## CITY OF MERCER ISLAND





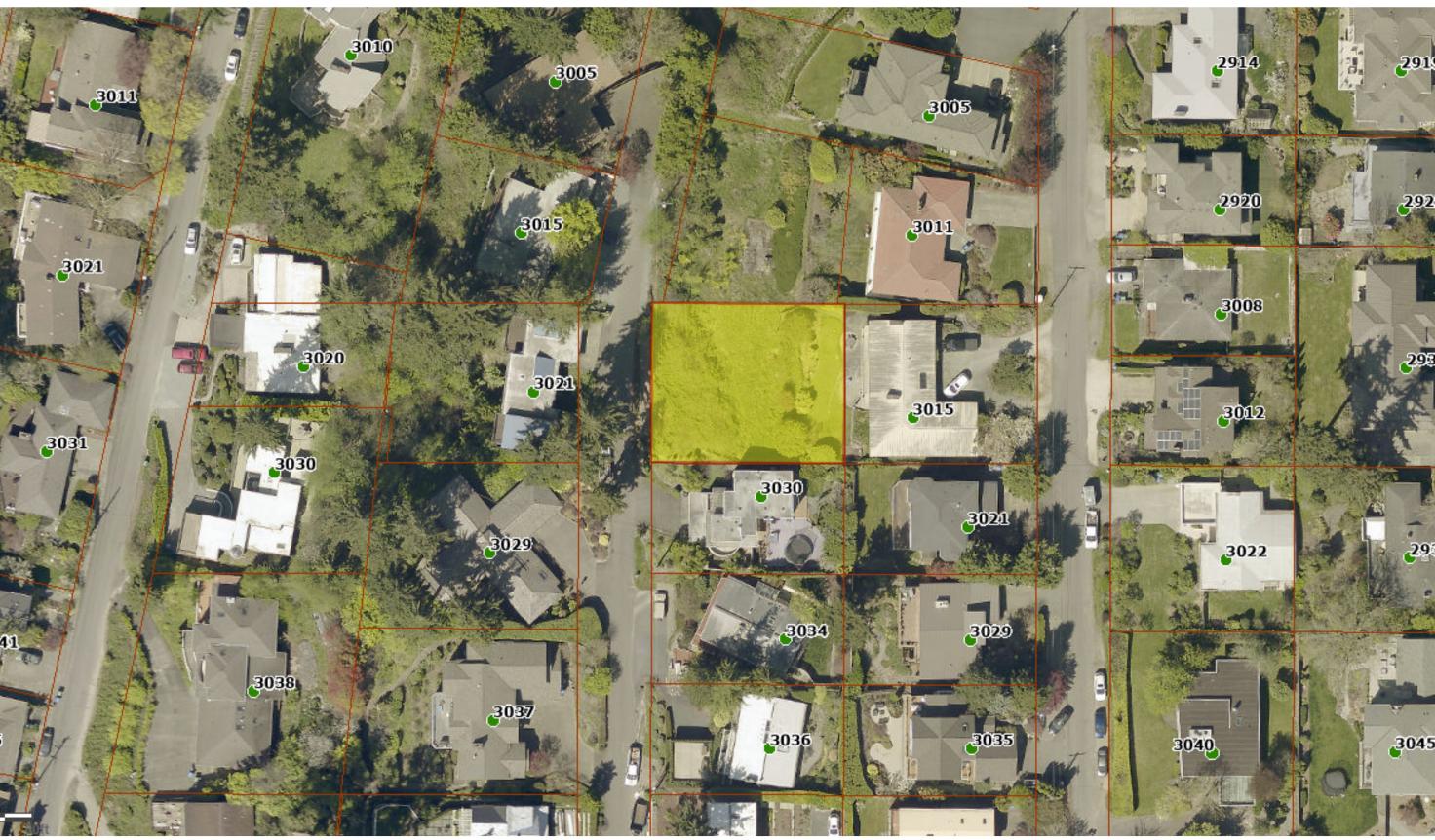
### **INSPECTION REQUESTS:**

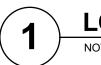
online	2:
-	MyBuildingPermit.com
. •	

HONE: 206.275.7605   www.mercergov.org		mybultumgremit.com
leplan	SHINGTON	voicemail: (206) 275-7730
OTE: ALL RECORDS AND DRAWINGS ARE SUBJECT TO	PUBLIC DISCLOSURE	AS REQUIRED BY RCW 42.56
CONTACT INFORMATION:		
Applicant is to complete the following information.  Applicant Contact information prior to permit issuance:	Applicant Contact	: information <i>post</i> permit issuance:
Name:	Name:	
Address:	Address:	
Phone:	Phone:	
Email:	Email:	
REQUIRED SPECIAL INSPECTIONS / STRUC	TURAL OBSERVA	ATIONS:
t is the Engineer of Record's responsibility to specify all require The owner is responsible for hiring an approved private Special Inspectors (except Geotechnical) must be WABO certified. When Special Inspection or Structural Observation is required, the Inspection. Note: Inspection by the City Inspector is required in Delow. Do not cover or conceal any work prior to the City inspector.	Inspector for the checked ne report shall be submitte addition to the Special Ins	d inspections noted below. All Special d to the City Building Inspector prior to the City
STRUCTURAL OBSERVATION BY ENGINEER OF RECORD (EOF	₹):	
Engineer of Record: Co	ompany:	
☐ General Conformance to Construction Documents	☐ Other:	
SOILS / GEOTECHNICAL:  Special Inspector:Co	omnany:	Phone:
Erosion control measures  Shoring installation and monitoring  Observe and monitor excavation  Verification of soil bearing  Other:	Subsurface drai Verify fill mater Rockery installa	nage placement ial and compaction
REINFORCED CONCRETE:		
Special Inspector: Co		
<ul><li>Concrete strength</li><li>Reinforcing steel and concrete placement</li></ul>		onstruction recast construction
Shotcrete placement	Other:	
Uther:	Other:	
STRUCTURAL STEEL: (AISC 360, Chapter N)  Special Inspector:CC	ompany:	Phone:
☐ Fabrication and shop welds		
<ul><li>Structural steel erection, field welds and bolting</li><li>Other:</li></ul>	Other: Other:	
	U other.	
STRUCTURAL MASONRY:  Special Inspector: Co	ompany:	Phone:
☐ Mortar strength	Glass unit maso	nry installation
<ul><li>☐ Masonry unit strength</li><li>☐ Other:</li></ul>	Wall panel and ☐ Other:	veneer installation
Other:	Other:	
WOOD:		
Special Inspector /	omnany:	Phono:
Engineer of Record: Co  Lateral resisting system construction		Phone:iaphragm construction
Other:	Other:	-
OTHER SPECIAL INSPECTIONS:		
- <u></u>	ompany:	
<ul><li>Epoxy grout installations</li><li>Expansion anchor installations</li></ul>	Stucco installati	
Other post installed anchors	Exterior Insulati	on Finish System (EIFS) installation
☐ Alternative construction methods: ☐ Alternative construction materials:		
DEFERRED SUBMITTALS: ne Applicant is required to select all deferred submittals / sho brication / construction.	p drawings for submittal t	to the City for review and approval prior to item
Connector plate wood trusses	Post tension lay	rout
Metal joist / metal trusses	Exterior claddin	g
<ul><li>Premanufactured structures (stairs, etc.)</li><li>Precast concrete elements</li></ul>		curtain wall construction
Other:	Other:	
NERGY CODE COMPLIANCE INFORMATION dicate where the following information is located in the draw rescriptive Compliance (RECPC) Form into the drawing set.		orporate or include the Residential Energy Code
Sheet:		
Building envelope: wsec Table 402.1.1	_	ting. IRC Section R402.4.1.2 WA Amendments
(include U-factors, insulation and moisture control)  Whole house ventilation: IRC Section M1507 WA Amended		leakage test report verifying air leakage rate exceed 5 air changes per hour.
(include ventilation option and duct sizing if applicable)	Duct Leakage T	esting. WSEC R403.2.2
Energy Credit Information: wsεc τable 406.2  (include specific, written requirements)	<b>—</b>	On Test. wsec R403.2.2.1
RECPC Form Information:		WOEL K4U3.2.2.3
(if incorporated within drawing set) http://www.mercergov.org/files/2012ResidentialEnergyCalcForm.pdf		

TED BY D	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  ROW restrictions  Hours of Work  Planning Requirements	ETED BY DSG
TO BE COMPLE	<ul> <li>Construction Vehicle Parking Restrictions</li> <li>Sewer Requirements</li> <li>Acess Road Requirements</li> <li>Water Service Requirements</li> <li>Tree Requirements</li> <li>Tree Requirements</li> <li>Tremporary site address with minimum 6" high numbers visible from the street must be installed.</li> <li>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.</li> <li>A City of Mercer Island Business License is required for all subcontractors. Call (206) 275-7783 for more information.</li> </ul>	TO BE COMPL
	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, trees are authorized to be removed and replaced with 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 □ Monitored Household   □ NFPA 13D Fire Alarm per NFPA 72   □ Plus □ Monitored Sprinkler   □ NFPA 13R Water Flow Alarm	
	□ NFPA 13         □ Other:           □ Approved Fire Code Alternatives:         □ FCA1	
ŀ	WATER SUPPLY REQUIREMENTS:	
BY DSG	<ul> <li>Fire sprinkler design calculations must be provided prior to determining water supply system requirements.</li> <li>Water Supply system upgrade required</li> <li>City Installation.</li> <li>Applicant Installation.</li> <li>Required Service Line Size:</li> <li>(water main to meter)</li> <li>Abandonment of existing service and meter required at main.</li> <li>Pressure reducing valve required if pressure exceeds 80 psi.</li> <li>Reduced pressure backflow assembly (RPBA) required for all lots with waterfront or non-city water supply (private wells or lake irrigation).</li> </ul>	Y DSG
	Additional water supply requirements:  DRAINAGE REQUIREMENTS:	ED B
	On site detention system required Direct discharge into the lake	1 <b>戸</b> ∣
COMPL	<ul> <li>□ On site infiltration system required.</li> <li>□ As-built Utility drawings required.</li> <li>□ Connection to public storm drainage conveyance system req'd.</li> </ul>	COMPLE
图	Full Size drawings required. Other: Other:	
입	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)No existing side sewer. Pre-construction video/report of 6" sewer main realized.  New connection.  Connect to existing.  Disconnect permit required.  Other:	Eceived.
	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 CODE ALTERNATIVES:  Code alternatives must be Inspected. Refer to the Inspection Checklist	
	CA1: CA2:	Ш
	SURVEY REQUIREMENTS (The following survey information must be submitted when checked):  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:	
	Building height survey	
	<ul> <li>MAXIMUM 40 PERCENT ALTERATION INSPECTION: MICC 19.01.050(D)(1)(b)(i)</li> <li>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.</li> <li>☐ Civil / Drainage</li> <li>☐ LUP / Setback requirements</li> </ul>	  - 
	GEOTECHNICAL INFORMATION:  Land clearing, grading, filling and foundation work within geologic hazard areas is <b>NOT PERMITTED</b> between October 1 and April 1	
DSG	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.	DSG
BY	Geotechnical Engineer  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.	LETED BY [
O BE COMPLETED	Permit number Approved by Date	O BE COMPI

It is the applicant's resp www.MyBuildingPermit	com or by calling the Inspection Hotline at (206	tions appropriate for the project. Request inspections online at 5) 275-7730. Allow at least 24 hours (48 hours for Reinforcing steel)		
Inspector shall initial applicants responsibi	ity to apply for and obtain all City of Mercer Isla	d. Note: <i>Items marked with an "*" require a separate permit.</i> It is the and permits.		PERMIT NUMBER
	Pre-construction Meeting to Review Conditions	of Permit Approval.		M.
* 	Tree protection Erosion control			
*	Sewer disconnect and cap. If applicable, separate			
* <u></u>	Right-of-way use or work / easement, material of separate ROW permit required	delivery, etc. if applicable,	<b>&gt;</b>	
	Land clearing, grading and demolition		NC	
	Temporary power Pilings / Shoring / Shotcrete. If applicable, provi	ide survey letter	PAR have b	
<b></b>	(property line); Geotechnical Engineer / Special Inspector			
	reports of inspections (pile and shoring installat Footings, setbacks, UFER ground. If applicable, p		OCCU inspections d approved	
<b></b>	(building height and setbacks); Special Inspecto	or reports of inspections	spec appr	
	(soil bearing capacity, compaction, earthwork, proundation walls / concrete columns	pile installation, etc.)		
	Roof and footing drains		uired ed ar	
	Foundation damproofing Storm drainage, including (but not limited to):		req	
T	• Connections to storm	Area drains	all	
	main in ROW	Conveyance piping / cleanouts	IFIC after	
	<ul><li>Detention systems</li><li>Infiltration systems</li></ul>	Storm drain in ROW     Control structures / manholes		
	Catch basins including	Pump systems	<b>ER1</b>	
*	oil-water separator tees Water Service	Retaining wall drainage		
	Water Supply			
 *	Water as-built drawings Side sewer installation, including (but not limite	eq to).	1	
	• Connections to side	• Back-flow valves		
	sewer main	Grinder pump systems     Source manholes		
	• Connections to existing side sewer	Sewer manholes		
	Driveway / Access road			
	Underslab electrical / mechanical / plumbing Underslab insulation / vapor barrier / reinforcin	ng		
	Underfloor framing			
	Nailing-Roof sheathing. If applicable, provide Sp letter for lateral wood inspection.	pecial Inspection		
	Nailing-Exterior wall and Shearwall. If applicable	e, 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 (bucl	kat) tast		
	Framing and glazing. If applicable, provide Speci	·		
	lateral wood inspection, welding epoxy anchors			
	Masonry construction (fireplace / walls / veneel Insulation installation	r / etc.)		
	Stucco (paper and lath)			
	Shower pan (or tub) Miscellaneous			
	Code Alternative CA1:			
	Code Alternative CA2: Impact Fees Paid (If applicable)			
			1	
	Final Inspection: Tree Restoration Final Inspection: Fire protection, including (but	not limited to):		
	• Sprinkler	• Fuel Tank Installation		
	<ul><li>Access Road</li><li>Fire Code Alternatives (see below)</li></ul>	Fire Extinguishing System     Fire Alarm System		
	FCA1:	FCA3:		
	FCA2:	FCA4:		
	<b>Final Inspection:</b> Water supply protection, inclubackflow devices for:	uding (but not limited to) TW		_
	Waterfront property     Fine / Journ against agai	Well water on property	<u> </u>	F.
П	<ul> <li>Fire / lawn sprinkler</li> <li>Final Inspection: Site and utility: includes landso</li> </ul>	• Boiler Cape, utilities and ROW. Site		
	restoration complete and as-built drawings read	dy for submittal.	I ⊼∑	
⊔	<b>Final Inspection:</b> Building, including electrical / applicable, provide closeout (summary) letters f	•		26
	Inspectors, Geotechnical Engineer, and exterior			4
90 DAY TEMPO	RARY CERTIFICATE OF OCCUPAN	NCY (TCO):		
Applicant option. Additi	onal fees will be required and must be approved	d prior to occupancy. TCO requires tree plantings be completed.	MES ANCE	
			I — I	
Approved		Start Date End Date	T BE LLT	
ADDITIONAL RE	QUIRED CITY INSPECTIONS:		US.	
Call the appropriate cor	tact to arrange the inspection.	Dhara Cabad Par	E AT	
Required Inspection(s)	Required Inspection(s):  Contact:  Phone:  Scheduling:			
			DRAWINGS ILDING SITE FOR CODE	
IMPACT FEEC		DI ANI DEVIEW ADDROVALS		
IMPACT FEES:  If applicable.		PLAN REVIEW APPROVALS:  Not all review disciplines may be required to review the documents.	VED E BL	
	oly and are due <i>prior</i> to Final Inspection or on	The state of the s	THE TEW	
			APPROV ON THE REVIEW	
 Date	, whichever occurs first.	Building Planning Engineering Tree Fire		
		REVISED: IUI Y 2019		





**LOCATION PLAN** 



# SULLIVAN PERMIT SET

PROJECT CONTACTS: **ENERGY CODE NOTES:** 

WSEC TABLE R402.1

COMPONENT FOR CLIMATE ZONE 5 AND MARINE 4:

BLW-GRADE WALL R: 10/15/21 INT + TB **21 + TB** 

WSEC TABLE R406.2 FUEL NORMALIZATION CREDITS

IN TABLE C403.3.2(1)C OR C403.3.2(2) (1.0 PT)

WITH THE FOLLOWING MODIFICATIONS: VERTICAL

WSEC TABLE R406.2 ENERGY CREDITS

1.3 EFFICIENT BUILDING ENVELOPE

BELOW SLAB & PERIMETER. (0.5 PT)

MAXIMUM AT 50 PASCALS. (1.0 PT)

5.5 EFFICIENT WATER HEATING

REQ'D POINTS: 6

MECHANICAL VENTILATION:

 $\overline{Q}_{FAN} = .03A_{FLOOR} + 7.5 (N_{BR+1})$ 

 $Q_{FAN} = .03(2,861) + 7.5(4 + 1)$ 

 $Q_{FAN} = 123.1 \text{ CFM (MIN)}$ 

OPPOSITE END TO LVL 2 SPACE.

RATE: 371/50=8 CFM.

CRAWLSPACE.

INSTALLATION

PROPOSED POINTS: 6.5

(2.0 PT)

EFFICIENCY. (1.5 PT)

3.5 HIGH EFFICIENCY HVAC EQUIPMENT

FOR AN INITIAL HEATING SYSTEM USING A HEAT PUMP THAT

MEETS FEDERAL STANDARDS FOR THE EQUIPMENT LISTED

FENESTRATION U = 0.28, FLOOR R-38, SLAB ON GRADE R-10

2.2 AIR LEAKAGE CONTROL AND EFFICIENT VENTILATION

COMPLIANCE BASED ON SECTION R402.4.1.2: REDUCE THE

TESTED AIR LEAKAGE TO 2.0 AIR CHANGES PER HOUR

AIR-SOURCE CENTRALLY DUCTED HEAT PUMP WITH

EQUIPMENT TYPE AND THE MINIMUM EQUIPMENT

1.1 HIGH-EFFICIENCY HVAC DISTRIBUTION SYSTEM MECH EQPM LOCATED OUTSIDE OF CONDITIONED SPACE, A

MAX 10 LINEAL FEET OF RETURN DUCT AND 5 LINEAR FEET

OF SUPPLY DUCT CONNECTIONS TO THE EQPM MAY BE

OUTSIDE THE DEEPLY BURIED INSULATION. ALL METALIC

DUCTS LOCATED OUTSIDE THE CONDITIONED SPACE MUST HAVE BOTH TRANSVERSE AND LONGITUDINAL JOINTS WITH

MASTIC. IF FLEX DUCTS ARE USED THEY CANNOT CONTAIN

SPLICES. DUCT LEAKAGE SHALL BE LIMITED TO 3 CFM PER

100 SQFT OG CONDITIONED FLOOR AREA. AIR HANDLERS

SHALL BE LOCATED WITH THE CONDITIONED SPACE (0.5 PT

WATER HEATING SYSTEM SHALL INCLUDE ELECTRIC HEAT

III OF NEEA'S ADVANCED WATER HEATING SPECIFICATION.

THE DWELLING UNIT SHALL BE TESTED AND VERIFIED AS

A BLOWER DOOR PER IRC N1102.4.1.2 (R402.4.1.2)

**MECH. & ELEC. NOTES:** 

HAVING AN AIR LEAKAGE RATE OF NOT EXCEEDING 2.0 AIR

**HEATING SYSTEM:** AIR-TO-REFRIGERANT ELECTRIC HEAT

INDOOR AIR HANDLING UNITS (MFC-1, MFC-2) LOCATED IN

SOUTH CRAWLSPACE. DUCTED UNITS WILL HAVE 4" DEEP

FILTERS ON RETURN AIR DUCTS TO ACCOMMODATE MERV

VENTILATOR (HRV). HRV UNIT WILL CONTINUOUSLY EXHAUST

FROM EACH BATHROOM AND SUPPLY OUTSIDE AIR TO THE

OUTDOOR AIR VENTILATION WITH HEAT RECOVERY

VENTILATION RATE PER IRC 2018 M1505.4.3

PER IRC 408.3(2.1) CRAWL SPACE VENITLATION WILL BE

PROVIDED WITH A SUPPLY CONNECTION FROM HRV-1 AND A

TRANSFER GRILLE WITH AN INSECT SCREEN TRANSFERRING

AIR TO LIVING SPACE OPPOSITE CRAWL SPACE. 1 CFM PER

50 SQFT CRAWLSPACE. NORTH CRAWLSPACE INCLUDING BLW STAIRS RATE: 933/50=19 CFM. SOUTH CRAWLSPACE

ATTIC VENTILATION (15 CFM) WILL BE PROVIDED BY HRV-1

WITH A SUPPLY TO THE ATTIC AND A TRANSFER GRILLE AT

PER M1503.6 KITCHEN HOOD IS 400CFM AND DUCTED TO

EXTERIOR. MAKEUP AIR SYSTEM WILL BE PROVIDED VIA

CRAWLSPACE TO LIMIT NEGATIVE PRESSURE WITHIN HOME.

ROUTE DUCTS AS LOW AND CLOSE TO RANGE AS POSSIBLE.

KITCHEN = 100 CFM INTERMITTENT AND BATHROOM/TOILET

ROOMS = 50 CFM INTERMITTENT (PROVIDE HRV BOOST WITH

ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALI

LIGHTING EQUIPMENT: NOT LESS THAN 90 PERCENT OF THE

CONTAIN ONLY HIGH-EFFICIENCY LAMPS PER IRC N1104.1

THE THERMOSTAT CONTROLLING THE PRIMARY HEATING OR

PERMANENTLY INSTALLED LIGHTING FIXTURES SHALL

COOLING SYSTEM OF THE DWELLING UNIT SHALL BE

CAPABLE OF CONTROLLING THE HEATING AND COOLING

SYSTEM ON A DAILY SCHEDULE TO MAINTAIN DIFFERENT

TEMPERATURE SET POINTS AT DIFFERENT TIMES OF DAY.

THE SYSTEM TO MAINTAIN ZONE TEMPERATURES OF NOT

LESS THAN 55°F TO NOT GREATER THAN 85°F PER IRC

PROVIDE CONDUIT STUB OUT AT ROOF FOR FUTURE PV

COORDINATE LOCATION WITH ARCHITECT PRIOR TO

THIS THERMOSTAT SHALL INCLUDE CAPABILITY TO OPERATE

"RTS3 20/40/60 PUSH BUTTON TIMER" AT EACH BATHROOM)

WATER HEATER: NIA TIER III STAND-ALONE HYBRID HEAT

PUMP WATER HEATER (HPWH-1) LOCATED IN SOUTH

320 AMP SERVICE LOCATED IN GARAGE

ELECTRICAL PERMITTING

MAKEUP AIR SYSTEM (MAS-1) LOCATED IN NORTH

LIVING, BEDROOMS, CRAWLSPACE, AND ATTIC

PUMP. SINGLE OUTDOOR HEAT PUMP UNIT (MHP-1) AND TWO

CHANGES PER HOUR. TESTING SHALL BE CONDUCTED WITH

MINIMUM HSPF OF 11. TO QUALIFY TO CLAIM THIS CREDIT,

OPTION BEING SELECTED AND SHALL SPECIFY THE HEATING

THE BUILDING PERMIT DRAWINGS SHALL SPECIFY THE

COMPONENT REQ'D

SKYLIGHT U: 0.50

MASS WALL R: 21/21

SLAB R & DEPTH: 10, 2 ft

FENESTRATION AREA: 630 SF

**OPTION 2 - HEAT PUMP** 

CONDITIONED FLOOR AREA: 2,861 SF

FLOOR R: 30

CEILING R: 49/38

FENESTRATION U: 0.30

WD FRAME WALL R: 21 INT

JOHN SULLIVAN 8240 SE 26TH ST. MERCER ISLAND. WA. 98040 jwsulli2013@gmail.com 847.420.1434

ARCHITECT: SHED ARCHITECTURE & DESIGN 1401 S JACKSON ST SEATTLE WA 98144 USA **CONTACT: CLAYTON HERBST** 

CLAYTON@SHEDBUILT.COM

708.567.9476

STRUCTURAL ENGINEER: HARRIOTT VALENTINE ENGINEERS INC CONTACT: JAMES HARRIOTT jharriott@harriottvalentine.com

206.624.4760 GEOTECHNICAL ENGINEER: COBALT GEOSCIENCES

206.337.1097 CIVIL ENGINEER: INTERLAKEN ENGINEERING CONTACT: MATTHEW HARINGA matt@interlakenengineering.com

CONTACT: PHIL HABERMAN

phil@cobaltgeo.com

206.470.9572

MECHANICAL ENGINEER: BEYOND EFFICIENCY CONTACT: NATHAN RUSSELL nate@beyondefficiency.us 307.200.7236

ARBORIST: OLYMPIC NURSERY, INC CONTACT: TOM QUIGLEY tlquigley@msn.com 206.850.2643

CONTRACTOR:

CONTACT: TBD

**PROJECT INFO:** 

PROJECT DESCRIPTION: NEW CONSTRUCTION, SINGLE-FAMILY RESIDENCE

PROJECT ADDRESS: 3024 69TH AVE SE MERCER ISLAND, WA, 98040

LEGAL DESCRIPTION: EAST SEATTLE BLKS 39-40 PLAT BLOCK: 40 PLAT LOT: 17-18-19

QUARTER, SECTION, TOWNSHIP, RANGE: NW-12-24-4

**PARCEL NUMBER:** 217510-0315

**EASEMENTS:** 

No. 4635710 SEWER EASEMENT (5' SOUTH SIDE YARD) COVENANTS W/ NEIGHBORING PROP. @ 3015 70TH AVE SE

>VIEW EASEMENT (HEIGHT RESTRICTION 272' ABV SEA LEVEL) >UTILITY EASEMENT (10' NORTH SIDE YARD) >YARD EASEMENT (18' REAR YARD)

**BUILDING NOTES:** 

CONSTRUCTION TYPE: VB, SPRINKLERED

**DWELLINGS:** 1 HOUSE

#BEDROOMS: 4

#BATHROOMS: 3

**LAND USE NOTES:** 

R-8.4

LOT AREA: 8,652 SQFT

OT COVERAGE:

34.2%, REFER TO DIAGRAM ON 3/A-001

28.8%, REFER TO DIAGRAM ON 3/A-001

GROSS FLOOR AREA:

2,958.3 SQFT, REFER TO DIAGRAM ON **5/A-002** 

PROPOSED BUILDING HEIGHT: >19.3' ABV AVERAGE GRADE (PER MICC 19.02.020E 30' MAX

>VIEW EASEMENT WITH NEIGHBOR LIMITS HEIGHT TO 272 ABV SEA LEVEL (MAX PER MICC IS 283') >REFER TO 4/A-001 FOR AVERAGE GRADE CALC >PER MICC 19.02.020.E.2: MAX BUILDING FACADE HEIGHT OF A DOWNHILL SIDE OF A SLOPING LOT SHALL NOT EXCEED 30' IN HEIGHT, PROPOSED = 29'-2 1/2" REFER TO **1/A-301** 

SETBACKS: >PER MICC 19.02.020.C >FRONT YARD: 20'

VARIABLE SIDE YARD WIDTH PER 19.02.020.C.1.c: >LOT LARGER THAN 6,000SQFT >HOUSE IS TALLER THAN 15' BUT LESS THAN 25', SO SIDE YARD: 7.5'

>PER MICC 19.02.020.G.2.b: 2 PARKING SPACES ARE REQUIRED IF GFA<3,000SQFT >GFA = 2,975.4 SQFT PER CALC ON A-002, LESS THAN 3,000 SQFT, SO 2 PARKING SPACES REQUIRED >2 COVERED SPACES ARE PROVIDED IN GARAGE **TOTAL: 2 PROVIDED** 

**VENTILATION NOTES:** 

ROOF VENTILATION: UNVENTED ROOF ASSEMBLY PER IRC

INSULATED PER REQ'M LISTED IN IRC 2018 N1102.2.11 >UNVENTED CRAWL SPACE TO BE SUPPLIED WITH CONTINUOUS EXHAUST FROM ERV AT A RATE OF 1 CUBIC FOOT PER MINUTE FOR EACH 50SQT PER REQ'M LISTED IN IRC 2018 R408.3.2.1. REFER TO MECH & ELEC NOTES

2018 WASHINGTON STATE ENERGY CODE - RESIDENTIAL PRESCRIPTIVE ENERGY CODE COMPLIANCE

25 OR 36

1 EXISTING NON-EXCEPTIONAL TREE TO BE REMOVED PER REQ'M LISTED IN MICC 19.10.060, REFER TO REPORT PRODUCED BY QUALIFIED ARBORIST THOMAS QUIGLEY AT OLYMPIC NURSERY DATED 12.06.2022 INSULATION AND FENESTRATION REQUIREMENTS BY

TREE NOTES:

CRITICAL AREAS:

**CRITICAL AREA REVIEW:** >CRITICAL AREAS ON SITE:

LANDSLIDE, EROSION, SEISMIC >REFER TO GEOTECHNICAL REPORT PRODUCED BY COBALT GEOSCIENCES >CRITICAL AREA REVIEW TYPE 2 WAS SUBMITTED ON 2022.12.08 UNDER PERMIT NUMBER CAO22-023 AND IS STILL IN REVIEW AS OF TIME OF BUILDING PERMIT SUBMITTAL

**GENERAL PROVISIONS:** >PER MICC 19.07.160.F.2: LAND CLEARING, GRADING, FILLING AND FOUNDATION WORK ARE NOR PERMITTED BETWEEN OCTOBER 1 AND APRIL 1 (UNLESS A WAIVER IS APPLIED FOR

EXCAVATION SHOWN ON STRUCTURAL TEMPORARY

PER AMENDMENT TO IRC 17.02.020.B, IRC AV107.2 PRESCRIPTIVE COMPLIANCE IS BASED ON TABLE R402.1.1

AN APPROVED AUTOMATIC FIRE SPRINKLER SYSTEM SHALL BE INSTALLED THROUGHOUT THE RESIDENCE IN NEW SINGLE-FAMILY HOMES IN ACCORDANCE WITH NFPA STANDARDS

SEPRATE FIRE PERMIT IS REQUIRED.

REQUIRED.

MANUFACTURED AND INSTALLED TO MEET ASME A17.1

THE DRAWINGS ARE INTENDED TO ONLY PARTIALLY

IT IS THE INTENT OF THE DOCUMENTS THAT ALL WORK COMPLIES WITH ALL APPLICABLE LOCAL, STATE & OF PERMIT SUBMITTAL. NOTHING IN THESE DRAWINGS SHALL BE CONSTRUED TO GRANT APPROVAL FOR ANY CODE VIOLATION. ANY ERRORS, INCONSISTENCIES OR OMISSIONS SHALL BE REPORTED PROMPTLY TO THE

FOR ALL EQUIPMENT, APPLIANCES, FIXTURES, CABINETS, DUCTWORK, AND OPENINGS BEFORE FRAMING BEGINS. THE CONTRACTOR SHALL COORDINATE WITH THE SUBCONTRACTORS OF ALL TRADES TO VERIFY THE SIZES AND LOCATIONS OF OPENINGS THROUGH FLOORS, WALLS CEILINGS, AND ROOFS FOR DUCTS, PIPES, CONDUITS, AND EQUIPMENT. THE CONTRACTOR SHALL COORDINATE THE LOCATION AND INSTALLATION OF WOOD BACKING, BLOCKING, FURRING, AND STRIPPING AS REQUIRED FOR THE INSTALLATION AND ATTACHMENT OF WORK OF ALL

CONTRACTORS FOR EXACT LOCATIONS, TYPES AND SIZE OF ACCESS DOORS REQUIRED BY THEIR WORK. PROVIDE ACCESS FOR ALL CONCEALED VALVES, DAMPER CONTROLS, FIRE DAMPER LINKAGE, ELECTRICAL JUNCTION BOXES, ETC.. DRAWINGS MAY NOT SHOW ALL REQUIRED ACCESS PANELS. INDICATE REQUIRED ACCES DOORS ON THE COORDINATION DRAWINGS. OBTAIN ARCHITECT'S APPROVAL FOR LOCATIONS OF ACCESS

THE APPROPRIATE REGULATORY ENTITIES.

AND/OR ARCHITECT SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE PROJECT TEAM MEMBERS FOR THE PURPOSE OF ANSWERING INITIAL QUESTIONS, CLARIFYING AREAS OF CONCERN, AND FORMALIZING A CONSTRUCTION ADMINISTRATION PROCESS. THE MEETING SHALL INCLUDE THE ARCHITECT GENERAL CONTRACTOR, OWNER, STRUCTURAL ENGINEER CODES: THIS PROJECT SHALL COMPLY WITH THE FOLLOWING

MERCER ISLAND CITY CODE 2018 INTERNATIONAL BUILDING CODE 2018 INTERNATIONAL RESIDENTIAL CODE 2018 INTERNATIONAL MECHANICAL CODE NATIONAL FUEL GAS CODE (ANSI Z223.1/NFPA 54) LIQUEFIED PATROLEUM (NFPA 58) INTERNATIONAL FUEL GAS CODE 2018 INTERNATIONAL FIRE CODE 2018 UNIFORM PLUMBING CODE WASHINGTON STATE ENERGY CODE

SHEET INDEX:

A-100 FOUNDATION FLOOR PLAN

A-110 GARAGE FLOOR PLAN

A-202 EXTERIOR ELEVATIONS

A-301 BLDG SECTIONS

A-302 BLDG SECTIONS

A-303 BLDG SECTIONS

A-501 EXTERIOR DETAILS

A-502 EXTERIOR DETAILS

A-602 SCHEDULES

A-601 TYPICAL ASSEMBLIES

S2.0 FOUNDATION PLAN

GENERAL STRUCTURAL NOTES

GENERAL STRUCTURAL NOTES

MAIN FLOOR FRAMING PLAN

LOFT FRAMING PLAN

ROOF FRAMING PLAN

ROOF FRAMING PLAN

STRUCTURAL DETAILS

STRUCTURAL DETAILS

STRUCTURAL DETAILS

T2.0 TEMPORARY SHORING PLAN

[1.0] TEMPORARY SHORING GENERAL NOTES

TEMPORARY SHORING ELEVATIONS TEMPORARY SHORING ELEVATIONS

TEMPORARY SHORING ELEVATIONS

TEMPORARY SHORING DETAILS

T3.4 TEMPORARY SHORING DETAILS

S3.0 STRUCTURAL DETAILS

G-000 COVER SHEET TESC / DEMO / CSWPPP DRAINAGE SITE PLAN **DETENTION DETAIL** A-001 SITE PLAN & DIAGRAMS A-002 GFA+BASEMENT CALC A-003 LANDSCAPE PLAN

A-111 LEVEL 1 FLOOR PLAN NFPA 13R FIRE SPRINKLER TO BE INSTALLED PER A-112 LEVEL 2 FLOOR PLAN CoMI AND STAND NFPA 13R STANDARDS. A A-113 ROOF PLAN A-201 EXTERIOR ELEVATIONS

>NFPA 72 MONITORED CHAPTER 29 FIRE ALARM SYSTEM TO BE INSTALLED PER CoMI AND NFPA 72 CHP. 29 STANDARDS. A SEPERATE FIRE PERMIT IS A-203 EXTERIOR ELEVATIONS

FIREBLOCKING: >INSTALL FIRESTOPPING PER IRC 2018 R302.11

DRAINAGE NOTES:

STORMWATER MANAGEMENT: ON-SITE DETENTION SYSTEM: IMPERVIOUS SURFACE RUNOFF AND FOOTING DRAINS TO BE TIGHTLINED TO A DETENTION TANK UNDER THE DRIVEWAY BEFORE PUMP WATER HEATER MEETING THE STANDARDS FOR TIER DISCHARGING TO EXISTING MERCER ISLAND STORM DRAIN. REFER TO CIVIL DRAWINGS FOR MORE INFORMATION.

**ELEVATOR NOTES:** 

MANUFACTURER: SYMMETRY ELEVATOR MODEL: HYDRAULIC DRIVE 40X54 DRIVE SYSTEM: HYDRAULIC DRIVE SYSTEM

ELEVATOR AND ALL ASSOCIATED COMPONENTS SHALL BE

**GENERAL NOTES:** 

DESCRIBE THE SCOPE OF WORK FOR THE PROJECT. ANY WORK NOT SHOWN HERE, BUT REQUIRED BY CODE, OR THE SPECIFICATIONS, OR TO MAKE THE WORK COMPLETE SHALL BE PROVIDED AS PART OF THE WORK.

NATIONAL CODES / ORDINANCES IN EFFECT AT THE DATE

DO NOT SCALE THE DRAWINGS. THE CONTRACTOR SHALL USE DIMENSIONS SHOWN ON THE DRAWINGS AND ACTUA FIELD MEASUREMENTS. IF DISCREPANCIES ARE FOUND, THE ARCHITECT SHALL BE NOTIFIED AT ONCE.

AT ALL GAPS AROUND PENETRATING DUCTS, PIPES, CONDUITS, ETC.. AT ALL FIRE RATED BUILDING WALLS, PARTITIONS, CEILINGS, FLOORS AND ROOFS.

COORDINATE WITH MECHANICAL AND ELECTRICAL DOORS PRIOR TO INSTALLATION.

THE CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS AND GOVERNMENTAL FEES, LICENSES AND INSPECTIONS NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK, WITH THE EXCEPTION OF THE MATER USE PERMIT AND THE BUILDING PERMIT

PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION OR SITE DEVELOPMENT ACTIVITY, THE CONTRACTOR SHALL SCHEDULE PRE-CONSTRUCTION MEETINGS WITH PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION

OR SITE DEVELOPMENT ACTIVITY, THE CONTRACTOR

FOR CODE

SHED



CONTACT

SHED ARCHITECTURE & DESIGN 1401 S JACKSON ST SEATTLE, WA 98144 206.320.8700

PROJECT

SULLIVAN 3024 69th Ave SE MERCER ISLAND, WA 98040

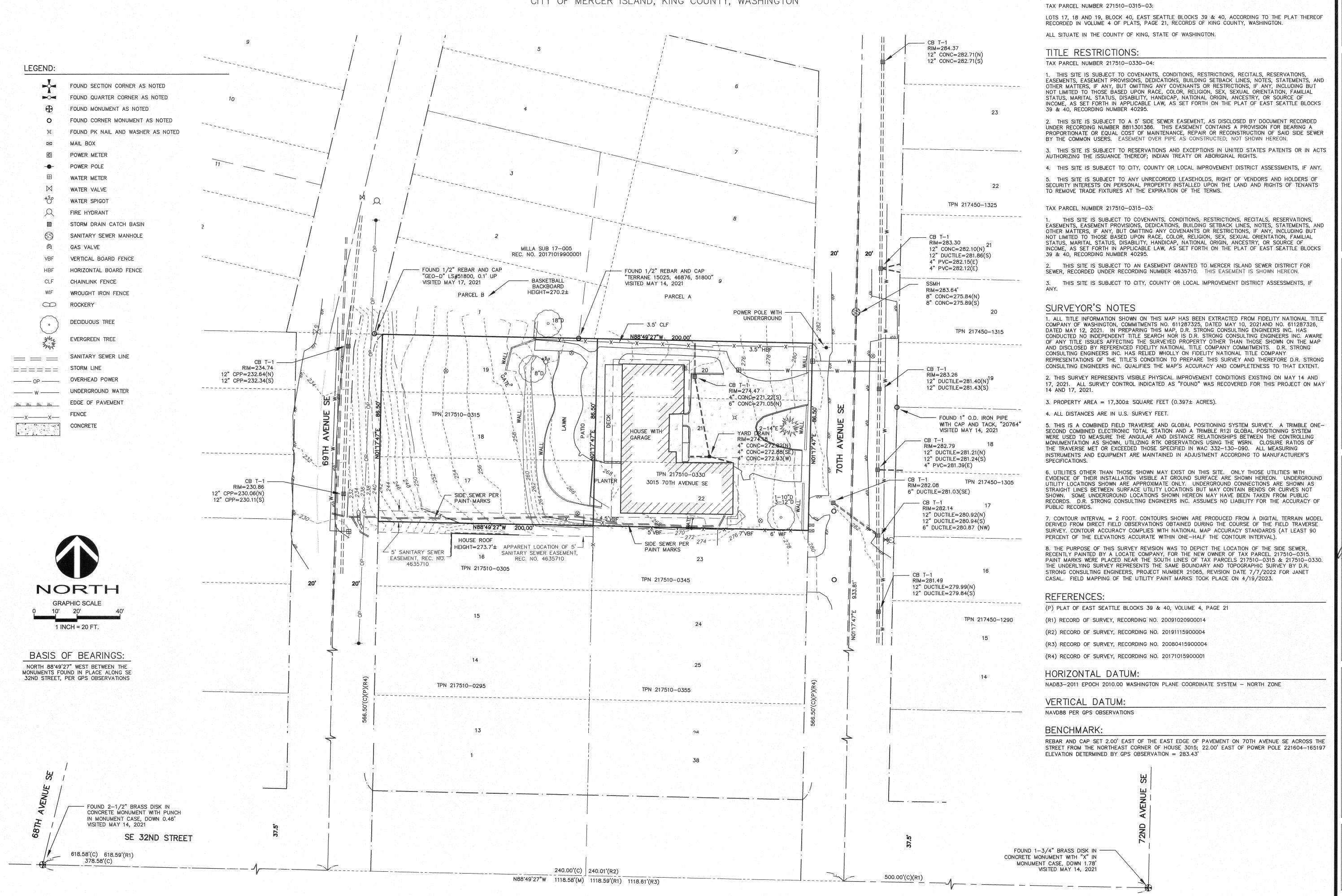
PRE APP #1 (PRE22-0433) 2022.08.16 2022.12.08 CAR 2 (CAO22-023) 2023.01.20 PERMIT SET REVISION #1 🔬 2023.05.26 2023.07.07 REVISION #2 🔬 REVISION #3 🗟 2023.07.27

DRAWING TITLE

**COVER SHEET** 

#### BOUNDARY AND TOPOGRAPHIC SURVEY

A PORTION OF THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER SECTION 12, TOWNSHIP 24 NORTH, RANGE 04 EAST, W.M., CITY OF MERCER ISLAND, KING COUNTY, WASHINGTON





LEGAL DESCRIPTION:

TAX PARCEL NUMBER 217510-0330-04:

LOTS 20, 21 AND 22, BLOCK 40, EAST SEATTLE BLOCKS 39 & 40, ACCORDING TO THE PLAT THEREOF

RECORDED IN VOLUME 4 OF PLATS, PAGE 21, RECORDS OF KING COUNTY, WASHINGTON.

D.R. STRONG
CONSULTING ENGINEERS
ENGINEERS PLANNERS SURVEYORS

620 - 7th AVENUE KIRKLAND, WA 98033 O 425.827.3063 F 425.827.2423

> YENUE SE AVENUE SE NUMBERS

3015 70TH AVENUE SE AND 30XX 69TH AVENUE S TAX PARCEL NUMBERS 7510-0315-03AND 217510-03

JOHN SULLIVAN
SHED ARCHITECTUR
1401 S. JACKSON ST.
SEATTLE, WA 98144

Ugust 11, 2023 SITE COPY

FOR CODE

SITE COPY

WASH

JONAL LAND

ONAL LAND

ر د ک

/27/2023 ADDED SIDE SEWER

PROJECT SURVEYOR: JMS

DRAFTED BY: JMS/DLC

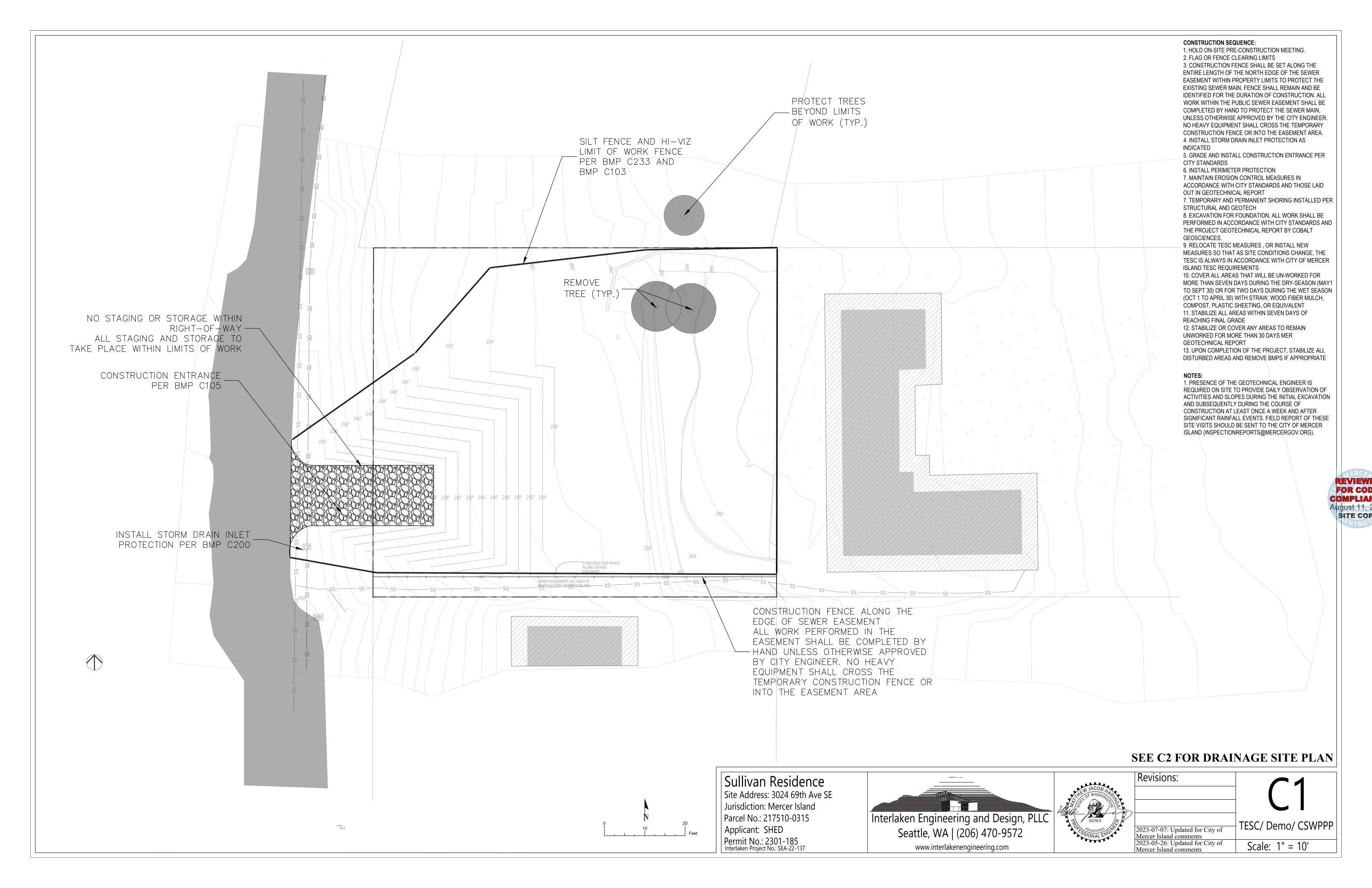
FIELD BOOK: 199 B & D

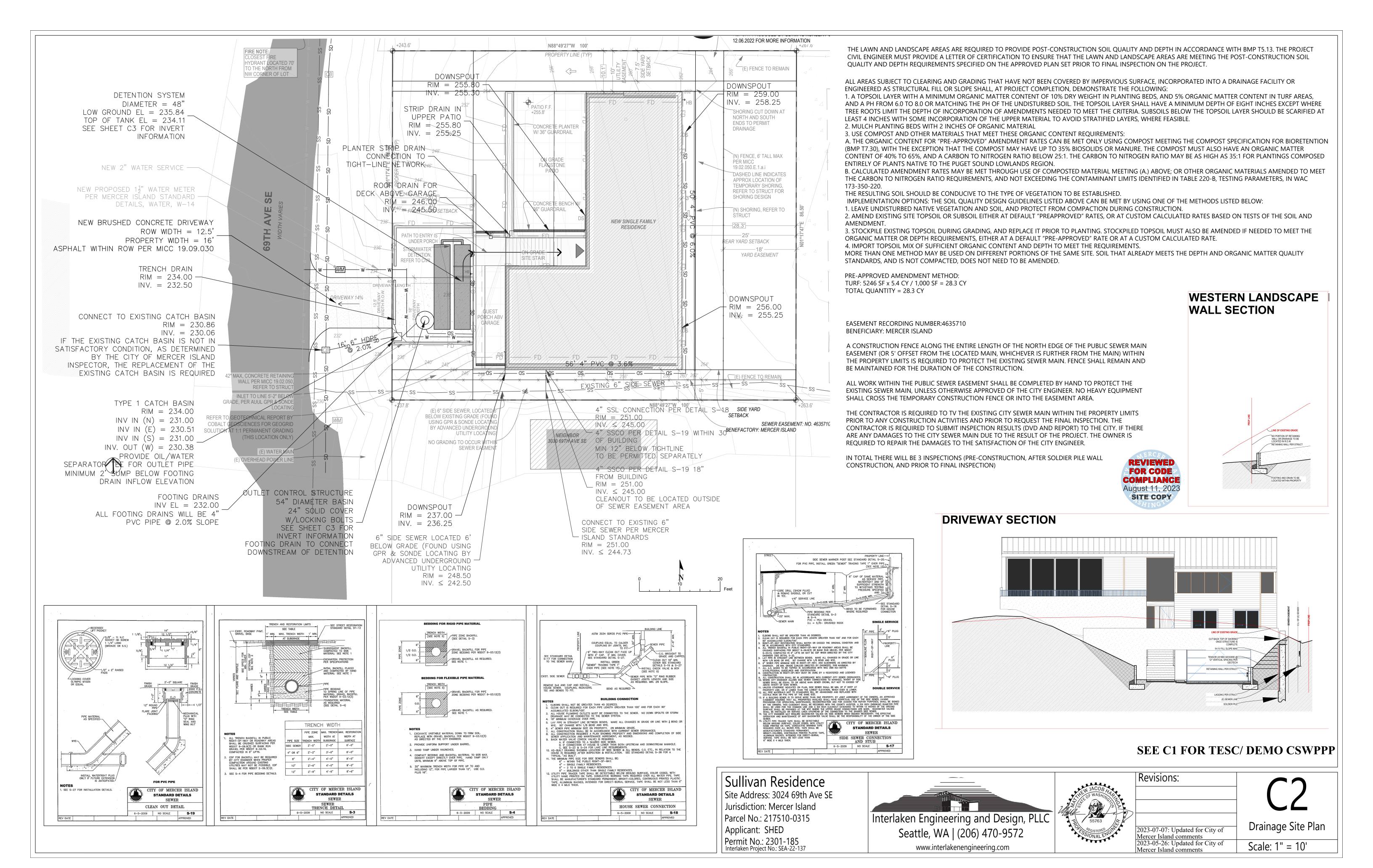
DATE: 04/27/2023

PROJECT NO.: 23031

SHEET: 1 OF 1

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#### ATTACHMENT 1 2' MIN. CLEARANCE TO ANY PORTION OF CITY OF MERCER ISLAND FROP-T INCL. ELBOWS -REMOVABLE WATERTIGHT ON-SITE DETENTION SYSTEM WORKSHEET COUPLING OR FLANGE ¬ (FOR NEW PLUS REPLACED IMPERVIOUS AREA OF 9,500 SF OR LESS)

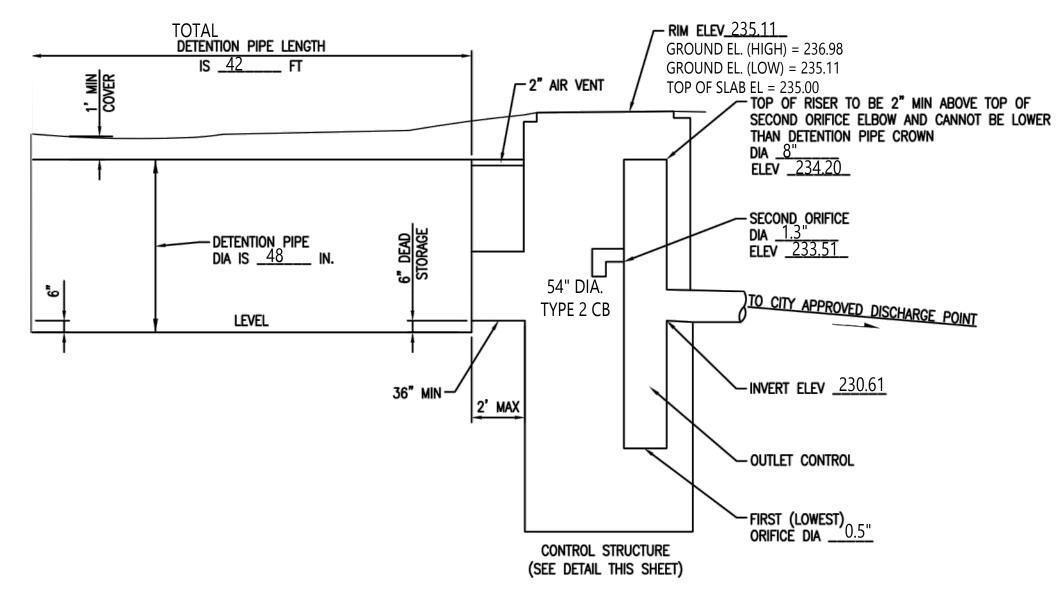
- HANDHOLDS, STEPS OR LADDER

DETENTION PIPE

8" SHEAR GATE WITH CONTROL ROD FOR

CLEANOUT/DRAIN (ROD BENT AS REQUIRED FOR VERTICAL ALIGNMENT WITH COVER) (7)

PLATE WELDED TO ELBOW
WITH ORIFICE AS SPECIFIED PREPARED BY: Interlaken Engineering and Design, PLLC owner: John Sullivan ADDRESS: 3024 69th Ave SE (206) 470 - 9572 **ELBOW RESTRICTOR** SEE DETAIL January 18, 2023 **ELBOW RESTRICTOR DETAIL** DETENTION NEW PLUS REPLACED IMPERVIOUS ORIFICE #1 DIA 0.5 INCH, ELEV 228.61SURFACE AREA (SF):3255 sf (roof) to be detained PIPE DIA (INCH): 48 PIPE LENGTH (FT): 42 ORIFICE #2 DIA 1.3 INCH, ELEV 233.86**PLAN VIEW** PIPE MATERIAL: <u>ADS</u> FRAME, GRATE & 24" SOLID COVER WITH LOCKING BOLTS: MARKED "DRAIN". SEE NOTE 3



CONTROL STRUCTURE NOTES:

(1) USE A MINIMUM OF A 54 IN. DIAM. TYPE 2 CATCH BASIN. THE ACTUAL SIZE IS DEPENDENT ON CONNECTING PIPE MATERIAL AND DIAMETER.

SECTION A-A

CONTROL STRUCTURE DETAIL

NOT TO SCALE

(2) OUTLET PIPE: MIN. 6 INCH.

RESTRICTOR SEE DETAIL

PIPE SUPPORTS

SEE NOTES

2 & 5

Invert & Elevation

PER PLANS

1' SECTION OF PIPE

ATTACHED BY GASKETED BAND TO ALLOW REMOVAL -

RESTRICTOR PLATE WITH

ORIFICE DIAM. AS SPECIFIED—

SEE NOTE (6)

(3) METAL PARTS: CORROSION RESISTANT. NON-GALVANIZED PARTS PREFERRED. GALVANIZED PIPE PARTS TO HAVE ASPHALT TREATMENT 1.

2'-0"

- (4) FRAME AND LADDER OR STEPS OFFSET SO:
  - A. CLEANOUT GATE IS VISIBLE FROM TOP; B. CLIMB-DOWN SPACE IS CLEAR OF RISER AND CLEANOUT GATE;
  - C. FRAME IS CLEAR OF CURB.
- (5) IF METAL OUTLET PIPE CONNECTS TO CEMENT CONCRETE PIPE, OUTLET PIPE TO HAVE SMOOTH O.D. EQUAL TO CONCRETE PIPE I.D. LESS 1/4 IN.
- 6 PROVIDE AT LEAST ONE 3 X 0.090 GAUGE SUPPORT BRACKET ANCHORED TO CONCRETE WALL WITH 5/8 IN. STANLESS STEEL EXPANSION BOLTS OR EMBEDDED SUPPORTS 2 IN. INTO CATCH BASIN WALL (MAXIMUM 3'-0" VERTICAL SPACING).

NO UPPER CATCH BASIN REQUIRED -

DETENTION PIPE LENGTH IS LESS THAN 50 FT.

- 7 THE SHEAR GATE SHALL BE MADE OF ALUMINUM ALLOY IN ACCORDANCE WITH ASTM B 26M AND ASTM B 275, DESIGNATION ZG32A; OR CAST IRON IN ACCORDANCE WITH ASTM A 48, CLASS 30B. THE LIFT HANDLE SHALL BE MADE OF A SIMILAR METAL TO THE GATE (TO PREVENT GALVANIC CORROSION), IT MAY BE OF SOLID ROD OR HOLLOW TUBING, WITH ADJUSTABLE HOOK AS REQUIRED. A NEOPRENE RUBBER GASKET IS REQUIRED BETWEEN THE RISER MOUNTING FLANGE AND THE GATE FLANGE. INSTALL THE GATE SO THAT THE LEVEL-LINE MARK IS LEVEL WHEN THE GATE IS CLOSED. THE MATING SURFACES OF THE LID AND THE BODY SHALL BE MACHINED FOR PROPER FIT. ALL SHEAR GATE BOLTS SHALL BE STAINLESS STEEL.
- 8 THE UPPER CATCH BASIN IS REQUIRED IF THE LENGTH OF THE DETENTION PIPE IS GREATER THAN 50 FT.

#### **ON-SITE DETENTION SYSTEM NOTES:**

- 1. CALL DEVELOPMENT SERVICES (206-275-7605) 24 HOURS IN ADVANCE FOR A DETENTION SYSTEM INSPECTION BEFORE BACKFILLING AND FOR FINAL INSPECTIONS.
- 2. RESPONSIBILITY FOR OPERATION AND MAINTANANCE OF DRAINAGE SYSTEMS ON PRIVATE PROPERTY IS RESPONSIBILITY OF THE PROPERTY OWNER. MATERIAL ACCUMULATED IN THE STORAGE PIPE MUST BE REMOVED FROM CATCH BASINS TO ALLOW PROPER OPERATION. THE OUTLET CONTROL ORIFICE MUST BE KEPT OPEN AT ALL TIMES.
- 3. PIPE MATERIAL, JOINT, AND PROTECTIVE TREATMENT SHALL BE IN ACCORDANCE WITH SECTION 7.04 AND 9.05 OF THE WSDOT STANDARD SPECIFICATION FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION, LATEST VERSION. SUCH MATERIALS INCLUDE THE FOLLOWING, LINED CORRUGATED POLYETHYLENE PIPE (LCPE), ALUMINIZED TYPE 2 CORRUGATED STEEL PIPE AND PIPE ARCH (MEETS AASHTO DESIGNATIONS M274 AND M36), CORRUGATED OR SPIRAL RIB ALUMINUM PIPE, OR REINFORCED CONCRETE PIPE. CORRUGATED STEEL PIPE IS NOT ALLOWED.
- 4. FOOTING DRAINS SHALL NOT BE CONNECTED TO THE DETENTION SYSTEM.



#### SEE C2 FOR DRAINAGE SITE PLAN

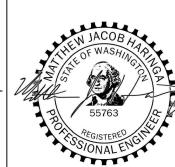
Sullivan Residence

ON-SITE DETENTION SYSTEM NOT TO SCALE (ENGINEER TO FILL IN BLANKS)

Site Address: 3024 69th Ave SE Jurisdiction: Mercer Island Parcel No.: 217510-0315

Applicant: SHED Permit No.: 2301-185 Interlaken Project No.: SEA-22-137

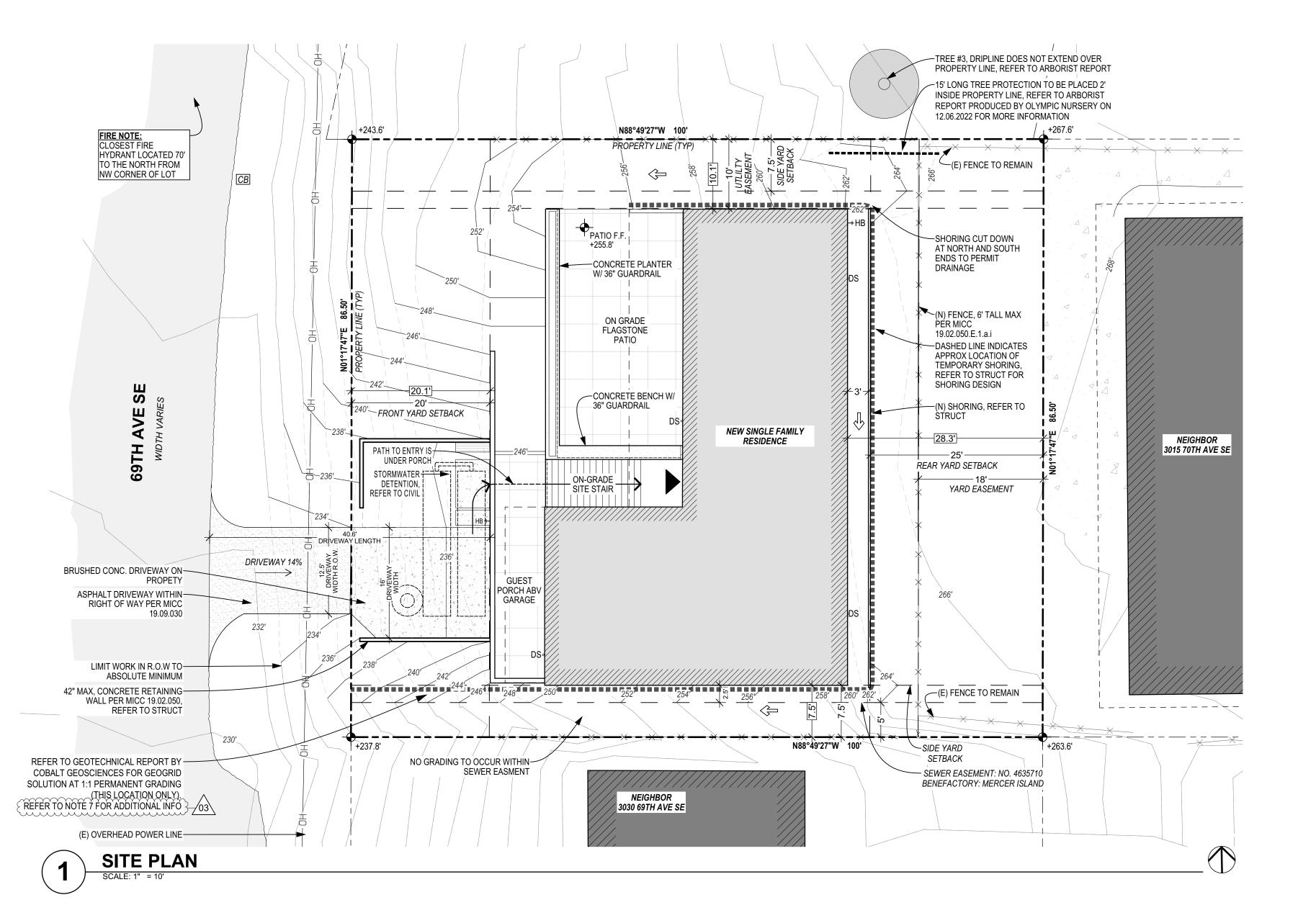




**Detention Detail** 

Scale: As Noted

www.interlakenengineering.com



SOFTSCAPE AREA

\_4,9<u>47 s</u>q ft \_\_\_\_

**HARDSCAPE** 

639 sq ft-

DRIVEWAY

DECK

SLOPE = (268.1-237.8)/105.3 X 100 = 28.8%

>HOUSE AREA INCLUDING OVERHANGS = 2,643.5

>ALLOWABLE HARDSCAPE AREA =8,650X0.09= 778.5SQFT

>REQUIRED LANDSCAPE AREA = 8.652X0.65= 5.623.8SQFT

TOTAL = 5,678.5 SQFT PROPOSED > 5,623.8 SQFT REQ'D

TOTAL = 749 SQFT (8.6%) PROPOSED < 778.5 SQFT (9%) ALLOWED

HOUSE (INCLUDING OVERHANGS)

LOT COVERAGE + LANDSCAPE AREA DIAGRAM

LOWEST POINT = 237.8', HIGHEST POINT = 268.1', DISTANCE BETWEEN THEM IS 105.3'

>PER MICC 19.02.020.F.3.a ALLOWABLE HARDSCAPE FOR LOT LARGER THAN 8,400 SQFT IS 9% >INCLUDES WALKWAYS, DECKS, PATIOS; DOES NOT INCLUDE DRIVEWAY SURFACES OR BUILDINGS

>PER MICC 19.02.020.F.3.a REQUIRED LANDSCAPING AREA FOR SITE WITH 29.4% SLOPE IS 65%

>4,929.5 SQFT SOFTSCAPE + 749 SQFT HARDSCAPE = 5,678.5 SQFT LANDSCAPE

>PER MICC 19.02.020.F.3.a ALLOWABLE LOT COVERAGE FOR SITE WITH 28.8% SLOPE IS 35%

>ALLOWABLE LOT COVERAGE =8,650X0.35= 3,027SQFT
>INCLUDES ALL BUILDINGS MEASURED TO THE EAVES AND DRIVING SURFAES

TOTAL = 2,965 SQFT (34.2%) PROPOSED < 3,027 SQFT (35%) ALLOWED

2,643.5 sq ft

OUTLINE OF HOUSE

LOWEST POINT ON SITE+237.8'

> SCALE: 1" = 20 LAND COVERAGE

>LOT AREA = 8,652

>DRIVEWAY = 321.5SQFT

REQUIRED LANDSCAPE AREA:

>LOT SLOPE:

HARDSCAPE:

>LOT AREA = 8,652

>LOT AREA = 8,652

3

RMV RTN

CNDTN

OFF-SITE

BELOW

HARDSCAPE

HIGHEST POINT ON SITE+268.1'

KEY:

LOT COVERAGE

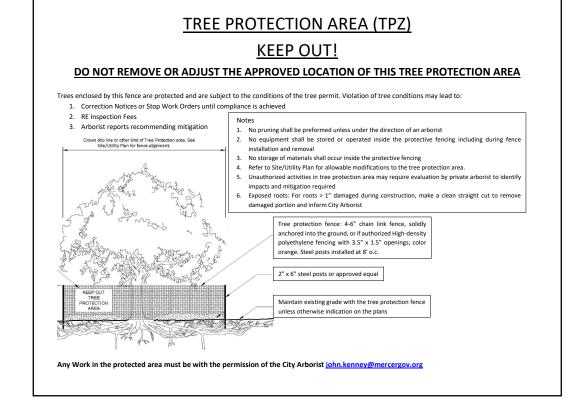
(ROOF+OVERHAN AND DRIVEWAY)

HARDSCAPE

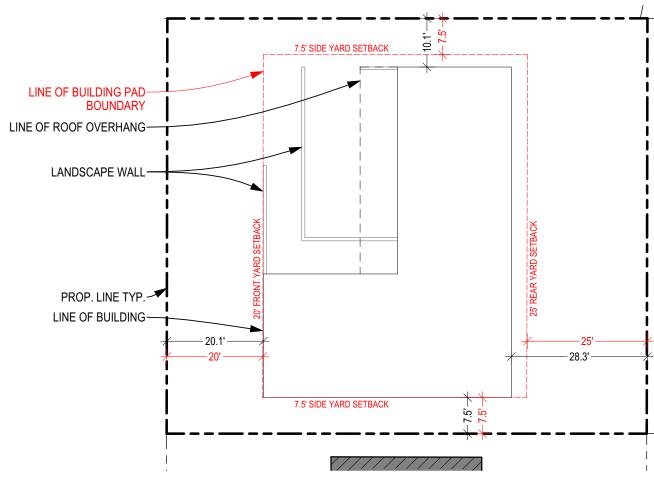
SOFTSCAPE

(SHORING)

95 sa ft

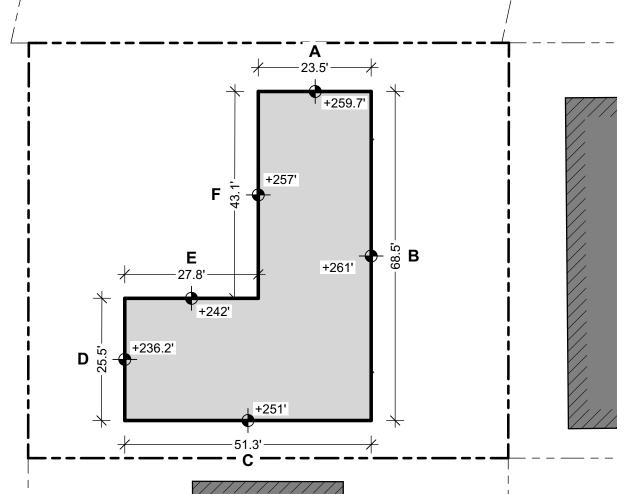


#### TREE PROTECTION FENCING DETAIL



## **BUILDING PAD DIAGRAM**

**BUILDING PAD:** >NEW BUILDING PAD PER MICC 19.09.090
>REFER TO GEOTECHNICAL REPORT PRODUCED BY COBALT GEOSCIENCES FOR MITIGATION METHODS FOR PORTIONS OF BUILDING PAD WITHIN CRITICAL AREA



## **AVERAGE BUILDING HEIGHT**

>WEIGHTED SUM OF MID-POINT ELEVATIONS / TOTAL LENGTH OF WALL SEGMENTS

>60,685.2/239.7 =

>PER MICC 19.02.020.E.1 >ALLOWABLE = AVERAGE HEIGHT + 30'

>VIEW EASEMENT WITH NEIGHBORING PROPERTY @ 3015 70TH AVE SE LIMITS HIEGHT TO 272'

**AVERAGE BUILDING HEIGHT CALC:** >PER MICC 19.02.020.E.4

>A(23.5)(259.7)+B(68.5)(261)+C(51.3)(251)+D(25.5)(236.2)+E(27.8)(242)+F(43.1)(257) / (A23.5+B68.5+C51.3+D25.5+E27.8

AVERAGE HEIGHT = 253.1' (+7.1' ABV PROJ. ZERO) **ALLOWABLE BUILDING HEIGHT** 

>ALLOWABLE = 253.1' + 30' >ALLOWABE PER MICC = 283.1'

>ALLOWABLE BUILDING HEIGHT = 272'

#### **SITE PLAN NOTES:** . RE: SURVEY FOR ADDITIONAL EXISTING SITE INFORMATION. ALL ELEVATIONS ARE BASED ON SURVEY DATED MAY 21, 2021 BY D.R. STRONG CONSULTING ENGINEERS.

. ALL DIMENSIONS ARE TO FACE OF CONC / FINISH, U.N.O.

PER MICC 19.02.020(F)(3)(d): DEVELOPMENT PROPOSALS

REQUIRED LANDSCAPING AREAS ESTABLISHED PURSUAN

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.

SEWER LINE WAS LOCATED ON 2023.04.04 BY ADVANCED

OF LINE WAS FOUND USING GROUND PENETRATING

HAS BEEN SUBMITTED AS PART OF THIS PERMIT

VERIFY GEOGRID PROPERTIES, LENGTHS AND

**LANDSCAPE PLAN LEGEND:** 

INSTALLATION ARE IN ACCORDANCE WITH THEIR

RECOMMENDATIONS PRESENTED IN THEIR REPORT

SUBMITTAL

DATED JUNE 27, 2023

UNDERGROUND UTILITY LOCATING, LOCATION AND DEPTH

RADAR AND SONDE LOCATING. VIDEO OF LINE ALONGSIDE

MERCER ISLAND SIDE SEWER VIDEO INSPECTION REPORT

GEOTECHNICAL ENGINEER IS REQUIRED TO BE PRESENT DURING INSTALLATION OF THE REINFORCED FILL TO

FOR A NEW SINGLE-FAMILY HOME SHALL REMOVE JAPANESE KNOTWEED (POLYGONUM CUSPIDATUM) AND

REGULATED CLASS A, REGULATED CLASS B, AND REGULATED CLASS C WEEDS IDENTIFIED ON THE KING COUNTY NOXIOUS WEED LIST, AS AMENDED, FROM

TO SUBSECTION (F)(3)(A) OF THIS SECTION. NEW

. ALL DIMENSIONS TO PROPERTY/SETBACK LINES ARE

MEASURED AT ANGLES PERPENDICULAR TO

PROPERTY/SETBACK LINES.



FLOW DIRECTION SPOT ELEVATION (E) TOPO CONTOUR TO REMAIN NEW TOPO CONTOUR

PRIMARY ENTRANCE

NATURAL DRAINAGE

RESHAPED (E) TOPO CONTOUR --- PROPERTY LINE

— — — — PROPERTY SETBACK LINE

—— OH ——— POWER LINE (OVERHEAD) SEWER LINE

STORMWATER PIPE WATER LINE STORMWATER CATCH BASIN

EXISTING OVERHEAD POWER POLE NEW STRUCTURE FOOTPRINT NEW OUTDOOR PATIO FOOTPRINT

NEIGHBORING STRUCTURES

CONCRETE (SLAB-ON GRADE) CONTACT

> SHED ARCHITECTURE & DESIGN 1401 S JACKSON ST SEATTLE, WA 98144 206.320.8700

FOR CODE

August 11, 2023

SITE COPY

The Shill GREGORY C SHIFFLER

STATE OF WASHINGTON

REGISTERED ARCHITECT

9686

PROJECT

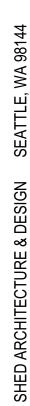
SULLIVAN 3024 69th Ave SE

MERCER ISLAND, WA 98040 ISSUE

DATE PRE APP #1 (PRE22-0433) 2022.08.16 CAR 2 (CAO22-023) 2022.12.08 PERMIT SET 2023.01.20 2023.05.26 REVISION #1 🔬 2023.07.07 REVISION #2 🗟 2023.07.27 REVISION #3 🗟

DRAWING TITLE

SITE PLAN & DIAGRAMS



DEMO (E) LANDSCAPE WALL

DEMO (E) WATER SPIGOT-

DEMO (E) CONCRETE PATIO-

DEMO (E) LANDSCAPE WALL, TYP-

**DEMO AND TREE REMOVAL PLAN** 

>ARBORIST SHALL BE ON SITE DURING CLEARING TO CONFIRM TREE REMOVAL

**SPECIES** 

COTONEASTER DAMERII

FIG, FRUITING

DBH DRIP CNDTN

4' GOOD

ACER RUBRUM, RED MAPLE EST 20" 8' GOOD OFF-SITE, TO BE PROTECTED AT DRIPLINE

>TREE DATA BELOW WAS PRODUCED BY OLYMPIC NURSERY, INC, REFER TO ARBORIST REPORT FOR MORE INFORMATION

DEMO (E) METAL GATE

TREE #2

-TREE #1

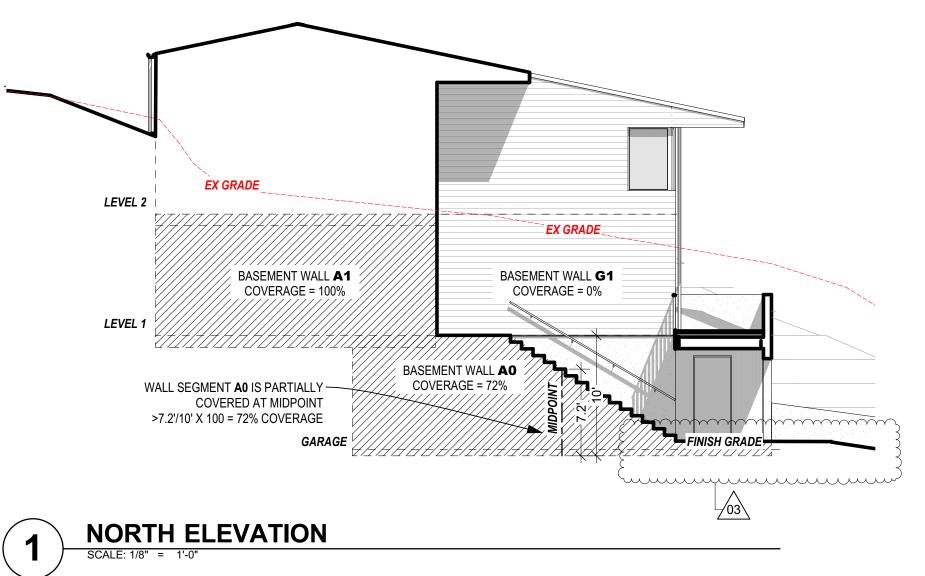
CNDTN

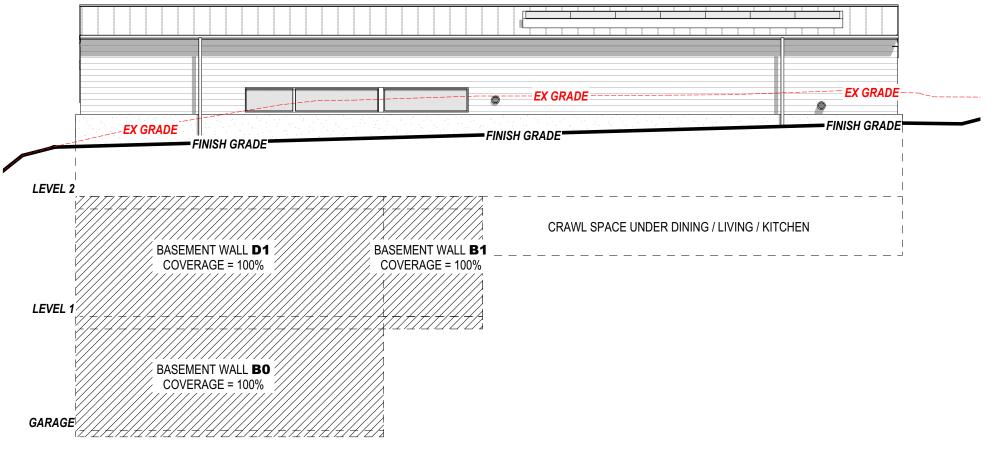
LIKE FORM. TWO 6" STEMS AT 36"

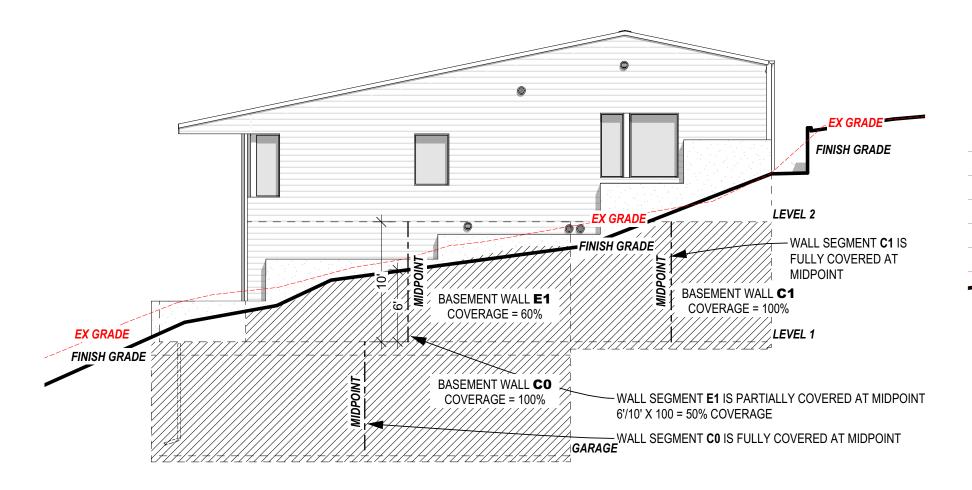
SUM OF EASH STEM SQUARED

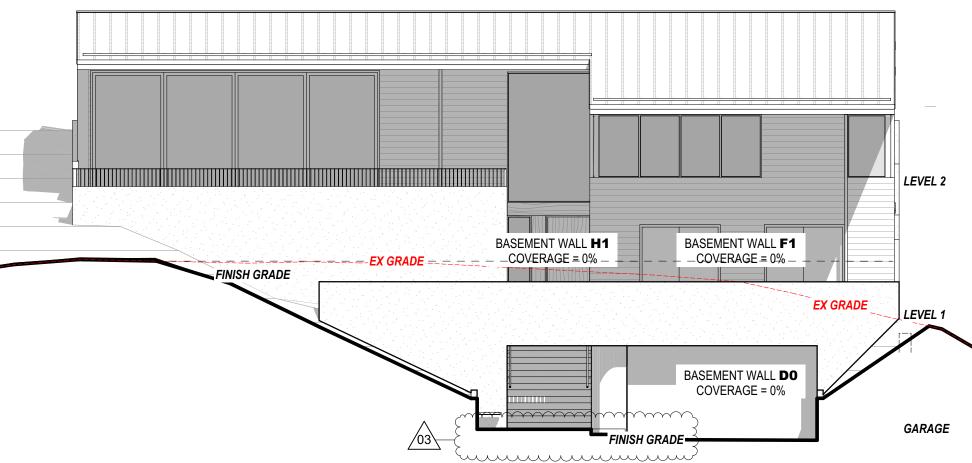
FAIR SHRUB GROWN AND PRUNED TO HAVE TREE-NOT SIGNIFICANT YES

FIVE STEM: 1.0, 1.5, 1.5, 2.0, 2.0 SQ ROOT OF NOT SIGNIFICANT YES







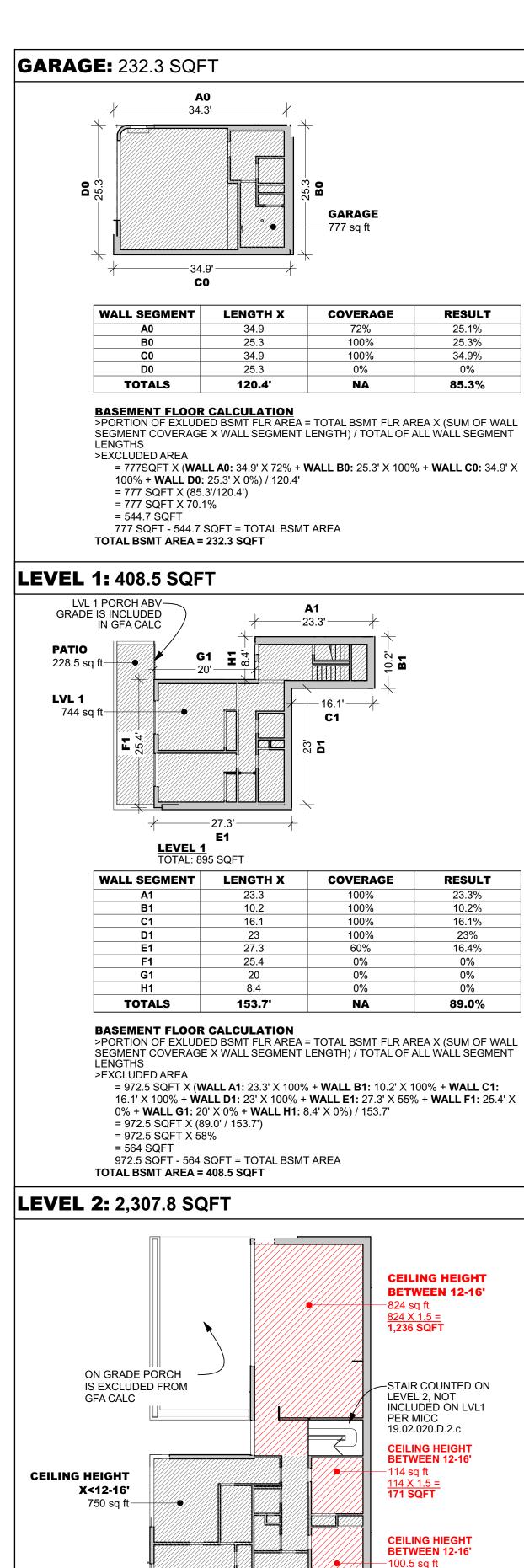


**SOUTH ELEVATION** 

WEST ELEVATION

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

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



**GARAGE** 

COVERAGE

100%

100%

COVERAGE

100%

100%

100%

153.7'

25.3

120.4'

RESULT

25.1%

25.3%

34.9%

0%

85.3%

RESULT

10.2%

16.1%

23% 16.4%

89.0%

**CEILING HEIGHT** 

**BETWEEN 12-16'** 

—STAIR COUNTED ON LEVEL 2, NOT INCLUDED ON LVL1

**CEILING HEIGHT BETWEEN 12-16'** 

**CEILING HIEGHT** 

**BETWEEN 12-16'** 100.5 sq ft

>PER EMAIL WITH ANDREW LEON @ MERCER ISLAND

"GROSS FLOOR AREA IS A LAND USE METRIC AND DOES

THE BASEMENT EXCLUSION PROVISION SET FORTH IN TITLE 19 MICC, APPENDIX B CAN BE APPLIED TO THE

BOTTOM TWO FLOORS OF THE PROPOSED HOUSE"

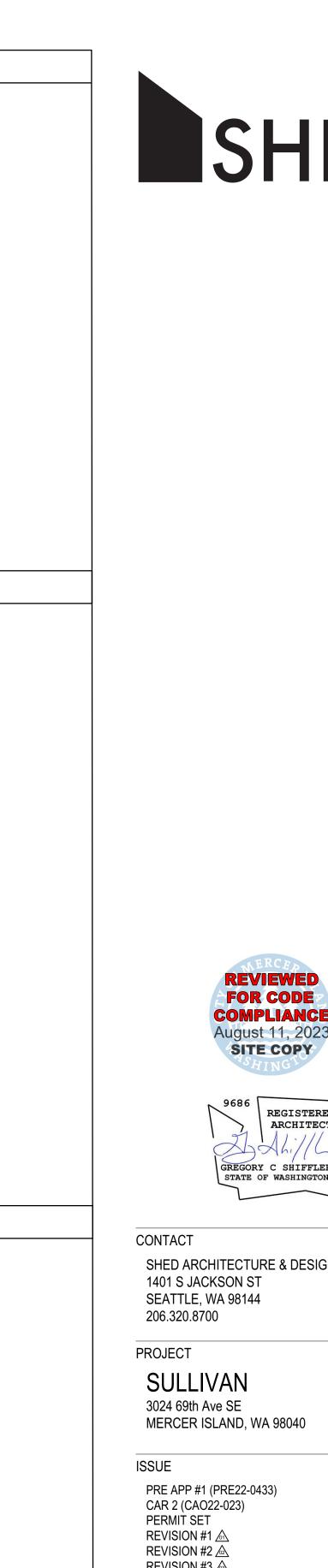
NOT TAKE IRC DEFINITIONS INTO ACCOUNT. AS A RESULT,

−824 sq ft 824 X 1.5 = 1,236 SQFT

PER MICC 19.02.020.D.2.c

−114 sq ft

−777 sq ft



SHED ARCHITECTURE & DESIGN 1401 S JACKSON ST SEATTLE, WA 98144

SITE COPY

GREGORY C SHIFFLER

REGISTERED

ARCHITECT

SULLIVAN 3024 69th Ave SE MERCER ISLAND, WA 98040

DATE PRE APP #1 (PRE22-0433) 2022.08.16 2022.12.08 CAR 2 (CAO22-023) 2023.01.20 REVISION #1 🔬 2023.05.26 2023.07.07 REVISION #2 🔬 REVISION #3 🔬 2023.07.27

DRAWING TITLE

**GFA+BASEMENT CALC** 



TOTAL GFA: 2,948.3 SQFT (34.2%) PROPOSED < 3,460 SQFT (40%)ALLOWED

LEVEL 2 TOTAL: 2,307.8 SQFT

**TOTAL:** 2,958.3 SQFT

**GROSS FLOOR AREA:** 

LOT AREA: 8,650 SQFT

LEVEL 1:

GFA PER MICC 19.02.020.D.1: 40%

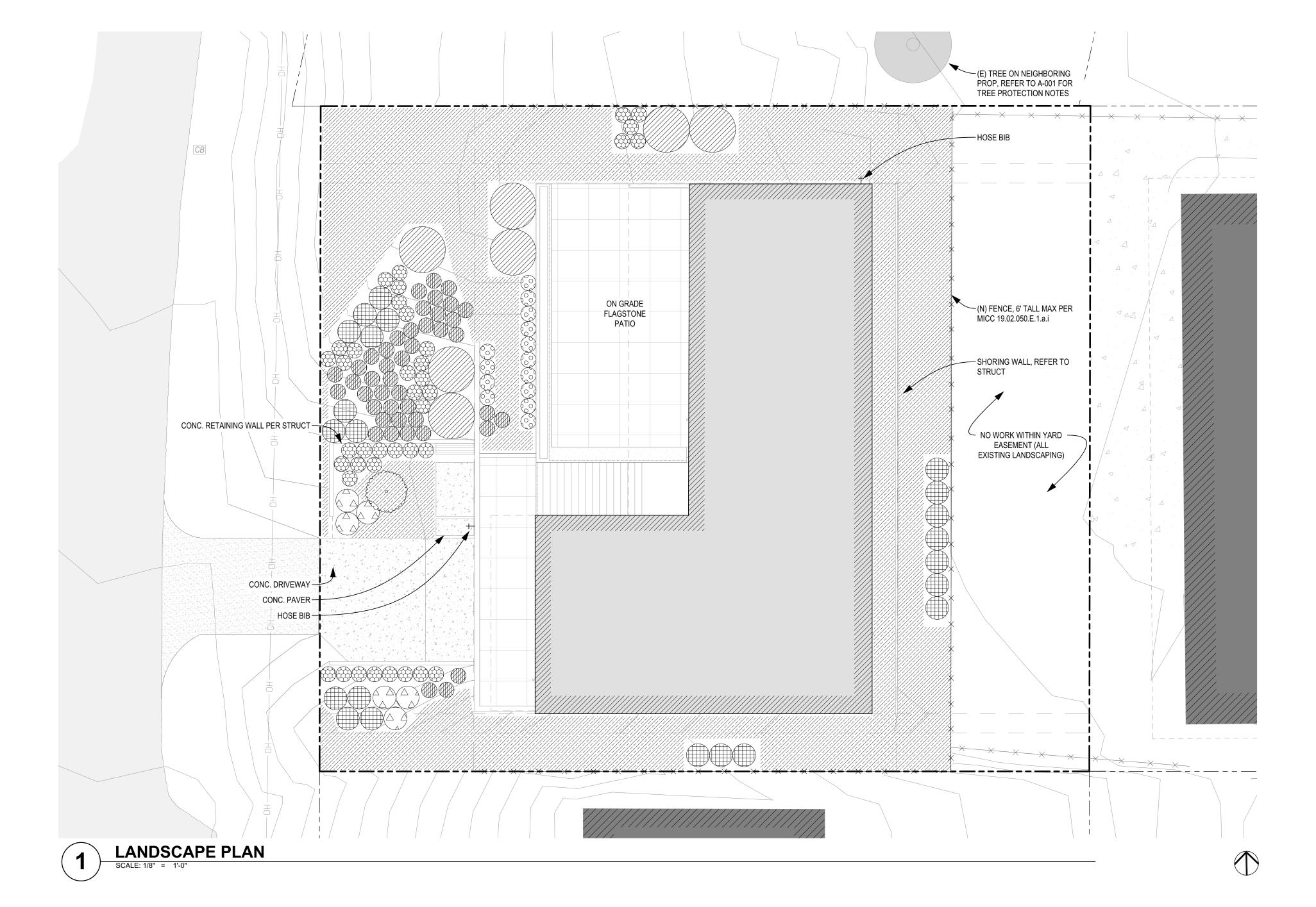
ALLOWED: 8,650\*0.40 = 3,460 SQFT

408.5 SQFT

PROPOSED: LEVEL 0: 232.3 SQFT

LEVEL 2: 2,307.8 SQFT





REE SCHEE					
SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING
E C	1	CORNUS NUTTALLII	PACIFIC DOGWOOD	1.5" CAL; 6'+ HT MIN	AS SHOWN
HRUB SCHI	EDULE:				
SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING
	7	PHILADELPHUS LEWISII	MOCK ORANGE	3 GAL.	72"
	22	VACCINIUM OVATUM	EVERGREEN HUCKLEBERRY	1 GAL.	36"
	6	ROSA NUTKANA	NOOTKA ROSE	1 GAL.	36"
	43	SYMPHORICARPOS ALBUS	SNOWBERRY	1 GAL.	24"
	42	ARCTOSAPHYLOS UVA-URSI	BEARBERRY	1 GAL.	24"
	14	LONICERA CILIOSA	ORANGE HONEYCUKLE	1 GAL.	24"
ROUNDCO	VER SCHE	DULE:			
SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING
	N/A	N/A	NATIVE PLANT SEED MIXES (ANNUAL AND PERENNIAL GRASS AND FORB MIXES)		APPLY AS RECOMME

LANDSCAPE PLAN NOTES:

- A. PER MICC 19.02.020(F)(3)(d): DEVELOPMENT PROPOSALS FOR A NEW SINGLE-FAMILY HOME SHALL REMOVE JAPANESE KNOTWEED (POLYGONUM CUSPIDATUM) AND REGULATED CLASS A, REGULATED CLASS B, AND REGULATED CLASS C WEEDS IDENTIFIED ON THE KING COUNTY NOXIOUS WEED LIST, AS AMENDED, FROM REQUIRED LANDSCAPING AREAS ESTABLISHED PURSUANT TO SUBSECTION (F)(3)(A) OF THIS SECTION. 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 LANDSCAPE (LANDSCAPE).
- B. REFER TO A-001 FOR LANDSCAPE / HARDSCAPE CALCULATIONS
- C. REFER TO A-001 FOR EXISTING TREE AND VEGETATION REMOVAL / DEMO PLAN
- D. ALL PLANTS ARE NATIVE AND SELECTED FROM THE KING COUNTY NATIVE PLANT LIST. PLANTS LOCATED ON STEEP SLOPE WERE SELECTED FROM "SLOPE STABILIZATION AND EROSION CONTROL USING VEGETATION" PRODUCED BY THE WASHINGTON STATE DEPARTMENT OF ECOLOGY
- E. PER GEOTECHNICAL REPORT PRODUCED BY COBALT GEOSCIENCES: FOR SLOPES 3H:1V OR FLATTER, TYPICAL LANDSCAPE PLANTINGS WITH MULCH/COMPOST AND BARK SURFACING IS SUITABLE, FOR SLOPES STEEPER THAN 3H:1V, MULCH AND COMPOST SHOULD BE PLACED, THEN COVERED WITH JUTE UNTIL PLANTINGS ARE WELL ESTABLISHED



SHED



August 11, 2023
SITE COPY

CONTACT

SHED ARCHITECTURE & DESIGN 1401 S JACKSON ST SEATTLE, WA 98144 206.320.8700

PROJECT

SULLIVAN
3024 69th Ave SE
MERCER ISLAND, WA 98040

 ISSUE
 DATE

 PRE APP #1 (PRE22-0433)
 2022.08.16

 CAR 2 (CAO22-023)
 2022.12.08

 PERMIT SET
 2023.01.20

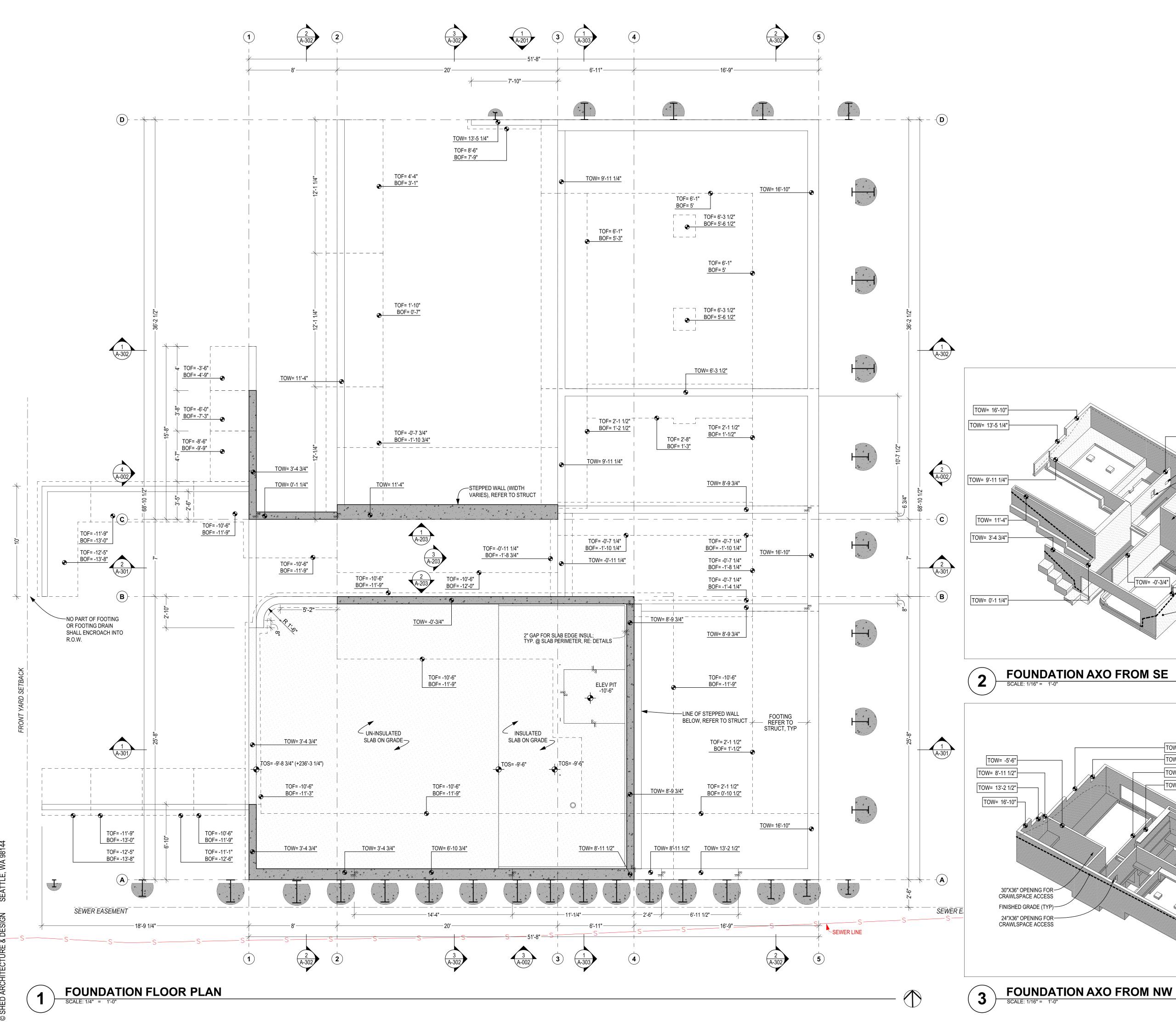
 REVISION #1 ♠
 2023.05.26

 REVISION #2 ♠
 2023.07.07

 REVISION #3 ♠
 2023.07.27

DRAWING TITLE

LANDSCAPE PLAN



#### FOUNDATION PLAN NOTES:

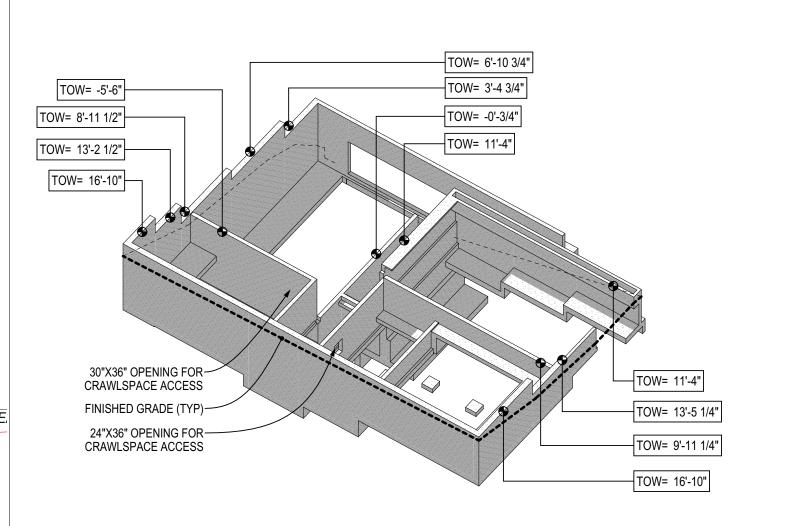
- A. ALL ELEVATIONS RELATIVE TO FUTURE LEVEL 01 SUBFLOOR: 0' (246' ABV SEA LEVEL).
- B. ALL DIMS ARE TO F.O. CONC, U.N.O.
- C. ALL INDICATED ALIGNMENTS ARE TO F.O. FINISH, U.N.O.
- D. RE: STRUCTURAL FOR ADDITIONAL INFO. E. COORD. ALL CONC. SLAB CONTROL JOINTS W/ ARCH.
- . AXONOMETRIC DRAWINGS SHOW ONLY FOUNDATION WALLS & FOOTINGS; RE: PLANS FOR SLAB ON GRADE LOCATIONS. RE: STRUCT. FOR SOLDIER PILE AND SHORING LOCATIONS
- 6. TO PROTECT (E) SEWER LINE IN SEWER EASEMENT, SHORING TO BE INSTALLED IN ALTERNATING METHOD OR EACH PILE IS TO BE PLACED AND BACKFILLED WITH CONCRETE/LEAN MIX IMMEDIATELY, PER GEOTECHNICAL REPORT PRODUCED BY COBALT GEOSCIENCES

#### **FOUNDATION PLAN LEGEND:**

ELEVATION CHANGE/STEP TOP OF CONC. SLAB (TOS) TOP OF WALL (TOW) TOP OF FOOTING (TOF) FINISHED GRADE ELEVATION

CONCRETE (SLAB-ON GRADE)

TOW= 8'-9 3/4" —24"X14" OPENING FOR UTILITIES -24"X36" OPENING FOR CRAWLSPACE ACCESS —24"X14" OPENING FOR UTILITIES -30"X36" OPENING FOR CRAWLSPACE ACCESS TOW= 16'-10" TOW= 13'-2 1/2" TOW= 8'-9 3/4" TOW= 8'-11 1/2" TOW= 6'-10 3/4" TOW= -0'-3/4" TOW= 3'-4 3/4" -FINISHED GRADE (TYP)





SHED

REGISTERED ARCHITECT

#### CONTACT

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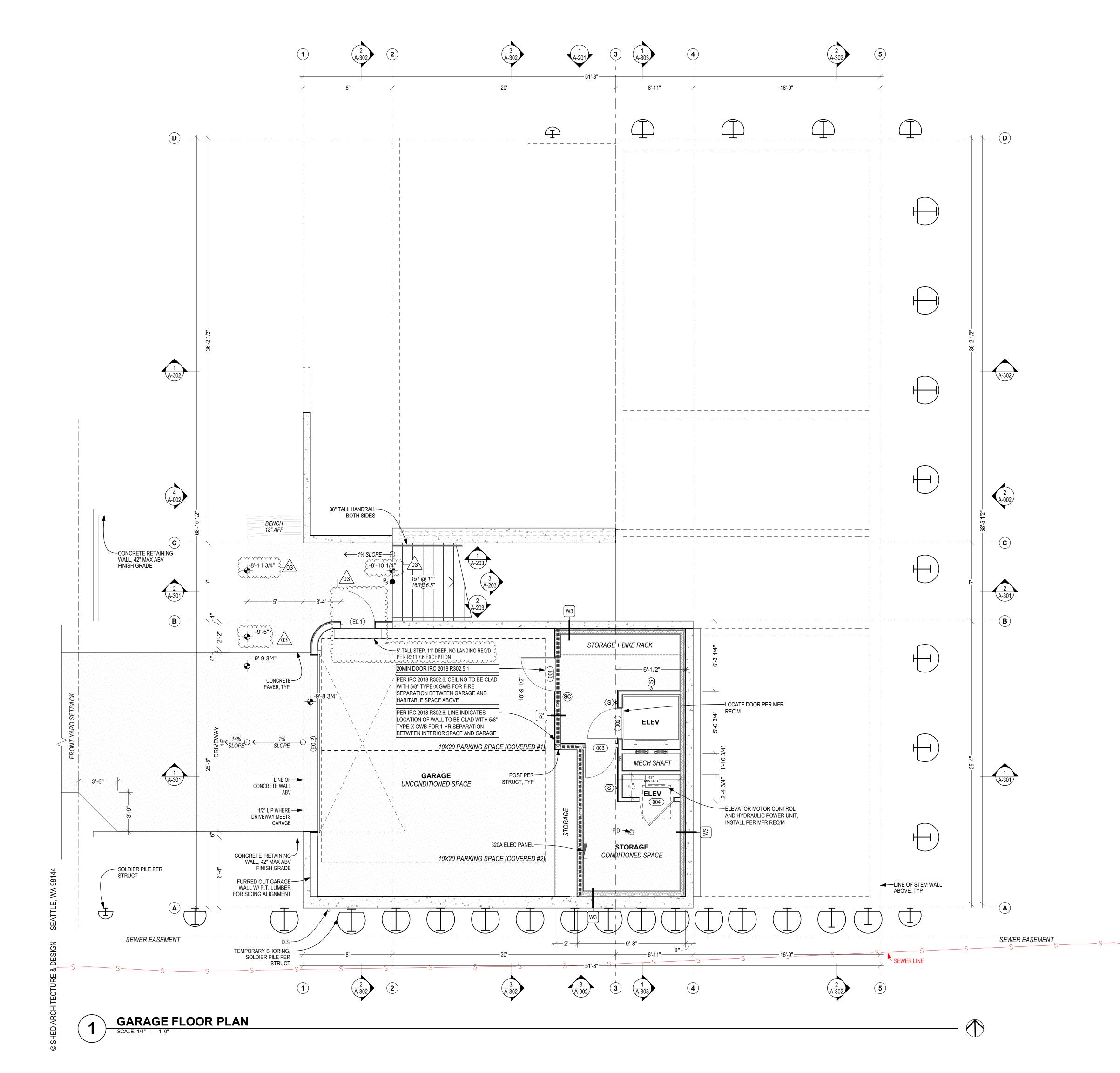
#### PROJECT

SULLIVAN 3024 69th Ave SE MERCER ISLAND, WA 98040

DATE
2022.08.16
2022.12.08
2023.01.20
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2023.07.27

DRAWING TITLE

FOUNDATION FLOOR PLAN



- A. ALL DIMS ARE TO F.O. FRAMING OR F.O. CONC, U.N.O.
  B. ALL INDICATED ALIGNMENTS ARE TO F.O. FINISH, U.N.O.
  C. WINDOW OPENING DIMENSIONS ARE MEASURED FROM THE ROUGH OPENING U.N.O. -- RE: SCHEDULES & ELEVATIONS FOR ADDITIONAL INFO.
- D. RE: STRUCTURAL FOR FRAMING INFO.
- E. ALL FLOOR TRANSITIONS SHALL BE AT CENTER OF DOOR LEAF, U.N.O.
- F. ALL INTERIOR PARTITIONS ARE **P2** U.N.O.

#### SYMBOL LEGEND:

- MAIN ENTRY DOOR
- SC COMBINATION SMOKE & CARBON MONOXIDE ALARM
- 50 CFM (U.N.O.) EXHAUST FAN
- S→ INDICATES SIDE OF SHEAR WALL TO RECEIVE SHEATHING (RE: STRUCT FOR MORE INFO)
- ASSEMBLY TAG, REFER TO A-601 FOR MORE INFO





#### CONTACT

SHED ARCHITECTURE & DESIGN 1401 S JACKSON ST SEATTLE, WA 98144 206.320.8700

#### PROJECT

#### SULLIVAN 3024 69th Ave SE MERCER ISLAND, WA 98040

ISSUE DATE

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CAR 2 (CAO22-023) 2022.12.08

PERMIT SET 2023.01.20

2023.05.26 2023.07.07

2023.07.27

REVISION #2 🕰 REVISION #3 🕰

REVISION #1 🔬

DRAWING TITLE

GARAGE FLOOR PLAN

- A. ALL DIMS ARE TO F.O. FRAMING OR F.O. CONC, U.N.O.
  B. ALL INDICATED ALIGNMENTS ARE TO F.O. FINISH, U.N.O.
  C. WINDOW OPENING DIMENSIONS ARE MEASURED FROM THE ROUGH OPENING U.N.O. -- RE: SCHEDULES & ELEVATIONS FOR ADDITIONAL INFO.
- D. RE: STRUCTURAL FOR FRAMING INFO.
- E. ALL FLOOR TRANSITIONS SHALL BE AT CENTER OF DOOR LEAF, U.N.O.
- F. ALL INTERIOR PARTITIONS ARE <u>P2</u> U.N.O.

#### SYMBOL LEGEND:

#### MAIN ENTRY DOOR

© COMBINATION SMOKE & CARBON MONOXIDE ALARM

50 CFM (U.N.O.) EXHAUST FAN

S→ INDICATES SIDE OF SHEAR WALL TO RECEIVE SHEATHING (RE: STRUCT FOR MORE INFO)

ASSEMBLY TAG, REFER TO **A-601** FOR MORE INFO







#### CONTACT

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MERCER ISLAND, WA 98040

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REVISION #3 🙆	2023.07.27

DRAWING TITLE

LEVEL 1 FLOOR PLAN

- A. ALL DIMS ARE TO F.O. FRAMING OR F.O. CONC, U.N.O.
  B. ALL INDICATED ALIGNMENTS ARE TO F.O. FINISH, U.N.O.
  C. WINDOW OPENING DIMENSIONS ARE MEASURED FROM THE POLICE OPENING U.N.O. - RE: SCHEDULES &
- THE ROUGH OPENING U.N.O. -- RE: SCHEDULES & ELEVATIONS FOR ADDITIONAL INFO.

  D. RE: STRUCTURAL FOR FRAMING INFO.
- E. ALL FLOOR TRANSITIONS SHALL BE AT CENTER OF DOOR LEAF, U.N.O.
- F. ALL INTERIOR PARTITIONS ARE <u>P2</u> U.N.O.

#### SYMBOL LEGEND:

MAIN ENTRY DOOR

SC COMBINATION SMOKE & CARBON MONOXIDE ALARM

50 CFM (U.N.O.) EXHAUST FAN

S→ INDICATES SIDE OF SHEAR WALL TO RECEIVE SHEATHING (RE: STRUCT FOR MORE INFO)

ASSEMBLY TAG, REFER TO A-601 FOR MORE INFO







#### CONTACT

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#### PROJECT

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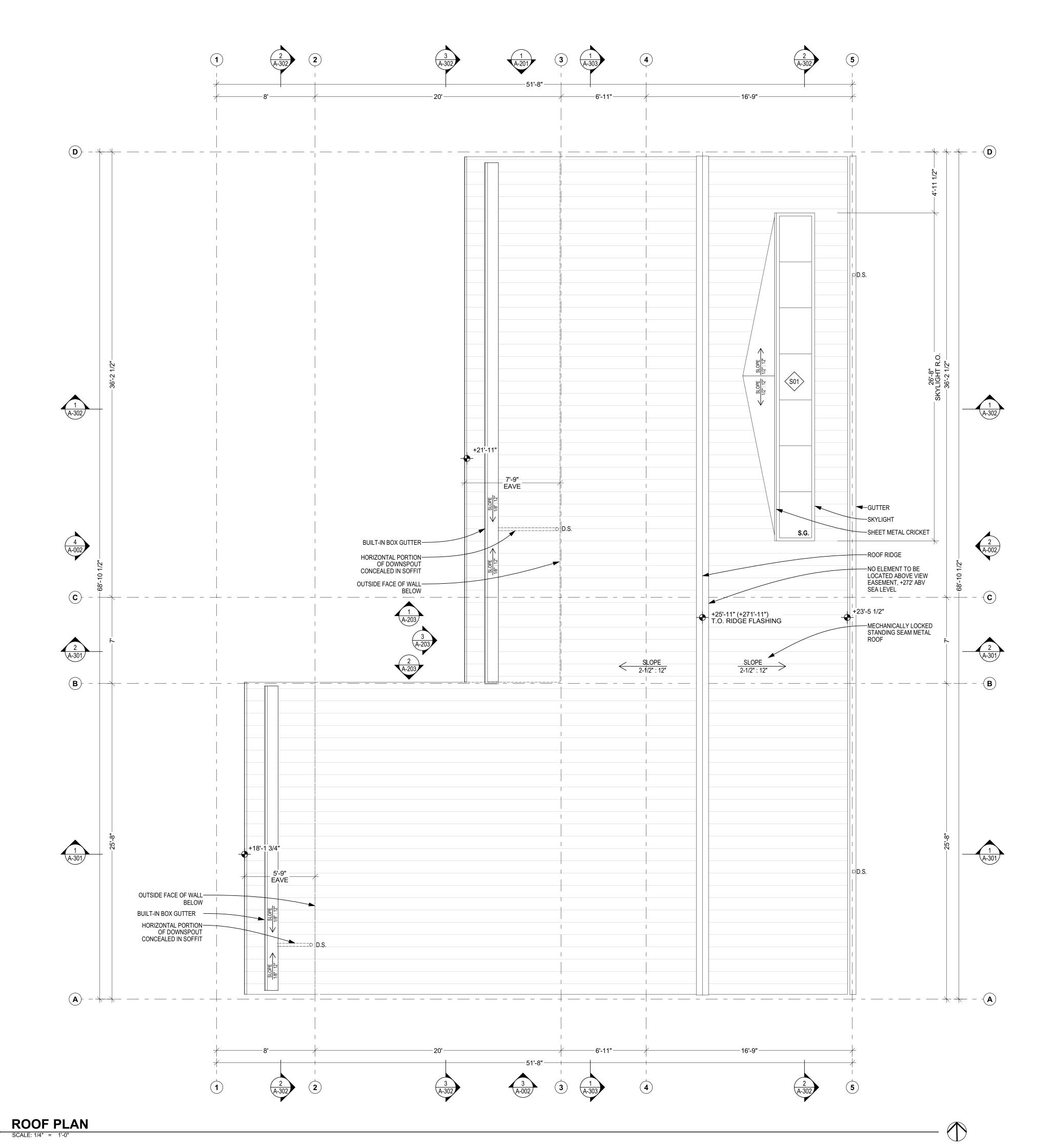
REVISION #1 ♠ 2023.05.26

REVISION #2 ♠ 2023.07.07

REVISION #3 ♠ 2023.07.27

DRAWING TITLE

LEVEL 2 FLOOR PLAN



- A. ALL DIMS ARE TO F.O. FRAMING OR F.O. CONC, U.N.O.

  B. ALL INDICATED ALIGNMENTS ARE TO F.O. FINISH, U.N.O.

  C. WINDOW OPENING DIMENSIONS ARE MEASURED FROM THE ROUGH OPENING U.N.O. -- RE: SCHEDULES &
- C. WINDOW OPENING DIMENSIONS ARE MEASURED FROM THE ROUGH OPENING U.N.O. -- RE: SCHEDULES & ELEVATIONS FOR ADDITIONAL INFO.

  D. RE: STRUCTURAL FOR FRAMING INFO.
- E. ALL FLOOR TRANSITIONS SHALL BE AT CENTER OF DOOR LEAF, U.N.O.F. ALL INTERIOR PARTITIONS ARE <u>P2</u> U.N.O.

#### SYMBOL LEGEND:

MAIN ENTRY DOOR

© COMBINATION SMOKE & CARBON MONOXIDE ALARM

50 CFM (U.N.O.) EXHAUST FAN

S→ INDICATES SIDE OF SHEAR WALL TO RECEIVE SHEATHING (RE: STRUCT FOR MORE INFO)

ASSEMBLY TAG, REFER TO **A-601** FOR MORE INFO







CONTACT

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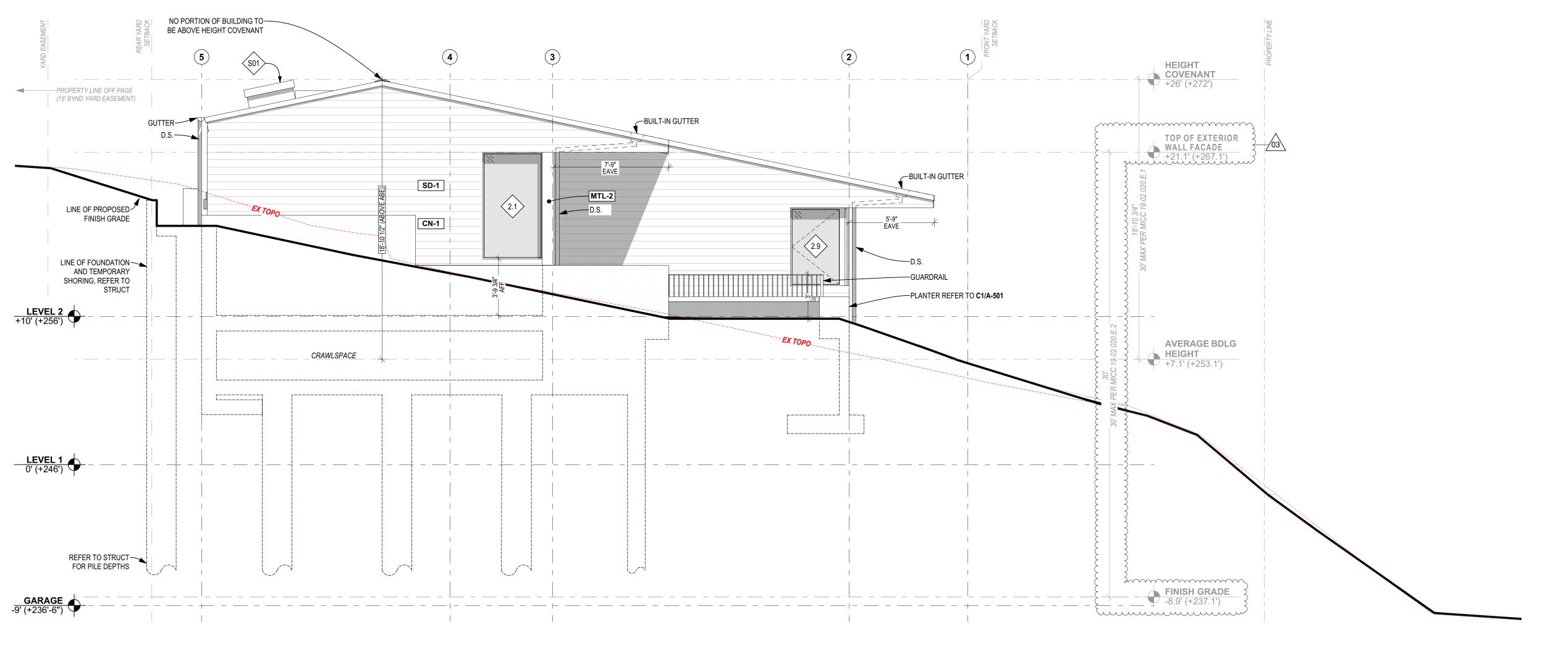
 REVISION #1 ♠
 2023.05.26

 REVISION #2 ♠
 2023.07.07

 REVISION #3 ♠
 2023.07.27

DRAWING TITLE

**ROOF PLAN** 



**ELEVATION NOTES:** 

A. ALL DIMS ARE TO FACE OF FINISH U.N.O.
 B. FLOOR ELEVATIONS REFERENCE TOP OF STRUCTURAL FLOOR DIAPHRAM; RE: ASEEMBLIES ON A-601

#### FINISH LEGEND:

SD-1 HORIZONTAL CEDAR SIDING
MTL-1 STANDING SEAM METAL ROOF
MTL-2 INFILL METAL PANEL
CN-1 ARCHITECTURAL CONCRETE WALL





GREGORY C SHIFFLER STATE OF WASHINGTON

#### CONTACT

ISSUE

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#### PROJECT

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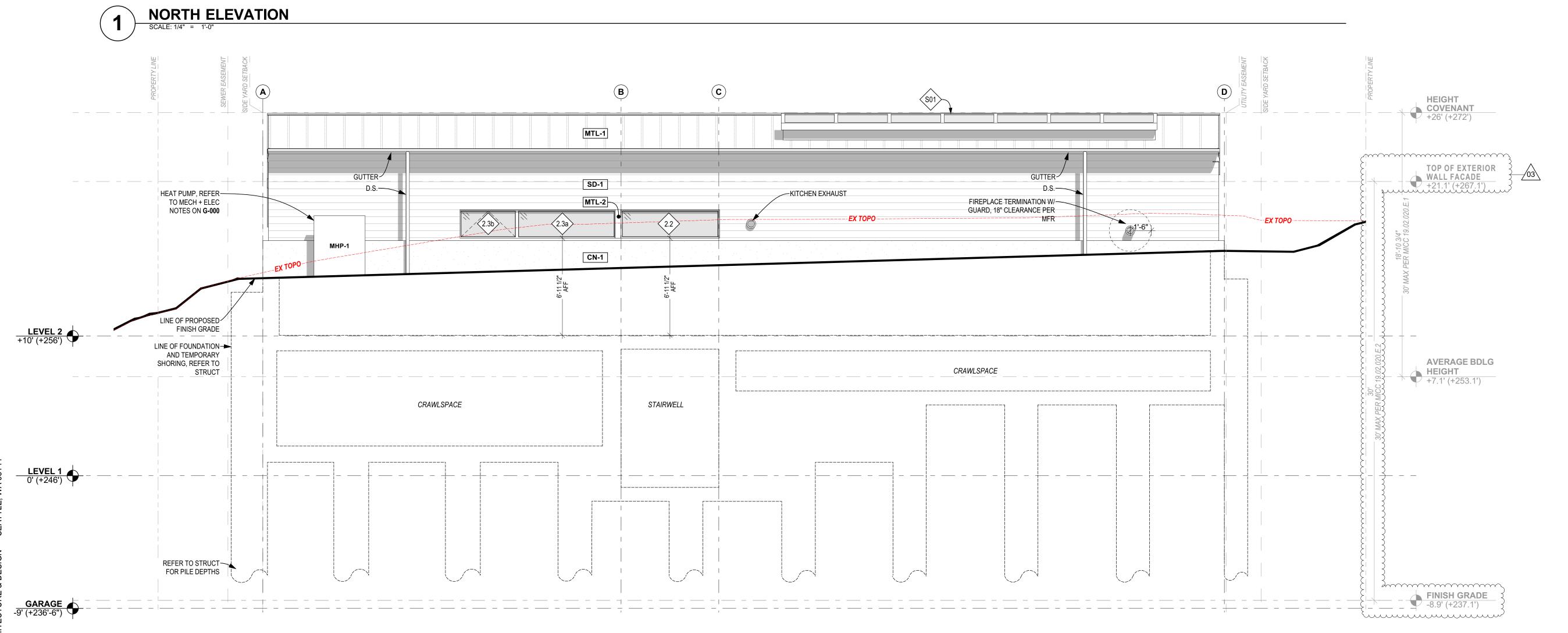
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DATE

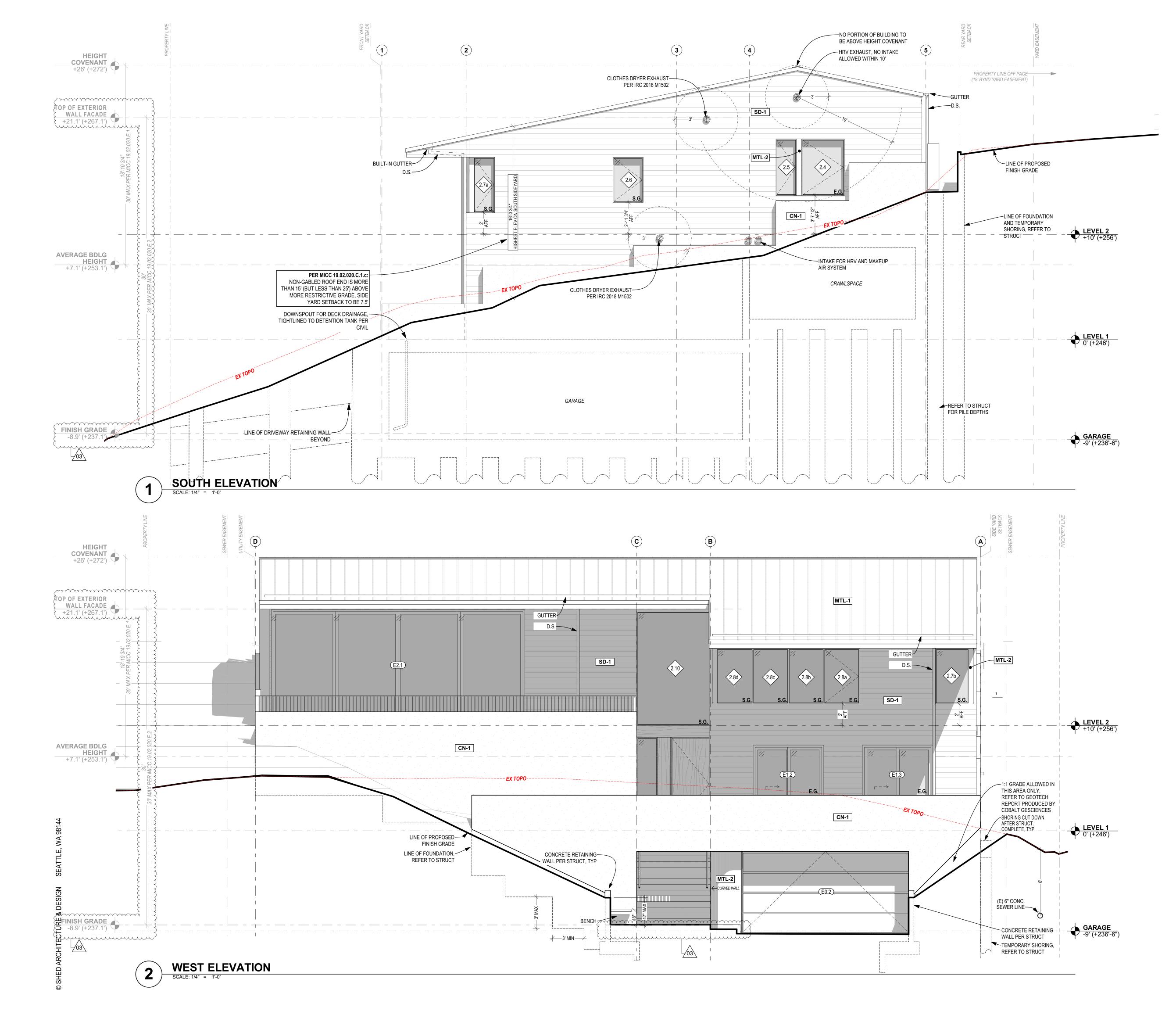
DRAWING TITLE

EXTERIOR ELEVATIONS

A-201



**EAST ELEVATION** 



#### **ELEVATION NOTES:**

A. ALL DIMS ARE TO FACE OF FINISH U.N.O.

B. FLOOR ELEVATIONS REFERENCE TOP OF STRUCTURAL FLOOR DIAPHRAM; RE: ASEEMBLIES ON A-601

#### FINISH LEGEND:

SD-1 HORIZONTAL CEDAR SIDING
MTL-1 STANDING SEAM METAL ROOF
MTL-2 INFILL METAL PANEL
CN-1 ARCHITECTURAL CONCRETE WALL





9686
REGISTERED
ARCHITECT
GREGORY C SHIFFLER
STATE OF WASHINGTON

#### CONTACT

SHED ARCHITECTURE & DESIGN 1401 S JACKSON ST SEATTLE, WA 98144 206.320.8700

#### PROJECT

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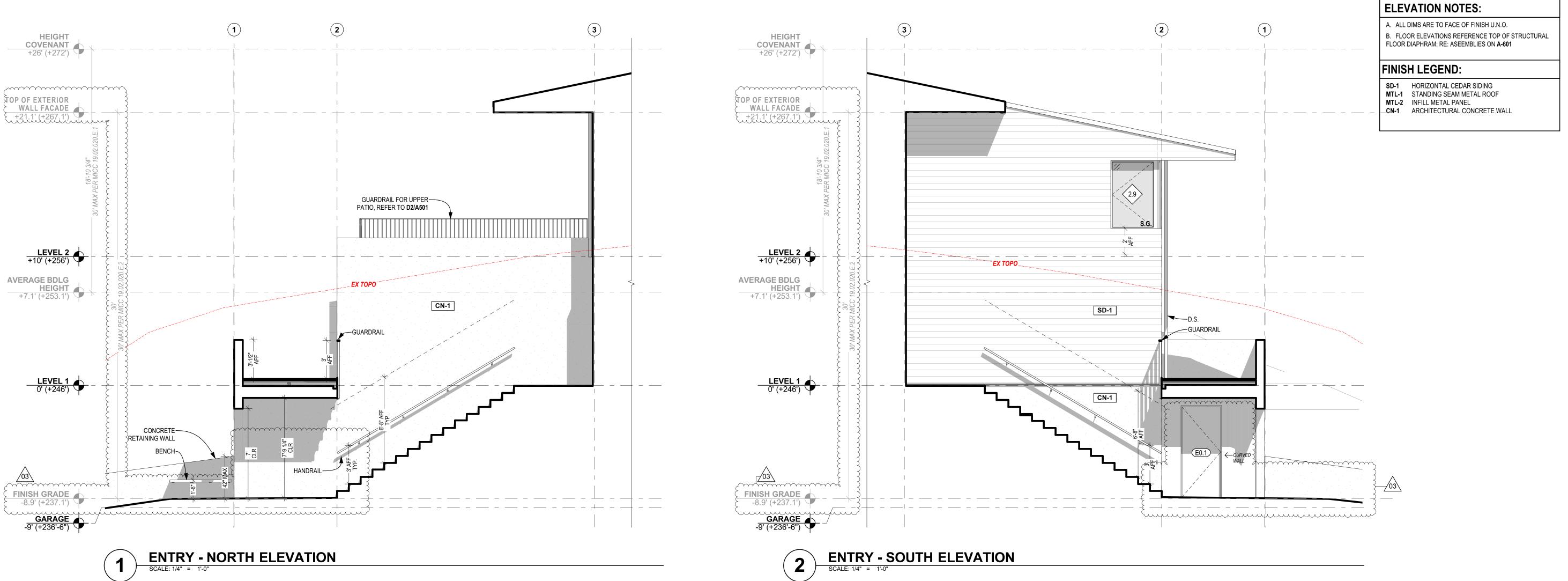
2023.07.07

2023.07.27

REVISION #1 🞰 REVISION #2 🞰 REVISION #3 🞰

#### DRAWING TITLE

**EXTERIOR ELEVATIONS** 





SHED



#### CONTACT

ISSUE

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#### PROJECT

#### SULLIVAN 3024 69th Ave SE

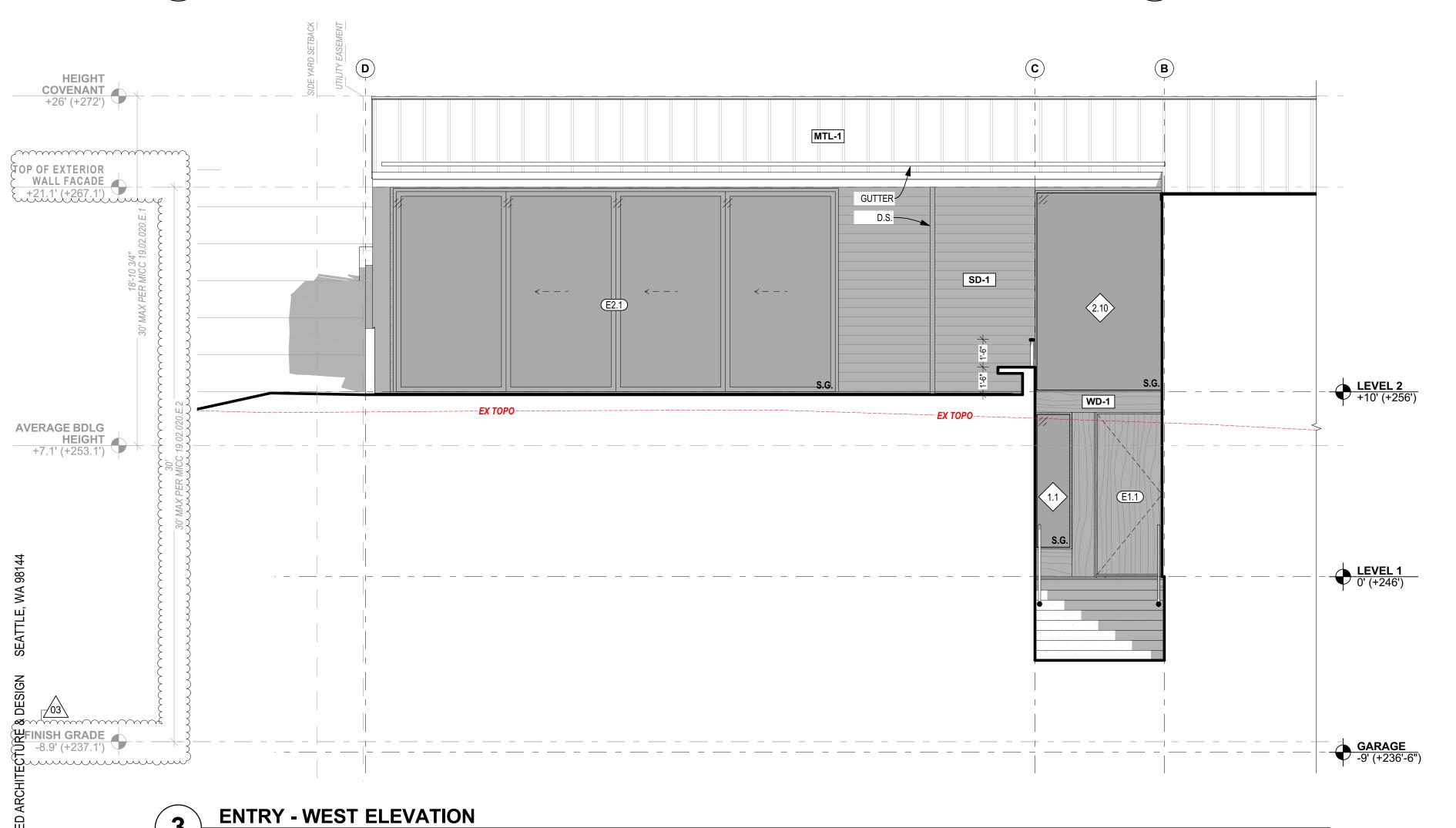
MERCER ISLAND, WA 98040

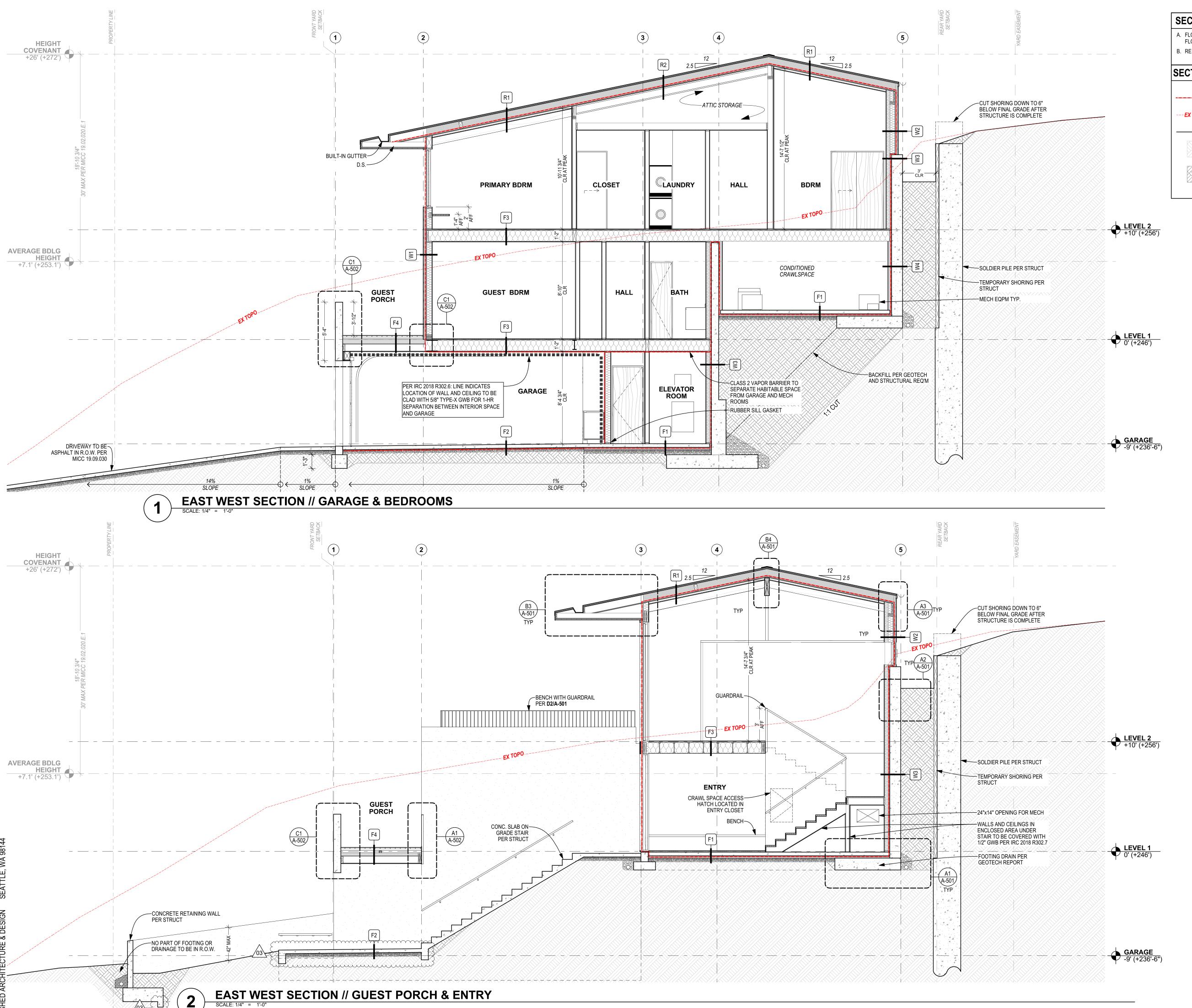
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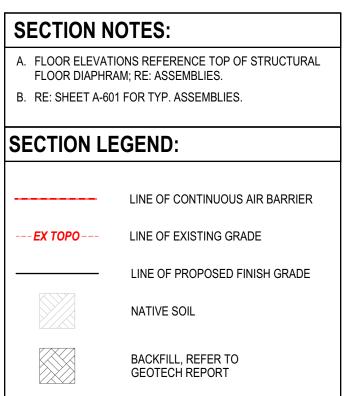
DATE

#### DRAWING TITLE

EXTERIOR ELEVATIONS











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REGISTERED
ARCHITECT
GREGORY C SHIFFLER
STATE OF WASHINGTON

#### CONTACT

SHED ARCHITECTURE & DESIGN 1401 S JACKSON ST SEATTLE, WA 98144 206.320.8700

#### PROJECT

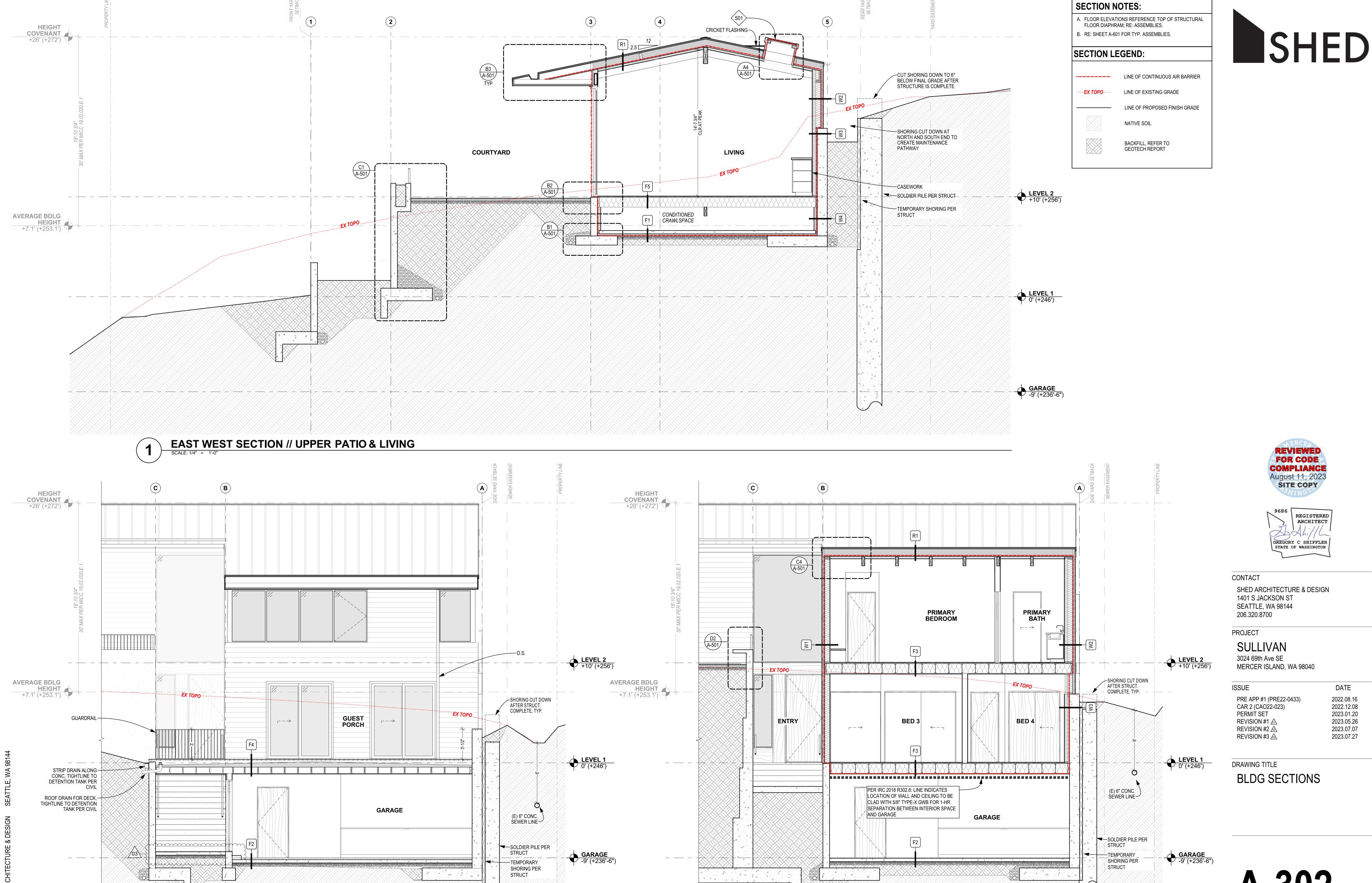
#### SULLIVAN 3024 69th Ave SE MERCER ISLAND, WA 98040

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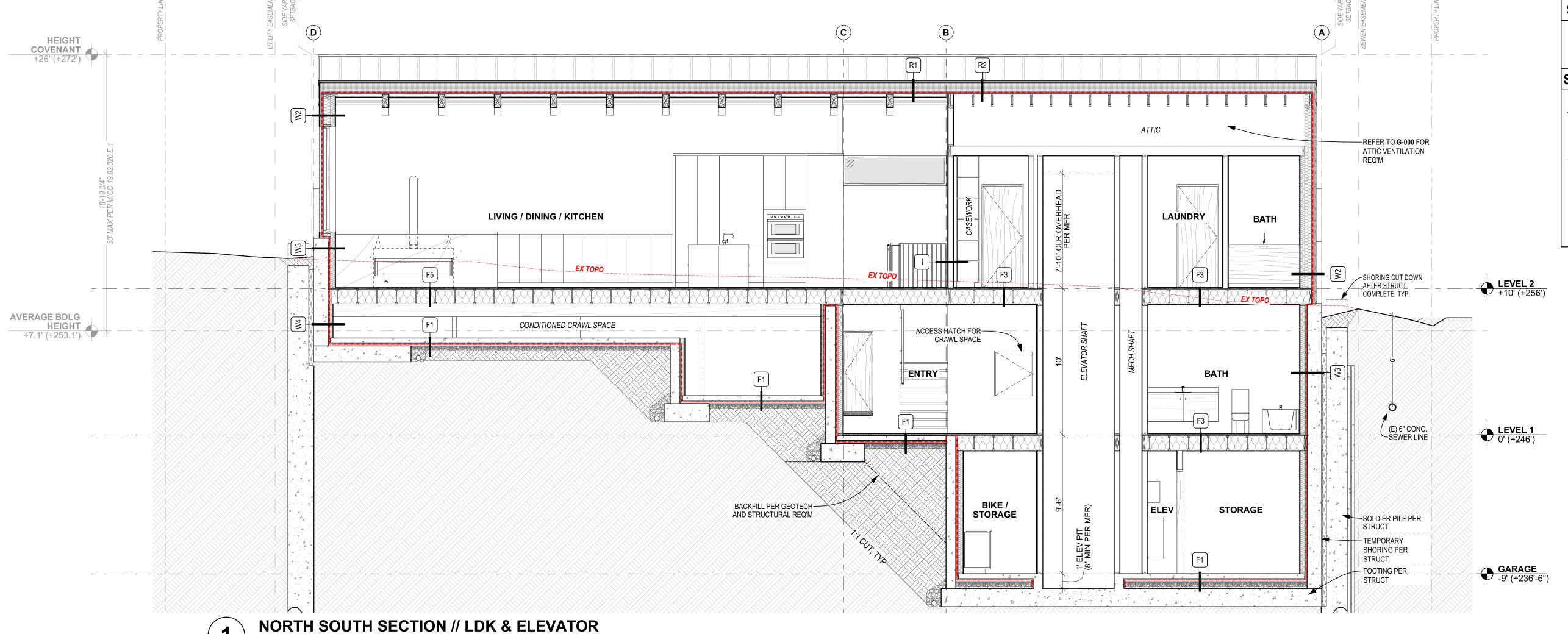
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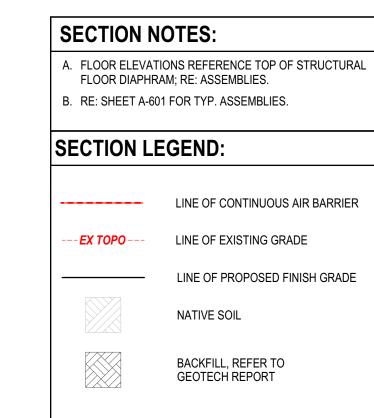
**BLDG SECTIONS** 



NORTH SOUTH SECTION // ENTRY STAIR + BEDROOMS

NORTH SOUTH SECTION // GARAGE + GUEST PORCH







SHED



August 11, 2023
SITE COPY

#### CONTACT

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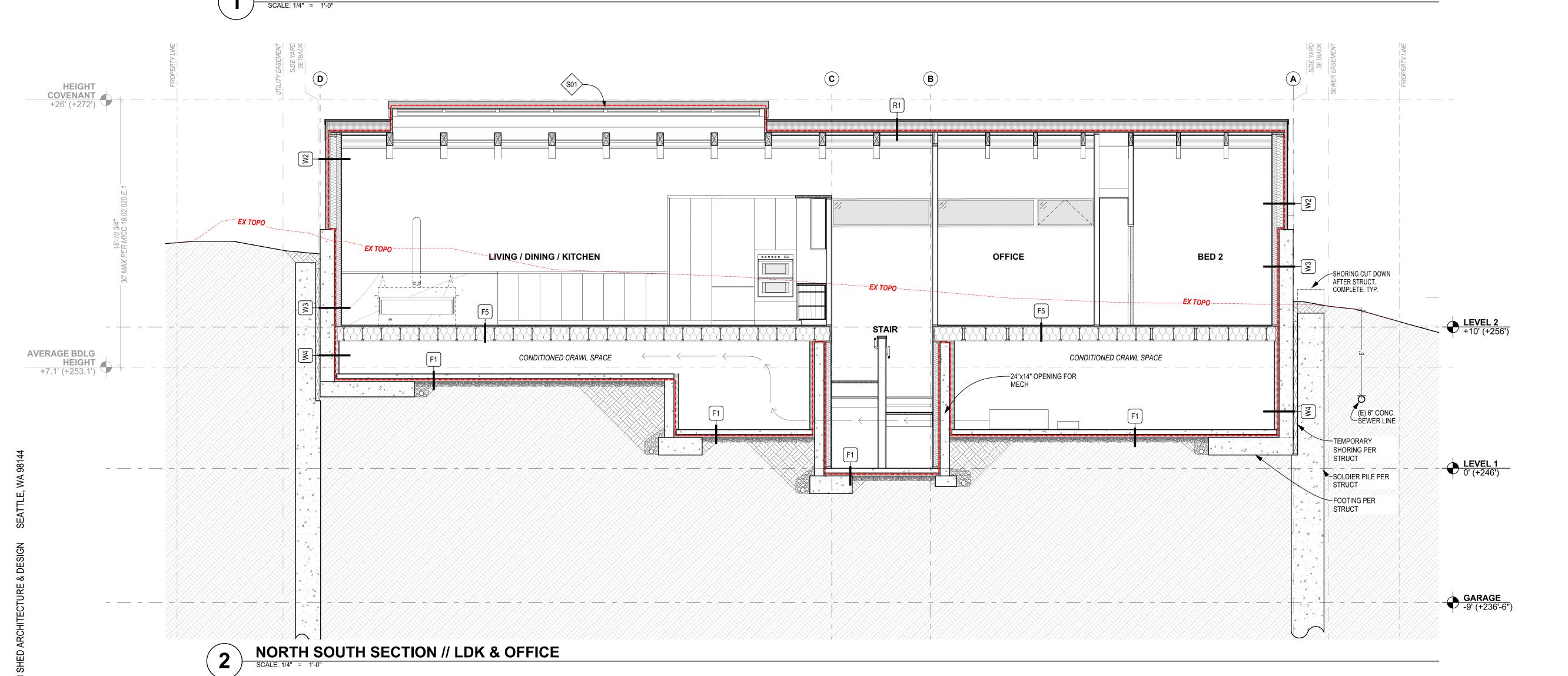
## SULLIVAN

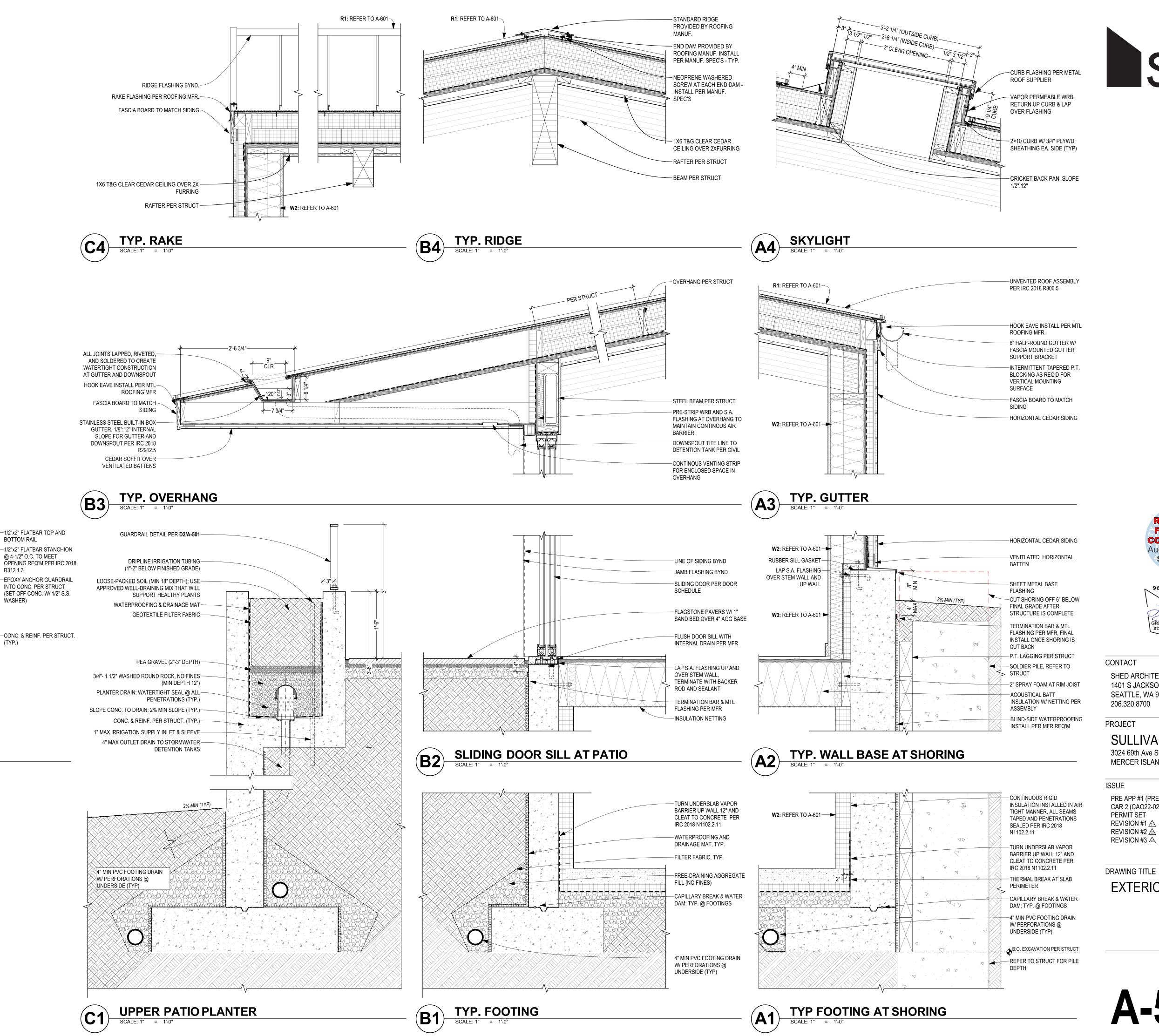
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REVISION #3 🗟	2023.07.27

#### DRAWING TITLE

**BLDG SECTIONS** 





**BOTTOM RAIL** 

R312.1.3

WASHER)

(TYP.)

PER STRUCT

UPPER PATIO CONC WALL & BENCH

SCALE: 1" = 1'-0"

@ 4-1/2" O.C. TO MEET

INTO CONC. PER STRUCT

A-501

**EXTERIOR DETAILS** 

FOR CODE

COMPLIANCE

August 11, 2023

SITE COPY

REGISTERED

ARCHITECT

DATE

2022.08.16

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35 Ahi//L

GREGORY C SHIFFLER

STATE OF WASHINGTON

SHED ARCHITECTURE & DESIGN

1401 S JACKSON ST

SEATTLE, WA 98144

206.320.8700

SULLIVAN

3024 69th Ave SE

MERCER ISLAND, WA 98040

PRE APP #1 (PRE22-0433)

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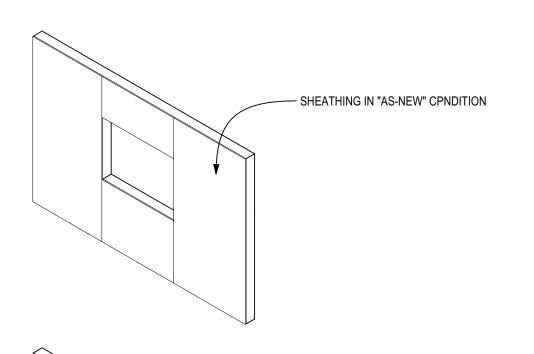
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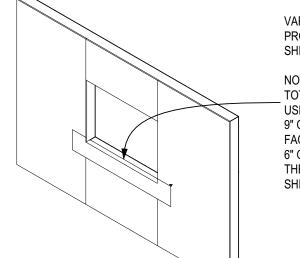
REVISION #1 🔬

REVISION #2 🔬

REVISION #3 🔬

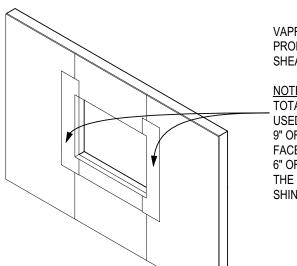
SHED





VAPRO FLASHING SA SELF-ADHERED PROPERLY SHINGLED APPLIED DIRECTLY TO SHEATHING AND FOLDED 2.75" INSIDE OF R.O.

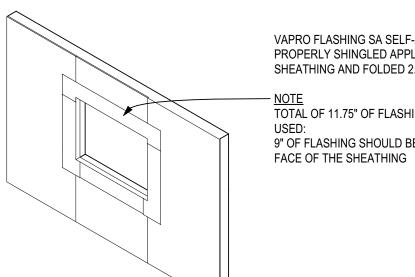
TOTAL OF 11.75" OF FLASHING SHOULD BE 9" OF FLASHING SHOULD BE LEFT ON THE FACE OF THE SHEATHING 6" OF RELEASE FILM FROM THE BOTTOM OF THE FLASHING TO BE LEFT ATTACHED FOR SHINGLING OVER MEMBRANE.



VAPRO FLASHING SA SELF-ADHERED PROPERLY SHINGLED APPLIED DIRECTLY TO SHEATHING AND FOLDED 2.75" INSIDE OF R.O.

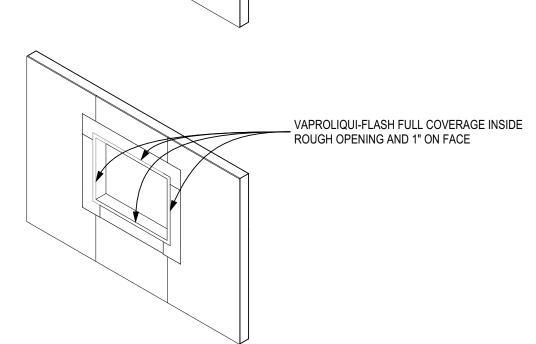
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9" OF FLASHING SHOULD BE LEFT ON THE FACE OF THE SHEATHING 6" OF RELEASE FILM FROM THE BOTTOM OF THE FLASHING TO BE LEFT ATTACHED FOR SHINGLING OVER MEMBRANE.

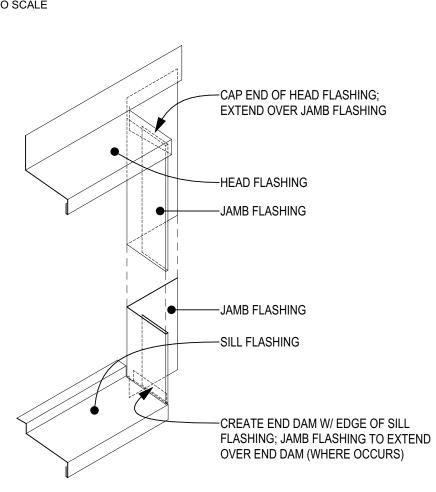


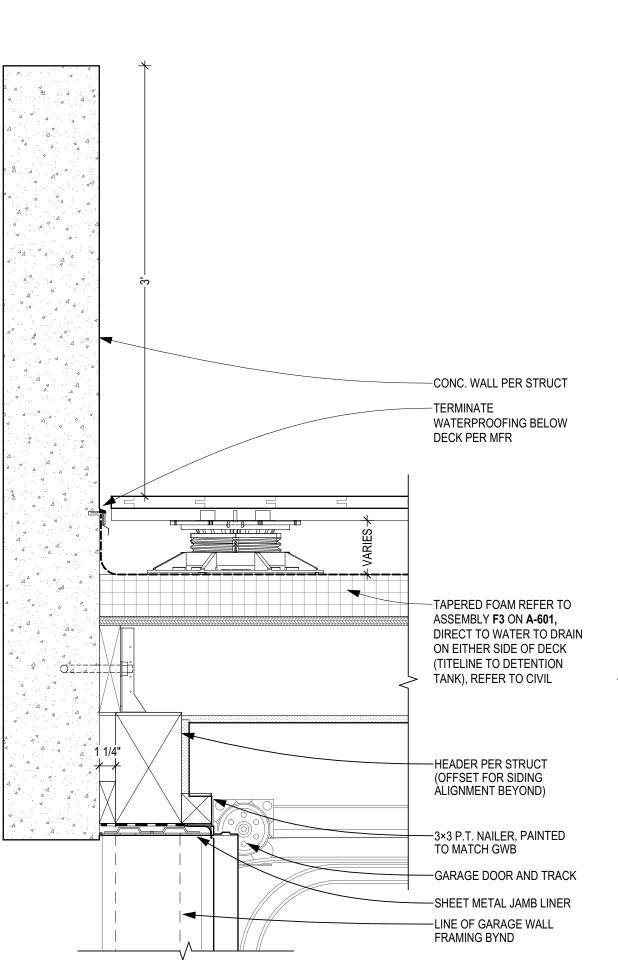
VAPRO FLASHING SA SELF-ADHERED PROPERLY SHINGLED APPLIED DIRECTLY TO SHEATHING AND FOLDED 2.75" INSIDE OF R.O.

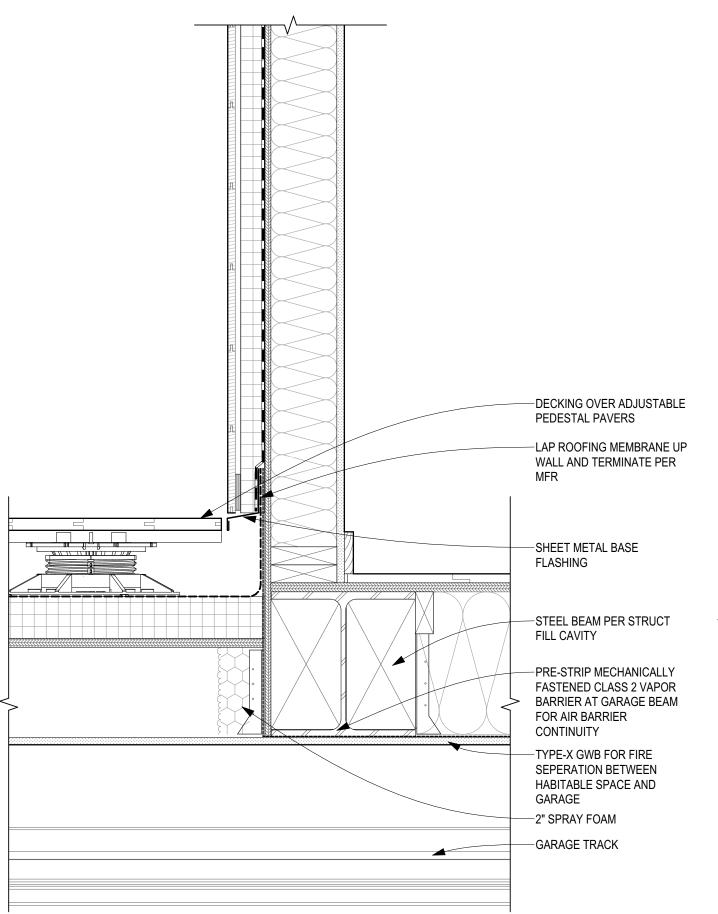
TOTAL OF 11.75" OF FLASHING SHOULD BE 9" OF FLASHING SHOULD BE LEFT ON THE

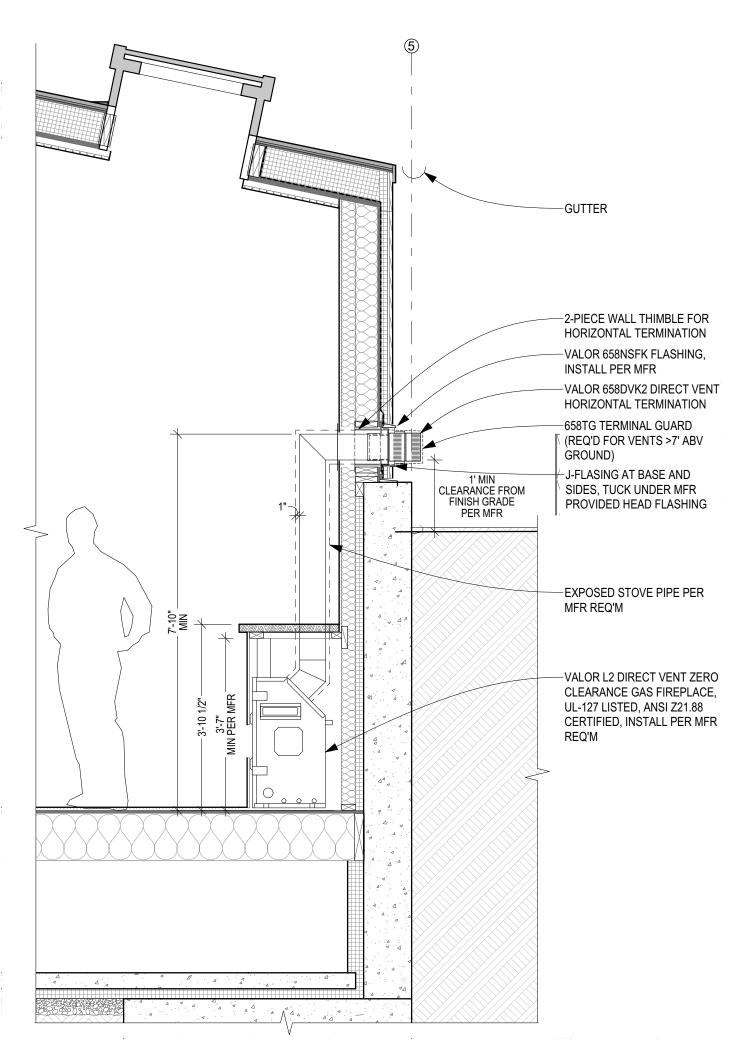


## TYP. ROUGH OPENING PREP









SECTION THROUGH FIREPLACE

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



SHED

REGISTERED ARCHITECT 35 Ahi//L

CONTACT

-REFER TO GUARDRAIL DTLS

-WALL CAP FLASHING BELOW

ON **D2/A-501** 

DECKING

SHED ARCHITECTURE & DESIGN 1401 S JACKSON ST SEATTLE, WA 98144 206.320.8700

PROJECT

SULLIVAN

3024 69th Ave SE MERCER ISLAND, WA 98040

ISSUE DATE PRE APP #1 (PRE22-0433) 2022.08.16 CAR 2 (CAO22-023) 2022.12.08 2023.01.20 PERMIT SET REVISION #1 🔬 2023.05.26 2023.07.07 REVISION #2 🛆 REVISION #3 🔬 2023.07.27

DRAWING TITLE **EXTERIOR DETAILS** 

-TERMINATE WATERPROOFING BELOW DECK PER MFR -1/8" SHEET METAL FASCIA OVER VENTILATED BATTENS -UPTURNED BEAM PER STRUCT -3/8"X5"X9" STEEL BRACKET @ SPACING PER STRUCT, WELD STANCHIONS AND BOTTOM RAIL TO BRACKET -1/8" PAINTED SHEET METAL SOFFIT SET ON 1/2" HAT CHANELS TO PROVIDE **AIRFLOW** 

**GUEST PORCH AT CONC WALL** 



B1) GUEST PORCH AT FRAMED WALL

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

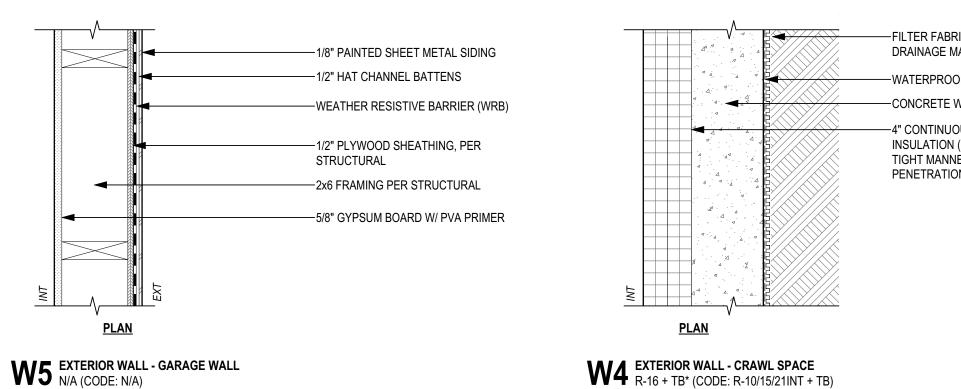


GUEST PORCH GUARD RAIL

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

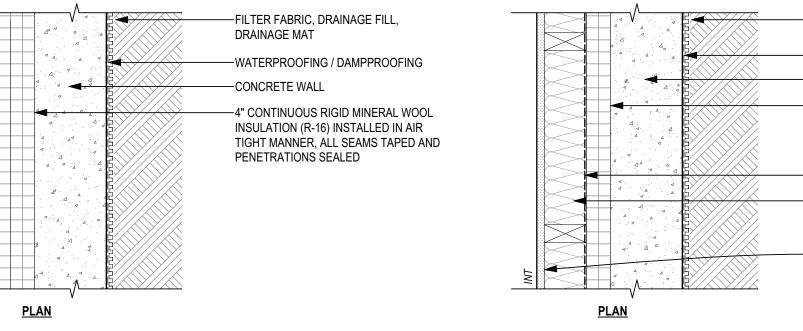
### WALL ASSEMBLIES

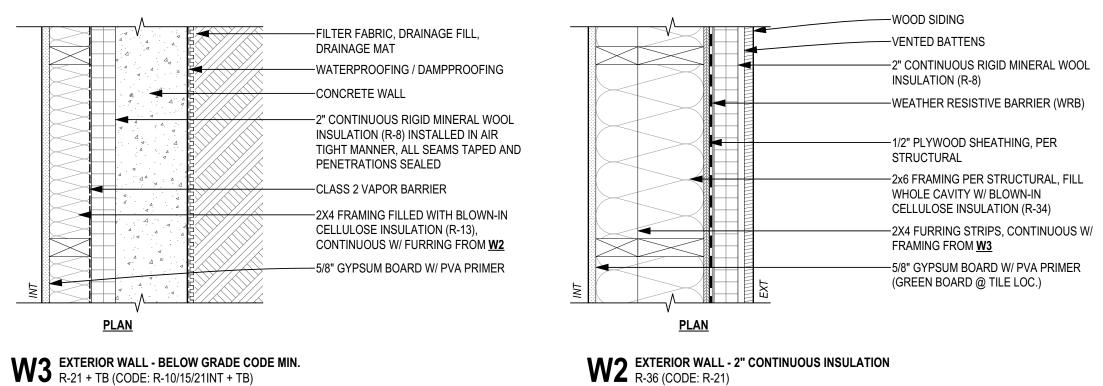
ISHED

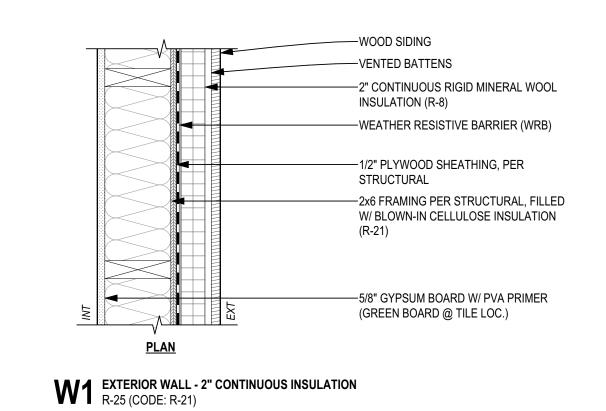


\*PROVIDE CONTINOUS 2" MINERAL WOOL (R-8) THERMAL BREAK BETWEEN FLOOR

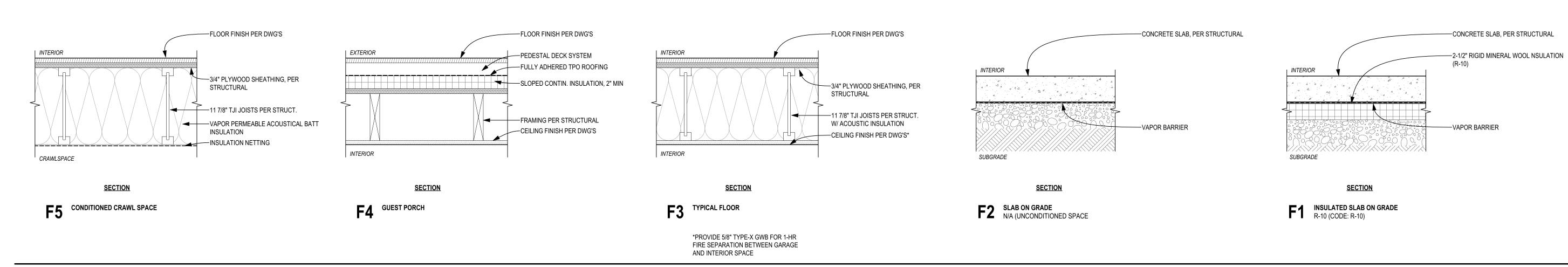
SLAB AND STEM WALL







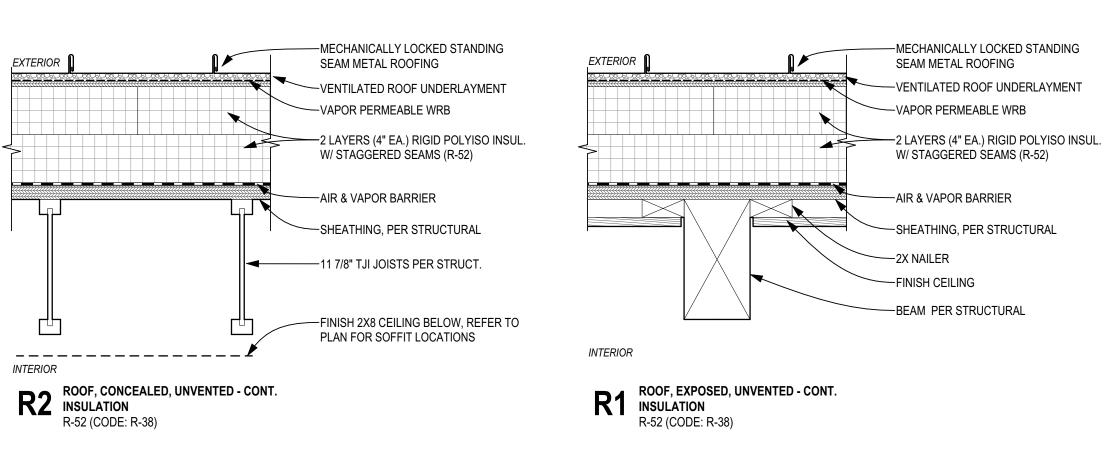
### FLOOR ASSEMBLIES



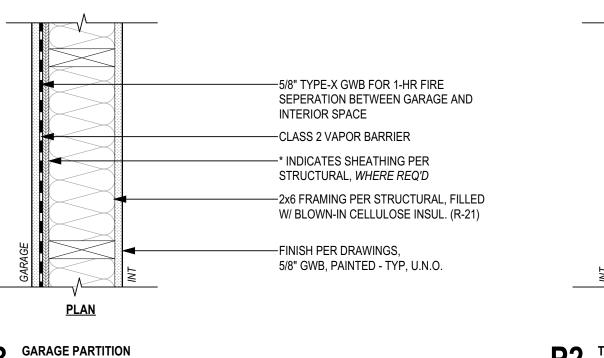
\*PROVIDE CONTINOUS 2" MINERAL WOOL (R-8) THERMAL BREAK BETWEEN FLOOR

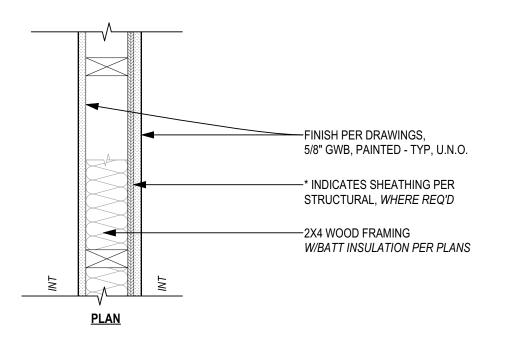
SLAB AND STEM WALL

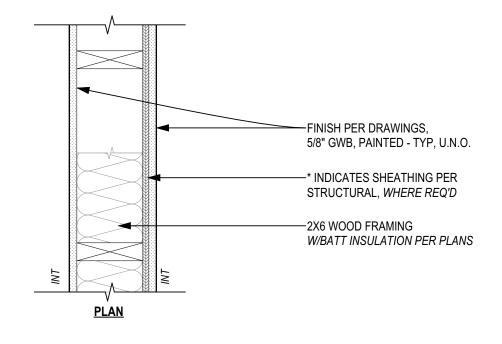
### **ROOF ASSEMBLIES**



**PARTITION ASSEMBLIES** 







P2 TYP. 2X4 INTERIOR PARTITION

TYP. 2X6 INTERIOR PARTITION

TYPICAL ASSEMBLIES

FOR CODE

COMPLIANCE August 11, 2023 SITE COPY

REGISTERED

ARCHITECT

DATE

2022.08.16 2022.12.08

2023.01.20

2023.05.26

2023.07.07

2023.07.27

GREGORY C SHIFFLER

SHED ARCHITECTURE & DESIGN

1401 S JACKSON ST SEATTLE, WA 98144

206.320.8700

SULLIVAN

3024 69th Ave SE

MERCER ISLAND, WA 98040

PRE APP #1 (PRE22-0433)

CAR 2 (CAO22-023) PERMIT SET

REVISION #1 🔬

REVISION #2 🛆

REVISION #3 🔬

DRAWING TITLE

CONTACT

**PROJECT** 

ISSUE

#### WINDOW & SKYLIGHT SCHEDULE

	TAG	MANUF.	MODEL	OPERATION	UNIT	SIZE	SILL		ENEF	RGY DATA	SCREEN	SAFETY	EGRESS	NOTES
	IAG	MANUF.	MODEL	OPERATION	WIDTH	HEIGHT	HEIGHT	U-VALUE	SHGC	NFRC #	SCREEN	GLAZING	EGRESS	NOTES
LEVEL 1														
	1.1	CUSTOM		FIXED	1'-11"	7'-4 1/4"	1'-6"					S.G.		EXEMPTION PER WSEC R402.3.3 TAKEN FOR U-VALUE AND SHGC REQ'M, LESS THAN 15SQFT
LEVEL 2		•	•											
	2.1	FLEETWOOD	450-T	FIXED	4'-0"	7'-2"	3'-10 1/2"	0.28	0.23	FLE-M-113-00079-00001				
	2.2	FLEETWOOD	450-T	FIXED	7'-0"	2'-0"	7'-1/4"	0.28	0.23	FLE-M-113-00079-00001				
	2.3a	FLEETWOOD	450-T	FIXED	7'-0"	2'-0"	7'-1/4"	0.28	0.23	FLE-M-113-00079-00001				
	2.3b	FLEETWOOD	450-T	AWNING	4'-1/2"	2'-0"	7'-1/4"	0.28	0.23	FLE-M-112-00113-00001				
	2.4	FLEETWOOD	450-T	CSMT. OUT	4'-0"	5'-4"	3'-8 1/4"	0.28	0.24	FLE-M-111-00113-00001			E.G.	
	2.5	FLEETWOOD	450-T	CSMT. OUT	1'-11"	5'-4"	3'-8 1/4"	0.28	0.24	FLE-M-111-00113-00001				
	2.6	FLEETWOOD	450-T	CSMT. OUT	2'-10"	4'-3"	3'-1/2"	0.28	0.24	FLE-M-111-00113-00001		S.G.		
	2.7a	FLEETWOOD	450-T	CSMT. OUT	2'-0"	5'-2 3/4"	2'-3/4"	0.28	0.24	FLE-M-111-00113-00001		S.G.		
	2.7b	FLEETWOOD	450-T	FIXED	3'-2"	5'-2 3/4"	2'-3/4"	0.28	0.23	FLE-M-113-00079-00001		S.G.		
	2.8a	FLEETWOOD	450-T	CSMT. OUT	3'-4 1/2"	5'-2 3/4"	2'-3/4"	0.28	0.24	FLE-M-111-00113-00001		S.G.	E.G.	
	2.8b	FLEETWOOD	450-T	FIXED	3'-4 1/2"	5'-2 3/4"	2'-3/4"	0.28	0.23	FLE-M-113-00079-00001		S.G.		
	2.8c	FLEETWOOD	450-T	FIXED	3'-4 1/2"	5'-2 3/4"	2'-3/4"	0.28	0.23	FLE-M-113-00079-00001		S.G.		
	2.8d	FLEETWOOD	450-T	FIXED	3'-5 1/2"	5'-2 3/4"	2'-3/4"	0.28	0.23	FLE-M-113-00079-00001		S.G.		
	2.9	FLEETWOOD	450-T	CSMT. OUT	3'-4"	5'-2 3/4"	2'-3/4"	0.28	0.24	FLE-M-111-00113-00001		S.G.		
	2.10	FLEETWOOD	450-T	FIXED	7'-0"	10'-10"	0"	0.28	0.23	FLE-M-113-00079-00001		S.G.		
SKYLIGHT														
	S01	CRYSTALITE	3962	FIXED	26'-8"	3'-2"		0.44	0.23	CRY-M-6-00520-00001		S.G.		

### DOOR SCHEDULE - EXTERIOR

	TAC	MALINE	TVDE/MODEL	OPERATION	UNIT	SIZE			ENERGY DATA	CODEEN	SAFETY	EGRESS	HARDV	VARE	ACCESSORY NOTES
	TAG	MAUNF.	TYPE/MODEL	OPERATION	WIDTH	HEIGHT	U-VALUE	SHGC	NFRC #	SCREEN	GLAZING	EGRESS	GROUP/SET	TYPE	ACCESSORY NOTES
GARAGE															
	E0.1	TBD	FLUSH, SC	SWING	3'-0"	7'-0"									
	E0.2	TBD	GARAGE	SECTIONAL	16'-0"	7'-10"									
LEVEL 1															
	E1.1	CUSTOM	SITE-BUILT	SWING	3'-6"	8'-8"									
	E1.2	FLEETWOOD	4070-T	SLIDER	6'-4"	7'-6"	0.28	0.23	FLE-M-109-00142-00001		S.G.	E.G.			
	E1.3	FLEETWOOD	4070-T	SLIDER	6'-4"	7'-6"	0.28	0.23	FLE-M-109-00142-00001		S.G.	E.G.			
LEVEL 2															
	E2.1	FLEETWOOD	4070-T	SLIDER	24'-1"	11'-0"	0.28	0.24	FLE-M-109-00142-00001		S.G.				

### DOOR SCHEDULE - INTERIOR

				UNIT SIZE			DOOR		FRA	ME	HARDV	NARE		
	TAG	OPERATION	WIDTH	HEIGHT	THICK	PANEL	MATERIAL	FINISH	MATERIAL	FINISH	GROUP/SET	TYPE	- ACCESSORY	NOTES
RAGE			WIDTH	HEIGHT	mon	IANLL	MATERIAL	i iidioii	MATERIAL	1 1111011	OKOOI /OLI			
RAGE	004	0.4/0.10	01.011	<b>-</b> 1.01	1.0.00		DT 00 405	DT 4	DT 00.05	DT /				
	001	SWING	3'-0"	7'-0"	1 3/8"	FLUSH, SC	PT GRADE	PT-1	PT GRADE	PT-1				20MIN SOLID CORE DOOR TO COMPLY WITH R302.5.1
	002	SWING	2'-8"	7'-0"	1 3/8"	FLUSH, SC	PT GRADE	PT-1	PT GRADE	PT-1				
	003	SWING	2'-8"	7'-0"	1 3/8"	FLUSH, SC	PT GRADE	PT-1	PT GRADE	PT-1				
	004	SWING	3'-0"	7'-0"	1 3/8"	FLUSH, SC	PT GRADE	PT-1	PT GRADE	PT-1				
VEL 1														
	101	SWING	1'-10"	5'-5"	1 3/8"	FLUSH, SC	PT GRADE	PT-1	PT GRADE	PT-1				
	102	SWING	2'-8"	7'-0"	1 3/8"	FLUSH, SC	PT GRADE	PT-1	PT GRADE	PT-1				
	103	POCKET	4'-11 1/2"	7'-0"	1 3/8"	FLUSH, SC	PT GRADE	PT-1	PT GRADE	PT-1				
	104	BYPASS	7'-0"	7'-0"	1 3/8"	FLUSH, SC	PT GRADE	PT-1	PT GRADE	PT-1				
	105	SWING	2'-8"	7'-0"	1 3/8"	FLUSH, SC	PT GRADE	PT-1	PT GRADE	PT-1				
	106	BYPASS	5'-0"	7'-0"	1 3/8"	FLUSH, SC	PT GRADE	PT-1	PT GRADE	PT-1				
	107	POCKET	2'-4"	7'-0"	1 3/8"	FLUSH, SC	PT GRADE	PT-1	PT GRADE	PT-1				
	108	SWING	2'-8"	7'-0"	1 3/8"	FLUSH, SC	PT GRADE	PT-1	PT GRADE	PT-1				
	109	SWING	1'-10"	7'-0"	1 3/8"	FLUSH, SC	PT GRADE	PT-1	PT GRADE	PT-1				
VEL 2														
	201	POCKET	2'-8"	7'-0"	1 3/8"	FLUSH, SC	PT GRADE	PT-1	PT GRADE	PT-1				
	202	BYPASS	4'-8"	7'-0"	1 3/8"	FLUSH, SC	PT GRADE	PT-1	PT GRADE	PT-1				
	203	SWING	2'-8"	7'-0"	1 3/8"	FLUSH, SC	PT GRADE	PT-1	PT GRADE	PT-1				
	204	BYPASS	4'-8"	7'-0"	1 3/8"	FLUSH, SC	PT GRADE	PT-1	PT GRADE	PT-1				
		POCKET	2'-8"	7'-0"	1 3/8"	FLUSH, SC	PT GRADE	PT-1	PT GRADE	PT-1				
	206	SWING	2'-8"	7'-0"	1 3/8"	FLUSH, SC	PT GRADE	PT-1	PT GRADE	PT-1				
	207	SWING	2'-8"	7'-0"	1 3/8"	FLUSH, SC	PT GRADE	PT-1	PT GRADE	PT-1				
	208	SWING	2'-8"	7'-0"	1 3/8"	FLUSH, SC	PT GRADE	PT-1	PT GRADE	PT-1				
	209	POCKET	2'-8"	7'-0"	1 3/8"	FLUSH, SC	PT GRADE	PT-1	PT GRADE	PT-1				
		POCKET	2'-8"	7'-0"	1 3/8"	FLUSH, SC	PT GRADE	PT-1	PT GRADE	PT-1				







#### CONTACT

SHED ARCHITECTURE & DESIGN 1401 S JACKSON ST SEATTLE, WA 98144 206.320.8700

### PROJECT

SULLIVAN 3024 69th Ave SE MERCER ISLAND, WA 98040

1550E	DATE
PRE APP #1 (PRE22-0433)	2022.08.16
CAR 2 (CAO22-023)	2022.12.08
PERMIT SET	2023.01.20
REVISION #1 🕰	2023.05.26
REVISION #2 🙆	2023.07.07
REVISION #3 🙆	2023.07.27

DRAWING TITLE
SCHEDULES

#### CRITERIA

- 1. ALL MATERIALS, WORKMANSHIP, DESIGN, AND CONSTRUCTION SHALL CONFORM TO THE DRAWINGS, SPECIFICATIONS, THE INTERNATIONAL BUILDING CODE (2018 EDITION), & CITY OF MERCER ISLAND MODIFICATIONS TO THE INTERNATIONAL BUILDING CODE.
- 2. DESIGN LOADING CRITERIA:

FLOOR LIVE LOAD (RESIDENTIAL)	
WIND: BASIC WIND SPEED (3-SECOND GUST) 100 MPH WIND IMPORTANCE FACTOR (Iw)	
EARTHQUAKE:  LAT. / LONG	
DESIGN BASE SHEAR	

REFERENCE: USGS NATIONAL SEISMIC HAZARD MAPPING PROJECT, 2008 DATA

SEISMIC RESPONSE COEFICIENT (Cs) . . . . . . . . . . . . . . . . 0.160

RESPONSE MODIFICATION FACTOR (R) . . . . . . . . . . . . 6.5

ANALYSIS PROCEDURE . . . . . . . . . . . . EQUIVALENT LATERAL FORCE

- 3. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS FOR BIDDING AND CONSTRUCTION. CONTRACTOR SHALL VERIFY DIMENSIONS AND CONDITIONS FOR COMPATIBILITY AND SHALL NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
- 4. CONTRACTOR SHALL DETERMINE THE LOCATION OF ALL ADJACENT UNDERGROUND UTILITIES PRIOR TO COMMENCING EXCAVATION. THE CONTRACTOR SHALL BRING ALL CONFLICTS AND DISCREPANCIES TO THE ATTENTION OF THE ARCHITECT AND STRUCTURAL ENGINEER.
- 5. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS BEFORE COMMENCING ANY DEMOLITION. SHORING SHALL BE INSTALLED TO SUPPORT EXISTING CONSTRUCTION AS REQUIRED AND IN A MANNER SUITABLE TO THE WORK SEQUENCES. EXISTING REINFORCING SHALL BE RETAINED UNDAMAGED WHERE NOTED ON THE PLANS. DEMOLITION DEBRIS SHALL NOT BE ALLOWED TO DAMAGE OR OVERLOAD THE EXISTING STRUCTURE. LIMIT CONSTRUCTION LOADING (INCLUDING DEMOLITION DEBRIS) ON EXISTING FLOOR SYSTEMS TO 40 PSF. ALL NEW OPENINGS THROUGH EXISTING CONCRETE OR MASONRY WALLS, SLABS AND BEAMS SHALL BE ACCOMPLISHED BY SAW CUTTING WHEREVER POSSIBLE.
- 6. CONTRACTOR SHALL PROVIDE TEMPORARY BRACING FOR THE STRUCTURE AND STRUCTURAL COMPONENTS UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH THE PLANS.

- 7. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES REQUIRED TO PERFORM THE WORK. THE STRUCTURAL ENGINEER HAS NO OVERALL SUPERVISORY AUTHORITY OR ACTUAL AND/OR DIRECT RESPONSIBILITY FOR THE SPECIFIC WORKING CONDITIONS AT THE SITE AND/OR FOR ANY HAZARDS RESULTING FROM THE ACTIONS OF ANY TRADE CONTRACTOR. THE STRUCTURAL ENGINEER HAS NO DUTY TO INSPECT, SUPERVISE, NOTE, CORRECT, OR REPORT ANY HEALTH OR SAFETY DEFICIENCIES OF THE OWNER, CONCONTRACTORS, OR OTHER ENTITIES OR PERSONS AT THE PROJECT SITE.
- 8. SPECIAL INSPECTION OF THE FOLLOWING TYPES OF CONSTRUCTION SHALL BE PROVIDED IN ACCORDANCE WITH SECTIONS 109 AND 1704 OF THE INTERNATIONAL BUILDING CODE AND THE PROJECT SPECIFICATIONS BY A QUALIFIED TESTING AGENCY DESIGNATED BY THE ARCHITECT, AND RETAINED BY THE BUILDING OWNER. THE ARCHITECT, STRUCTURAL ENGINEER, AND BUILDING DEPARTMENT SHALL BE FURNISHED WITH COPIES OF ALL INSPECTION AND TEST RESULTS.
- A. CONCRETE RETAINING WALL CONSTRUCTION
- B. STRUCTURAL STEEL FABRICATION AND ERECTION (INCLUDING FIELD WELDING AND HIGH-STRENGTH FIELD BOLTING)
- C. AUGERCAST PILE, CAISSON, OR DRIVEN PILE INSTALLATION
- 9. STRUCTURAL OBSERVATION SHALL BE PERFORMED IN ACCORDANCE WITH SECTIONS 1702 AND 1709 OF THE LOCAL OR INTERNATIONAL BUILDING CODE FOR THOSE STRUCTURAL ELEMENTS THAT FORM THE LATERAL-FORCE-RESISTING SYSTEM, AS FOLLOWS:
  - A. PLYWOOD ROOF AND FLOOR DIAPHRAGMS, INCLUDING COLLECTORS
    B. PLYWOOD SHEARWALLS, INCLUDING STRAPS AND HOLDOWNS

THE CONTRACTOR SHALL PROVIDE THE ENGINEER OF RECORD ADEQUATE NOTICE TO SCHEDULE APPROPRIATE SITE VISITS FOR STRUCTURAL OBSERVATION, AS FOLLOWS:

- A. DURING FOUNDATION AND CONCRETE CONSTRUCTION -AFTER REBAR, HOLDOWN AND ANCHOR BOLT PLACEMENT, BUT PRIOR TO CONCRETE PLACEMENT.
- B. DURING FRAMING -AFTER HOLDOWN AND STRAP INSTALLATION, AND AFTER SHEARWALL AND DIAPHRAGM NAILING, BUT PRIOR TO COVER WITH INTERIOR OR EXTERIOR FINISHES, INCLUDING ROOFING AND BUILDING PAPER.
- C. DURING STEEL CONSTRUCTION -AFTER STEEL ERECTION AND WELDING, BUT PRIOR TO COVER WITH FINISHES OR OTHER STRUCTURE SUCH AS NAILERS.

STRUCTURAL OBSERVATION MEANS THE VISUAL OBSERVATION OF THE STRUCT-URAL SYSTEM BY THE REGISTERED DESIGN PROFESSIONAL FOR GENERAL CONFORMANCE TO THE APPROVED CONSTRUCTION DOCUMENTS. STRUCTURAL OBSERVATION DOES NOT INCLUDE OR WAIVE THE RESPONSIBILITY FOR THE INSPECTIONS REQUIRED BY SECTION 110, 1704 OR OTHER SECTIONS OF THE CODE. THE OWNER SHALL EMPLOY THE ENGINEER RESPONSIBLE FOR THE STRUCTURAL DESIGN TO PERFORM STRUCTURAL OBSERVATION.

OBSERVED DEFICIENCIES WILL BE REPORTED IN WRITING TO THE ARCHITECT AND CONTRACTOR. RECOMMENDATIONS FOR MITIGATION OF DEFICIENCIES WILL BE INCLUDED IN THESE REPORTS. THE CONTRACTOR SHALL MITIGATE ANY DEFICIENCIES FOUND AND PROVIDE THE ENGINEER OF RECORD ADEQUATE NOTICE TO SCHEDULE APPROPRIATE SITE VISITS TO OBSERVE THE MITIGATION OF THE DEFICIENCIES.

AT THE CONCLUSION OF THE WORK INCLUDED IN THE PERMIT, THE STRUCTURAL OBSERVER WILL SUBMIT TO THE BUILDING OFFICIAL A WRITTEN STATEMENT THAT THE SITE VISITS NOTED ABOVE HAVE BEEN MADE AND WILL IDENTIFY ANY REPORTED DEFICIENCIES WHICH TO THE BEST OF THE STRUCTURAL OBSERVERZS KNOWLEDGE HAVE NOT BEEN MADE.

- 10. SHOP DRAWINGS FOR THE FOLLOWING ITEMS SHALL BE SUBMITTED TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR REVIEW PRIOR TO FABRICATION OF THESE ITEMS.
- A. STRUCTURAL STEEL
- B. GLUED LAMINATED MEMBERS
- C. PLYWOOD WEB JOISTS

APPROVED SETS OF ALL SHOP DRAWINGS SHALL ALSO BE SUBMITTED TO THE BUILDING DEPARTMENT.

#### GEOTECHNICAL

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

SOILS REPORT REFERENCE: COBALT GEOSCIENCES 3024 69TH AVE SE REPORT UPDATED JUNE 27, 2023

#### CONCRETE

12. CONCRETE SHALL BE MIXED, PROPORTIONED, CONVEYED AND PLACED IN ACCORDANCE WITH IBC SECTION 1905 AND ACI 301. CONCRETE SHALL ATTAIN A 28DAY STRENGTH OF F'C = 2,500 PSI. THE CONCRETE MIX SHALL CONTAIN A MAXIMUM OF 330 POUNDS OF CEMENT PER CUBIC YARD AND SHALL HAVE A HIGH (30 PERCENT OR MORE) SCM (SUPPLEMENTARY CEMENTITIOUS MATERIALS, SUCH AS FLYASH OR SLAG) CONTENT. CEMENT SHALL BE A BLENDED HYDRAULIC CEMENT CONFORMING TO ASTM C595.

A CONCRETE PERFORMANCE MIX SHALL BE SUBMITTED TO THE ARCHITECT, STRUCTURAL ENGINEER AND THE BUILDING DEPARTMENT FOR APPROVAL TWO WEEKS PRIOR TO PLACING ANY CONCRETE. THE CONCRETE PERFORMANCE MIX SHALL INCLUDE THE AMOUNTS OF CEMENT, SUPPLEMENTARY CEMENTITIOUS MATERALS, FINE AND COARSE AGGREGATE, WATER AND ADMIXTURES AS WELL AS THE WATER CEMENT RATIO, SLUMP, CONCRETE YIELD & SUBSTANTIATING STRENGTH DATA IN ACCORDANCE WITH ARTICLE 4. 2. 3 OF ACI 301. REVIEW OF MIX SUBMITTALS BY THE ENGINEER OF RECORD INDICATES ONLY THAT INFORMATION PRESENTED CONFORMS GENERALLY WITH CONTRACT DOCUMENTS. CONTRACTOR OR SUPPLIER MAINTAINS FULL RESPONSIBILITY FOR SPECIFIED PERFORMANCE.

ALL CONCRETE WITH SURFACES EXPOSED TO STANDING WATER SHALL BE AIR - ENTRAINED WITH AN AIR ENTRAINING AGENT CONFORMING TO ASTM C260, C494, AND C618. TOTAL AIR CONTENT SHALL BE IN ACCORDANCE WITH TABLE 19.3.2.1 OF THE ACI 318.

13. REINFORCING STEEL SHALL CONFORM TO ASTM A615 (INCLUDING SUPPLEMENT S1), GRADE 60, FY = 60,000 PSI. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185.

- 14. REINFORCING STEEL SHALL BE DETAILED (INCLUDING HOOKS AND BENDS) IN ACCORDANCE WITH ACI 318. LAP ALL CONTINUOUS REINFORCEMENT 40 BAR DIAMETERS OR 2'0" MINIMUM. PROVIDE CORNER BARS AT ALL WALL AND FOOTING INTERSECTIONS. LAP CORNER BARS 40 BAR DIAMETERS OR 2'0" MINIMUM. LAP ADJACENT MATS OF WELDED WIRE FABRIC A MINIMUM OF 8" AT SIDES AND ENDS.
- 16. NON-SHRINK GROUT SHALL BE FURNISHED BY AN APPROVED MANUFACTURER AND SHALL BE MIXED AND PLACED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S PUBLISHED RECOMMENDATIONS. GROUT STRENGTH SHALL BE AT LEAST EQUAL TO THE MATERIAL ON WHICH IT IS PLACED (3000 PSI MINIMUM).

#### ANCHORAGE

- 17. EXPANSION BOLTS INTO CONCRETE AND GROUTED MASONRY UNITS SHALL BE "STRONG-BOLT" ANCHORS AS MANUFACTURED BY THE SIMPSON COMPANY AND INSTALLED IN STRICT ACCORDANCE WITH ICC ESR 1771, INCLUDING MINIMUM EMBEDMENT REQUIREMENTS.
- 18. EPOXY-GROUTED ITEMS SPECIFIED ON THE DRAWINGS SHALL BE GROUTED WITH "SET-XP" HIGH STRENGTH EPOXY AS MANUFACTURED BY THE SIMPSON COMPANY AND INSTALLED IN STRICT ACCORDANCE WITH ICC ESR 2508.
- 19. TITEN HD ANCHORS SPECIFIED ON THE DRAWINGS SHALL CONSIST OF "TITEN HD" HEAVY DUTY SCREW ANCHORS AS MANUFACTURED BY THE SIMPSON COMPANY AND INSTALLED IN STRICT ACCORDANCE WITH ICC ESR 2713.

#### STEEL

- 20. STRUCTURAL STEEL DESIGN, FABRICATION, AND ERECTION SHALL BE BASED ON THE LATEST EDITIONS OF THE AISC SPECIFICATIONS AND CODES:
  - A. SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS (AISC 360)
- B. CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES (AISC 303)
- C. SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS. BOLTS IN SHEAR OR BEARING TYPE CONNECTIONS NEED ONLY BE TIGHTENED TO THE SNUG TIGHT CONDITION PER SECTION 8(C).
- 21. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING MINIMUM STANDARDS.
  PLATES, ANGLES, AND CHANNELS SHALL CONFORM TO ASTM A36, FY = 36 KSI.
  WIDE FLANGE SHAPES SHALL CONFORM TO ASTM A992, FY = 50 KSI. STEEL
  PIPE SHALL CONFORM TO ASTM A53, TYPE E OR S, GRADE B, FY = 35 KSI.
  SQUARE OR RECTANGULAR STRUCTURAL TUBING SHALL CONFORM TO ASTM A500,
  GRADE B, FY = 46 KSI. ANCHOR BOLTS AND CONNECTION BOLTS SHALL CONFORM
  TO ASTM A307. THREADED ROD AND STUDS SHALL CONFORM TO ASTM A36.
- 22. ALL WELDING SHALL BE IN CONFORMANCE WITH AISC AND AWS STANDARDS AND SHALL BE PERFORMED BY WABO CERTIFIED WELDERS USING E70XX ELECTRODES. ONLY PREQUALIFIED WELDS (AS DEFINED BY AWS) SHALL BE USED.

#### HV

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SHED Architecture & Design 1404 S Jackson Street Seattle, WA 98144

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Sullivan Residence

Mercer Island, WA 98040

 Issue Date
 Issue Description

 01/20/2023
 Permit

 05/18/2023
 Corrections

 07/04/2023
 Corrections

 07/20/2023
 Corrections

Building Department Approval

Drawing Title

GENERAL STRUCTURAL

awing Number

NOTES

**S1.0** 

LLIVAN RESIDENCE

#### WOOD

FORMANCE WITH WCLIB STANDARD GRADING RULES FOR WEST COAST LUMBER NO. 17, LATEST EDITION. FURNISH TO THE FOLLOWING MINIMUM STANDARDS:

JOISTS: (2X MEMBERS) HEM-FIR NO. 2 MINIMUM BASE VALUE, FB = 850 PSI (3X & 4X MEMBERS) DOUGLAS FIR NO. 1 MINIMUM BASE VALUE, FB = 1000 PSI STRUCTURAL LIGHT FRAMING: DOUGLAS FIR NO. 2

(INCL. 3X AND 4X POSTS) MINIMUM BASE VALUE, FB = 900 PSI

BEAMS AND STRINGERS: DOUGLAS FIR NO. 1

(INCL. 6X AND LARGER) MINIMUM BASE VALUE, FB = 1350 PSI

POSTS AND TIMBERS: DOUGLAS FIR NO. 1 (6X6 AND LARGER) MINIMUM BASE VALUE, FC = 1000 PSI

STUDS, PLATES & MISC. FRAMING: DOUGLAS FIR OR HEM-FIR STANDARD GRADE

2X6 STUDS AND PLATES: HEM-FIR NO.3/ STUD GRADE

HEM-FIR COMMERICAL DEX, 2X AND 3X T & G DECKING

MINIMUM BASE VALUE, FB = 1350 PSI

24. GLUED LAMINATED MEMBERS SHALL BE FABRICATED IN CONFORMANCE WITH ASTM AND AITC STANDARDS. EACH MEMBER SHALL BEAR AN AITC IDENTIFICATION MARK AND SHALL BE ACCOMPANIED BY AN AITC CERTIFICATE OF CONFORMANCE. ALL SIMPLE SPAN BEAMS SHALL BE DOUGLAS FIR COMBINATION 24FV4, FB = 2,400 PSI, FV = 165 PSI. ALL CANTILEVERED BEAMS SHALL BE DOUGLAS FIR COMBINATION 24FV8, FB = 2400 PSI, FV = 165 PSI. CAMBER ALL SIMPLE SPAN GLULAM BEAMS TO 2,000' RADIUS, UNLESS SHOWN OTHERWISE ON THE PLANS. ALL COLUMNS SHALL BE DOUGLAS 28. ALL WOOD IN DIRECT CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE-FIR COMBINATION NO. 5, FC = 2400 PSI, E =  $2.0 \times 10E6 \text{ PSI}$ .

25. ENGINEERED LUMBER MEMBERS SHALL BE MANUFACTURED UNDER A PROCESS BY THE NATIONAL RESEARCH BOARD. EACH PIECE SHALL BEAR A STAMP OR STAMPS NOTING THE NAME AND PLANT NUMBER OF THE MANUFACTURER, THE GRADE, THE NATIONAL RESEARCH BOARD NUMBER, AND THE QUALITY CONTROL AGENCY. ALL LUMBER SHALL BE MANUFACTURED IN ACCORDANCE WITH THE APPROPRIATE NER REPORT AND GLUED WITH A WATERPROOF ADHESIVE MEETING THE REQUIREMENTS OF ASTM D2559 WITH ALL GRAIN PARALLEL WITH THE LENGTH OF THE MEMBER.

DESIGN SHOWN ON PLANS IS BASED ON LUMBER MANUFACTURED BY THE WEYERHAUSER CORPORATION. ALTERNATE MANUFACTURERS MAY BE USED SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND STRUCTURAL ENGINEER. ALTERNATE JOIST HANGERS AND OTHER HARDWARE MAY BE SUBSTITUTED FOR ITEMS SHOWN PROVIDED THEY HAVE ICC APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. ALL JOIST HANGERS AND OTHER HARDWARE SHALL BE COMPATIBLE IN SIZE WITH MEMBERS PROVIDED.

ALL PROPOSED HOLE SIZES AND LOCATIONS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR APPROVAL TWO WORKING DAYS PRIOR TO DRILLING HOLES.

23. FRAMING LUMBER SHALL BE KILN DRIED OR MC-15, AND GRADED AND MARKED IN CON- 26. PREFABRICATED PLYWOOD WEB JOIST DESIGN SHOWN ON PLANS IS BASED ON JOISTS MANUFACTURED BY THE WEYERHAUSER CORPORATION AND SHALL BE FURNISHED AND INSTALLED IN CONFORMANCE WITH THE MANUFACTURER'S PUBLISHED SPECIFICATIONS. ALL NECESSARY BRIDGING, BLOCKING, BLOCKING PANELS, STIFFENERS, ETC., SHALL BE DETAILED AND FURNISHED BY THE MANUFACTURER. SUBMIT SHOP DRAWINGS TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR REVIEW PRIOR TO FABRICATION. ALTERNATE PLYWOOD WEB JOIST MANUFACTURERS MAY BE USED SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND STRUCTURAL ENGINEER. ALTERNATE JOIST HANGERS AND OTHER HARDWARE MAY BE SUBSTITUTED FOR ITEMS SHOWN PROVIDED THEY HAVE ICC APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. ALL JOIST HANGERS AND OTHER HARDWARE SHALL BE COMPATIBLE IN SIZE WITH PLYWOOD WEB JOIST PROVIDED.

> ALL HOLES SHALL CONFORM TO THE MANUFACTURERS SPECIFICATIONS. IF THREE OR FEWER HOLES ARE PROPOSED FOR A SINGLE JOIST, HOLES SHALL CONFORM TO THE WEYERHAUSER ILEVEL TJI ALLOWABLE HOLE CHART. IF MORE THEN THREE HOLES ARE PROPOSED FOR ONE SINGLE JOIST, ALL HOLE SIZES AND LOCATIONS SHALL BE SUB-MITTED TO THE STRUCTURAL ENGINEER FOR APPROVAL TWO WORKING DAYS PRIOR TO DRILLING HOLES.

27. PLYWOOD SHEATHING SHALL BE GRADE C-D, EXTERIOR GLUE OR STRUCTURAL II, EXTERIOR GLUE IN CONFORMANCE WITH APA STANDARDS. ORIENTED STRAND BOARD OF EQUIVALENT THICKNESS, EXPOSURE RATING AND SPAN RATING MAY BE USED IN LIEU OF PLYWOOD.

A. ROOF SHEATHING SHALL BE 1-1/8" (NOM.) WITH SPAN RATING 48/24. B. FLOOR SHEATHING SHALL BE 3/4" (NOM.) WITH SPAN RATING 40/20. C. WALL SHEATHING SHALL BE 1/2" (NOM.) WITH SPAN RATING 24/0.

REFER TO WOOD FRAMING NOTES BELOW FOR TYPICAL NAILING.

- TREATED WITH AN APPROVED PRESERVATIVE OR (2) LAYERS OF ASPHALT IMPREGNATED BUILDING PAPER SHALL BE PROVIDED BETWEEN UNTREATED WOOD AND CONCRETE OR MASONRY. ALL WOOD EXPOSED TO WEATHER WITHOUT THE ADEQUATE PROTECTION OF A ROOF OR EAVE SHALL BE AN APPROVED WOOD OF NATURAL RESISTANCE TO DECAY OR PRESSURE TREATED. SUCH MEMBERS INCLUDE HORIZONTAL MEMBERS SUCH AS GIRDERS, JOISTS, AND DECKING; OR VERTICAL MEMBERS SUCH AS POSTS, POLES, AND COLUMNS.
- 29. TIMBER CONNECTORS CALLED OUT BY LETTERS AND NUMBERS SHALL BE "STRONG-TIE" BY SIMPSON COMPANY, AS SPECIFIED IN THEIR MOST RECENT CATALOG. EQUIVALENT DEVICES BY OTHER MANUFACTURERS MAY BE SUBSTITUTED, PROVIDED THEY HAVE ICC APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. PROVIDE NUMBER AND SIZE OF FASTENERS AS SPECIFIED BY MANUFACTURER. CONNECTORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. WHERE CONNECTOR STRAPS CONNECT TWO MEMBERS, PLACE ONE-HALF OF THE NAILS OR BOLTS IN EACH MEMBER. ALL BOLTS IN WOOD MEMBERS SHALL CONFORM TO ASTM A307. PROVIDE WASHERS UNDER THE HEADS AND NUTS OF ALL BOLTS AND LAG SCREWS BEARING ON WOOD. UN-LESS NOTED OTHERWISE, ALL NAILS SHALL BE COMMON. ALL SHIMS SHALL BE SEA-SONED AND DRIED AND THE SAME GRADE (MIN.) AS MEMBERS CONNECTED.

CONNECTORS OUTSIDE OF THE BUILDING ENVELOPE (E.G. EAVES) SHALL BE EITHER STAINLESS STEEL (SST300), POST HOT-DIP GALVANIZED(HDG) OR GALVANIZED WITH A MINIMUM OF 1.850Z ZINC PER SQUARE INCH (ZMAX).

CONNECTORS IN DIRECT CONTACT WITH PRESERVATIVE-TREATED WOOD THAT IS EXPOSED TO WEATHER (E.G. DECKS) SHALL BE STAINLESS STEEL (SST300).

CONNECTORS IN DIRECT CONTACT WITH PRESERVATIVE—TREATED WOOD THAT IS WITHIN THE BUILDING ENVELOPE (E.G. LEDGERS AND SILLS) SHALL BE EITHER STAINLESS STEEL SST300), POST HOT-DIP GALVANIZED(HDG) OR GALVANIZED WITH A MINIMUM OF 1.850Z ZINC PER SQUARE INCH (ZMAX).

FASTENERS USED WITH STAINLESS STEEL CONNECTORS SHALL BE STAINLESS STEEL (TYPE 303, 304, 305, OR 316). FASTENERS FOR HOT-DIP GALVANIZED OR ZMAX CONNECTORS SHALL BE HOT-DIP GALVANIZED.

30. NAILS - NAIL SIZES SPECIFIED ON DRAWINGS ARE BASED ON THE FOLLOWING SPECIFICATIONS:

SIZE	LENGTH	DIAMETE
6D	2"	0. 113"
8D	2-1/2"	0. 131"
10D	3"	0. 148"
12D	3-1/4"	0. 148"
16D	3-1/2"	0. 162"

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

31. STAPLES - THE FOLLOWING STAPLES MAY BE SUBSTITUTED FOR NAILING OF PLYWOOD (APA RATED SHEATHING):

NAIL SIZE	EQUIV. STAPLE	MINIMUM LENGTH
6D	16 GA.	1-3/4"
8D	15 GA.	1-3/4"
10D	13 GA.	1-3/4"

IF CONTRACTOR PROPOSES THE USE OF ALTERNATE STAPLES, THEY SHALL SUBMIT STAPLE SPECIFICATIONS TO THE STRUCTURAL ENGINEER (PRIOR TO CONSTRUCTION) FOR REVIEW AND APPROVAL. STAPLES SHALL BE DRIVEN FLUSH TO FACE OF SHEATHING WITH NO COUNTERSINKING PERMITTED.

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

- B. WALL FRAMING: ALL STUD WALLS SHOWN AND NOT OTHERWISE NOTED SHALL BE 2X4 STUDS @ 16"O.C. AT INTERIOR WALLS AND 2X6 @ 16"O.C. AT EXTERIOR WALLS. TWO STUDS MINIMUM SHALL BE PROVIDED AT THE END OF ALL WALLS AND AT EACH SIDE OF ALL OPENINGS. TWO 2X8 HEADERS SHALL BE PROVIDED OVER ALL OPENINGS NOT OTHERWISE NOTED. SOLID BLOCKING FOR WOOD COL-UMNS SHALL BE PROVIDED THROUGH FLOORS TO SUPPORTS BELOW. WALLS SHALL HAVE A SINGLE BOTTOM PLATE AND A DOUBLE TOP PLATE. END NAIL TOP PLATE TO EACH STUD WITH TWO 16D NAILS, AND TOENAIL OR END NAIL EACH STUD TO BOTTOM PLATE WITH TWO 16D NAILS. FACE NAIL DOUBLE TOP PLATE WITH 16D AT 12" O.C. AND LAP MINIMUM 4'-0" AT JOINTS AND PROVIDE SIX 16D NAILS AT 4" O.C. EACH SIDE OF JOINT. ALL STUD WALLS SHALL HAVE THEIR LOWER WOOD PLATES ATTACHED TO WOOD FRAMING BELOW WITH 16D NAILS AT 12" O.C. STAGGERED OR BOLTED TO CONCRETE WITH 5/8" DIAMETER ANCHOR BOLTS (WITH 7" MINIMUM EMBEDMENT)@ 4'0" O.C. UNLESS INDICATED OTHERWISE. INDIVI-DUAL MEMBERS OF BUILTUP POSTS SHALL BE NAILED TO EACH OTHER WITH 16D @ 12" O.C. STAGGERED. REFER TO THE PLANS AND SHEAR WALL SCHEDULE FOR REQUIRED SHEATHING AND NAILING. WHEN NOT OTHERWISE NOTED, PROVIDE GYPSUM WALLBOARD ON INTERIOR SURFACES NAILED TO ALL STUDS, TOP AND BOTTOM PLATES AND BLOCKING WITH NAILS AT 7" O.C. USE 5D COOLER NAILS FOR 1/2" GWB AND 6D COOLER NAILS FOR 5/8" GWB. WHEN NOT OTHERWISE NOTED, PROVIDE 1/2" (NOM.) APA RATED SHEATHING (SPAN RATING 24/0) ON EXTERIOR SURFACES NAILED AT ALL PANEL EDGES (BLOCK UNSUPPORTED EDGES); TOP AND BOTTOM PLATES WITH 8D @ 6" O.C. AND TO ALL INTERMEDIATE STUDS AND BLOCKING WITH 8D @ 12" O.C. ALLOW 1/8" SPACING AT ALL PANEL EDGES AND ENDS.
- C. FLOOR AND ROOF FRAMING: PROVIDE DOUBLE JOISTS AROUND ALL OPENINGS IN FLOORS OR ROOFS UNLESS OTHERWISE NOTED. PROVIDE SOLID BLOCKING AT ALL BEARING POINTS. TOENAIL JOISTS TO SUPPORTS WITH TWO 16D NAILS. ATTACH TIMBER JOISTS TO FLUSH HEADERS OR BEAMS WITH METAL JOIST HANGERS IN ACCORDANCE WITH TIMBER CONNECTOR NOTE. NAIL ALL MULTIJOIST BEAMS TO-GETHER WITH 16D @ 12" O.C. STAGGERED. UNLESS OTHERWISE NOTED ON THE PLANS, ROOF AND FLOOR SHEATHING SHALL BE LAID UP WITH STRENGTH AXIS PERPENDICULAR TO SUPPORTS AND NAILED WITH 8D NAILS @ 6" O.C. TO FRAMED PANEL EDGES AND OVER STUD WALLS AS SHOWN ON PLANS AND @ 12" O.C. TO INTERMEDIATE SUPPORTS. PROVIDE APPROVED PLYWOOD EDGE CLIPS CENTERED BETWEEN JOISTS/TRUSSES AT UNBLOCKED ROOF SHEATHING EDGES. ALL FLOOR SHEATHING EDGES SHALL HAVE APPROVED TONGUEANDGROOVE JOINTS OR SHALL BE SUPPORTED WITH SOLID BLOCKING. ALLOW 1/8" SPACING AT ALL PANEL EDGES AND ENDS OF ALL ROOF AND FLOOR SHEATHING. TOENAIL BLOCKING TO SUPPORTS WITH 16D @ 12" O.C. UNLESS OTHERWISE NOTED. AT BLOCKED FLOOR AND ROOF DIAPHRAGMS PROVIDE FLAT 2X BLOCKING AT ALL UNFRAMED PLYWOOD PANEL EDGES AND NAIL WITH EDGE NAILING SPECIFIED.

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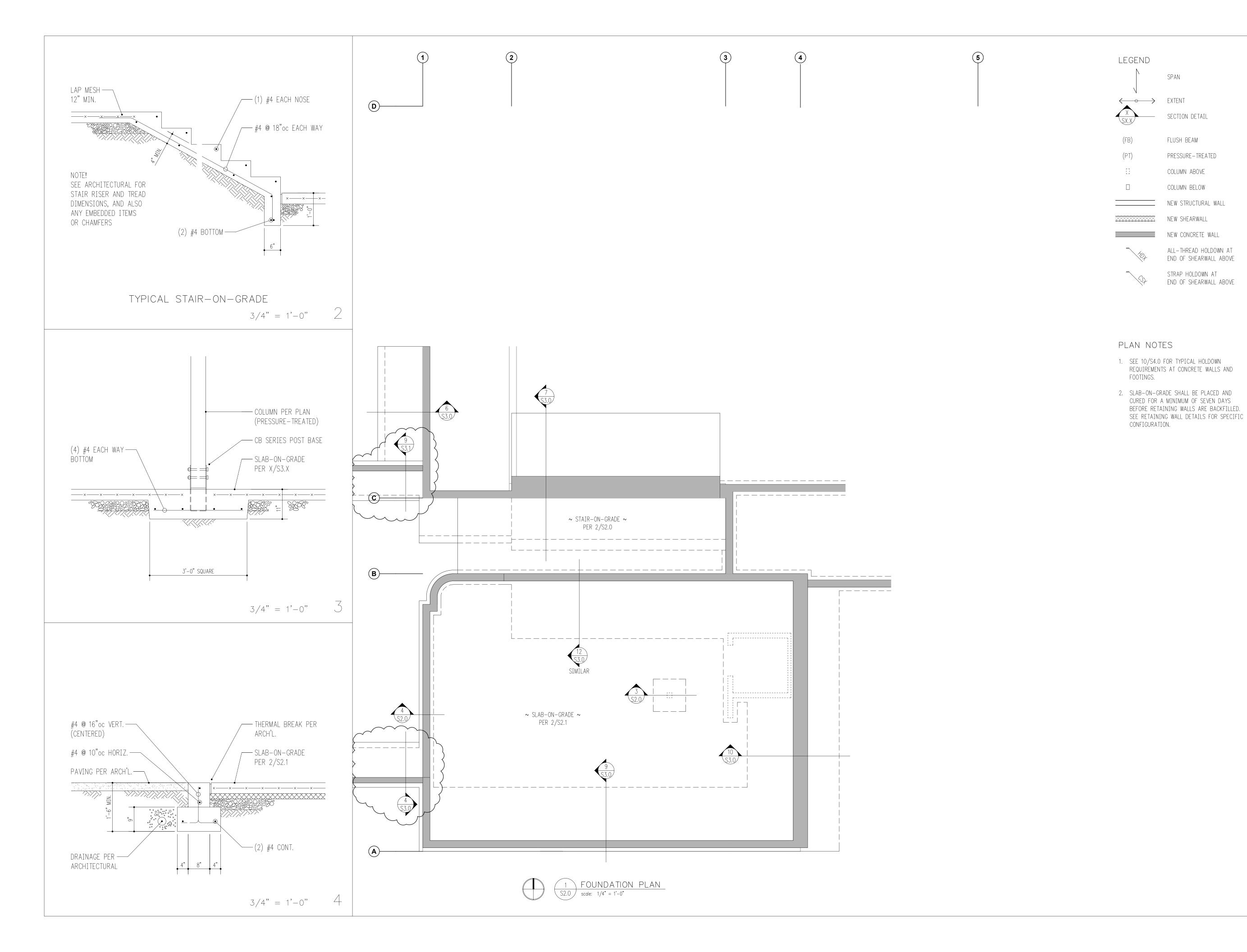
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05/18/2023	Corrections
07/04/2023	Corrections
07/20/2023	Corrections

**Building Department Approva** 

**GENERAL STRUCTURAL** 

NOTES

**S1.1** 



HV

SPAN

FLUSH BEAM

PRESSURE-TREATED

COLUMN ABOVE

COLUMN BELOW

NEW STRUCTURAL WALL

ALL-THREAD HOLDOWN AT END OF SHEARWALL ABOVE

STRAP HOLDOWN AT END OF SHEARWALL ABOVE Harriott Valentine Engineers Inc. 1932 First Avenue, Suite 720 Seattle, Washington 98101-2447 tel 206 624 4760 fax 206 447 6971 www.harriottvalentine.com

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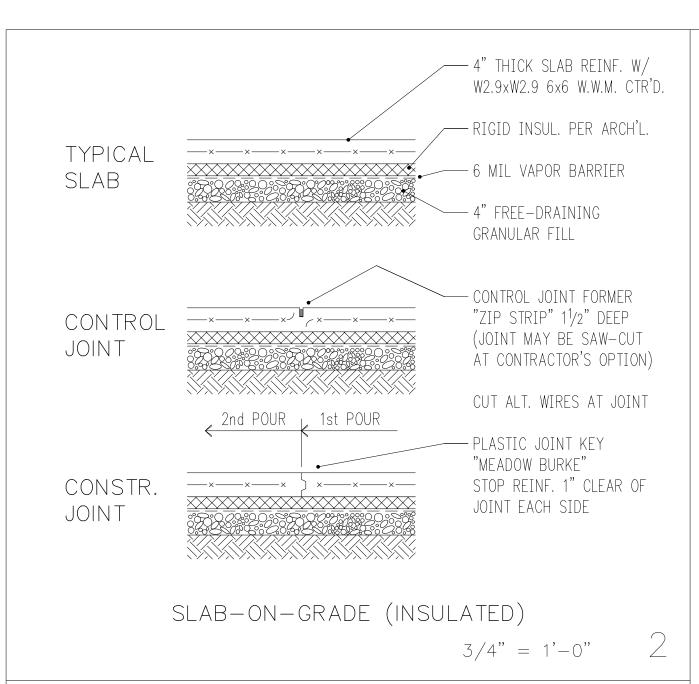
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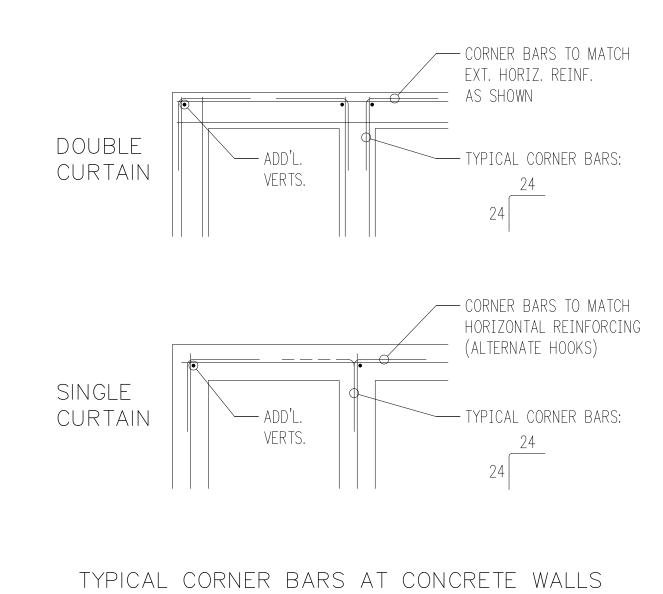
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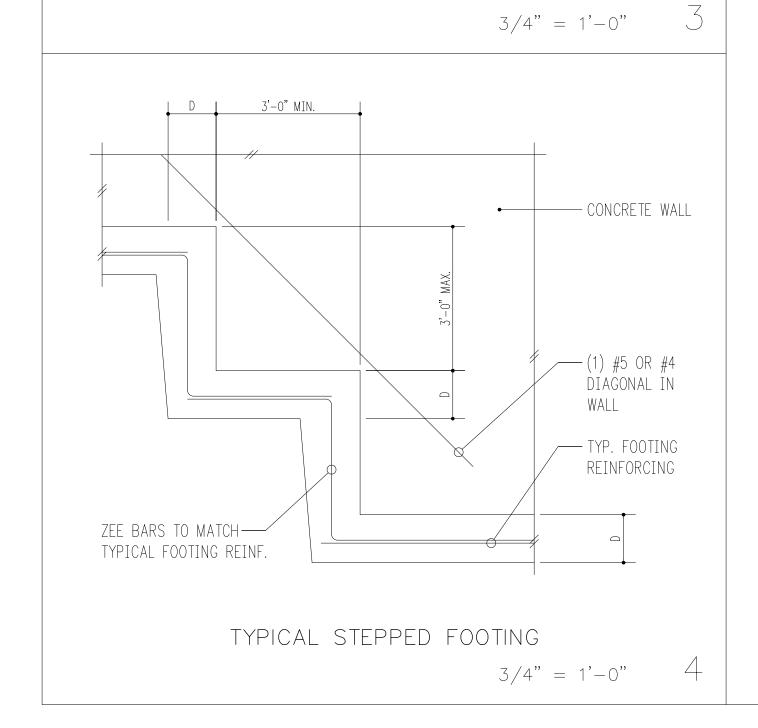
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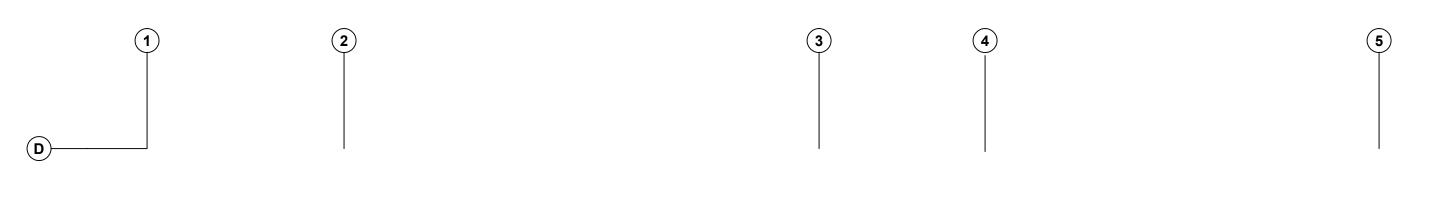
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FOUNDATION PLAN

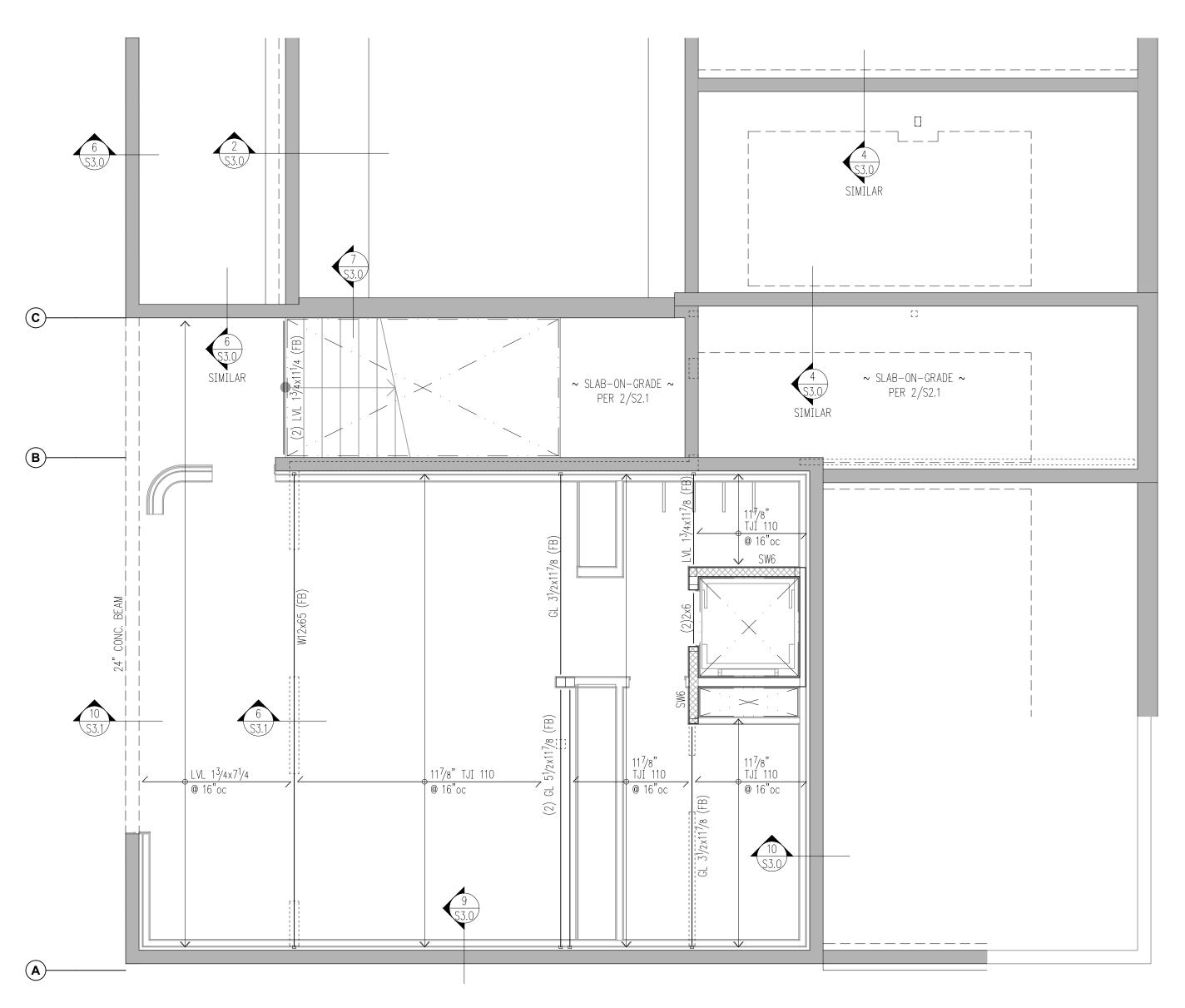
**S2.0** 











1 FIRST FLOOR FRAMING & LOWER FOUNDATION PLAN (BASEMENT WALLS)

S2.1 scale: 1/4" = 1'-0"



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HV

FLUSH BEAM

PRESSURE—TREATED

SPAN

--- SECTION DETAIL

< → EXTENT

LEGEND

COLUMN ABOVE

NEW STRUCTURAL WALL

NEW SHEARWALL

NEW CONCRETE WALL

COLUMN BELOW

ALL-THREAD HOLDOWN AT END OF SHEARWALL ABOVE

STRAP HOLDOWN AT END OF SHEARWALL ABOVE

#### PLAN NOTES

- 1. SW\_\_ INDICATES SHEARWALL TYPE PER SCHEDULE 8/S4.0. REFER TO DETAILS FOR TYPICAL SHEARWALL CONSTRUCTION. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL WALL INFORMATION.
- 2. REFER TO GENERAL STRUCTURAL NOTES FOR FLOOR OR ROOF SHEATHING TYPE, THICKNESS, AND NAILING.
- 3. COLUMNS SHALL BE DOUBLE STUD MINIMUM, UNLESS NOTED OTHERWISE. SEE 11/S4.0.
- 4. AT ALL SHEARWALLS PROVIDE DOUBLE TOP PLATES AND SPLICE PER 12/S4.0.
- 5. CS\_\_ INDICATES COILED STRAP TYPE PER SCHEDULE 6/S4.0. REFER TO DETAILS FOR TYPICAL STRAP ASSEMBLY.
- 6. POSTS □, INCLUDING ENDS OF WALL OPENINGS, SHALL BE (2)2x6 UNLESS NOTED OTHERWISE.
- 7. SEE 10/S4.0 FOR TYPICAL HOLDOWN REQUIREMENTS AT CONCRETE WALLS AND FOOTINGS.
- 8. SLAB-ON-GRADE SHALL BE PLACED AND CURED FOR A MINIMUM OF SEVEN DAYS BEFORE RETAINING WALLS ARE BACKFILLED. SEE RETAINING WALL DETAILS FOR SPECIFIC CONFIGURATION.





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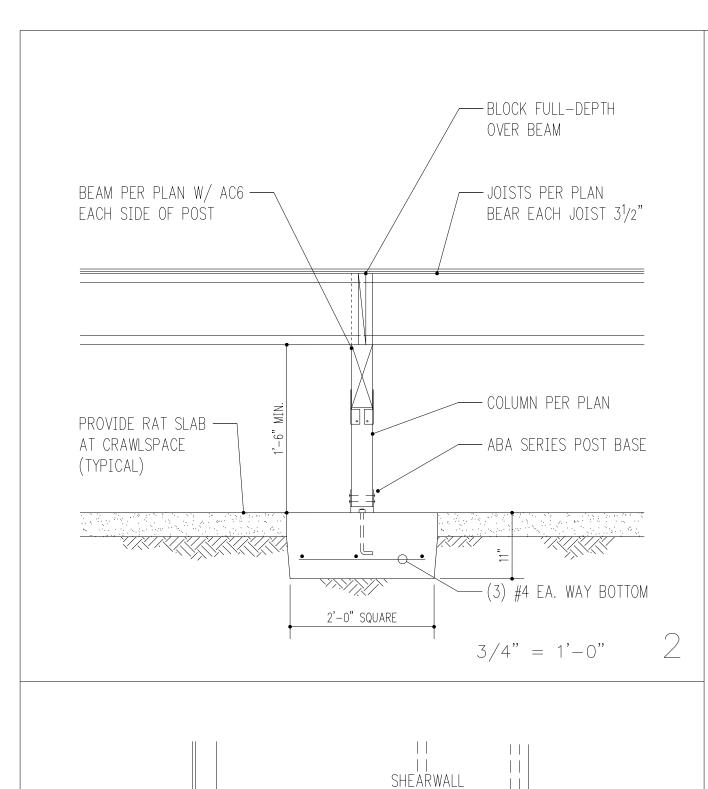
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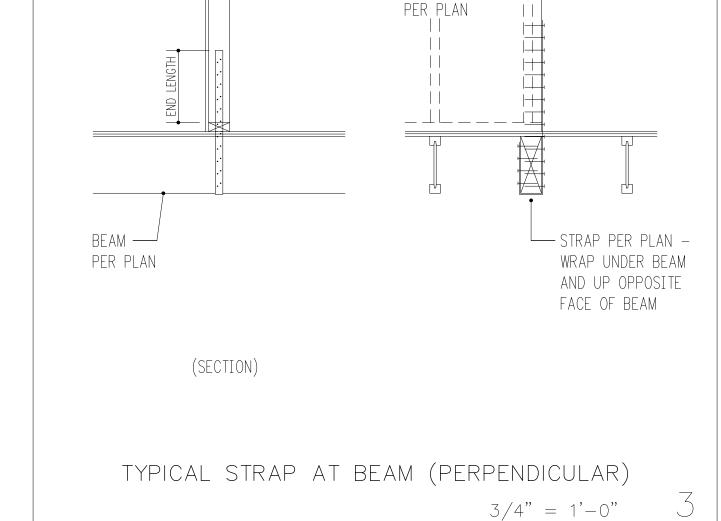
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MAIN FLOOR
FRAMING PLAN

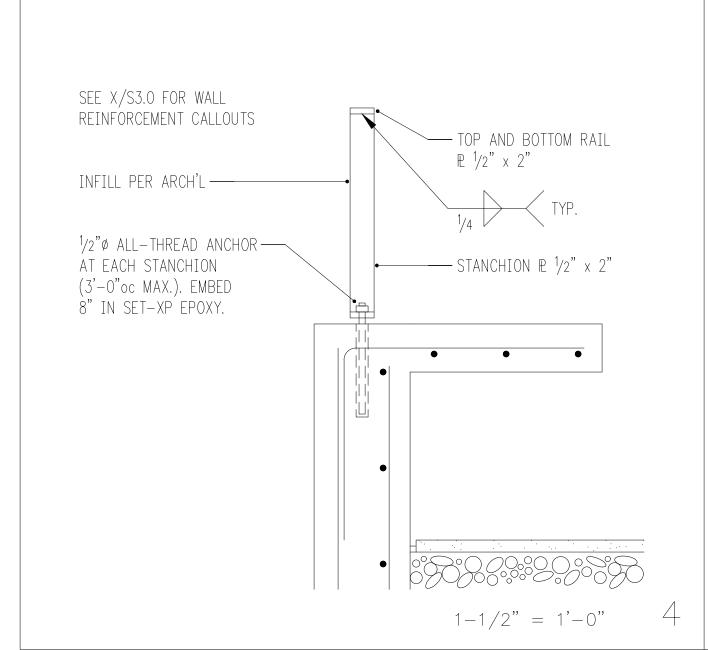
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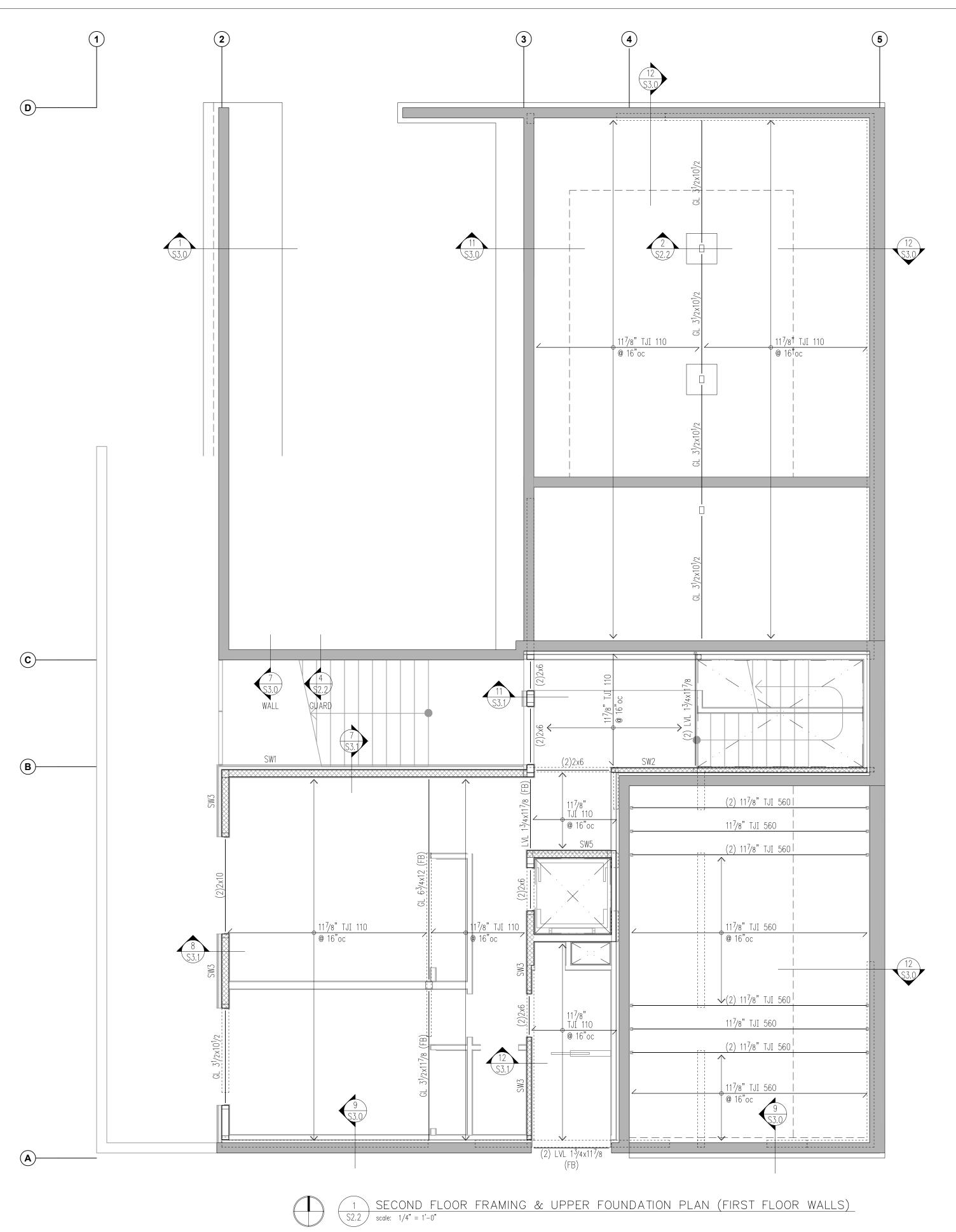
**S2.1** 

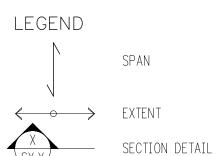
LLIVAN RESIDENCE











< → → EXTENT

FLUSH BEAM

COLUMN ABOVE

PRESSURE-TREATED

COLUMN BELOW

NEW STRUCTURAL WALL NEW SHEARWALL

NEW CONCRETE WALL

ALL-THREAD HOLDOWN AT END OF SHEARWALL ABOVE

STRAP HOLDOWN AT END OF SHEARWALL ABOVE

#### PLAN NOTES

- 1. SW\_\_ INDICATES SHEARWALL TYPE PER SCHEDULE 8/S4.0. REFER TO DETAILS FOR TYPICAL SHEARWALL CONSTRUCTION. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL WALL INFORMATION.
- 2. REFER TO GENERAL STRUCTURAL NOTES FOR FLOOR OR ROOF SHEATHING TYPE, THICKNESS, AND NAILING.
- 3. COLUMNS SHALL BE DOUBLE STUD MINIMUM, UNLESS NOTED OTHERWISE. SEE 11/S4.0.
- 4. AT ALL SHEARWALLS PROVIDE DOUBLE TOP PLATES AND SPLICE PER 12/S4.0.
- 5. CS\_\_ INDICATES COILED STRAP TYPE PER SCHEDULE 6/S4.0. REFER TO DETAILS FOR TYPICAL STRAP ASSEMBLY.
- 6. POSTS □, INCLUDING ENDS OF WALL OPENINGS, SHALL BE (2)2x6 UNLESS NOTED OTHERWISE.
- 7. SEE 10/S4.0 FOR TYPICAL HOLDOWN REQUIREMENTS AT CONCRETE WALLS AND FOOTINGS.
- 8. SLAB-ON-GRADE SHALL BE PLACED AND CURED FOR A MINIMUM OF SEVEN DAYS BEFORE RETAINING WALLS ARE BACKFILLED. SEE RETAINING WALL DETAILS FOR SPECIFIC CONFIGURATION.

#### HANGER SCHEDILLE

MANGER 30	JHEDULE		
MEMBER (FLAT ONLY)	HANGER	FACE NAILING	CAPACITY (Cd = 1.0)
2x8	LUS28	10d COMMON	1055 lb
11 <sup>7</sup> /8" TJI 110	IUS1.81/11.88	10d COMMON	1020 lb
(2)2x6	LUS210	10d COMMON	1275 lb

#### HV

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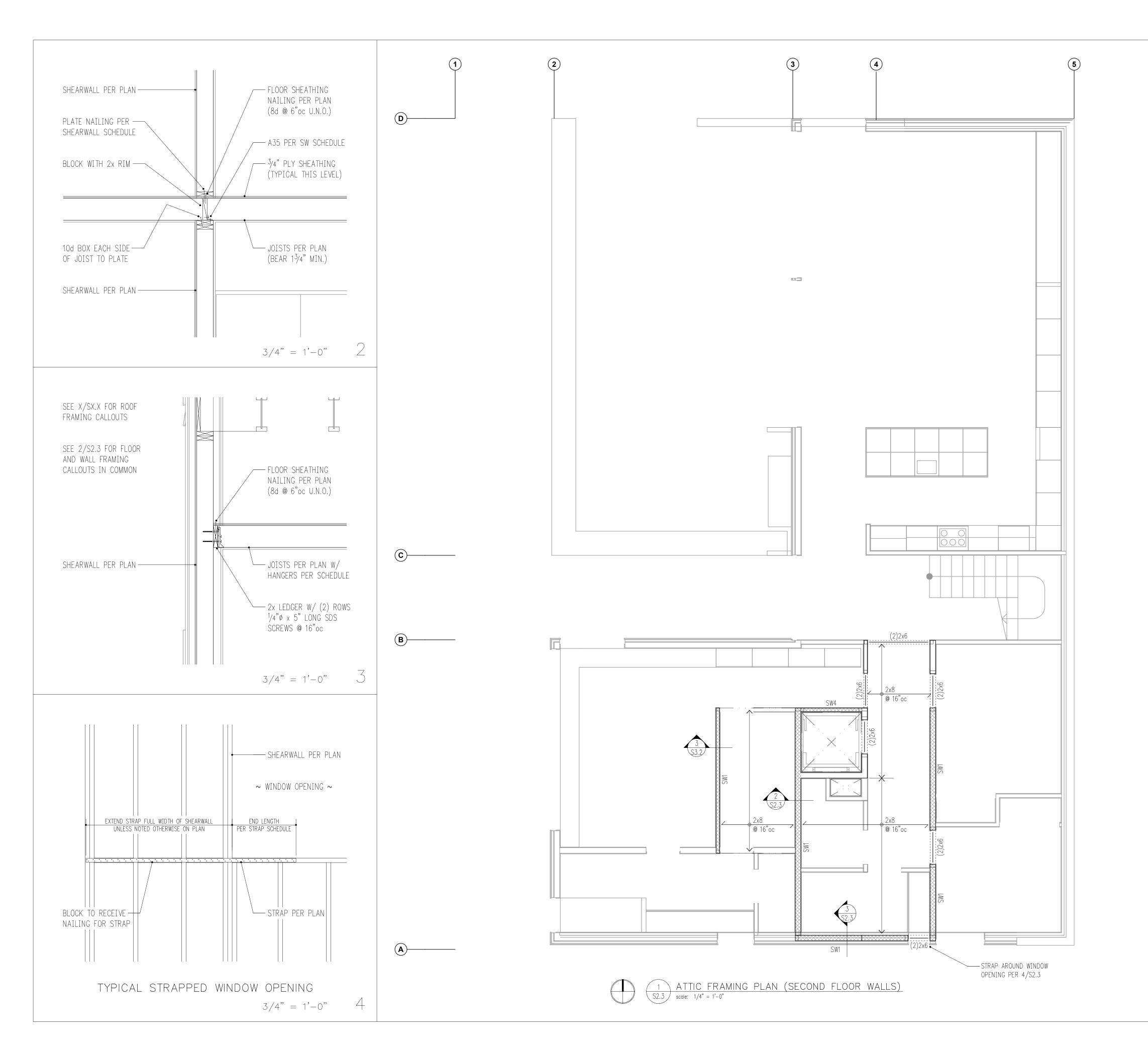
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FRAMING PLAN

**S2.2** 





EXTENT

SECTION DETAIL

(FB) FLUSH BEAM

LEGEND

(PT) PRESSURE—TREATED

COLUMN ABOVE

COLUMN BELOW

NEW STRUCTURAL WALL

NEW CONCRETE WALL

NEW SHEARWALL

ALL-THREAD HOLDOWN AT END OF SHEARWALL ABOVE

STRAP HOLDOWN AT END OF SHEARWALL ABOVE

### PLAN NOTES

- SW\_\_ INDICATES SHEARWALL TYPE PER SCHEDULE 8/S4.0. REFER TO DETAILS FOR TYPICAL SHEARWALL CONSTRUCTION. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL WALL INFORMATION.
- 2. REFER TO GENERAL STRUCTURAL NOTES FOR FLOOR OR ROOF SHEATHING TYPE, THICKNESS, AND NAILING.
- 3. COLUMNS SHALL BE DOUBLE STUD MINIMUM, UNLESS NOTED OTHERWISE. SEE 11/S4.0.
- 4. AT ALL SHEARWALLS PROVIDE DOUBLE TOP PLATES AND SPLICE PER 12/S4.0.
- CS\_\_ INDICATES COILED STRAP TYPE PER SCHEDULE 6/S4.0. REFER TO DETAILS FOR TYPICAL STRAP ASSEMBLY.
- 6. POSTS □, INCLUDING ENDS OF WALL OPENINGS, SHALL BE (2)2x6 UNLESS NOTED OTHERWISE.

#### HANGER SCHEDULE

HANGER SCHEDULE					
	MEMBER (FLAT ONLY)	HANGER	FACE NAILING	CAPACITY (Cd = 1.0)	
	2x8	LUS28	10d COMMON	1055 lb	
	(2)2x6	LUS210	10d COMMON	1275 lb	



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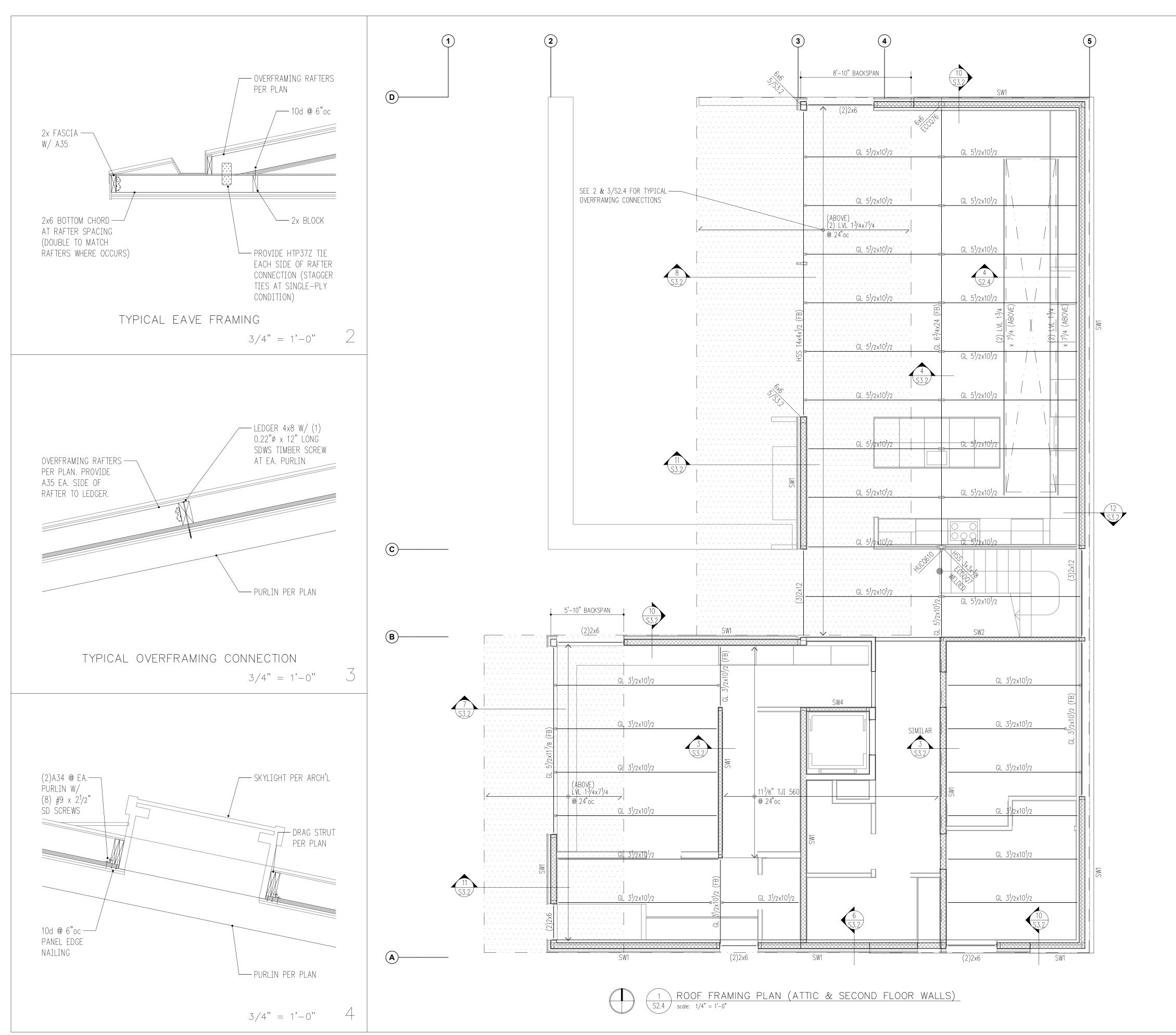
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ROOF
FRAMING PLAN

awing Number

**S2.3** 

ULLIVAN RESIDENCE



LEGEND

SPAN

--- SECTION DETAIL

FLUSH BEAM

PRESSURE-TREATED

COLUMN ABOVE

COLUMN BELOW

NEW CONCRETE WALL

NEW SHEARWALL

PLAN NOTES

NEW STRUCTURAL WALL

ALL-THREAD HOLDOWN AT END OF SHEARWALL ABOVE

END OF SHEARWALL ABOVE

STRAP HOLDOWN AT

< → EXTENT

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HV

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WALL INFORMATION. 2. REFER TO GENERAL STRUCTURAL NOTES FOR FLOOR OR ROOF SHEATHING TYPE, THICKNESS, AND NAILING.

3. COLUMNS SHALL BE DOUBLE STUD MINIMUM, UNLESS NOTED OTHERWISE. SEE 11/S4.0.

1. SW\_\_ INDICATES SHEARWALL TYPE PER

SCHEDULE 8/S4.0. REFER TO DETAILS FOR

TYPICAL SHEARWALL CONSTRUCTION. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL

4. AT ALL SHEARWALLS PROVIDE DOUBLE TOP PLATES AND SPLICE PER 12/S4.0.

5. CS\_\_ INDICATES COILED STRAP TYPE PER SCHEDULE 6/S4.0. REFER TO DETAILS FOR TYPICAL STRAP ASSEMBLY.

6. POSTS □, INCLUDING ENDS OF WALL OPENINGS, SHALL BE (2)2x6 UNLESS NOTED OTHERWISE.

HANGER SCHEDULE

HANGEN 30	JIILDULL		
MEMBER (SLOPED ONLY)	HANGER	FACE NAILING	CAPACITY (Cd = 1.15)
GL 3 <sup>1</sup> /2×10 <sup>1</sup> /2	HWP3.56/10.5	16d COMMON	3955 lb
GL 5 <sup>1</sup> /2×10 <sup>1</sup> /2	HWPH5.62/10.5	16d COMMON	5920 lb





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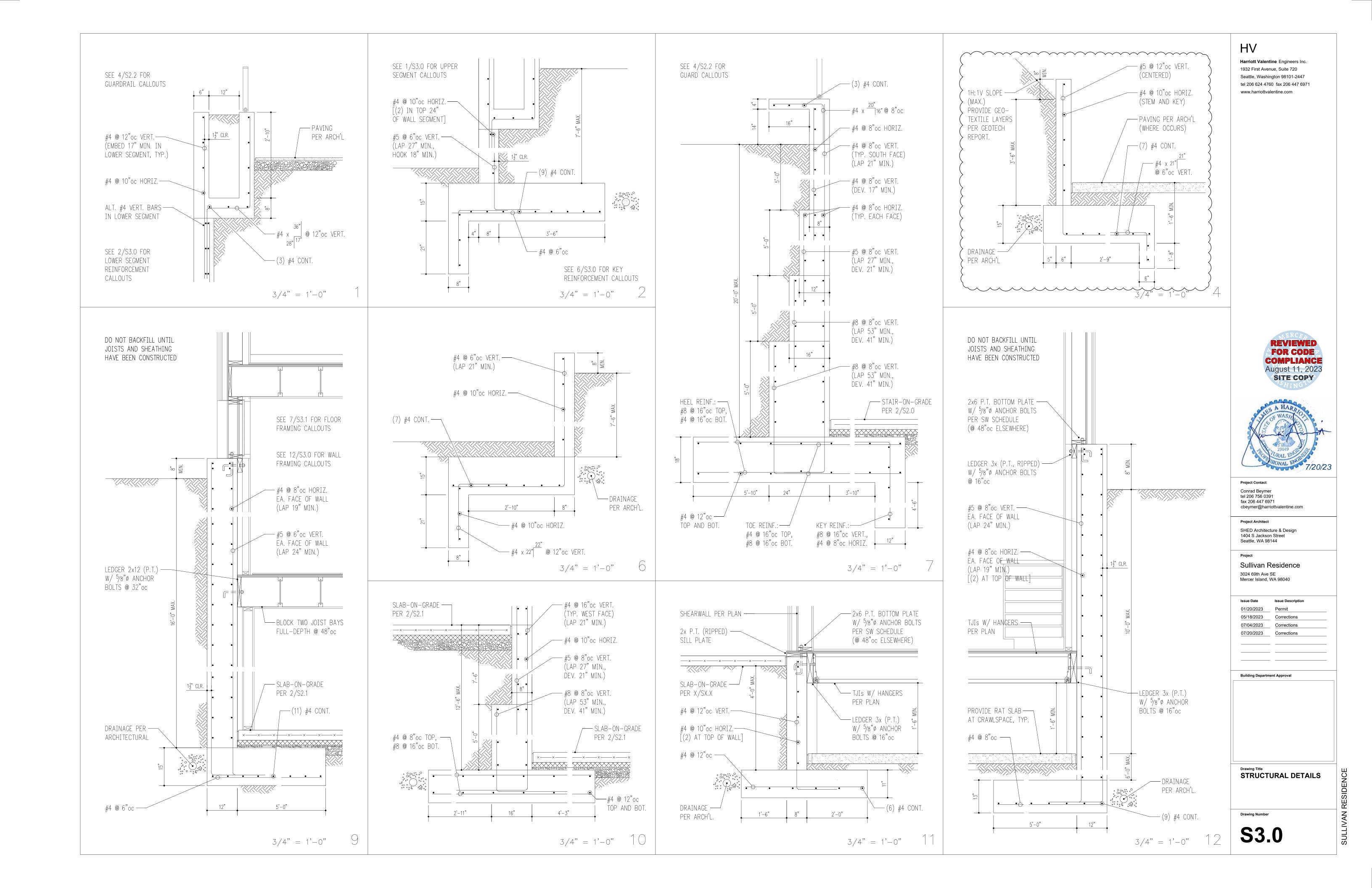
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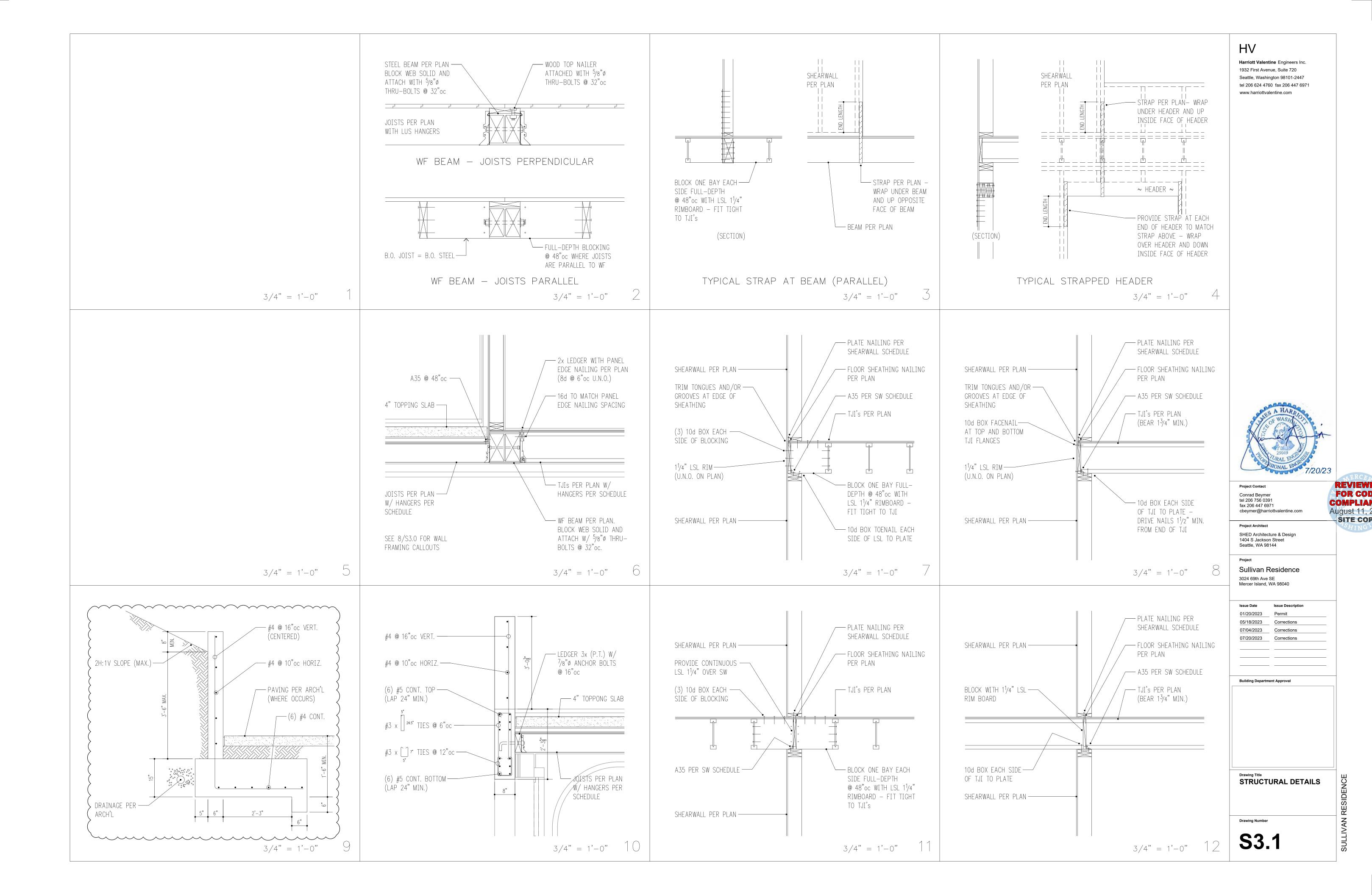
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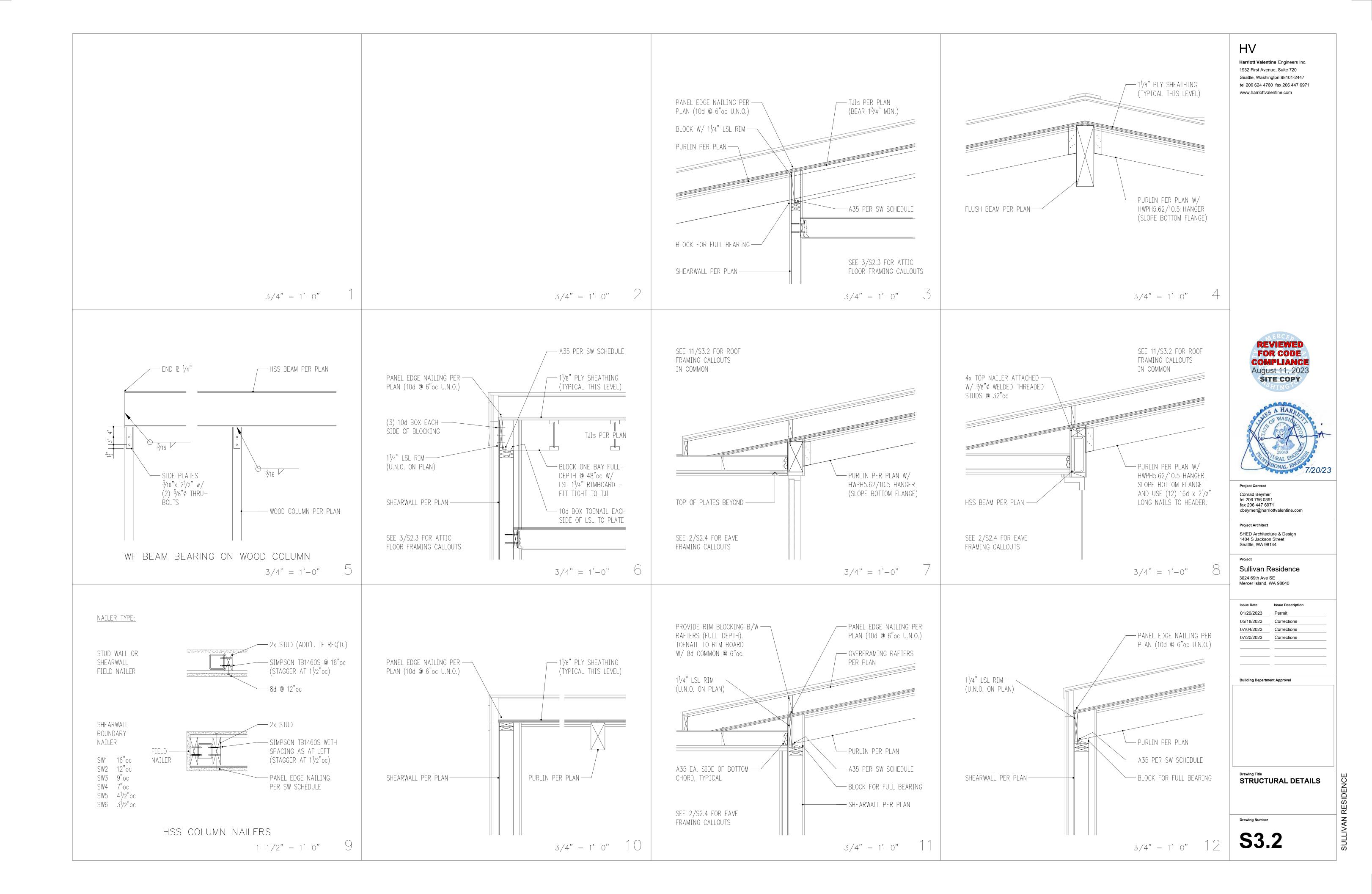
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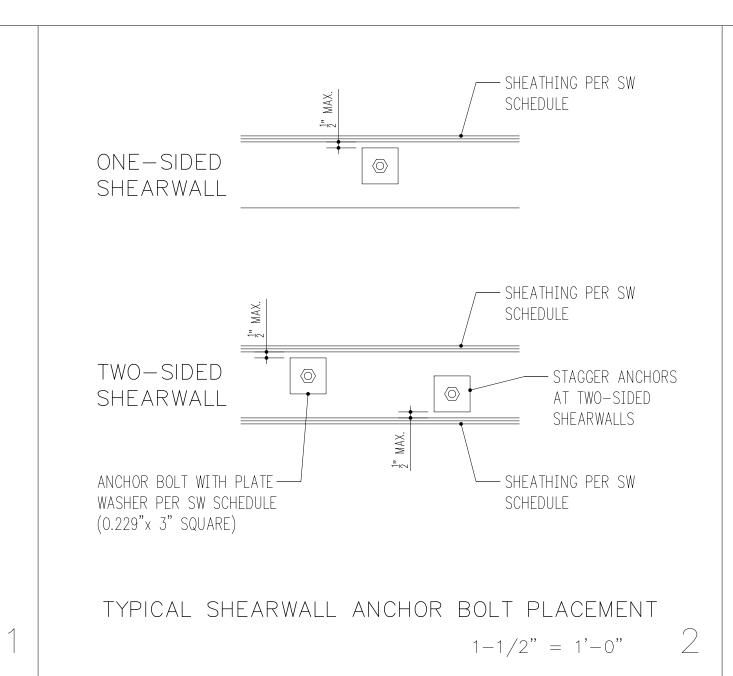
FRAMING PLAN

**S2.4** 







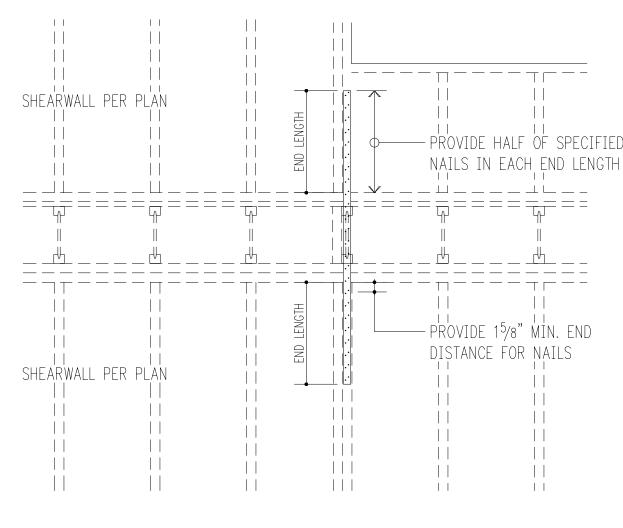


#### STRAP SCHEDULE (NOT ALL USED)

3/4" = 1'-0"

MARK	END LENGTH	NAILS	NAIL SPACING
CMST12	44"	(98) 10d x 3"	1 <sup>3</sup> /4"
CMST14	34"	(76) 10d x 3"	1 <sup>3</sup> /4"
CMSTC16	25"	(58) 12d x 3 <sup>1</sup> /4"	11/2"
CS14	19"	(36) 8d x 2 <sup>1</sup> /2"	2 <sup>1</sup> /16"
CS16	14"	(26) 8d x 2 <sup>1</sup> /2"	2 <sup>1</sup> /16"
CS18	12"	(22) 8d x 2 <sup>1</sup> /2"	2 <sup>1</sup> /16"
CS20	9"	(16) 8d x 2 <sup>1</sup> /2"	2 <sup>1</sup> /16"
CS22	8"	(14) 8d x 2 <sup>1</sup> /2"	2 <sup>1</sup> /16"

- 1. 10d AND 12d DIAMETER = 0.148"; 8d DIAMETER = 0.131".
- 2. USE HALF OF THE REQUIRED NAILS IN EACH MEMBER BEING CONNECTED (i.e. IN EACH END LENGTH).



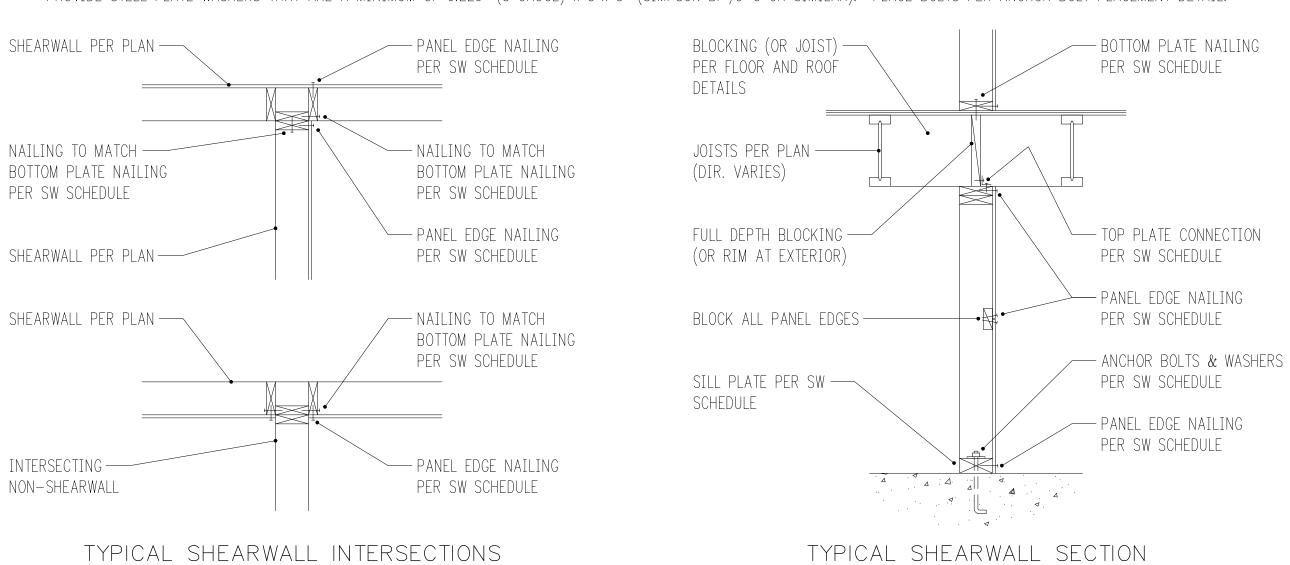
TYPICAL STRAP HOLDOWN AT FLOOR

3/4" = 1'-0"

#### SHEARWALL SCHEDULE (NOT ALL USED ON PLANS)

MARK	SHEATHING <sup>1</sup>	STUDS AT ABUTTING PANEL EDGES <sup>2</sup>	PANEL EDGE NAILING <sup>3,4</sup>	RIM JOIST OR BLOCKING TO TOP PLATE		BOTTOM PLATE ATTACHMENT		
				SOLID RIM	TJI RIM	BOTTOM PLATE TO RIM JOIST BELOW 4	ANCHOR BOLT TO CONCRETE 5	SILL PLATE AT FOUND.
SW1	15/32" CDX PLYWOOD	2x	8d @ 6"oc	A35 @ 24"oc	16d @ 6"oc	16d @ 6"oc	<sup>5</sup> /8"ø @ 48"oc	2x
SW2	15/32" CDX PLYWOOD	2x	8d @ 4"oc	A35 @ 15"oc	16d @ 4"oc	16d @ 4"oc	<sup>5</sup> /8"ø @ 32"oc	2x
SW3	15/32" CDX PLYWOOD	3x	8d @ 3"oc	A35 @ 12"oc	N/A - USE SOLID RIM	16d @ 3"oc	<sup>5</sup> /8"ø @ 16"oc	2x
SW4	15/32" CDX PLYWOOD	3x	8d @ 2"oc	A35 @ 9"oc	N/A - USE SOLID RIM	16d @ 2"oc	<sup>5</sup> /8"ø @ 12"oc	2x
SW5	15/32" CDX PLYWOOD BOTH SIDES	3x	8d @ 3"oc	A35 @ 6"oc	N/A - USE SOLID RIM	(2) ROWS 16d @ 3"oc	<sup>5</sup> /8"ø @ 12"oc	3x
SW6	15/32" CDX PLYWOOD BOTH SIDES	3x	8d @ 2"oc	A35 @ 4 <sup>1</sup> /2"oc	N/A - USE SOLID RIM	(2) ROWS 16d @ 2"oc	<sup>5</sup> /8"ø @ 12"oc	3x

- 1. WALL SHEATHING SHALL CONSIST OF APA RATED PLYWOOD WITH SPAN RATING 24/0. ALLOW 1/8" SPACING AT ALL PANEL EDGES AND ENDS OF PANELS. 7/16" APA RATED SHEATHING (OSB) MAY BE USED IN PLACE OF 15/32" CDX.
- 2. STUDS AT ABUTTING PANEL EDGES MAY CONSIST OF (2)2x STUDS IN PLACE OF 3x STUDS NAIL (2)2x STUDS TOGETHER WITH BOTTOM PLATE ATTACHMENT NAILING.
- 3. BLOCK ALL PANEL EDGES W/ 2x4 FLAT, ATTACH W/ PANEL EDGE NAILING. TWO STUDS MINIMUM ARE REQUIRED AT EACH END OF ALL SHEARWALLS. END STUDS SHALL RECEIVE PANEL EDGE NAILING. INTERMEDIATE STUDS SHALL BE 2x STUDS. NAIL SHEATHING TO INTERMEDIATE FRAMING MEMBERS WITH 8d @ 12"oc.
- 4. 8d NAILS SHALL BE 0.131" DIAMETER x  $2\frac{1}{2}$ " (COMMON). 16d NAILS SHALL BE 0.135" DIAMETER x  $3\frac{1}{2}$ " (BOX).
- 5. ANCHORS TO CONCRETE SHALL CONSIST OF CAST—IN—PLACE ANCHOR BOLTS, EXPANSION BOLTS, EPOXY GROUTED ALL—THREADS, OR TITEN HD HEAVY DUTY SCREW ANCHORS. CAST-IN-PLACE ANCHOR BOLTS HAVE A 7" EMBED AND SHALL BE J-BOLTS OR SHALL HAVE A HEX NUT AT THE BOTTOM END. EXPANSION BOLTS SHALL HAVE 5" EMBED AND SHALL NOT BE USED AT STEM WALL LOCATIONS WITH EDGE DISTANCE LESS THAN 5" (INSTEAD, USE EPOXY GROUTED ALL-THREADS OR TITEN HD ANCHORS). EPOXY GROUTED ANCHORS SHALL HAVE 5" EMBED AND 21/2" MIN. EDGE DISTANCE. TITEN HD ANCHORS SHALL HAVE 31/2" EMBED AND 13/4" MIN. EDGE DISTANCE. AT ALL ANCHOR BOLTS, PROVIDE STEEL PLATE WASHERS THAT ARE A MINIMUM OF 0.229" (3 GAUGE) x 3"x 3" (SIMPSON BP5/8-3 OR SIMILAR). PLACE BOLTS PER ANCHOR BOLT PLACEMENT DETAIL.



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Sullivan Residence

3/4" = 1'-0"

— (8) 16d @ 4"oc STAGGERED

(16d @ 12"oc ELSEWHERE)

--- CENTER SPLICE OVER STUD

3/4" = 1'-0" 12

6'-0" MIN. BETWEEN SPLICES

TYPICAL TOP PLATE SPLICE CONSTRUCTION

EACH SIDE OF SPLICE

002.00	24 69th Ave SE ercer Island, WA 98040					
Issue Date	Issue Description					
01/20/2023	Permit					
05/18/2023	Corrections					

07/04/2023 Corrections

07/20/2023 Corrections

**Building Department Approval** 

Drawing Title
STRUCTURAL DETAILS

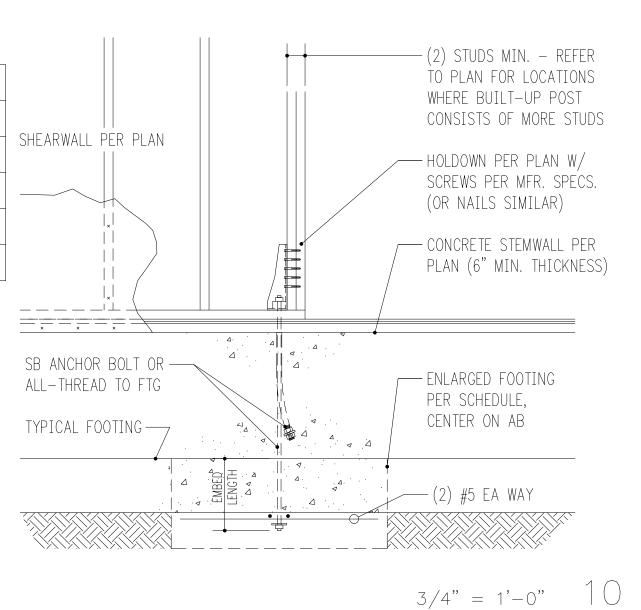
**S4.0** 

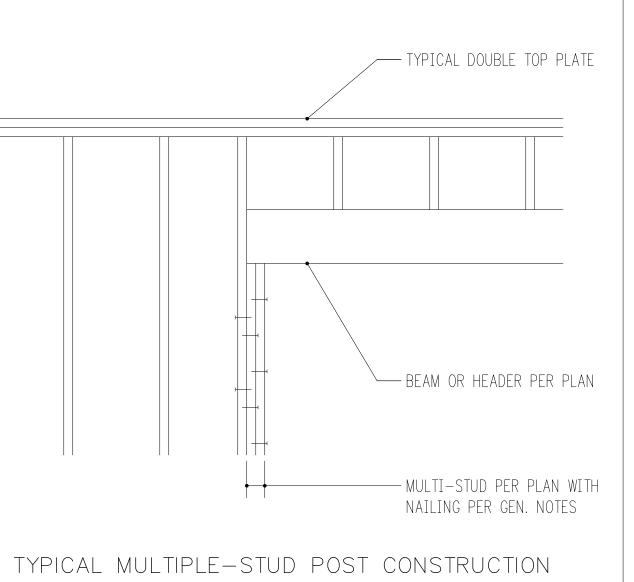
#### HOLDOWN SCHEDULE

MARK	FASTENERS TO STUDS <sup>1</sup> ST		STEMWALL		FOOTING <sup>2</sup>		
		AB <sup>4</sup>	EMBED	AB <sup>3</sup>	EMBED	MIN FTG SIZE	
HDU4	(10) ½1"ø x 2½" SCREWS	SB <sup>5</sup> /8x24	18"	<sup>5</sup> /8"ø	6"	1'-4"SQ x 9"DP	
HDU5	(14) ½1"ø x 2½" SCREWS	SB <sup>5</sup> /8x24	18"	<sup>5</sup> /8"ø	6"	1'-4"SQ x 9"DP	
HDU8	(20) <sup>1</sup> /4"ø x 2 <sup>1</sup> /2" SCREWS	SB <sup>7</sup> /8x24	18"	<sup>7</sup> /8"ø	6"	1'-4"SQ x 9"DP	
HD19	(5) 1"ø STUD BOLTS	_	_	1 <sup>1</sup> /4"ø	15"	3'-0"SQ x 18"DP	

- 1. SCREWS SHALL BE SIMPSON "SDS" TYPE SCREWS, INSTALL PER SIMPSON RECOMMENDATIONS.
- 2. AS AN ALTERNATIVE TO SB ANCHORS INTO STEM WALL, OR WHERE REQUIRED PER PLAN, EMBED ALL-THREAD INTO FOOTING, PROVIDE THREADED COUPLER AS REQUIRED TO EMBED THROUGH STEM/SLAB. WHERE REQUIRED, ENLARGE FOOTING TO MINIMUM SIZE PER SCHEDULE CENTERED ON ANCHOR BOLT.
- 3. PROVIDE A36 OR A307 ALL-THREAD W/HEAVY HEX NUT AND 1/4"x3"SQ PLATE WASHER AT BOTTOM, OR EQUIVALENT SIMPSON PAB.
- 4. PROVIDE 5" END AND 13/4" EDGE DISTANCE FOR ANCHORS IN STEMWALL

TYPICAL HOLDOWN AT CONCRETE





3/4" = 1'-0" 11

(THE FOLLOWING APPLY UNLESS SHOWN OTHERWISE ON THE PLANS)

#### CRITERIA

- 1. ALL MATERIALS, WORKMANSHIP, DESIGN, AND CONSTRUCTION SHALL CONFORM TO THE DRAWINGS, SPECIFICATIONS, THE INTERNATIONAL BUILDING CODE (2018 EDITION), & BUILDING DEPARTMENT MODIFICATIONS TO THE INTERNATIONAL BUILDING CODE.
- 2. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS FOR BIDDING AND CONSTRUCTION. CONTRACTOR SHALL VERIFY DIMENSIONS AND CONDITIONS FOR COMPATIBILITY AND SHALL NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
- 3. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES REQUIRED TO PERFORM THE WORK. THE STRUCTURAL ENGINEER HAS NO OVERALL SUPERVISORY AUTHORITY OR ACTUAL AND/OR DIRECT RESPONSIBILITY FOR THE SPECIFIC WORKING CONDITIONS AT THE SITE AND/OR FOR ANY HAZARDS RESULTING FROM THE ACTIONS OF ANY TRADE CONTRACTOR. THE STRUCTURAL ENGINEER HAS NO DUTY TO INSPECT, SUPERVISE, NOTE, CORRECT, OR REPORT ANY HEALTH OR SAFETY DEFICIENCIES OF THE OWNER, CONCONTRACTORS, OR OTHER ENTITIES OR PERSONS AT THE PROJECT SITE.
- 4. SHOP DRAWINGS AND PRODUCT DATA SHALL BE SUBMITTED TO THE ENGINEER PRIOR ANY FABRICATION OR CONSTRUCTION FOR ALL STRUCTURAL ITEMS INCLUDING THE FOLLOWING: STRUCTURAL STEEL, MISCELLANEOUS METAL, TENDONS, ANCHORS, REINFORCING STEEL, GROUTS, AND CONCRETES. THE PROPOSED DEMOLITION AND SHORING SEQUENCE SHALL ALSO BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
- 5. REFER TO THE FOLLOWING DOCUMENTS FOR ADDITIONAL INFORMATION:
  - A. TOPOGRAPHIC AND BOUNDARY SURVEY: D.R. STRONG CONSULTING ENGINEERS, DATED 5/21/21.

B. SOILS REPORT REFERENCE: COBALT GEOSCIENCES, ORIGINAL DATE 4/7/22, UPDATED APRIL 8, 2023.

THE CITY OF MERCER ISLAND SHALL BE A RECIPIENT OF THE REPORTS AND REVIEWED SURVEY DATA BY THE GEOTECHNICAL ENGINEER.

- 6. DESIGN LOADS: THE SOIL PRESSURE INDICATED ON THE SOIL PRESSURE DIAGRAM WAS USED FOR DESIGN, IN ADDITION TO THE DEAD AND LIVE LOADS.
- 7. SPECIAL INSPECTION BY THE SOILS ENGINEER SHALL BE PERFORMED FOR PILE PLACEMENT (AND TIEBACK PLACING AND STRESSING, WHERE APPLICABLE). ALL PREPARED SOIL BEARING SURFACES SHALL BE INSPECTED BY THE SOILS ENGINEER PRIOR TO PLACEMENT OF PILE. SOIL COMPACTION SHALL BE SUPERVISED BY AN APPROVED TESTING LAB.
- 8. THE SHORING CONTRACTOR SHALL DETERMINE THE LOCATION OF ALL ADJACENT UNDERGROUND UTILITIES PRIOR TO DRILLING PILE HOLES, TIEBACK ANCHORS, OR CUTTING OR DIGGING IN STREETS OR ALLEYS. THE UTILITIES INFORMATION SHOWN ON THE PLANS MAY BE NOT COMPLETE.
- 9. REFER TO THE SOILS REPORT FOR ADDITIONAL REQUIREMENTS, INCLUDING RECOMMENDATIONS FOR SHORING IN GENERAL, SHORING MONITORING, EXCAVATION, LAGGING. AND DRAINAGE.

#### SOLDIER PILE AND LAGGING CONSTRUCTION

- 10. PILE LEAN MIX SHALL CONTAIN 1-1/2 SACKS OF CEMENT PER CUBIC YARD. THERE IS NO STRENGTH REQUIREMENT FOR THIS MIX.
- 11. LAGGING SHALL CONSIST OF SAWN LUMBER AND SHALL CONFORM TO "GRADING AND DRESSING RULES," WEST COAST LUMBER INSPECTION BUREAU (WCLIB), LATEST EDITION. LAGGING SHALL BE 4X12 DOUGLAS FIR-LARCH NO. 2 OR HEM-FIR NO. 1. TIMBER LAGGING SHALL BE PRESSURE TREATED WITH WATERBORNE PRESERVATIVES IN ACCORDANCE WITH AWPB LP-22 TO A MINIMUM RETENTION OF O. 4 LBS/CU.FT. LAGGING SHALL BE 4X12 UNLESS OTHERWISE NOTED ON DRAWINGS.
- 12. DEMOLITION: SHORING AND SOIL EXCAVATION SHALL BE DONE SIMULTANEOUSLY.
- 13. VERIFICATION: DIMENSIONS AND LOCATION OF EXISTING STRUCTURES SHALL BE VERIFIED PRIOR TO FABRICATION AND INSTALLATION OF ANY STRUCTURAL MEMBER. NOTIFY ENGINEER ABOUT ANY DISCREPANCIES PRIOR TO FABRICATION.
- 14. HOLE DIGGING: PILE AND ANCHOR HOLES SHALL BE DRILLED WITHOUT LOSS OF GROUND AND WITHOUT ENDANGERING PREVIOUSLY INSTALLED PILES AND ANCHORS. THIS MAY INVOLVE CASING THE HOLES OR OTHER METHODS OF PROTECTION FROM CAVING. REFER TO REPORT OF GEOTECHNICAL INVESTIGATION FOR RECOMMENDED HOLE DIGGING PROCEDURE.
- 15. PILE PLACEMENT: ALTERNATE PILES SHALL BE PLACED AND COMPLETED SO THAT AT LEAST 24 HOURS IS ALLOWED FOR THE CONCRETE TO SET PRIOR TO DRILLING ADJACENT PILES.
- 16. STEEL PILE PLACEMENT TOLERANCES:
  - 1" INSIDE PERPENDICULAR TO SHORING WALL.
    1" OUTSIDE PERPENDICULAR TO SHORING WALL.
    3" LATERALLY.

17. LAGGING: TIMBER LAGGING SHALL BE INSTALLED IN ALL AREAS. VOIDS BETWEEN LAGGING AND SOIL SHALL BE BACKFILLED. DRAINAGE BEHIND THE WALL MUST BE MAINTAINED. IT IS CONTRACTOR'S RESPONSIBILITY TO LIMIT THE AMOUNT OF EXPOSED SOIL WITHOUT LAGGING TO AVOID LOSS OF SOIL. MAXIMUM HEIGHT OF 4 FEET IS RECOMMENDED. SPECIAL CARE SHOULD BE TAKEN TO AVOID GROUND LOSS DURING EXCAVATION.

#### SHORING MOVEMENT MONITORING

18. SHORING MONITORING: A SYSTEMATIC PROGRAM OF OBSERVATION SHALL BE CONDUCTED DURING THE PROJECT EXECUTION TO DETERMINE THE EFFECT OF CONSTRUCTION ON ADJACENT FACILITIES AND STRUCTURES IN ORDER TO PROTECT THEM FROM DAMAGE. REFER TO REPORT OF GEOTECHNICAL INVESTIGATION FOR RECOMMENDATIONS.

GROUND SURFACE ELEVATIONS OF THE ADJACENT PROPERTIES AND CITY STREETS SHALL BE DOCUMENTED PRIOR TO DE-WATERING, EXCAVATION, AND INSTALLATION OF THE SHORING SYSTEMS, TO PROVIDE BASELINE DATA.

LOCATIONS: AS A MINIMUM, OPTICAL SURVEY POINTS SHALL BE ESTABLISHED AT THE FOLLOWING LOCATIONS.

- A. THE TOP OF EVERY OTHER SOLDIER PILE.
- B. THE ADJACENT BUILDINGS ALONG THE PROPERTY BOUNDARIES. THERE SHALL BE AT LEAST 2 MONITORING POINTS PER STRUCTURE.
- C. THE CURBS AND THE CENTERLINES OF ADJACENT STREETS. THESE MONITORING POINTS SHALL BE SPACED NO MORE THAN 20 FEET APART.

FREQUENCY: THE MONITORING POINTS AT THE TOP OF EVERY OTHER PILE SHALL BE SURVEYED A MINIMUM OF TWICE A WEEK DURING SHORING INSTALLATION AND EXCAVATION, WITH ONCE A WEEK BEING DONE BE A LICENSED LAND SURVEYOR. THE MONITORING POINTS AT THE ADJACENT BUILDINGS, CURBS, AND STREETS SHALL BE REGULARLY SURVEYED WITH THE SOLDIER PILES.

SURVEY FREQUENCY MAY BE DECREASED AFTER THE SHORING SYSTEM HAS BEEN INSTALLED AND EXCAVATION IS COMPLETE IF THE DATA INDICATES LITTLE OR NO ADDITIONAL MOVEMENT. SURVEYING MUST CONTINUE UNTIL THE PERMANENT STRUCTURE (INCLUDING FLOOR SLABS AS BRACES) IS COMPLETE UP TO FINAL AND STREET GRADES. ANY SURVEY FREQUENCY CHANGES WILL BE DETERMINED BY THE GEOTECHNICAL ENGINEER AFTER REVIEW AND APPROVAL BY SDCI (AND SDOT, IF APPLICABLE).

THE MONITORING PROGRAM SHALL INCLUDE CHANGES IN BOTH THE HORIZONTAL (NORTH-SOUTH AND EAST-WEST) DIRECTIONS AND VERTICAL DIRECTIONS. THE MONITORING SHALL BE PERFORMED BY THE CONTRACTOR OR THE PROJECT SURVEYOR, AND THE RESULTS SHALL BE PROMPTLY SUBMITTED TO THE STRUCTURAL AND GEOTECHNICAL ENGINEERS FOR REVIEW.

THE GEOTECHNICAL ENGINEER SHALL REVIEW SURVEY DATA AND PROVIDE AN EVALUATION OF WALL PERFORMANCE ALONG WITH SURVEY DATA TO SDCI (AND SDOT, IF APPLICABLE) ON AT LEAST A WEEKLY BASIS. IMMEDIATELY AND DIRECTLY, NOTIFY SDCI (AND SDOT, IF APPLICABLE) IF ANY UNUSAL OR SIGNIFICANTLY INCREASED MOVEMENT OCCURS.

IMMEDIATELY AND DIRECTLY NOTIFY THE GEOTECHNICAL AND STRUCTURAL ENGINEERS, WALL DESIGNER, SDCI, (AND SDOT, IF APPLICABLE) IF 0.5 INCHES OF MOVEMENT OCCURS BETWEEN TWO CONSECUTIVE READINGS AND WHEN TOTAL MOVEMENTS REACH 0.5 INCH. AT THAT AMOUNT OF MOVEMENT, THE ENGINEERS AND DESIGNERS SHALL DETERMINE THE CAUSE OF DISPLACEMENT AND DEVELOP REMEDIAL MEASURES SUFFICIENT TO LIMIT TOTAL WALL MOVEMENTS TO 1 INCH. ALL EARTHWORK AND CONSTRUCTION ACTIVITIES MUST BE DIRECTED TOWARDS IMMEDIATE IMPLEMENTATION OF REMEDIAL MEASURES NECESSARY TO LIMIT TOTAL WALL MOVEMENTS TO WHAT HAS BEEN DEFINED AS ACCEPTABLE BY THE DESIGN TEAM AND SDOT (IF APPLICABLE).

SDOT ALLOWS AS A MAXIMUM ONE INCH HORIZONTAL DISPLACEMENT ANYWHERE ON SHORING WALL SURFACES THROUGHOUT THE SHORING WALL SERVICE LIFE TIME. CONSTRUCTION SHALL BE SUSPENDED IMMEDIATELY AND REMEDIAL PROCEDURES APPLIED AS LONG AS A DISPLACEMENT READING EXCEEDS ONE INCH.

#### TIEBACK CONSTRUCTION

- 19. TIEBACK LEAN MIX SHALL CONTAIN 1-1/2 SACKS OF CEMENT PER CUBIC YARD. THERE IS NO STRENGTH REQUIREMENT FOR THIS MIX.
- 20. PRESTRESSING STEEL SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
  - A. DYWIDAG THREAD BAR SHALL CONFORM TO ASTM SPECIFICATION A-722 FOR HOT ROLLED, PROOF STRESSED ALLOY STEEL, pfu = 150 KSI.
  - B. UNCOATED SEVEN WIRE STRESS RELIEVED STRAND SHALL CONFORM TO ASTM A416, GRADE 270.

- 21. TIEBACK INSTALLATION AND PRESTRESSING SHALL BE COMPLETED PRIOR TO EXCAVATING MORE THAN TWO FEET BELOW TIEBACK LEVEL.
- 22. TIEBACKS SHALL REMAIN STRESSED UNTIL ALL PERMANENT STRUCTURE IS IN PLACE.
- 23. ALL TIEBACKS SHALL BE DESTRESSED UPON THE COMPLETION OF THE PROJECT.
- 24. VERIFICATION TESTS SHALL BE PROVIDED AS FOLLOWS:
- A. TWO HUNDRED PERCENT VERIFICATION TESTS SHALL BE CONDUCTED ON AT LEAST TWO ANCHORS IN EACH PARTICULAR SOIL TYPE. A MINIMUM OF FOUR ANCHORS SHALL BE SELECTED BY THE GEOTECHNICAL ENGINEER FOR TESTING DURING THE COURSE OF CONSTRUCTION.
- B. THE MAXIMUM STRESS IN PRESTRESSING STEEL SHALL NOT EXCEED 80% OF THE ULTIMATE TENSILE STRENGTH DURING PERFORMANCE TESTING. PILES AND TIEBACKS MAY REQUIRE EXTRA REINFORCEMENT TO PERMIT STRESSING TO 200% OF DESIGN LOAD AS REQUIRED BY THE VERIFICATION TEST.
- C. THE VERIFICATION TESTS SHALL MEASURE ANCHOR STRESS AND DISPLACEMENT INCREMENTALLY TO VALUES OF UNIT SKIN FRICTION EQUAL TO 200% OF THE DESIGN STRESS. THE ANCHOR SHALL BE LOADED IN 10% INCREMENTS WITH EACH INCREMENT HELD FOR AT LEAST FIVE MINUTES. THE FINAL MAXIMUM TEST LOAD SHALL BE MAINTAINED FOR A PERIOD OF AT LEAST THIRTY MINUTES. MEASUREMENTS OF MOVEMENT SHALL BE OBTAINED WITH A TRANSIT AND A SCALE ACCURATE TO 0.01 INCH ATTACHED TO THE ROD. TEST ANCHORS SHALL HOLD THE MAXIMUM TEST UNIT STRESS WITHOUT NOTICEABLE CREEP AND EXHIBITED A LINEAR OR NEAR-LINEAR RELATIONSHIP BETWEEN UNIT ANCHOR STRESS AND MOVEMENT OVER THE ENTIRE 200% STRESS RANGE. NOTICEABLE CREEP SHALL BE DEFINED AS A RATE OF MOVEMENT OF APPROXIMATELY 0.08 INCHES/LOG CYCLE OF TIME. TESTS SHALL BE PERFORMED WITHOUT THE BACKFILL AHEAD OF THE ANCHOR TO AVOID ANY CONTRIBUTORY RESISTANCE BY THE BACKFILL, UNLESS APPROVAL TO THE CONTRARY IS GRANTED BY THE GEOTECHNICAL ENGINEER.

#### 25. PRODUCTION ANCHORS:

- A. EACH PRODUCTION ANCHOR SHALL BE PROOF-LOADED TO 130% OF THE DESIGN LOAD AND SHALL SUSTAIN THE PROOF LOAD WITHOUT NOTICEABLE CREEP OR EXCESSIVE ANCHOR MOVEMENT FOR FIVE MINUTES. THE ANCHOR SHALL BE LOADED IN INCREMENTS OF 25% OF THE DESIGN LOAD, WITH EACH LOAD HELD FOR AT LEAST FIVE MINUTES, IN ORDER TO OBTAIN A STABLE DISPLACEMENT MEASUREMENT.
- B. MOVEMENT OF THE ANCHOR IN EXCESS OF 3 INCHES SHALL BE CONSIDERED INDICATIVE OF DEFICIENCIES IN THE INSTALLATION. TOTAL MOVEMENT OF AN ANCHOR IN EXCESS OF 6 INCHES SHALL BE CONSIDERED A FAILURE REQUIRING A REPLACEMENT ANCHOR. TOTAL MOVEMENT OF AN ANCHOR BETWEEN 3 INCHES AND 6 INCHES SHALL BE REVIEWED BY THE GEOTECHNICAL AND STRUCTURAL ENGINEER TO DETERMINE IF A REPLACEMENT ANCHOR IS REQUIRED.
- C. FOLLOWING PROOF LOADING, EACH ANCHOR SHALL BE LOCKED OFF AT 100% OF DESIGN LOADING.
- 26. THE GEOTECHNICAL ENGINEER SHALL PROVIDE THE RESULTS OF THE VERIFICATION AND PROOF LOAD TESTS TO THE CITY OF MERCER ISLAND IN THEIR FIELD REPORTS, WHICH SHALL ALSO BE FILED WITH THE CITY. RESULTS OF THE VERIFICATION TESTING OBSERVED AND ANALYZED BY THE GEOTECHNICAL ENGINEER OF RECORD SHALL BE SUBMITTED TO THE CITY OF MERCER ISLAND [GEOTECHNICAL PEER REVIEWER] PRIOR TO APPLYING DESIGN LOADING TO THE REMAINDER OF THE ANCHORS.

ANY FAILED TESTS SHALL BE REPORTED TO THE BUILDING OFFICIAL ALONG WITH THE PROPOSED DESIGN REVISIONS FOR APPROVAL.

- 27. THE ABILITY TO ACHIEVE THE REQUIRED TIEBACK STRENGTH (4.71 KIP/FT) WILL LIKELY REQUIRE POST OR SECONDARY GROUTING.
- 28. THE CONTRACTOR SHALL DETERMINE THE ANCHOR DIAMETER, INSTALLATION METHOD, AND GROUTING PROCEDURES NECESSARY TO OBTAIN THE REQUIRED ANCHOR LOADS WITHOUT ENCROACHING ON THE ADJACENT PROPERTY TO THE EAST. ANY STRUCTURAL MODIFICATIONS SHALL BE APPROVED BY THE STRUCTURAL ENGINEER OF RECORD.

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Issue Description
Permit
Corrections 1 1
Corrections 2 2

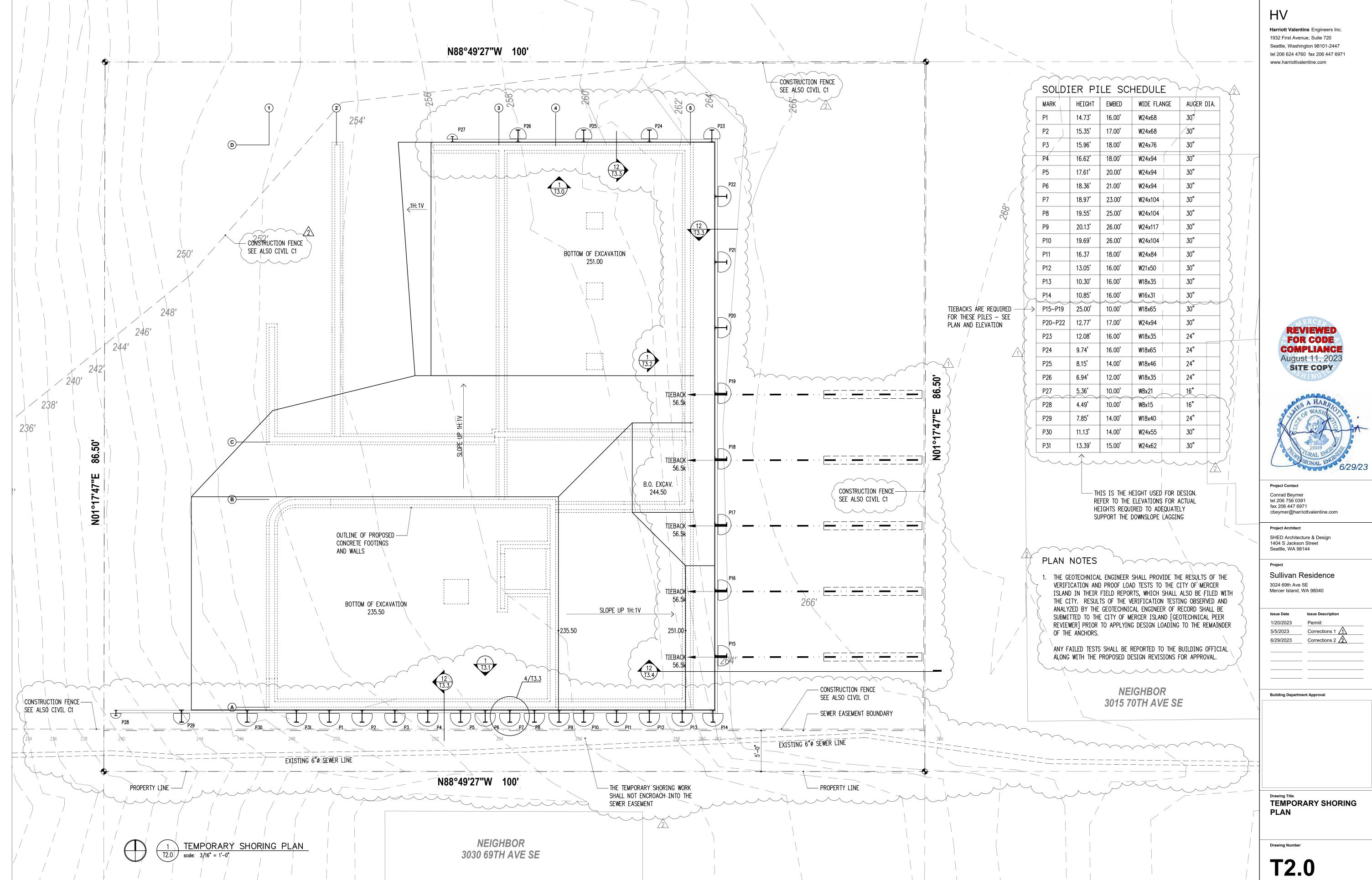
Building Department Approval

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GENERAL NOTES

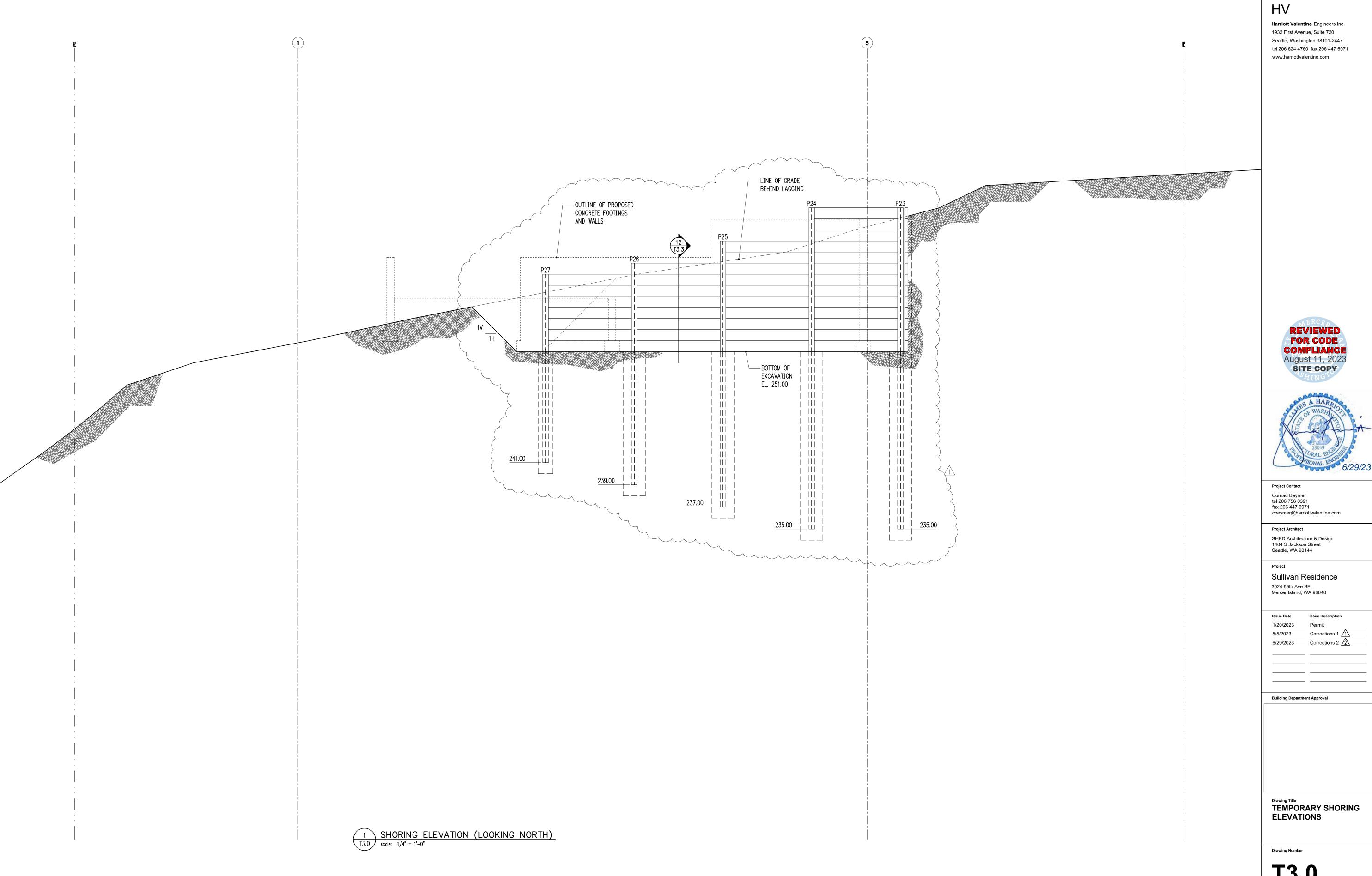
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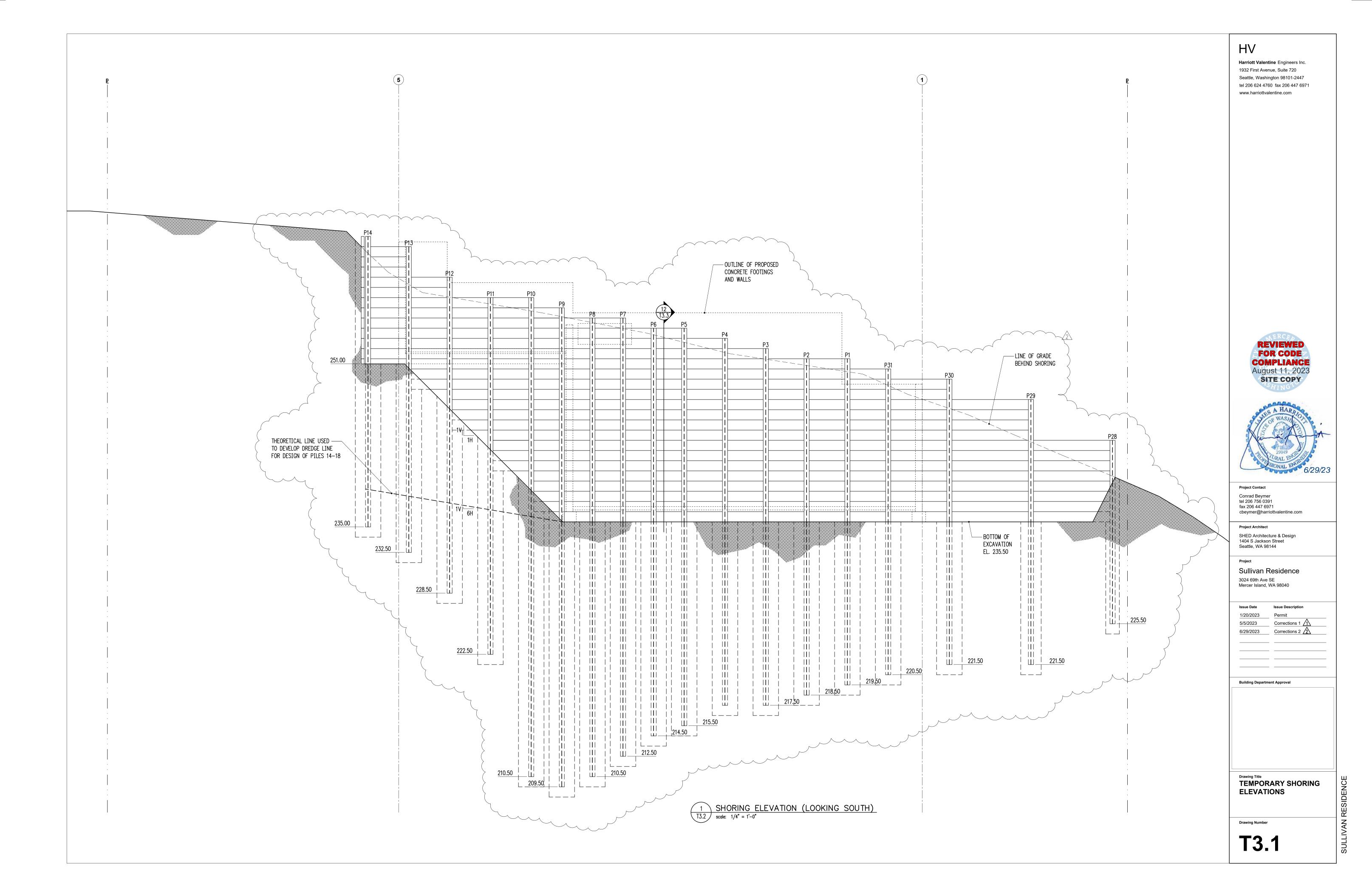
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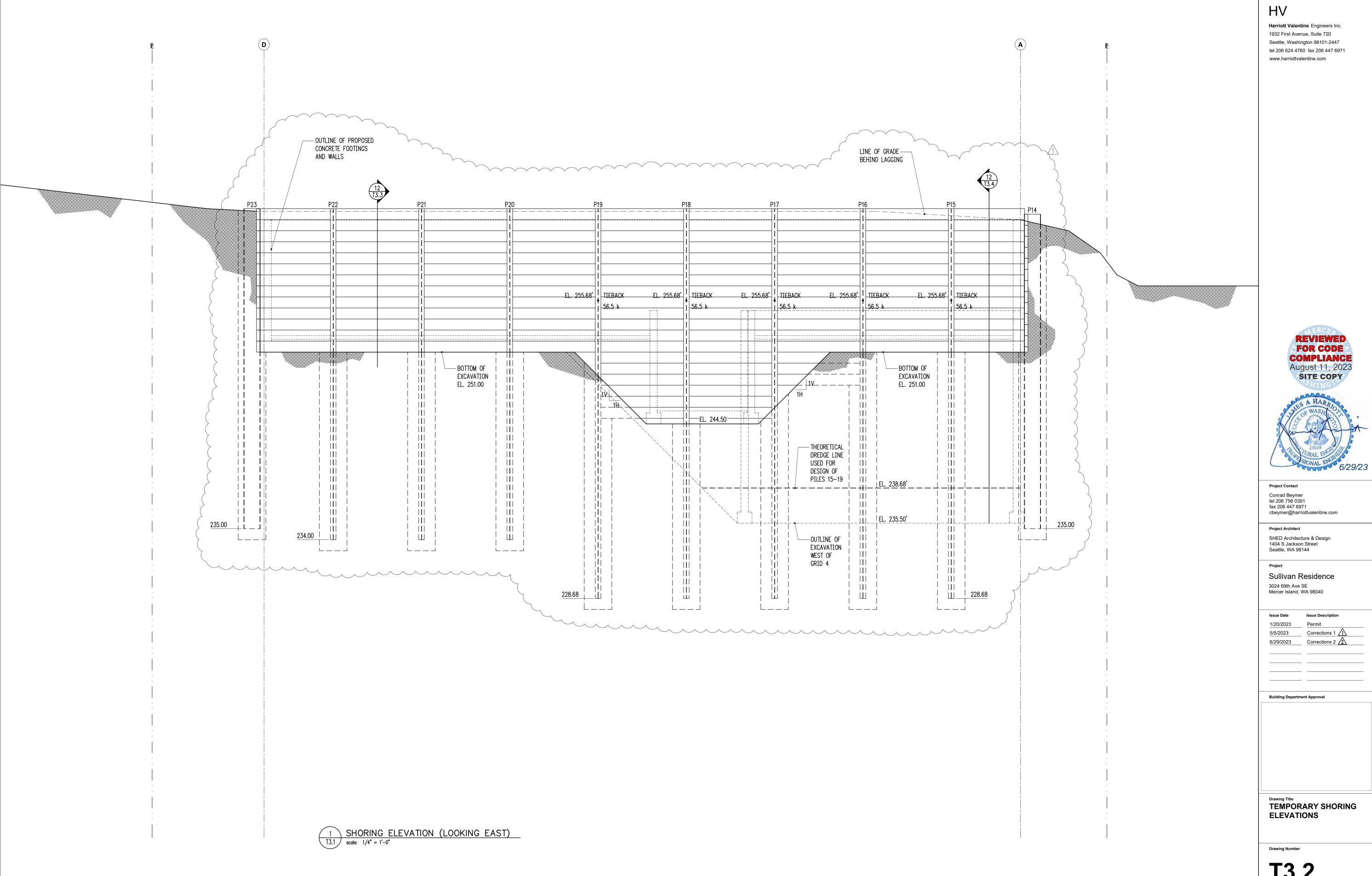






T3.0





T3.2

