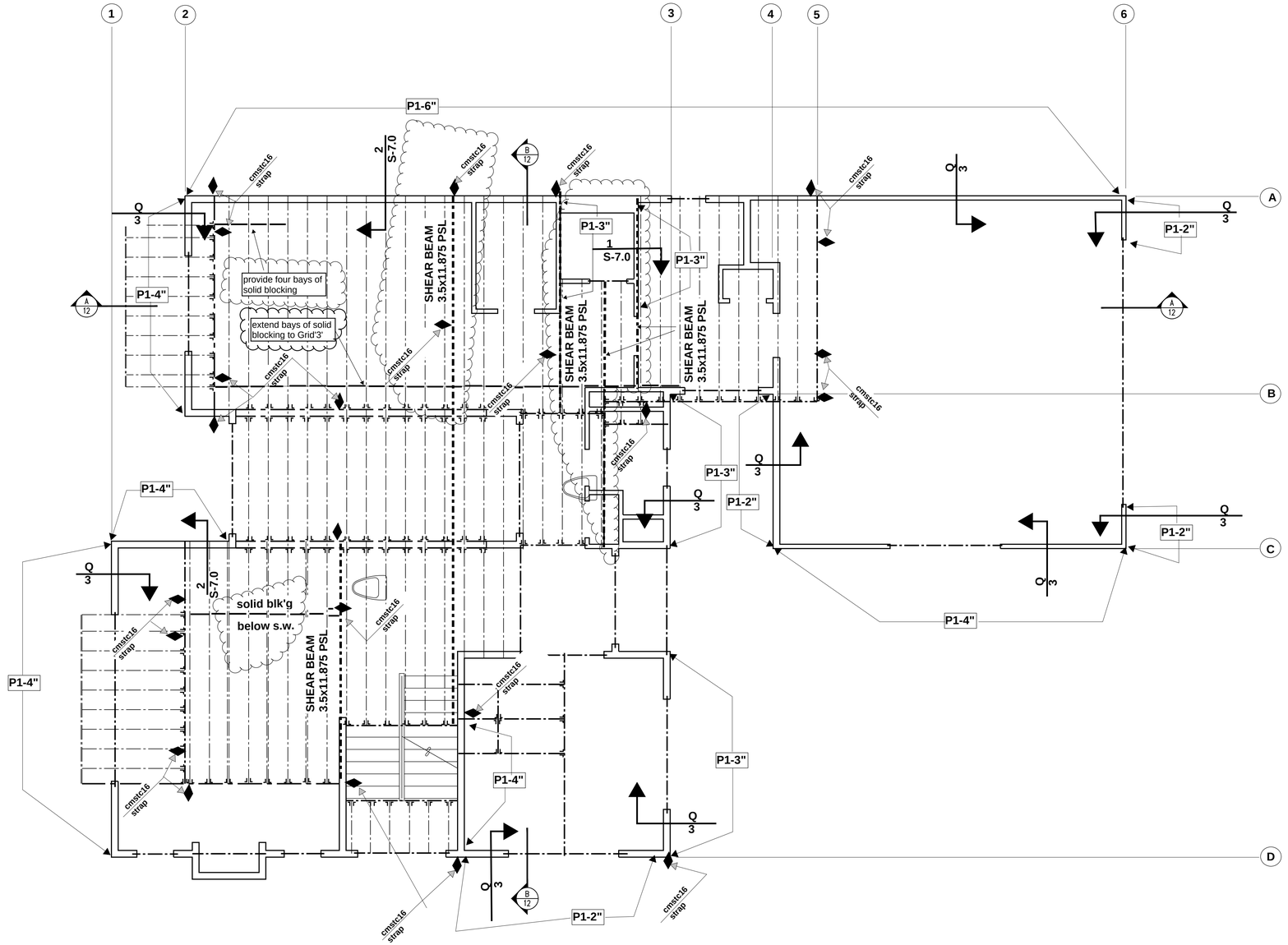

Main Floor Shear Wall Plan

1/4" = 1'-0"

SHEAR WALL NOTES - WALLS

PX-X INDICATES SHEAR WALL. SEE LEGEND.

SEE SHEAR WALL SCHEDULE FOR SHEAR WALL NOTES, ANCHOR BOLT PLACEMENT, PRESSURE TREATED SILL SIZES, AND INSTALLATION DETAILS.

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SOLID BLOCK BELOW SHEAR WALLS ABOVE.

◆ INDICATES SHEAR WALL TIE DOWN STRAP BETWEEN THE SHEAR WALL ABOVE AND THE FRAMING ABOVE OR THE WALLS BELOW.

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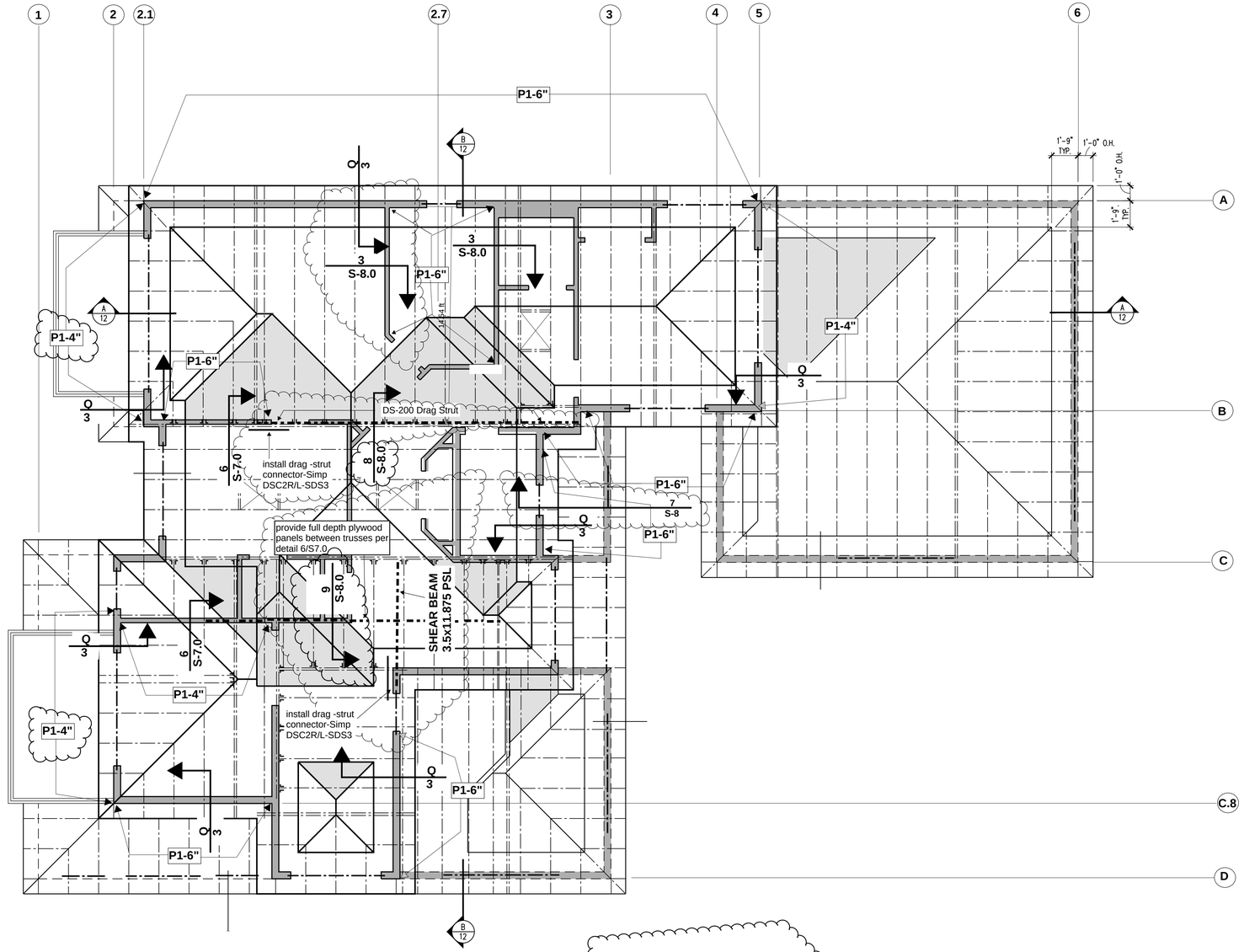

Shear Beam Schedule

DS-200 3.5 x 14 2.0E PSL

Upper Floor Shear Wall Plan

1/4" = 1'-0"

SHEAR WALL NOTES - WALLS

PX-X INDICATES SHEAR WALL. SEE LEGEND.

SEE SHEAR WALL SCHEDULE FOR SHEAR WALL NOTES, ANCHOR BOLT PLACEMENT, PRESSURE TREATED SILL SIZES, AND INSTALLATION DETAILS.

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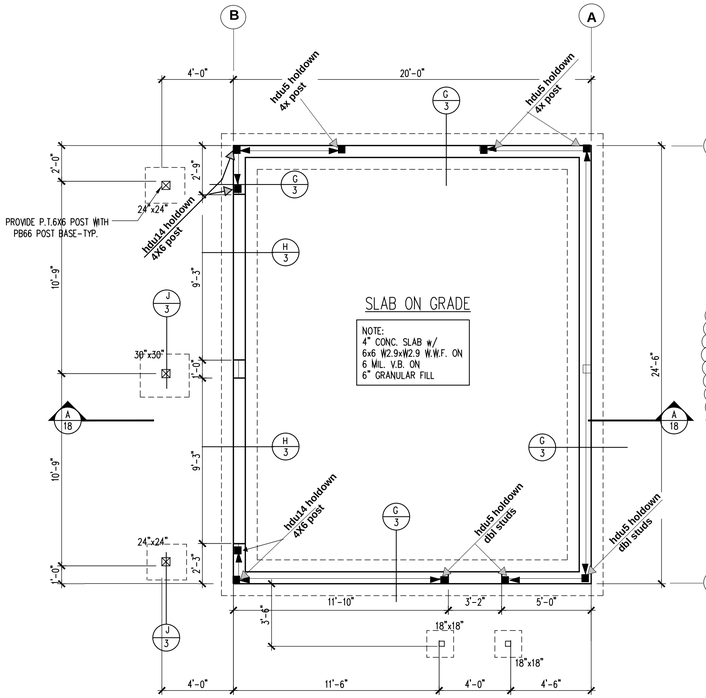
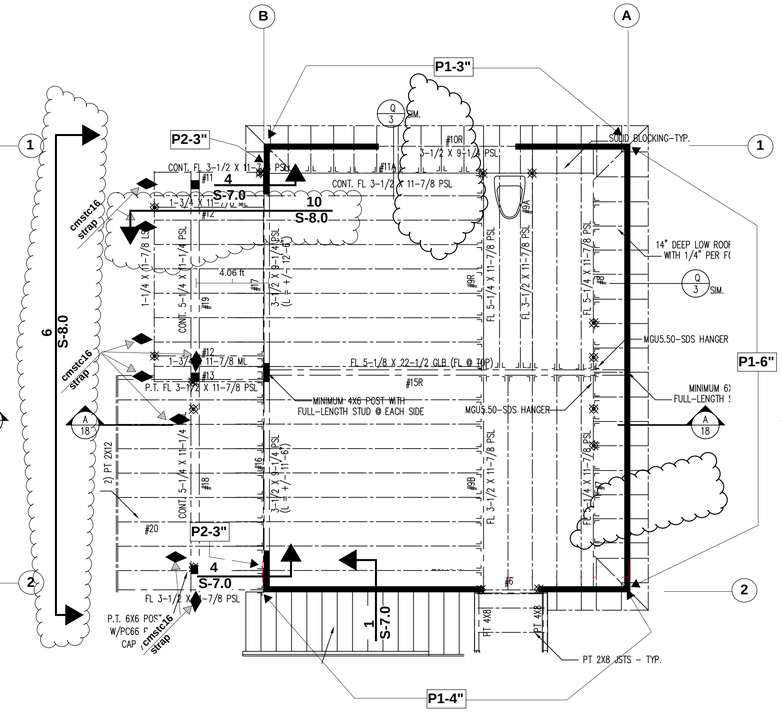


ADU-Foundation Plan

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

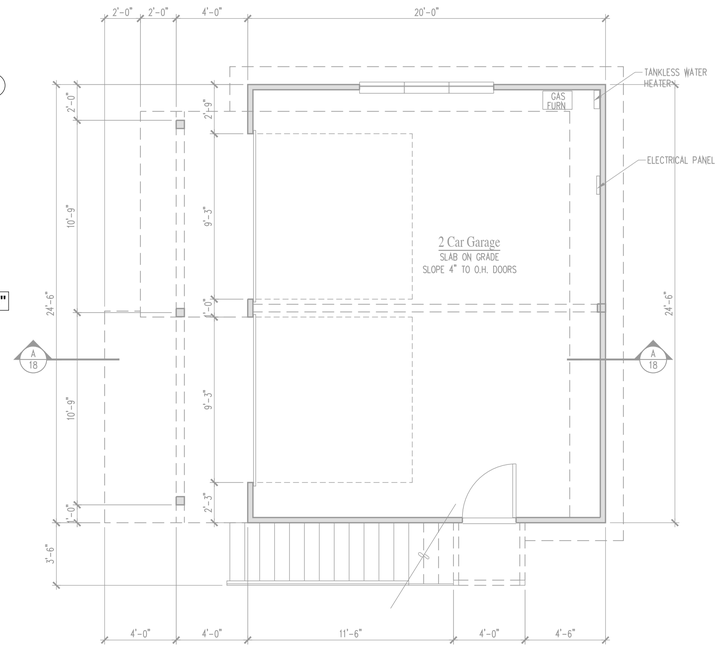
Holdown Anchor Schedule

holdown	anchor
HDU5	SB5/8X24
HDU14	PAB8



ADU Main Floor Shear Wall Plan

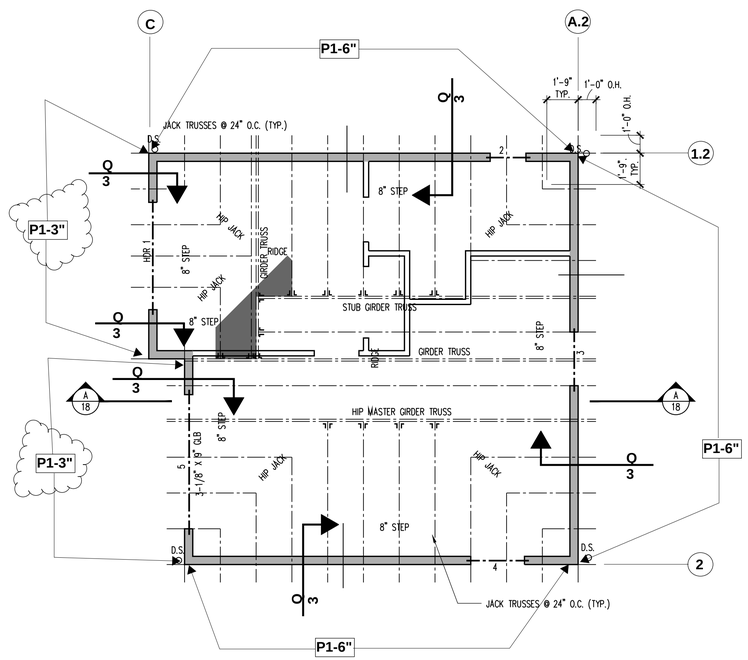
1/4" = 1'-0"



ADU-Garage Floor Plan

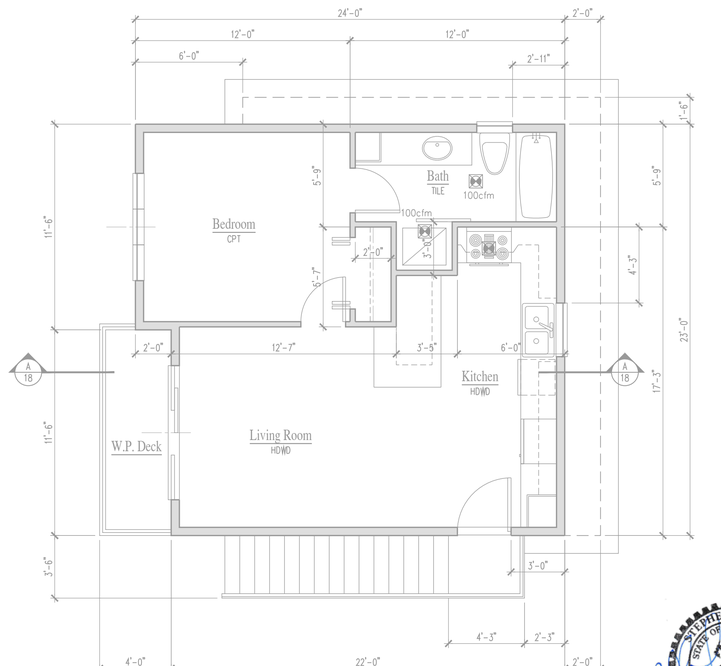
SCALE: 1/4" = 1'-0"

MAIN FLOOR AREA = 0000 S.F.
GARAGE AREA = 000 S.F.



ADU Upper Floor Shear Wall Plan

1/4" = 1'-0"



ADU-Upper Floor Plan

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

UPPER FLOOR AREA = 0000 S.F.

SHEAR WALL NOTES - FOUNDATION

◄ INDICATES 'SIMPSON' HOLDOWN LOCATION (SEE MANUFACTURER'S INSTALLATION REQUIREMENTS). HOLDOWN ANCHORS ARE TO BE INSTALLED AT THE END OF PLYWOOD SHEAR WALL PANELS.

SEE SHEAR WALL SCHEDULE FOR SHEAR WALL NOTES, SCHEDULES, ANCHOR BOLT PLACEMENT, AND PRESSURE TREATED SILL SIZES.

ALL SHEAR WALL PANELS OTHER THAN P1-6" ARE TO BE INSTALLED WITH PRESSURE TREATED 3X SILLS.

ANCHOR BOLTS TO BE MINIMUM 5/8"Ø X 10" @ 48" O.C. (UNLESS NOTED OTHERWISE IN ANCHOR BOLT SCHEDULE, SHEET S-3).

CONCRETE STRENGTH F'C = 3000 PSI FOR CONCRETE EXPOSED TO THE ELEMENTS.
CONCRETE STRENGTH F'C = 2500 PSI FOR CONCRETE NOT EXPOSED TO ELEMENTS.

NOTIFY ENGINEER OF ANY REVISIONS TO SHEAR WALL OR HOLDOWN PLAN OR FIELD MODIFICATIONS DUE TO UNFORESEEN CONDITIONS BEFORE PROCEEDING WITH CONSTRUCTION.

INCREASE DEPTH OF FOUNDATION AT HOLDOWN ANCHOR BOLTS TO INSURE PROPER CONCRETE COVERAGE.

SIMPSON STRONG TIE CONNECTORS ARE SPECIFICALLY REQUIRED TO MEET THE STRUCTURAL CALCULATIONS OF THIS PLAN. BEFORE SUBSTITUTING ANOTHER BRAND, CONFIRM LOAD CAPACITY BASED ON RELIABLE PUBLISHED TESTING DATA OF CALCULATIONS. THE ENGINEER OF RECORD SHOULD EVALUATE AND GIVE APPROVAL FOR SUBSTITUTION PRIOR TO INSTALLATION.

SHEAR WALL NOTES - WALLS

PX-X INDICATES SHEAR WALL. SEE LEGEND.

SEE SHEAR WALL SCHEDULE FOR SHEAR WALL NOTES, ANCHOR BOLT PLACEMENT, PRESSURE TREATED SILL SIZES, AND INSTALLATION DETAILS.

NOTIFY ENGINEER OF ANY REVISIONS TO SHEAR WALL OR FIELD MODIFICATIONS DUE TO UNFORESEEN CONDITIONS BEFORE PROCEEDING WITH CONSTRUCTION.

DIAPHRAGM SHEATHING NAILS SHALL BE DRIVEN SO THAT THEIR HEAD OR CROWN IS FLUSH WITH THE SURFACE OF THE SHEATHING.

THE FASTENERS USED IN THE SHEAR WALL DESIGN ARE 10d COMMONS OR 10d GALVANIZED BOX NAILS. ANY FASTENER SUBSTITUTION WILL HAVE TO BE REVIEWED BY ENGINEER PRIOR TO CONSTRUCTION.

SOLID BLOCK BELOW SHEAR WALLS ABOVE.

◄► INDICATES SHEAR WALL TIE DOWN STRAP BETWEEN THE SHEAR WALL ABOVE AND THE FRAMING ABOVE OR THE WALLS BELOW.

revisions
4/6/21
6.16.21

A Custom Residence for
Gregg Petrie
2431 60th Avenue SE, Mercer Island WA

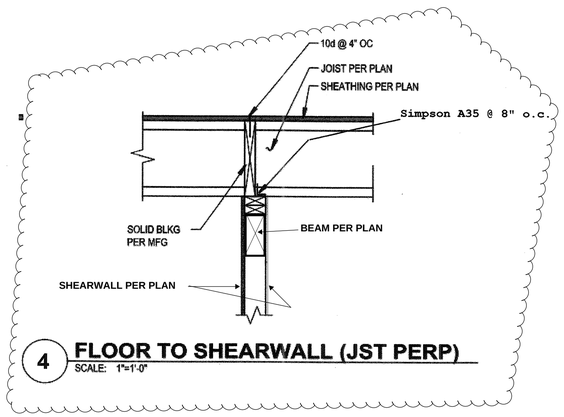
Stephen Tapp
Architect / P.E.
Ph. 206-320-0634
2330 East Madison Street
Seattle, Washington

This work was prepared by me or under my supervision.

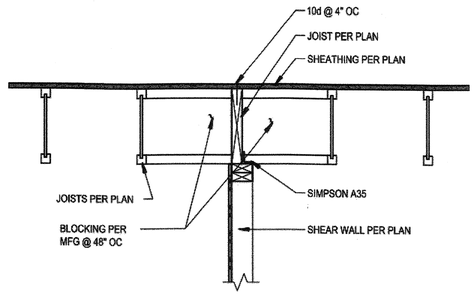
Sheet Contents:

Scale: as noted
Date: 5/13/20
Job no.: T20D3
Drawn by: STT
Sheet no.:

S-6.0
of 8



4 FLOOR TO SHEARWALL (JST PERP)
SCALE: 1"=1'-0"



3 FLOOR TO SHEARWALL (JST PARALLEL)
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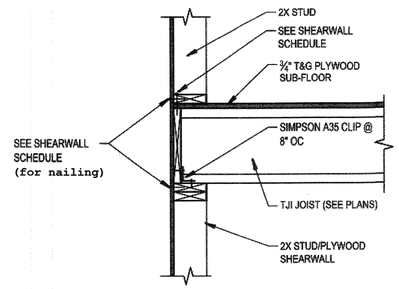
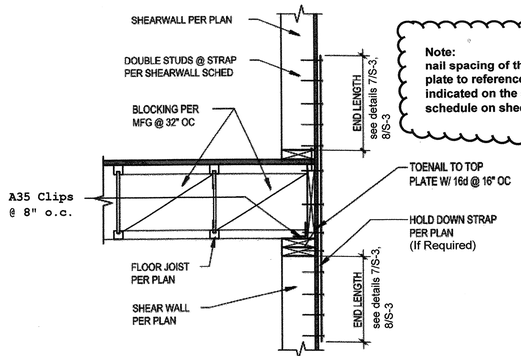
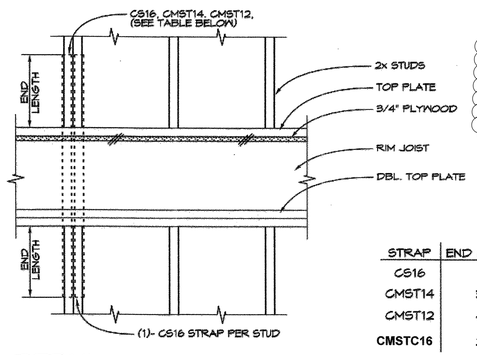


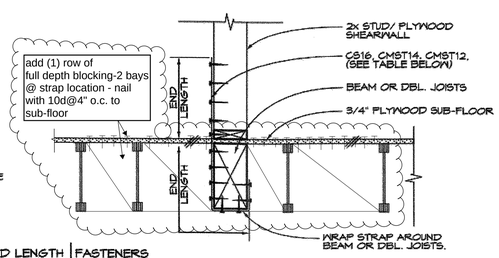
2 SHEAR WALL AT FLOOR
SCALE: 1"=1'-0"



Note:
nail spacing of the sill plate to reference spacing indicated on the shearwall schedule on sheet S-1.

1 HOLD DOWN AT SHEAR WALLS
SCALE: 1"=1'-0"

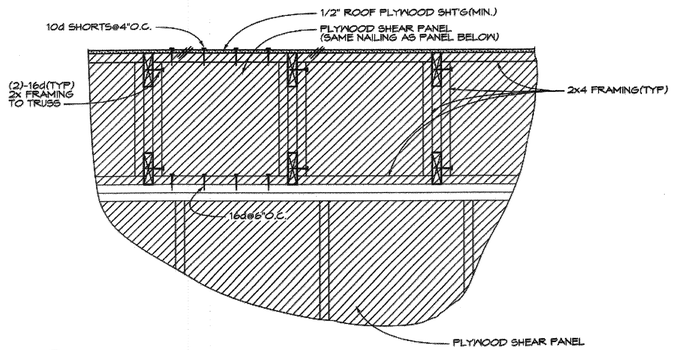




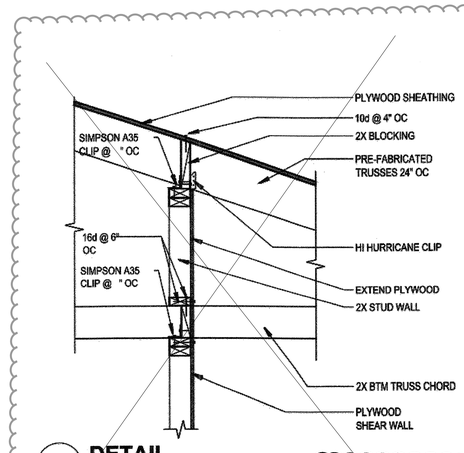
STRAP	END LENGTH	FASTENERS
CS16	11"	(22)-10d
CMST14	34"	(74)-16d
CMST12	45"	(100)-16d
CMSTC16	25"	(58)-16d

8 DETAIL STRAP TIE WALL TO WALL SCALE: 1"=1'-0"

7 DETAIL STRAP TIE WALL TO BEAM SCALE: 1"=1'-0"

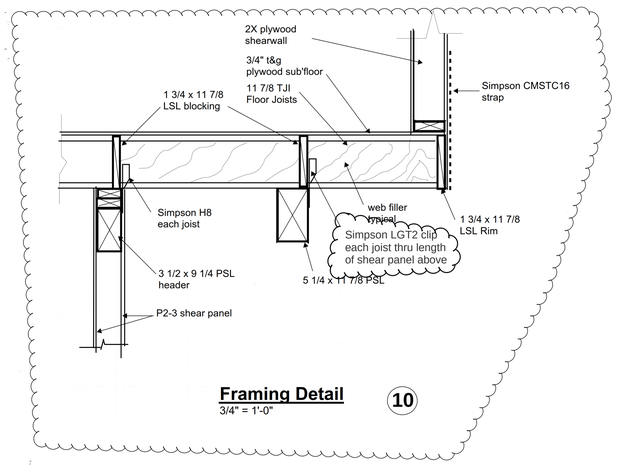


6 DETAIL SCALE: 1"=1'-0"



5 DETAIL
SCALE: 1"=1'-0"

Note:
nail spacing of the sill plate to reference spacing indicated on the shearwall schedule on sheet S-1.



Framing Detail 10
3/4" = 1'-0"

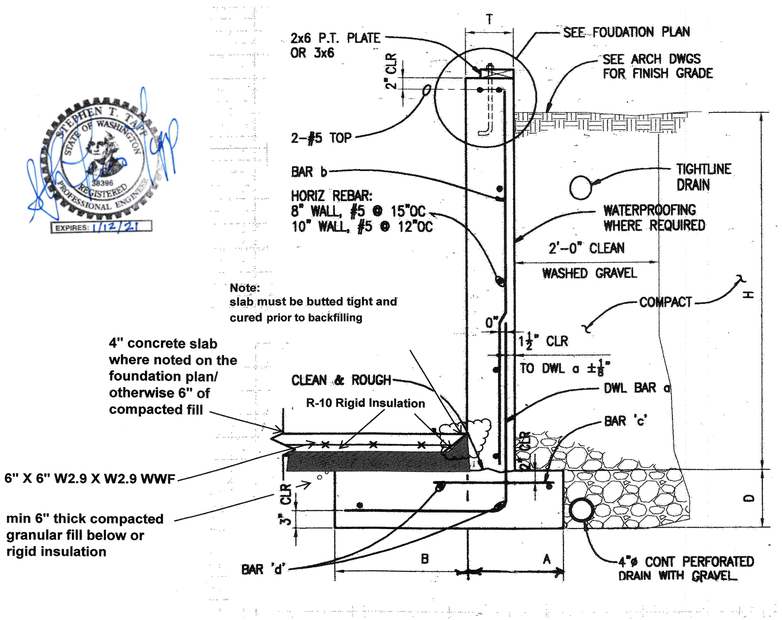
Unbraced Retaining Wall Notes

1. CONCRETE STRENGTH f'c = 2500 psi (If not exposed to weather)
   3000 psi (if exposed to weather/no special inspection)
2. REINFORCING TO BE GRADE 60.
3. ALL FOOTINGS TO BEAR ON FIRM UNDISTURBED SOIL.
4. PROVIDE CORNER BARS TO MATCH HORIZONTAL REINFORCING BARS AT ALL INSIDE AND OUTSIDE CORNERS.
5. BACKFILL WALL TO ALLOW FOR DEFLECTION BEFORE ATTACHING HORIZONTAL FLOOR DIAPHRAGM.
6. ALLOW SOIL BEAING PRESSURE TO BE 2000 PSF.
7. EQUIVALENT FLUID PRESSURE BEHIND WALL TO BE 40 PCF FOR UNBRACED RETAINING WALLS.
8. ALLOW 28 DAYS MINIMUM FOR CONCRETE TO CURE BEFORE APPLYING LOADS.
9. FRICTION COEFFICIENT TO BE .35.
10. SOIL DENSITY TO BE 120 PCF.
11. CONTACT ENGINEER OF RECORD FOR ANY MODIFICATIONS OR REVISIONS TO THE ORIGINAL DESIGN.

Retaining Wall Schedule

T	H	DOWEL'a'	BAR 'b'	BAR 'c'	BAR 'd'	L	D	A	B
8"	4'-0"	#5 $L_{FULL\ HT.}$ @ 16" o.c.	--------	#5 @16" o.c.	#5(T/B) @18" o.c.	3'-3"	12"	1'-3"	2'-0"
8"	6'-0"	#5 $L_{FULL\ HT.}$ @ 12" o.c.	--------	#5 @16" o.c.	#5(T/B) @ 18" o.c.	3'-0"	14"	2'-0"	1'-0"
8"	8'-0"	#5 $L_{2'-10"}$ @6" o.c.	#5 @12" o.c.	#5 @16" o.c.	#5(T/B) @18"o.c.	4'-0"	14"	2-6"	1'-6"
8"	10'-0"	#5$L_{4'-3"}$ @6"o.c.	#5 @12"o.c.	#5 @16" o.c.	#5(T/B) @18" o.c.	4'-3"	14"	2'-0"	2'-3"

STATE OF WASHINGTON
STEPHEN J. LAU
23396
REGISTERED
PROFESSIONAL ENGINEER
EXPIRES: 1/12/21



9 Concrete Retaining Wall Section
NTS

revisions
4/6/21
6.16.21

A Custom Residence for
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2431 60th Avenue SE, Mercer Island WA

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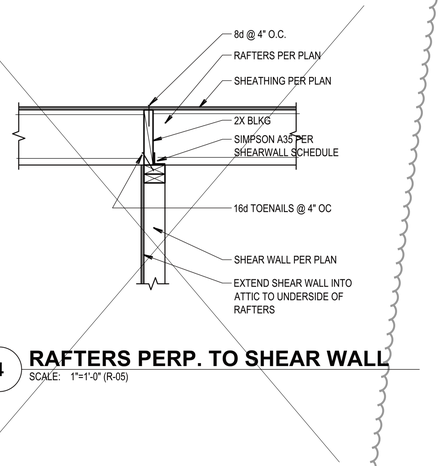
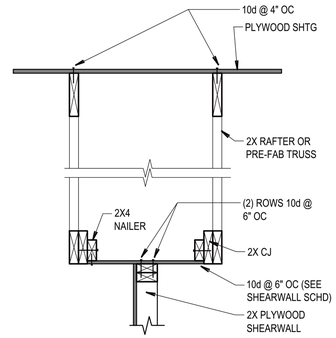
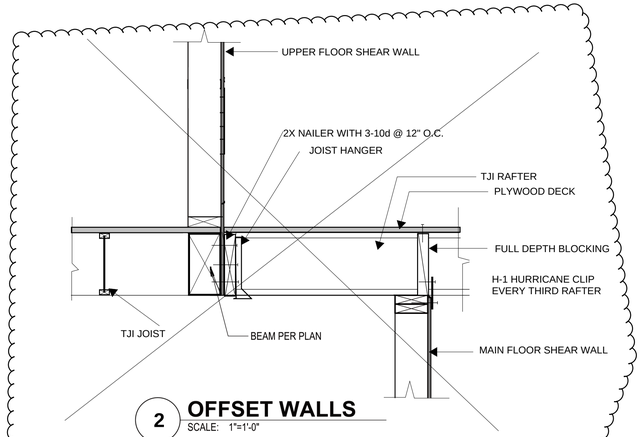


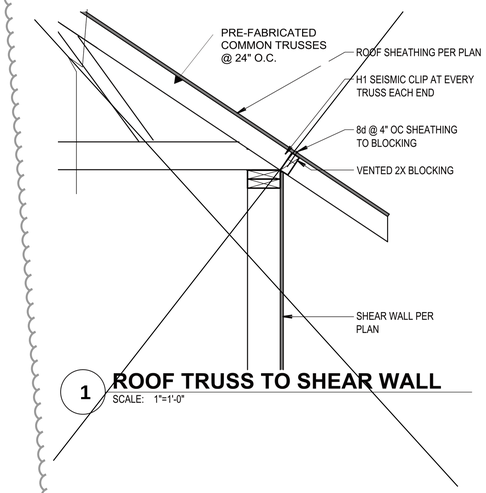
4 RAFTERS PERP. TO SHEAR WALL
SCALE: 1"=1'-0" (R-05)



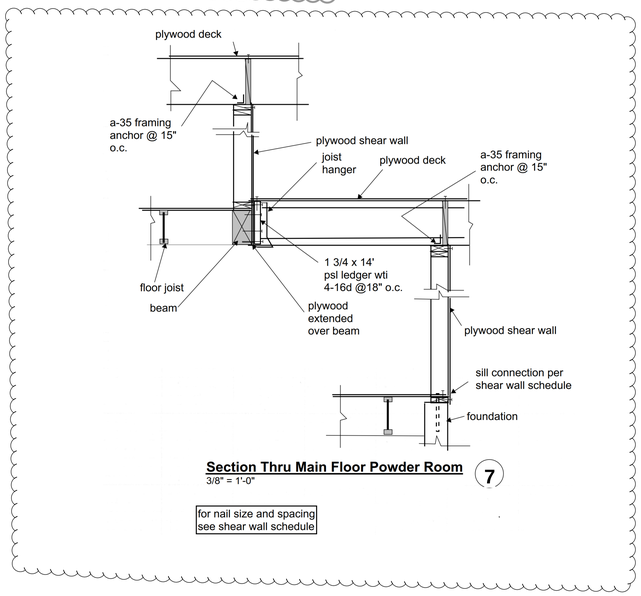
3 ROOF TRUSSES TO SHEAR WALL
SCALE: 1"=1'-0"



2 OFFSET WALLS
SCALE: 1"=1'-0"

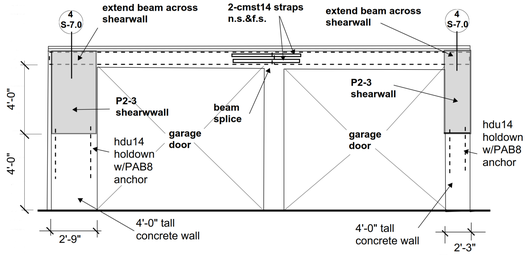


1 ROOF TRUSS TO SHEAR WALL
SCALE: 1"=1'-0"

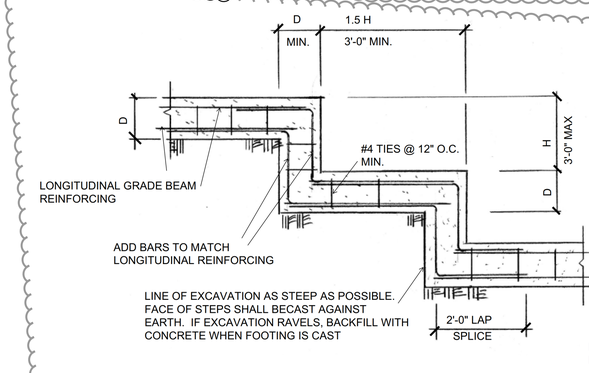


Section Thru Main Floor Powder Room
3/8" = 1'-0" 7

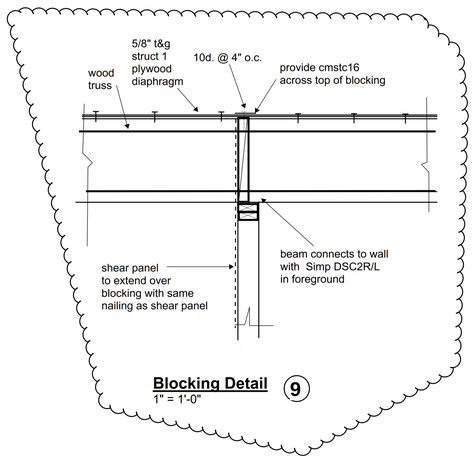
for nail size and spacing see shear wall schedule



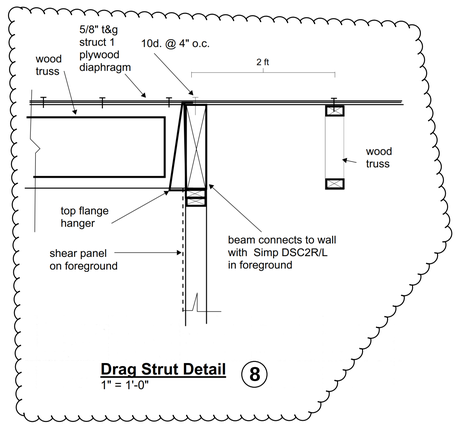
Shearwall Elevation at ADU Garage Doors
1/4" = 1'-0" 6



SECTION STEPPED GRADE BEAM
NTS 5



Blocking Detail
1" = 1'-0" 9



Drag Strut Detail
1" = 1'-0" 8

revisions
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Code Requirements
ASCE 7-16

Codes
2015 IBC
AISC/ASD Sixteenth Edition
ACI 318-16
NDS 2015
SEAW Rapid Solutions Methodology for Wind Design

DESIGN LOADS

Wind Design
ANALYSIS PROCEDURE SEAW RAPID SOLUTIONS METHODOLOGY for WIND DESIGN
BUILDING CATEGORY = 1
WIND SPEED = 85 MPH
EXPOSURE = 'B'
TOPOGRAPHIC FACTOR Kzt = 1.3

Building Design Loads
SNOW LOAD = 25 SPF
ROOF (DL) = 15 PSF, (LL) 25 PSF
FLOOR (DL) = 12 PSF, (LL) = 40 PSF
EXTERIOR WALL (DL) = 15 PSF
INTERIOR WALL = 7.5 PSF
EXTERIOR DECK (DL) = 15 PSF, (LL) = 65 PSF
CORRIDORS, STAIRS, EXITS (DL) = 12 PSF, (LL) = 100 PSF

Seismic Design
ANALYSIS PROCEDURE: SEBC EQUIVALENT LATERAL FORCE PROCEDURE"

Geotechnical Parameters

SEE SOILS REPORT BY GEOTECH CONSULTANTS, INC.

ALLOWABLE SOIL BEARING PRESSURE = 2500 pcf
ACTIVE SOIL BEARING PRESSURE FOR YIELDING WALLS = 35 pcf
ACTIVE SOIL BEARING PRESSURE FOR NON-YIELDING WALLS = 50 pcf
PASSIVE SOIL BEARING PRESSURE = 350 pcf
SAFETY FACTOR = 1.5
COEFFICIENT OF FRICTION = .45
SOIL WEIGHT = 130 pcf

Seismic Considerations
SITE CLASS D
OCCUPANCY CATAGORY = 1
IMPORTANCE FACTOR = 1

S_S = 1.28 g
S_1 = .5
F_a =1.0
F_V = 1.5
$S_{ms} = F_a \cdot S_S = 1*1.28 = 1.28$
$S_{m1} = F_V * S_1 = 1.5*.5 = .75$
$S_{DS} = S_{MS}*.67 = 1.28*.67 = .86$
$S_{D1} = S_{M1}*.67 = .75*.67 = .50$

SEISMIC RESISTING SYSTEM, NORTH-SOUTH: WOOD PANEL SHEAR WALLS, R-6.5
SEISMIC RESISTING SYSTEM, EAST-WEST: WOOD PANEL SHEAR WALLS, R=6.5

SHEAR WALL NOTES - WALLS

PX-X INDICATES SHEAR WALL. SEE LEGEND.
SEE SHEAR WALL SCHEDULE FOR SHEAR WALL NOTES, ANCHOR BOLT PLACEMENT, PRESSURE TREATED SILL SIZES, AND INSTALLATION DETAILS.
NOTIFY ENGINEER OF ANY REVISIONS TO SHEAR WALL OR FIELD MODIFICATIONS DUE TO UNFORESEEN CONDITIONS BEFORE PROCEEDING WITH CONSTRUCTION.
DIAPHRAGM SHEATHING NAILS SHALL BE DRIVEN SO THAT THEIR HEAD OR CROWN IS FLUSH WITH THE SURFACE OF THE SHEATHING.

THE FASTENERS USED IN THE SHEAR WALL DESIGN ARE 10d COMMONS OR 10d GALVANIZED BOX NAILS. ANY FASTENER SUBSTITUTION WILL HAVE TO BE REVIEWED BY ENGINEER PRIOR TO CONSTRUCTION.

SOLID BLOCK BELOW SHEAR WALLS ABOVE.

◆ INDICATES SHEAR WALL TIE DOWN STRAP BETWEEN THE SHEAR WALL ABOVE AND THE FRAMING ABOVE OR THE WALLS BELOW.

Shear Wall Notes - Foundation

(▲) indicates 'Simpson' holdown location(see manufacturer's installation requirements). Holdown anchors are to be installed at the end of plywood shear panels.

See Shear Wall Schedule for shear wall notes, schedules, anchor bolt placement, and pressure treated sill sizes.

All shear wall panels other than P1-6" are to be installed with pressure treated 3X sills.

All holdown 4X or 6X posts to be Doug fir #2 or better.

Anchor bolts to be minimum 5/8"d. X 10" @ 48" o.c. (unless noted otherwise in Anchor Bolt Sheaar Wall Schedule, Sheet #S-1).

Concrete strength f'c = 3000 psi for concrete exposed to the elements.
Concrete strength f"c = 2500 psi for concrete not exposed to elements.

Notify engineer of any revisions to shear wall or holdown plan or field modifications due to unforeseen conditions before proceeding with construction.

Increase depth of foundation at holdown anchor bolts to insure proper concrete coverage.

Simpson Strong Tie connectors are specifically required to meet the structural calculations of this plan. Before substituting another brand, confirm load capacity based on reliable published testing data of calculations. The Engineer of Record should evaluate and give approval for substitution prior to installation.

MATERIAL SPECIFICATIONS

Prefabricated Floor Trusses/Floor Joists (if required)
> Submit to engineer of record complete shop drawings and calculations stamped by a Washington State registered professional engineer for approval prior to fabrication.
> Provide for all temporary and permanent truss and joist bracing and bridging (per manufacturer's recommendations).
> Store and erect trusses in accordance with the manufacturer's details and installation recommendations.
> Substitution in prefabricated assemblies to be approved by engineer of record prior to installation.
> Plywood to be glue nailed to top flange of prefab floor joist or truss.
> Provide additional web reinforcing at TJI joists at or over supports.

Floor Loads (See loading table above)

Wood Notes
> New exterior walls to be framed with 2 x 4 or 2 X 6 studs @ 16" O.C. (unless noted otherwise).
> New interior walls to be framed with 2 x 4 studs @ 16" o.c. (unless noted otherwise).
> All frame nailing shall be in accordance with Table No. 2304.9.1, 2015 IBC
> When a girder is spliced over a support, an adequate tie shall be provided.
> Provide solid blocking over all supports.
> Provide fire blocking within framing cavity at 10'-0"vertically and horizontally). Fire stop openings around vents, pipes, ducts, chimneys,etc. with non-combustible materials.
> Framing anchors shall be provided to support joists which frame into the side of a wood girder or framing band.
> Wood members shall have sufficient bearing area based on allowable values for compression perpendicular to grain per 2001 NDS.
> Provide double joists under all interior bearing walls.
> Where boring through studs is required for plumbing or electrical wiring in bearing walls use 2 X 6 or double 2 X 4 studs.
> All joists, studs, blocking, bracing, and rafters shall be Hem Fir #2 or better; Fb = 850 psi (1000 psi repetitive), Fv = 75 psi E = 1, 300,000

> All sawn beams, headers, posts, lintels, and girders which are 4" nominal width shall be Doug-Fir Larch #2 or better; Fb = 850 psi, Fv = 95 psi, E = 1, 600,000.
> All sawn beams, headers, posts, lintels, and girders which are 6" nominal width shall be Doug-Fir Larch #1 or better: Fb = 850 psi, Fv = 85 psi, E = 1, 600,000.
> All glue-laminated timbers to be kiln dried Doug-Fir top and bottom (24 F-V-4) for simple span beams; (24 F-V8) for multiple span or cantilever beams. Fb = 2400 psi, Fv = 165 psi, E = 1,800,000.
> All framing lumber shall be kiln dried to a maximum 19% moisture content prior to installation.
> Steel framing accessories and structural fasteners shall be as manufactured by Simpson Company (or approved equal). Connectors shall be installed in accordance with manufacturer's recommendations. Provide all plan designated manufacturer's connectors.
> Simpson Strong Tie connectors are specifically required to meet the structural calculations of this plan. Before substituting another brand, confirm load capacity based on reliable published testing data of calculations. The Engineer of Record should evaluate and give approval for substitution prior to installation.

Holdowns
> Holdowns to be by Simpson Company or equal. Any substitutions in hardware manufacturer must be approved by the Engineer of Record prior to installation.

Plywood Notes
> All plywood shall be installed per American Plywood Association standards.
> All plywood shall be A.P.A rated C-D Struct 1(min.).
> All panel edges to occur with long edges over wood supports, short edges to be blocked.
> All roof plywood to be ½" thick with span rating 24/0.
> Nail panels with 10d common nails at 12" o.c. in the field, 6" o.c. at all panel edges. Nail at 4" o.c. to all exterior walls and other shear walls.
> All floor plywood to be min ¾" thick with span rating 32/16.
> Nail panels with 10d. galv. nails at 6" o.c. at panel edges, 12" o.c. in the field. See Shear wall schedule for nailing patterns shear walls.
> At floor sub-floor glue floor plywood to floor joists with an approved elastomeric adhesive suitable for use in wet weather.
> See shear wall schedule and notes for wall plywood and nailing schedule.
> All plywood at waterproof decks to be pressure treated.
> Plywood floor and roof sheathing shall be laid up with face grain perpendicular to supports.
> All floor plywood shall be glue nailed to supporting joist in accordance with the American Plywood Association. Glue shall meet the requirements of Adhesive Specification AFG-01.

Concrete/Foundation Notes
> Foundation design is in accordance with chapter 19 of the 2015 IBC
All work shall be performed in accordance with all current building and safety codes.
> Concrete strengths shall be verified by standard 28-day cylinder tests, unless approved otherwise.
> Anchor bolts to be 5/8"diameter with 10" embedment @ 48" o.c. (see shear wall schedule for anchor bolt size and spacing at other than P1-6" shearwalls). All anchor bolts to be ASTM A-307.
> ALLOWABLE SOIL BEARING PRESSURE = 15000 PSF
> Backfill behind unbraced retaining walls prior to attaching floor diaphragm.
> Exterior footings to be entrenched a minimum of 18" below existing grade and bear on firm undisturbed soil.
> All reinforcing bars to be Grade 60 deformed bars. The tie wire is to be 16 Ga. double annealed wire. Lap all reinforcing 36 diameters. At corners of walls extend horizontal bars 2" from outside face of wall and lap with elbow bars of 30 diameters at the same size and spacing. Provide 2-#5 bars around all wall openings. Provide footing dowels to match vertical reinforcing.

Concrete cover

3"	concrete poured against earth
2"	formed concrete with earth backfill
1 1/2"	outside face of walls exposed to weather, slabs on a moisture barrier
1"	walls, outside face

> Provide 4"diameter perforated PVC drain in granular fill at the base of all new exterior footings (existing and new).

Concrete mix
Mix design shall be in conformance with ACI-318-99. Submit mix designs to engineer of record 2 weeks prior to placement indicating where each concrete mix is used and the maximum aggregate size.

type	f'c	max.water/cem.ratio min. non-air ent.	air ent.	sks/cu.yd.
ftgs		.65	.42	6
found.walls	2500			
slab on grade	3000	.65	.50	5 ½

> Water reducing mixtures may be incorporated into the mix designs in accordance with ASTM C 494 and manufacturer's recommendations.
>Water/Cement ratio shall be measured by weight and shall be based on the total cementious material. Water/Cement ration shall be determined by the supplier based on the strength requirements and shall no exceed the maximum water/cement ratio shown above.

General Conditions

> Contractor will call for inspection prior to placing any footing and foundation wall concrete.
> Provide rigid insulation around the perimeter of all slabs within heated spaces.
> Permanent cut and fill slopes should not exceed 2:1 (H:V).
> All reinforcing shall be detailed in accordance with ACI detailers manual.
> All excavations shall be adequately barricaded and marked. All work area and surfaces shall be cleaned upon completion of the project. All debris and waste materials shall be removed off the site to an approved disposal area by the contractor.
-Use air -entrained (3%-6%) in all flat work exposed to weather.- Master flow 928 or equal.
> Provide minimum of 1/2" air space between non-pressure treated wood and concrete, or provide waterproofing membrane between concrete and non-pressure treated wood.
> Top of concrete to be field verified by contractor.
> Contractor to field verify existing grade cut and soil conditions with before proceeding with concrete retaining wall forming and reinforcing steel placement.

> Contractor shall be responsible for all safety precautions and the methods, techniques, sequences or procedures required to perform the work.
>In the case of discrepancies between the drawings and the anticipated field conditions the contractor shall notify the architect before proceeding with construction.
>DO NOT SCALE the architects or engineer's drawings – noted dimensions take precedence over scaled dimensions.

Fasteners
Fasteners for pressure treated wood must be ZMAX hot dipped galvanized (G185) or stainless steel.

Prefabricated Roof Trusses (if required)
> Submit complete shop drawings and calculations stamped by a Washington State registered professional engineer for approval prior to fabrication.
> Design for the spans and conditions shown on plans.
> Deflections under total loads not to exceed L/360.
> Provide for all temporary and permanent truss bracing and bridging.
> Store and erect trusses in accordance with the manufacturer's recommendations.

Roof Dead Load = (15 psf)
Live Load = (25 psf)
Bottom chord Dead Load = 7 psf
Top Chord uplift = 7 psf

STRUCTURAL STEEL/WELDING
STEEL DESIGN, FABRICATION AND ERECTION SHALL CONFORM TO THE REQUIREMENTS OF CHAPTER 22 OF THE **2015 IBC** SUBSTITUTION OF MEMBER SIZES OR STEEL GRADE WILL NOT BE ALLOWED WITHOUT PRIOR APPROVAL OF THE ENGINEER OF RECORD.
THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ERECTION AIDS AND JOINT PREPARATIONS THAT INCLUDE BUT ARE NOT LIMITED TO ERECTION ANGLES, LIFT HOLES AND OTHER AIDS, WELDING PROCEDURES REQUIRED ROOT OPENINGS, ROOF FACE DIMENSIONS, GROOVE ANGLES, BACKING BARS, SCOPES, SURFACE ROUGHNESS VALUES AND UNEQUAL PARTS.
EXPANSION BOLTS SHALL BE ICBO APPROVED AND INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS.
UNLESS OTHERWISE SPECIFIED ON DRAWINGS OR DETAILS, SIZE AND EMBEDMENT DEPTHS SHALL BE APPROVED THE THE ENGINEER OF RECORD.

MATERIALS
STRUCTURAL STEEL ATM A 992GRADE50
CONNECTION MATERIAL, ASTM A 36
EMBEDDED ITEMS,
CHANNELS, ANGLES, BASE PLATES
STRUCTURAL TUBES ASTM A 500, GRADE B
STRUCTURAL BOLTS ASTM A 325-N
WOOD CONNECTION BOLTS ASTM A 307
ANCHOR BOLTS ASTM A 307
THREADED RODS ASTM A 36
WELDING ELECTRODES 70ksi, LOW HYDROGEN

BEAM CAMBER NOTED ON DRAWINGS IS THE UPWARD CAMBER REQUIRED IN THE BEAM AS DELIVERED TO THE JOB SITE. THE CONTRACTOR SHALL CONSIDER CAMBER LOSS DUE TO SHIPPING AND HANDLING.

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

STATE OF WASHINGTON STEPHEN T TAPP 28398 REGISTERED PROFESSIONAL ENGINEER
EXPIRES: 1/12/23

SHEAR WALL SCHEDULE

2015 IBC

Wall Sheathing to be 1/2" (C-D) Structural 1, 24/0
Roof Sheathing to be 1/2" C-D) Structrual 1, 32/16
Use 10d common nails

WALL TYPE	NAIL Size	PANEL NAIL SPACING Panel Edges	Field Studs	Top/Btm Plates	BLK'G	REQUIRED ANCHORS P.T.Sill	Bottom Plate	ALLOWABLE UNIT SHEAR (plf)
P1-6"	10d	6"	12"	6"	2 X 6 (4)	5/8"d. @ 48"	16d @ 6"	282(HF), 340(DF)
P1-4"	10d	4"	12"	4"	3 X 6 (4)	5/8"d. @ 32"	(2)16d. @ 8"	410(HF), 510(DF)
P1-3"	10d	3"	12"	3"	3 X 6 (4)	5/8"d. @ 24"	(2)16d. @ 6"	550(HF), 665(DF)
P1-2"	10d	2"	12"	2"	3 X 6 (4)	3/4"d. @ 24"	(2)16d. @ 5"	710(HF), 870(DF)

Shear Wall Notes:
1. P1 indicates plywood on one side of shear wall only.
2. P2 indicates plywood on two sides of shear wall. Framing members shall be 3X. Offset panel joints to fall on different studs.
3. Plywood may be installed either horizontally or vertically on Hem-Fir #2 studs.
4. For nailing at 4",3" or 2" on center, use 3 X framing members at all panel edges. Stagger fasteners at all panel joints.
5. For nailing at 4", 3", or 2" on center use pressure treated 3X sill at foundation.
6. Solid block all panel edges with full depth blocking.
7. Use 10d common nails for shear wall fasteners.
8. Nails must be flush driven with diaphragm surface.
9. Anchor bolts to have minimum 3" X 3" X 1/4" plate washers.
10. Finger jointed studs are not to be used at holdown locations.
11. Nails for panel edges shall be 10d common (0.131"d. X 3" long). Nails for plates shall be 16d. common (0.148d. X 3 ½" long).
12. Where bottom plate nailing requires (4) nails at a specific spacing, block floor space below the sole plate consisting of a minimum of two framing members. Nailing pattern shall consist of two rows in each member offset 1/2" and staggered.
13. Do not install floor diaphragm nailing over bottom sill nailing.
14. ALL STUDS TO BE 2x HEM FIR #2 OR BETTER.

revisions
6.16.21

Petrie Pool Terrace
2431 60th Avenue SE
Mercer Island, Washington

Stephen Tapp
Architect / P.E.
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2330 East Madison Street
Seattle, Washington

This work was prepared by me or under my supervision.

Sheet Contents:

Scale: as noted
Date: 3/22/21
Job no.: T21C4
Drawn by: STT
Sheet no.:

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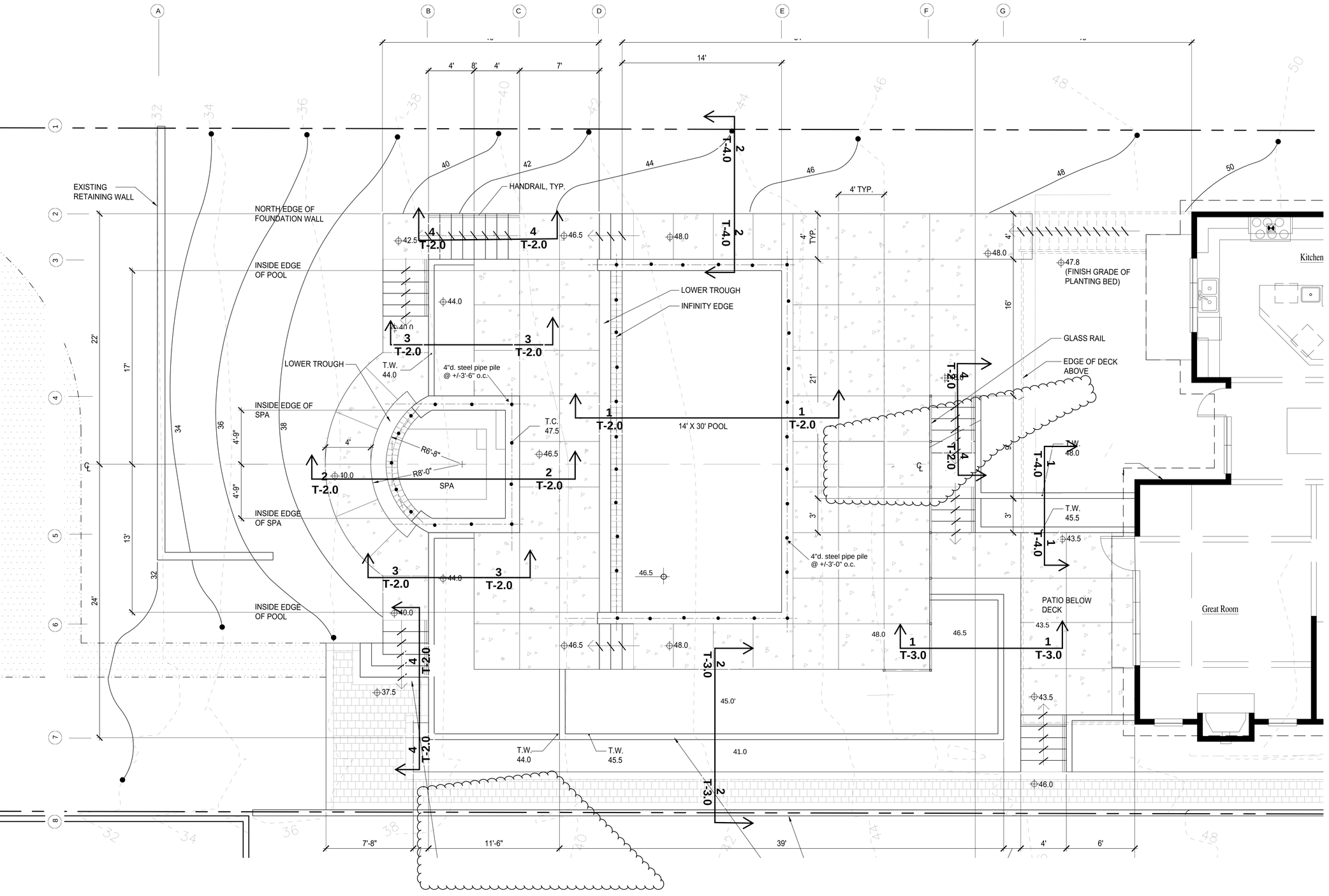

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revisions
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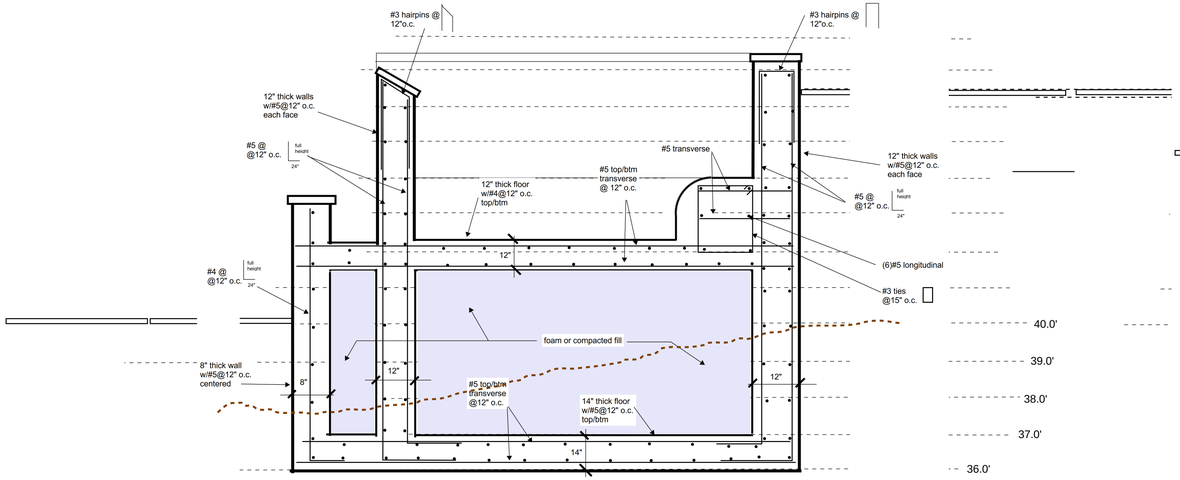
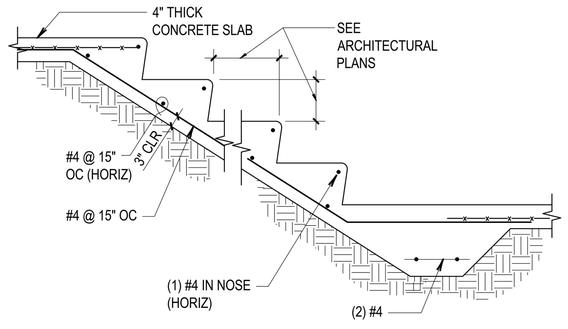
Scale: as noted
Date: 3/22/21
Job no.: T21C4
Drawn by: STT
Sheet no.:

T-1.0
of 5



SECTION 2

1/2" = 1'-0"



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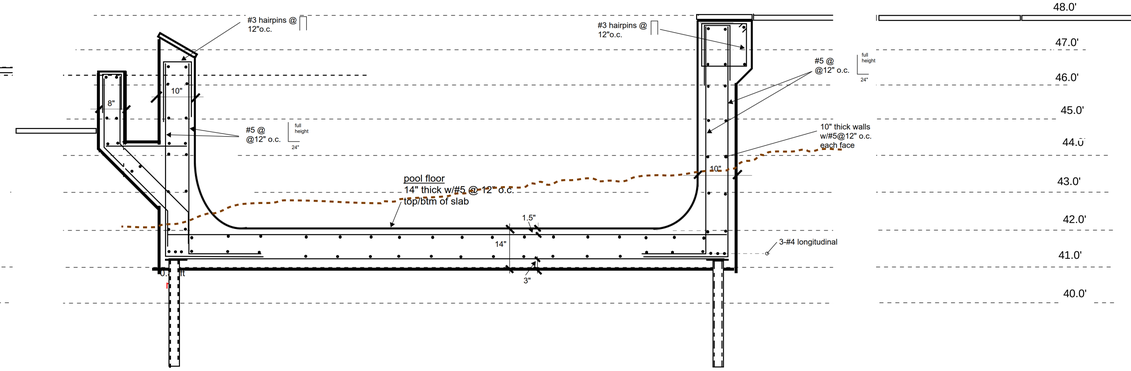

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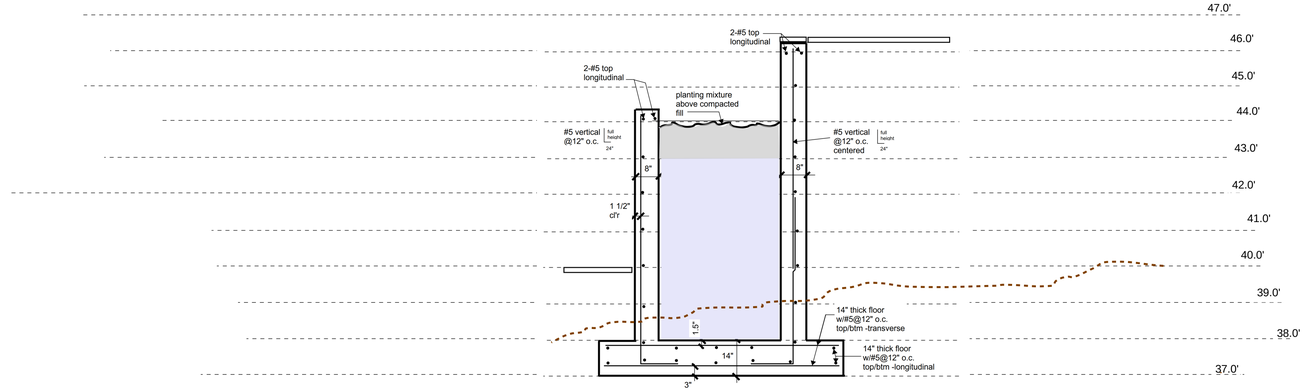

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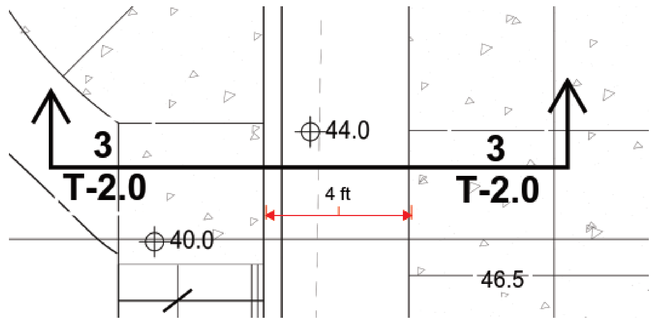

PLAN VIEW

1/2" = 1'-0"

STEPHEN T. TAPP
STATE OF WASHINGTON
38396
REGISTERED
PROFESSIONAL ENGINEER
EXPIRES: 1/12/23

revisions

6.16.21

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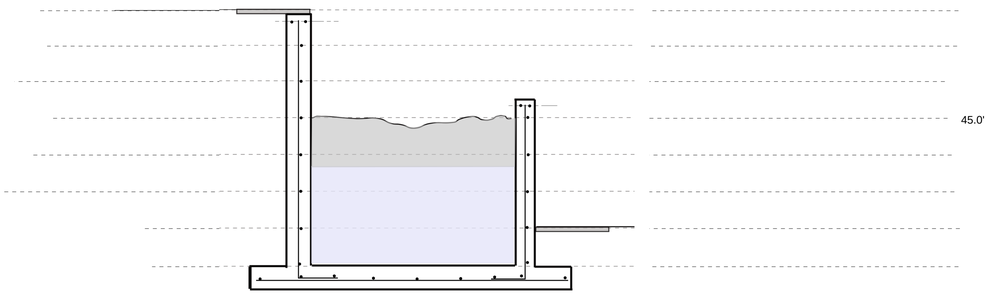
T-2.0

of 5



See Section 1/T3.0 for reinforcing and wall widths

SECTION 2

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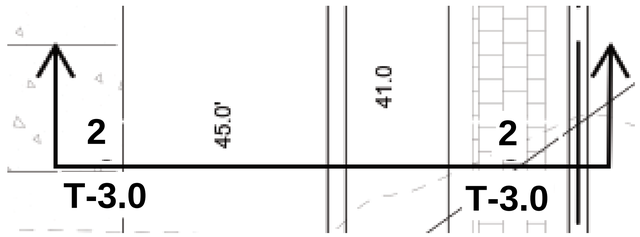

PLAN VIEW

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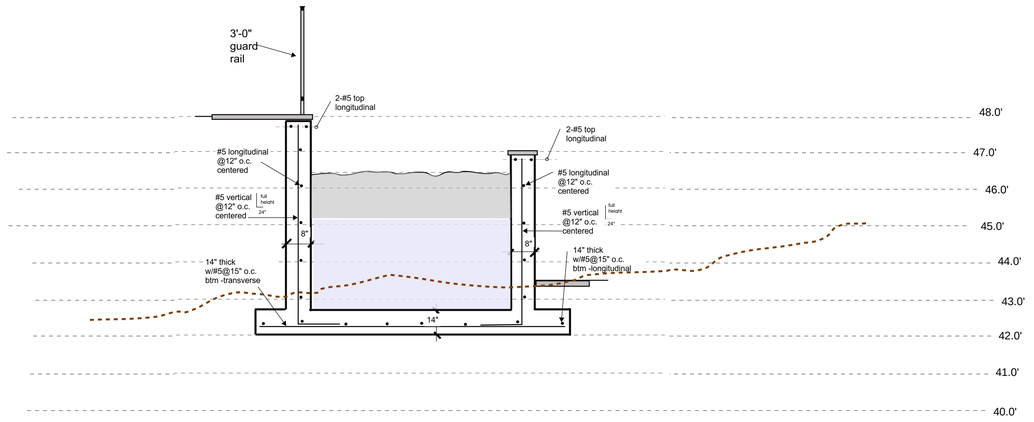

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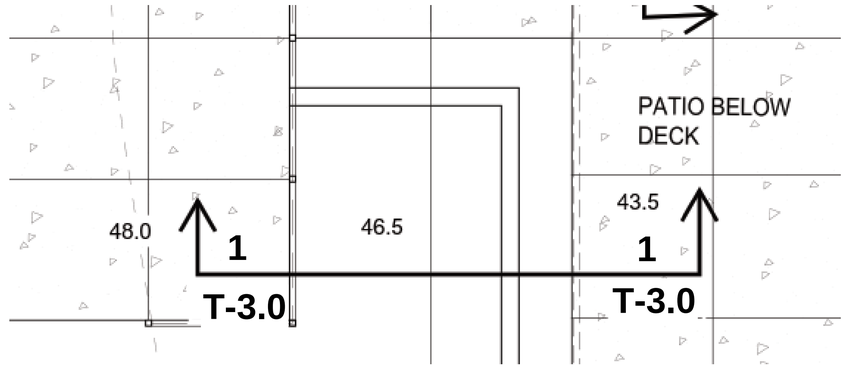

PLAN VIEW

1/2" = 1'-0"

revisions

6.16.21

Petrie Pool Terrace
2431 60th Avenue SE
Mercer Island, Washington

Stephen Tapp
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Ph. 206-320-0634
2330 East Madison Street
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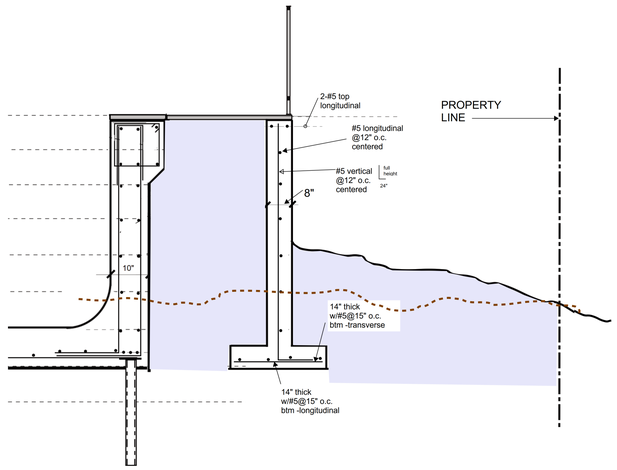

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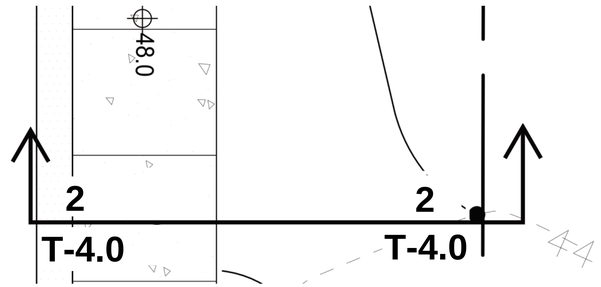

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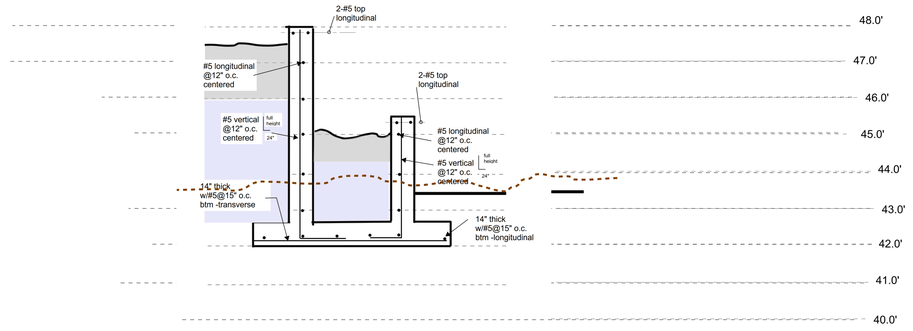

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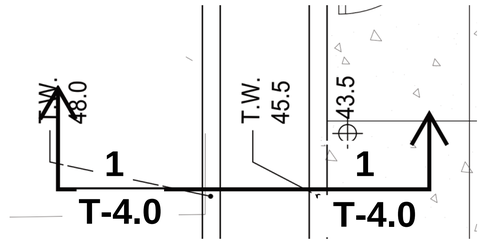

PLAN VIEW

1/2" = 1'-0"

revisions

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Petrie Pool Terrace

2431 60th Avenue SE

Mercer Island, Washington

Stephen Tapp

Architect / P.E.

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Job no.: T21C4

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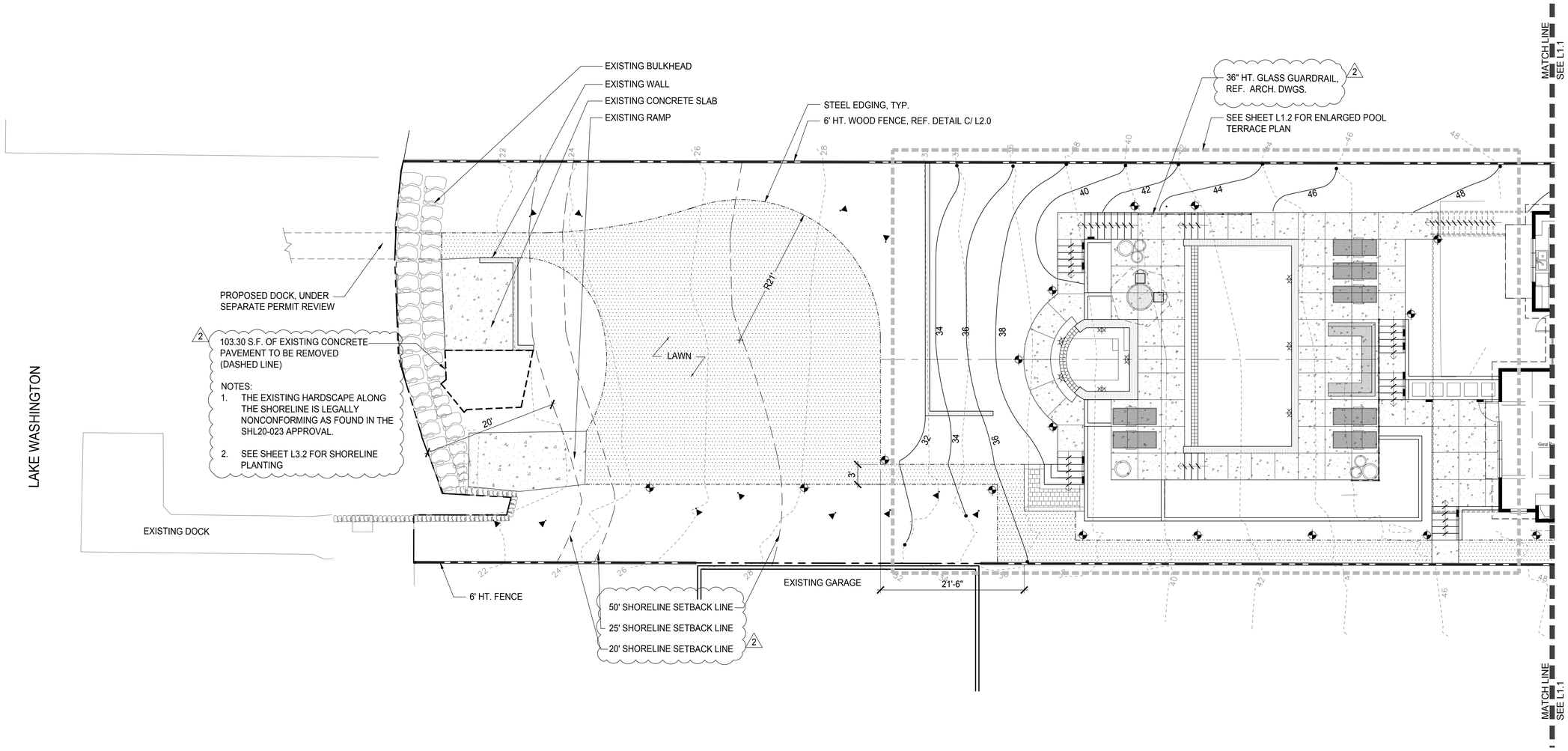
Sheet no.:

T-4.0

of 5



GENERAL LEGEND

- 1/4" X 4" STEEL EDGING
- 4" SCH. 40 PVC SLEEVE, RUN PAST 6" MIN. FROM EDGE OF PAVING, CAP AND FLAG EA. END DURING CONSTRUCTION
- EXISTING CONTOUR (38)
- PROPOSED CONTOUR (38)
- PROPOSED SPOT ELEVATIONS (956)
- PROPERTY LINE
- EXISTING DECIDUOUS TREE
- LAWN
- PLANTING AREA (P.A.)

LIGHTING LEGEND

- ACCENT LIGHT: (X) FX NP-ZD-6LED-BZ
- WALL MOUNT STEP LIGHT: (X) PD - ZD - 2LED - BZ
- POOL LIGHT: T.B.D.
- PATH LIGHT: (X) FX CALEDTA - ZD-BZ + 3LED - 18RA - BZ
- WALL WASHER: (X) FX LC - ZD-6LED - BZ
- TRANSFORMER: FX "LUXOR" LUX - 300 - SS (T)

NOTE: VERIFY ALL LIGHTING EQMT. (MODEL, FINISH AND OUTPUT) W/ OWNER AND L.A.

LIGHTING NOTES

1. SUPPLY AND INSTALL OUTDOOR LIGHTING PER PLAN. PROVIDE ALL NECESSARY FIXTURES, WIRING, STAKES, TRANSFORMERS, ETC. TO IMPLEMENT PLAN. PROVIDE OWNER W/ A THREE RING BINDER MANUAL WITH ALL FIXTURE CUTSHEETS. WARRANTY INFORMATION, OPERATION MANUALS, AND AS BUILT PLAN OF SYSTEM.
2. FOR LOW VOLTAGE LIGHTING, CONTRACTOR IS RESPONSIBLE FOR DETERMINING QUANTITY OF TRANSFORMERS REQUIRED. VERIFY LOCATIONS W/ LANDSCAPE ARCHITECT. LOW VOLTAGE LIGHTING TO BE SWITCHED WITH PHOTO-CELL ON/TIMER OFF OPERATION.
3. VERIFY PLACEMENT OF ALL PATH & ACCENT LIGHTS IN FIELD W/ LANDSCAPE ARCHITECT PRIOR TO FINAL INSTALLATION.

GENERAL NOTES

1. VERIFY LAYOUT IN FIELD WITH LANDSCAPE ARCHITECT PRIOR TO START OF WORK

GRADING AND DRAINAGE NOTES

1. PROVIDE ACCURATE AS-BUILT DRAWING OF DRAINAGE SYSTEM FOLLOWING CONSTRUCTION
2. ESTABLISH THE FOLLOWING SUBGRADES:
   PLANTING AREAS: -12"-TO ALLOW FOR 10" TOPSOIL & 2" MULCH
   LAWN AREAS: -6"-TO ALLOW FOR 6" TOPSOIL
3. SLOPE ALL PAVED SURFACES TO DRAIN @ MIN. 1%, MAX 2%
4. VERIFY ALL FINISH GRADES IN FIELD WITH LANDSCAPE ARCHITECT

2
NOTE:
PER MICC 19.02.020 (F)(3)(d) ALL JAPANESE KNOTWOOD (POLYGONUM CUSPIDATUM) & REGULATED CLASS A. REGULATED CLASS B. AND REGULATED CLASS C. WEEDS IDENTIFIED ON THE KING COUNTY NOXIOUS WEED LIST, AS AMENDED, SHALL BE REMOVED FROM REQUIRED LANDSCAPING AREAS . NEW LANDSCAPING ASSOCIATED WITH NEW SINGLE-FAMILY HOME SHALL NOT INCORPORATE ANY WEEDS IDENTIFIED ON THE KING COUNTY NOXIOUS WEED LIST, AS AMENDED, PROVIDED THAT REMOVAL SHALL NOT BE REQUIRED IF THE REMOVAL WILL RESULT IN INCREASED SLOPE INSTABILITY OR RISK OF LANDSLIDE OR EROSION.

4' 8' 16' 32'
SCALE: 1/8" = 1' - 0"

Petrie
19.19

Darwin Webb
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485 Rainier Blvd.N.#103B
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p. 425.391.6946
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www.darwinwebb.com

PETRIE RESIDENCE

2431 60th Avenue SE
Mercer Island, WA 98075

STATE OF WASHINGTON
REGISTERED
LANDSCAPE ARCHITECT

DARWIN D. WEBB
CERTIFICATE NO: 564

ISSUES:

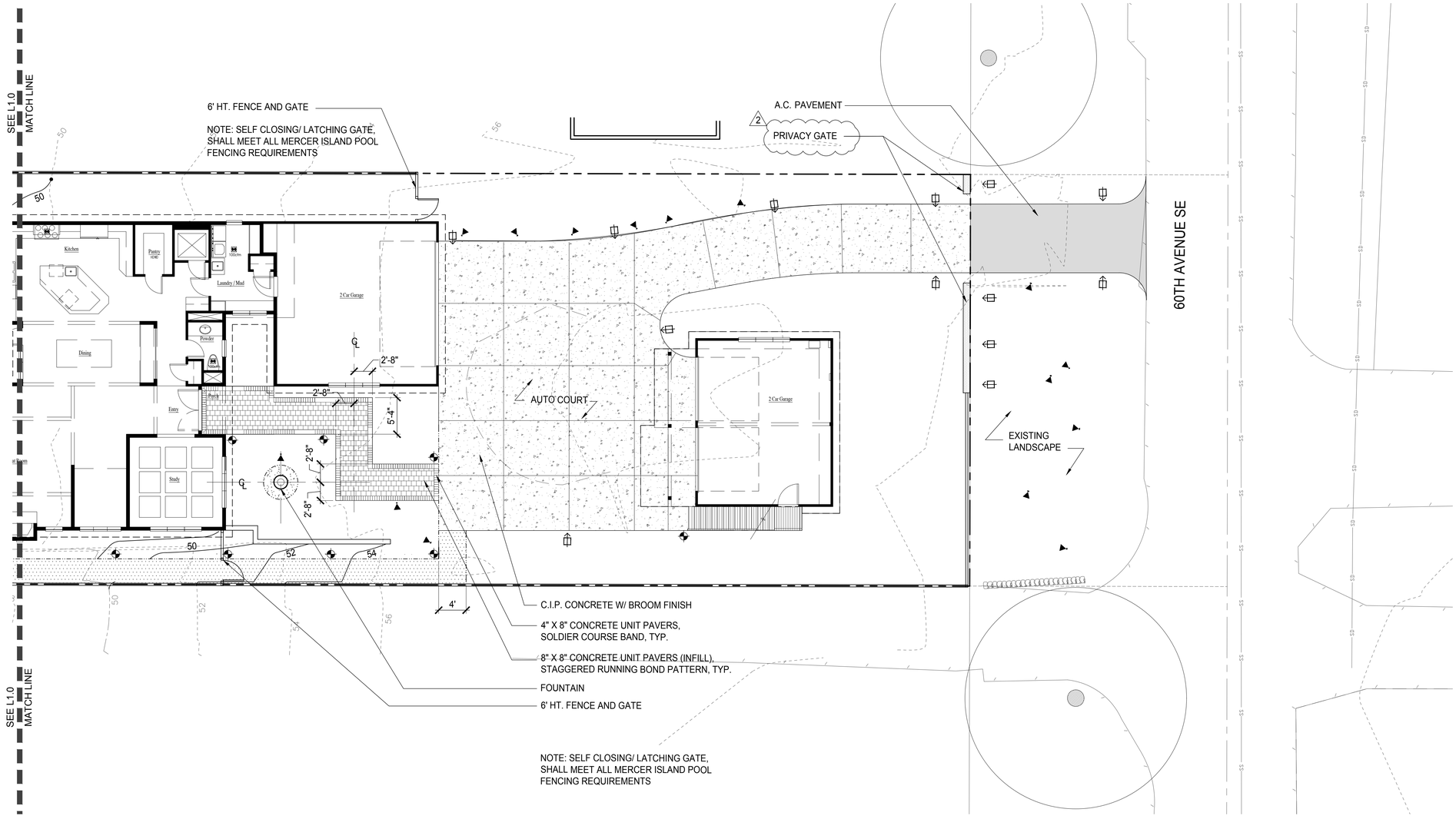
NO.:	DATE:	DESCRIPTION:
1	05.13.20	PERMIT SUBMITTAL
2	07.24.20	REVISIONS
3	12.09.20	REVISIONS
4	12.22.20	REVIEW
5	03.15.21	REVISIONS
2	06.07.21	PERMIT RESUBMITTAL

PROJECT #: 19.19

DRAWN: RB
CHECKED: DW

TITLE: LAYOUT PLAN
WEST AREA

SHEET: L1.0



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- PROPOSED CONTOUR (38)
- PROPOSED SPOT ELEVATIONS (956)
- PROPERTY LINE
- EXISTING DECIDUOUS TREE
- LAWN
- PLANTING AREA (P.A.)

LIGHTING LEGEND

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- WALL MOUNT STEP LIGHT: (X) PD - ZD - 2LED - BZ
- POOL LIGHT: T.B.D.
- PATH LIGHT: (X) FX CALEDTA - ZD-BZ + 3LED - 18RA - BZ
- WALL WASHER: (X) FX LC - ZD-6LED - BZ
- TRANSFORMER: FX "LUXOR" LUX - 300 - SS

NOTE: VERIFY ALL LIGHTING EQMT. (MODEL, FINISH AND OUTPUT) W/ OWNER AND L.A.

LIGHTING NOTES

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GENERAL NOTES

1. VERIFY LAYOUT IN FIELD WITH LANDSCAPE ARCHITECT PRIOR TO START OF WORK

GRADING AND DRAINAGE NOTES

1. PROVIDE ACCURATE AS-BUILT DRAWING OF DRAINAGE SYSTEM FOLLOWING CONSTRUCTION
2. ESTABLISH THE FOLLOWING SUBGRADES:
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3. SLOPE ALL PAVED SURFACES TO DRAIN @ MIN. 1%, MAX 2%
4. VERIFY ALL FINISH GRADES IN FIELD WITH LANDSCAPE ARCHITECT

2

NOTE:
PER MICC 19.02.020 (F)(3)(d) ALL JAPANESE KNOTWOOD (POLYGONUM CUSPIDATUM) & REGULATED CLASS A. REGULATED CLASS B. AND REGULATED CLASS C. WEEDS IDENTIFIED ON THE KING COUNTY NOXIOUS WEED LIST, AS AMENDED, SHALL BE REMOVED FROM REQUIRED LANDSCAPING AREAS . NEW LANDSCAPING ASSOCIATED WITH NEW SINGLE-FAMILY HOME SHALL NOT INCORPORATE ANY WEEDS IDENTIFIED ON THE KING COUNTY NOXIOUS WEED LIST, AS AMENDED, PROVIDED THAT REMOVAL SHALL NOT BE REQUIRED IF THE REMOVAL WILL RESULT IN INCREASED SLOPE INSTABILITY OR RISK OF LANDSLIDE OR EROSION.

4' 8' 16' 32'
SCALE: 1/8" = 1' - 0"

Petrie
19.19

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Mercer Island, WA 98075

STATE OF WASHINGTON
REGISTERED
LANDSCAPE ARCHITECT

DARWIN D. WEBB
CERTIFICATE NO: 564

ISSUES:

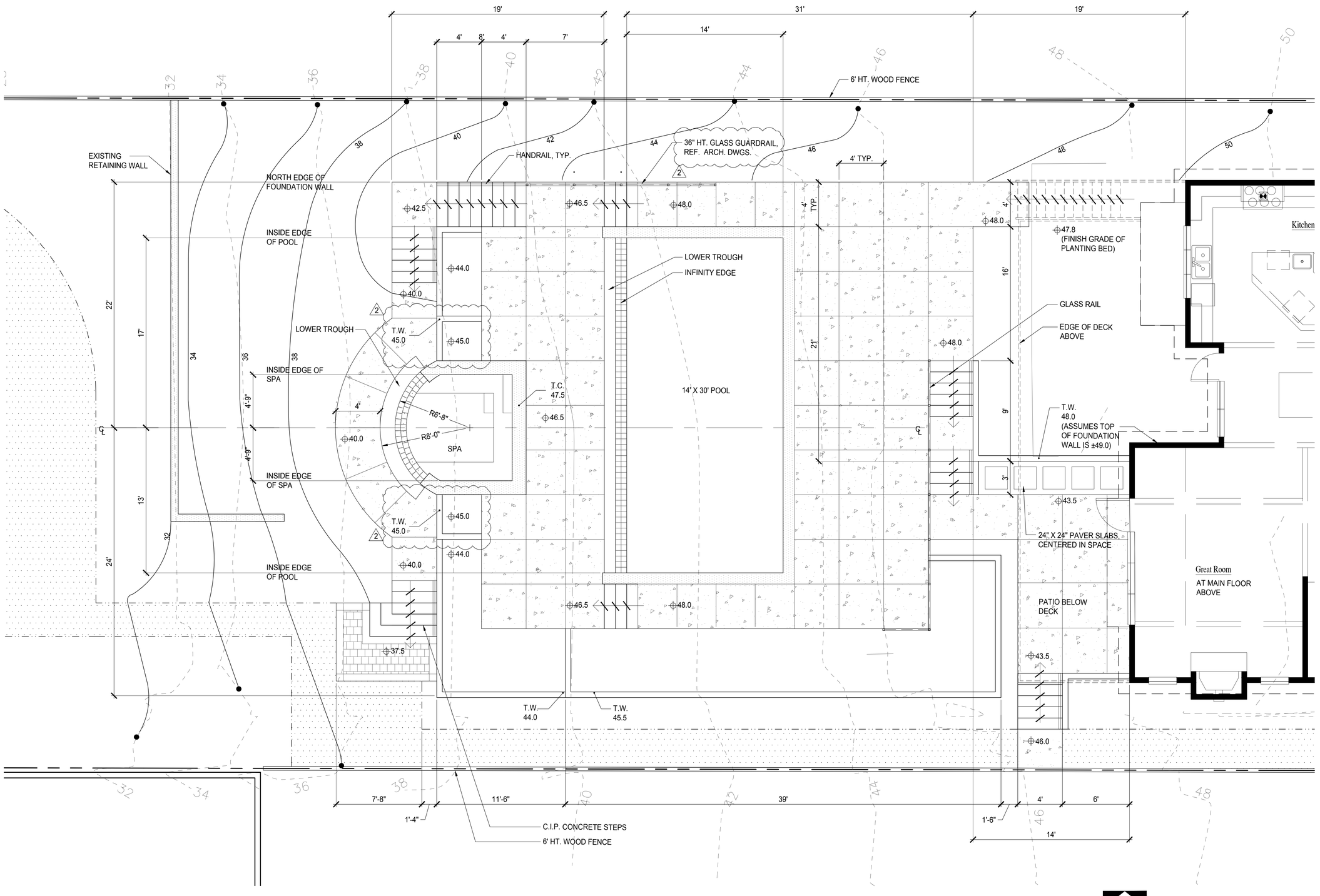
NO.:	DATE:	DESCRIPTION:
1	05.13.20	PERMIT SUBMITTAL
2	07.24.20	REVISIONS
3	12.09.20	REVISIONS
4	12.22.20	REVIEW
5	03.15.21	REVISIONS
2	06.07.21	PERMIT RESUBMITTAL

PROJECT #: 19.19

DRAWN: RB
CHECKED: DW

TITLE: LAYOUT PLAN EAST AREA

SHEET: L1.1



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5	03.15.21	REVISIONS
2	06.07.21	PERMIT RESUBMITTAL

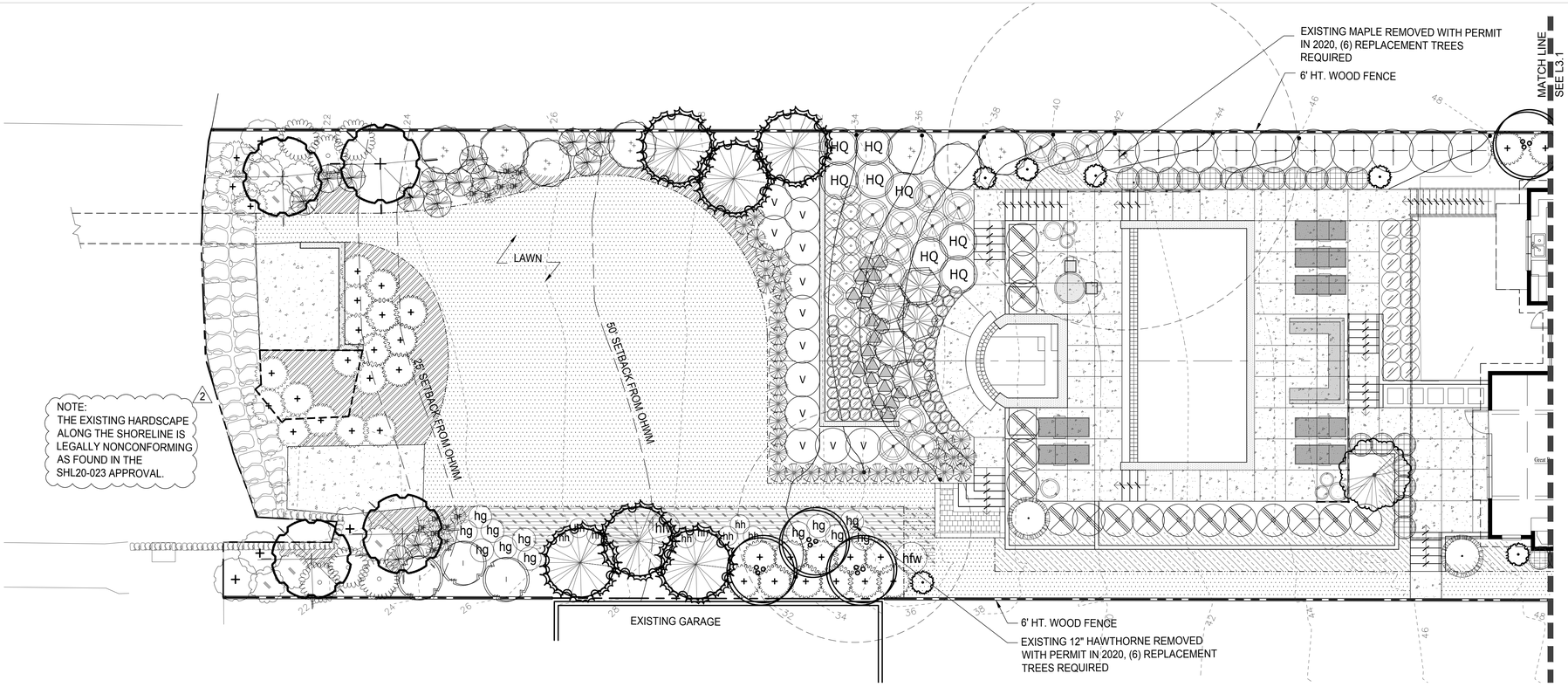
PROJECT #: 19.19

DRAWN: RB
CHECKED: DW

TITLE: POOL TERRACE PLAN

SHEET: L1.2

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



TREE REPLACEMENT

REMOVED EXCEPTIONAL TREES REQUIRING REPLACEMENT:

(1) MAPLE TREE = (6) REPLACEMENT TREES (REMOVED IN 2020 UNDER SEPARATE PERMIT)
(1) 12" HAWTHORNE TREE = (6) REPLACEMENT TREES (REMOVED IN 2020 UNDER SEPARATE PERMIT)

REPLACEMENT TREES:

(6) PINUS CONTORTA/SHORE PINE, 6'-7' HT, (PNW NATIVE SPECIES).
(3) PICEA OMORIKA/SERBIAN SPRUCE, 2" CALIPER, (NON-NATIVE ORNAMENTAL CONIFER).
(3) PYRUS CALLERYANA 'CHANTICLEER'/ FLOWERING PEAR, 2" CAL. (NON-NATIVE ORNAMENTAL DECIDUOUS TREE).

REFER TO UPDATED TREE REPORT DATED JANUARY 5, 2021 PREPARED BY TOM HANSON, ARBORINFO LLC.

PLANT SCHEDULE

TREES

SYMBOL	BOTANICAL NAME/ COMMON NAME	SIZE	QTY.	REMARKS
	ACER CIRCINATUM 'PACIFIC FIRE' PACIFIC FIRE VINE MAPLE	6'-7' HT.	14	MULTI-STEMMED
	ACER PALMATUM 'DISSECTUM' GREEN LACELEAF JAPANESE MAPLE	4'-5' SP.	1	SPECIMEN QUALITY
	ACER PALMATUM JAPANESE MAPLE	2-1/2" CAL.	1	SPECIMEN QUALITY, VARIFY T.B.D.
	CORYLUS CORNUTA WESTERN HAZELNUT	4'-5' SP.	3	
	CUPRESSUS MACROCARPA 'GOLDCREST' GOLDCREST CYPRESS	3'-5' HT.	7	MULTIPLE SIZES, VERIFY W/ L.A.
	GINKGO BILOBA 'PRINCETON SENTRY' PRINCETON SENTRY GINKGO TREE	2" CAL.	1	SPECIMEN QUALITY, VARIFY VARIETY
	PICEA OMORICA SERBIAN SPRUCE	8'-9' HT.	3	REPLACEMENT TREE ORNAMENTAL
	PINUS CONTORTA SHORE PINE	6'-7' HT.	6	REPLACEMENT TREE NATIVE
	PYRUS CALLERYANA 'CHANTICLEAR' CHANTICLEAR FLOWERING PEAR	2" CAL.	3	REPLACEMENT TREE ORNAMENTAL

NOTE: LANDSCAPE CONTRACTOR TO VERIFY PLANT QUANTITIES ON PLAN. REPORT ANY DISCREPANCIES BETWEEN PLAN AND PLANT SCHEDULE TO L.A.

2 NOTE:
PER MICC 19.02.020 (F)(3)(d) ALL JAPANESE KNOTWOOD (POLYGONUM CUSPIDATUM) & REGULATED CLASS A. REGULATED CLASS B. AND REGULATED CLASS C. WEEDS IDENTIFIED ON THE KING COUNTY NOXIOUS WEED LIST, AS AMENDED, SHALL BE REMOVED FROM REQUIRED LANDSCAPING AREAS . NEW LANDSCAPING ASSOCIATED WITH NEW SINGLE-FAMILY HOME SHALL NOT INCORPORATE ANY WEEDS IDENTIFIED ON THE KING COUNTY NOXIOUS WEED LIST, AS AMENDED, PROVIDED THAT REMOVAL SHALL NOT BE REQUIRED IF THE REMOVAL WILL RESULT IN INCREASED SLOPE INSTABILITY OR RISK OF LANDSLIDE OR EROSION.

PLANT SCHEDULE

SHRUBS

SYMBOL	BOTANICAL NAME/ COMMON NAME	SIZE	QTY.	REMARKS
	ARBUTUS UNEDO 'COMPACTA' COMPACT STRAWBERRY TREE	36"		
	CORNUS SERICEA REDTWIG DOGWOOD	24"		
+	GAULTHERIA SHALLON SALAL	1 GAL.		
	HOLODISCUS DISCOLOR OCEANSPRAY	1 GAL.		
HTS	HYDRANGEA MACROPHYLLA 'TWIST-N-SHOUT' TWIST-N-SHOUT HYDRANGEA	30"		
HQ	HYDRANGEA QUERCIFOLIA 'SNOW QUEEN' SNOW QUEEN OAKLEAF HYDRANGEA	36"		
	NANDINA DOMESTICA 'GULF STREAM' GULF STEAM HEAVENLY BAMBOO	24"		
	PIERIS JAPONICA 'KATSURA' KATSURA ANDROMEDA	36"		
	PINUS MUGO 'PUMILIO' DWARF MUGO PINE	21"		
	PITTOSPORUM TOBIRA 'CREME DE MINT' CREME DE MINT DWARF PITTOSPORUM	18"		
	PRUNUS LUSITANICA PORTUGAL LAUREL	36"		
RLL	RHODODENDRON 'LUCY LOU' LUCY LOU RHODODENDRON	24"		
RR	RHODODENDRON 'RAMAPO' RAMAPO RHODODENDRON	24"		
	RIBES SANGUINEUM RED FLOWERING CURRANT	1 GAL.		
+	SALIX SCOULERIANA SCOULER'S WILLOW	1 GAL.		
	TAXUS BACCATA 'REPANDENS' SPREADING ENGLISH YEW	24"		
V	VIBURNUM DAVIDII DAVID'S VIBURNUM	24"		
VSS	VIBURNUM P. TOMENTOSUM' SUMMER SNOWFLAKE' SUMMER SNOWFLAKE VIBURNUM	30"		
	VIBURNUM TINUS 'SPRING BOUQUET' LAURISTINUS	30"		

NOTE: LANDSCAPE CONTRACTOR TO VERIFY PLANT QUANTITIES ON PLAN. REPORT ANY DISCREPANCIES BETWEEN PLAN AND PLANT SCHEDULE TO L.A.

PLANT SCHEDULE

GRASSES, PERENNIALS AND GROUNDCOVERS

SYMBOL	BOTANICAL NAME/ COMMON NAME	SIZE	QTY.	REMARKS
	ARCTOSTAPHYLLOS UVA-URSI KINNIKINNICK	4" POT		SPACING @ 18" OC
	BLECHNUM SPICANT DEER FERN	1 GAL.		
	CALLUNA VULGARIS 'SILVER KNIGHT' SILVER KNIGHT SCOTCH HEATHER	1 GAL.		
	CALLUNA VULGARIS 'WINTER CHOCOLATE' WINTER CHOCOLATE SCOTCH HEATHER	1 GAL.		
C	CAREX MORROWII 'ICE DANCE' VARIEGATED JAPANESE SEDGE	1 GAL.		
	CEANOTHUS GLORIOSIS POINT REYES CEANOTHUS	1 GAL.		SPACING @ 30" OC
	ERICA CINEREA 'MEDITERRANEAN PINK' MEDITERRANEAN PINK HEATH	1 GAL.		
	GAULTHERIA PROCUMBENS WINTERGREEN	4" POT		SPACING @ 18" OC
hfw	HOSTA 'FRANCIS WILLIAMS' FRANCIS WILLIAMS PLANTAIN LILY	1 GAL.		VERIFY VARIETY
hg	HOSTA 'GUACAMOLE' GUACAMOLE PLANTAIN LILY	1 GAL.		VERIFY VARIETY
hh	HOSTA 'HALCYON' HALCYON PLANTAIN LILY	1 GAL.		VERIFY VARIETY
	LIRIOPE MUSCARI BIG BLUE LILYTURF	1 GAL.		SPACING @ 18" OC
	MISCANTHUS SINENSIS 'MORNING LIGHT' MORNING LIGHT MAIDEN GRASS	1 GAL.		
	PACHYSANDRA TERMINALIS JAPANESE SPURGE	4" POT		SPACING @ 15" OC
	PENNISETUM ALOPECUROIDES 'HAMELN' DWARF FOUNTAIN GRASS	1 GAL.		
	PHORMIUM TENAX SP. NEW ZEALAND FLAX (VARIETY T.B.D.)	5 GAL.		
	POLYSTICHUM MUNITUM SWORD FERN	1 GAL.		

NOTE: LANDSCAPE CONTRACTOR TO VERIFY PLANT QUANTITIES ON PLAN. REPORT ANY DISCREPANCIES BETWEEN PLAN AND PLANT SCHEDULE TO L.A.

4' 8' 16' 32'
SCALE: 1/8" = 1' - 0"

Petrie
19.19

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STATE OF WASHINGTON
REGISTERED LANDSCAPE ARCHITECT

DARWIN D. WEBB
CERTIFICATE NO. 564

ISSUES:

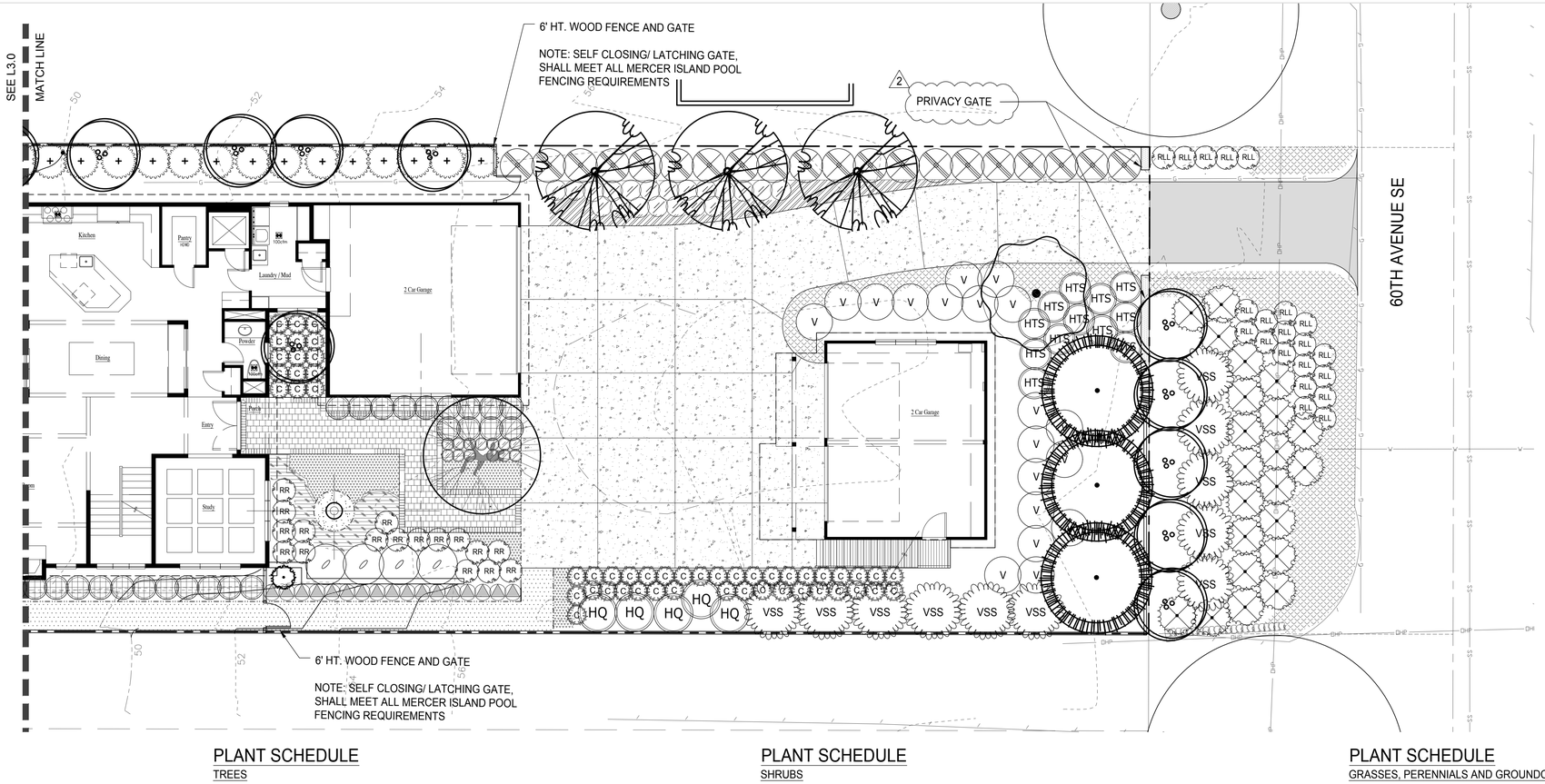
NO.:	DATE:	DESCRIPTION:
1	05.13.20	PERMIT SUBMITTAL
2	07.24.20	REVISIONS
3	12.09.20	REVISIONS
4	12.22.20	REVIEW
5	03.15.21	REVISIONS
2	06.07.21	PERMIT RESUBMITTAL

PROJECT #: 19.19

DRAWN: RB
CHECKED: DW

TITLE: PLANTING PLAN WEST AREA

SHEET: L3.0



TREE REPLACEMENT

REMOVED EXCEPTIONAL TREES REQUIRING REPLACEMENT:

(1) MAPLE TREE = (6) REPLACEMENT TREES (REMOVED IN 2020 UNDER SEPARATE PERMIT)
(1) 12" HAWTHORNE TREE = (6) REPLACEMENT TREES (REMOVED IN 2020 UNDER SEPARATE PERMIT)

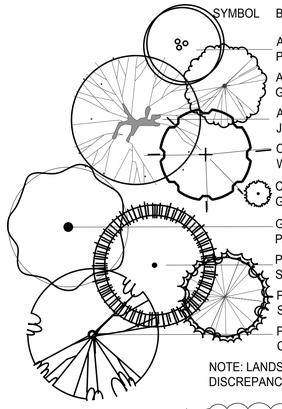
REPLACEMENT TREES:

(6) PINUS CONTORTA/SHORE PINE, 6'-7' HT, (PNW NATIVE SPECIES).
(3) PICEA OMORIKA/SERBIAN SPRUCE, 2" CALIPER, (NON-NATIVE ORNAMENTAL CONIFER).
(3) PYRUS CALLERYANA 'CHANTICLEER'/ FLOWERING PEAR, 2" CAL. (NON-NATIVE ORNAMENTAL DECIDUOUS TREE).

REFER TO UPDATED TREE REPORT DATED JANUARY 5, 2021 PREPARED BY TOM HANSON, ARBORINFO LLC.

PLANT SCHEDULE

TREES



SYMBOL	BOTANICAL NAME/ COMMON NAME	SIZE	QTY.	REMARKS
	ACER CIRCINATUM 'PACIFIC FIRE' PACIFIC FIRE VINE MAPLE	6'-7' HT.	14	MULTI-STEMMED
	ACER PALMATUM 'DISSECTUM' GREEN LACELEAF JAPANESE MAPLE	4'-5' SP.	1	SPECIMEN QUALITY
	ACER PALMATUM JAPANESE MAPLE	2-1/2" CAL.	1	SPECIMEN QUALITY, VARIFY T.B.D.
	CORYLUS CORNUTA WESTERN HAZELNUT	4'-5' SP.	3	
	CUPRESSUS MACROCARPA 'GOLDCREST' GOLDCREST CYPRESS	3'-5' HT.	7	MULTIPLE SIZES, VERIFY W/ L.A.
	GINKGO BILOBA 'PRINCETON SENTRY' PRINCETON SENTRY GINKGO TREE	2" CAL.	1	SPECIMEN QUALITY, VARIFY VARIETY
	PICEA OMORICA SERBIAN SPRUCE	8'-9' HT.	3	REPLACEMENT TREE ORNAMENTAL
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4' 8' 16' 32'
SCALE: 1/8" = 1' - 0"

PLANT SCHEDULE

SHRUBS

SYMBOL	BOTANICAL NAME/ COMMON NAME	SIZE	QTY.	REMARKS
	ARBUTUS UNEDO 'COMPACTA' COMPACT STRAWBERRY TREE	36"		
	CORNUS SERICEA REDTWIG DOGWOOD	24"		
+	GAULTHERIA SHALLON SALAL	1 GAL.		
	HOLODISCUS DISCOLOR OCEANSPRAY	1 GAL.		
HTS	HYDRANGEA MACROPHYLLA 'TWIST-N-SHOUT' TWIST-N-SHOUT HYDRANGEA	30"		
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	PINUS MUGO 'PUMILIO' DWARF MUGO PINE	21"		
	PITTOSPORUM TOBIRA 'CREME DE MINT' CREME DE MINT DWARF PITTOSPORUM	18"		
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RLL	RHODODENDRON 'LUCY LOU' LUCY LOU RHODODENDRON	24"		
RR	RHODODENDRON 'RAMAPO' RAMAPO RHODODENDRON	24"		
	RIBES SANGUINEUM RED FLOWERING CURRANT	1 GAL.		
+	SALIX SCOULERIANA SCOULER'S WILLOW	1 GAL.		
	TAXUS BACCATA 'REPANDENS' SPREADING ENGLISH YEW	24"		
V	VIBURNUM DAVIDII DAVID'S VIBURNUM	24"		
VSS	VIBURNUM P. TOMENTOSUM' SUMMER SNOWFLAKE' SUMMER SNOWFLAKE VIBURNUM	30"		
	VIBURNUM TINUS 'SPRING BOUQUET' LAURISTINUS	30"		

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PLANT SCHEDULE

GRASSES, PERENNIALS AND GROUNDCOVERS

SYMBOL	BOTANICAL NAME/ COMMON NAME	SIZE	QTY.	REMARKS
	ARCTOSTAPHYLLOS UVA-URSI KINNIKINNICK	4" POT		SPACING @ 18" OC
	BLECHNUM SPICANT DEER FERN	1 GAL.		
	CALLUNA VULGARIS 'SILVER KNIGHT' SILVER KNIGHT SCOTCH HEATHER	1 GAL.		
	CALLUNA VULGARIS 'WINTER CHOCOLATE' WINTER CHOCOLATE SCOTCH HEATHER	1 GAL.		
C	CAREX MORROWII 'ICE DANCE' VARIEGATED JAPANESE SEDGE	1 GAL.		
	CEANOTHUS GLORIOSIS POINT REYES CEANOTHUS	1 GAL.		SPACING @ 30" OC
	ERICA CINEREA 'MEDITERRANEAN PINK' MEDITERRANEAN PINK HEATH	1 GAL.		
	GAULTHERIA PROCUMBENS WINTERGREEN	4" POT		SPACING @ 18" OC
hfw	HOSTA 'FRANCIS WILLIAMS' FRANCIS WILLIAMS PLANTAIN LILY	1 GAL.		VERIFY VARIETY
hg	HOSTA 'GUACAMOLE' GUACAMOLE PLANTAIN LILY	1 GAL.		VERIFY VARIETY
hh	HOSTA 'HALCYON' HALCYON PLANTAIN LILY	1 GAL.		VERIFY VARIETY
	LIRIOPE MUSCARI BIG BLUE LILYTURF	1 GAL.		SPACING @ 18" OC
	MISCANTHUS SINENSIS 'MORNING LIGHT' MORNING LIGHT MAIDEN GRASS	1 GAL.		
	PACHYSANDRA TERMINALIS JAPANESE SPURGE	4" POT		SPACING @ 15" OC
	PENNISETUM ALOPECUROIDES 'HAMELN' DWARF FOUNTAIN GRASS	1 GAL.		
	PHORMIUM TENAX SP. NEW ZEALAND FLAX (VARIETY T.B.D.)	5 GAL.		
	POLYSTICHUM MUNITUM SWORD FERN	1 GAL.		

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Darwin Webb
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www.darwinwebb.com

Petrie
19.19

PETRIE RESIDENCE
2431 60th Avenue SE
Mercer Island, WA 98075

STATE OF WASHINGTON
REGISTERED
LANDSCAPE ARCHITECT

DARWIN D. WEBB
CERTIFICATE NO. 564

ISSUES:

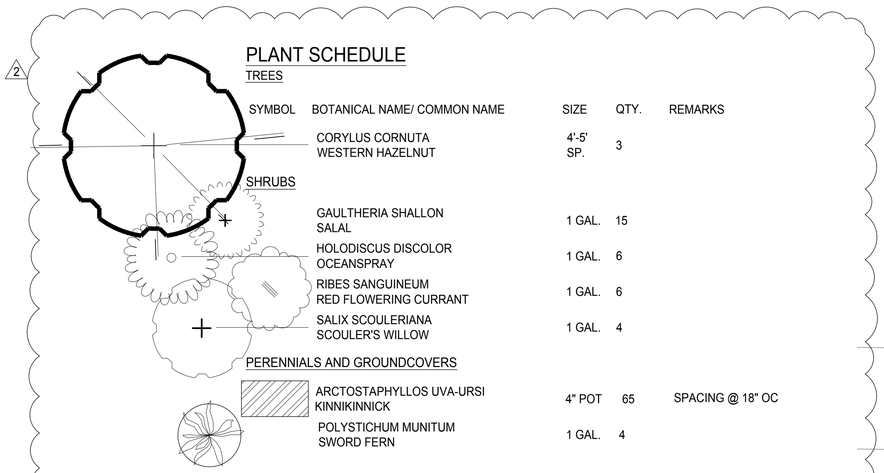
NO.:	DATE:	DESCRIPTION:
1	05.13.20	PERMIT SUBMITTAL
2	07.24.20	REVISIONS
3	12.09.20	REVISIONS
4	12.22.20	REVIEW
5	03.15.21	REVISIONS
2	06.07.21	PERMIT RESUBMITTAL

PROJECT #: 19.19

DRAWN: RB
CHECKED: DW

TITLE: PLANTING PLAN EAST AREA

SHEET: L3.1



PLANT SCHEDULE

TREES

SYMBOL	BOTANICAL NAME/ COMMON NAME	SIZE	QTY.	REMARKS
	CORYLUS CORNUTA WESTERN HAZELNUT	4'-5' SP.	3	

SHRUBS

GAULTHERIA SHALLON SALAL	1 GAL.	15	
HOLODISCUS DISCOLOR OCEANSPRAY	1 GAL.	6	
RIBES SANGUINEUM RED FLOWERING CURRANT	1 GAL.	6	
SALIX SCOULERIANA SCOULER'S WILLOW	1 GAL.	4	

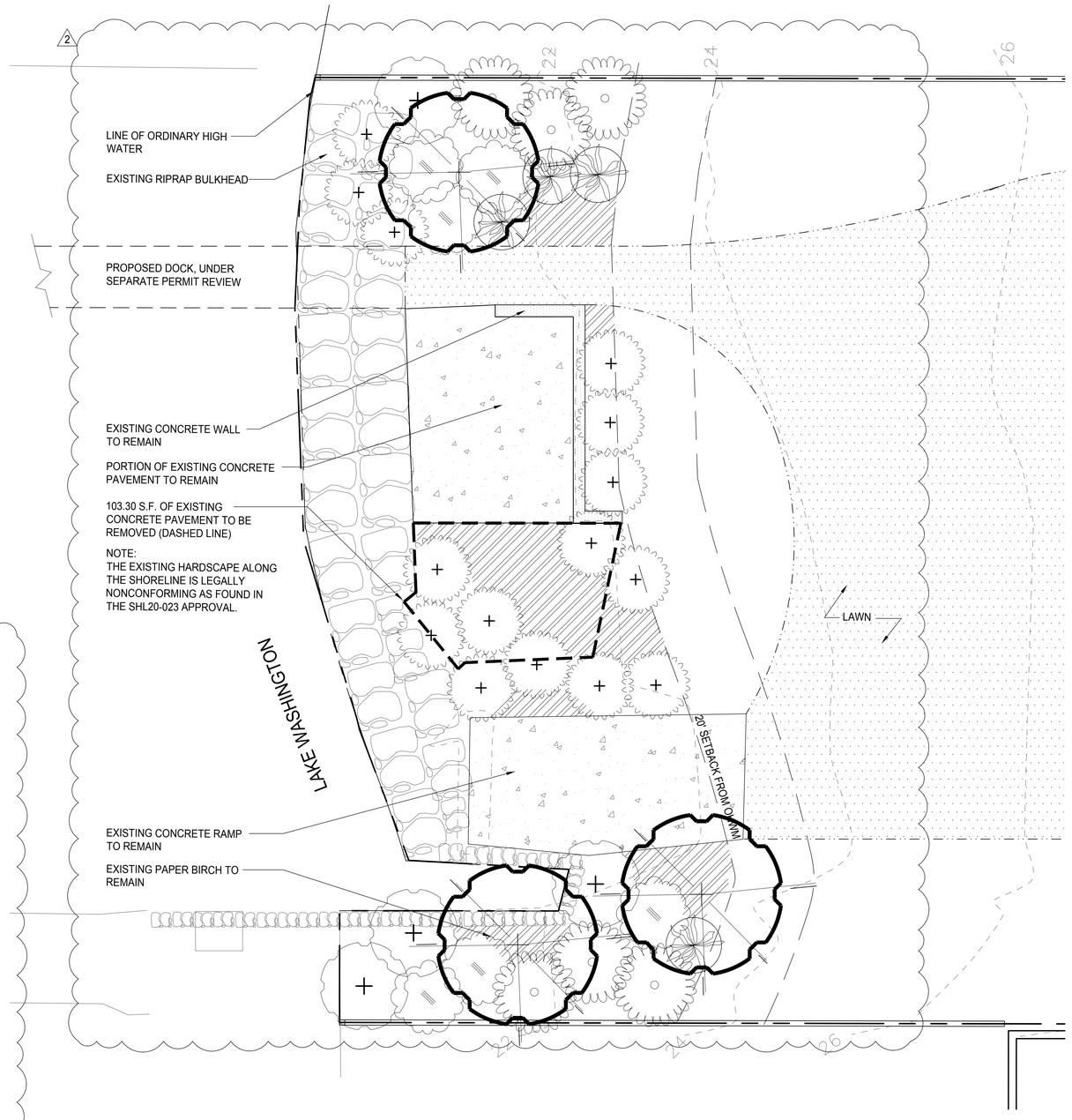
PERENNIALS AND GROUNDCOVERS

ARCTOSTAPHYLLOS UVA-URSI KINNIKINNICK	4" POT	65	SPACING @ 18" OC
POLYSTICHUM MUNITUM SWORD FERN	1 GAL.	4	

AREA CALCULATIONS

TOATL AREA BETWEEN OHWM AND 20' SETBACK = 1,210.67 S.F.
1,210.67 X .751 = 909.21 S.F. REQUIRED NATIVE VEGETATION

TOTAL EXISTING HARDSCAPE	388.08 S.F.
TOTAL HARDSCAPE REMOVED	103.30 S.F.
TOTAL HARDSCAPE REMAINING	284.78 S.F.
TOTAL PROPOSED NATIVE VEGETATION (76.48%)	925.89 S.F.



2' 4' 8' 16'
SCALE: 1/4" = 1' - 0"

Petrie
19.19

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Mercer Island, WA 98075

STATE OF WASHINGTON
REGISTERED
LANDSCAPE ARCHITECT

DARWIN D. WEBB
CERTIFICATE NO. 564

ISSUES:

NO.:	DATE:	DESCRIPTION:
1	05.13.20	PERMIT SUBMITTAL
2	07.24.20	REVISIONS
3	12.09.20	REVISIONS
4	12.22.20	REVIEW
5	03.15.21	REVISIONS
2	06.07.21	PERMIT RESUBMITTAL

PROJECT #: 19.19

DRAWN: RB
CHECKED: DW

TITLE: SHORELINE PLANTING PLAN

SHEET: L3.2

SOIL AMENDMENT REQUIRED

COMPOST AMENDED SOIL REQUIRED ON ALL LANDSCAPED AREAS AFTER CONSTRUCTION. SEE DETAIL ON C3.5.

SOIL INSPECTION REQUIRED BY ENGINEER

A POST CONSTRUCTION INSPECTION & CERTIFICATION OF AMENDED SOILS IS REQUIRED BY A LICENSED CIVIL ENGINEER. THIS IS REQUIRED BEFORE FINAL SIGN-OFF BY CITY.

EROSION CONTROL NOTES

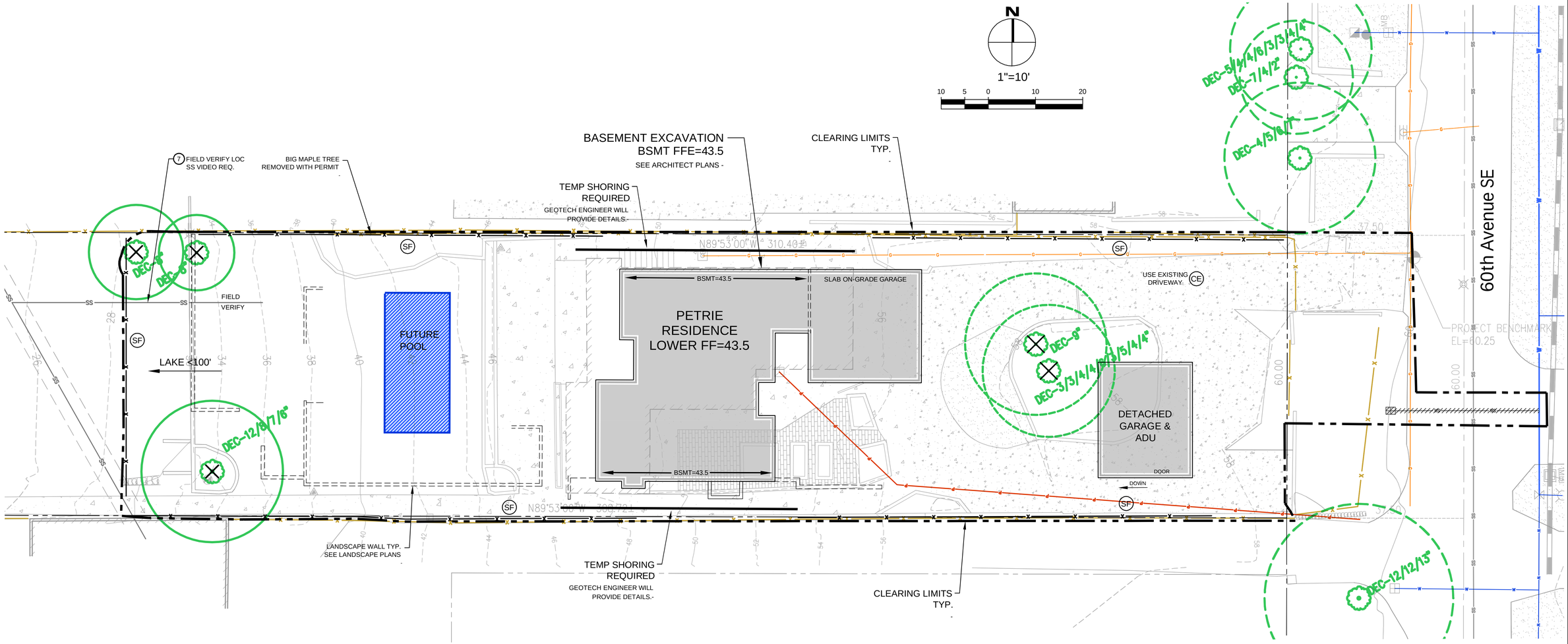
SHEET C1.2

EROSION CONTROL DETAILS

SHEET C1.2

EROSION CONTROL LEGEND

FILTER FABRIC FENCE (SILT FENCE)	SF	
STABILIZED CONSTRUCTION ENTRANCE	CE	
CATCH BASIN INLET PROTECTION	IP	
INTERCEPTOR SWALE SEE COR DWG 504, TYPE A TEMPORARY SWALE	IS	
TREE PROTECTION FENCING USE CHAIN LINK FENCE	TP	
STOCKPILE	ST	
STRAW WATTLES	SW	USE AS NEEDED
PLASTIC COVERING	PC	COVER EXPOSED AREAS WITHIN MERCER ISLAND TIME LIMIT
COMPOST SOCK	CS	SEDIMENT CONTROL OPTION RECOMMENDED IN LIEU OF SILT FENCE
COMPOST BERM	CB	SEDIMENT CONTROL OPTION RECOMMENDED IN LIEU OF SILT FENCE



NO.	DATE	BY	REVISIONS

APPLICANT:
GREGG PETRIE

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

DATE: Apr 06, 2021
JOB# 1909
DRAFTED: SS DESIGN: SS
DIGITAL SIGNATURE

Apr 06, 2021
JEFFREY E. DUFFY — STATE OF WASHINGTON — 36700 — REGISTERED PROFESSIONAL ENGINEER

CIVIL ENGINEERING SOLUTIONS
102 NW CANAL STREET SEATTLE, WA 98107
PHONE: 206.930.0342 DUFFY@CESOLUTIONS.US

EROSION CONTROL PLAN

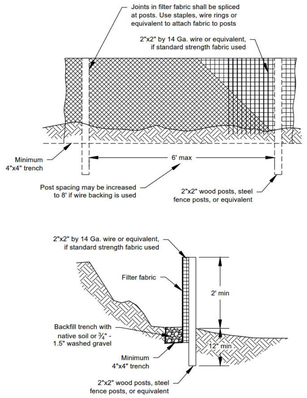
PETRIE RESIDENCE
2431 60th AVENUE SE, MERCER ISLAND, WA 98040

DRAWING NO: C1.0

APN 409950-0060
2005-174

SILT FENCE DETAIL — DOE

Figure II-4.2.12 Silt Fence



DEPARTMENT OF ECOLOGY State of Washington

Figure II-4.2.12
Silt Fence

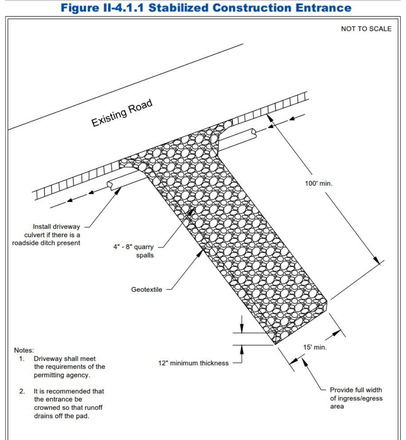
Revised October 2014

2014 Stormwater Management Manual for Western Washington

Volume II - Chapter 4 - Page 369

CONSTRUCTION ENTRANCE — DOE

Figure II-4.1.1 Stabilized Construction Entrance



DEPARTMENT OF ECOLOGY State of Washington

Figure II-4.1.1
Stabilized Construction Entrance

Revised June 2015

2014 Stormwater Management Manual for Western Washington

Volume II - Chapter 4 - Page 273

RECOMMENDED CONSTRUCTION SEQUENCE

A DETAILED CONSTRUCTION SEQUENCE IS NEEDED TO ENSURE THAT EROSION AND SEDIMENT CONTROL MEASURES ARE APPLIED AT THE APPROPRIATE TIMES. A RECOMMENDED CONSTRUCTION SEQUENCE IS PROVIDED BELOW:

1. HOLD AN ONSITE PRE-CONSTRUCTION MEETING.

2. POST SIGN WITH NAME AND PHONE NUMBER OF ESC SUPERVISOR (MAY BE CONSOLIDATED WITH THE REQUIRED NOTICE OF CONSTRUCTION SIGN).

3. FLAG OR FENCE CLEARING LIMITS.

4. INSTALL CATCH BASIN PROTECTION, IF REQUIRED.

5. GRADE AND INSTALL CONSTRUCTION ENTRANCE(S).

6. INSTALL PERIMETER PROTECTION (SILT FENCE, BRUSH BARRIER, ETC.).

7. CONSTRUCT SEDIMENT PONDS AND TRAPS.

8. GRADE AND STABILIZE CONSTRUCTION ROADS.

9. CONSTRUCT SURFACE WATER CONTROLS (INTERCEPTOR DIKES, PIPE SLOPE DRAINS, ETC.) SIMULTANEOUSLY WITH CLEARING AND GRADING FOR PROJECT DEVELOPMENT.

10. MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH CITY OF MERCER ISLAND STANDARDS AND MANUFACTURER'S RECOMMENDATIONS.

11. RELOCATE SURFACE SURFACE WATER CONTROLS OR TESC MEASURES, OR INSTALL NEW MEASURES SO THAT AS SITE CONDITIONS CHANGE, THE TESC IS ALWAYS IN ACCORDANCE WITH CITY OF MERCER ISLAND TESC REQUIREMENTS.

12. COVER ALL AREAS THAT WILL BE UN-WORKED FOR MORE THAN SEVEN DAYS DURING THE DRY SEASON (MAY 1 TO SEPT 30) OR TWO DAYS DURING THE WET SEASON (OCT 1 TO APRIL 30) WITH STRAW, WOOD FIBER MULCH, COMPOST, PLASTIC SHEETING, OR EQUIVALENT.

13. STABILIZE ALL AREAS WITHIN SEVEN DAYS OF REACHING FINAL GRADE.

14. SEED, SOD, STABILIZE, OR COVER ANY AREAS TO REMAIN UNWORKED FOR MORE THAN 30 DAYS.

15. UPON COMPLETION OF THE PROJECT, STABILIZE ALL DISTURBED AREAS AND REMOVE BMPS IF APPROPRIATE.

DENUDED AREAS REQUIREMENTS

APRIL 1 TO SEPT 30
ALL DENUDED AREAS MUST BE STABILIZED WITHIN 7 DAYS OF CONSTRUCTION. PLEASE READ ALL CITY TESC NOTES ON SHEET C1.2.

OCT 1 TO MARCH 31
ALL DENUDED AREAS MUST BE STABILIZED WITHIN 2 DAYS OF GRADING. IF AN EROSION PROBLEM ALREADY EXISTS ON THE SITE, OTHER COVER PROTECTION AND EROSION CONTROL WILL BE REQUIRED.

EROSION CONTROL NOTES

D.8.2 STANDARD ESC PLAN NOTES
THE STANDARD ESC PLAN NOTES MUST BE INCLUDED ON ALL ESC PLANS. AT THE APPLICANT'S DISCRETION, NOTES THAT IN NO WAY APPLY TO THE PROJECT MAY BE OMITTED; HOWEVER, THE REMAINING NOTES MUST NOT BE RENUMBERED. FOR EXAMPLE, IF ESC NOTE #3 WERE OMITTED, THE REMAINING NOTES SHOULD BE NUMBERED 1, 2, 4, 5, 6, ETC.

1. APPROVAL OF THIS EROSION AND SEDIMENTATION CONTROL (ESC) PLAN DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN (E.G., SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION FACILITIES, UTILITIES, ETC.).

2. THE IMPLEMENTATION OF THESE ESC PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND
UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE APPLICANT/ESC SUPERVISOR UNTIL ALL CONSTRUCTION IS APPROVED.

3. THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE CLEARLY FLAGGED BY SURVEY TAPE OR FENCING, IF REQUIRED, PRIOR TO CONSTRUCTION (SWDM APPENDIX D). DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE CLEARING LIMITS SHALL BE PERMITTED. THE CLEARING LIMITS SHALL BE MAINTAINED BY THE APPLICANT/ESC SUPERVISOR FOR THE DURATION OF CONSTRUCTION.

4. STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES, SUCH AS CONSTRUCTED WHEEL WASH SYSTEMS OR WASH PADS, MAY BE REQUIRED TO ENSURE THAT ALL PAVED AREAS ARE KEPT CLEAN AND TRACK OUT TO ROAD RIGHT OF WAY DOES NOT OCCUR FOR THE DURATION OF THE PROJECT.

5. THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED PRIOR TO OR IN CONJUNCTION WITH ALL CLEARING AND GRADING SO AS TO ENSURE THAT THE TRANSPORT OF SEDIMENT TO SURFACE WATERS, DRAINAGE SYSTEMS, AND ADJACENT PROPERTIES IS MINIMIZED.

6. 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 AS NEEDED FOR UNEXPECTED STORM EVENTS AND MODIFIED TO ACCOUNT FOR CHANGING SITE CONDITIONS (E.G. ADDITIONAL COVER MEASURES, ADDITIONAL SUMP PUMPS, RELOCATION OF DITCHES AND SILT FENCES, PERIMETER PROTECTION ETC.) AS DIRECTED BY CITY OF MERCER ISLAND.

7. THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE APPLICANT/ESC SUPERVISOR AND MAINTAINED TO ENSURE CONTINUED PROPER FUNCTIONING. WRITTEN RECORDS SHALL BE KEPT OF WEEKLY REVIEWS OF THE ESC FACILITIES.

8. ANY AREAS OF EXPOSED SOILS, INCLUDING ROADWAY EMBANKMENTS, THAT WILL NOT BE DISTURBED FOR TWO CONSECUTIVE DAYS DURING THE WET SEASON OR SEVEN DAYS DURING THE DRY SEASON SHALL BE IMMEDIATELY STABILIZED WITH THE APPROVED ESC METHODS (E.G., SEEDING, MULCHING, PLASTIC COVERING, ETC.).

9. ANY AREA NEEDING ESC MEASURES THAT DO NOT REQUIRE IMMEDIATE ATTENTION SHALL BE ADDRESSED WITHIN SEVEN (7) DAYS.

10. THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH DURING THE DRY SEASON, BI-MONTHLY DURING THE WET SEASON, OR WITHIN TWENTY FOUR (24) HOURS FOLLOWING A STORM EVENT.

11. AT NO TIME SHALL MORE THAN ONE (1) 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 THE DOWNSTREAM SYSTEM.

12. ANY PERMANENT RETENTION/DETENTION FACILITY USED AS A TEMPORARY SETTLING BASIN SHALL BE MODIFIED WITH THE NECESSARY EROSION CONTROL MEASURES AND SHALL PROVIDE ADEQUATE STORAGE CAPACITY. IF THE FACILITY IS TO FUNCTION ULTIMATELY AS AN INFILTRATION SYSTEM, THE TEMPORARY FACILITY MUST BE ROUGH GRADED SO THAT THE BOTTOM AND SIDES ARE AT LEAST THREE FEET ABOVE THE FINAL GRADE OF THE PERMANENT FACILITY.

13. COVER MEASURES WILL BE APPLIED IN CONFORMANCE WITH APPENDIX D OF THE SURFACE WATER DESIGN MANUAL

14. PRIOR TO THE BEGINNING OF THE WET SEASON (OCT. 1), ALL DISTURBED AREAS SHALL BE REVIEWED TO IDENTIFY WHICH ONES CAN BE SEEDED IN PREPARATION FOR THE WINTER RAINS. DISTURBED AREAS SHALL BE SEEDED WITHIN ONE WEEK OF THE BEGINNING OF THE WET SEASON.

CITY 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 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.
4. CONTRACTORS SHALL VERIFY LOCATIONS AND DEPTHS OF UTILITES.
5. AT LEAST 48 HOURS PRIOR TO CONSTRUCTION, CALL "ONE CALL" AT 1.800.424.5555
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 THE 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 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. SILENT 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.
16. 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.
20. NEWLY INSTALLED SIDE SEWER REQUIRES A 4 P.S.I. AIR TEST OR PROVIDE 10' OF HYDROSTATIC HEAD TEST.
21. 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.
22. THE LIMITS AND EXTENDS OF THE PAVEMENT IN THE PUBLIC RIGHT OF WAY SHALL BE DETERMINED BY THE CITY ENGINEER PRIOR TO FINALIZE THE PROJECT.

NO.	DATE	BY	REVISIONS

APPLICANT:
GREGG PETRIE

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

DATE: Apr 06, 2021
JOB# 1909
DRAFTED: SS DESIGN: SS
DIGITAL SIGNATURE

Apr 06, 2021
JEFFREY E. HAAS — STATE OF WASHINGTON — 36706 REGISTERED — PROFESSIONAL ENGINEER

CIVIL ENGINEERING SOLUTIONS
102 NW CANAL STREET
PHONE: 206.930.0342
SEATTLE, WA 98107
DUFFY@CESOLUTIONS.US

TESC & CITY NOTES
TESC DETAILS

PETRIE RESIDENCE
2431 60th AVENUE SE, MERCER ISLAND, WA 98040

DRAWING NO: C1.2

APN 409950-0060
2005-174

SANITARY SEWER IMPROVEMENTS

1. -
2. 6" SDR 35 PVC SANITARY SEWER (SS) @ MIN 1.0 %.
3. BACKWATER VALVE ASSEMBLY INSTALLED TO EXISTING SIDE SEWER. SEE DETAIL S-26. VALVE ELEVATIONS MIN. 2-FEET ABOVE HIGH WATER ELEVATION.
4. 6" SEWER CLEANOUT PER MERCER ISLAND DETAIL S-19.
7. LOCATE AND VIDEO CONDITION OF EXISTING SANITARY SIDE SEWER. REPLACE LINE IF FOUND DEFECTIVE AS DETERMINED BY CITY INSPECTOR.

WATER IMPROVEMENTS

10. NEW SF RESIDENTIAL WATER SERVICE & METER PIT. CONFIRM REQUIRED SIZE WITH BUILDING PERMIT REVIEW. INSTALL PER MERCER ISLAND DETAIL W-13, W-14, OR W-14A DEPENDING ON SIZE REQUIREMENT.
11. PRIVATE WATER SERVICE FROM METER TO HOUSE. SEE PLAN FOR SIZE. CONFIRM ADEQUATE TO MEET FIRE FLOW REQUIREMENTS. HDPE WATER (ASTM D2239). RECOMMENDED DEPTH=36".
12. REDUCE PRESSURE BACKFLOW ASSEMBLY (RPBA) REQUIRED. PROVIDE FROST PROTECTION IN ACCORDANCE WITH UPC (UNIFORM PLUMBING CODE).
14. -

STORM DRAIN

20. 4" STORM DRAIN (3034 PVC) @ MIN 2 % GRADE
21. 4" FOUNDATION DRAIN (3034 PVC) @ MIN 1 % GRADE
22. 6" STORM DRAIN (3034 PVC) @ MIN 2 % GRADE
23. -
24. -
25. -
26. -
28. -
29. -

STORM DRAIN STRUCTURES

30. TYPE 1 CB WITH STANDARD GRATE. MAX 5' RIM TO FL DEPTH. FOR WQ, ADD WATER QUALITY RISER TEE FOR EXITING PIPE (OR DOWNTURNED ELBOW).
31. -
32. -
33. -TYPE 1 CB (OIL/WATER SEPARATOR) WITH STANDARD GRATE TOP.
34. -
35. -YARD DRAIN/CB (OR EQUAL) WITH SOLID LID. SEE PLAN FOR 18" OR 24" DIAMETER. NYLOPLAST PVC OR EQUAL.
36. NDS DURASLOPE CHANNEL DRAIN OR EQUAL. MINIMUM 6" CHANNEL. CLASS B VEHICLE RATED GRATE.
39. -
40. -
41. -
43. -
46. -
47. -
48. -

STORM BMP's

COMPOSTED AMENDED SOIL IS REQUIRED FOR DISTURBED AREAS. SEE DETAIL ON C3.5.

STORM BMP'S ARE NOT PROPOSED FOR PROJECT. SEE STORM REPORT.

SOILS

SITE IS IN AN AREA MAPPED "INFILTRATING LID FACILITIES ARE NOT PERMITTED" ON THE "LOW IMPACT DEVELOPMENT INFILTRATION FEASIBILITY ON MERCER ISLAND" MAP

RETAINING WALLS

75. FILL CONDITION RETAINING WALL(S) PER LANDSCAPE DESIGN. ASSUME REINFORCED CONCRETE. DESIGN DETAILS PROVIDED AT 2ND SUBMITTAL.

SURVEYOR

TOPOGRAPHIC SURVEY BY:
CORE DESIGN
12100 NE 195th STREET, SUITE 300
BOTHELL, WA 98011
PHONE 425.885.7877

LEGAL DESCRIPTION

LOTS 10, 11, 12, AND 13, BLOCK 1, LAKE VIEW PLACE EAST SEATTLE, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 8 OF PLATS, PAGE 49, RECORDS OF KING COUNTY, WASHINGTON;
EXCEPT THE NORTH 15 FEET OF SAID LOTS 10 AND 13;

TOGETHER WITH THE SHORELANDS OF THE SECOND CLASS IN FRONT THEREOF.

VERTICAL DATUM

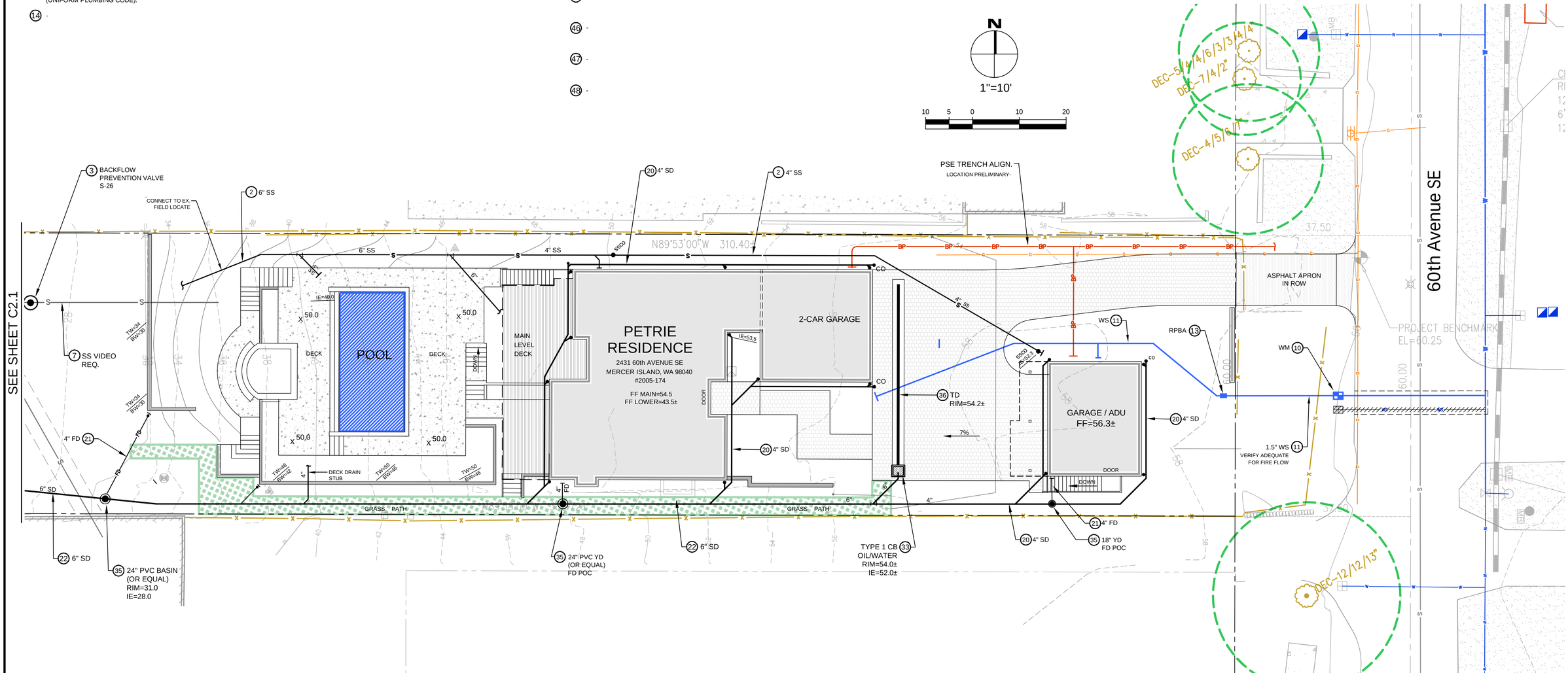
NAVD88 PER SURVEY

SOIL AMENDMENT REQUIRED

COMPOST AMENDED SOIL REQUIRED ON ALL LANDSCAPED AREAS AFTER CONSTRUCTION. SEE DETAIL ON C3.5.

SOIL INSPECTION REQUIRED BY ENGINEER

A POST CONSTRUCTION INSPECTION & CERTIFICATION OF AMENDED SOILS IS REQUIRED BY A LICENSED CIVIL ENGINEER. THIS IS REQUIRED BEFORE FINAL SIGN-OFF BY CITY.



NO.	DATE	BY	REVISIONS

APPLICANT:
GREGG PETRIE

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

DATE: Apr 06, 2021
JOB# 1909
DRAFTED: DE DESIGN: DE
DIGITAL SIGNATURE

Apr 06, 2021 — JEFFREY E. DUFFY — STATE OF WASHINGTON — 50796 — REGISTERED PROFESSIONAL ENGINEER

CIVIL ENGINEERING SOLUTIONS
102 NW CANAL STREET SEATTLE, WA 98107
PHONE: 206.930.0342 DUFFY@CESOLUTIONS.US

DRAINAGE / CIVIL / TREE PLAN

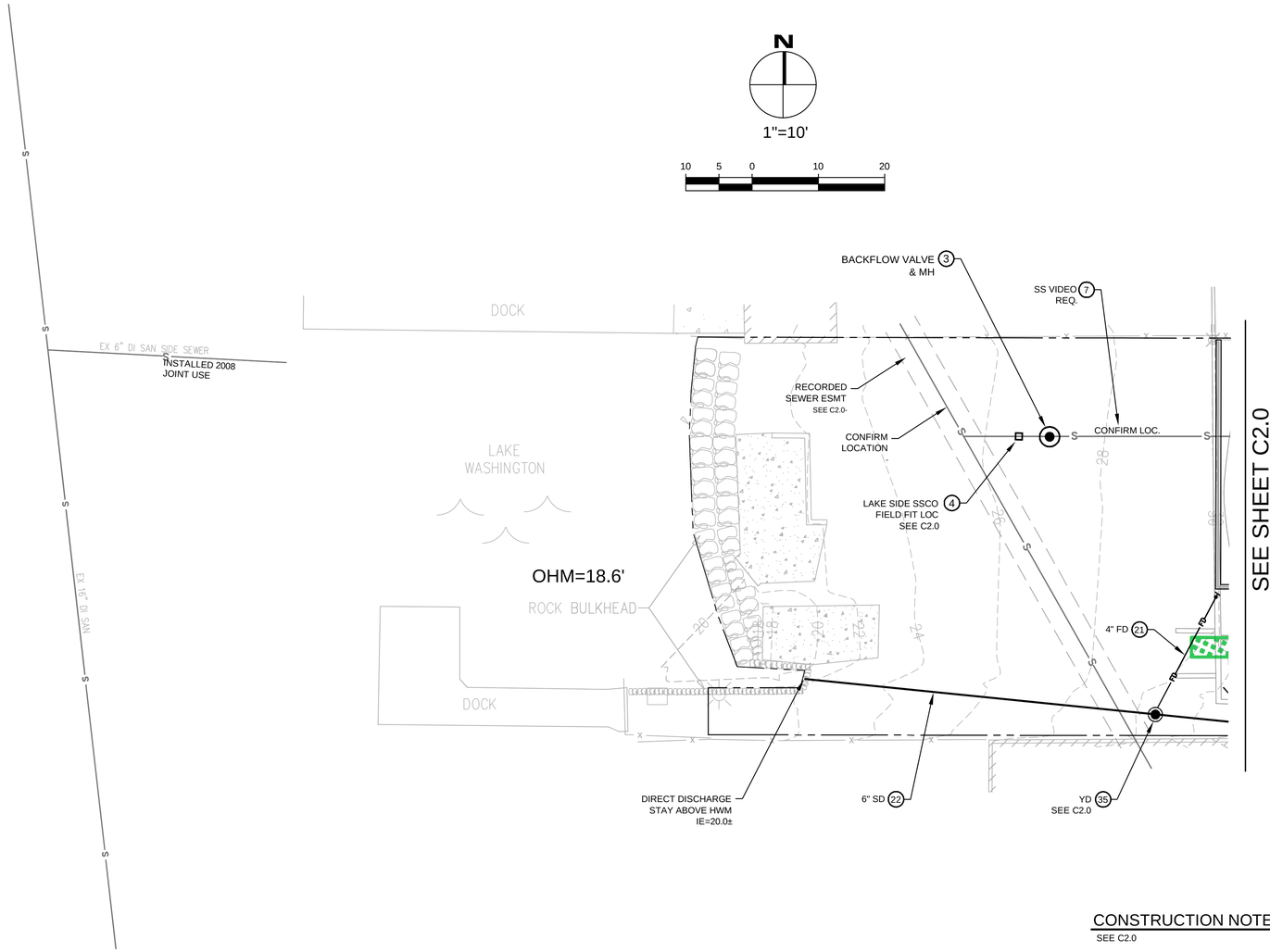
PETRIE RESIDENCE
2431 60th AVENUE SE, MERCER ISLAND, WA 98040

DRAWING NO: C2.0

APN 409950-0060
2005-174

CONSTRUCTION NOTES

SEE C2.0



CONSTRUCTION NOTES

SEE C2.0

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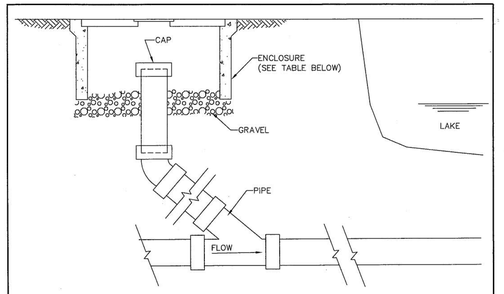
DRAINAGE / CIVIL PLAN

PETRIE RESIDENCE
2431 60th AVENUE SE, MERCER ISLAND, WA 98040

DRAWING NO:
C2.1

APN 409950-0060
2005-174

LAKE CONNECTION CLEANOUT



LAKE LINE CLEANOUT

PIPE SIZE	MATERIAL	CAP	ENCLOSURE	COMMENTS
6"	PVC	SIDU MECHANICAL SEWER PLUG	CONC. METER BOX, FOGTITE 1-D	INSTALLATION BELOW HYDRAULIC GRADIENT
6"	PVC	PVC CAP W/O GASKET	CONC. METER BOX, FOGTITE 1-D	INSTALLATION ABOVE HYDRAULIC GRADIENT
6"	DIP	MECHANICAL JOINT CAP	CONC. METER BOX, FOGTITE 1-D	INSTALLATION ABOVE HYDRAULIC GRADIENT
8"	PVC	PVC CAP W/O GASKET	CONC. METER BOX, FOGTITE NO. 2 (CONC. LID W/ ALUM. INS. PLATE)	INSTALLATION ABOVE HYDRAULIC GRADIENT
8"	DIP	MECHANICAL JOINT CAP	CONC. METER BOX, FOGTITE NO. 2 (CONC. LID W/ ALUM. INS. PLATE)	INSTALLATION ABOVE HYDRAULIC GRADIENT

NOTES

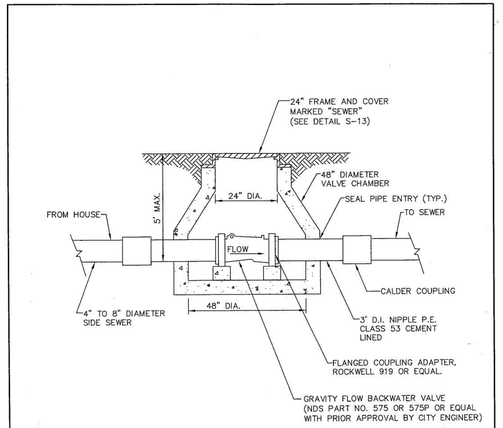
1. IF POSSIBLE, CLEANOUT TO BE LOCATED JUST ABOVE HYDRAULIC GRADIENT OF LAKE LINE. CLEANOUT SHOULD ALSO BE LOCATED TO PROVIDE EASY ACCESS FOR INSPECTION AND MAINTENANCE BY THE HOME OWNER.
2. SEE S-23 & S-24 FOR BACK WATER VALVE LOCATION.

CITY OF MERCER ISLAND
STANDARD DETAILS
SEWER
SIDE SEWER CLEANOUT FOR LAKE LINE CONNECTIONS

6-5-2009	NO SCALE	**S-25**

REV DATE | APPROVED

BACKWATER VALVE & MH



CITY OF MERCER ISLAND
STANDARD DETAILS
SEWER
BACK WATER VALVE ASSEMBLY FOR JOINT USE SIDE SEWER (4" OR 6" DIAMETER)

6-5-2009	NO SCALE	**S-26**

REV DATE | APPROVED

NO.	DATE	BY	REVISIONS

APPLICANT:
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Apr 06, 2021
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STATE OF WASHINGTON
20706
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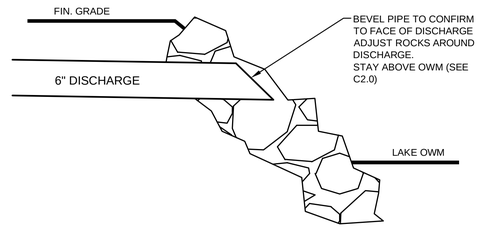
SEWER NOTES & DETAILS

PETRIE RESIDENCE
2431 60th AVENUE SE, MERCER ISLAND, WA 98040

DRAWING NO:
C3.2

APN 409950-0060
2005-174

PIPE @ LAKE DISCHARGE



THE LAWN AND LANDSCAPE AREAS ARE REQUIRED TO PROVIDE POST-CONSTRUCTION SOIL QUALITY AND DEPTH IN ACCORDANCE WITH BMP T5.13. THE PROJECT CIVIL ENGINEER MUST PROVIDE A LETTER OF CERTIFICATION TO ENSURE THAT THE LAWN ADN LANDSCAPE AREAS ARE MEETING THE POST-CONSTRUCTION SOIL QUALITY AND DEPTH REQUIREMENTS SPECIFIED ON THE APPROVED PLAN SET PRIOR TO FINAL INSPECTION OF THE PROJECT.

SOIL AMENDMENT REQUIRED

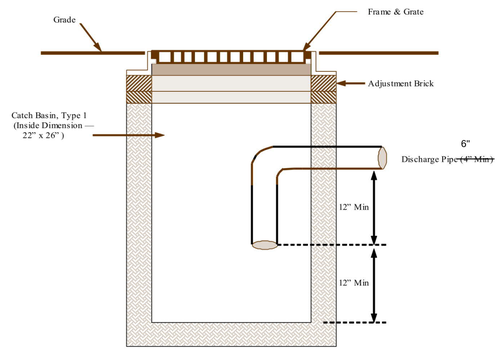
COMPOST AMENDED SOIL REQUIRED ON ALL LANDSCAPED AREAS AFTER CONSTRUCTION. SEE DETAIL ON C3.5.

SOIL INSPECTION REQUIRED BY ENGINEER

A POST CONSTRUCTION INSPECTION & CERTIFICATION OF AMENDED SOILS IS REQUIRED BY A LICENSED CIVIL ENGINEER. THIS IS REQUIRED BEFORE FINAL SIGN-OFF BY CITY.

TYPE 1 CB OIL/WATER

TYPE 1 — OIL/WATER SEPARATOR
(Figure 1)
(Mandatory for all new or re-built driveways when a storm water detention system is not required)



TYPE 1 CB (OR EQUAL)

75 catch basin products

Catch Basin Type 1

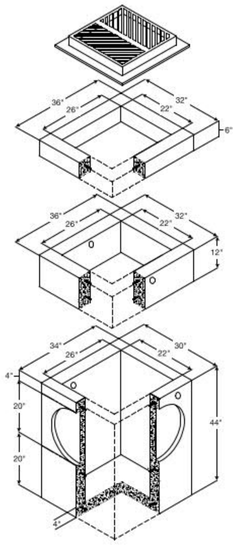
Reinforcing
- ASTM / WSDOT requirements
- All components
- #3 grade 60 reinforcing

6 Inch Riser
- 300 lbs

12 Inch Riser
- 600 lbs

Precast Base
- Base unit has four-way knock outs provided for pipe entry
- 2150 lbs

Conformity Standards
- Washington State APWA / WSDOT Standard Specifications
- WSDOT B-1

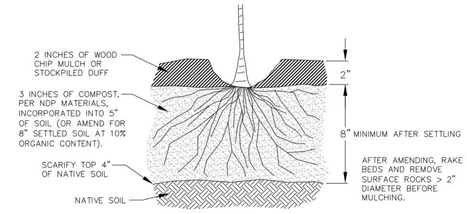


Note: drawings not to scale

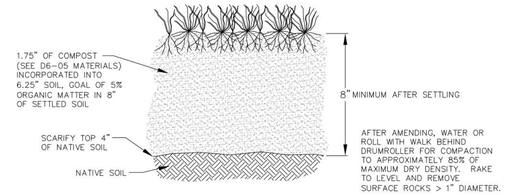
shope concrete products — Shope Enterprises, Inc. 1618 East Main Avenue Puyallup, WA 98372-3142 — (253) 848-1551 Fax Line 1 (253) 845-0292 Fax Line 2 (253) 864-6172 — 1-800-422-7560 [Toll Free - WA only] www.shopeconcrete.com

COMPOST AMENDED SOIL SPEC

AMENDMENT FOR LANDSCAPED AREAS



SOIL AMENDMENT FOR GRASS OR TURF AREAS



NOTES:
1. AMEND SOILS PER DOE MANUAL, VOL. V, 5.3.1, BMP T5.13, (2012 OR CURRENT) OR WWW.SOILSFORSALMON.ORG.
2. DO NOT AMEND SOILS IN AREAS WITH UNDISTURBED SOIL AND NATIVE VEGETATION.
3. OPTIONAL ALTERNATIVE: STOCKPILE NATIVE TOPSOIL ONSITE, AMEND IF NEEDED, AND REPLACE BEFORE PLANTING.
4. OPTIONAL ALTERNATIVE: IMPORT TOPSOIL MIX OF SUFFICIENT ORGANIC CONTENT AND DEPTH TO MEET REQUIREMENTS.

JANUARY 2017 — NO SCALE

City of Bellevue — STORM AND SURFACE WATER UTILITY

TITLE: AMENDED SOILS — NO. NDP–1

NO.	DATE	BY	REVISIONS

APPLICANT:
GREGG PETRIE

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

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DIGITAL SIGNATURE

Apr 06, 2021 — JEFFREY E. RUDD — STATE OF WASHINGTON — 39766 REGISTERED PROFESSIONAL ENGINEER

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DRAINAGE/BMP DETAILS

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2431 60th AVENUE SE, MERCER ISLAND, WA 98040

DRAWING NO: C3.5

APN 409950-0060
2005-174