

GRAPHIC SCALE

5 0 5 10 20

1INCH = 10 FT.

LEGEND

	FOUND MONUMENT AS DESCRIBED	OHP	OVERHEAD POWER
	FOUND REBAR AS DESCRIBED	OHU	OVERHEAD UTILITIES
	TACK IN LEAD FOUND	X	CHAINLINK FENCE
	SET 5/8" X 24" IRON ROD W/1" YELLOW PLASTIC CAP		WOOD FENCE
	POWER METER		CONCRETE WALL
	UTILITY POLE		ROCKERY
	GAS METER		ASPHALT SURFACE
	CATCH BASIN		CONCRETE SURFACE
	SANITARY SEWER MANHOLE		BRICK SURFACE
	WATER VALVE	CE	CEDAR
	FIRE HYDRANT	DS	DECIDUOUS
	WATER METER	HO	HOLLY
	SIGN	MP	MAPLE
SS	APPROXIMATE LOCATION SANITARY SEWER LINE	* INDICATES MULTI-TRUNK	
SD	APPROXIMATE LOCATION STORM DRAIN LINE		

LEGAL DESCRIPTION

LOT 10, DOYLE HANSEN ADDITION TO THE CITY OF SEATTLE, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 75 OF PLATS, PAGE 24, IN KING COUNTY, WASHINGTON;

SITUATE IN THE CITY OF MERCER ISLAND, COUNTY OF KING, STATE OF WASHINGTON.

BASIS OF BEARINGS

THE PLAT OF DOYLE HANSEN ADDITION TO THE CITY OF SEATTLE, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 75 OF PLATS, PAGE 24, IN KING COUNTY, WASHINGTON.

PROJECT INFORMATION

SURVEYOR:	SITE SURVEYING, INC. 21923 NE 11TH ST SAMMAMISH, WA 98074 PHONE: 425.298.4412
PROPERTY OWNER:	OU CHUNLING & FANG HONG 3804 E MERCER WAY MERCER ISLAND, WA 98040
TAX PARCEL NUMBER:	210700-0100
PROJECT ADDRESS:	3804 E MERCER WAY MERCER ISLAND, WA 98040
ZONING:	R 9.6
JURISDICTION:	CITY OF MERCER ISLAND
PARCEL ACREAGE:	14,352 S.F. (± 0.329 ACRES) AS SURVEYED

GENERAL NOTES

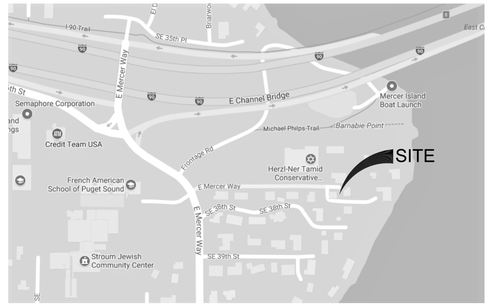
1. THIS SURVEY WAS BASED ON CHICAGO TITLE COMPANY OF WASHINGTON ORDER NUMBER 0155495-04 DATED DECEMBER 15, 2019.
2. INSTRUMENTATION FOR THIS SURVEY WAS A 3-SECOND SPECTRAPRECISION FOCUS 35 TOTAL STATION. PROCEDURES USED IN THIS SURVEY MEET OR EXCEED STANDARDS SET BY WAC 332-130-090.
3. THE INFORMATION ON THIS MAP REPRESENTS THE RESULTS OF A SURVEY MADE IN APRIL 2020 AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.
4. UTILITIES SHOWN ON THIS SURVEY ARE BASED UPON ABOVE GROUND OBSERVATIONS AND AS-BUILT PLANS WHERE AVAILABLE. ACTUAL LOCATIONS OF UNDERGROUND UTILITIES MAY VARY AND UTILITIES NOT SHOWN ON THIS SURVEY MAY EXIST ON THIS SITE.
5. ALL MONUMENTS WERE LOCATED DURING THIS SURVEY UNLESS OTHERWISE NOTED.

VERTICAL DATUM & CONTOUR INTERVAL

DATUM

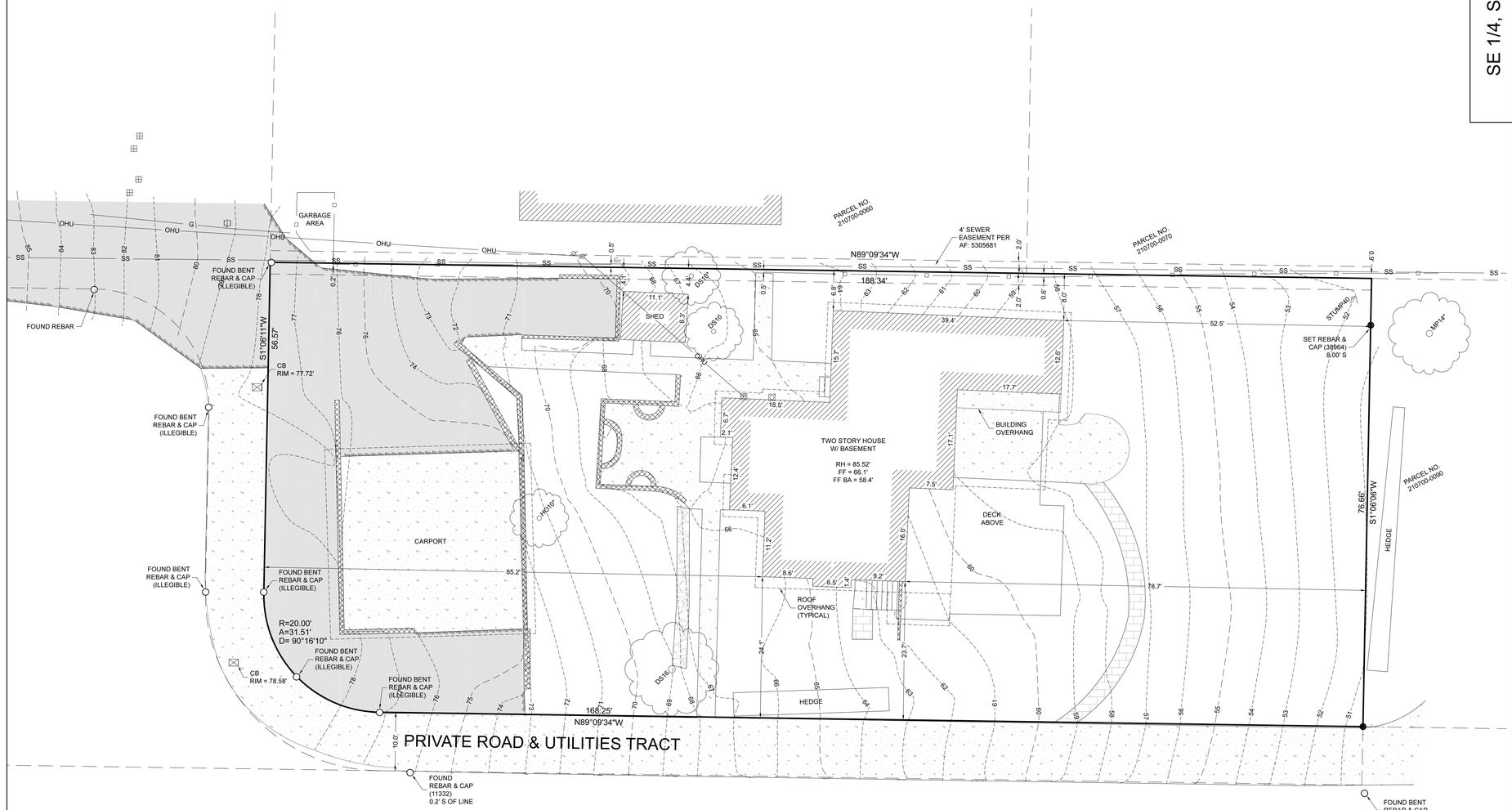
ELEVATIONS SHOWN ON THIS DRAWING ARE ON AN ASSUMED DATUM.

1.0' CONTOUR INTERVAL - THE EXPECTED VERTICAL ACCURACY IS EQUAL TO 1/2 THE CONTOUR INTERVAL OR PLUS / MINUS 0.5' FOR THIS PROJECT.



VICINITY MAP

NTS



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

SE 1/4, SW 1/4, SEC 24, TWP 25N, RNG 3E, W.M.

WOLDEYDORF SAMSON THOMAS N. — WASHINGTON — 19858 — REGISTERED PROFESSIONAL LAND SURVEYOR

DRN

REVISION

DATE

TOPOGRAPHIC SURVEY

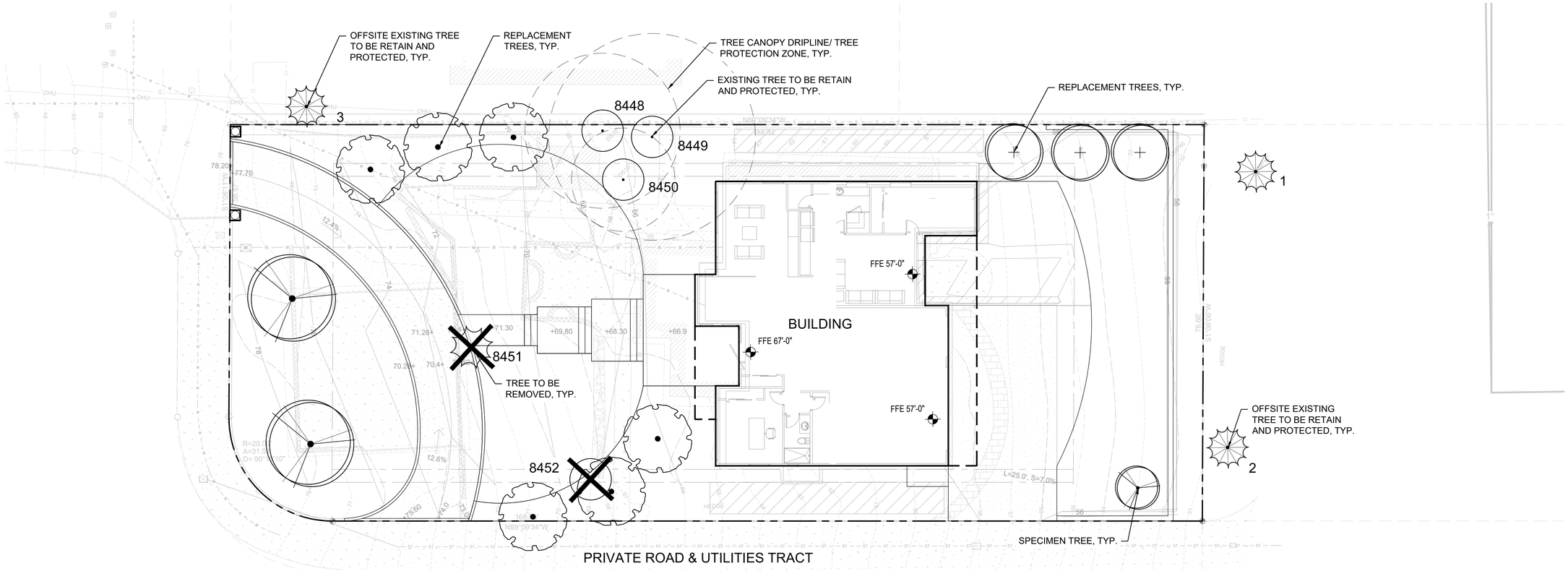
OU CHUNLING & FANG HONG
3804 E MERCER WAY
MERCER ISLAND, WA 98040

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PROJECT NO. 20-127

DRAWN BY: EFJ
CHECKED BY: TNW
DATE: 8/15/24

SHEET 1 OF 1



1 **TREE RETENTION AND REPLACEMENT PLAN**

0 10' 20'

Scale: 1"=10'

TREE PROTECTION AREA (TPZ)

KEEP OUT!

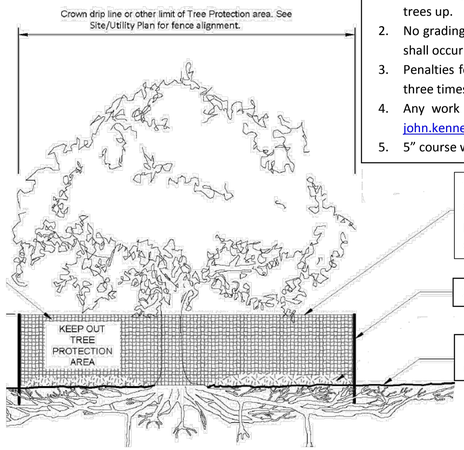
DO NOT REMOVE OR ADJUST THE APPROVED LOCATION OF THIS TREE PROTECTION AREA

Trees enclosed by this fence are protected and are subject to the conditions of the tree permit. Violation of tree conditions may lead to:

1. Correction Notices or Stop Work Orders until compliance is achieved
2. RE Inspection Fees/financial penalties
3. Arborist reports recommending mitigation

Notes

1. No pruning shall be performed unless under the direction of the Project Arborist. Including limbing trees up.
2. No grading, excavation, storage (materials, equipment, vehicles, etc.), or other unpermitted activity shall occur inside the protective fencing.
3. Penalties for damaging by root damage/compaction or removing a saved tree may be a fine up to three times the value of the tree plus restoration (MICC 19.10.160).
4. Any work in approved TPZ must be with the permission of the City Arborist (206) 275-7713, john.kenney@mercergov.org.
5. 5" course woodchips within the tree protection zone, but not against the tree trunk.



Tree protection fence: 6' **chain link** fence, solidly anchored into the ground, or if authorized High-density polyethylene fencing with 3.5" x 1.5" openings; color orange. Steel posts installed at 8' o.c.

2" x 6" steel posts or approved equal

Maintain existing grade with the tree protection fence unless otherwise indication on the plans

Any Work in the protected area must be with the permission of the City Arborist john.kenney@mercergov.org

TREE ID	SPECIES	DSH (IN)	HEIGHT (FT)	AVG. CANOPY RADIUS (FT)	CONDITION	OBSERVATION	CRZ (FT)	PROPOSED STATUS
8448	CHERRY LAUREL (PRUNUS LAUROCERASUS)	24	30	15	FAIR	MULTIPLE STEMS	24	RETAIN
8449	CHERRY LAUREL (PRUNUS LAUROCERASUS)	11	30	20	FAIR	MULTIPLE STEMS	11	RETAIN
8450	PACIFIC DOGWOOD (CORNUS NUTTALLII)	12	25	10	FAIR	PREVIOUSLY TOPPED EXCEPTIONAL	12	RETAIN
8451	ENGLISH HOLLY (ILEX AQUIFOLIUM)	17	25	10	FAIR	CODOMINANT BRANCHES	17	REMOVE
8452	APPLE (MALUS SPP.)	18	20	15	POOR	TRUNK DECAY	18	REMOVE
1	BIGLEAF MAPLE (ACER MACROPHYLLUM)	19	75	20	GOOD	CODOMINANT BRANCHES	19	RETAIN
2	CHERRY (PRUNUS SPP.)	17	15	10	POOR	CODOMINANT BRANCHES	17	RETAIN
3	BLUE SPRUCE (PICEA PUNGENS)	10	40	10	GOOD	OVERHEAD UTILITY LINES	10	RETAIN

NOTE:

1. REFER TO ARBORIST REPORT FOR FULL TREE ASSESSMENT AND TREE PROTECTION REQUIREMENTS.
2. MINIMUM TREE RETENTION RATE TO BE REQUIRED 30%.
   2.1. TOTAL (5) TREES ON SITE, AND WILL REQUIRE (2) TO BE RETAINED.
   2.2. TOTAL (3) TO BE RETAINED ON SITE.
3. TREE REPLACEMENT IS REQUIRED FOR REMOVAL TREES. 7 REPLACEMENT TREES ARE REQUIRED FORT THIS PROJECT.REFER TO L-2 FOR REPLACEMENT TREE LOCATION AND SCHEDULE.
   3.1. #8451 IS 17 IN. DIAMETER, WHICH REQUIRES 2 REPLACEMENT TREES;
   3.2. #8452 IS 18 IN. DIAMETER, WHICH REQUIRES 2 REPLACEMENT TREES;
   3.3. LEGACY TREE REMOVAL (ALREADY REMOVED ON SITE), WHICH REQUIRES 3 REPLACEMENT TREES.
4. ALL DECIDUOUS TREE WILL BE 1"-1.5" CALIPER ACQUIRED FROM NURSERY STOCK. ALL CONIFER TREE WILL BE AT LEAST 6 TALL.
5. REFER TO L-2 LANDSCAPE PLAN FOR TREE REPLANTING SCHEDULE.
6. TREE PLANTING ACTIVITY WILL CONFORM TO AMERICAN NATIONAL STANDARDS INSTITUTE STANDARD.
7. PLEASE SEE LANDSCAPE PLAN FOR REPLACEMENT TREES.

3804 HOME

3804 E MERCER WAY
MERCER ISLAND WA 98040

LOTUS LANDSCAPE DESIGN
425 753 3424
JOSEPHINE@LOTUSLANDSCAPEDESIGN.COM

STATE OF WASHINGTON
REGISTERED
LANDSCAPE ARCHITECT
Josephine Chung-Chen Lian
CERTIFICATE NO. 905

ISSUE DATE

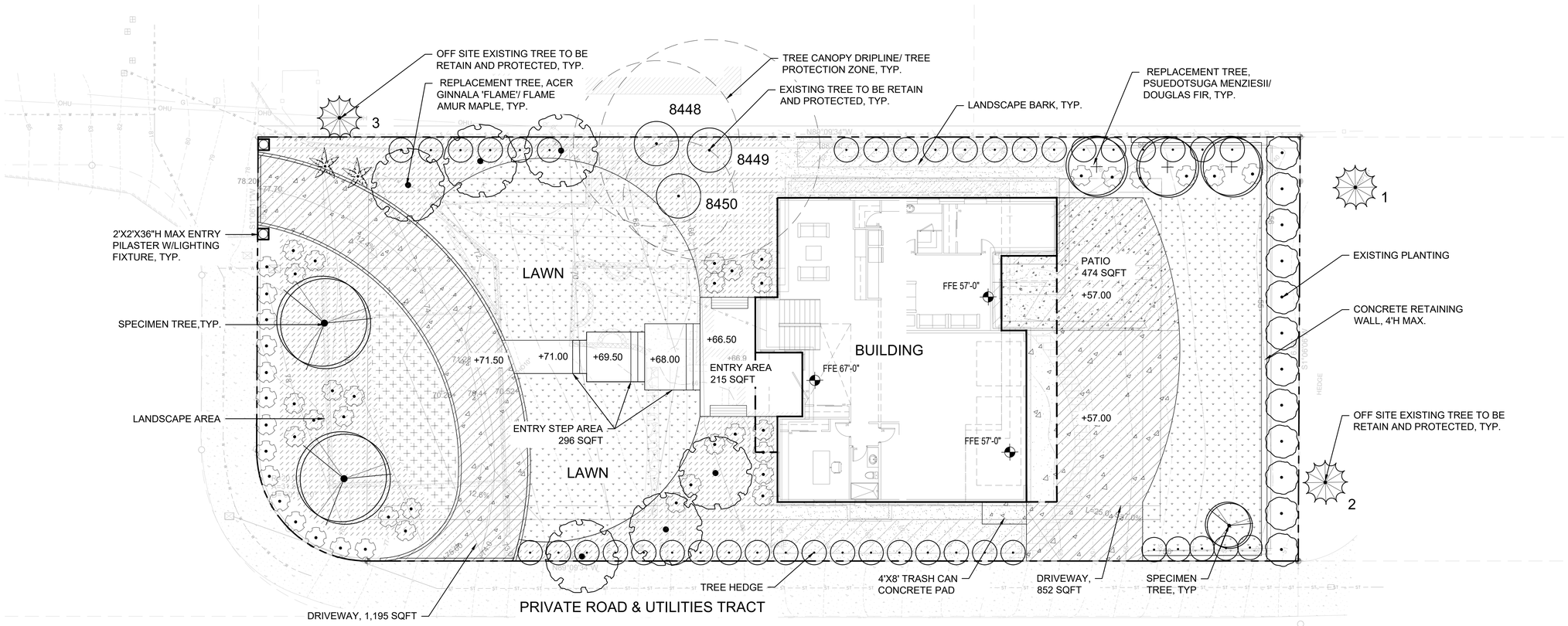
DECEMBER 11, 2024

NO.	DATE	DESCRIPTION OF REVISIONS
	06/01/2023	PERMIT SET
1	09/03/2024	CORRECTION #1

TREE REMOVAL AND RETENTION PLAN

SHEET NUMBER

L-1



1 LANDSCAPE PLAN

0 10' 20'

Scale: 1"=10'

NOTES:

1. CONTRACTOR TO PROVIDE FULLY AUTOMATED, EFFICIENT DESIGN BUILD IRRIGATION SYSTEM FOR THE PROJECT, INCLUDING SMART CONTROLLER WITH CONNECTION TO WEATHER DATA, AND A PRIVATELY-METERED WATER SOURCE. INCLUDE IRRIGATION AT ALL NEWLY PLANTED AREAS.
2. ELEVATION SHOWN ON THIS PLAN ARE APPROXIMATE. SEE CIVIL DRAWING FOR ACCURATE GRADE ELEVATIONS.

HARDSCAPE COVERAGE CACULATION:

1. MAX. HARDSCAPE AREA: 9% X 14,352 = 1,292 SQFT
2. TOTAL HARDSCAPE AREA:1,086 SQFT
   - 2.1. ENTRY STEPS AREA: 298 SQFT
   - 2.2. ENTRY AREA: 215 SQFT
   - 2.5. ENTRY PILASTER: 8 SQFT
   - 2.6. TRASH CAN CONCRETE PAD: 32 SQFT
   - 2.7. PATIO:474 SQFT
   - 2.8. RETAINING WALL: 122 SQFT
3. TOTAL HARDSCAPE AREA 1,149 SQFT < 1,292 SQFT REQUIREMENT MEET.

REPLANTING SCHEDULE

SYMBOL	BOTANICAL / COMMON NAME	SIZE	QTY
TREES			
	ACER GINNALA 'FLAME' / FLAME AMUR MAPLE	1.5" CAL	6
	PSUEDOTSUGA MENZIESII/ DOUGLAS FIR	6' HT	3

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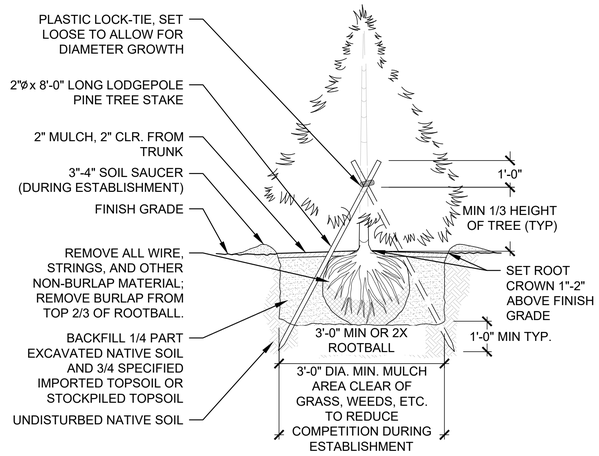
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LANDSCAPE PLAN

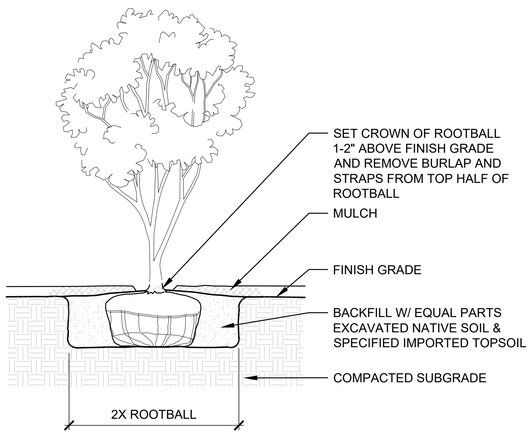
SHEET NUMBER

L-2



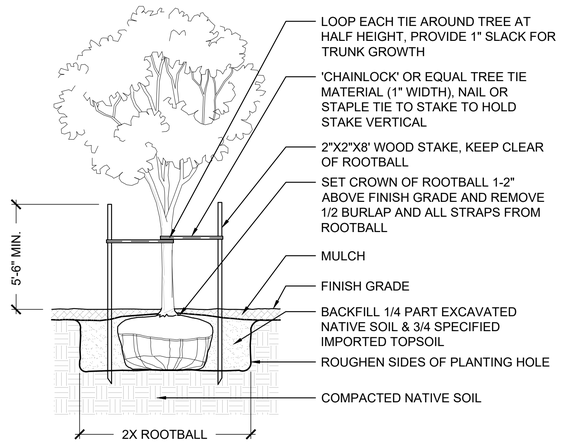
1 CONIFEROUS TREE PLANTING

N.T.S.



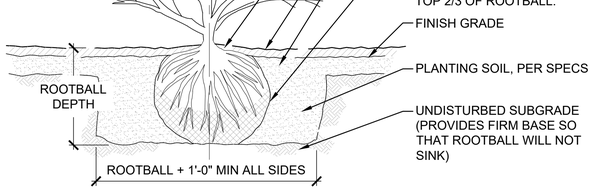
2 MULTI-STEM TREE PLANTING

N.T.S.



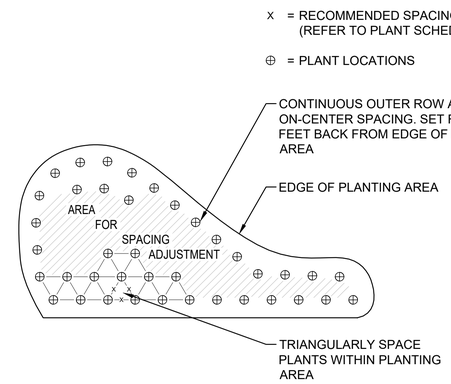
3 DECIDUOUS TREE PLANTING

N.T.S.



4 SHRUB PLANTING

N.T.S.



5 PLANT SPACING AND PATTERN

N.T.S.

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PLANTING DETAILS

SHEET NUMBER

L-3

CLEARING AND GRADING STANDARD NOTES

1. ALL CLEARING & GRADING CONSTRUCTION MUST BE IN ACCORDANCE WITH CITY OF MERCER ISLAND CLEARING & GRADING CODE; CLEARING & GRADING EROSION CONTROL STANDARD; LAND USE CODE; UNIFORM BUILDING CODE; PERMIT CONDITIONS; AND ALL OTHER APPLICABLE CODES, ORDINANCES, AND STANDARDS. THE DESIGN ELEMENTS WITHIN THESE PLANS HAVE BEEN REVIEWED ACCORDING TO THESE REQUIREMENT. ANY VARIANCE FROM ADOPTED EROSION STANDARDS IS NOT ALLOWED UNLESS SPECIFICALLYAPPROVED BY THE CITY OF MERCER ISLAND PUBLIC WORKS AND COMMUNITY DEVELOPMENT (PCD) PRIOR TO CONSTRUCTION.

IT IS THE SOLE RESPONSIBILITY OF THE APPLICANT AND THE PROFESSIONAL CIVIL ENGINEER TO CORRECT ANY ERROR, OMISSION, OR VARIATION FROM THE ABOVE REQUIREMENTS FOUND IN THESE PLANS. ALL CORRECTIONS WILL BE AT NO ADDITIONAL COST OR LIABILITY TO THE COB. ALL DETAILS FOR STRUCTURAL WALLS, ROCKERIES OVER FOUR FEET IN HEIGHT, GEOGRID REINFORCED ROCKERIES, AND GEOGRID REINFORCED MODULAR BLOCK WALLS MUST BE STAMPED BY A PROFESSIONAL ENGINEER.

2. A COPY OF THE APPROVED PLANS MUST BE ON-SITE DURING CONSTRUCTION. THE APPLICANT IS RESPONSIBLE FOR OBTAINING ANY OTHER REQUIRED OR RELATED PERMITS PRIOR TO BEGINNING CONSTRUCTION.

3. ALL LOCATIONS OF EXISTING UTILITIES HAVE BEEN ESTABLISHED BY FIELD SURVEY OR OBTAINED FROM AVAILABLE RECORDS AND SHOULD, THEREFORE, BE CONSIDERED ONLY APPROXIMATE AND NOT NECESSARILY COMPLETE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INDEPENDENTLY VERIFY THE ACCURACY OF ALL UTILITY LOCATIONS AND TO DISCOVER AND AVOID ANY OTHER UTILITIES NOT SHOWN WHICH MAY BE AFFECTED BY THE IMPLEMENTATION OF THIS PLAN.

4. THE AREA TO BE CLEARED AND GRADED MUST FLAGGED BY THE CONTRACTOR AND APPROVED BY THE CLEARING & GRADING INSPECTOR PRIOR TO BEGINNING ANY WORK ON THE SITE.

5. A REINFORCED SILT FENCE MUST BE INSTALLED AS SHOWN ON THE APPROVED PLANS OR PER THE CLEARING & GRADING INSPECTOR, ALONG SLOPE CONTOURS AND DOWN SLOPE FROM THE BUILDING SITE.

6. A HARD-SURFACE CONSTRUCTION ACCESS PAD IS REQUIRED. THIS PAD MUST REMAIN IN THE PLACE UNTIL PAVING IS INSTALLED.

7. CLEARING WILL BE LIMITED TO THE AREAS WITHIN THE APPROVED DISTURBANCE LIMITS, EXPOSED SOILS MUST BE COVERED AT THE END OF EACH WORKING DAY WHEN WORKING FROM OCTOBER 1ST THROUGH APRIL 30. FROM MAY THROUGH SEPTEMBER 30, EXPOSED SOILS MUST BE COVERED AT THE END OF EACH CONSTRUCTION WEEK AND ALSO AT THE THREAT OF RAIN.

8. ANY EXCAVATED MATERIAL REMOVED FROM THE CONSTRUCTION SITE AND DEPOSITED ON THE PROPERTY WITHIN THE CITY LIMITS MUST BE DONE IN COMPLIANCE WITH VALID CLEARING & GRADING PERMIT. LOCATIONS FOR THE MOBILIZATION AREA AND STOCKPILED MATERIALS MUST APPROVED BY THE CLEARING & GRADING INSPECTOR AT LEAST 24 HOURS IN ADVANCE OF ANY STOCKIPLING.

9. TO REDUCE THE POTENTIAL FOR EROSION OF EXPOSED SOILS, OR WHEN RAINY SEASON CONSTRUCTION IS PERMITTED, THE FOLLOWING BEST MANAGEMENT PRACTICES (BMPS) ARE REQUIRED:
* PRESERVED NATURAL VEGETATION FOR AS LONG AS POSSIBLE OR AS REQUIRED BY THE CLEARING & GRADING INSPECTOR.
* PROTECT EXPOSED SOIL USING PLASTIC (EC-14), EROSION CONTROL BLANKETS, STRAW OR MULCH (COB GUIDE TO MULCH, RATES, AND USE CHART), OR AS DIRECTED BY THE CLEARING & GRADING INSPECTOR.
* INSTALL CATCH BASIN INSERTS AS REQUIRED BY THE CLEARING & GRADING INSPECTOR OR PERMIT CONDITIONS OF APPROVAL.
* INSTALL A TEMPORARY SEDIMENT POND, A SERIES OF SEDIMENTATION TANKS, TEMPORARY FILTER VAULTS, OR OTHER SEDIMENT CONTROL FACILITIES. ISTALLATION OF EXPOSED AGGREGATE SURFACES REQUIRES A SEPARATE EFFLUENT COLLECTION POND ON -SITE.

10. FINAL SITE GRADING MUST DIRECT DRAINAGE AWAY FROM ALL BUILDING STRUCTURES AT MINIMUM 2% SLOPE, PER UNIFORM BUILDING CODE.

11. THE CONTRACTOR MUST MAINTAIN A SWEEPER ON - SITE DURING EARTHWORK AND IMMEDIATELY REMOVE SOIL THAT HAS BEEN TRACKED ONTO PAVED AREAS AS RESULT OF CONSTRUCTION.

12. A PUBLIC INFORMATION SIGN LISTING 24- HOUR EMERGENCY NUMBER FOR THE CITY AND THE CONTRACTOR MAY BE PROVIDED TO THE APPLICANT AT THE TIME THE CLEARING & GRADING PERMIT IS ISSUED. THE APPLICANT MUST POST THE SIGN AT THE PROJECT SITE IN FULL VIEW OF THE PUBLIC AND THE CONTRACTORS, AND IT MUST REMAIN POSTED UNTIL FINAL SIGN -OFF BY THE CLEARING & GRADING INSPECTOR.

13. TURBIDITY MONITORING MAY BE REQUIRED AS A OF CLEARING & GRADING PERMIT APPROVAL. IF REQUIRED, MONITORING MUST BE PERFORMED IN ACCORDANCE WITH THE APPROVED TURBIDITY MONITORING PLAN AND AS DIRECTED BY THE CLEARING & GRADING INSPECTOR. MONITORING MUST DURING SITE (EARTHWORK) CONSTRUCTION UNTIL THE FINAL SIGN - OFF BY THE CLEARING & GRADING INSPECTOR.

14. ANY PROJECT THAT IS SUBJECTED TO RAINY SEASON RESTRICTIONS WILL NOT BE ALLOWED TO PERFORM CLEARING & GRADING ACTIVITIES WITHOUT WRITTEN APPROVAL FROM THE CITY ENGINEER. THE RAINY SEASON EXTENDS FROM NOVEMBER 1ST THROUGH APRIL 30.

RESTORATION NOTES

1) Surface restoration of existing asphalt pavement shall be as required by the right-of-way use permit.
2) The Contractor shall restore the Right-of-Way and existing public storm drainage easement(s) after construction to a condition equal or better than condition prior to entry. The Contractor shall furnish a signed release from all affected property owners after restoration has been completed.

UTILITY NOTES

1) The locations of all existing utilities shown hereon have been established by field survey or obtained from available records and should therefore be considered approximate only and not necessarily complete. It is the sole responsibility of the excavator to independently verify the accuracy of all utility locations shown, and to further discover and avoid any other utilities not shown here on which may be affected by the implementation of this plan. Immediately notify the responsible Professional Engineer if a conflict exists.
2) Call 1-800-424-5555, or 8-1-1, 72 hours before construction for utility locates.
3) The Contractor shall maintain a minimum of five feet (5) horizontal separation between all water and storm drainage lines. Any conflict shall be reported to the Utility and the Professional Engineer prior to construction.
4) Avoid crossing water or sewer mains at highly acute angles. The smallest angle measure between utilities should be 45 degrees.
5) It shall be the Contractors responsibility to ensure that no conflicts exist between storm drainage lines and proposed or existing utilities prior to construction.
6) At points where existing thrust blocking is found, minimum clearance between concrete blocking and other buried utilities or structures shall be 5 feet.
7) Where a new utility line crosses below an existing AC main, the AC pipe shall be replaced with DI pipe to 3 feet past each side of the trench as shown on Standard Detail W-8. Alternatively, where directed by the Utility, the trench shall be backfilled with controlled density fill (CDF, aka flowable fill) from bottom of trench to bottom of AC main.

STORM DRAINAGE NOTES

1) Storm pipe shall be PVC conforming to ASTM D-3034 SDR35 or ASTM F-679. Bedding and backfill shall be as shown in the Standard Details.
2) The footing drainage system and the roof downspout system shall not be interconnected and shall separately convey collected flows to the conveyance system or to on-site storm water facilities.
3) Prior to final inspection and acceptance of storm drainage work, pipes and storm drain structures shall be cleaned and flushed. Any obstructions to flow within the storm drain system, (such as rubble, mortar and wedged debris), shall be removed at the nearest structure. Wash water of any sort shall not be discharged to the storm drain system or surface waters.
4) Ends of each storm drain stub at the property line shall be capped and located with an 8' long 2" x 4" board, embedded to the stub cap and extending at least 3 feet above grade, and marked permanently "STORM". A copper 12 ga. locate wire firmly attached. The stub depth shall be indicated on the marker.
5) All grates in roadways shall be ductile iron, bolt-locking, vane grates per the Standard Details. Structures in traffic lanes outside of the curb line which do not collect runoff shall be fitted with round, bolt-locking solid covers. Off-street structures which do not collect runoff shall be fitted with bolt-locking solid covers.
6) Vegetation/landscaping in the detention pond, bioretention facility, vegetated roof and/or drainage swale(s) are an integral part of the runoff treatment system for the project. Such drainage facilities will not be accepted until plantings are established.
7) All new manholes shall have a minimum inside diameter of 48' and shall conform to the Standard Details. All new catch basins shall conform to the Standard Details.
8) Side storm stations are referenced from nearest downstream manhole/ catch basin.
9) All testing and connections to existing mains shall be done in the presence of a representative of the City of Mercer Island Utilities Department.
10) All public storm drains shall be air tested and have a video inspection performed prior to acceptance (see #23 below). Storm main constructed with flexible pipe shall be deflection tested with a mandrel prior to acceptance.
11) Storm stubs shall be tested for acceptance at the same time the main storm is tested.
12) All manholes/ catch basins in unpaved areas shall include a concrete seal around adjustment rings per Standard Details.
13) All storm main extensions within the public right-of-way or in easements must be staked by a surveyor licensed in Washington State for line and grade and cut sheets provided to the Professional Engineer, prior to starting construction.
14) Storm drainage mainlines, stubs and fittings shall be constructed using the same pipe material and manufacturer. Connections between stubs and the mainline will be made with a tee fitting. Tee fitting shall be from same manufacturer as pipe. Cut-in connections are only allowed when connecting a new stub to an existing mainline.
15) Manholes, catch basins and vaults are considered to be permit-required confined spaces. Entry into these spaces shall be in accordance with Chapter 296-809 WAC.
16) Placement of surface appurtenances (MH lids, valve lids, etc.) in tire tracks of traffic lanes shall be avoided whenever possible.
17) The Contractor shall perform a video inspection and provide a DVD of the storm pipe interior for the Citys review. The video shall provide a minimum of 14 lines per millimeter resolution and cover the entire length of the applicable pipe. The camera shall be moved through the pipe at a uniform rate (=30 ft/min), stopping when necessary to ensure proper documentation of the pipe condition. The video shall be taken after installation and cleaning to insure that no defects exist. The project will not be accepted until all defects have been repaired.
18) Clearly label public and private systems on the plans. Private systems shall be marked private and shall be maintained by the property owner(s).

19) All concrete structures (vaults, catch basins, manholes, oil/water separators, etc.) shall be vacuum tested.
20) Manholes, catch basins and inlets in easements shall be constructed to provide a stable, level grade for a minimum radius of 2.5 feet around the center of the access opening to accommodate confined space entry equipment.
21) Tops of manholes/ catch basins within public right-of-way shall not be adjusted to final grade until after paving.
22) Contractor shall adjust all manhole/ catch basin rims to flush with final finished grades, unless otherwise shown.
23) Contractor shall install, at all connections to existing downstream manholes/catch basins, screens or plugs to prevent foreign materials from entering existing storm drainage system. Screens or plugs shall remain in place throughout the duration of the construction and shall be removed along with collected debris at the time of final inspection and in the presence of a representative of the City of Bellevue Utilities Department.
24) Before commencement of trenching, the Contractor shall provide filter fabric for all downhill storm drain inlets and catch basins, which will receive runoff from the project site. The contractor shall periodically inspect the condition of all filter fabric and replace as necessary.
25) Minimum cover over storm drainage pipe shall be 2 feet, unless otherwise shown.
26) Redirect sheet flow, block drain inlets and/or curb openings in pavement and install flow diversion measures to prevent construction silt laden runoff and debris from entering excavations and finish surfaces for bioretention facilities and permeable pavements.
27) Where amended soils, bioretention facilities, and permeable pavements are installed, these areas shall be protected at all times from being over-compacted. If areas become compacted, remediate and till soil in accordance with the Citys Project Representatives requirements at no additional cost in order to restore the systems ability to infiltrate.

PROPOSED PROJECT SITE



VICINITY MAP

NTS

LEGAL DESCRIPTION

DOYLE-HANSEN ADD & UND INT IN PRIVATE RD

PARCEL NUMBER: 2107000100

PROPERTY OWNER: OU CHUNGLING & FANG HONG
3804 E MERCER WAY
MERCER ISLAND, WA 98040

PROJECT ENGINEER: STEVE WU
8822 NE 178TH ST
BOTHELL, WA 98011
TEL:206-795-5674

DATE: 12/11/2024
SURVEYED:
SURVEY BASE MAP:
DESIGN ENTERED: J.W
DESIGNED S.W
CHECKED: S.W

SHAO MIN WU STATE OF WASHINGTON 38665 REGISTERED PROFESSIONAL ENGINEER

TANDEM ENGINEERING CONSULTANT LLC
8822 NE 178TH ST
BOTHELL, WA 98011
(206) 795-5674

GENERAL NOTES

3804 RESIDENCE
3804 E MERCER WAY
MERCER ISLAND WA 98040

SHEET 1 OF 6 SHEETS

C-1.00

GENERAL TESC NOTES

Temporary erosion and sedimentaiton control facilities (TESC) (including but not limited to temporary construction entrance, catch basin protection, silt fence installation,interceptor ditches, sedimentation ponds and straw bales) must be in place and Inspected by the City of Mercer Island prior to demolition, clearing/grading, etc. Spoil piles shall be kept covered. All City streets shall be kept free of mud and construction debris. TESC facilities shall be maintained until final landscaping is completed. No sediment-laden water shall enter Lake Washington, the public storm drain system, water courses, sensitive areas or the adjacent properties. Not all of these facilities may be identified on this plan but may be required during construction. Contractor will adhere to additional requirements as conditions warrant and the project progresses, including cleaning of downstream catch basins and drainage facilities of sediment from this project.

PLAN NOTES

1. Approval of this temporary erosion and sedimentation control (TESC) plan does not constitute an approval of permanent road or drainage design.
2. The implementation of these TESC plans and the construction, maintenance, replacement, and upgrading of these TESC facilities is the responsibility of the owner/agent and/or their contractor until all construction is approved.
3. The boundaires of the clearing limits shown on this plan shall be clearly flagged by a continuous length of survey tape (or fencing, if required) prior to construction. During the construction period, no disturbance beyond the clearing limits shall be permitted. The clearing limits shall be maintained by the owner/agent and/or their contractor for the duration of construction.
4. The TESC facilities shown on this plan must be constructed prior to or in conjunction with all clearing and grading so as to ensure that the transport of sediment to surface waters, drainage systems, and adjacent properties is minimized.
5. The TESC facilities shown on this plan are the minimum requirements for anticipated site conditions. During the construciton period, these TESC facilities shall be upgraded as needed for unexpected storm events and modified to account for changing site conditions (e.g., additional sump pumps, relocation of ditches, hay bales and silt fences, etc.).
6. The TESC facilities shall be inspected daily by the owner/agent and/or their contractor and maintained to ensure continued proper functioning, Written records shall be kept of weekly reviews of the TESC facilities during the wet season (Oct. 1 to April 30) and of monthly reviews during the dry season (May 1 to Sept. 30).
7. Any areas of exposed soils, including roadway embankments, that will not be disturbed for two days during the wet season (Oct. 1 to April 30) or seven days during the dry season (May 1 to Sept. 30), shall be immediately stabilized with approved TESC methods (e.g., seeding, mulching, plastic coverni g, etc.).
8. Any area needing TESC measures that do not require immediate attention shall be addressed within fifteen (15) days.
9. The TESC fa cilities on inactive sites shall be inspected and maintained a minimum of once a month or within forty- eight (48) hours following a storm event.
10. At no time shall more than one (1) foot of sediment be allowed to accumulate within a catch basin. All catch basins and conveyance lines shall be cleaned prior to final grading and/or paving. The cleaning operation shall not flu sh sediment1-aden water into the downstream system.
11. Stabilized construction entrances and roads shall be installed at the beginning of construction and maintained for the duration of the project. Additional measures, such as wash pads and sediment traps, may be required to ensure that all paved areas are kept clean for the duration of the project.
12. Any permanent flow control facility used as a temporary settling basin shall be modified with the necessary temporary erosion control measures and shall provide adequate storage capacity.
13. Where straw mulch for temporary erosion control is required, it shall be applied at a minimum thickness of 2 to 3 inches.
14. Prior to the beginning of the wet season (Oct. 1), all disturbed areas shall be reviewed to identify which ones can be seeded in preparation for the winter rains. Disturbed areas shall be seeded within one week of the beginning of the wet season. The City can require seeding of additional areas in order to protect surface waters, adjacent properties, or drainage facilities.

Construction Sequence:

1. Hold an onsite pre-construction meeting.
2. Flag or fence clearing limits.
3. Install catch basin protection, if required.
4. Grade and install construction entrance(s).
5. Install perimeter protection (silt fence, brush barrier, etc.).
6. Construct sediment pond(s) and/or trap(s).
7. Construct surface water controls (interceptor dikes, pipe slope drains, etc.) simultaneously with clearing and grading for project development.
8. Maintain TESC measures in accordance with City standards and manufacturer's recommendations.
9. Relocate surface water controls or TESC measures, or install new measures so that as site conditions change, the TESC is always in accordance with the City of Mercer Island Temporary Erosion and Sedimentation Control Requirements.
10. Cover all areas that will be un-worked for more than two days during the wet season (Oct. 1 to April 30) or seven days during the dry season (May 1 to Sept. 30) with straw, wood fiber mulch, compost, plastic sheeting, or equivalent.
11. Stabilize all areas within seven days of reaching final grade.
12. Seed or sod any areas to remain un-worked for more than 30 days.
13. Upon completion of the project, stabilize all disturbed areas and remove TESC measures if appropriate.

Reference: King County Surface Water Design Manua,l Appendix D - 10.3

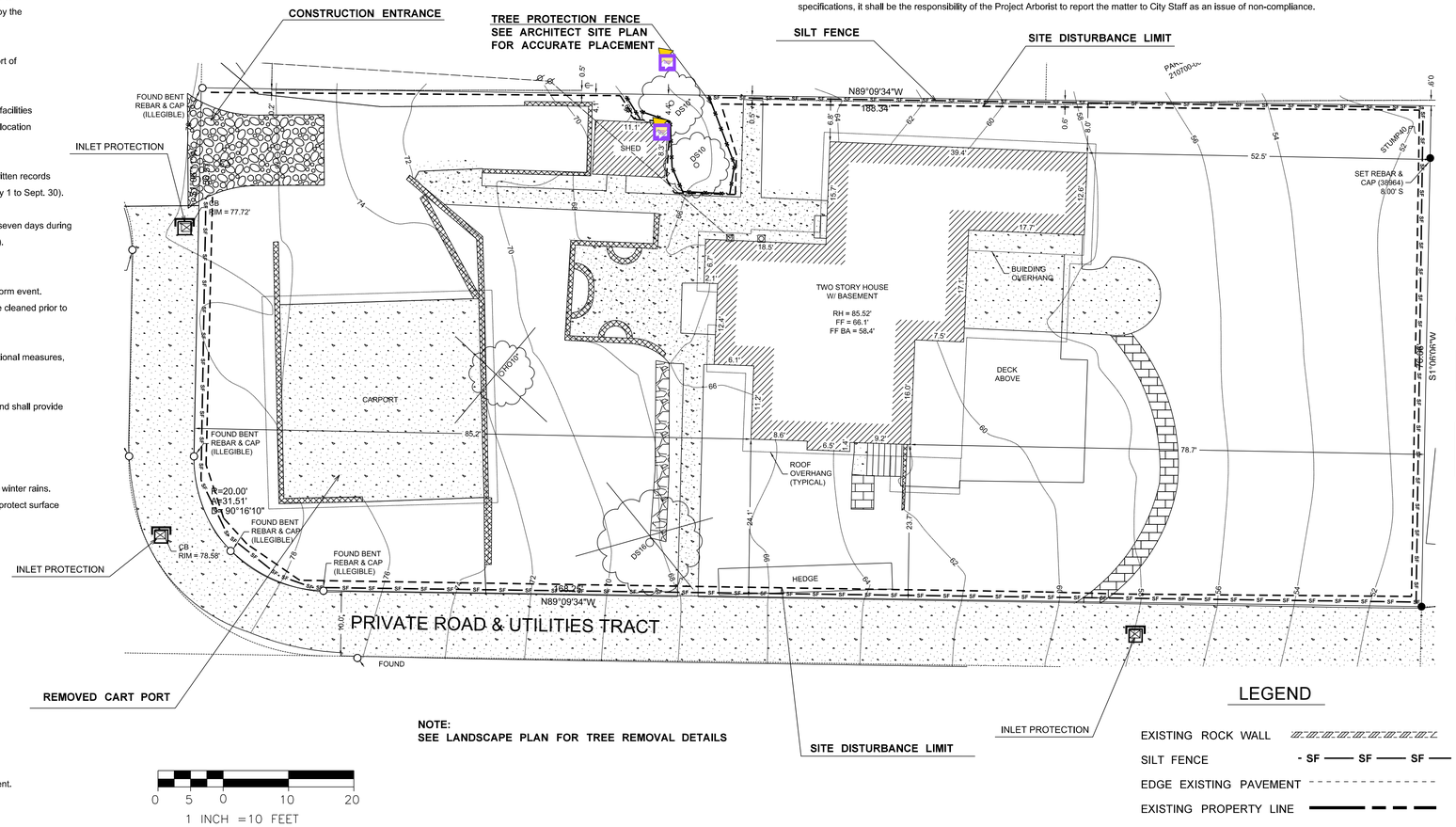
TREE PROTECTION NOTES

Avoid the following conditions during construction:

1. Allowing run off or spillage of damaging materials into the approved Treet Protected Zone.
2. Storing construction materials or portable toilets, stockpiling of soil, or parking or driving vehicles within the TPZ.
3. Cutting, breaking, skinning, or bruising roots, branches, or trunks without first obtaining authorization from the Project Arborist.
4. Discharging exhaust into foliage.
5. Securing cable, chain, or rope to trees or shrubs.
6. Trenching, digging, tunneling or otherwise excavating within the TPZ of the tree(s) without first obtaining authorization from the Project Arborist. Periodically inspect during construction - at four-week intervals - to assess and monitor the effectiveness of the TPP and provide recommendations for any additional care or treatment. More frequent may be required based on the TPP.

The following activities should be observed and inspected by the project arborist during the construction phase to ensure compliance with the approved TPP:

1. Only excavation by hand or compressed air shall be allowed within the TPZ of trees. Machine trenching shall not be allowed.
2. In order to avoid injury to tree roots, when a trenching machine is being used outside of the TPZ of trees, and roots are encountered smaller than 2", the wall of the trench adjacent to the trees shall be hand trimmed, making clear, clean cuts through the roots. All damaged, torn and cut roots shall be given a clean cut to remove ragged edges, which promote decay. Trenches shall be filled within 24 hours, but where this is not possible, the side of the trench adjacent to the trees shall be kept shaded with four layers of dampened, untreated burlap, wetted as frequently as necessary to keep the burlap wet. Roots 2" or larger, when encountered, shall be reported immediately to the Project Arborist, who will decide whether the Contractor may cut the root as mentioned above or shall excavate by hand or with compressed air under the root. All exposed roots are to be protected with dampened burlap.
3. Route pipes outside of the TPZ of a protected tree to avoid conflict with roots. Where it is not possible to reroute pipes or trenches, bore or tunnel beneath the TPZ of the tree. The boring shall take place not less than 3" below the surface of the soil in order to avoid encountering feeder roots. All boring equipment must be staged outside of the TPZ.
4. All grade changes adjacent to the TPZ of a significant tree shall be supervised by the Project Arborist. Cuts or Fills of soil that are adjacent to the TPZ will have a retaining wall system designed in consultation with the Project Arborist and approved in writing by City Staff.
5. Any damage due to construction activities shall be reported to the Project Arborist and City Staff within six hours so that remedial action can be taken.
6. The Project Arborist shall be responsible for the preservation of the designated trees. Should the builder fail to follow the tree protection specifications, it shall be the responsibility of the Project Arborist to report the matter to City Staff as an issue of non-compliance.



NOTE:
SEE LANDSCAPE PLAN FOR TREE REMOVAL DETAILS

0 5 0 10 20
1 INCH =10 FEET

LEGEND

- EXISTING ROCK WALL
- SILT FENCE - SF —— SF —— SF
- EDGE EXISTING PAVEMENT
- EXISTING PROPERTY LINE
- SITE DISTURBANCE LIMIT
- TREE PROTECTION FENCE
- TREE DRIP LINES
- TREE REMOVAL

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

EXPOSED & STOCKPILES SOIL BMP'S

All exposed and unworked soils shall be stabillized per the followlng criteria:
From October 1 to April 30, no exposed and unworked soils shall remain unstabilized (exposed) for more than two days. Non-erodible, clean, granular base materials shall be applied to stabilize all trafficked areas.
From May 1 to September 30, no exposed and unworked soils on slopes shall remain unstabilized (exposed) for more than seven days.
Exposed and unworked soils will be stabilized with the application of effective BMPs to prevent erosion throughout the life of the project. The specific BMPs will be used on this project include:

Construction Sequence:

- Preserving natural vegetation
- Sodding
- Topsoil
- Mulching
- Check dam
- Soil binding using polyacrylamide
- Wattles
- Biodegradable erosion control blanket
- Compost blanket
- Stabilized construction entrance
- Plastic covering
- Construction road stabillizatlon
- Seeding and planting
- Dust Control
- Bonded Fiber Matrix
- Mechanically Bonded Fiber Matrix

Seeding and mulching will be used to stabilize soils throughout the project following excavation and grading as well as other disturbed areas. During dry weather construction periods, the contractor will provide project specific dust control measures, as needed. Cut and fill slopes will be stabilized as soon as possible and soil stockpiles will be temporarily covered with plastic sheeting to prevent short-term erosion. All stockpiled soils will be stabilized from erosion, protected with sediment trapping measures, and where possible, be located away from storm drain inlets, waterways, and drainage channels.

DATE: 12/11/2024
SURVEYED:
SURVEY BASE MAP:
DESIGN ENTERED: J.W
DESIGNED S.W
CHECKED: S.W

SHAD MIN WI STATE OF WASHINGTON 38852 REGISTERED PROFESSIONAL ENGINEER

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8822 NE 178TH ST
BOTHELL, WA 98011
(206) 795-5674

TESC PLAN

3804 RESIDENCE
3804 E MERCER WAY
MERCER ISLAND WA 98040

SHEET 2 OF 6 SHEETS

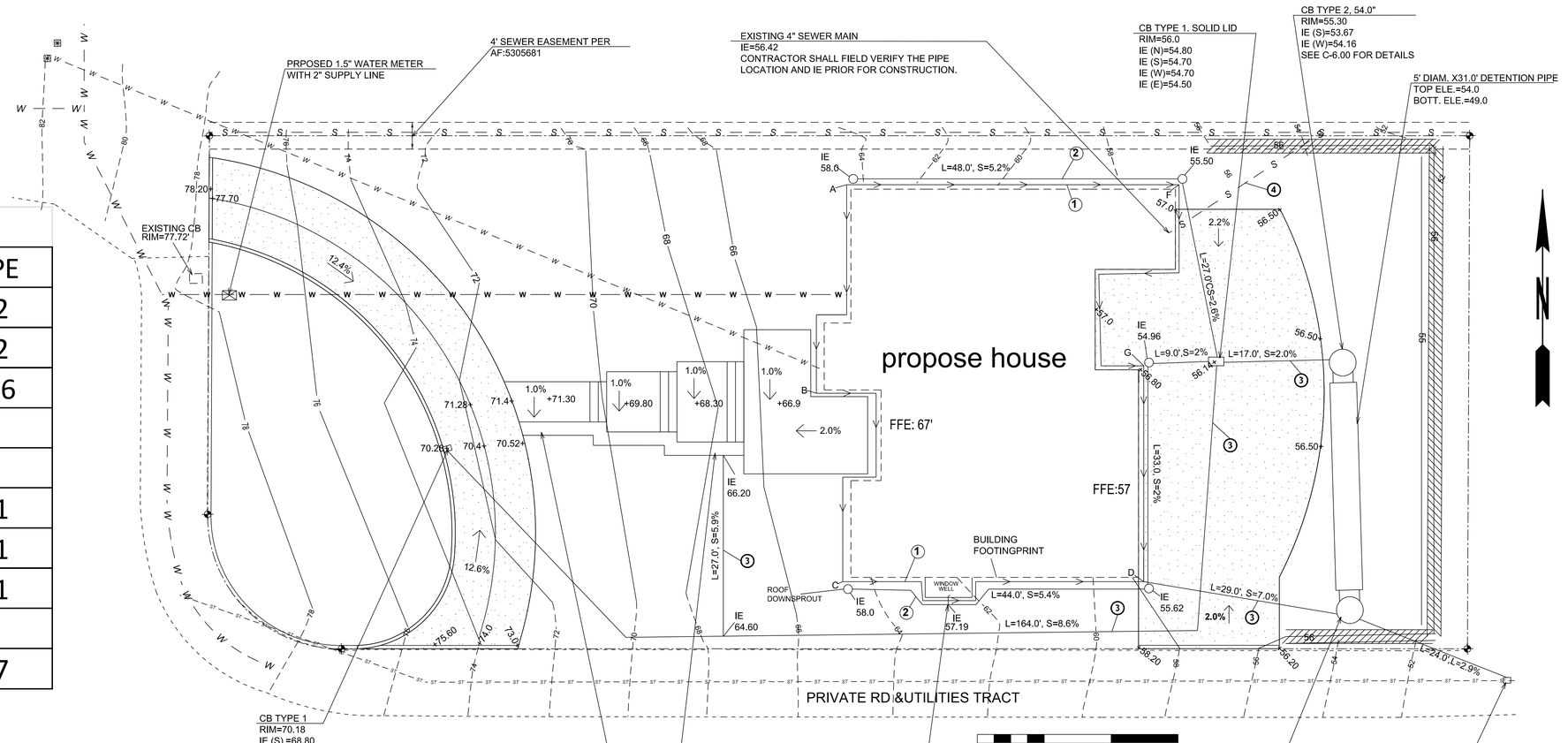
C-2.00

WATER MAIN NOTE

CONTRACTOR SHOULD COORDINATE WITH THE CITY OF MERCER ISLAND PUBLIC WORKS DEPARTMENT FOR THE WATER METER WORKS. THE CITY OF MERCER ISLAND PUBLIC WORKS DEPARTMENT WILL NOT ALLOW CONTRACTOR TO CONDUCT ANY WORK ON THE CITY WATER MAIN. THE CITY CREW WILL TAP THE WATER MAIN FOR THE NEW WATER SERVICE LINE AND WILL ABANDON THE OLD WATER SERVICE LINE AT THE MAIN. THE CONTRACTOR MUST CONDUCT THE RELATED EXCAVATION WORK AND COMPLETE THE INSTALLATION OF THE WATER SERVICE, INCLUDING THE METER SETTER BOX. THE CONTRACTOR WILL NEED TO PROVIDE ALL MATERIALS FOR THE TAPPING AND ABANDONMENTS.

4" PERFORATED FOOTING DRAIN

POINT	IE	L	SLOPE
A	55	36	0.02
B	54.28	41	0.02
C	55.18	54	0.026
D	53.77		
F	54.54	46	0.01
G	54.09	45	0.01
D	53.77	32	0.01
TYPE 2 CB	52	25	0.07



NOTE

NO EXCAVATION ENCROACHMENT INTO TREE DRIP LINE

NOTE

SEE THE ARCHITECT PLANS FOR SPECIFIC LOCATIONS OF DOWN SPROUTS

NOTE

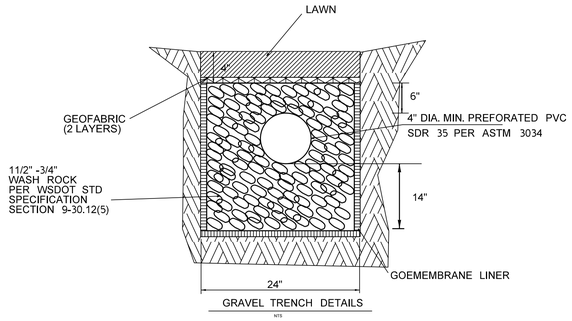
CONTRACTOR SHALL COORDINATE WITH NEIGHBOR PRIOR TO SCHEDULE THIS WORK. CONTRACTOR SHALL MINIMIZE IMPACT TO THE DRIVEWAY ACCESS TO NEIGHBOR'S HOME. CONTRACTOR SHALL COVER ANY OPEN TRENCHES WITH STEEL PLATES WHEN NOT ACTIVELY WORKING ON THIS STORM WATER LINE CONNECTION.

STORM DRAIN NOTES

1. **4" FOOTING DRAIN, MIN 1% GRADE (ASTM D-3034 PVC)**
2. **4" ROOF DRAIN, MIN 2% GRADE (ASTM D-3034 PVC)**
3. **4" STORM DRAIN, MIN 2% GRADE (ASTM D-3034 PVC)**
4. **4" SIDE SEWER, MIN 2% GRADE (ASTM D-3034 PVC)**

LEGEND

- EXISTING EDGE OF PAVEMENT
- EXISTING PRIVATE SHARED SIDE SEWER
- PROPOSED FOOTING DRAIN
- EXISTING LOT LINE
- EXISTING WATER MAIN
- PROPOSED WATER MAIN
- EXISTING STORM WATER LINE
- EXISTING CONTOUR LINE
- PROPOSED CONTOUR LINE



GRAVEL TRENCH DETAILS

GEOMEMBRANE LINERS SPECIFICATIONS

1. Gomembrane liners shall be UV resistant and have minimum thickness of 30 mils. A thickness of 40 mils shall be used in areas of maintenance access or where heavy machinery must be operated over the membrane. Protect geomembrane liner from puncture, tearing, and abrasion by installing geotextile fabric on the top and bottom of the geomembrane.

2. Geomembranes shall be bedded according to the manufacturer's recommendations.

3. Liners shall be installed so they can be covered with 12 inch of top dressing forming the bottom and sides of the water quality facility. Top dressing shall consist of 6 inches of rushed rock covered with 6 inches of native soil. The rock layer is to mark the location of the liner for future maintenance operations. As an alternative to crushed rock, 12 inches of native soil may be used if orange plastic "safety fencing" or another highly- visible, continuous marker is embedded 6 inches above the membrane.

4. If possible, liners should be of a contrasting color, so the maintenance workers are aware of any areas where a liner may have become exposed when maintaining the facility.

Know what's below. Call before you dig.

EXISTING UTILITIES ARE FOR REFERENCE ONLY.
CONTRACTOR SHALL FIELD VERY ALL EXISTING UTILITIES TO AVOID CONFLICTS.

DATE: 12/11/2024
SURVEYED:
SURVEY BASE MAP:
DESIGN ENTERED: J.W
DESIGNED S.W
CHECKED: S.W

SHAO MIN WU STATE OF WASHINGTON 36653 REGISTERED PROFESSIONAL ENGINEER

TANDEM ENGINEERING CONSULTANT LLC
8822 NE 178TH ST
BOTHELL, WA 98011
(206) 795-5674

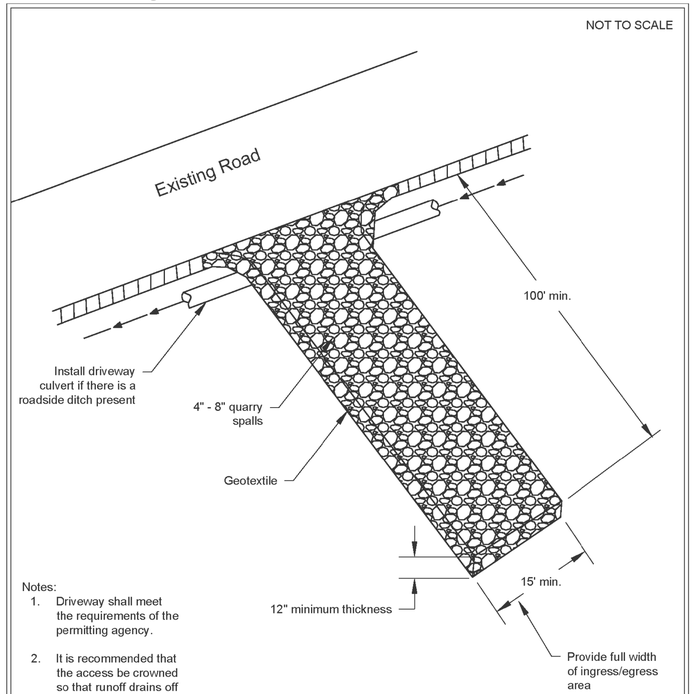
DRAINAGE & GRADATION PLAN

3804 RESIDENCE
3804 E MERCER WAY
MERCER ISLAND WA 98040

SHEET 3 OF 6 SHEETS

C-3.00

Figure II-3.1: Stabilized Construction Access



Notes:

1. Driveway shall meet the requirements of the permitting agency.
2. It is recommended that the access be crowned so that runoff drains off the pad.

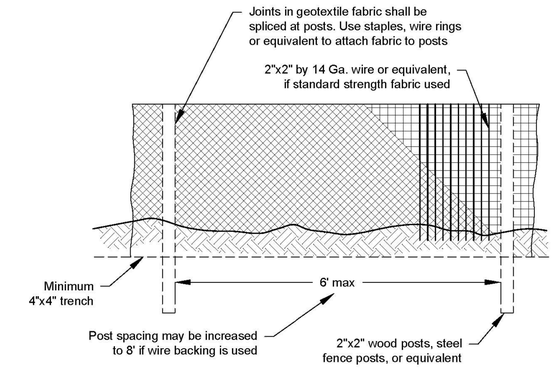
DEPARTMENT OF ECOLOGY
State of Washington

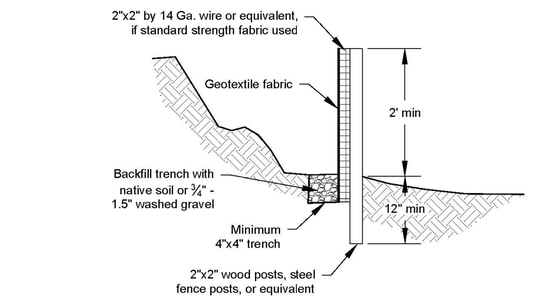
Stabilized Construction Access

Revised June 2018

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Figure II-3.22: Silt Fence





NOT TO SCALE

DEPARTMENT OF ECOLOGY
State of Washington

Silt Fence

Revised July 2017

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SURVEY BASE MAP:
DESIGN ENTERED: J.W
DESIGNED S.W
CHECKED: S.W

TANDEM ENGINEERING CONSULTANT LLC
8822 NE 178TH ST
BOTHELL, WA 98011
(206) 795-5674

DETAILS

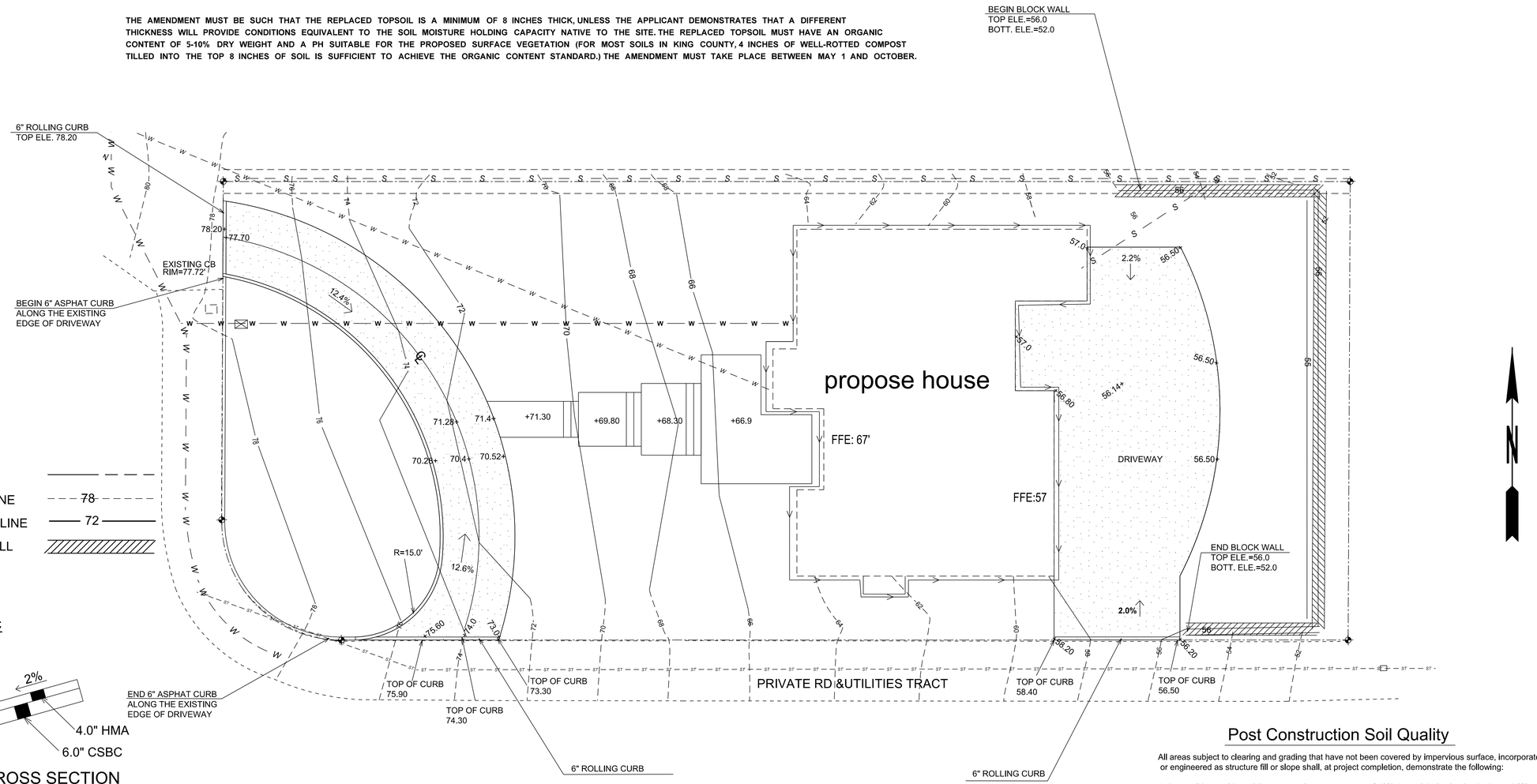
3804 RESIDENCE
3804 E MERCER WAY
MERCER ISLAND WA 98040

SHEET **4** OF **6** SHEETS

C-4.00

SOIL AMENDMENT

THE AMENDMENT MUST BE SUCH THAT THE REPLACED TOPSOIL IS A MINIMUM OF 8 INCHES THICK, UNLESS THE APPLICANT DEMONSTRATES THAT A DIFFERENT THICKNESS WILL PROVIDE CONDITIONS EQUIVALENT TO THE SOIL MOISTURE HOLDING CAPACITY NATIVE TO THE SITE. THE REPLACED TOPSOIL MUST HAVE AN ORGANIC CONTENT OF 5-10% DRY WEIGHT AND A PH SUITABLE FOR THE PROPOSED SURFACE VEGETATION (FOR MOST SOILS IN KING COUNTY, 4 INCHES OF WELL-ROTTED COMPOST TILLED INTO THE TOP 8 INCHES OF SOIL IS SUFFICIENT TO ACHIEVE THE ORGANIC CONTENT STANDARD.) THE AMENDMENT MUST TAKE PLACE BETWEEN MAY 1 AND OCTOBER.



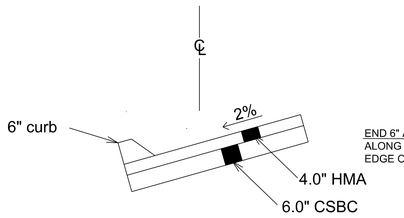
LEGEND

EXISTING LOT LINE

EXISTING CONTOUR LINE 78

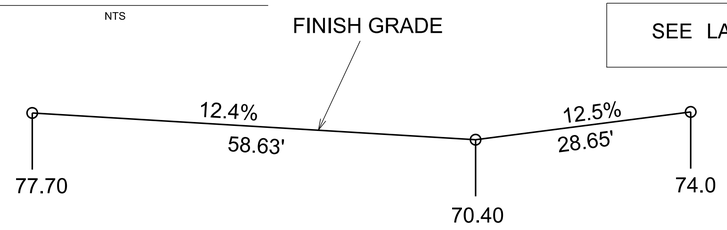
PROPOSED CONTOUR LINE 72

PROPOSED BLOCK WALL



DRIVEWAY CROSS SECTION

NTS



DRIVEWAY PROFILE

SEE LANDSCAPE PLAN FOR SOIL AMENDMENT AREA

0 5 0 10 20

1 INCH =10 FEET

Post Construction Soil Quality

All areas subject to clearing and grading that have not been covered by impervious surface, incorporated into a drainage facility or engineered as structure fill or slope shall, at project completion, demonstrate the following:

1. A topsoil layer with a minimum organic matter content of 10% dry weight in planting beds, and 5% organic matter content in turf areas, and a pH from 6.0 to 8.0 or matching the pH of the undisturbed soil. The topsoil layer shall have a minimum depth of eight inches except where tree roots limit the depth of incorporation of amendments needed to meet the criteria. Subsoils below the topsoil layer should be scarified at least 4 inches with some incorporation of the upper material to avoid stratified layers, where feasible.

2. Mulch planting beds with 2 inches of organic material

3. Use compost and other materials that meet these organic content requirements:

a. The organic content for "pre-approved" amendment rates can be met only using compost meeting the compost specification for BMP T7.30: Bioretention Cells, Swales, and Planter Boxes (p.959), with the exception- that the compost may have up to 35% biosolids or manure.The compost must also have an organic matter content of 40% to 65%, and a carbon to nitrogen ratio below 25:1.The carbon to nitrogen ratio may be as high as 35:1 for plantings composed entirely of plants native to the Puget Sound Lowlands region.

– – – –78 – – – – –

b. Calculated amendment rates may be met through use of composted material meeting (a.) above; or other organic materials amended to meet the carbon to nitrogen ratio requirements, and not exceeding the contaminant limits identified in Table 220-B, Testing Parameters, in WAC 173-350-220.

Maintenance

1. Establish soil quality and depth toward the end of construction and once established, protect from compaction, such as from large machinery use, and from erosion
2. Plant vegetation and mulch the amended soil area after installation.
3. Leave plant debris or its equivalent on the soil surface to replenish organic matter.
4. Reduce and adjust, where possible, the use of irrigation, fertilizers, herbicides and pesticides, rather than continuing to implement formerly established practices.

DATE: 12/11/2024
SURVEYED:
SURVEY BASE MAP:
DESIGN ENTERED: J.W
DESIGNED S.W
CHECKED: S.W

SHAO MIN WU STATE OF WASHINGTON 54853 REGISTERED PROFESSIONAL ENGINEER

TANDEM ENGINEERING CONSULTANT LLC
8822 NE 178TH ST
BOTHELL, WA 98011
(206) 795-5674

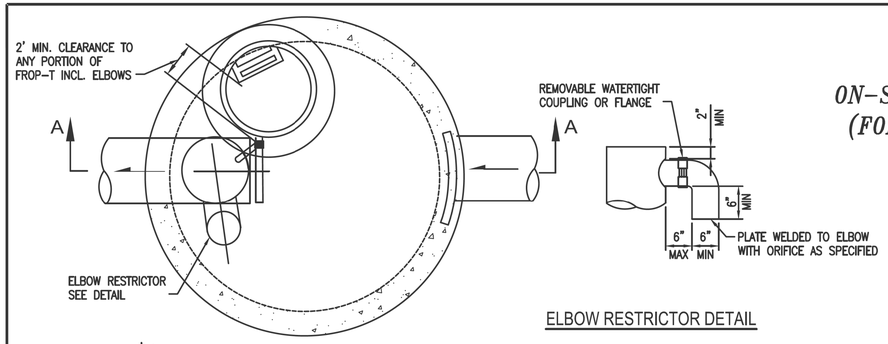
GRADE PLAN

3804 RESIDENCE
3804 E MERCER WAY
MERCER ISLAND WA 98040

SHEET 5 OF 6 SHEETS

C-5.00

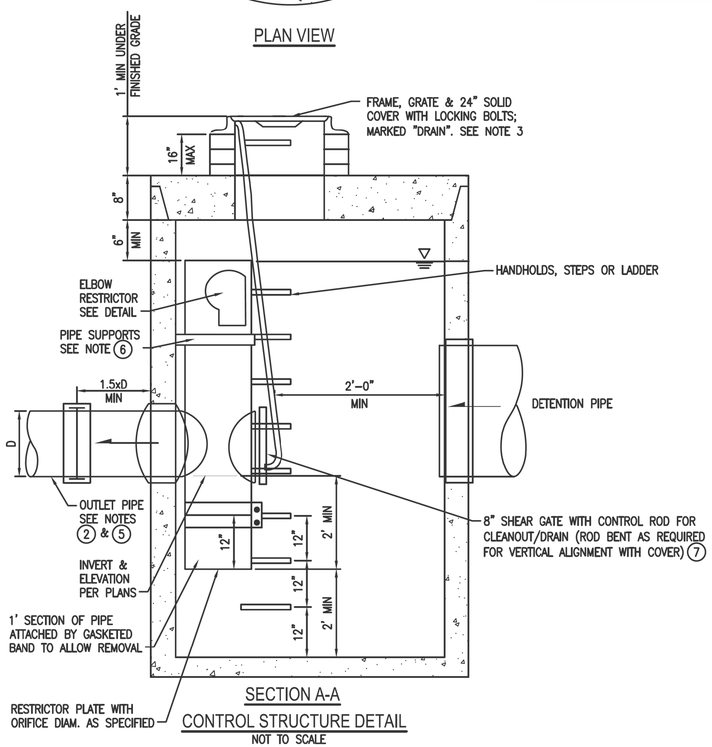
ATTACHMENT 1
CITY OF MERCER ISLAND
ON-SITE DETENTION SYSTEM WORKSHEET
(FOR NEW PLUS REPLACED IMPERVIOUS AREA OF 9,500 SF OR LESS)



PLAN VIEW

ELBOW RESTRICTOR DETAIL

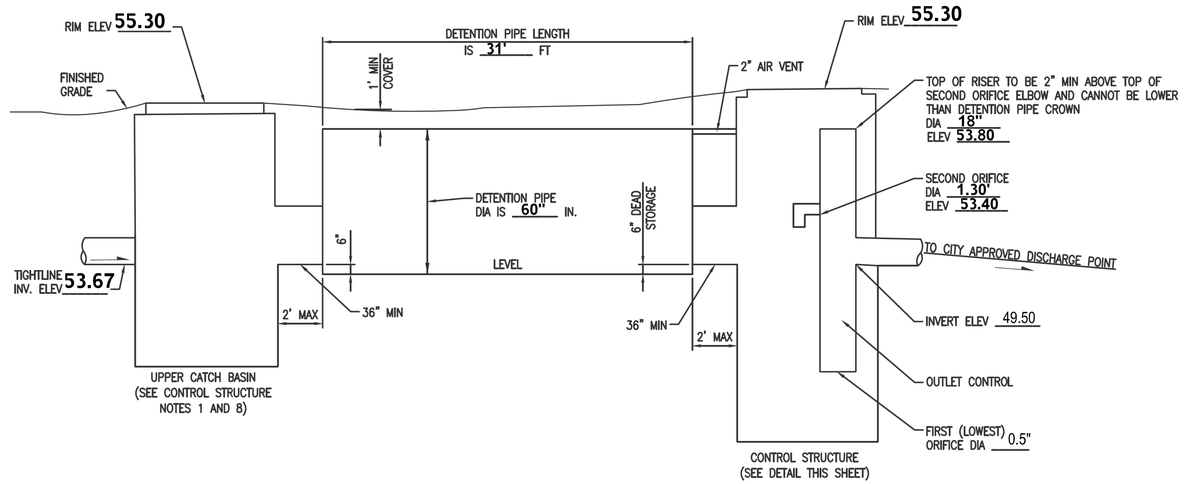
OWNER:	ADDRESS: 3804 E MERCER WAY	PREPARED BY: STEVE WU	
PERMIT #:		PHONE: 206-795-5674	
		DATE: 12/11/2024	
NEW PLUS REPLACED IMPERVIOUS SURFACE AREA (SF): 4,325	DETENTION PIPE DIA (INCH): 60	DETENTION PIPE LENGTH (FT): 31	ORIFICE #1 DIA 0.5 INCH, ELEV 47.50
SOIL TYPE: C	PIPE MATERIAL: REINFORCED CONC PIPE		ORIFICE #2 DIA 1.3 INCH, ELEV 53.40



SECTION A-A

CONTROL STRUCTURE DETAIL

NOT TO SCALE



ON-SITE DETENTION SYSTEM

NOT TO SCALE (ENGINEER TO FILL IN BLANKS)

CONTROL STRUCTURE NOTES:

1. USE A MINIMUM OF A 54 IN. DIAM. TYPE 2 CATCH BASIN. THE ACTUAL SIZE IS DEPENDENT ON CONNECTING PIPE MATERIAL AND DIAMETER.
2. OUTLET PIPE: MIN. 6 INCH.
3. METAL PARTS: CORROSION RESISTANT. NON-GALVANIZED PARTS PREFERRED. GALVANIZED PIPE PARTS TO HAVE ASPHALT TREATMENT 1.
4. FRAME AND LADDER OR STEPS OFFSET SO:
   - A. CLEANOUT GATE IS VISIBLE FROM TOP;
   - B. CLIMB-DOWN SPACE IS CLEAR OF RISER AND CLEANOUT GATE;
   - C. FRAME IS CLEAR OF CURB.
5. IF METAL OUTLET PIPE CONNECTS TO CEMENT CONCRETE PIPE, OUTLET PIPE TO HAVE SMOOTH O.D. EQUAL TO CONCRETE PIPE I.D. LESS 1/4 IN.
6. PROVIDE AT LEAST ONE 3 X 0.090 GAUGE SUPPORT BRACKET ANCHORED TO CONCRETE WALL WITH 5/8 IN. STAINLESS STEEL EXPANSION BOLTS OR EMBEDDED SUPPORTS 2 IN. INTO CATCH BASIN WALL (MAXIMUM 3'-0" VERTICAL SPACING).
7. THE SHEAR GATE SHALL BE MADE OF ALUMINUM ALLOY IN ACCORDANCE WITH ASTM B 26M AND ASTM B 275, DESIGNATION ZG32A; OR CAST IRON IN ACCORDANCE WITH ASTM A 48, CLASS 30B.
   THE LIFT HANDLE SHALL BE MADE OF A SIMILAR METAL TO THE GATE (TO PREVENT GALVANIC CORROSION), IT MAY BE OF SOLID ROD OR HOLLOW TUBING, WITH ADJUSTABLE HOOK AS REQUIRED.
   A NEOPRENE RUBBER GASKET IS REQUIRED BETWEEN THE RISER MOUNTING FLANGE AND THE GATE FLANGE. INSTALL THE GATE SO THAT THE LEVEL-LINE MARK IS LEVEL WHEN THE GATE IS CLOSED.
   THE MATING SURFACES OF THE LID AND THE BODY SHALL BE MACHINED FOR PROPER FIT.
   ALL SHEAR GATE BOLTS SHALL BE STAINLESS STEEL.
8. THE UPPER CATCH BASIN IS REQUIRED IF THE LENGTH OF THE DETENTION PIPE IS GREATER THAN 50 FT.

ON-SITE DETENTION SYSTEM NOTES:

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

DATE: 12/11/2024
SURVEYED:
SURVEY BASE MAP:
DESIGN ENTERED: J.W
DESIGNED S.W
CHECKED: S.W

SHAO MIN WU STATE OF WASHINGTON 38653 REGISTERED PROFESSIONAL ENGINEER

TANDEM ENGINEERING CONSULTANT LLC
8822 NE 178TH ST
BOTHELL, WA 98011
(206) 795-5674

DETENTION PIPE DETAILS

3804 RESIDENCE
3804 E MERCER WAY
MERCER ISLAND WA 98040

SHEET 6 OF 6 SHEETS

C-6.00

PROJECT INFORMATION

ZONING DTSTRICT	R-9.6
PROPERTY OWNER	OU CHUNLING+FANG HONG
PARCEL NUMBER	210700-0100
LOT AREA	14,352 S.F.
OCCUPANCY CLASSIFICATION	R-3 / U
CONSTRUCTION TYPE	V-B

LEGAL DESCRIPTION

DOYLE-HANSEN ADD & UND INT IN PRIVATE RD
PLat Block:
Plat Lot: 10

LOT COVERAGE

MAX. LOT COVERAGE	40% x 14,352 = 5,741 SF
TOTAL AREA	5,035 S.F.
LOT COVERAGE	35.1 % (OK!)

(SEE DIAGRAMS ON A0.1)

HARDSCAPE SURFACE COVERAGE

MAX. HARDSCAPE AREA	9% X 14,352 = 1,292 SF
HARDSCAPE AREA	1,087 SF
HARDSCAPE AREA PERCENTAGE	7.6% (OK!)

(SEE DIAGRAMS ON A0.1)

FLOOR AREA RATIO

SEE GROSS FLOOR AREA CALCULATION ON A1.1

BUILDING HEIGHT

AVERAGE GRADE	**60.9'**
MAX. STRUCTURE HT. ALLOWED (30')	**90.9'**
PROPOSED STRUCTURE HT. (29.1')	**90.0'**

(SEE DIAGRAMS ON A0.1)

TREE TABLE

SEE TREE CALCULATION ON A1.1

CODE COMPLIANCE

2018 INTERNATIONAL RESIDENTIAL CODE
2018 INTERNATIONAL MECHANICAL CODE
2018 UNIFORM PLUMBING CODE
2018 INTERNATIONAL FIRE CODE
2018 NATIONAL ELECTRICAL CODE
2018 WASHINGTON STATE ENERGY CODE

(ALL CODES ABOVE INCLUDE WASHINGTON STATEWIDE AMENDMENTS)

ABBREVIATIONS

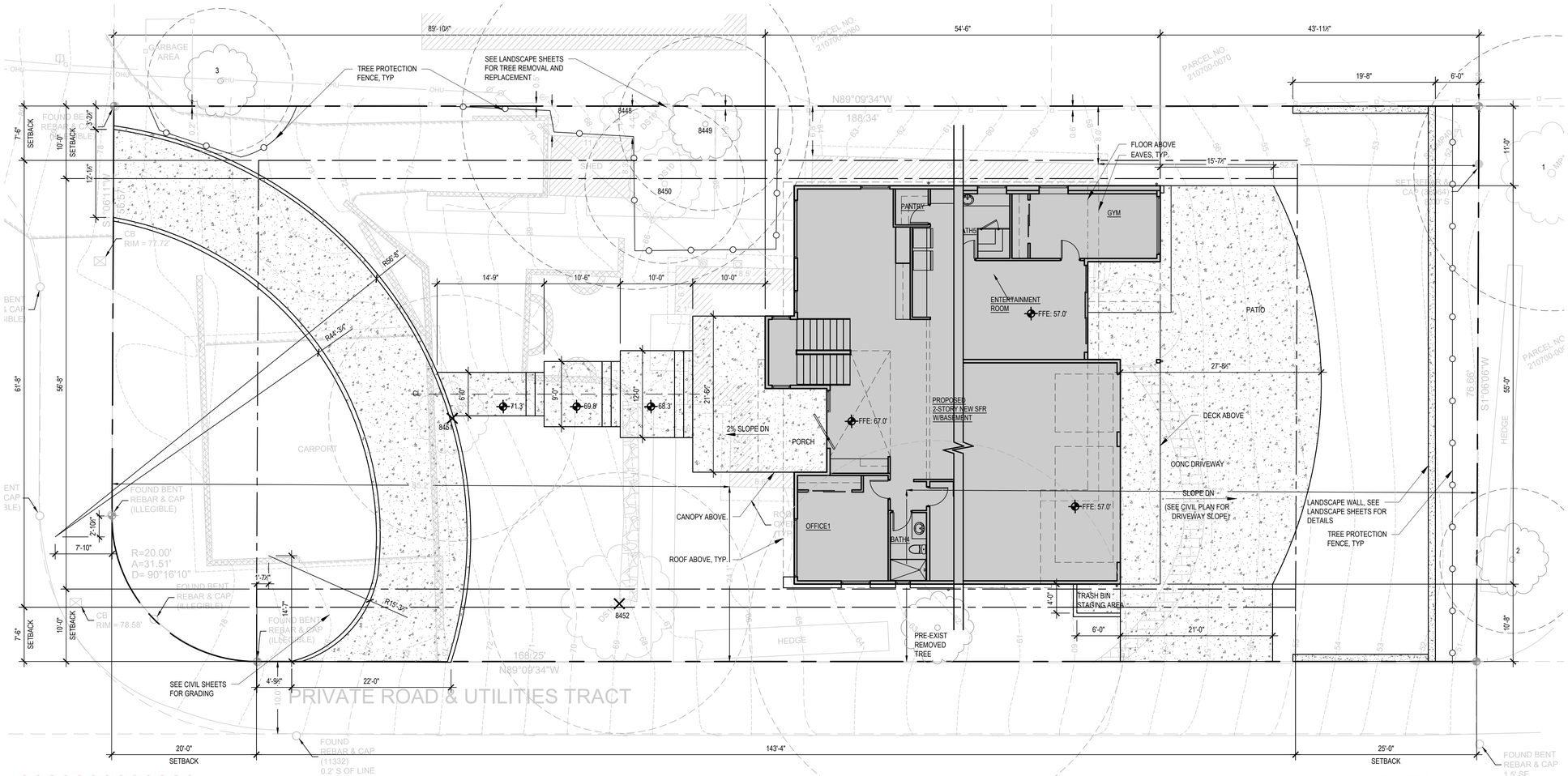
BLK'G	BLOCKING	HORIZ	HORIZONTAL
℄	CENTER LINE	MAX	MAXIMUM
CLR	CLEAR	MFR	MANUFACTURER
CONT	CONTINUOUS	MIN	MINIMUM
CS	CASEMENT WINDOW	o/	OVER
DBL	DOUBLE	O.C.	ON CENTER
DS	DOWNSPOUT	SD	SMOKE DETECTOR
EL	ELEVATION	SG	SAFETY GLASS
EQ	EQUAL	SF	SQUARE FEET
EXIST / (E)	EXISTING	SIM	SIMILAR
FTG	FOOTING	SLD	SLIDING WINDOW
FX	FIXED WINDOW	TYP	TYPICAL
HDR	HEADER	UNO	UNLESS NOTED
HDWD	HARDWOOD		OTHERWISE
HGR	HANGER	w/	WITH

FIRE SPRINKLER SYSTEM: NFPA 13R
NFPA 72 Monitored Fire Alarm System
A NFPA 72- Chapter 29 Monitored Fire Alarm System in compliance with NFPA 72 and CoMI standards shall be installed throughout the residence. A separate FIRE permit is required.

NFPA 13R Fire Sprinkler System
A NFPA 13R Fire Sprinkler System in compliance with NFPA 13R and CoMI standards shall be installed throughout the residence. A separate FIRE permit is required.
Note that this sprinkler system requires a minimum of a 1.5" water meter and 2" water supply line.

HARDSCAPE AND DRIVEWAYS WITHIN REQUIRED YARDS SHALL NOT EXCEED 30 INCHES IN HEIGHT ABOVE EXISTING OR FINISHED GRADE, WHICHEVER IS LOWER PER MICC 19.02.020(C)(3)(B):

CONTRACTOR TO VERIFY ALL OF EXISTING CONDITIONS PRIOR TO CONSTRUCTION. REPORT TO ARCHITECT FOR ANY DISCREPENCIES FOUND.



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

N

SITE PLAN NOTES:

1. ALL UTILITIES SERVING THE SITE IS TO BE UNDERGROUNDED.
2. THE ADDRESS IS TO BE PLACED IN A POSITION THAT IS PLAINLY LEGIBLE AND VISIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY.

3804 HOME

3804 E MERCER WAY
MERCER ISLAND WA 98040

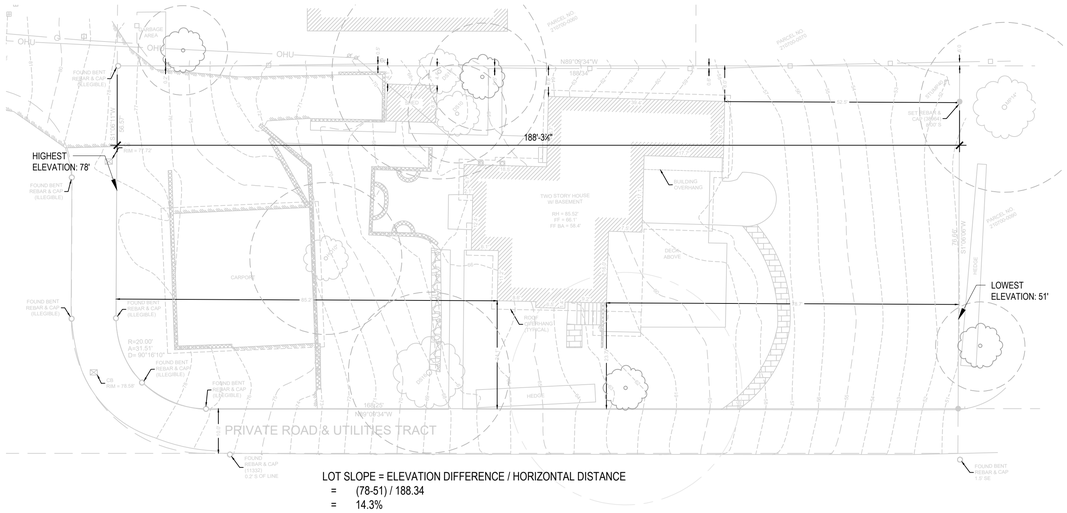
MJZ DESIGN

425.922.5926
mjz.design.wa@gmail.com

NO.	DATE	DESCRIPTION OF REVISIONS
	06/01/2023	PERMIT SET
1	09/03/2024	CORRECTION #1
2	12/11/2024	CORRECTION #2

SITE PLAN

SHEET NUMBER
A1.0



LOT SLOPE = ELEVATION DIFFERENCE / HORIZONTAL DISTANCE
= (78-51) / 188.34
= 14.3%

1 LOT SLOPE DIAGRAM
1/16" = 1'-0"

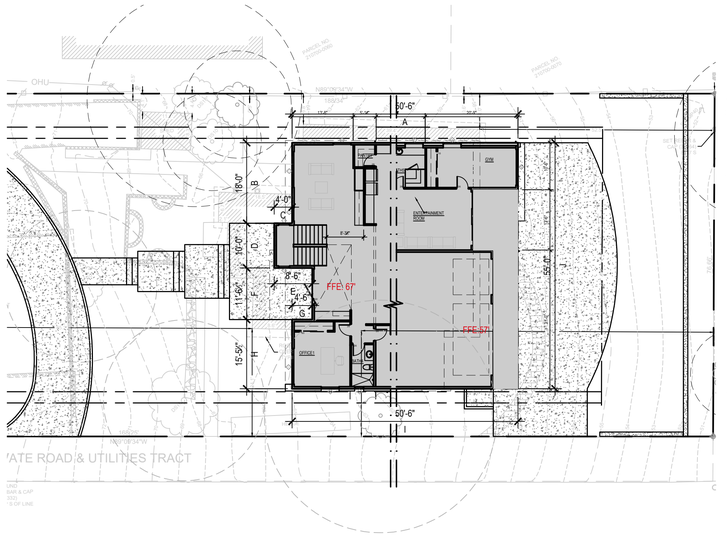
AVERAGE GRADE CALC					
MID POINT	ELEVATION	WALL SEGMENT	LENGTH		
A	59.8	a	50.5		3019.9
B	64.2	b	18		1155.6
C	64.3	c	4		257.2
D	64.4	d	10		644
E	64.2	e	8.5		545.7
F	64	f	11.5		736
G	64.2	g	4.5		288.9
H	64.4	h	15.5		998.2
I	61.5	i	50.5		3105.75
J	57	j	55		3135
			228		13886.25
AVERAGE GRADE		=	60.9		

BASEMENT EXEMPTION			
WALL SEGMENT	LENGTH *	COVERAGE =	RESULT
A	50.5	42%	21.04
B	18	83%	15.00
C	4	83%	3.33
D	10	83%	8.33
E	8.5	83%	7.08
F	11.5	67%	7.67
G	4.5	83%	3.75
H	15.5	83%	12.92
I	50.5	42%	21.04
J	55	0%	0.00
TOTAL	228		100.17
FLOOR AREA	2460	X	0.44
=	1081	Excluded from the Gross Floor Area	
BASEMENT FLOOR AREA	=	1327	

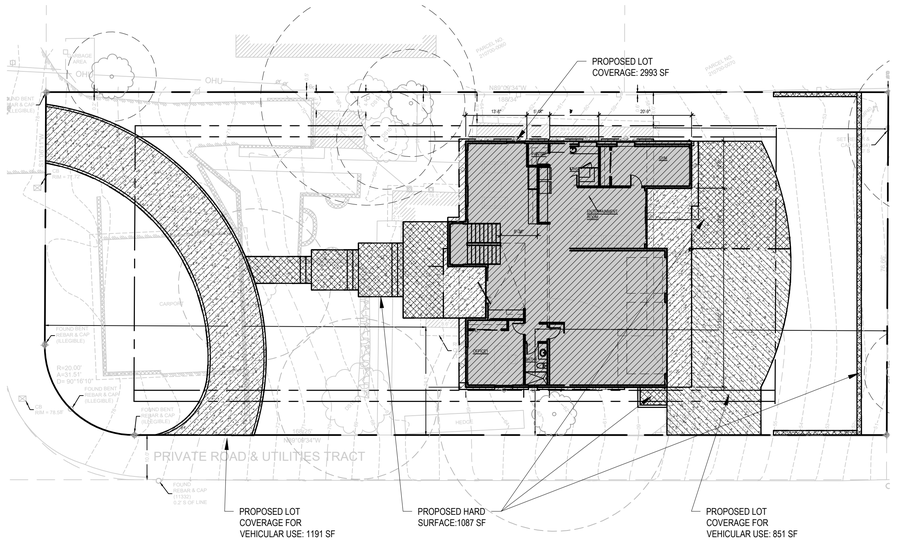
GROSS FLOOR AREA	
UPPER LEVEL	2012
DOUBLE HEIGHT SPACE	112
MAIN FLOOR	2272
LOWER FLOOR	1693
GARAGE	767
TOTAL	6856
LOWER FLOOR EXEMPTION	1081
SPACE BELOW STAIRS EXEPTION	58
TOTAL FAR	5717
LOT AREA	14352
FAR ALLOWED	0.4
MAX ALLOWED	5740.8

2

tree	DSH	RETAIN	RETENTION%
8448	24	Y	
8449	11	Y	
8450	12	Y	
8451	17	N	
8452	18	N	
Previously Removed	30	N	
TOTAL	112	47	0.42



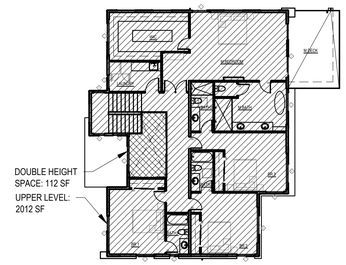
1 AVERAGE HEIGHT / BASEMENT EXCLUSION DIAGRAM
1/16" = 1'-0"

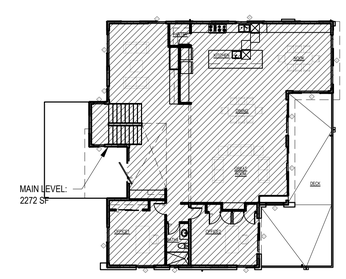


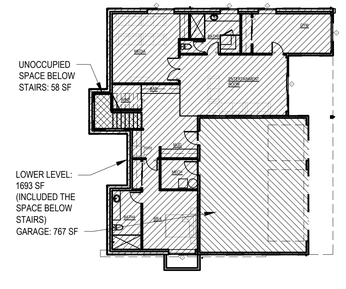
PROPOSED NEW LOT COVERAGE AREA = 2993+851+1191 = 5035 SF
= 5035/14352 =35.1%

PROPOSED HARD SURFACE = 1087 SF
= 1087/14352= 7.6%

1 LOT COVERAGE / HARD SURFACE DIAGRAM
1/16" = 1'-0"







1 FAR DIAGRAM
1/16" = 1'-0"

3804 HOME
3804 E MERCER WAY
MERCER ISLAND WA 98040

MJZ
DESIGN
425.922.5926
mjz.design.wa@gmail.com

NO.	DATE	DESCRIPTION OF REVISIONS
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1	09/03/2024	CORRECTION #1
2	12/11/2024	CORRECTION #2

LANDUSE DIAGRAM

SHEET NUMBER
A0.1

PLAN NOTES:

PROVIDE COMBINED SMOKE/CO DETECTOR OUTSIDE EACH SLEEPING ROOM & ON EACH LEVEL - 110V W/ BATTERY BACKUP.

PROVIDE SMOKE DETECTOR @ EACH SLEEPING ROOM - 110V W/ BATTERY BACKUP.

ALL EXTERIOR DOORS TO BE EQUIPPED WITH DEAD BOLT OR DEAD LATCH WITH MIN. 1/2" THROW. ALL WINDOWS WITHIN 10' OF GRADE TO BE CAPABLE OF LOCKING. ALL DOORS MUST BE OPERABLE FROM INSIDE WITHOUT KEY OR SPECIAL KNOWLEDGE OR EFFORT. LEVER ACTION HANDLES ALL DOORS.

ALL TILE SHOWER/BATH WALLS TO BE SHEATHED W/ FULL HEIGHT (72" MIN.) 5/8" CONCRETE BACKER BOARD. ALL KITCHEN AND BATH GWB TO BE WATER RESISTANT TO CEILING.

STAIR SHALL COMPLY WITH SRC R311.7, WITH MAXIMUM RISER 7 3/4" RISER, MIN 10" TREAD. NOSING SHALL BE BETWEEN 3/4" TO 1 1/4" DEEP.

STAIR SHALL BE MINIMUM 36" WIDE CLEAR.

HANDRAIL SHALL BE MOUNTED ON AT LEAST ONE SIDE BETWEEN 34-38" ABOVE TREAD NOSING AND SHALL PROJECT NO MORE THAN 1-1/2" INTO STAIR. GRASP DIMENSION BETWEEN 1-1/4" - 2". PROVIDE CONTINUOUS HANDRAIL OR TERMINATE AT NEWEL POSTS OR SAFETY TERMINAL.

DIMENSIONS SHOWN AT DOOR AND WINDOW OPENINGS ARE ACTUAL SIZE. CONTRACTOR TO PROVIDE ROUGH OPENING AS REQUIRED.

ALL VENTS ON FACADE TO BE LOCATED MINIMUM 3'-0" FROM OPERABLE OPENINGS.

THE MINIMUM GUARDRAIL HEIGHT FOR DECKS AND STAIRS SHALL BE 36" A.F.F. (IRC R312.1.2) DESIGNED TO RESIST A 200 LB CONCENTRATED LOAD ON THE TOP RAIL AND 50 PSF ON ALL GUARDRAIL INFILL COMPONENTS.

IRC R312.1.3 REQUIRED GUARDS SHALL NOT HAVE OPENINGS FROM THE WALKING SURFACE TO THE REQUIRED GUARD HEIGHT WHICH ALLOW PASSAGE OF A SPHERE 4 INCHES IN DIAMETER

IRC R301.5.H
IF GLAZING IS USED IN HANDRAIL ASSEMBLIES IT SHALL MEET A SAFETY FACTOR OF 4.

* E DENOTES EGRESS WINDOW
* SG DENOTES SAFETY GLAZING

WHOLE HOUSE FAN VENTILATION CALCULATIONS:

WHOLE HOUSE VENTILATION SHALL BE ACCOMPLISHED USING EXHAUST SYSTEM PER M1505.4.1.2

PER IRC M1505.4.3 FOR CONTINUOUS WHOLE HOUSE FAN OPERATION:

PER TABLE M1505.4.3(1) VENTILATION AIRFLOW RATE REQUIREMENTS:
UNIT CONTAINS 5+ BEDROOMS & FLOOR AREA 4,501-5,000 SF = 95 CFM

M1505.4.3.1 VENTILATION QUALITY ADJUSTMENT
SYSTEM COEFFICIENT PER TABLE M1505.4.3(2):
SYSTEM TYPE IS NOT DISTRIBUTED & NOT BALANCED = 1.5

ADJUSTED AIRFLOW RATE
95 X 1.5 = 142.5 CFM

FOR SYSTEMS DESIGNED TO OPERATE AT LEAST TWO HOURS IN EACH 4-HOUR SEGMENT, VENTILATION RATE FACTOR OF 2, IRC M1505.4.3.2. AND TABLE M1505.4.3(3)

TOTAL AIR FLOW RATE:
5+ BEDROOMS - 142.5 X 2 = 285 CFM REQUIRED

TOTAL REQUIRED AIRFLOW RATE = 285 CFM

MIN. LOCAL EXHAUST RATES PER TABLE M1505.4.4(1):
KITCHEN FANS: 100 CFM INTERMITTENT / 30 CFM CONTINUOUS
BATHROOM / TOILET ROOMS: 50 CFM INTERMITTENT / 20 CFM CONTINUOUS

P1 BATH4 EXHAUST FAN = 50 CFM MIN.
P1 BATH5 EXHAUST FAN = 50 CFM MIN.
P1 LAUNDRY EXHAUST FAN = 100 CFM MIN.

L1 BATH6 EXHAUST FAN = 50 CFM MIN.
L1 KITCHEN EXHAUST FAN = 100 CFM MIN.

L2 LAUNDRY EXHAUST FAN = 50 CFM MIN.
L2 BATH1 EXHAUST FAN = 50 CFM MIN.
L2 BATH2 EXHAUST FAN = 50 CFM MIN.
L2 BATH3 EXHAUST FAN = 50 CFM MIN.
L2 MASTER BATHROOM EXHAUST FAN = 50 CFM MIN.
L2 MASTER TOILET ROOM EXHAUST FAN = 50 CFM MIN.

TOTAL PROVIDED = 650 CFM

PER SRC (OR IRC) M1505.4 - EACH DWELLING UNIT SHALL BE EQUIPPED WITH A VENTILATION SYSTEM. THE WHOLE HOUSE MECHANICAL VENTILATION SYSTEM SHALL BE DESIGNED IN ACCORDANCE WITH M1505.4.1 THROUGH M1505.4.4.

WHOLE HOUSE VENTILATION SYSTEMS SHALL BE CONFIGURED TO OPERATE CONTINUOUSLY EXCEPT WHERE
INTERMITTENT OFF CONTROLS AND SIZING ARE PROVIDED PER SECTION M1505.4.3.2.

WHOLE HOUSE VENTILATION FANS SHALL BE RATED FOR SOUND AT NO LESS THAN THE MIN. AIRFLOW RATE PER SECTION M1505.4.3.1 AT A MAXIMUM OF 1.0 SONE. REMOTE MOUNTED FANS ARE EXEMPT FROM SOUND REQUIREMENTS IF 1) MOUNTED OUTSIDE THE HABITABLE SPACES, BATHROOMS, TOILETS, AND HALLWAYS; 2) THERE MUST BE AT LEAST 4 FEET OF DUCTWORK BETWEEN THE FAN AND THE INTAKE GRILLE. (M1505.4.1.1)

DUCTS OUTSIDE THE BUILDING THERMAL ENVELOPE SHALL BE INSULATED TO A MINIMUM OF R-8 - WSEC (OR SEC) R403.3.1

DUCTS ARE TO BE LEAK TESTED IN ACCORDANCE WITH WSEC (OR SEC) R403.3.3 AND WSU RS-33. DUCT LEAKAGE TEST RESULTS SHALL BE PROVIDED TO THE BUILDING INSPECTOR AND HOMEOWNER PRIOR TO AN APPROVED FINAL INSPECTION

M1505.4.1.7 CERTIFICATE. A PERMANENT CERTIFICATE SHALL BE COMPLETED BY THE MECHANICAL CONTRACTOR, TEST
AND BALANCE CONTRACTOR OR OTHER APPROVED PARTY AND POSTED ON A WALL IN THE SPACE WHERE THE FURNACE IS LOCATED, A UTILITY ROOM, OR AN APPROVED LOCATION INSIDE THE BUILDING. WHEN LOCATED ON AN ELECTRICAL PANEL, THE CERTIFICATE SHALL NOT COVER OR OBSTRUCT THE VISIBILITY OF THE CIRCUIT DIRECTORY LABEL, SERVICE DISCONNECT LABEL, OR OTHER REQUIRED LABELS. THE CERTIFICATE SHALL LIST THE FLOW RATE DETERMINED FROM THE DELIVERED AIRFLOW OF THE WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM AS INSTALLED AND THE TYPE OF MECHANICAL WHOLE HOUSE VENTILATION SYSTEM USED TO COMPLY WITH SECTION M1505.4.3.1.

WSEC R401.3 PROVIDE A PERMANENT CERTIFICATE COMPLETED & LOCATED WIN 3FT. OF THE ELEC. DISTRIBUTION PANEL TO BE DONE BY CONTRACTOR. DO NOT OBSTRUCT VISIBILITY OF DIRECTORY OR ANY LABELS. LIST ALL R/U-VALUES OF THERMAL BUILDING ENVELOPE, INCLUDING DOORS & WINDOWS, AS WELL AS HEATING SYSTEM AND EFFICIENCIES.

WSEC R402.4 ALL UNITS SHALL BE TESTED & VERIFIED FOR AIR LEAKAGE OF NO MORE THAN **5.0** AIR CHANGES PER HOUR BY A BLOWER DOOR TEST AT 0.2 IN. W.G. A REPORT SHALL BE PROVIDED TO THE CODE OFFICIAL. TESTING TO BE DONE BY THIRD PARTY IF REQUIRED BY CODE OFFICIAL.

WSEC R404.1 A MIN OF 90% OF PERMANENT LAMPS IN FIXTURES SHALL BE HIGH-EFFICIENCY LAMPS.

WSEC R403.1 AT LEAST ONE THERMOSTAT SHALL BE PROVIDED FOR EACH SEPARATE HEATING AND COOLING SYSTEM

WSEC R403.4.2 HOT WATER PIPES ARE REQUIRED TO BE INSULATED OF R-4

SREC TABLE 402.1.1 - ALL WINDOW AND DOOR HEADERS TO BE INSULATED WITH A MINIMUM OF R-10 INSULATION

ENERGY REQUIREMENTS (PERSPECTIVE):
7 ENERGY CREDITS AS SELECTED AND LISTED BELOW:

2. PRIMARY HEATING SOURCE : 1.0 CREDIT
FOR AN INITIAL HEATING SYSTEM USING A HEAT PUMP THAT MEETS FEDERAL STANDARDS FOR THE EQUIPMENT LISTED IN TABLE C403.3.2(1)C OR C403.3.2(2) OR, AIR TO WATER HEAT PUMP UNITS THAT ARE CONFIGURED TO PROVIDE BOTH HEATING AND COOLING AND ARE RATED IN ACCORDANCE WITH AHRI 550/590

1.3 EFFICIENT BUILDING ENVELOPE: 0.5 CREDIT
PRESCRIPTIVE COMPLIANCE IS BASED ON TABLE R402.1.1 WITH THE FOLLOWING MODIFICATIONS:
VERTICAL FENESTRATION U = 0.28, FLOOR R-38
SLAB ON GRADE R-10 PERIMETER AND UNDER ENTIRE SLAB
BELOW GRADE SLAB R-10 PERIMETER AND UNDER ENTIRE SLAB

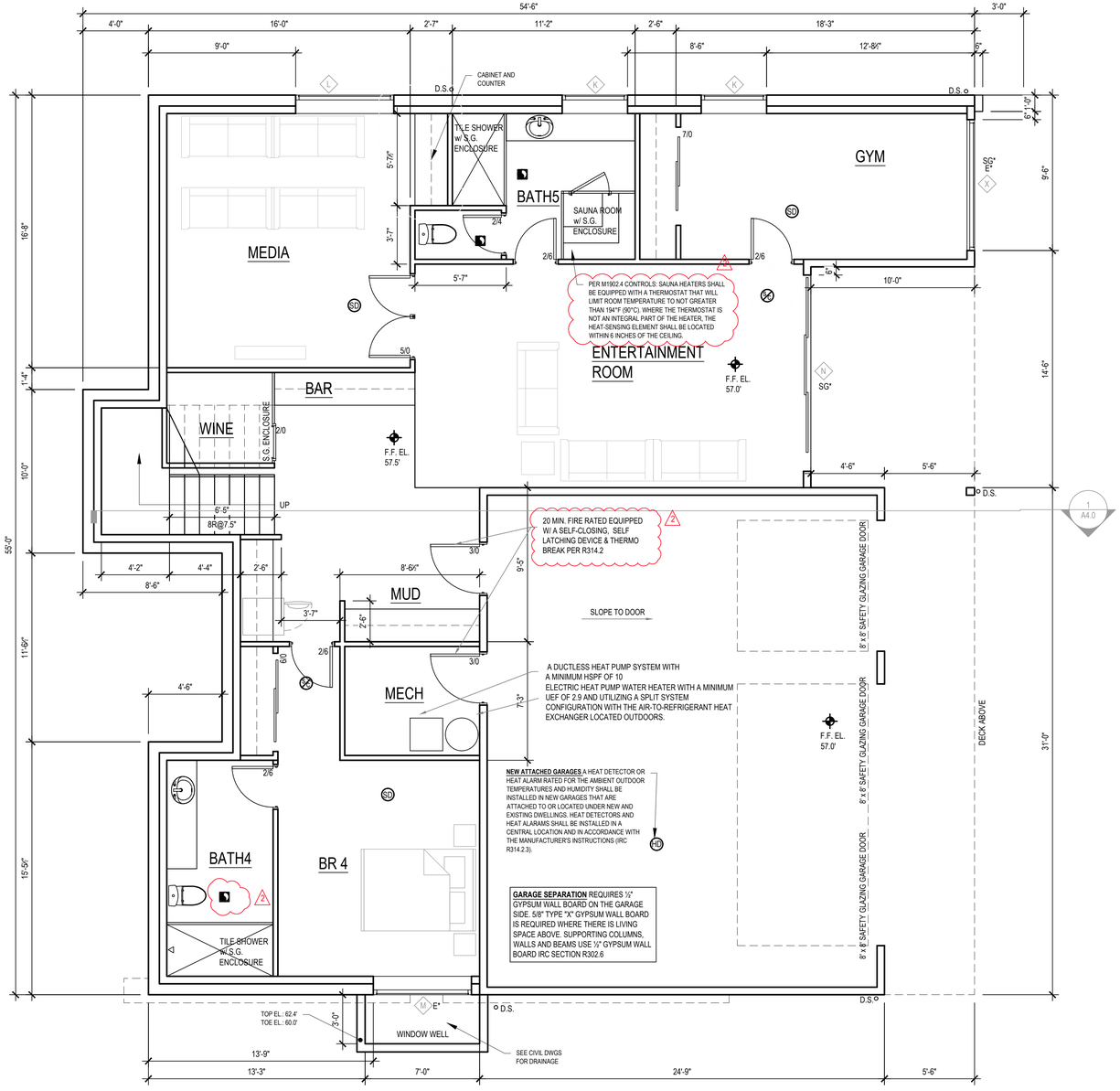
2.1 AIR LEAKAGE CONTROL AND EFFICIENT VENTILATION OPTIONS: 0.5 CREDIT
COMPLIANCE BASED ON R402.4.1.2:
REDUCE THE TESTED AIR LEAKAGE TO 3.0 AIR CHANGES PER HOUR MAXIMUM AT 50 PASCALS
AND, ALL WHOLE HOUSE VENTILATION REQUIREMENTS AS DETERMINED BY SECTION M1507.3 OF THE INTERNATIONAL RESIDENTIAL CODE OR SECTION 403.8 OF THE INTERNATIONAL MECHANICAL CODE SHALL BE MET WITH A HIGH EFFICIENCY FAN(S) (MAXIMUM 0.35 WATTS/CFM), NOT INTERLOCKED WITH THE FURNACE FAN (IF PRESENT). VENTILATION SYSTEMS USING A FURNACE INCLUDING AN ECM MOTOR ARE ALLOWED, PROVIDED THAT THEY ARE CONTROLLED TO OPERATE AT LOW SPEED IN VENTILATION ONLY MODE.

3.6 HIGH EFFICIENCY HVAC EQUIPMENT: 2.0 CREDIT
DUCTLESS SPLIT SYSTEM HEAT PUMPS WITH NO ELECTRIC RESISTANCE HEATING IN THE PRIMARY LIVING AREAS. A DUCTLESS HEAT PUMP SYSTEM WITH A MINIMUM HSPF OF 10 SHALL BE SIZED AND INSTALLED TO PROVIDE HEAT TO ENTIRE DWELLING UNIT AT THE DESIGN OUTDOOR AIR TEMPERATURE.

5.6 EFFICIENT WATER HEATING: 2.5 CREDIT
WATER HEATING SYSTEM SHALL INCLUDE ONE OF THE FOLLOWING:
ELECTRIC HEAT PUMP WATER HEATER WITH A MINIMUM UEF OF 2.9 AND UTILIZING A SPLIT SYSTEM CONFIGURATION WITH THE AIR-TO-REFRIGERANT HEAT EXCHANGER LOCATED OUTDOORS. EQUIPMENT SHALL MEET SECTION 4, REQUIREMENTS FOR ALL UNITS, OF THE NEEA STANDARD ADVANCED WATER HEATING SPECIFICATION WITH THE UEF NOTED ABOVE

7.1 APPLIANCE PACKAGE OPTION : 0.5 CREDIT
ALL OF THE FOLLOWING APPLIANCES SHALL BE NEW AND INSTALLED IN THE DWELLING UNIT AND SHALL MEET THE FOLLOWING STANDARDS:
DISHWASHER - ENERGY STAR RATED
REFRIGERATOR (IF PROVIDED) - ENERGY STAR RATED
WASHING MACHINE - ENERGY STAR RATED
DRYER - ENERGY STAR RATED, VENTLESS DRYER WITH A MINIMUM CEF RATING OF 5.2.

7.1 APPLIANCES LISTED BELOW:
DRYER: SAMSUNG - DV25B69**H*
DISHWASHER: SANSUNG DW80R9950US
REFRIGERATOR: SAMSUNG RF23A9771SR
WASHER: SAMSUNG MODEL WW25B6900AW



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

N

Simple Heating System Size: Washington State

This heating system sizing calculator is based on the Prescriptive Requirements of the 2018 Washington State Energy Code (WSEC) and ACCA Manuals J and S. This tool will calculate heating loads only. ACCA procedures for sizing cooling systems should be used to determine cooling loads.

Please complete the green drop-downs and boxes that are applicable to your project. As you make selections in the drop-downs for each section, some values will be calculated for you. If you do not see the selection you need in the drop-down options, please contact the WSU Energy Program at energycode@energy.wsu.edu or (360) 956-2042 for assistance.

Project Information	*Contact Information*
3804 House	Mei Yang
3804 E Mercer Way	meiyang173@gmail.com
Mercer Island, WA	

Heating System Type: ○ All Other Systems ◉ Heat Pump

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

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

Area of Building
Conditioned Floor Area
Instructions: Conditioned Floor Area (sq ft) = 5,944
Average Ceiling Height
Instructions: Average Ceiling Height (ft) = 9.5
Conditioned Volume = 56,468

		U-Factor	X	Area	=	UA
Glazing and Doors Instructions	U-0.28	0.280		1,936		542.08
Skylights Instructions		0.50		8		4.00
Insulation **Attic** Instructions	R-49	0.026				
Single Rafter or Joist Vaulted Ceilings Instructions	R-49 Advanced	0.020		2,277		45.54
Above Grade Walls *(see Figure 1)* Instructions	R-21 Intermediate	0.056		3,827		214.31
Floors Instructions	R-38	0.025		524		13.10
Below Grade Walls *(see Figure 1)* Instructions	R-21 Interior	0.042		941		39.52
		F-Factor	X	Length		UA
Slab Below Grade *(see Figure 1)* Instructions	R-10 Fully Insulated	0.303		180		54.54
Slab on Grade *(see Figure 1)* Instructions	R-10 Fully Insulated	0.360		50		18.00

Location of Ducts
Instructions: Conditioned Space
Duct Leakage Coefficient 1.00

Figure 1.


Sum of UA	931.09	
Envelope Heat Load *Sum of UA x ΔT*	41,899	Btu / Hour
Air Leakage Heat Load *Volume x 0.6 x ΔT x 0.018*	27,443	Btu / Hour
Building Design Heat Load *Air leakage + envelope heat loss*	69,343	Btu / Hour
Building and Duct Heat Load *Ducts in unconditioned space: sum of building heat loss x 1.10* *Ducts in conditioned space: sum of building heat loss x 1*	69,343	Btu / Hour
Maximum Heat Equipment Output *Building and duct heat loss x 1.40 for forced air furnace* *Building and duct heat loss x 1.25 for heat pump*	86,678	Btu / Hour

SYMBOL

EXHAUST VENT
SD SMOKE DETECTOR
SD/CO SMOKE/CO1 ALARM
NEW WALL
1-HR FIRE RATED WALL

3804 HOME

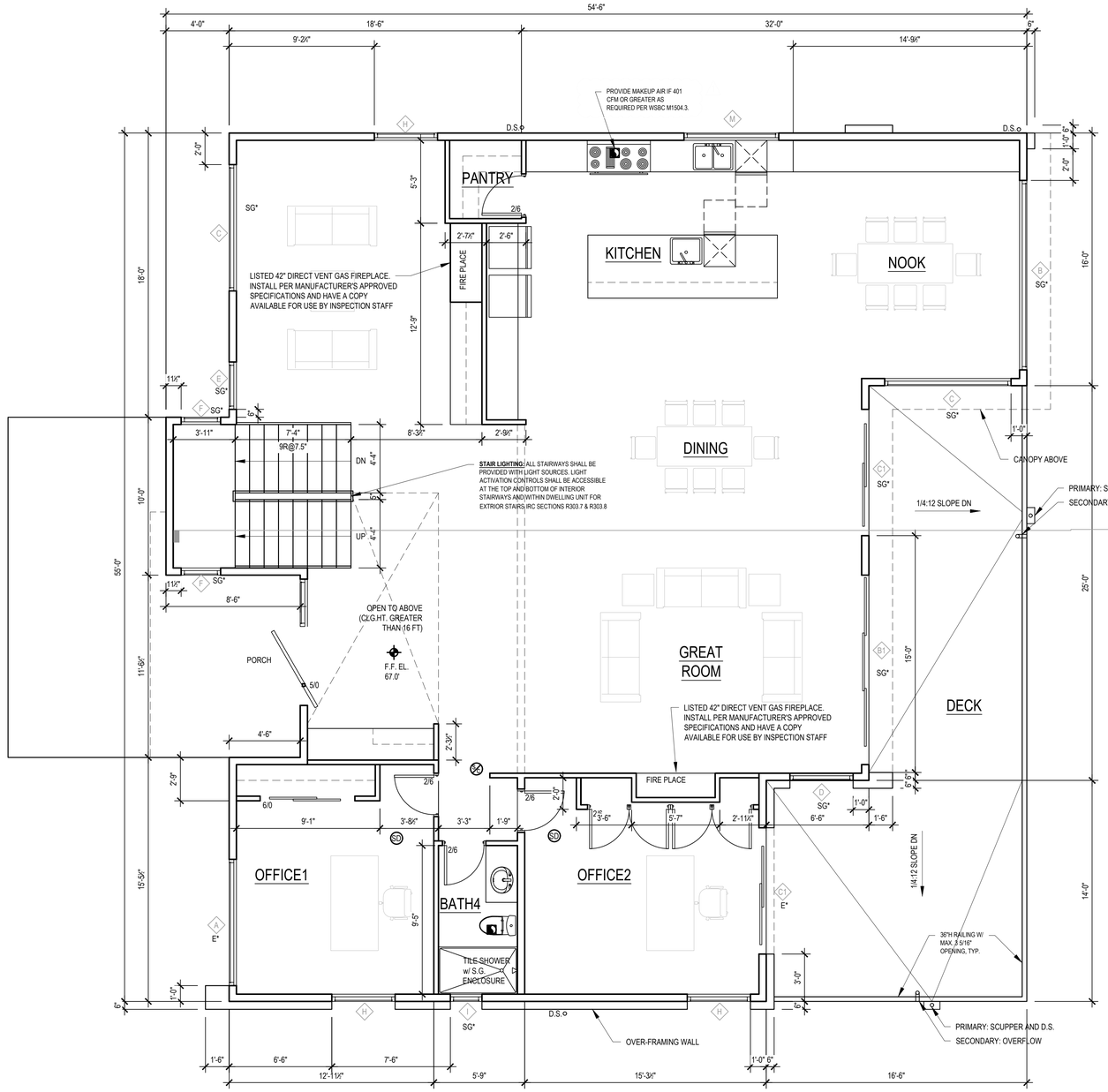
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2	09/03/2024	CORRECTION #1
3	12/11/2024	CORRECTION #2

MAIN FLOOR PLAN

SHEET NUMBER
A2.0



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

N

SYMBOL

- EXHAUST VENT
- SD — SMOKE DETECTOR
- SMOKE/CO1 ALARM
- NEW WALL
- 1-HR FIRE RATED WALL

3804 HOME

3804 E MERCER WAY
MERCER ISLAND WA 98040

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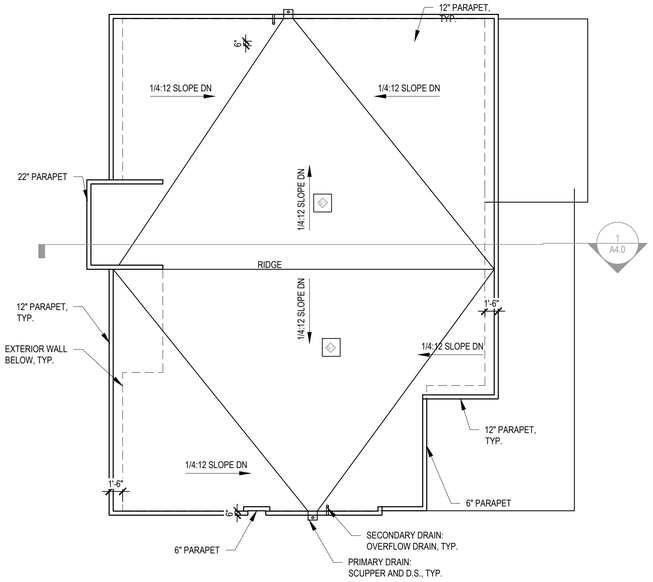
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UPPER FLOOR PLAN
ROOF PLAN
CRAWL SPACE PLAN

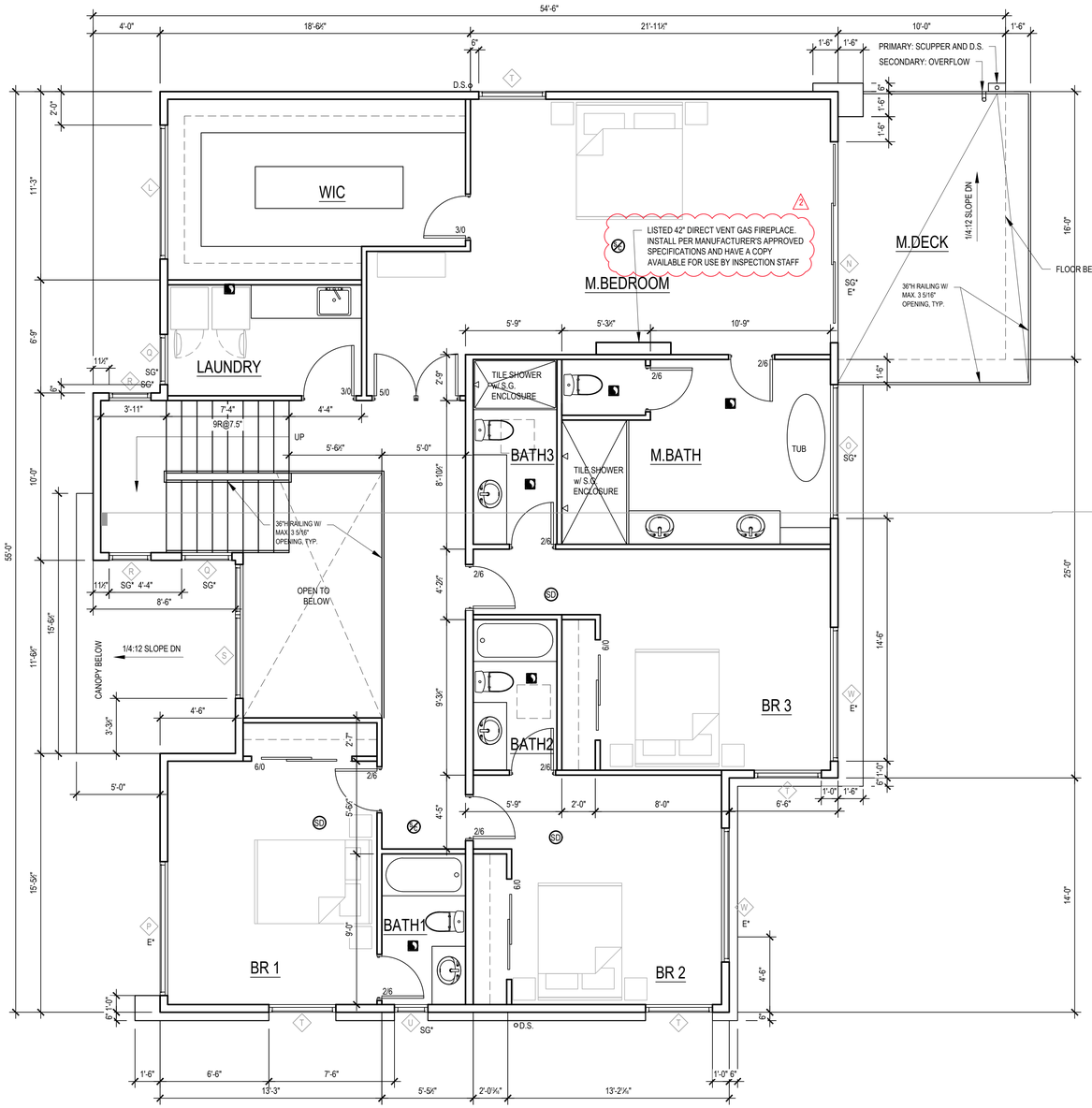
SHEET NUMBER

A2.1

ROOF DRAINAGE NOTES:
ROOF DRAINAGE SHALL COMPLY WITH 2021 UPC AND THE WA STATE AMENDMENTS.
EACH PRIMARY ROOF DRAIN FOR THIS HOME, AS SHOWN ON ROOF PLAN AND ELEVATIONS, WILL BE VIA A THROUGH-PARAPET-WALL SCUPPER DIRECTLY INTO A CATCHMENT CONDUCTER HEAD AND DOWNSPOUT LEADER THAT IS TIGHT LINED TO STORM DRAINAGE SYSTEM DESIGNED BY CIVIL ENGINEER.
EACH SECONDARY ROOF DRAIN SHALL BE PROVIDED VIA A THROUGH-PARAPET-WALL SCUPPER THAT PROJECTS BEYOND THE EXTERIOR WALL SO THAT IF PRIMARY ROOF DRAIN IS BLOCKED, THEN WATER WOULD SPILL LIKE A WATERFALL OUT OF THE SECONDARY SCUPPER ONTO THE GROUND WHERE IT WILL BE SEEN BY THE HOMEOWNER AND NEIGHBORS ALERTING THEM TO A PROBLEM WITH THE PRIMARY DRAINAGE SYSTEM.
PER TABLE 1103.1, SEATTLE IS SHOWN AS GETTING 0.010 GALLONS PSF OF ROOF.
PER WA AMENDMENTS, ROOF DRAINAGE MUST ACCOMMODATE DOUBLE THE RAINFALL FOR LOCAL AREA. THEREFORE, DRAINAGE SHALL BE SIZED FOR 0.020 GALLONS OF RAIN PSF OF ROOF.
MAIN ROOF AREA: 2072 X 0.020 GALLONS = 41.44 GALLONS PER MINUTE NEEDS TO DRAIN FROM ROOF. TWO PRIMARY DRAINS ARE PROVIDED, EACH HANDLING HALF THE ROOF AREA.
41.44 GALLONS / 2 = 20.72 GPM
PER TABLE 1106.2: 3" ROUND DRAINAGE PIPING IS SUFFICIENT.
WHERE RECTANGULAR THROUGH WALL SCUPPER BOXES ARE USED, THEY SHALL BE NO LESS THAN 4" HIGH X 4" WIDE.
SECONDARY DRAINAGE SCUPPER TO BE LOCATED 2" ABOVE PRIMARY DRAINAGE.



3 ROOF PLAN
1/8" = 1'-0"



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

SYMBOL
EXHAUST VENT
SMOKE DETECTOR
SMOKE/CO1 ALARM
NEW WALL
1-HR FIRE RATED WALL

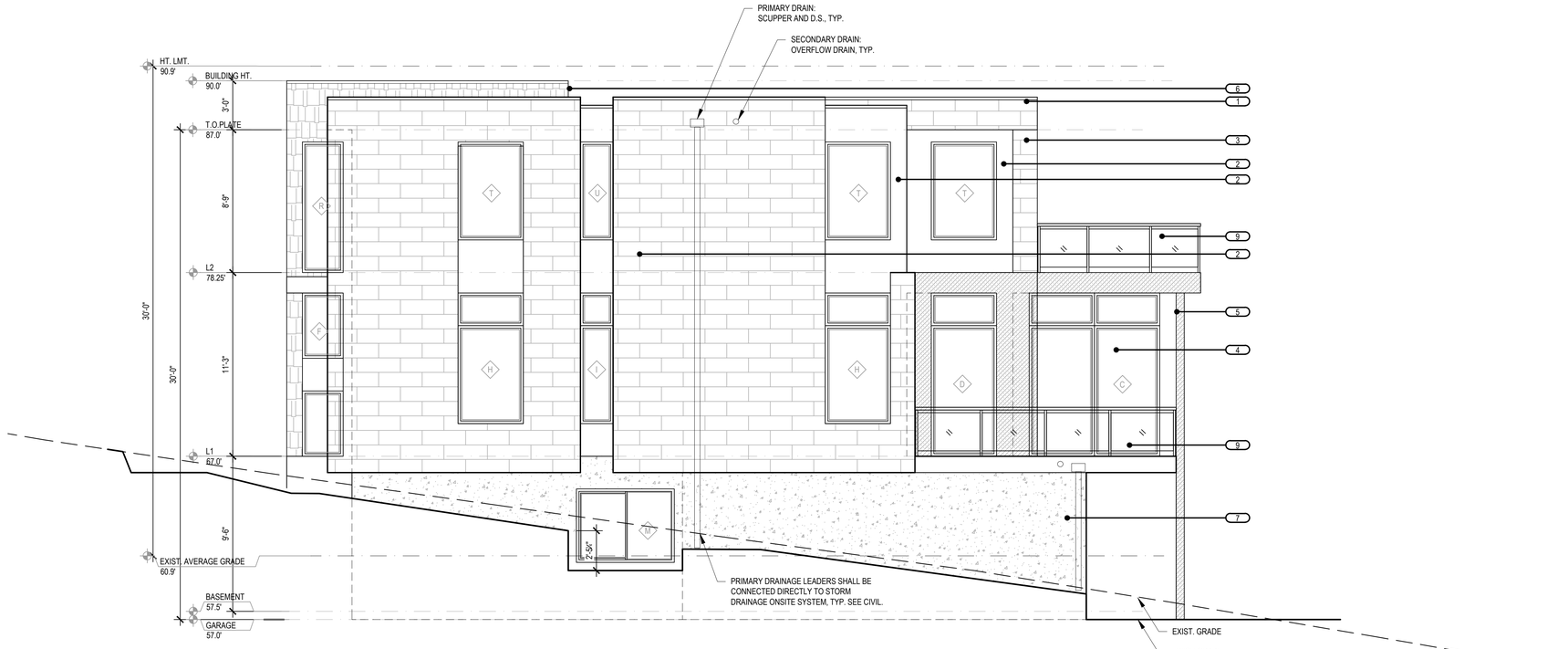
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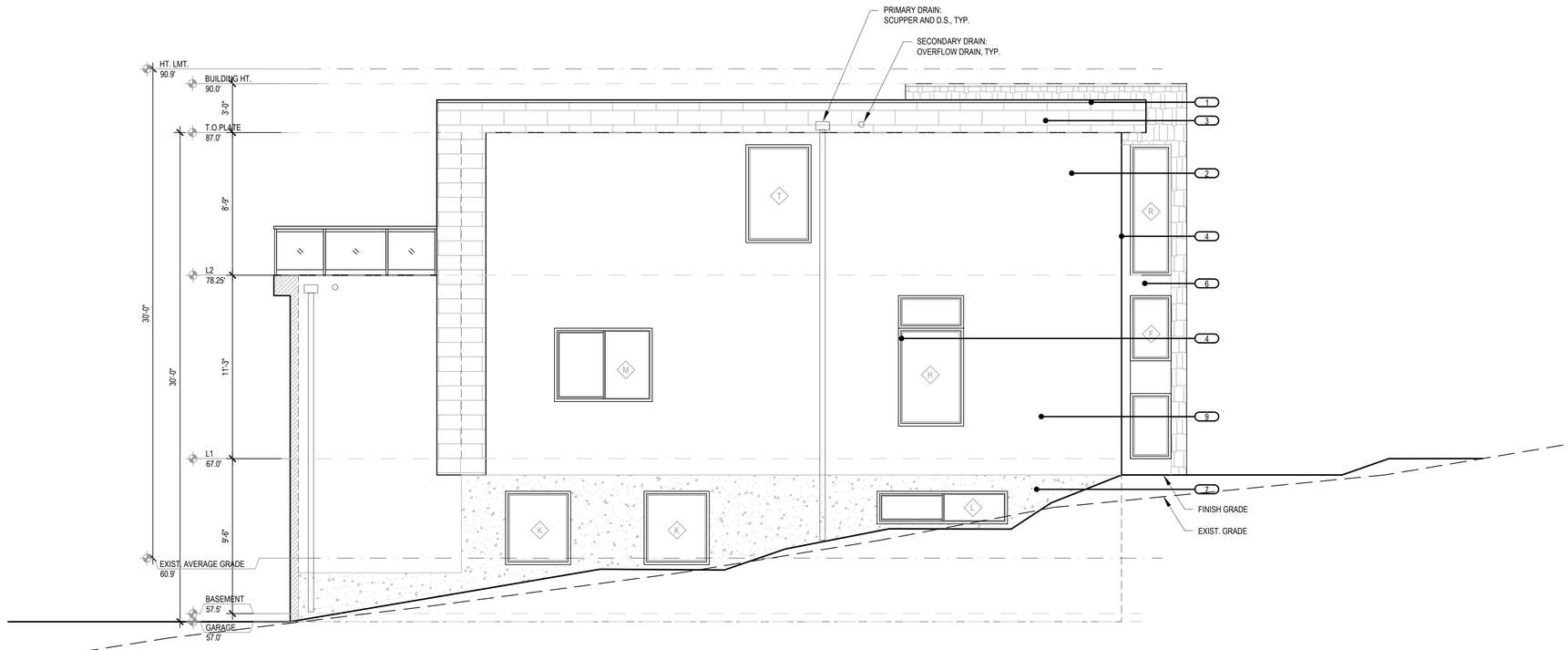
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UPPER FLOOR PLAN
ROOF PLAN
CRAWL SPACE PLAN

SHEET NUMBER
A2.2



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



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

EXTERIOR FINISH SCHEDULE

1, METAL COPING
2, FIBER CEMENT PANEL (LIGHT)
3, FIBER CEMENT PANEL (DARK)
4, VINYL WINDOW
5, CORTEN SIDING
6, STONE VENEER
7, CONCRETE
8, CANOPY
9, RAILING

3804 HOME

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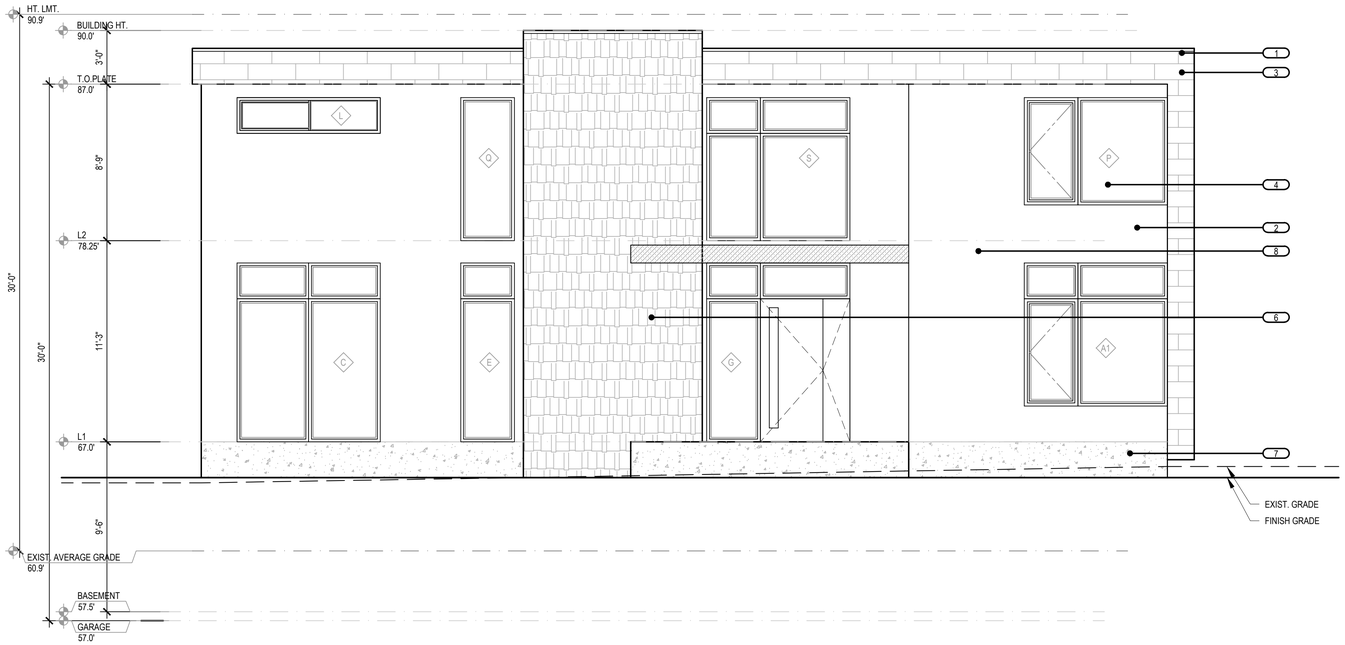
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ELEVATIONS

SHEET NUMBER

A3.0



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



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

EXTERIOR FINISH SCHEDULE
1, METAL COPING
2, FIBER CEMENT PANEL (LIGHT)
3, FIBER CEMENT PANEL (DARK)
4, VINYL WINDOW
5, CORTEN SIDING
6, STONE VENEER
7, CONCRETE
8, CANOPY
9, RAILING

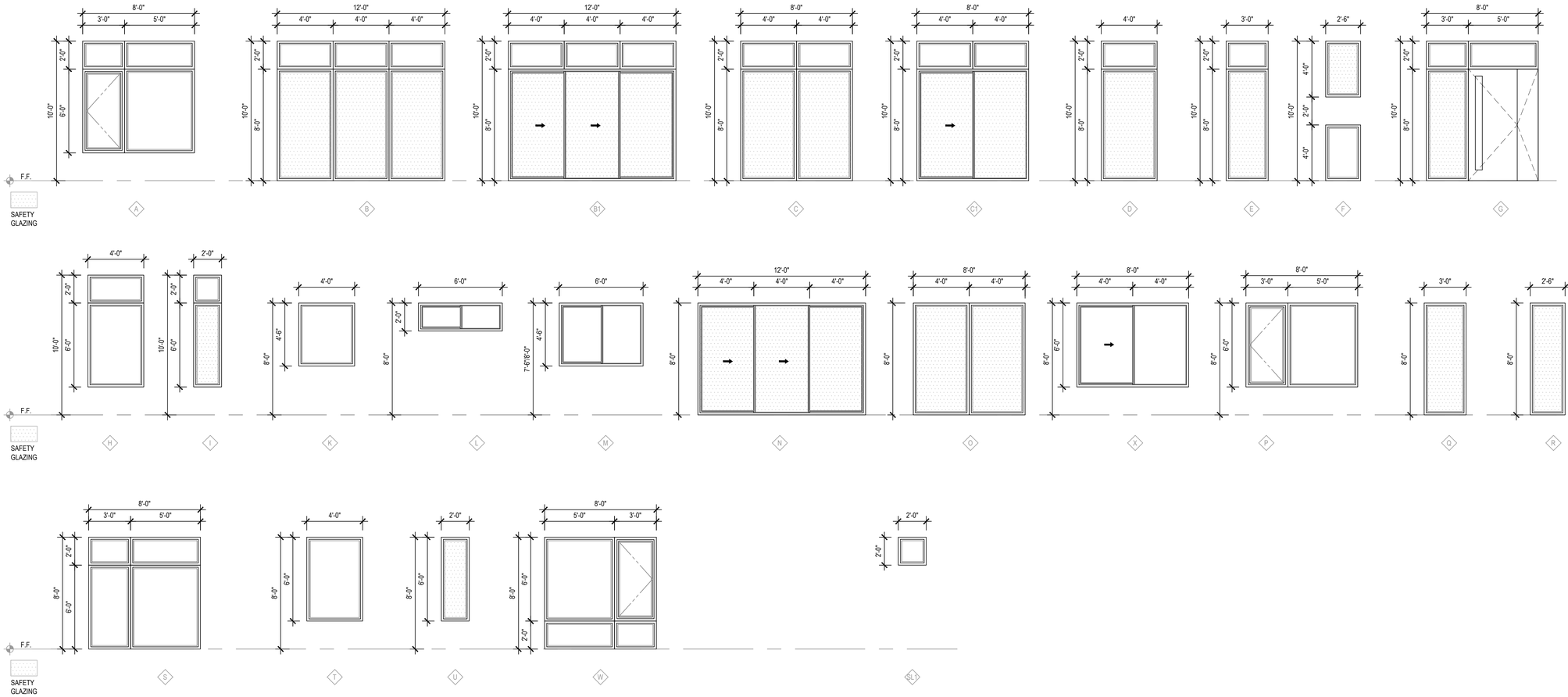
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ELEVATIONS

SHEET NUMBER
A3.1



2 WINDOW TYPES

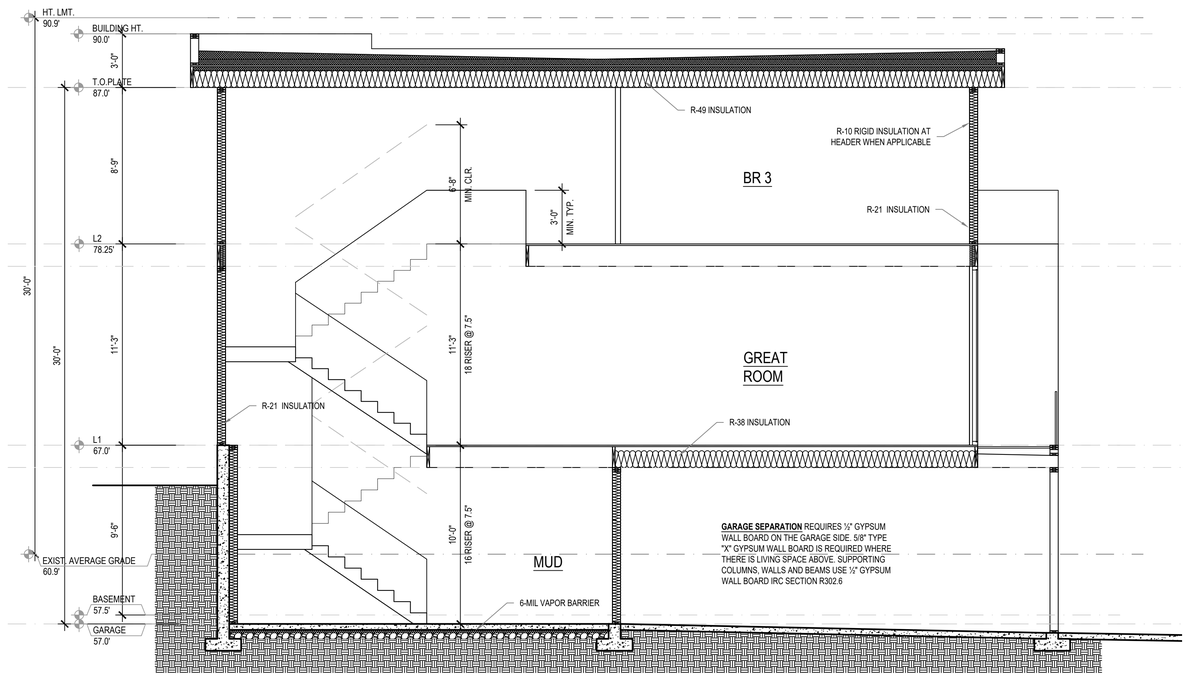
1/4" = 1'-0"

Vertical Fenestration (Windows and doors)

Component Description	Ref.	U-factor	Qt.	Width Feet	Width Inch	Height Feet	Height Inch	Area	UA
Window	A	0.28	1	8	0	8	0	64.0	17.92
Window	B	0.28	2	12	0	10	0	240.0	67.20
Window	C	0.28	4	8	0	10	0	320.0	89.60
Window	D	0.28	1	4	0	10	0	40.0	11.20
Window	E	0.28	2	3	0	10	0	60.0	16.80
Window	F	0.28	2	2	6	10	0	50.0	14.00
Window	G	0.28	1	11	0	10	0	110.0	30.80
Window	H	0.28	2	4	0	8	0	64.0	17.92
Window	I	0.28	1	2	0	8	0	16.0	4.48
Window	J	0.28	2	4	0	1	6	12.0	3.36
Window	K	0.28	3	4	0	4	0	54.0	15.12
Window	L	0.28	3	8	0	2	0	48.0	13.44
Window	M	0.28	1	6	0	5	0	30.0	8.40
Window	N	0.28	2	12	0	8	0	192.0	53.76
Window	O	0.28	1	8	0	8	0	64.0	17.92
Window	P	0.28	1	8	0	6	0	48.0	13.44
Window	Q	0.28	2	3	0	8	0	48.0	13.44
Window	R	0.28	2	2	6	8	0	40.0	11.20
Window	S	0.28	1	11	0	8	0	88.0	24.64
Window	T	0.28	1	4	0	6	0	24.0	6.72
Window	U	0.28	1	2	0	6	0	12.0	3.36
Window	V	0.28	2	4	0	8	0	64.0	17.92
Window	W	0.28	2	8	0	8	0	128.0	35.84
Window	X	0.28	2	8	0	6	0	96.0	26.88
Door to Garage		0.28	1	3	0	8	0	24.0	6.72
								0.0	0.00
Sum of Vertical Fenestration Area and UA								1936.0	542.08
Vertical Fenestration Area Weighted U = UA/Area									0.28

Overhead Glazing (Skylights)

Component Description	Ref.	U-factor	Qt.	Width Feet	Width Inch	Height Feet	Height Inch	Area	UA
SKYLIGHT	SL1	0.50	2	2	0	2	0	8.0	4.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
Sum of Overhead Glazing Area and UA								8.0	4.00
Overhead Glazing Area Weighted U = UA/Area									0.50
Total Sum of Fenestration Area and UA ***(for heating system sizing calculations)***								1944.0	546.08



1 SECTION

1/4" = 1'-0"

3804 HOME

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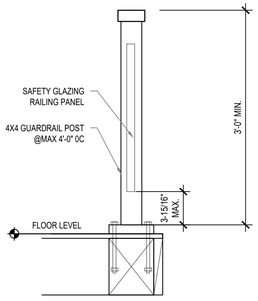
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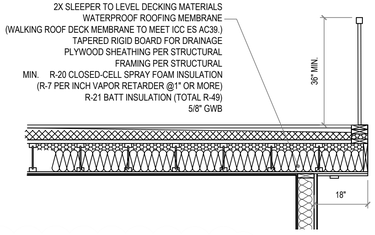
SECTION
WINDOW SCHEDULE

SHEET NUMBER

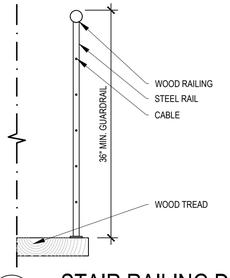
A4.0



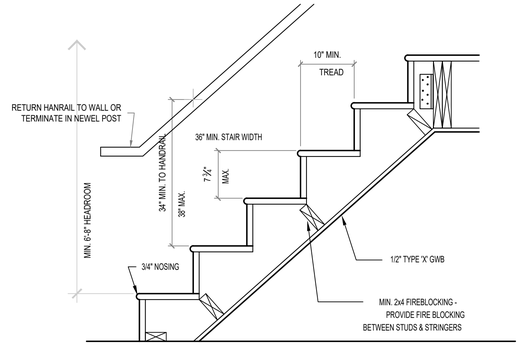
6 DECK RAILING DETAIL
1" = 1'-0"



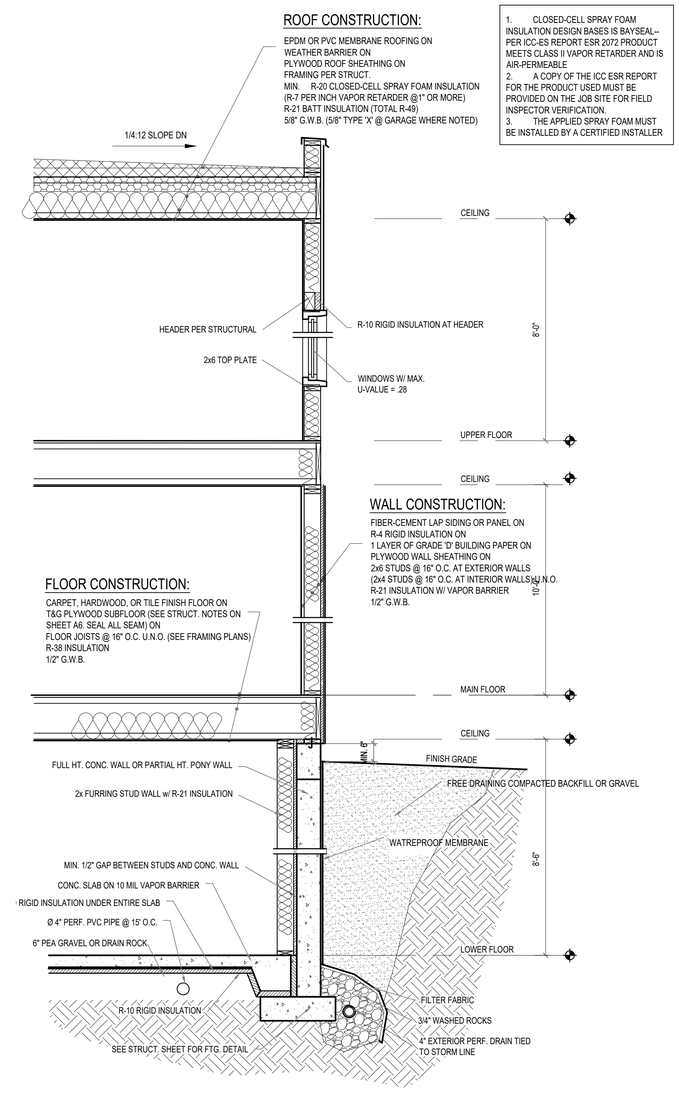
5 ROOF DECK DETAIL
1/2" = 1'-0"



4 STAIR RAILING DETAIL
1" = 1'-0"



3 LOWER FLOOR STAIR DETAIL
1" = 1'-0"



1. CLOSED-CELL SPRAY FOAM INSULATION DESIGN BASES IS BAYSEAL-- PER ICC-ES REPORT ESR 2072 PRODUCT MEETS CLASS II VAPOR RETARDER AND IS AIR-PERMEABLE
2. A COPY OF THE ICC ESR REPORT FOR THE PRODUCT USED MUST BE PROVIDED ON THE JOB SITE FOR FIELD INSPECTOR VERIFICATION.
3. THE APPLIED SPRAY FOAM MUST BE INSTALLED BY A CERTIFIED INSTALLER

1 TYP. WALL SECTION
1/2" = 1'-0"

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DETAILS

SHEET NUMBER

A5.0

GENERAL STRUCTURAL NOTES

BUILDING CODE
2018 INTERNATIONAL BUILDING CODE

DESIGN METHOD
ALLOWABLE STRESS DESIGN (ASD)

FLOOR LOADS
DEAD LOAD : **15 psf**
LIVE LOAD: **40 psf**
LIVE LOAD (DECK): **60 psf**

ROOF LOADS
DEAD LOAD: **15 psf**
LIVE LOAD (SNOW): **25 psf**

WIND DESIGN DATA
1. BASIC WIND SPEED: **110 MPH**
2. RISK CATEGORY: **II**
3. WIND EXPOSURE: **B**
4. Kzt = **1.0**
5. ANALYSIS PROCEDURE: ENVELOPE SIMPLIFIED

SESIMIC DESIGN DATA
1. SEISMIC IMPORTANCE FACTOR: **1.0**
2. RISK CATEGORY: **II**
3. SPECTRAL RESPONSE ACCEL (S_S): **1.418**
4. SITE CLASS: C (ASSUMED)
5. SPECTRAL RESPONSE COEFF (S_{DS}): **1.134**
6. SEISMIC DESIGN CATEGORY: **D**
7. LFRS: WOOD SHEATHED SHEARWALLS
8. SEISMIC RESPONSE COEFFICIENT (Cs): **0.174**
9. RESPONSE MODIFICATION FACTOR (R): **6.5**
10. ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE

GENERAL

1. ANY DISCREPANCY FOUND AMONG THE DRAWINGS, THESE NOTES, AND THE SITE CONDITIONS SHALL BE REPORTED TO THE DESIGNER, WHO SHALL CORRECT SUCH DISCREPANCY IN WRITING. ANY WORK DONE BY THE CONTRACTOR AFTER DISCOVERY OF SUCH DISCREPANCY SHALL BE DONE AT THE CONTRACTORS RISK.

2. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE CONTRACT DRAWINGS.

3. DURING THE CONSTRUCTION PERIOD THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF THE BUILDING. THE CONTRACTOR SHALL PROVIDE ERECTION BRACING, FORMWORK, AND TEMPORARY CONSTRUCTION SHORING IN ACCORDANCE WITH ALL NATIONAL, STATE, AND LOCAL SAFETY ORDINANCES. ANY DEVIATION MUST BE APPROVED IN WRITING PRIOR TO ERECTION.

4. ALL ERECTION PROCEDURES SHALL CONFORM TO OSHA STANDARDS. ANY DEVIATION MUST BE APPROVED BY OSHA PRIOR TO ERECTION.

5. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION PROCEDURES.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE WORK OF ALL TRADES AND SHALL CHECK ALL DIMENSIONS. ALL DISCREPANCIES SHALL BE CALLED TO THE ATTENTION OF THE ENGINEER AND BE RESOLVED PRIOR TO PROCEEDING WITH THE WORK.

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

8. ALL DETAILS DESIGNATED AS STANDARD OR TYPICAL SHALL OCCUR IN ADDITION TO ANY OTHER SPECIFIC DETAIL CALLED OUT.

9. ALL INFORMATION SHOWN ON THE DRAWINGS RELATIVE TO EXISTING CONDITIONS IS GIVEN AS THE BEST PRESENT KNOWLEDGE, BUT WITHOUT GUARANTEE OF ACCURACY. WHERE ACTUAL CONDITIONS CONFLICT WITH THE DRAWINGS, THEY SHALL BE REPORTED TO THE ENGINEER SO THE PROPER REVISIONS MAY BE MADE. MODIFICATIONS TO CONSTRUCTION DETAILS SHALL NOT BE MADE WITHOUT PRIOR WRITTEN APPROVAL BY THE ENGINEER.

FOUNDATIONS

1. THE FOUNDATION DESIGN IS BASED ON THE RECOMMENDATION IN THE **INTERNATIONAL** BUILDING CODE TABLE 1806.2 & THE GEOTECHNICAL REPORT PREPARED BY MERIT ENGINEERING INC. DATED NOVEMBER 29, 2024. FOUNDATION WORK SHALL BE PERFORMED IN ACCORDANCE WITH CHAPTER 18 OF THIS CODE.

2. THE FOUNDATION DESIGN IS BASED ON THE FOLLOWING VALUES:

ALLOW. SOIL BEARING	**1500PSF**
SOIL FRICTION	.28
EQUIV. FLUID PRESSURES	
ACTIVE PRESSURE	34 PCF
AT REST PRESSURE	53 PCF
PASSIVE PRESSURE	425 PCF

2

3. ALL FOOTINGS SHALL BE FOUNDED AT LEAST 12" BELOW THE UNDISTURBED GROUND SURFACE OR TO FROST DEPTH. ALL FOOTINGS SHALL BE FOUNDED ON COMPACTED FILL OR UNDISTURBED NATURAL GRADE UNLESS OTHERWISE NOTED.

4. COMPACTION: MATERIAL FOR FILLING AND BACKFILLING SHALL CONSIST OF THE EXCAVATED MATERIAL AND/OR IMPORTED BORROW AND SHALL BE FREE OF ORGANIC MATTER, TRASH, LUMBER, OR OTHER DEBRIS. ALL WALLS SHALL BE ADEQUATELY BRACED PRIOR TO BACKFILLING. FILL AND BACKFILL SHALL BE DEPOSITED IN LAYERS NOT TO EXCEED 8 INCHES THICK, PROPERLY MOISTENED TO APPROXIMATE OPTIMUM REQUIREMENTS AND THOROUGHLY ROLLED OR COMPACTED WITH APPROVED EQUIPMENT IN SUCH A MANNER AND EXTENT AS TO PRODUCE A RELATIVE COMPACTION OF 90% OF MAXIMUM POSSIBLE DENSITY AS DETERMINED BY ASTM D1557. HAND TAMPERS SHALL WEIGH AT LEAST 50 POUNDS EACH AND SHALL HAVE A FACE AREA NOT IN EXCESS OF 64 SQUARE INCHES. HAND TAMPERS MAY BE OPERATED EITHER MANUALLY OR MECHANICALLY AND SHALL BE USED WHERE LARGER POWER DRIVEN COMPACTION EQUIPMENT CANNOT BE USED.

CONCRETE

1. ALL CONCRETE UNLESS OTHERWISE NOTED SHALL BE REGULAR WEIGHT HARD ROCK TYPE (150 PCF) AGGREGATES SHALL CONFORM TO ASTM C33 WITH PROVEN SHRINKAGE CHARACTERISTICS OF LESS THAN 0.05%.

2. ALL CONCRETE DESIGN IS BASED ON A 28 DAY COMPRESSIVE STRENGTH (f'c) OF 2500 PSI. WHERE 3000 PSI CONCRETE IS REQUIRED BY THE BUILDING DEPARTMENT FOR WEATHERING PURPOSES ONLY, NO SPECIAL INSPECTION IS REQUIRED.

3. CEMENT SHALL CONFORM TO ASTM C150, TYPE I, CSA NORMAL.

4. MAXIMUM SLUMP SHALL NOT EXCEED 4 INCHES IN FLATWORK.

5. PLACEMENT OF CONCRETE SHALL CONFORM WITH ACI 301.

6. CONCRETE SHALL BE MAINTAINED IN A MOIST CONDITION FOR A MINIMUM OF FIVE (5) DAYS AFTER PLACEMENT. ALTERNATE METHODS WILL BE APPROVED IF SATISFACTORY PERFORMANCE CAN BE ASSURED.

7. POUR JOINTS CAN BE USED TO MINIMIZE EFFECTS OF SHRINKAGE AS WELL AS PLACED AT POINTS OF LOW STRESS. RECOMMENDED MAXIMUM AREA OF POUR JOINTS IS 400 SF.

8. MINIMUM CONCRETE COVERAGE OF REINFORCING STEEL FOR FORMED WORK SHALL BE AS FOLLOWS:
INTERIOR WALL: 3/4"
EXT. WALLS, EXPOSED TO WEATHER: 1½"
EXPOSED TO EARTH OR WEATHER (#5 OR SMALLER): 1½"
*NOTE: CONCRETE CAST AGAINST GROUND SHALL HAVE 3" MIN. COVERAGE

9. PIPES AND CONDUITS SHALL NOT BE EMBEDDED IN STRUCTURAL CONCRETE EXCEPT WHERE SPECIFICALLY APPROVED.

10. CONCRETE MIXES SHALL BE PROVIDED IN ACCORDANCE WITH ACI 318 (WHEN STRENGTH DATA FROM TRIAL BATCHES OR FIELD EXPERIENCE ARE NOT AVAILABLE). ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (F'c) OF 2500 PSI, WITH A MINIMUM CEMENT CONTENT OF 470 LBS/CUBIC YARD (5 SACKS PER CUBIC YARD). MIXES SHALL BE PROPORTIONED TO PRODUCE A SLUMP OF 5" OR LESS. NO MORE THAN A 1" PLUS TOLERANCE SHALL BE ALLOWED.

REINFORCING STEEL

1. ALL REINFORCING STEEL SHALL CONFORM TO ASTM A615 GRADE 60 (fy = 60 KSI) FOR BAR SIZES NO. 4 & LARGER, GRADE 40 (fy = 40 KSI) FOR NO. 3 BARS.

2. ALL REINFORCING STEEL SHALL BE LAPPED AS NOTED ON THE PLANS. WHERE LAP OR SPLICE LOCATIONS ARE NOT SPECIFICALLY INDICATED ON THE CONSTRUCTION DOCUMENTS, LAPS AND/OR SPLICES SHALL BE 42 BAR DIA AND BE WELL STAGGERED. NO MORE THAN 50% OF HORIZONTAL OR VERTICAL BARS SHALL BE SPLICED AT ONE LOCATION.

3. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A82 AND A185 AND SHALL BE 6x6 W1.4xW1.4 UNLESS OTHERWISE NOTED. LAP REINFORCEMENT 6" MINIMUM.

4. ANCHOR BOLTS, DOWELS AND OTHER EMBEDDED ITEMS SHALL BE SECURELY TIED IN PLACE BEFORE CONCRETE IS POURED. SLAB ON GRADE REINFORCEMENT SHALL BE PLACED AT MID-DEPTH OF SLAB AND SHALL BE HELD SECURELY IN PLACE WITH MECHANICAL DEVICES DURING PLACING OF THE CONCRETE.

FRAMING LUMBER

1. FRAMING LUMBER SHALL BE DOUG-FIR NO. 2 FOR STUDS AND JOISTS, DOUG-FIR NO. 1. FOR BEAMS AND POSTS. GRADES ARE TYPICAL UNLESS OTHERWISE NOTED ON PLANS. LUMBER TO BE GRADE MARKED PER WCLIB SPECIFICATIONS.

2. GLU-LAMINATED MEMBERS SHALL BE 24F-V4 (DF-L) FOR SINGLE SPAN AND 24F-V8 FOR CONTINUOUS SPAN & CANTILEVERED.

3. STRUCTURAL SHEATHING SHALL BE APA RATED PLYWOOD OR OSB, EXPOSURE 1 SHEATHING CONFORMING TO EITHER COMMERCIAL STANDARDS P51-83, APA PRP-108, OR VOLUNTARY PRODUCT STANDARD PSE-92. PROVIDE A MINIMUM OF ⅜" EDGE DISTANCE ON ALL NAILS AND ⅛" EXPANSION JOINT BETWEEN ALL PANEL EDGES. MINIMUM SHEATHING REQUIREMENTS ARE AS FOLLOWS, UNLESS NOTED OTHERWISE ON THE PLANS:

4. NAILING SHALL CONFORM TO TABLE 2304.10.1 OF THE INTERNATIONAL BUILDING CODE UNLESS NOTED OTHERWISE. USE COMMON NAILS THROUGHOUT UNLESS NOTED OTHERWISE.

5. NO STRUCTURAL MEMBER SHALL BE CUT OR NOTCHED UNLESS SPECIFICALLY DETAILED OR APPROVED IN WRITING BY THE STRUCTURAL ENGINEER.

6. PROVIDE PROPERLY SIZED WASHERS UNDER HEADS AND NUTS OF ALL BOLTS AND LAG SCREWS BEARING ON WOOD.

7. PROVIDE 3"x3"x0.229" WASHERS AT ALL ANCHOR BOLTS.

8. BOLT HOLES SHALL BE NOMINAL DIAMETER OF BOLT PLUS 1/16" UNLESS NOTED OTHERWISE. LAG BOLT PILOT HOLES SHALL BE PRE-DRILLED TO 60% OF THE NOMINAL DIAMETER OF THE LAG BOLT UNLESS NOTED OTHERWISE.

9. ALL SILL PLATES SHALL BE BOLTED TO THE FOUNDATION WITH ⅝" MINIMUM DIAMETER BOLTS SPACED AT A MAXIMUM OF 48" ON CENTER. BOLTS MUST BE EMBEDDED A MINIMUM OF 7" INTO CONCRETE OR MASONRY. SEE PLANS AND DETAILS FOR SPECIFIC REQUIREMENTS WHERE APPLICABLE.

10. PROVIDE DOUBLE JOIST UNDER ALL PARALLEL PARTITION WALLS AND SOLID BLOCKING UNDER PERPENDICULAR PARTITION WALLS.

11. WHERE LEDGERS, SILL PLATES, POSTS, OR STUDS ARE IN DIRECT CONTACT WITH CONCRETE OR MASONRY, USE PRESERVE TREATED LUMBER OR PROVIDE GRACE VYCOR PLUS BARRIER BETWEEN WOOD MEMBERS AND CONCRETE OR MASONRY.

12. ALL FASTENERS IN CONTACT WITH PRESERVE TREATED LUMBER OR EXPOSED TO THE ELEMENTS SHALL BE HOT-DIPPED GALVANIZED OR STAINLESS STEEL.

GLUED-LAMINATED TIMBER

1. ADHESIVE SHALL BE FOR WET USE.

2. LAMINATIONS SHALL BE OF DOUGLAS FIR/WESTER LARCH, COMBINATION 24F-V4 FOR SIMPLE SPAN BEAMS AND 24F-V8 FOR CONTINUOUS MULTIPLE SPAN AND CANTILEVERED BEAMS, FABRICATED IN ACCORDANCE WITH AITC A190.1 AND ASTM D 3737.

3. FABRICATION SHALL BE BY A LICENSED FABRICATOR.

4. GLULAM BEAMS EXPOSED TO WEATHER SHALL BE PROPERLY SEALED OR FLASHED TO PREVENT DECAY.

PREFABRICATED WOOD JOISTS/TRUSSES

1. THE JOISTS/TRUSSES SHALL BE MANUFACTURED BY TRUS JOIST, OR APPROVED EQUAL AND SHALL BE FABRICATED IN ACCORDANCE WITH ASTM D 5055. (SUBSTITUTIONS MUST BE APPROVED BY THE STRUCTURAL ENGINEER OR ARCHITECT IN WRITING, PRIOR TO INSTALLATION)

2. SEE PLANS FOR SIZE, TYPE, AND LOCATIONS OF JOISTS/TRUSSES.

3. THE JOISTS/TRUSSES ARE TO BE ERECTED AND INSTALLED IN ACCORDANCE WITH THE PLANS AND THE MANUFACTURER'S INSTALLATION REQUIREMENTS AND RECOMMENDATIONS. CONTRACTOR SHALL GIVE NOTIFICATION PRIOR TO ENCLOSING THE JOISTS/TRUSSES TO PROVIDE AN OPPORTUNITY FOR INSPECTION OF THE INSTALLATION, PROVIDE BRIDGING, CONTINUOUS LATERAL BRACING, AND DIAGONAL BRACING BETWEEN THE JOISTS/TRUSSES PER THE MANUFACTURER'S RECOMMENDATIONS.

4. DRAWINGS AND CALCULATIONS SHALL BE STAMPED AND SIGNED BY A REGISTERED PROFESSIONAL ENGINEER. THE DRAWINGS SHALL SHOW ALL CRITICAL DIMENSIONS AS WELL AS THE LOADS THE JOISTS/TRUSSES ARE DESIGNED TO SUPPORT. THE JOISTS/TRUSSES ARE TO BE ERECTED AND INSTALLED IN ACCORDANCE WITH THE PLANS, APPROVED FABRICATOR DRAWINGS, AND INSTALLATION SUGGESTIONS.

STRUCTURAL STEEL

1. HOLLOW STRUCTURAL SECTIONS SHALL CONFORM TO ASTM 500, GRADE B (Fy = 46 KSI). W-SECTIONS SHALL CONFORM TO ASTM A992 (Fy = 50 KSI).

2. PLATES SHALL CONFORM TO ASTM A36 (Fy = 36 KSI).

3. BOLTS LESS THAN ¾"Ø SHALL CONFORM TO ASTM A307.

4. SPLICING OF STRUCTURAL STEEL MEMBERS WHERE NOT DETAILED ON THE CONTRACT DOCUMENTS IS PROHIBITED WITHOUT PRIOR APPROVAL OF THE STRUCTURAL ENGINEER AS TO LOCATION, TYPE OF SPLICE AND CONNECTION TO BE MADE.

5. STRUCTURAL STEEL DETAILING, FABRICATION, AND ERECTION SHALL CONFORM TO THE LATEST EDITION OF AISC "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS" WITH AMENDMENTS, AND THE AISC "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES", WITH AMENDMENTS.

6. WELDING PROCEDURES SHALL CONFORM TO THE ADWS D1.8 AND MANUFACTURERS RECOMMENDATIONS. (WHERE APLLICABLE)

ABBREVIATION LIST

A.B.	ANCHOR BOLT
ACI	AMERICAN CONCRETE INSTITUTE
AITC	AMERICAN INSTITUTE OF TIMBER CONSTRUCTION
ANCH	ANCHORAGE
ARCH	ARCHITECTURAL
ASD	ALLOWABLE STRESS DESIGN
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
BM	BEAM
BP	BASE PLATE
BRG	BEARING
CIP	CAST-IN-PLACE
CL	CENTER LINE
CMU	CONCRETE MASONRY UNIT
CONC	CONCRETE
CONT	CONTINUOUS
DF	DOUGLAS FIR
DIA	DIAMETER
DIAG	DIAGONAL
DL	DEAD LOAD
DP	DEEP
EA	EACH
EF	EACH FACE
EL	ELEVATION
EQ	EQUAL
EQUIP	EQUIPMENT
(E)	EXISTING
FLR	FLOOR
FS	FAR SIDE
FT	FOOT
FTG	FOOTING
GA	GAUGE
GALV	GALVANIZED
GLB	GLU-LAMINTED BEAM
GYP	GYPSUM
HF	HEMLOCK FIR
HORIZ	HORIZONTAL
INCL	INCLUDE
K	KILOPOUND
L	ANGLE
LL	LIVE LOAD
LLV	LONG LEG VERTICAL
LSL	LAMINATED STRAND LUMBER
LVL	LAMINATED VENEER LUMBER
MAX	MAXIMUM
MECH	MECHANICAL
MEZZ	MEZZANINE
MFR	MANUFACTURER
MISC	MISCELLANEOUS
MIN	MINIMUM
NS	NEAR SIDE
NTS	NOT TO SCALE
OF	OUTSIDE FACE
PCF	POUNDS PER CUBIC FOOT
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	PRESSURE TREATED
QTY	QUANTITY
REINF	REINFORCING
RF	ROOF
SCHED	SCHEDULE
SF	SQUARE FOOT
SHTG	SHEATHING
SIM	SIMILAR
SLV	SHORT LEG VERTICAL
SPECS	SPECIFICATIONS
SS	STAINLESS STEEL
STD	STANDARD
STRUCT	STRUCTURAL
T&B	TOP & BOTTOM
T&G	TONGUE & GROOVE
TOB	TOP OF BEAM
TOF	TOP OF FOOTING
TOS	TOP OF STEEL
TYP	TYPICAL
ULT	ULTIMATE
U.N.O	UNLESS NOTED OTHERWISE
VERT	VERTICAL
V.I.F.	VERIFY IN FIELD
W/	WITH
WF	WIDE FLANGE
W/O	WITHOUT
WT	WEIGHT
WWF	WELDED WIRE FABRIC

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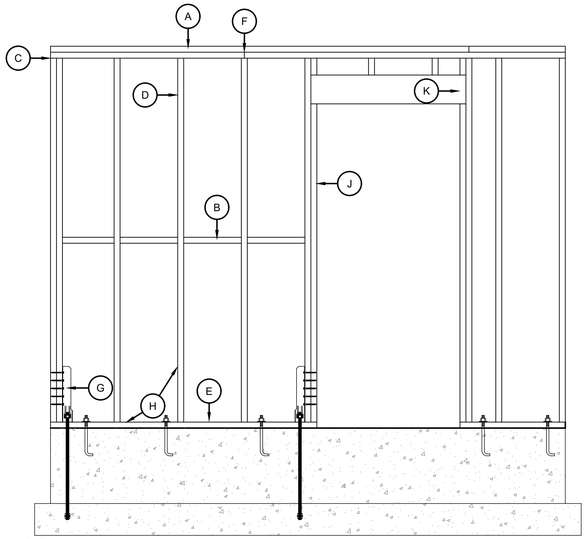
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Sheet Name:
GENERAL STRUCTURAL NOTES

Sheet:

S1.0

Job Number: 22-112



- (A) DOUBLE TOP PLATE W/ EDGE NAILING (STAGGER)
- (B) SHEARWALL EDGE NAILING AT ALL PANEL EDGES. BLOCKING AT ALL PANEL EDGES WHERE APPLICABLE.
- (C) EDGE NAILING TO HOLDOWN POST (FULL HEIGHT) STAGGER INTO DOUBLE STUDS
- (D) STUDS AT 16" ON CENTER
- (E) PRESSURE TREATED SILL PLATE WITH EDGE NAILING AND ANCHOR BOLTS PER SHEARWALL SCHEDULE.
- (F) TOP PLATE SPLICE NAILING TO BE (12) 10d COMMONS (MIN). LAP 48" MINIMUM. CENTER SPLICE ON STUD.
- (G) HOLDOWN PER SCHEDULE AND PLAN
- (H) COORDINATE ALL STUD AND PLATE SIZES w/ SHEARWALL SCHEDULE REQUIREMENTS
- (J) EDGE NAILING TO POSTS, TRIM STUDS, AND KING STUDS
- (K) BEARING STUD FOR HEADER

1 S1.1 TYPICAL SHEARWALL ELEVATION
NTS

SHEARWALL SCHEDULE								
SHEARWALL MARK	SHEATHING MATERIAL	FASTENER TYPE AND SIZE	PANEL EDGE NAILING	PANEL FIELD NAILING	SILL PLATE MATERIAL AND ANCHOR BOLT SIZE AND SPACING (MIN EMBED 7")	BOTTOM PLATE SIZE AND CONNECTION	ALLOWABLE CAPACITY FOR SEISMIC LOADS (8d,7/16")	ALLOWABLE CAPACITY FOR WIND LOADS (8d,7/16")
SW-6	7/16" OR 15/32" OSB OR PLYWOOD SHEATHING ONE FACE	8d COMMON NAIL (1-1/2" MIN PENETRATION INTO FRAMING MEMBERS)	6" O.C.	12" O.C.	PT 2x SILL PLATE w/ 5/8" Ø AB @ 48" O.C.	2x BOTTOM PLATE w/ 16d AT 6" O.C. INTO RIM JOIST/BLOCKING	240 PLF	335 PLF
SW-4			4" O.C.		PT 2x SILL PLATE w/ 5/8" AB Ø @ 32" O.C.	2x BOTTOM PLATE w/ 16d AT 4" O.C. INTO RIM JOIST/BLOCKING	350 PLF	490 PLF
SW-3			3" O.C.		PT 3x SILL PLATE w/ 5/8" Ø AB @ 16" O.C.	3x BOTTOM PLATE w/ (2) ROWS OF SIMPSON 6" SDW SCREWS AT 6" O.C. INTO RIM JOIST AND BLOCKING	450 PLF	630 PLF
SW-2			2" O.C.		PT 3x SILL PLATE w/ 5/8" Ø AB @ 16" O.C.	3x BOTTOM PLATE w/ (2) ROWS OF SIMPSON 6" SDW SCREWS AT 6" O.C. INTO RIM JOIST AND BLOCKING	585 PLF	820 PLF
(2)SW-#	7/16" OR 15/32" SHEATHING TWO-FACES		PER RELEVANT SW TYPE ABOVE		PT 3x SILL PLATE w/ 5/8" Ø AB @ 8" O.C.	3x BOTTOM PLATE w/ (2) ROWS OF SIMPSON 6" SDW SCREWS AT 3" O.C. INTO RIM JOIST AND BLOCKING	PER RELEVANT SW TYPE ABOVE * (2)	PER RELEVANT SW TYPE ABOVE * (2)
PFH	PORTAL FRAME WITH HOLDOWNS PER PLAN & DETAIL 7/S3.0							
WSWH#x#	SIMPSON STRONG-WALL® HIGH STRENGTH WOOD SHEARWALL PER PLAN, DETAIL 8/S3.0, & MANUFACTURER (VERIFY REQ'D HEIGHT w/ ARCH DRAWINGS)							

SHEARWALL NOTES

1. ALL STUDS, BLOCKING, TOP AND BOTTOM PLATES SHALL BE HEM-FIR NO. 2 UNLESS NOTED OTHERWISE ON PLANS. ALL SHEATHING EDGES MUST BE BACKED WITH 2x OR WIDER FRAMING (SEE NOTE #3).

2. SHEATHING MAY BE INSTALLED EITHER HORIZONTALLY OR VERTICALLY. ALL SHEARWALL SHEATHING MUST EXTEND TO THE OUTSIDE EDGE OF ALL HOLDOWN POSTS AND CORNERS, AND TO THE INSIDE EDGE OF FRAMING AROUND OPENINGS.

3. WHERE SHEATHING NAILING IS SHEARWALL TYPE SW-3 AND GREATER, ALL FRAMING MEMBERS RECEIVING EDGE NAILING FROM ABUTTING PANELS SHALL NOT BE LESS THAN A SINGLE 3-INCH NOMINAL MEMBER. ADDITIONALLY, WHERE SHEARWALLS ARE SHEATHED ON BOTH FACES, ALL STUDS AND PLATES RECEIVING EDGE NAILING FROM BOTH FACES MUST BE A SINGLE 3-INCH NOMINAL MEMBER OR PANEL JOINTS MUST BE OFFSET. (2)2x MAY BE SUBSTITUTED FOR A SINGLE 3x MEMBER PROVIDED THE STUDS ARE STITCH NAILED TOGETHER w/ 10d NAILS STAGGERED AT 6" O.C. FROM EACH SIDE.

4. SHEARWALL NAILING CRITERIA IS BASED ON TABLE 4.2A OF THE AF&PA SPECIAL DESIGN PROVISIONS FOR WIND AND SEISMIC. VALUES ARE BASED ON OSB OR PLYWOOD SHEATHING w/ HEM-FIR NO. 2 FRAMING AND COMMON NAILS.

5. HOLDOWNS AND OTHER CONNECTIONS MAY BE REQUIRED AT THE ENDS OF MANY SHEARWALLS. SIZES AND LOCATIONS OF THESE CONNECTORS ARE INDICATED ON THE PLANS. REFER TO THE APPROPRIATE DETAILS AND/OR HOLDOWN SCHEDULE FOR ADDITIONAL INFORMATION REGARDING ANCHOR BOLTS, EMBEDMENT LENGTH, ETC. WHERE (2) 2x's ARE USED AS A HOLDOWN POST, SHEARWALL EDGE NAILING MUST BE STAGGERED INTO EACH MEMBER OF THE POST.

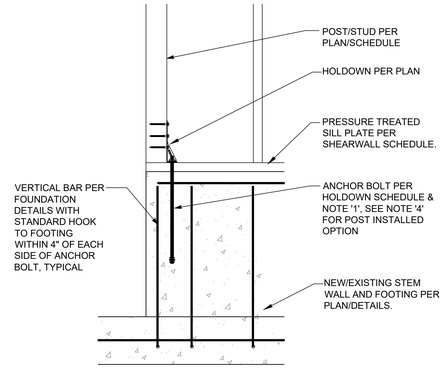
6. ANCHOR BOLTS MUST BE EMBEDDED A MINIMUM OF 7" INTO CONCRETE OR GROUTED CMU, AND SHALL BE PLACED TO PROVIDE A MINIMUM OF 2" COVER. PROVIDE 3" COVER FOR CONCRETE CAST AGAINST SOIL.

7. ALL MACHINE BOLTS SHALL BE ASTM A307 OR BETTER. HILTI KWIK BOLTS/SIMPSON TITEN HD BOLTS OF THE SAME DIAMETER AS SHOWN IN THE SHEARWALL SCHEDULE MAY BE SUBSTITUTED FOR ANCHOR BOLTS INTO EXISTING CONCRETE. BOLTS SHALL BE EMBEDDED A MINIMUM OF 3" INTO EXISTING CONCRETE.

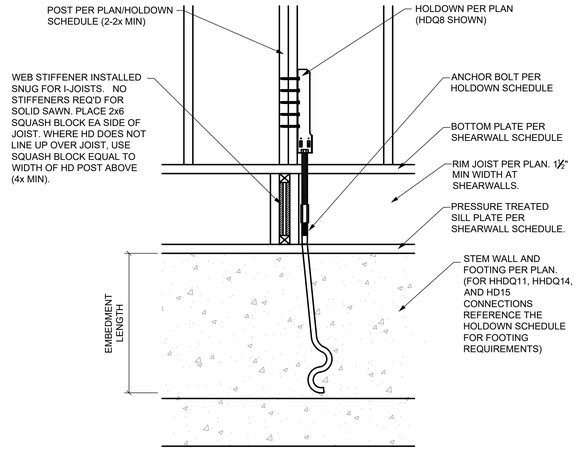
8. ALL NAILS AND CONNECTORS IN CONTACT WITH PRESSURE TREATED WOOD (EXCEPT FOR BORITE TREATED WOOD) MUST BE HOT DIPPED GALVANIZED OR STAINLESS STEEL TO RESIST CORROSION.

9. NAILS MUST BE STAGGERED WHEN SPACED AT 2" O.C.

10. PROVIDE A MINIMUM OF 3" x 3" x 0.229" PLATE WASHERS AT ALL ANCHOR BOLTS. THE EDGE OF THE PLATE WASHER MUST BE LOCATED NO MORE THAN 1/2" FROM THE INSIDE FACE OF THE SHEARWALL SHEATHING. FOR SHEARWALLS SHEATHED ON BOTH FACES, SQUARE PLATE WASHERS SHALL HAVE A MINIMUM SQUARE DIMENSION OF SILL PLATE WIDTH MINUS 1". (E.G. 4.5" x 4.5" x 0.229" WASHER FOR 3x6 SILL PLATE.)

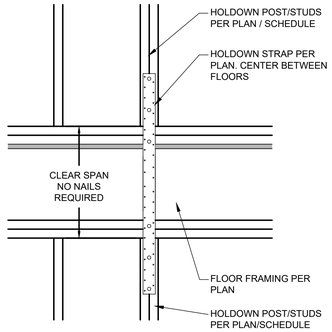


SLAB/STEMWAL

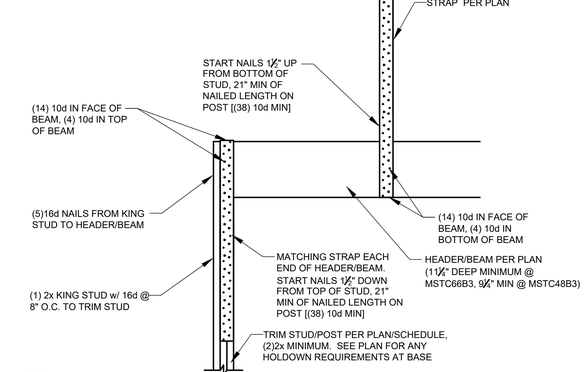


AT RIM JOIST

2 S1.1 TYP BOLTED HOLDOWN
1" = 1'-0"



3 S1.1 TYP FLR TO FLR STRAP
1" = 1'-0"



4 S1.1 STRAP HD @ BEAM/HEADER
NTS

HOLDOWN SCHEDULE							
HOLDOWN MARK	THREADED ROD SIZE	EMBED INTO CONCRETE	MIN EDGE DISTANCE	MINIMUM POST SIZE	TOTAL FASTENERS	CAPACITY	REMARKS
DTT2Z	⅝" Ø	10"	2½"	(2) 2x	(8) SDS ¼" x 1½"	2145#	SEE DET 2/S1.1
HDU4	⅝" Ø	12"	3"	(2) 2x	(10) SDS ¼" x 2½"	4565#	SEE DET 2/S1.1
MST37	N/A	N/A	N/A	(2) 2x	(22) 16d	2705#	SEE DET 3/S1.1
MST60	N/A	N/A	N/A	(3) 2x	(46) 16d	6235#	SEE DET 3/S2
MSTC48B3	N/A	N/A	N/A	(2) 2x	(38) 16d	3975#	SEE DET 4/S1.1
(2)MSTC48B3	N/A	N/A	N/A	(4) 2x	(76) 16d	7950#	SEE DET 4/S1.1
MSTC66B3	N/A	N/A	N/A	(2) 2x	(38) 16d	4490#	SEE DET 4/S1.1

HOLDOWN NOTES

1. ANCHOR BOLTS SHALL BE A307 ALL-THREAD w/ STANDARD CUT PLATE WASHER BETWEEN DOUBLE NUT OR EQUIVALENT SIMPSON PAB.

2. MINIMUM CONCRETE COMPRESSIVE STRENGTH (f'c) SHALL BE 2500 PSI. MINIMUM WALL THICKNESS IS 8", U.N.O. ON PLAN OR DETAILS.

3. ALL HOLDOWNS REQUIRE A (2)2x POST UNLESS NOTED OTHERWISE. WHERE HOLDOWNS ARE INSTALLED INTO THE WIDE FACE OF THE STUD, STUDS MUST BE STITCH NAILED TOGETHER w/ 16d SINKERS STAGGERED AT 4" O.C.

4. FOR POST INSTALLED CONDITIONS, THREADED ROD MAY BE PLACED IN SIMPSON SET-XP OR HILTI HY-150 EPOXY, UNO.

5. MINIMUM EDGE DISTANCE IS FOR FORMED CONCRETE EXPOSED TO WEATHER OR SOIL. FOR CONCRETE CAST AGAINST SOIL PROVIDE 3" CLEAR TO ANCHOR BOLT.

6. NAILS/SCREWS TO HOLDOWN POST SHALL BE PER MANUFACTURER'S SPECIFICATIONS.

7. WHEN FIELD CONDITION BECOME LESS THAN MINIMUM SHOWN, CONTACT ENGINEER PRIOR TO PROCEEDING.

8. ALL HOLDOWN BOLTS MUST BE RE-TIGHTENED JUST PRIOR TO ENCLOSING SECOND SIDE OF WALL.

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Issue Set: Field Revisions

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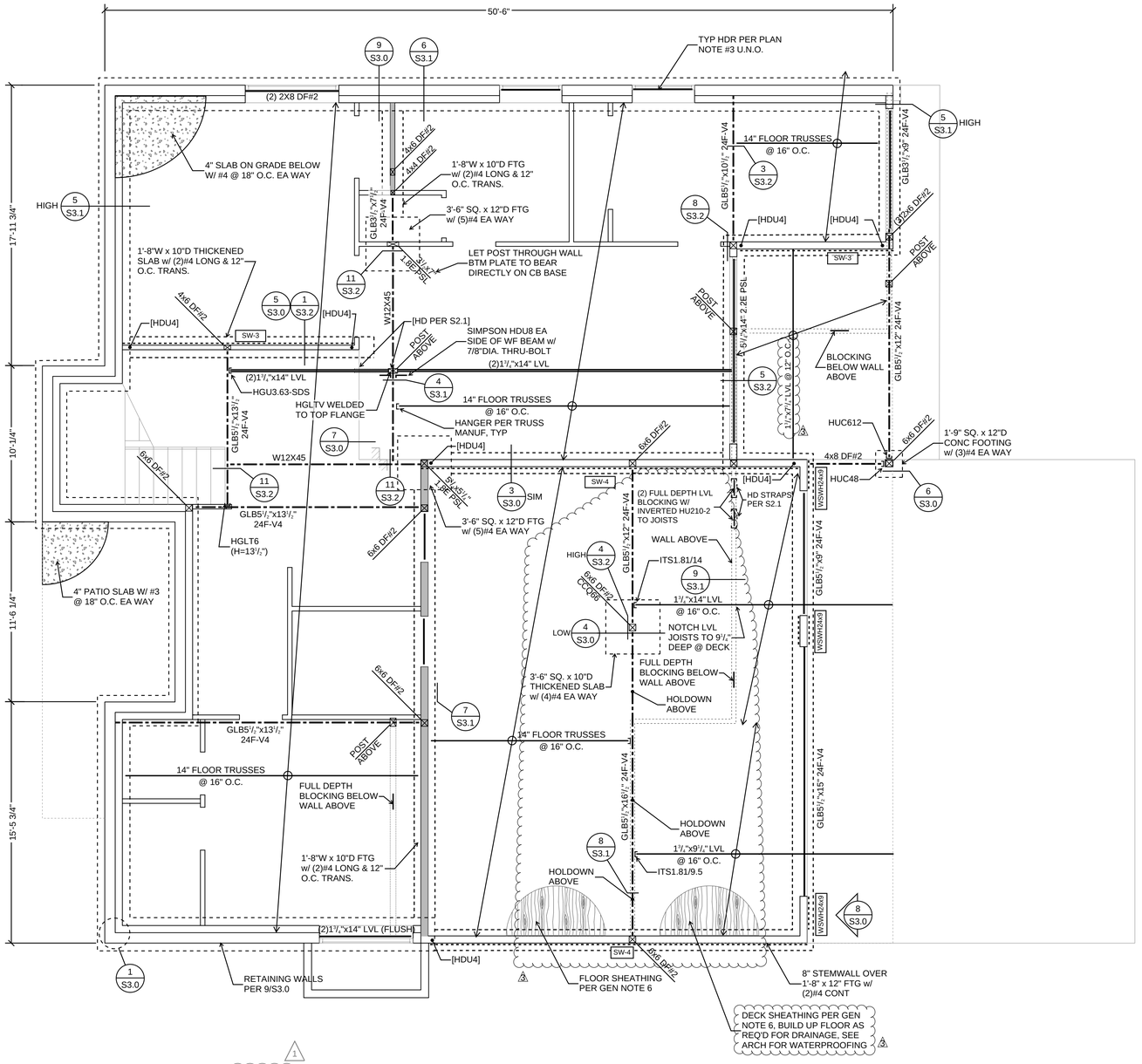
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Sheet Name:
SHEARWALL & HOLDOWN SCHEDULES

Sheet:
S1.1

Job Number: 22-112



1 FOUNDATION & MAIN FLOOR FRAMING PLAN
S2.0 1/4" = 1'-0"

GENERAL NOTES

1. DO NOT SCALE DRAWINGS - SCALE ONLY APPLICABLE WHEN PRINTED FULL SIZE AND SCALE IS LISTED.
2. FOR GENERAL STRUCTURAL NOTES, SEE SHEET S1.0.
3. ALL HEADERS SHALL BE (2)2x6 DFL #2 U.N.O. ON PLANS.
4. PROVIDE (1) 2x TRIM STUD AND (1) 2x KING STUD FOR CLEAR OPENINGS UP TO 4'-0".
   PROVIDE (2) 2x TRIM STUD AND (2) 2x KING STUD FOR CLEAR OPENINGS UP TO 8'-0".
   PROVIDE (3) 2x TRIM STUD AND (3) 2x KING STUD FOR CLEAR OPENINGS GREATER THAN 8'-0" U.N.O. ON PLANS.
5. ROOF SHEATHING SHALL BE APA RATED ½" OSB OR PLYWOOD. NAIL PANEL EDGES W/ 10d @ 6" O.C., NAIL PANEL FIELD W/ 10d @ 12" O.C. TYP, U.N.O.
6. FLOOR SHEATHING SHALL BE APA RATED ¾" OSB OR PLYWOOD. BLOCK ALL PANEL EDGES. NAIL PANEL EDGES W/ 10d @ 4" O.C., NAIL PANEL FIELD W/ 10d @ 12" O.C. TYP, U.N.O.
7. PROVIDE SIMPSON CB POST BASE FOR ALL COLUMNS TO CONCRETE & BC POST BASE TO WOOD U.N.O. ON PLAN OR IN DETAILS. ORIENT BASE TO FASTENERS IN STUD WALL WHERE APPLICABLE. REFERENCE ARCH PLANS FOR LOCATION OF CUSTOM CONNECTIONS.
8. ALL EXTERIOR WALLS SHALL BE FRAMED AS SHEARWALL TYPE 'SW-6' U.N.O. ON PLANS
9. SHEATHING PER SHEARWALL SCHEDULE SHALL BE INSTALLED ABOVE AND BELOW ALL OPENINGS AND SHALL RUN CONTINUOUSLY BETWEEN CORNERS.
10. SEE SHEET S1.1 FOR TYPICAL HOLDOWN DETAILS.

LEGEND

- STUD WALL PER PLAN, 2x4 @ 16" O.C. MIN INTERIOR, 2x6 @ 16" O.C. MIN EXTERIOR (U.N.O.)
- POST PER PLAN
- FOOTING PER PLAN
- SW-X — SHEARWALL TYPE PER PLAN & S1.1
- [--] — INDICATES HOLDOWN PER PLAN & S1.1

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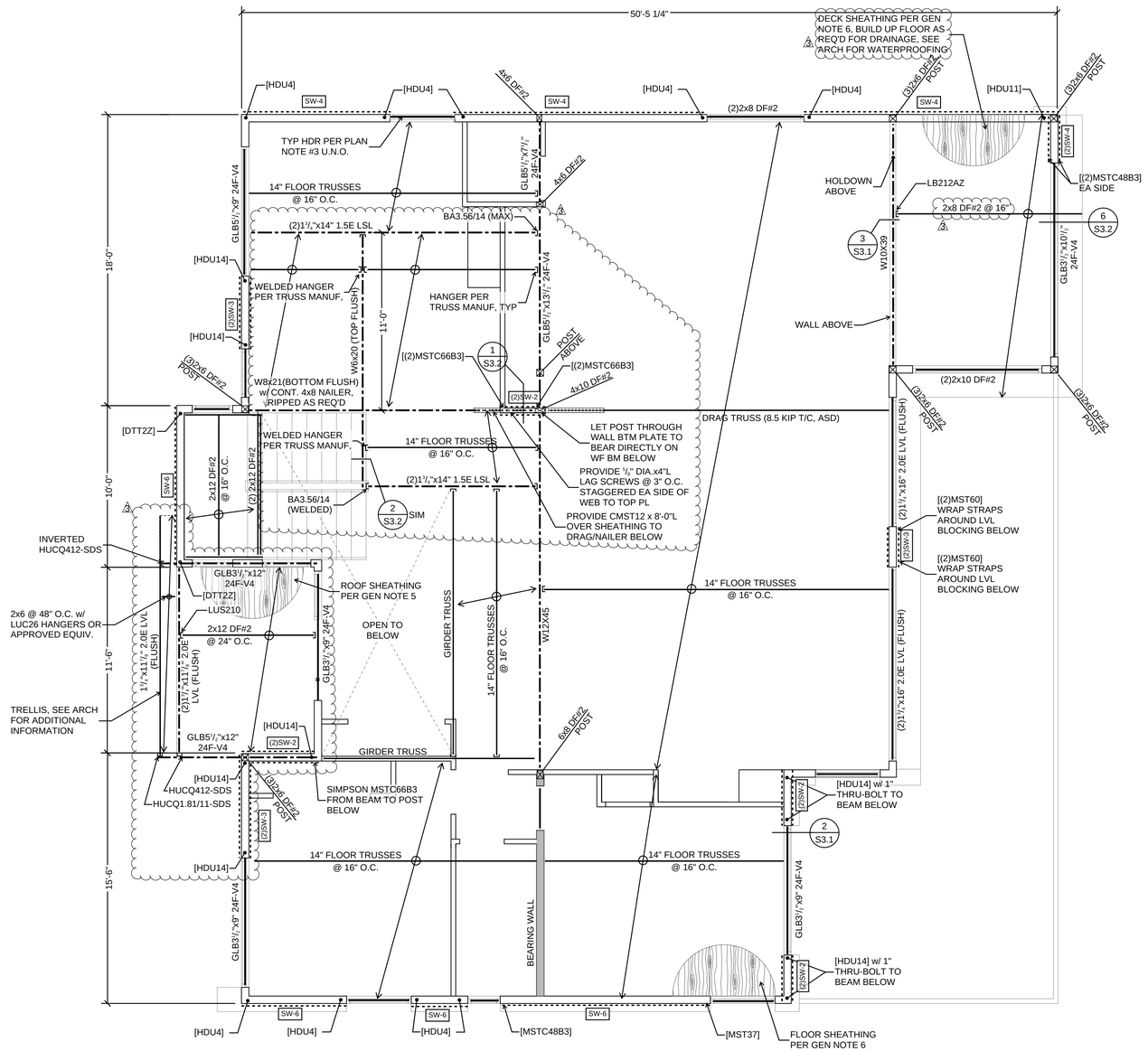
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Sheet Name:
FOUNDATION & MAIN FLOOR FRAMING PLAN

Sheet:
S2.0

Job Number: 22-112



1 N S2.1 UPPER FLOOR FRAMING PLAN
1/4" = 1'-0"

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6. FLOOR SHEATHING SHALL BE APA RATED ¾" OSB OR PLYWOOD. NAIL PANEL EDGES W/ 10d @ 6" O.C., NAIL PANEL FIELD W/ 10d @ 12" O.C. TYP, U.N.O.
7. PROVIDE SIMPSON BC POST BASE TO WOOD U.N.O. ON PLAN OR IN DETAILS. ORIENT BASE TO FASTENERS IN STUD WALL WHERE APPLICABLE. REFERENCE ARCH PLANS FOR LOCATION OF CUSTOM CONNECTIONS.
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10. SEE SHEET S1.1 FOR TYPICAL HOLDOWN DETAILS.

LEGEND

- STUD WALL PER PLAN, 2x4 @ 16" O.C. MIN INTERIOR, 2x6 @ 16" O.C. MIN EXTERIOR (U.N.O.)
- POST PER PLAN
- SW-X — SHEARWALL TYPE PER PLAN & S1.1
- [--] — INDICATES HOLDOWN PER PLAN & S1.1

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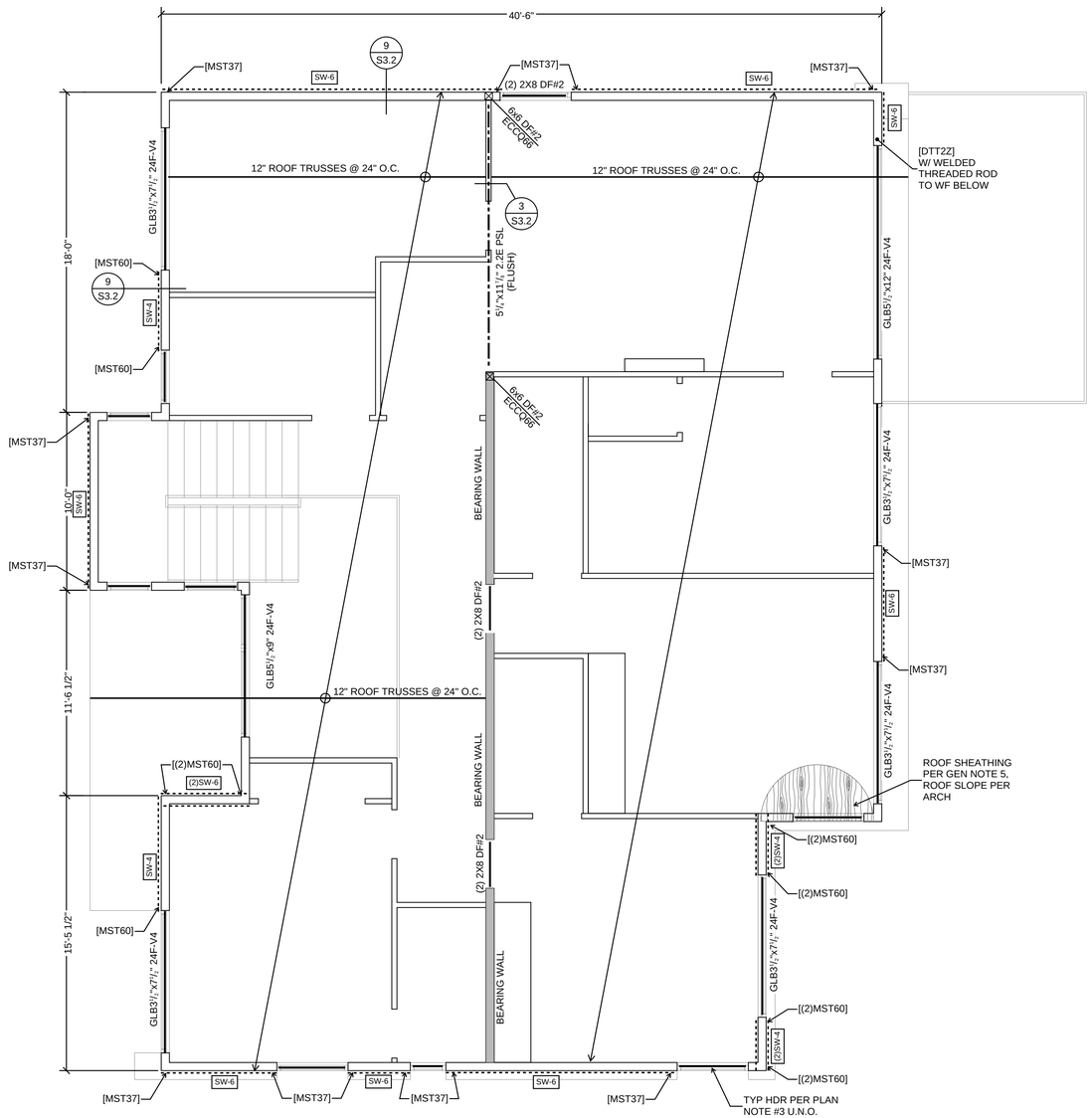
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Checked By: NKH

Sheet Name:
UPPER FLOOR FRAMING PLAN

Sheet:
S2.1

Job Number: 22-112



1 S2.2 ROOF FRAMING PLAN
1/4" = 1'-0"

GENERAL NOTES

1. DO NOT SCALE DRAWINGS - SCALE ONLY APPLICABLE WHEN PRINTED FULL SIZE AND SCALE IS LISTED.
2. FOR GENERAL STRUCTURAL NOTES, SEE SHEET S1.0.
3. ALL HEADERS SHALL BE (2)2x6 DFL #2 U.N.O. ON PLANS.
4. PROVIDE (1) 2x TRIM STUD AND (1) 2x KING STUD FOR CLEAR OPENINGS UP TO 4'-0".
   PROVIDE (2) 2x TRIM STUD AND (2) 2x KING STUD FOR CLEAR OPENINGS UP TO 8'-0".
   PROVIDE (3) 2x TRIM STUD AND (3) 2x KING STUD FOR CLEAR OPENINGS GREATER THAN 8'-0" U.N.O. ON PLANS.
5. ROOF SHEATHING SHALL BE APA RATED ½" OSB OR PLYWOOD. NAIL PANEL EDGES W/ 10d @ 6" O.C., NAIL PANEL FIELD W/ 10d @ 12" O.C. TYP, U.N.O.
6. PROVIDE SIMPSON BC POST BASE TO WOOD U.N.O. ON PLAN OR IN DETAILS. ORIENT BASE TO FASTENERS IN STUD WALL WHERE APPLICABLE. REFERENCE ARCH PLANS FOR LOCATION OF CUSTOM CONNECTIONS.
7. ALL EXTERIOR WALLS SHALL BE FRAMED AS SHEARWALL TYPE 'SW-6' U.N.O. ON PLANS
8. SHEATHING PER SHEARWALL SCHEDULE SHALL BE INSTALLED ABOVE AND BELOW ALL OPENINGS AND SHALL RUN CONTINUOUSLY BETWEEN CORNERS.
9. SEE SHEET S1.1 FOR TYPICAL HOLDOWN DETAILS.

LEGEND

- STUD WALL PER PLAN, 2x4 @ 16" O.C. MIN INTERIOR, 2x6 @ 16" O.C. MIN EXTERIOR (U.N.O.)
- POST PER PLAN
- SW-X — SHEARWALL TYPE PER PLAN & S1.1
- [--] — INDICATES HOLDOWN PER PLAN & S1.1

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Revisions:

Revision	Issue Date
1	7/29/24

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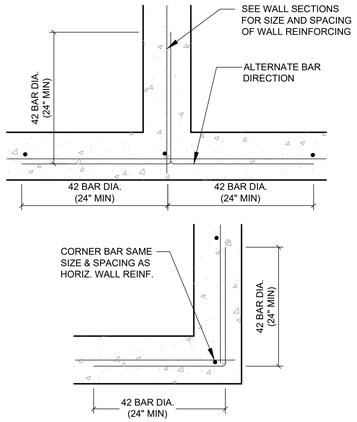
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Sheet Name:
ROOF FRAMING PLAN

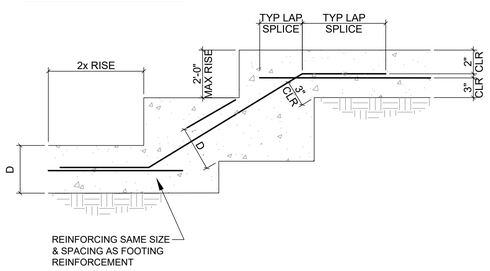
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S2.2

Job Number: 22-112

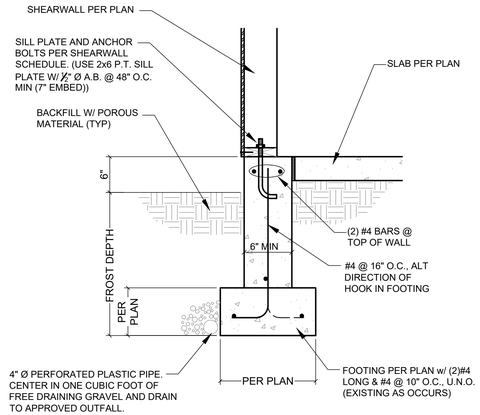


1 S3.0 TYP CORNER REINFORCEMENT
1" = 1'-0"

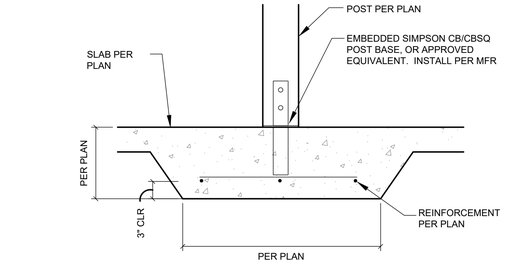
NOTES:
1. SLOPE TO BE 1 VERT (MAX) TO 2 HORIZ UNO
2. LOCATE STEPS AS REQ'D
3. 'D' = FOOTING DEPTH PER PLAN



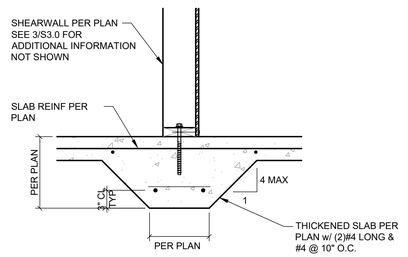
2 S3.0 TYPICAL STEP IN FOOTING
1" = 1'-0"



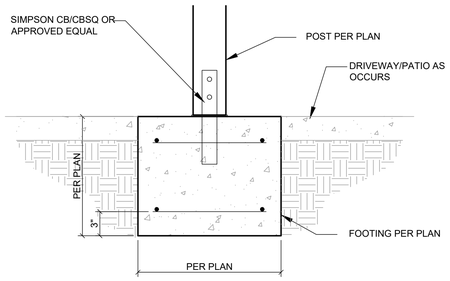
3 S3.0 WALL TO FOUNDATION
1" = 1'-0"



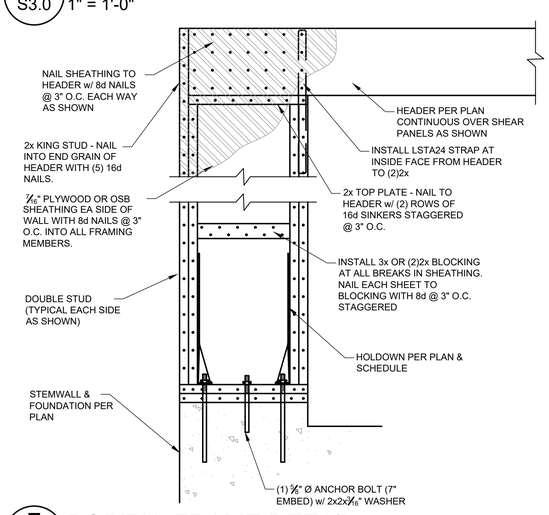
4 S3.0 POST TO FOOTING
1" = 1'-0"



5 S3.0 WALL TO THICKENED SLAB
1" = 1'-0"

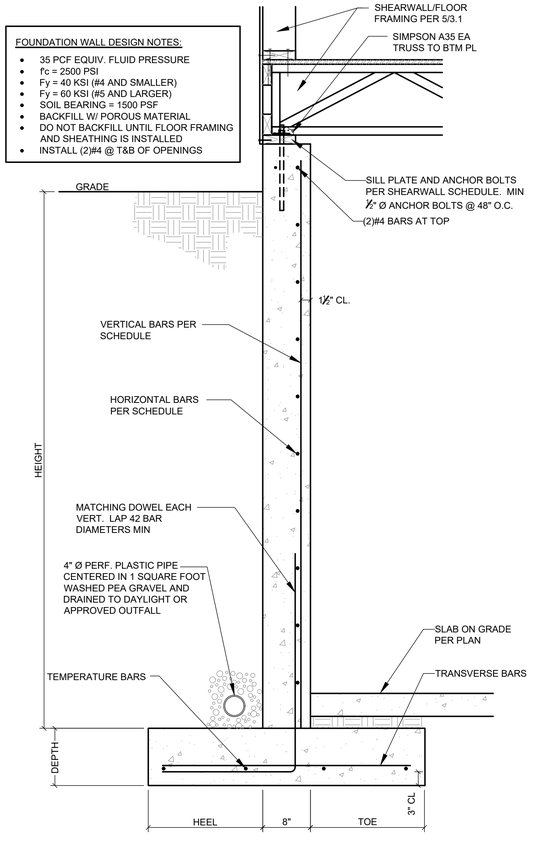


6 S3.0 EXTERIOR POST TO FOOTING
1" = 1'-0"

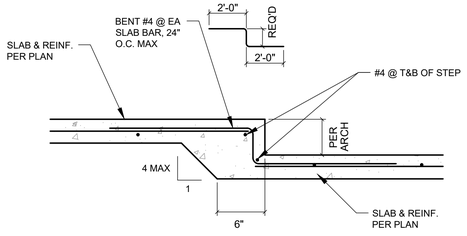


7 S3.0 PORTAL FRAME DETAIL
1" = 1'-0"

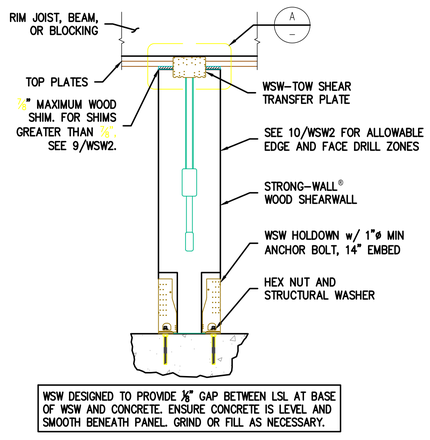
FOUNDATION WALL DESIGN NOTES:
- 35 PCF EQUIV. FLUID PRESSURE
- f'c = 2500 PSI
- Fy = 40 KSI (#4 AND SMALLER)
- Fy = 60 KSI (#5 AND LARGER)
- SOIL BEARING = 1500 PSF
- BACKFILL W/ POROUS MATERIAL
- DO NOT BACKFILL UNTIL FLOOR FRAMING AND SHEATHING IS INSTALLED
- INSTALL (2)#4 @ T&B OF OPENINGS



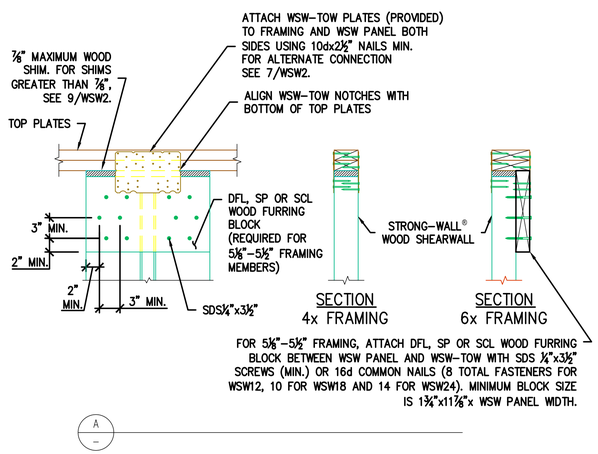
4 S3.0 POST TO FOOTING
1" = 1'-0"



7 S3.0 DEPRESSED SLAB(MONOLITHIC)
1" = 1'-0"



8 S3.0 SIMPSON WOOD STRONG-WALL
1" = 1'-0"



9 S3.0 RETAINING WALL SCHEDULE
NTS

FOUNDATION WALL SCHEDULE

HEIGHT	HEEL	TOE	FOOTING DEPTH	VERTICAL BARS	HORIZONTAL BARS	TRANSVERSE FOOTING BARS	TEMPERATURE BARS
7'-0"	1'-0"	1'-4"	10"	#4 @ 12" O.C.	#4 @ 12" O.C.	#4 @ 10" O.C.	#4 @ 10" O.C.
10'-0"	1'-6"	1'-10"	10"	#5 @ 10" O.C.	#4 @ 12" O.C.	#4 @ 10" O.C.	#4 @ 10" O.C.

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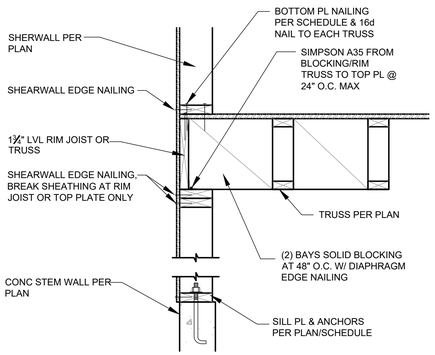
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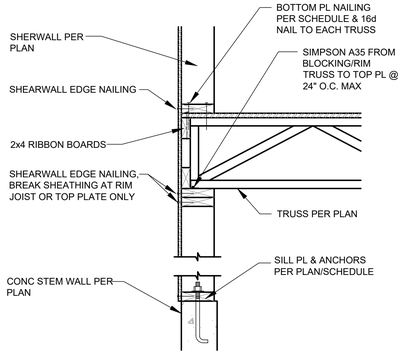
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STRUCTURAL DETAILS

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S3.0

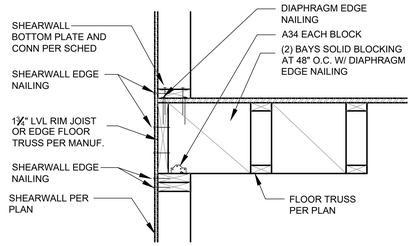
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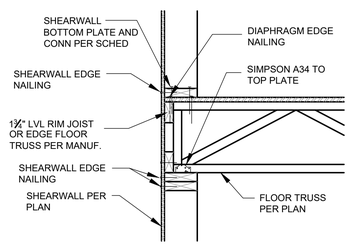
TRUSSS PARALLEL



TRUSSS PERPENDICULAR

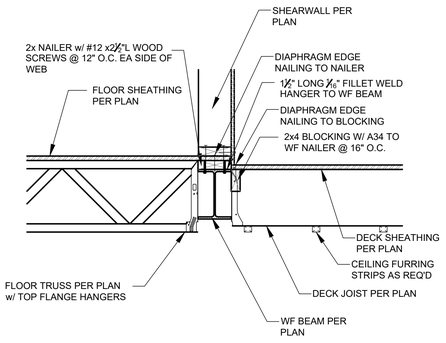


TRUSSES PARALLEL

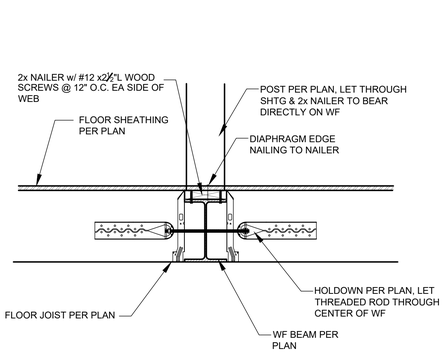


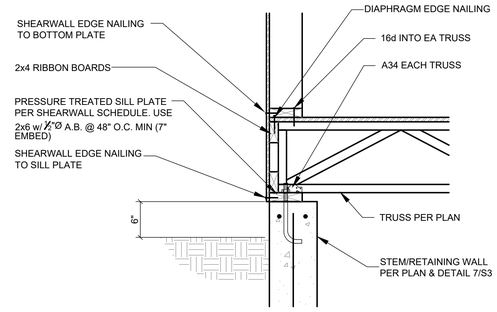
TRUSSES PERPENDICULAR

1 S3.1 FLOOR TRUSS/WALL TO RETAINING WALL
1" = 1'-0"

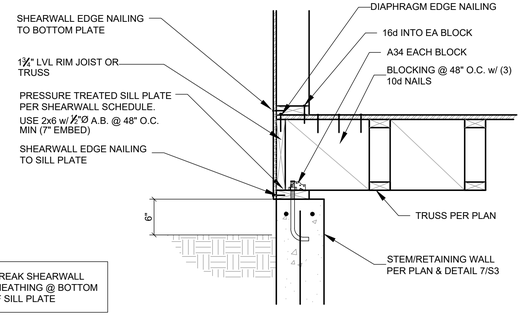


2 S3.1 FLOOR TRUSS TO WALL CONNECTION
1" = 1'-0"



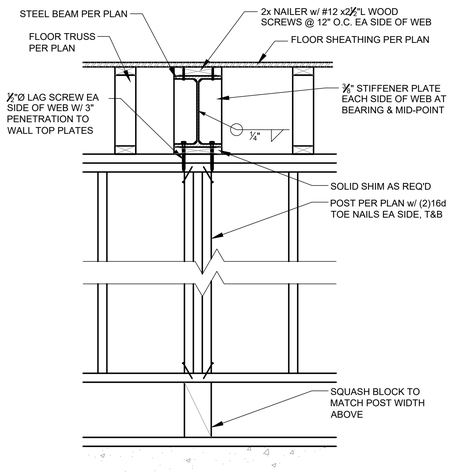


TRUSSES PERPENDICULAR

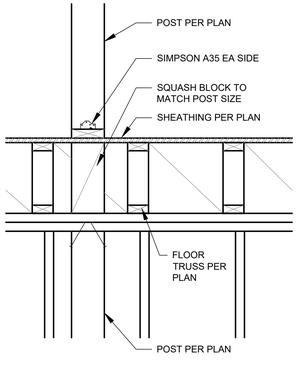


TRUSSES PARALLEL

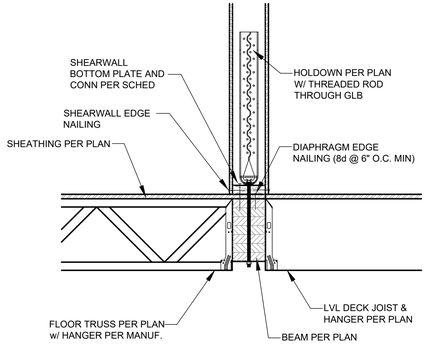
3 S3.1 JOISTS TO WF BEAM @ DECK
1" = 1'-0"

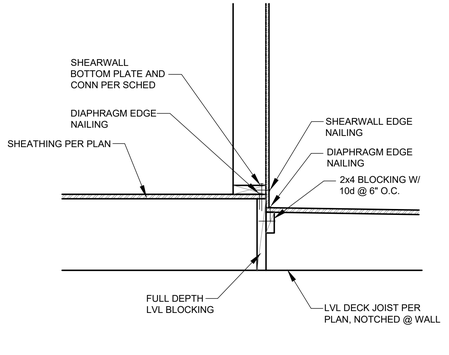


4 S3.1 FLOOR TRUSS TO WF BEAM
1" = 1'-0"



5 S3.1 WALL/FLOOR TO RETAINING WALL
1" = 1'-0"





6 S3.1 WF BEAM TO POST
1" = 1'-0"

7 S3.1 STACKED POST IN WALL
1" = 1'-0"

8 S3.1 HOLDOWN TO GLB
1" = 1'-0"

9 S3.1 NOTCHED JOISTS @ DECK
1" = 1'-0"

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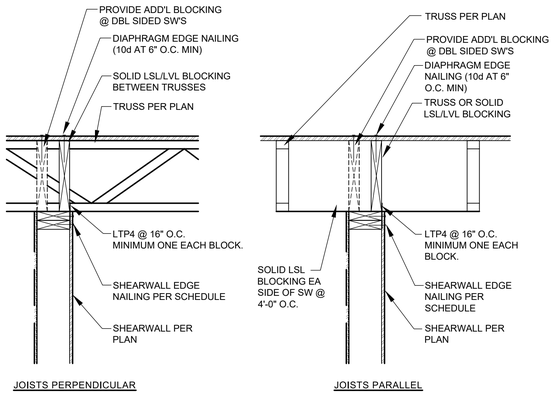
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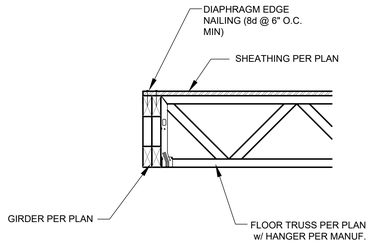
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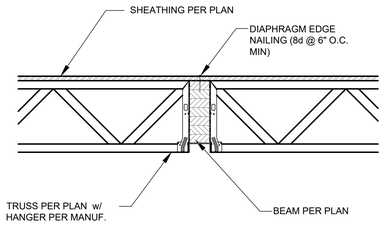
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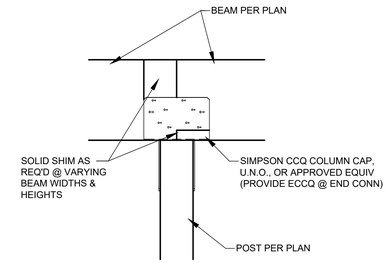
1 S3.2 INTERIOR SW CONNECTION
1" = 1'-0"



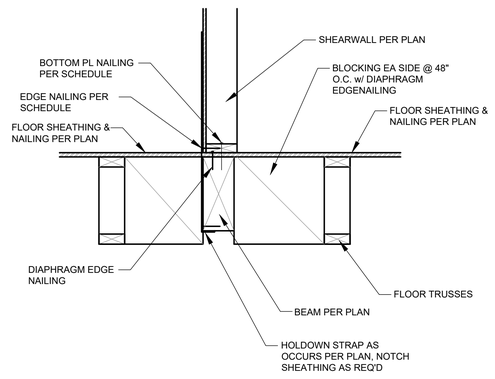
2 S3.2 TRUSS/FLUSH BEAM CONNECTION
1" = 1'-0"



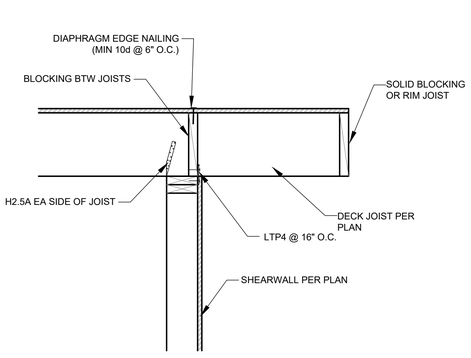
3 S3.2 TRUSS/FLUSH BEAM CONNECTION
1" = 1'-0"



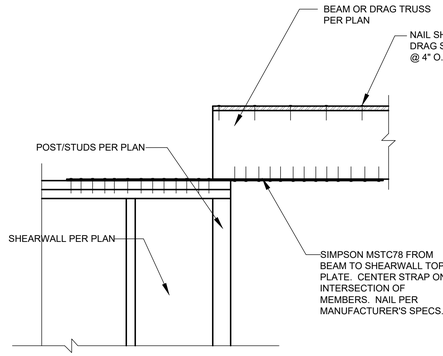
4 S3.2 TYPICAL BEAM TO POST
1" = 1'-0"



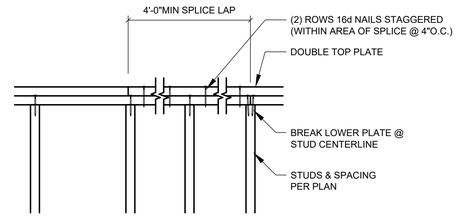
5 S3.2 SHEARWALL TO TRUSS
1" = 1'-0"



6 S3.2 DECK JOISTS @ BEARING WALL
1" = 1'-0"



7 S3.2 DRAG STRUT/WALL CONNECTION
NTS

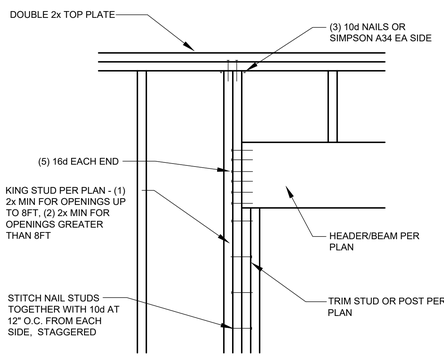


8 S3.2 TYPICAL TOP PLATE SPLICE
NTS

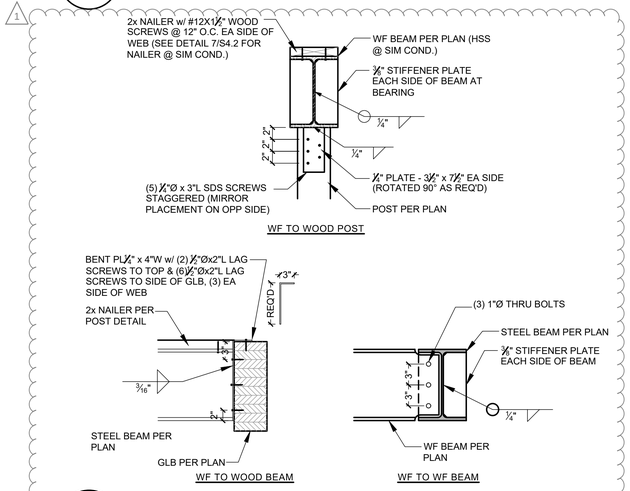
TRUSSES PARALLEL

TRUSSES PERPENDICULAR

9 S3.2 ROOF TRUSS TO WALL CONNECTION
1" = 1'-0"



10 S3.2 TYPICAL HEADER/BEAM TO WALL
1" = 1'-0"



11 S3.2 WF BEAM TO POST & BEAMS
1" = 1'-0"

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STRUCTURAL DETAILS

Sheet:
S3.2

Job Number: 22-112