CITY OF MERCER ISLAND

COMMUNITY PLANNING & DEVELOPMENT

9611 SE 36TH STREET | MERCER ISLAND, WA 98040 PHONE: 206.275.7605 | <u>www.mercergov.org</u>



STAFF REPORT CRITICAL AREA REVIEW 2 PERMIT

| Project No.: | CAO23-032 |
|--------------------|--|
| Description: | A request for a Critical Area Review 2 Permit for the demolition of an existing single-family residence and construction of a new single-family residence located on a site containing geologically hazardous areas. |
| Applicant / Owner: | Erik Voris / Day, Leslie A and Richard L |
| Site Address: | 9843 Mercerwood Drive, Mercer Island, WA 98040; Identified by King County Assessor tax parcel number 5456000490. |
| Zoning District: | Single Family Residential (R-8.4) |
| Staff Contact: | Molly McGuire, Planner |
| Exhibits: | Revised Development Application, received by the City of Mercer Island on March 4, 2024 Development Plan Set, dated December 7, 2023 and received March 4, 2024 Project Narrative, received December 28, 2023 Concurrent Review Request Form, dated December 7, 2023 and received January 16, 2024 Critical Areas Notice on Title, recorded March 19, 2024 under King County Recorder's Number 20240319000351 Hazard Report, generated by the City of Mercer Island on February 14, 2024 Determination of Complete Application, dated January 10, 2024 Notice of Application, dated January 16, 2024 City of Mercer Island Review Letters 9.1. Review Letter 1, dated February 21, 2024 9.2. Review Letter 2, dated March 4, 2024 Applicant Response to City of Mercer Island Review Letters 10.1. Applicant Response to Review Letter 1, dated March 1, 2024 Geotechnical Engineering Study and Critical Area Study prepared by Geotech Consultants, Inc., dated January 15, 2024 and received January 16, 2024 |

- Addendum to Geotechnical Report/Critical Area Study Critical Area Mitigation Sequencing, dated February 26, 2024 and received March 4, 2024
- 13. Notice of Decision, dated April 8, 2024

INTRODUCTION

I. Project Description

The applicant has requested approval of a Critical Area Review 2 Permit for the demolition of an existing single-family residence and construction of a new single-family residence located on a site containing geologically hazardous areas..

The proposal consists of the following components:

1. A request to demolish the existing single-family residence and construct a new single-family residence within geologically hazardous areas subject to the standards of Mercer Island City Code (MICC) 19.07.160, Geologically hazardous areas.

II. Site Description and Context

 The proposed activity is to occur at 9843 Mercerwood Drive, Mercer Island, WA 98040. The site is designated Single Family Residential (zoned R-8.4). Adjacent properties are within the R-8.4 zone and contain residential uses. The subject site contains potential landslide, erosion, and seismic geologically hazardous areas (Exhibit 6).

Findings of Fact & Conclusions of Law

III. Application Procedure

- The application for a Critical Area Review 2 Permit was received by the City of Mercer Island on December 28, 2023. The application was determined to be incomplete on January 8, 2024, resubmitted on January 9, 2024. The application was determined to be complete on January 10, 2024 (Exhibit 7).
- 2. Under MICC 19.15.030, Table A, applications for Critical Area Review 2 Permits must undergo Type III review. Type III reviews require notice of application (discussed below). A notice of decision is issued once the project review is complete.
- 3. The City of Mercer Island provided public notice of application for this Critical Area Review 2 Permit, as set forth in MICC 19.15.090 (**Exhibit 8**). The comment period for the public notice period lasted for 30 days, from January 16, 2024 to February 16, 2024. The following methods were used for the public notice of application:
 - 1) A mailing sent to neighboring property owners within 300 feet of the subject parcel.
 - 2) A sign posted on the subject parcel.
 - 3) A posting in the City of Mercer Island's weekly permit bulletin.

IV. State Environmental Policy Act (SEPA)

The proposal is categorically exempt from SEPA pursuant to WAC 197-11-800(1)(b)(ii).

V. Consistency with the Critical Areas Code and Land Development Code

1. MICC 19.07.070 lists requirements for disclosure and notice on title. The applicant shall disclose to the city the presence of critical areas on the development proposal site and any mapped or

identifiable critical areas within the distance equal to the largest potential required buffer applicable to the development proposal on the development proposal site.

- a. The owner of any property containing critical areas and/or buffers on which a development proposal is submitted, except a public right-of-way or the site of a permanent public facility, shall file a notice approved by the city with the records and elections division of King County. The notice shall inform the public of the presence of critical areas, buffers and/or mitigation sites on the property, of the application of the city's critical areas code to the property and that limitations on actions in or affecting such critical areas and/or buffers may exist. The notice shall run with the land in perpetuity.
- b. The applicant shall submit proof to the city that the notice has been recorded prior to approval of a development proposal for the property or, in the case of subdivisions, short subdivisions, and binding site plans, at or before recording of the final subdivision, short subdivision, or binding site plan.

Staff Analysis: A Critical Areas Notice on Title was recorded with the King County Recorder's Office on March 19, 2024 (**Exhibit 5**); therefore, this requirement is met.

- 2. MICC 19.07.090 describes the purpose and procedures by which the city will review and authorize development and verify consistency with this chapter.
 - a. Critical Area Review 2. The purpose of a critical area review 2 is to review critical area studies and mitigation plans in support of proposed buffer averaging and reduction of wetland and watercourse buffers.
 - b. Review timing and sequence.
 - A. When development and/or activity within a wetland, watercourse, fish and wildlife habitat conservation area or buffer associated with these critical area types is proposed, a critical area review 2 is required to be reviewed and approved prior to construction authorization.
 - B. When development and/or activity is proposed on a site containing only geologically hazardous areas, an application has the option of either:
 - i. Applying for a critical area review 2 in advance of construction permits, using the procedures required for a Type III land use review; or
 - ii. Requesting consolidation of the review of geologically hazardous areas together with construction permit review.
 - C. When development and/or activity is proposed on a site containing geologically hazardous areas and on or more of the critical area types listed in subsection (B)(2)(a) of this section or the associated buffer of one of those critical areas, a critical area review 2 reviewing all critical areas is required to be reviewed and approved prior to construction authorization, using the procedures required for a Type III land use review.

Staff Analysis: The applicant submitted a Concurrent Review Request Form (**Exhibit 4**) requesting consolidated review of the Critical Area Review 2 and associated building permit application; therefore, the application is consistent with the review timing and sequence requirements.

3. MICC 19.07.100 lists requirements for mitigation sequencing. An applicant for a development proposal or activity shall implement the following sequential measures, listed below in order of preference, to avoid, minimize, and mitigate impacts to environmentally critical areas and

associated buffers. Applicants shall document how each measure has been addressed before considering and incorporating the next measure in the sequence:

- a. Avoiding the impact altogether by not taking a certain action or parts of an action. The applicant shall consider reasonable, affirmative steps and make best efforts to avoid critical area impacts. However, avoidance shall not be construed to mean mandatory withdrawal or denial of the development proposal or activity if the proposal or activity is an allowed, permitted, or conditional use in this title. In determining the extent to which the proposal should be redesigned to avoid the impact, the code official may consider the purpose, effectiveness, engineering feasibility, commercial availability of technology, best management practices, safety and cost of the proposal and identified changes to the proposal. Development proposals should seek to avoid, minimize and mitigate overall impacts based on the functions and values of all of the relevant critical areas and based on the recommendations of a critical area study. If impacts cannot be avoided through redesign, use of a setback deviation pursuant to section 19.06.110(C), or because of site conditions or project requirements, the applicant shall then proceed with the sequence of steps in subsections B through E of this section;
- b. Minimizing impacts by limiting the degree or magnitude of the action and its implementation, using a setback deviation pursuant to section 19.06.110(C), using appropriate technology, or by taking affirmative steps to avoid or reduce impacts;
- c. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
- d. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action;
- e. Compensating for the impact by replacing, enhancing, or providing substitute resources or environments; and/or
- f. Monitoring the impact and taking appropriate corrective measures to maintain the integrity of compensating measures.

Staff Analysis: The applicant provided an Addendum to Geotechnical Report and Critical Area Study – Critical Area Mitigation Sequencing (**Exhibit 12**) which addresses mitigation sequencing for the proposed development. The entire development site is encumbered by potential slide and erosion geologically hazardous areas, and the northern portion of the property contains a seismic hazard area (**Exhibit 6**), therefore; avoiding the impact altogether is not possible. The applicant proposes to minimize the impact by only proposing work within the gently-to moderately sloped portions of the property and designing the project to provide substantial improvement for seismic hazard protection. The project also includes the restoration of the affected environment through the proposed landscaping plan, which includes the landscaping of all disturbed areas outside the proposed building footprint (**Exhibit 2, Sheet L1.1**).

4. MICC 19.07.110 lists requirements for a critical area study. A critical area study is required when a development proposal will result in an alteration to one or more critical area buffers or when required to determine the potential impact to a critical area. The critical area study may be waived or modified if the applicant demonstrates that the development proposal will not have an impact on the critical area or its buffer in a manner contrary to the purposes and requirements of this chapter.

Staff Analysis: The applicant submitted a Geotechnical Engineering Study and Critical Area Study, prepared by Geotech Consultants, Inc. (**Exhibit 11**); therefore, this requirement is met for the alteration to one or more critical areas.

- 5. MICC 19.07.160 lists standards for development on sites containing geologically hazardous areas.
 - A. Geologically hazardous areas are lands that are susceptible to erosion, landslides, seismic events, or other factors as identified by WAC 365-190-120. These areas may not be suited for development activities because they may pose a threat to public health and safety. Areas susceptible to one or more of the following types of hazards shall be designated as geologically hazardous areas: landslide hazard areas, seismic hazard areas, and erosion hazard areas.

Staff Analysis: The subject site contains landslide, seismic, and erosion hazard areas (Exhibit 6).

- B. Alteration within geologically hazardous areas or associated buffers is required to meet the standards in this section, unless the scope of work is exempt pursuant to section 19.07.120, exemptions, or a critical area review 1 approval has been obtained pursuant to section 19.07.090(A).
 - 1. When an alteration within a landslide hazard area, seismic hazard area or buffer associated with those hazards is proposed, the applicant must submit a critical area study concluding that the proposal can effectively mitigate risks of the hazard. The study shall recommend appropriate design and development measures to mitigate such hazards. The code official may waive the requirement for a critical area study and the requirements of subsections (B)(2) and (B)(3) of this section when he or she determines that the proposed development is minor in nature and will not increase the risk of landslide, erosion, or harm from seismic activity, or that the development site does not meet the definition of a geologically hazardous area.

Staff Analysis: The Geotechnical Engineering Study and Critical Area Study prepared by Geotech Consultants, Inc (**Exhibit 11**), finds that the proposal can effectively mitigate the risks of the hazard. The study includes recommendations for appropriate design and development measures to mitigate the hazards. As conditioned, the applicant must submit a post-design memorandum prepared by a qualified professional concluding that the proposed development is consistent with the recommendations in the Geotechnical Engineering Study and Critical Area Study.

- 2. Alteration of landslide hazard areas and seismic hazard areas and associated buffers may occur if the critical area study documents find that the proposed alteration:
 - a. Will not adversely impact other critical areas;
 - b. Will not adversely impact the subject property or adjacent properties;
 - c. Will mitigate impacts to the geologically hazardous area consistent with best available science to the maximum extent reasonably possible such that the site is determined to be safe; and
 - d. Includes the landscaping of all disturbed areas outside of building footprints and installation of hardscape prior to final inspection.

Staff Analysis: The Geotechnical Engineering Study and Critical Area Study prepared by Geotech Consultants, Inc (**Exhibit 11**), states that provided the recommendations in the

report are followed, the planned development will not adversely impact the stability of the neighboring properties or result in a need for increased critical area buffers on those adjacent properties. The proposed development includes a landscaping plan that includes the landscaping of all disturbed areas outside of the building footprints and installation of hardscape, required prior to final inspection (**Exhibit 2, Sheet L1.1**).

- 3. Alteration of landslide hazard areas, seismic hazard areas and associated buffers may occur if the conditions listed in subsection (B)(2) of this section are satisfied and the geotechnical professional provides a statement of risk matching one of the following:
 - a. An evaluation of site-specific subsurface conditions demonstrates that the proposed development is not located in a landslide hazard area or seismic hazard area;
 - b. The landslide hazard area or seismic hazard area will be modified or the development has been designed so that the risk to the site and adjacent property is eliminated or mitigated such that the site is determined to be safe;
 - c. Construction practices are proposed for the alteration that would render the development as safe as if it were not located in a geologically hazardous area and do not adversely impact adjacent properties; or
 - d. The development is so minor as not to pose a threat to the public health, safety and welfare.

Staff Analysis: The Geotechnical Engineering Study and Critical Area Study prepared by Geotech Consultants, Inc (**Exhibit 11**) includes the following statement of risk, matching statements (d) and (c) above:

"The design and construction practices recommended in this report for the proposed alteration will render the development as safe as if it were not located in a geologically hazardous area and will not cause adverse geotechnical impacts to the adjacent properties".

- C. Development is allowed within landslide hazard areas and associated buffers, when the following standards are met:
 - 1. A critical area study shall be required for any alteration of a landslide hazard area or associated buffer;
 - 2. Buffers shall be applied as follows. When more than one condition applies to a site, the largest buffer shall be applied:
 - a. Buffer widths shall be equal to the height of a steep slope, but not more than 75 feet, and applied to the top and toe of slopes;
 - b. Shallow landslide hazard areas shall have minimum 25-foot buffers applied in all directions; and
 - c. Deep-seated landslide hazard areas shall have 75-foot buffers applied in all directions.

Staff Analysis: The applicant submitted a Geotechnical Engineering Study and Critical Area Study prepared by Geotech Consultants, Inc (**Exhibit 11**) for the alteration of the landslide hazard area. The subject property is entirely encumbered by a potential landslide hazard area; therefore, buffers cannot be applied from the edge of the landslide hazard area.

D. When development is proposed within a seismic hazard area:

- 1. A critical area study shall be required and shall include an evaluation by a qualified professional for seismic engineering and design, a determination of the magnitude of seismic settling that could occur during a seismic event, and a demonstration that the risk associated with the proposed alteration is within acceptable limits or that appropriate construction methods are provided to mitigate the risk of seismic settlement such that there will be no significant impact to life, health, safety, and property.
- 2. Seismic hazard areas shall be identified by a qualified professional who references and interprets information in the U.S. Geological Survey Active Faults Database, performs on-site evaluations, or applies other techniques according to best available science.
- 3. When development is proposed on a site with an active fault, the follow provisions shall apply:
 - a. A 50-foot minimum buffer shall be applied from latest Quaternary, Holocene, or historical fault rupture traces as identified by the United States Geological Survey or Washington Geological Survey map databases or by site investigations by licensed geologic professionals with specialized knowledge of fault trenching studies; or
 - b. Mitigation sequencing shall be incorporated into the development proposal as recommended based on geotechnical analysis by a qualified professional to prevent increased risk of harm to life and/or property.

Staff Analysis: The Geotechnical Engineering Study and Critical Area Study prepared by Geotech Consultants, Inc (**Exhibit 11**) finds that the very dense, glacially-compressed soils on the property will support the development and are not susceptible to seismic liquefaction, even under the shaking of the Maximum Considered Earthquake; therefore, no further measures are needed to mitigate the mapped seismic hazard.

- E. When development is proposed within an erosion hazard area:
 - 1. All development proposals shall demonstrate compliance with chapter 15.09, storm water management program.
 - 2. No development or activity within an erosion hazard area may create a net increase in geological instability on or off site.

Staff Analysis: The development proposal was approved by Ruji Ding, Senior Development Engineer, who reviewed the development proposal for compliance with chapter 15.09. The Geotechnical Engineering Study and Critical Area Study prepared by Geotech Consultants, Inc (**Exhibit 11**) finds that excavation and construction of the planned construction can be accomplished without adverse erosion impacts to the site and surrounding properties by exercising care and being proactive with the maintenance and potential upgrading of the erosion control system through the entire construction process.

CONDITIONS OF APPROVAL

- 1. The project proposal shall be in substantial conformance with **Exhibit 2** and all applicable development standards contained within Mercer Island City Code (MICC) Chapter 19.07.
- 2. The applicant is responsible for documenting any required changes in the project proposal due to conditions imposed by any applicable local, state and federal government agencies.

- 3. Construction or substantial progress toward construction of a development for which a permit has been granted must be undertaken within three years after the approval of the permit or the permit shall terminate. The code official shall determine if substantial progress has been made.
- 4. Landscaping of all disturbed areas outside of building footprints and installation of hardscape is required prior to final inspection of the associated building permit.
- 5. A post-design memorandum prepared by a qualified professional concluding that the proposed development is consistent with the recommendations in the Geotechnical Engineering Study and Critical Area Study (**Exhibit 11**) is required prior to issuance of the associated building permit.

DEVELOPMENT REGULATION COMPLIANCE – DISCLOSURE

- 1. The applicant is responsible for obtaining any required permits or approvals from the appropriate Local, State, and Federal Agencies.
- 2. All required permits must be obtained prior to the commencement of construction.

DECISION

Based upon the above noted Findings of Fact and Conclusions of Law, Critical Area Review 2 Permit application CAO23-032, as depicted in **Exhibit 2**, is hereby **APPROVED**. This decision is final, unless appealed in writing consistent with adopted appeal procedures, MICC 19.15.130(A), and all other applicable appeal regulations.

Approved this 8th day of April, 2024

Molly Mc Guire

Molly McGuire Planner Community Planning & Development City of Mercer Island

CITY OF MERCER ISLAND

COMMUNITY PLANNING & DEVELOPMENT

9611 SE 36TH STREET | MERCER ISLAND, WA 98040 PHONE: 206.275.7605 | www.mercerisland.gov

CITY USE ONLY PROJECT#

FEE

RECEIPT #

Date Received: DEVELOPMENT APPLICATION Received By: STREET ADDRESS/LOCATION ZONE COUNTY ASSESSOR PARCEL #'S PARCEL SIZE (SQ. FT.) PROPERTY OWNER (required) ADDRESS (required) CELL/OFFICE (required) E-MAIL (required) PROJECT CONTACT NAME ADDRESS CELL/OFFICE E-MAIL TENANT NAME ADDRESS CELL PHONE E-MAIL

DECLARATION: I HEREBY STATE THAT I AM THE OWNER OF THE SUBJECT PROPERTY OR I HAVE BEEN AUTHORIZED BY THE OWNER(S) OF THE SUBJECT PROPERTY TO REPRESENT THIS APPLICATION, AND THAT THE INFORMATION FURNISHED BY ME IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

عم 51

SIGNATURE

DATE

PROPOSED APPLICATION(S) AND CLEAR DESCRIPTION OF PROPOSAL (PLEASE USE ADDITIONAL PAPER IF NEEDED):

ATTACH RESPONSE TO DECISION CRITERIA IF APPLICABLE

CHECK TYPE OF LAND USE APPROVAL REQUESTED:

| CRITICAL AREAS | ENVIRONMENTAL REVIEW (SEPA) | SUBDIVISION |
|-------------------------------------|--|---------------------------------------|
| Critical Area Review 1 | SEPA Review | Short Plat- Preliminary |
| Critical Area Review 2 | Environmental Impact Statement | □ Short Plat- Alteration |
| | | Short Plat- Final Plat |
| DESIGN REVIEW | | Long Plat- Preliminary |
| Design Review – Signs | LEGISLATIVE | Long Plat- Alteration |
| Design Review – Code Official | Code Amendment | Long Plat- Final Plat |
| Design Commission Study Session | Comprehensive Plan Docket Application | □ Lot Line Revision |
| Design Commission Review – Exterior | □ Comprehensive Plan Application (If Docketed) | |
| Alteration | □ Rezone | |
| Design Commission Review – Major | | |
| New Construction | OTHER LAND USE | |
| | Accessory Dwelling Unit | |
| DEVIATIONS | Code Interpretation Request | |
| Deviations to Antenna Standards – | Conditional Use (CUP) | WIRELESS COMMUNICATION FACILITIES |
| Code Official | Noise Exception Type I - IV | □ New Wireless Communication Facility |
| Deviations to Antenna Standards – | □ Other Permit/Services Not Listed | □ Wireless Communications Facilities- |
| Design Commission | | 6409 Exemption |
| Public Agency Exception | SHORELINE MANAGEMENT | Small Cell Deployment |
| □ Reasonable Use Exception | □ Shoreline Exemption | Height Variance |
| □ Variance | Shoreline Substantial Development Permit | |
| Seasonal Development Limitation | □ Shoreline Variance | |
| Waiver – Wet Season Construction | Shoreline Conditional Use Permit | |
| Approval | □ Shoreline Permit Revision | |

| ABBREVIATIONS | | | | | PROJECT INFORMAT |
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WATER SUPPLY:

| PROJECT INFORMATION | ENERGY CODE REQUIREMENTS |
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| PROJECT DESCRIPTION EXISTING RESIDENCE MAIN FLOOR TO BE REMOVED. EXISTING BASEMENT TO REMAIN AND BE MODIFIED. NEW SINGLE FAMILY RESIDENCE UTILIZING A PORTION OF THE EXISTING | WASHINGTON STATE ENERGY CODE, 2018 EDITION ENERGY CODE COMPLIANCE COMPLIANCE IS BY PRESCRIPTIVE APPROACH |
| BASEMENT FOUNDATION. <u>ASSESSOR'S PARCEL NUMBER</u> 5456000490 | BUILDING THERMAL ENVELOPE ALL CAVITIES IN THE THERMAL ENVELOPE SHALL BE FILLED WITH INSULATION. THE DENSITY OF THE INSULATION SHALL BE AT THE MANUFACTURERS' PRODUCT |
| <u>LEGAL DESCRIPTION</u> LOT 6, BLOCK N, MERCER WOOD, VOLUME 52 OF PLATS PAGE 32, RECORDS OF KING COUNTY, WASHINGTON. | RECOMMENDATION AND SAID DENSITY SHALL BE MAINTAINED FOR ALL VOLUME OF EACH CAVITY. REQUIRED U-VALUES & INSULATION R-VALUES GLAZING - OVERHEAD U-0.50 |
| LAND USE CODE REVIEW | GLAZING - OVERHEADU-0.50U-0.49VERTICAL FENESTRATIONU-0.30AVGATTICR-49N/A |
| <u>CODE STANDARD</u> CITY OF MERCER ISLAND TITLE 19 UNIFIED LAND DEVELOPMENT CODE ZONING: R-8.4 | SINGLE RAFTER CEILINGR-38R-38WALL - ABOVE GRADER-21R-21WALL - BELOW GRADER-21N-21FLOORR-30/U=0.029R-38CLAR ON CRADER-10R-10 |
| MAXIMUM GROSS FLOOR AREA: $4,214 \text{ SF}$ (40%)LOT AREA =10,536 SF | SLAB-ON-GRADER-10A CONTINUOUS AIR BARRIER SHALL BE INSTALLED IN THE BUILDING ENVELOPE.EXTERIOR THERMAL ENVELOPE CONTAINS A CONTINUOUS AIR BARRIER. |
| LOT COVERAGE CALCULATION: SEE 2/A0.2 | BREAKS OR JOINTS IN THE AIR BARRIER SHALL BE SEALED. NOTE: REFER TO SHEET A8.1 & SUBMITTED ENERGY CODE FENESTRATION SCHEDULE FOR |
| YARD SETBACKS: FOR LOTS WITH A WIDTH 90 FT OR LESS, THE SUM OF THE SIDE YARDS SHALL BE AT LEAST 15F FT. LOT WIDTH DIAGRAM: SEE 1/A0.2 | INFORMATION DEMONSTRATING ENERGY CODE COMPLIANCE OF PROPOSED EXTERIOR DOORS AND WINDOWS. REQUIRED ENERGY CREDITS |
| HOUSE - YARDSREQUIREDEXISTINGPROPOSEDFRONT20'-0"21'-3"21'-7 1/2"SIDE WEST (A)6'-6"6'-6"6'- 11 1/2"SIDE WEST (B)*7'-6"N/A7'- 11 1/2"SIDE EAST8'-6"6'-9"8'-11 1/2" | MEDIUM DWELLING UNIT: 6 CREDITS REQUIRED ENERGY CREDITS TO BE OBTAINED VIA THE FOLLOWING OPTIONS FROM TABLE 406.3: |
| SIDE EAST8'-6"6'-9"8'-11 1/2"REAR25'-0"24'-8"26'-0"* VARIABLE SIDE YARD SETBACK FOR NONGABLED BUILDING W/ A HEIGHTMORE THAN 15 FT ABOVE EXISTING / FINISHED GRADE. | SYSTEM TYPE 2:1.0 CREDITFOR AN INITIAL HEATING SYSTEM USING A HEAT PUMP THATMEETS FEDERAL STANDARDS FOR THE EQUIPMENTLISTED IN TABLE C403.3.2(1)C OR C403.3.2(2) |
| MAXIMUM STRUCTURE HEIGHT: SEE 1/A0.2 AVERAGE GRADE DIAGRAM | OPTION 1.3 BUILDING ENVELOPE:0.5 CREDITVERTICAL FENESTRATION U = 0.28 |
| BUILDING CODE REVIEW | FLOOR R-38 SLAB ON GRADE R-10 PERIMETER & UNDER ENTIRE SLAB BELOW GRADE SLAB R-10 PERIMETER & UNDER ENTIRE SLAB |
| CODE STANDARD | OPTION 2.1 AIR LEAKAGE CONTROL: <u>0.5 CREDIT</u> REDUCE THE TESTED AIR LEAKAGE TO 3.0 AIR CHANGES PER |
| NTERNATIONAL RESIDENTIAL CODE WITH WASHINGTON STATE CODE COUNCIL AMENDMENTS, 2018 EDITION | HOUR MAX AT 50 PASCALS AND ALL WHOLE HOUSE VENTILATION SYSTEM USING FURNACE INCLUDING AN ECM MOTOR. |
| PROPOSED STRUCTURE DCCUPANCY: R-3 | OPTION 3.5 HIGH EFFICIENCY HVAC EQUIP: <u>1.5 CREDIT</u> AIR-SOURCE CENTRALLY DUCTED HEAT PUMP WITH MIN HSPF OF 11.0. |
| BUILDING TYPE: V-B NUMBER OF STORIES: 1 + BASEMENT | OPTION 4.2 HIGH EFFICIENCY HVAC DISTRIBUTION: <u>1.0 CREDIT</u> HVAC EQUIP AND ASSOCIATED DUCT SYSTEM(S) INSTALL SHALL COMPLY W/ REQUIREMENTS OF SECTION R403.3.7 |
| LOWER LEVEL = 1,188 SF MAIN FLOOR = 2,913 SF COVERED ENTRY / DECK = 211 SF TOTAL HEATED AREA = 3,593 SF LOWER LEVEL - 1,188 SF MAIN LEVEL - 2,405 SF | OPTION 5.1 EFFICIENT WATER HEATING: <u>0.5 CREDIT</u> DRAIN WATER HEAT RECOVERY UNITS SHALL BE INSTALLED AND HAS A MIN EFFICIENCY OF 40%. UNITS SHALL BE RATED IN ACCORDANCE W/ CSA B55.1 OR IAPMO IGC 346-2017. |
| GARAGE AREA (UNHEATED) = 508 SF | OPTION 5.3 EFFICIENT WATER HEATING: <u>1 CREDIT</u> ENERGY STAR RATED GAS OR PROPANE WATER HEATER W/ A |
| GROSS FLOOR AREAS: SEE 3/A0.2 TIRE CODE REVIEW | MIN UEF OF 0.91. TOTAL PROVIDED: <u>6 CREDITS</u> |
| NFPA 13D FIRE SPRINKLER SYSTEM WITH A MONITORED NFPA 72, CHAPTER 29, FIRE ALARM SYSTEM AS A CODE ALTERNATIVE REQUEST DUE TO NO TURN AROUND DEFICIENCY. ALL REQUIREMENTS OF NFPA 13D FIRE SPRINKLER SYSTEM AND THE FOLLOWING ADDITIONS AND MODIFICATIONS ARE REQUIRED. | <u>VENTILATION AND INDOOR AIR QUALITY</u> ALL SOURCE SPECIFIC EXHAUST FANS LOCATED IN BATHROOMS, POWDER AND LAUNDRY AREAS TO BE 90 CFM MIN @ 0.25 INCHES WATER GAUGE. SOURCE SPECIFIC EXHAUST FAN AT KITCHEN HOOD TO BE A MIN OF 940 CFM @ 0.25 INCHES WATER GAUGE. MECHANICAL SYSTEM IS TO PROVIDE MAKEUP AIR SUFFICIENT TO MEET THE REQUIREMENTS OF IRC M1503.6. |
| WATER SUPPLY: A 1" MINIMUM WATER METER AND 1" MINIMUM SERVICE LINE IS REQUIRED FOR ALL 13D STANDARD SPRINKLER SYSTEMS. THIS IS THE MINIMUM REQUIREMENT AND THE SPRINKLER CALCULATIONS FOR THE PROJECT SHALL DETERMINE THE ACTUAL METER AND SERVICE LINE SIZE. THE PLUMBING CODE MAY STILL REQUIRE A LARGER SIZE. A WATER METER PERMIT WILL NOT BE ISSUED UNTIL THE SPRINKLER PERMIT IS APPROVED. TO REDUCE DELAYS, SPRINKLER PLANS SHALL BE COMPLETED AS EARLY IN THE PROCESS AS POSSIBLE. | INTERMITTENT WHOLE HOUSE VENTILATION TO BE PROVIDED BY MECHANICAL SYSTEM. INTERMITTENTLY-OPERATED, WHOLE-HOUSE VENTILATION SYSTEMS SHALL HAVE THE CAPABILITY FOR CONTINUOUS OPERATION, & SHALL HAVE A MANUAL CONTROL & AN AUTOMATIC CONTROL & SHALL BE SIZED PER TABLE M1505.4.3(1) WITH A CONTINUOUS WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM AIRFLOW RATE REQUIREMENT OF <u>70</u> <u>CFM</u> . REFER TO TABLE M1505.4.3(3) FOR INTERMITTENT WHOLE-HOUSE MECHANICAL VENTILATION RATE FACTORS. PER 1505.4.3(2) SYSTEM TYPE TO BE BALANCED AND DISTRIBUTED FOR A COEFFICIENT FACTOR OF 1.0 & 1505.4.3(3) WITH A 100% RUN TIME FACTOR OF 1.0. |
| WATER FLOW ALARM: THE SPRINKLER SYSTEM SHALL HAVE INSTALLED A MEANS OF NOTIFICATION FOR A WATER FLOW EVENT. | PER M1505.4.1.1, WHOLE-HOUSE VENTILATION FANS MUST BE RATED FOR SOUND AT A MAXIMUM OF 1.0 SONE. THIS SOUND RATING SHALL BE AT A MINIMUM OF 0.1 IN. W.C. STATIC PRESSURE IN ACCORDANCE WITH HVI PROCEDURES SPECIFIED IN IRC M1505.4.1.2 AND M1505.4.1.3. |
| NTERIOR: YOU MAY CONNECT THE WATER FLOW SWITCH TO THE SOUNDER SIDE OF THE LINE VOLTAGE SMOKE ALARMS. FIREX SMOKE DETECTORS USE PART # 0498 AND KIDDE WITH RELAY/POWER SUPPLY MODULE SM120X ARE CURRENTLY APPROVED FOR THIS PURPOSE. F YOU CANNOT INTERFACE THE WATER FLOW SWITCH TO SMOKE ALARMS THEN A SEPARATE HORN OR BELL IS REQUIRED TO BE LOCATED ON EACH EVEL INCLUDING THE BASEMENT OR LOWEST LEVEL OF THE STRUCTURE FOR DCCUPANT WATER-FLOW NOTIFICATION TO A MINIMUM OF 75 DBA IN THE SLEEPING ROOMS. | PER WSEC R401.3 AN INSULATION CERTIFICATE IS REQUIRED: THE GENERAL CONTRACTOR SHALL COMPLETE AND POST A "INSULATION CERTIFICATE FOR RESIDENTIAL CONSTRUCTION" WITHIN 3' OF THE ELECTRICAL PANEL PRIOR TO FINAL INSPECTION & INCLUDE THE PREDOMINATE R-VALUES, U-VALUES OF FENESTRATION, RESULTS FROM DUCT SYSTEM AND BUILDING ENVELOPE AIR LEAKAGE TESTING, THE RESULTS FROM THE WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM FLOW RATE TEST, AND THE TYPES AND EFFICIENCIES OF HEATING/COOLING/WHOLE-HOUSE MECHANICAL VENTILATION/WATER HEATING EQUIPMENT. |
| EXTERIOR: AN EXTERIOR GRADE 8" POTTER BELL OR EQUIVALENT SHALL BE NSTALLED. | PER WSEC R402.1 VENTED GAS FIREPLACES CERTIFIED TO ANSI Z21.50 SHALL BE LISTED AND LABELED, INCLUDING THEIR FE RATINGS IN ACCORDANCE WITH CSA P.4.1. |
| GARAGE ENTRY DOOR COVERAGE: A MINIMUM OF ONE HEAD SHALL BE INSTALLED ON THE GARAGE SIDE OF THE DOOR LEADING INTO THE RESIDENCE FROM AN ATTACHED GARAGE. SPRINKLER SYSTEM DRAIN: | PER WSEC R402.4.1.2 BLOWER DOOR TESTING: AIR LEAKAGE SHALL NOT EXCEED 3.0 AIR CHANGES/ HOUR, AND SHALL BE TESTED PER WASEC R402.4.1.2. THE GENERAL CONTRACTOR SHALL PROVIDE A WRITTEN REPORT OF THE TEST RESULTS, SIGNED BY THE TESTING PARTY, TO THE BUILDING INSPECTOR, PRIOR TO APPROVED FINAL INSPECTION. |
| THE SYSTEM DRAIN SHALL BE PIPED ALL THE WAY TO THE EXTERIOR OF THE BUILDING AND NOT CAUSE DAMAGE TO LANDSCAPING WHILE WATER IS CLOWING. HOSE CONNECTIONS ARE NOT ALLOWED. | PER WSEC R403.1.1 PROVIDE A PROGRAMMABLE THERMOSTAT FOR THE PRIMARY SPACE CONDITIONING SYSTEM WITHIN EACH DWELLING UNIT PER WASEC R403.1.1. |
| SPARE HEAD BOX: A CABINET CONTAINING A MINIMUM OF TWO SPARE HEADS OF EACH TYPE AND A SPRINKLER WRENCH SHALL BE PROVIDED. STORAGE ROOM: | PER WSEC R403.3.3 DUCT TESTING NEW CONSTRUCTION: DUCT LEAKAGE SHALL BE TESTED PER WSU RS-33. THE GENERAL CONTRACTOR SHALL PROVIDE A COPY OF THE "DUCT LEAKAGE AFFIDAVIT FOR NEW CONSTRUCTION" TO THE BUILDING INSPECTOR PRIOR TO AN APPROVED FINAL INSPECTION." |
| ANY CRAWLSPACE THAT HAS A CONCRETE FLOOR AND A FULL SIZE DOOR SHALL BE PRESUMED TO BE A FUTURE STORAGE ROOM AND SPRINKLER COVERAGE SHALL BE PROVIDED. | PER WSEC R404 ELECTRICAL POWER AND LIGHTING SYSTEMS: A MINIMUM OF 90% OF PERMANENTLY INSTALLED LAMPS IN LIGHTING FIXTURES SHALL BE HIGH-EFFICACY LAMPS. |

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| | GENERAL INFO LAND USE & AREA CALCS SURVEY |
|-----------------------------------|--|
| <u>CIVIL DRAW</u> C1.0 C1.2 | <u>'INGS</u> TESC PLAN & TREE RETENTION TESC NOTES & DETAILS |
| 22.0 23.5 | DRAINAGE / CIVIL PLAN BMP DETAILS |
| ARCHITECTU A1.1 | JRAL DRAWINGS SITE PLAN |
| | LOWER FLOOR PLAN MAIN FLOOR PLAN ROOF PLAN |
| \ 3.2 | BUILDING SECTIONS BUILDING SECTIONS BUILDING SECTIONS |
| A4.1 A4.2 A4.3 | EXTERIOR ELEVATIONS EXTERIOR ELEVATIONS EXTERIOR ELEVATIONS |
| A5.1 A5.2 A5.3 A5.4 | WALL SECTIONS WALL SECTIONS WALL SECTIONS WALL SECTIONS |
| 47.1 | EXTERIOR DETAILS |
| 8.1 | WINDOW / DOOR SCHEDULE |

A8.1 WINDOW / DOOR SCHEDULE A8.2 WINDOW / DOOR TYPES

PROJECT DIRECTORY

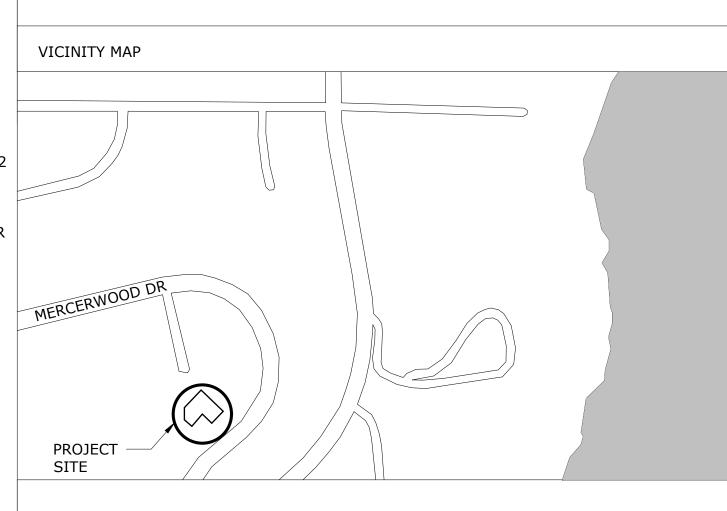
PROJECT ADDRESS 9843 MERCERWOOD DRIVE MERCER ISLAND, WA 98040

PROJECT OWNERS LESLIE & RICHARD DAY 9843 MERCERWOOD DRIVE MERCER ISLAND, WA 98040

ARCHITECT CONARD ROMANO ARCHITECTS CONTACT: JIM ROMANO 514 - 28TH AVENUE EAST SEATTLE, WASHINGTON 98112 (206) 329-4227

STRUCTURAL ENGINEER MALSAM|TSANG CONTACT: MARC MALSAM 122 S JACKSON ST, SUITE 210 SEATTLE, WA 98104 (206) 789-6038

GENERAL CONTRACTOR MERCER BUILDERS CONTACT: TOM SHULTZ 3026 78TH AVE SE MERCER ISLAND, WA 98040 (206) 275-1234



| STRUCTURA | AL DRAWINGS |
|-----------|----------------------------|
| S1.0 | GENERAL STRUCTURAL NOTES |
| S2.0 | PIN PILE PLAN |
| S2.1 | BASEMENT FOUNDATION PLAN |
| S2.2 | MAIN FLOOR FRAMING & |
| | UPPER FOUNDATION PLAN |
| S2.3 | ROOF FRAMING PLAN |
| | |
| S3.0 | TYPICAL CONCRETE DETAILS |
| S3.1 | CONCRETE DETAILS |
| | |
| S4.0 | TYPICAL WOOD FRAMING DETAI |

S4.1

S4.2

DETAILS WOOD FRAMING DETAILS WOOD FRAMING DETAILS

GEOTECHNICAL ENGINEER CONTACT: MARC McGINNIS 2401 10TH AVE EAST SEATTLE, WA 98102 (425) 747-5618 CIVIL ENGINEERING SOLUTIONS

102 NW CANAL STREET SEATTLE, WA 98107 (206) 930-0342

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DRIVE 98040 DAY RESIDENCE 9843 MERCERWOOD D MERCER ISLAND, WA 9



stamp

File Name: A0.1 general info Plot Date: 12/7/23 Project ID: DAY Drawn: **EV** Checked: JR mark date issue description 12/7/23 PRE-APP MEETING

Issue For: CAR2 / PERMIT sheet info

GENERAL PROJECT INFO

0 1 if scale is not 1", this drawing has been enlarged or reduced sheet title

A0.1

sheet number







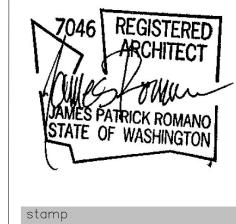
| LOT COVERAGE | E CALCUL | ATIONS: | | | |
|-----------------|---|---|--|----------------------------|------------------|
| | LOT AR | EA = | | 10,53 | 6 SF |
| | | VERAGE CALCU OPE: (188.5'-16 | LATION: 54.4' / 148') * 1 | 00 = 3 | 16.3% |
| | | LOWED LOT CO RED LANDSCAPI | VERAGE (35%) NG (65%) = | | 688 SF 848 SF |
| | - 2 | NG LOT COVER4 ,923 SF HOUSE 76 SF DRIVING | AGE (32.2%) = SURFACE | 3, | 399 SF |
| | - 3 | SED LOT COVER ,225 SF HOUSE 54 SF DRIVING | AGE (34.9%) = SURFACE | 3, | 679 SF |
| | MAX AL | LOWED HARDS | CAPE AREA (9% | o) = 9 | 948 SF |
| | - - - | | WAY NING WALL DECK STAIRS S ON SLOPE | | 475 SF |
| | - 1 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 | 28 SF ENTRY W/ 71 SF UPPER TE 40 SF NEW PAR 24 SF WALKWA 23 SF DRIVEWA 36 SF REPOURE 48 SF EXISTING 75 SF EXISTING | RRACE & STAIR TIAL HEIGHT SE YS Y STAIR | S AT WALL OPE ALL | 917 SF |
| GROSS FLOOR | AREA CA | ALCULATIONS: (| SEE 3/A0.2) | | |
| | - | G: R-8.4 UM GROSS FLO | OR AREA: | 4,214 SF | (40%) |
| | - | NG GROSS FLOO 472 SF BASEM ,887 SF MAIN F | ENT | 3,359 SF (3 | 31.9%) |
| | - | SED GROSS FLC 432 SF BASEM ,057 SF MAIN F | ENT | 3,489 SF (3 | 33.1%) |
| EXISTING BASEME | NT AREA CA | ALCULATION: APPEND | DIX B | | |
| WALL SEGMENT | | LENGTH | % COVERAGE | % RESULT | _ |
| А | | 37.5 | 50% | 18 | 8.75 |
| | | | | | |

| EXISTING BASEMENT AREA CALCULATION: APPENDIX B | | | | |
|--|--------|------------|----------|--|
| WALL SEGMENT | LENGTH | % COVERAGE | % RESULT | |
| Α | 37.5 | 50% | 18.75 | |
| В | 7.16 | 100% | 7.16 | |
| C | 10.66 | 100% | 10.66 | |
| D | 22.33 | 100% | 22.33 | |
| E | 30.83 | 55% | 16.96 | |
| F | 30.60 | 0% | 0.00 | |

| TOTAL WALL LENTGH (FT) 139.08 | |
|--------------------------------|--------|
| | |
| SUM RESULTS | 75.86 |
| | |
| TOTAL BASEMENT AREA (SF) 1039 | |
| | |
| EXCLUDED BASEMENT AREA (SF) | 566.69 |
| | |
| BASEMENT GROSS FLOOR AREA (SF) | 472.31 |

NEW BASEMENT AREA CALCULATION: APPENDIX B

| WALL SEGMENT | LENGTH | % COVERAGE | % RESULT |
|--------------|--------|------------|----------|
| | | | |
| Α | 37.5 | 50% | 18.75 |
| | | | |
| В | 7.16 | 100% | 7.16 |
| | | | |
| с | 10.66 | 100% | 10.66 |
| | | | |
| D | 22.33 | 100% | 22.33 |
| | | | |
| E | 30.83 | 100% | 30.83 |
| | | | |
| F | 32.60 | 0% | 0.00 |



DAY RESIDENCE 9843 MERCERWOOD DRIVE MERCER ISLAND, WA 98040

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514 - 28 Seattle 206 329

| File No | File Name: A0.1 general info | | | | |
|---------|------------------------------|-------------------|--|--|--|
| Plot D | ate: 12/7 | /23 | | | |
| Projec | t ID: DAY | | | | |
| Drawn: | EV | | | | |
| Checke | ed: JR | | | | |
| mark | date | issue description | | | |
| | 12/7/23 | PRE-APP MEETING | | | |
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| lssue Fo | or: CAR2 / | PERMIT |
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| sheet | info | |

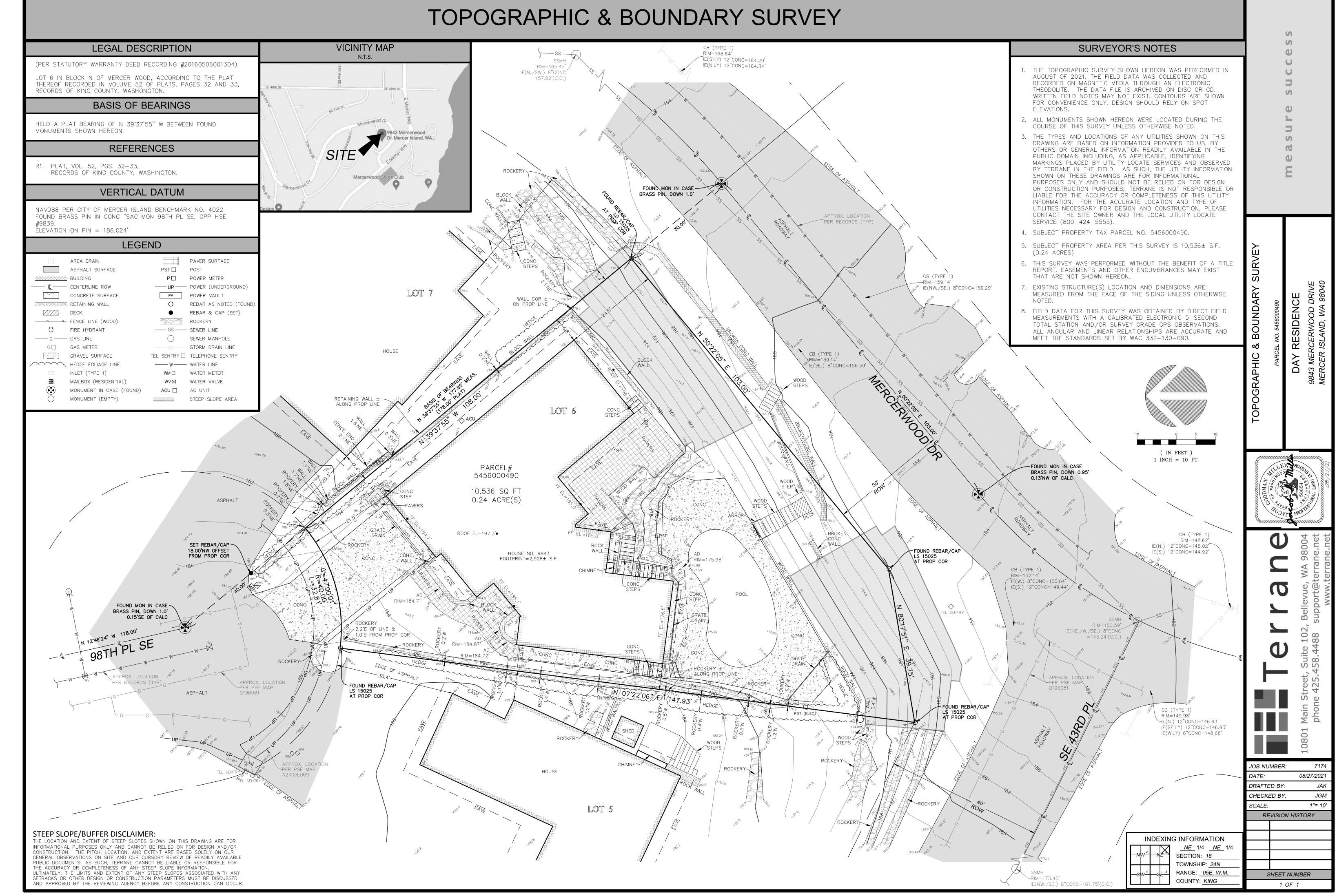
LAND USE CALCS

0 1 if scale is not 1", this drawing has been enlarged or reduced sheet title

A0.2

sheet number





CRITICAL AREA MAPPING

-POTENTIAL LANDSLIDE HAZARD -POTENTIAL EROSION HAZARD

ALL CRITICAL AREAS ADDRESSED BY THE GEOTECHNICAL ENGINEER MARK McGINNIS, GEOTECH CONSULTANTS, INC

MAXIMUM SLOPES (PER GEOTECH)

TEMPORARY SLOPES 1:1 PERMANENT SLOPES 2.5:1

EROSION CONTROL LEGEND

| LIMITS OF DISTURBANCE | | | |
|---|---------|----|---------------|
| FILTER FABRIC FENCE (SILT FENCE) | CK E.03 | SF | xx |
| STABILIZED CONSTRUCTION ENTRANCE | CK E.01 | CE | |
| CATCH BASIN INLET PROTECTION | CK D.21 | | |
| INTERCEPTOR SWALE SEE COR DWG 504, TYPE A TEMPORARY SWALE | | IS | |
| TREE PROTECTION FENCING | CK R.49 | TP | ooo |
| CHECK DAM | | CD | |
| STRAW WATTLES | | SW | USE AS NEEDED |

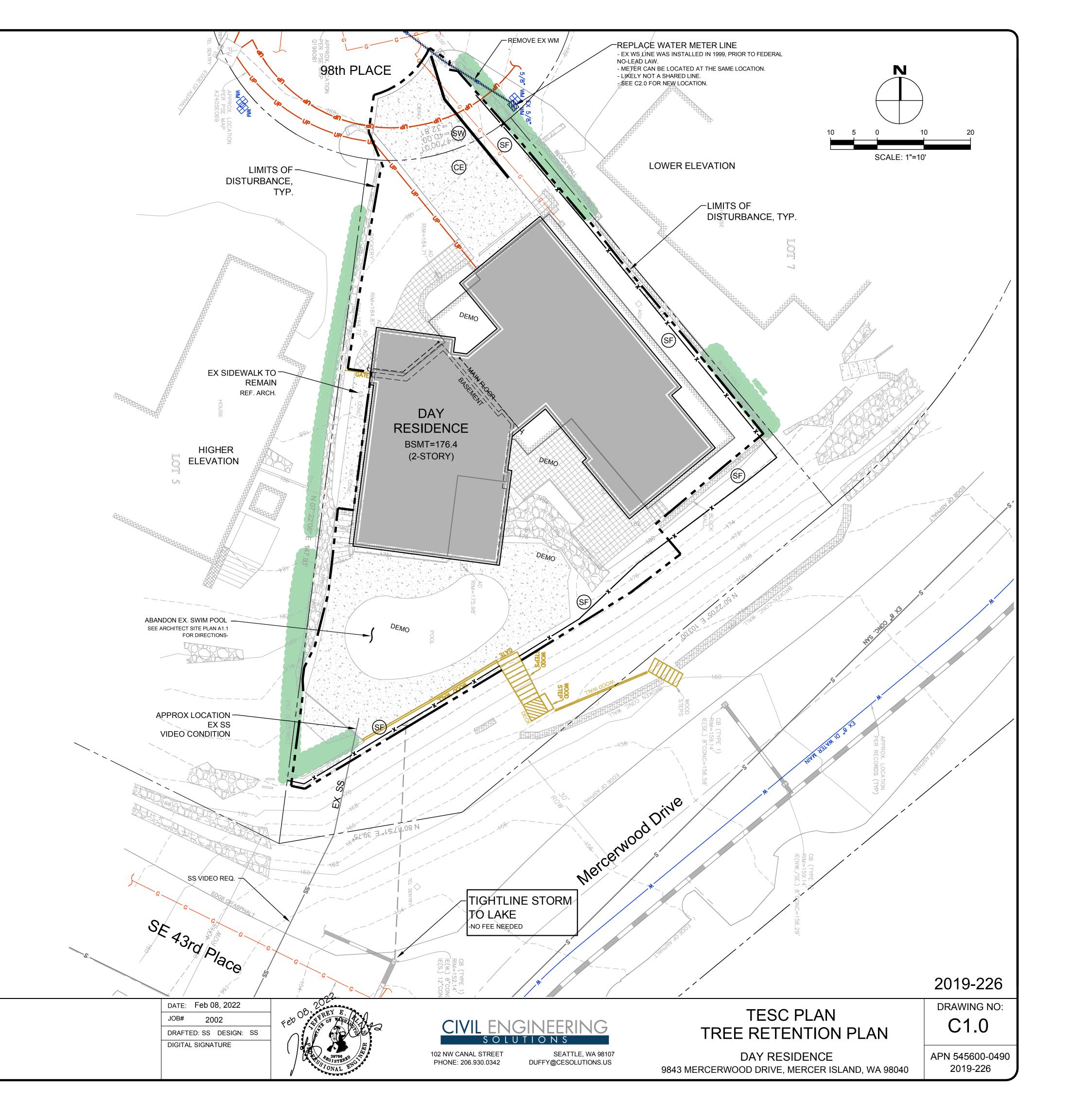
COMPOST SOIL NOTE

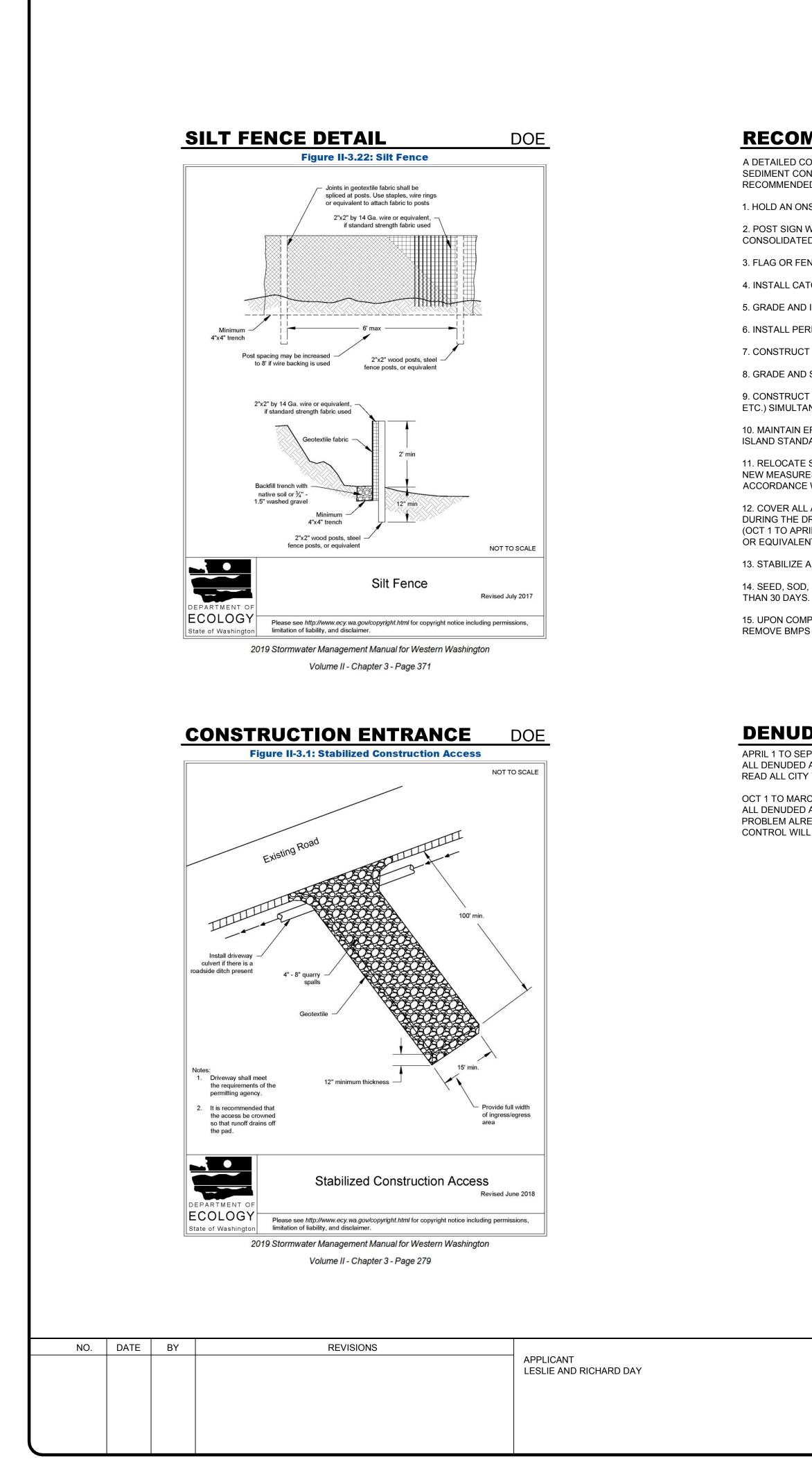
MINIMUM 10% ORGANIC MATTER -COMPOST SOIL & MULCH REQUIRED

SOIL AMENDMENT REQUIRED

COMPOST AMENDED SOIL REQUIRED ON ALL LANDSCAPED AREAS AFTER CONSTRUCTION

| NO. | DATE | BY | REVISIONS | |
|-----|------|----|-----------|-------------------------------------|
| | | | | APPLICANT LESLIE AND RICHARD DAY |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |





RECOMMENDED CONSTRUCTION SEQUENCE

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

1. HOLD AN ONSITE PRE-CONSTRUCTION MEETING.

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

3. FLAG OR FENCE CLEARING LIMITS.

4. INSTALL CATCH BASIN PROTECTION, IF REQUIRED.

5. GRADE AND INSTALL CONSTRUCTION ENTRANCE(S).

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

7. CONSTRUCT SEDIMENT PONDS AND TRAPS.

8. GRADE AND STABILIZE CONSTRUCTION ROADS.

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

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

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

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

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

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

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

DENUDED AREAS REQUIREMENTS

APRIL 1 TO SEPT 30

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

OCT 1 TO MARCH 31

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

EROSION CONTROL NOTES

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

CATCH BASIN FILTERS SHOULD BE PROVIDED FOR ALL STORM DRAIN CATCH 3. BASINS/INLETS DOWNSLOPE AND WITHIN 500 FEET OF THE CONSTRUCTION AREA. CATCH BASIN FILTERS SHOULD BE DESIGNED BY THE MANUFACTURER FOR USE AT CONSTRUCTION SITES AND APPROVED BY THE CITY INSPECTOR. CATCH BASIN FILTERS SHOULD BE INSPECTED FREQUENTLY, ESPECIALLY AFTER STORM EVENTS. IF THE FILTER BECOMES CLOGGED, IT SHOULD BE CLEANED OR REPLACED. 4. CONTRACTORS SHALL VERIFY LOCATIONS AND DEPTHS OF UTILITES. 5. AT LEAST 48 HOURS PRIOR TO CONSTRUCTION, CALL "ONE CALL" AT 1.800.424.5555 DO NOT BACKFILL WITH NATIVE MATERIAL ON PUBLIC RIGHT-OF-WAY. ALL 6. MATERIAL MUST BE IMPORTED EROSION CONTROL: ALL "LAND DISTURBING ACTIVITY" IS SUBJECT TO 7. PROVISIONS OF MERCER ISLAND ORDINANCE 95C-118 "STORM WATER MANAGEMENT." SPECIFIC ITEMS TO BE FOLLOWED AT YOUR SITE: 8. PROTECT ADJACENT PROPERTIES FROM ANY INCREASED RUNOFF OR SEDIMENTATION DUE TO THE CONSTRUCTION PROJECT THROUGH THE USE OF APPROPRIATE "BEST MANAGEMENT PRACTICES" (BMP) EXAMPLES INCLUDE, BUT ARE NOT LIMITED TO, SEDIMENT TRAPS, SEDIMENT PONDS, FILTER FABRIC FENCES, VEGETATIVE BUFFER STRIPS OR BIOENGINEERED SWALES. 9. CONSTRUCTION ACCESS TO THE SITE SHOULD BE LIMITED TO ONE ROUTE. STABILIZE ENTRANCE WITH QUARRY SPALLS TO PREVENT SEDIMENT FROM LEAVING THE SITE OR ENTERING THE STORM DRAINS. 10. PREVENT SEDIMENT, CONSTRUCTION DEBRIS, PAINTS, SOLVENTS, ETC., OR OTHER TYPES OF POLLUTION FROM ENTERING PUBLIC STORM DRAINS. KEEP ALL POLLUTION ON YOUR SITE. 11. ALL EXPOSED SOILS SHALL REMAIN DENUDED FOR NO LONGER THAN SEVEN (7) DAYS AND SHALL BE STABILIZED WITH MULCH, HAY, OR THE APPROPRIATE GROUND COVER. ALL EXPOSED SOILS SHALL BE COVERED IMMEDIATELY DURING ANY RAIN EVENT. 12. INSTALLATION OF CONCRETE DRIVEWAYS, TREES, SHRUBS, IRRIGATION, BOULDERS, BERMS, WALLS, GATES, AND OTHER IMPROVEMENTS ARE NOT ALLOWED IN THE PUBLIC RIGHT-OF-WAY WITHOUT PRIOR APPROVAL, AND AN ENCROACHMENT AGREEMENT AND RIGHT OF WAY PERMIT FROM THE SENIOR DEVELOPMENT ENGINEER. 13. OWNER SHALL CONTROL DISCHARGE OF SURFACE DRAINAGE RUNOFF FROM EXISTING AND NEW IMPERVIOUS AREAS IN A RESPONSIBLE MANNER. CONSTRUCTION OF NEW GUTTERS AND DOWNSPOUTS, DRY WELLS, LEVEL SPREADERS OR DOWNSTREAM CONVEYANCE PIPE MAY BE NECESSARY TO MINIMIZE DRAINAGE IMPACT TO YOUR NEIGHBORS. CONSTRUCTION OF MINIMUM DRAINAGE IMPROVEMENTS SHOWN OR CALLED OUT ON THIS PLAN DOES NOT IMPLY RELIEF FROM CIVIL LIABILITY FOR YOUR DOWNSTREAM DRAINAGE. 14. POT HOLING THE PUBLIC UTILITIES IS REQUIRED PRIOR TO ANY GRADING ACTIVITIES LESS THAN 6" OVER THE PUBLIC MAINS (WATER, SEWER AND STORM SYSTEMS). IF THERE IS A CONFLICT, THE APPLICANT IS REQUIRED TO SUBMIT A REVISION FOR APPROVAL PRIOR TO ANY GRADING ACTIVITIES OVER THE PUBLIC MAINS. 15. REMEMBER: EROSION CONTROL IS YOUR FIRST INSPECTION. 16. ROOF DRAINS MUST BE CONNECTED TO THE STORM DRAIN SYSTEM AND INSPECTED BY THE PUBLIC WORKS DEPARTMENT PRIOR TO ANY BACKFILLING OF PIPE. 17. SILENT FENCE: CLEAN AND PROVIDE REGULAR MAINTENANCE OF THE SILT FENCE. THE FENCE IS TO REMAIN VERTICAL AND IS TO FUNCTION PROPERLY THROUGHOUT THE TERM OF THE PROJECT. 18. WORK IN PUBLIC RIGHT OF WAY REQUIRES A RIGHT-OF-WAY USE PERMIT. 19. REFER TO WATER SERVICE PERMIT FOR ACTUAL LOCATION OF NEW WATER METER AND SERVICE LINE DETERMINED BY MERCER ISLAND WATER DEPARTMENT. 16. THE TV INSPECTION OF THE EXISTING SIDE SEWER TO THE CITY SEWER MAIN IS REQUIRED. IF THE RESULT OF THE TV INSPECTION IS NOT IN SATISFACTORY CONDITION, AS DETERMINED BY THE CITY OF MERCER ISLAND INSPECTOR, THE REPLACEMENT OF THE EXISTING SIDE SEWER IS REQUIRED. ALTERNATELY, A PRESSURE TEST OF THE SIDE SEWER, FROM SEWER MAIN TO POINT OF CONNECTION, MAY BE SUBSTITUTED FOR THE VIDEO INSPECTION. 20. NEWLY INSTALLED SIDE SEWER REQUIRES A 4 P.S.I. AIR TEST OR PROVIDE 10' OF HYDROSTATIC HEAD TEST. 21. POT HOLING THE PUBLIC UTILITIES IS REQUIRED PRIOR TO ANY GRADING ACTIVITIES LESS THAN 6" OVER THE PUBLIC MAINS (WATER, SEWER AND STORM

MAINTENANCE, REPLACEMENT, AND

NUMBERED 1, 2, 4, 5, 6, ETC. 1. APPROVAL OF THIS EROSION AND SEDIMENTATION CONTROL (ESC) PLAN DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN (E.G., SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION FACILITIES, UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE APPLICANT/ESC SUPERVISOR UNTIL ALL CONSTRUCTION IS APPROVED. 3. THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE CLEARLY FLAGGED BY SURVEY TAPE OR FENCING, IF REQUIRED, PRIOR TO CONSTRUCTION (SWDM APPENDIX D). DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE CLEARING LIMITS SHALL BE PERMITTED. THE CLEARING LIMITS SHALL BE MAINTAINED BY THE APPLICANT/ESC SUPERVISOR FOR THE DURATION 4. STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES, SUCH AS CONSTRUCTED WHEEL WASH SYSTEMS OR WASH PADS, MAY BE REQUIRED TO ENSURE THAT ALL PAVED AREAS ARE KEPT CLEAN AND TRACK OUT TO ROAD RIGHT OF WAY DOES NOT OCCUR FOR THE DURATION OF THE PROJECT. 5. THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED PRIOR TO OR IN CONJUNCTION WITH ALL CLEARING AND GRADING SO AS TO ENSURE THAT THE TRANSPORT OF SEDIMENT TO SURFACE WATERS, DRAINAGE SYSTEMS, AND ADJACENT PROPERTIES IS MINIMIZED. 6. THE ESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND MODIFIED TO ACCOUNT FOR CHANGING SITE CONDITIONS (E.G. ADDITIONAL COVER MEASURES, ADDITIONAL SUMP PUMPS, RELOCATION OF DITCHES AND SILT FENCES, PERIMETER PROTECTION ETC.) AS DIRECTED BY CITY OF MERCER ISLAND. SUPERVISOR AND MAINTAINED TO ENSURE CONTINUED PROPER FUNCTIONING. WRITTEN RECORDS SHALL BE KEPT OF WEEKLY REVIEWS OF THE ESC FACILITIES. 8. ANY AREAS OF EXPOSED SOILS, INCLUDING ROADWAY EMBANKMENTS, THAT WILL NOT BE DISTURBED FOR TWO CONSECUTIVE DAYS DURING THE WET SEASON OR SEVEN DAYS DURING THE DRY SEASON SHALL BE IMMEDIATELY STABILIZED WITH THE APPROVED ESC METHODS (E.G., SEEDING, MULCHING, PLASTIC COVERING, ETC.). 9. ANY AREA NEEDING ESC MEASURES THAT DO NOT REQUIRE IMMEDIATE ATTENTION SHALL BE ADDRESSED WITHIN SEVEN (7) DAYS. 10. THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH DURING THE DRY SEASON, BI-MONTHLY DURING THE WET SEASON, OR WITHIN TWENTY FOUR (24) HOURS FOLLOWING A STORM EVENT. 11. AT NO TIME SHALL MORE THAN ONE (1) FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT-LADEN WATER INTO THE DOWNSTREAM SYSTEM. 12. ANY PERMANENT RETENTION/DETENTION FACILITY USED AS A TEMPORARY SETTLING BASIN SHALL BE MODIFIED WITH THE NECESSARY EROSION CONTROL MEASURES AND SHALL PROVIDE ADEQUATE STORAGE CAPACITY. IF THE FACILITY IS TO FUNCTION ULTIMATELY AS AN INFILTRATION SYSTEM, THE TEMPORARY FACILITY MUST BE ROUGH GRADED SO THAT THE BOTTOM AND SIDES ARE AT LEAST THREE FEET ABOVE THE FINAL GRADE OF THE PERMANENT FACILITY. 13. COVER MEASURES WILL BE APPLIED IN CONFORMANCE WITH APPENDIX D OF THE SURFACE WATER DESIGN MANUAL 14. PRIOR TO THE BEGINNING OF THE WET SEASON (OCT. 1), ALL DISTURBED AREAS SHALL BE REVIEWED TO IDENTIFY WHICH ONES CAN BE SEEDED IN PREPARATION FOR THE WINTER RAINS. DISTURBED AREAS SHALL BE SEEDED WITHIN ONE WEEK OF THE BEGINNING OF THE WET SEASON.

UTILITIES, ETC.). 2. THE IMPLEMENTATION OF THESE ESC PLANS AND THE CONSTRUCTION, OF CONSTRUCTION. 7. THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE APPLICANT/ESC

| | 02 | | |
|------------------------|---------------------------------------|--|-------------|
| DATE: Feb 08, 2022 | 200 | | |
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| DRAFTED: SS DESIGN: DE | | S O L U T | |
| DIGITAL SIGNATURE | | | |
| | S S S S S S S S S S S S S S S S S S S | 102 NW CANAL STREET PHONE: 206.930.0342 | : DUFFY@ |
| | ONAL | | |

CITY NOTES

CAUSED FROM THIS CONSTRUCTION.

A REVISION.

1

2

ANY CHANGES TO THE APPROVED PLANS REQUIRES CITY APPROVAL THROUGH

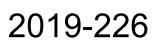
APPLICANT IS RESPONSIBLE FOR ANY DAMAGES TO UNDERGROUND UTILITIES

22. THE LIMITS AND EXTENDS OF THE PAVEMENT IN THE PUBLIC RIGHT OF WAY SHALL BE DETERMINED BY THE CITY ENGINEER PRIOR TO FINALIZE THE PROJECT.

MAINS.

SYSTEMS). IF THERE IS A CONFLICT, THE APPLICANT IS REQUIRED TO SUBMIT A

REVISION FOR APPROVAL PRIOR TO ANY GRADING ACTIVITIES OVER THE PUBLIC





TESC & CITY NOTES TESC DETAILS

DRAWING NO: C1.2

APN 545600-0490 2019-226

DAY RESIDENCE 9843 MERCERWOOD DRIVE, MERCER ISLAND, WA 98040

| | SANITARY | SEWER | IMPRO | /EMENTS |
|--|----------|-------|--------------|---------|
|--|----------|-------|--------------|---------|

1

- 2 -6" SDR 35 PVC SANITARY SEWER(SS) @ MIN 1.0 %.
- 3
- 4
- 7

WATER IMPROVEMENTS

- -EW SF RESIDENTIAL WATER SERVICE & METER PIT. CONFIRM REQUIRED SIZE WITH BUILDING PERMIT REVIEW. INSTALL PER MERCER ISLAND DETAIL W-13, W-14, OR W-14A DEPENDING ON SIZE REQUIREMENT.
- (1) -1.5" 250 PSI PRIVATE HDPE WATER (ASTM D2239) FROM METER TO HOUSE. RECOMMENDED DEPTH=36". COORDINATE HOUSE ENTRY WITH BUILDER/OWNER.
- (12)
- 14

STORM DRAIN

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

| 8 | - |
|----|---|
| 29 | - |

STORM DRAIN STRUCTURES SURVEYOR 30 TERRANE BELLEVUE, WA 98004 PHONE 425.458.4488 31 www.terrane.net 32 33 34 SEE SURVEY 35 -24" YARD DRAIN (OR EQUAL) WITH SOLID LID 6" WIDE NDS DURASLOPE CHANNEL DRAIN KIT OR EQUAL. . CLASS B VEHICLE RATED GRATE. 39 40 -TYPE 40 CATCH BASIN. IN DRIVEWAY ADD WATER QUALITY RISER TEE FOR EXITING PIPE (OR DOWNTURNED ELBOW). RECORDS OF KING COUNTY, WASHINGTON. (41) 43 **4**6 (47) 48

| NO. | DATE | BY | REVISIONS | |
|-----|------|----|-----------|-------------------------------------|
| | | | | APPLICANT LESLIE AND RICHARD DAY |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

STORM BMP's

- -COMPOST AMENDED SOIL TO ALL DISTURBED AREAS (SEE DETAIL SHEET C3.5). TILL 2-3" OF COMPOST INTO UPPER 8" OF SOIL. LOOSEN COMPACTED SUBSOIL, IF NEEDED BY RIPPING TO 12" DEPTH. MULCH LANDSCAPE BEDS AFTER PLANTING.
- 51 52
- 53
- 54
- 55
- 56
- 67
- 58

PRIVATE PVC STORM STRUCTURES

- 100
- 101 (102)
- -24" PVC BASIN & GRATE (OR EQUAL). H20 RATED GRATE IN DRIVEWAY LOCATIONS.
- 104
- (105)
- 106
- TOPOGRAPHIC & BOUNDARY SURVEY BY: 10801 MAIN STREET, SUITE 102

VERTICAL DATUM

NAVD88 PER CITY OF MERCER ISLAND BENCHMARK # 4022

LEGAL DESCRIPTION

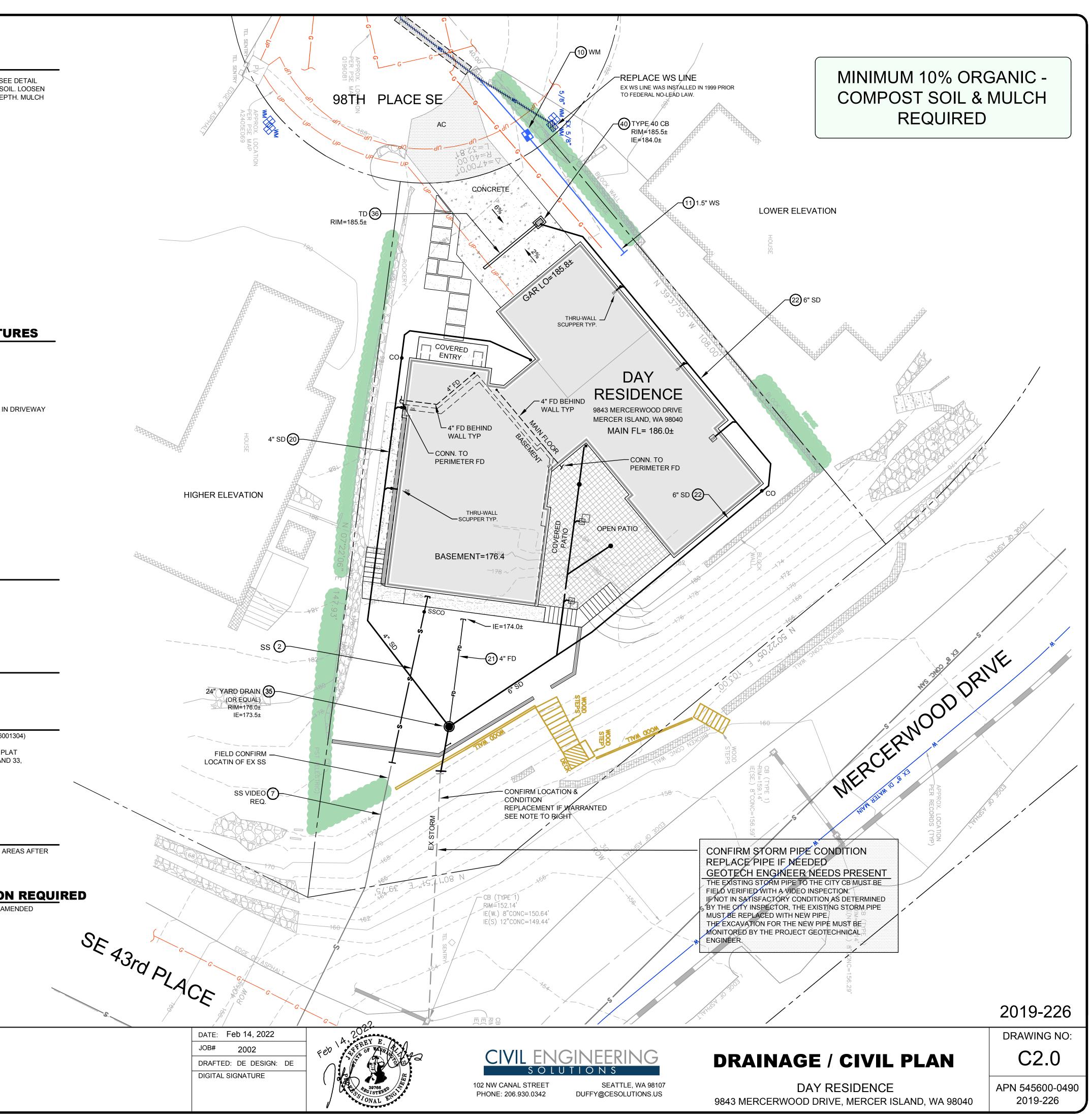
(PER STATUTORY WARRANTY DEED RECORDING #20160506001304) LOT 6 IN BLOCK N OF MERCER WOOD, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 52 OF PLATS, PAGES 32 AND 33,

SOIL AMENDMENT REQUIRED COMPOST AMENDED SOIL REQUIRED ON ALL LANDSCAPED AREAS AFTER

CONSTRUCTION. SEE DETAIL ON C3.5.

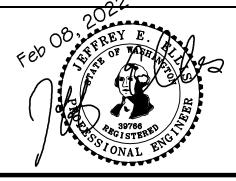
POST CONST. SOIL INSPECTION REQUIRED

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



| NO. | DATE | BY | REVISIONS | APPLICANT LESLIE AND RICHARD DAY |
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DATE: Feb 08, 2022 JOB# 2002 DRAFTED: SS DESIGN: SS DIGITAL SIGNATURE





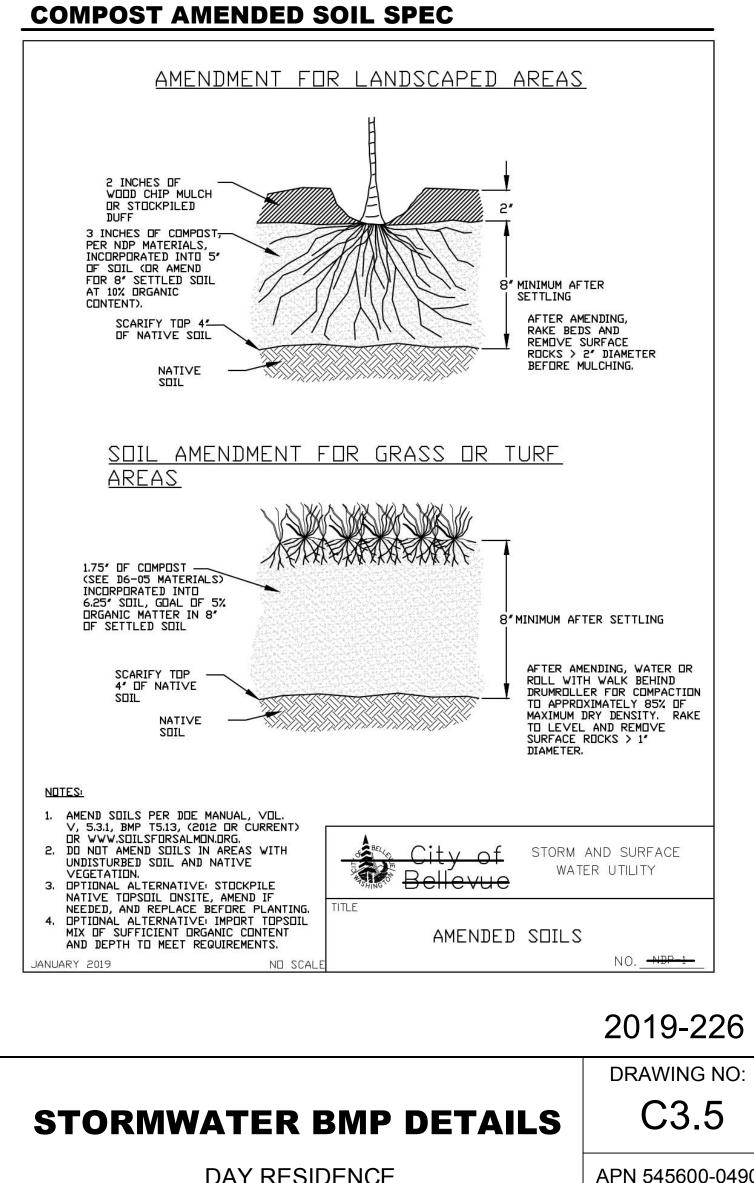
MINIMUM 10% ORGANIC COMPOST SOIL & MULCH REQUIRED

SOIL AMENDMENT REQUIRED

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

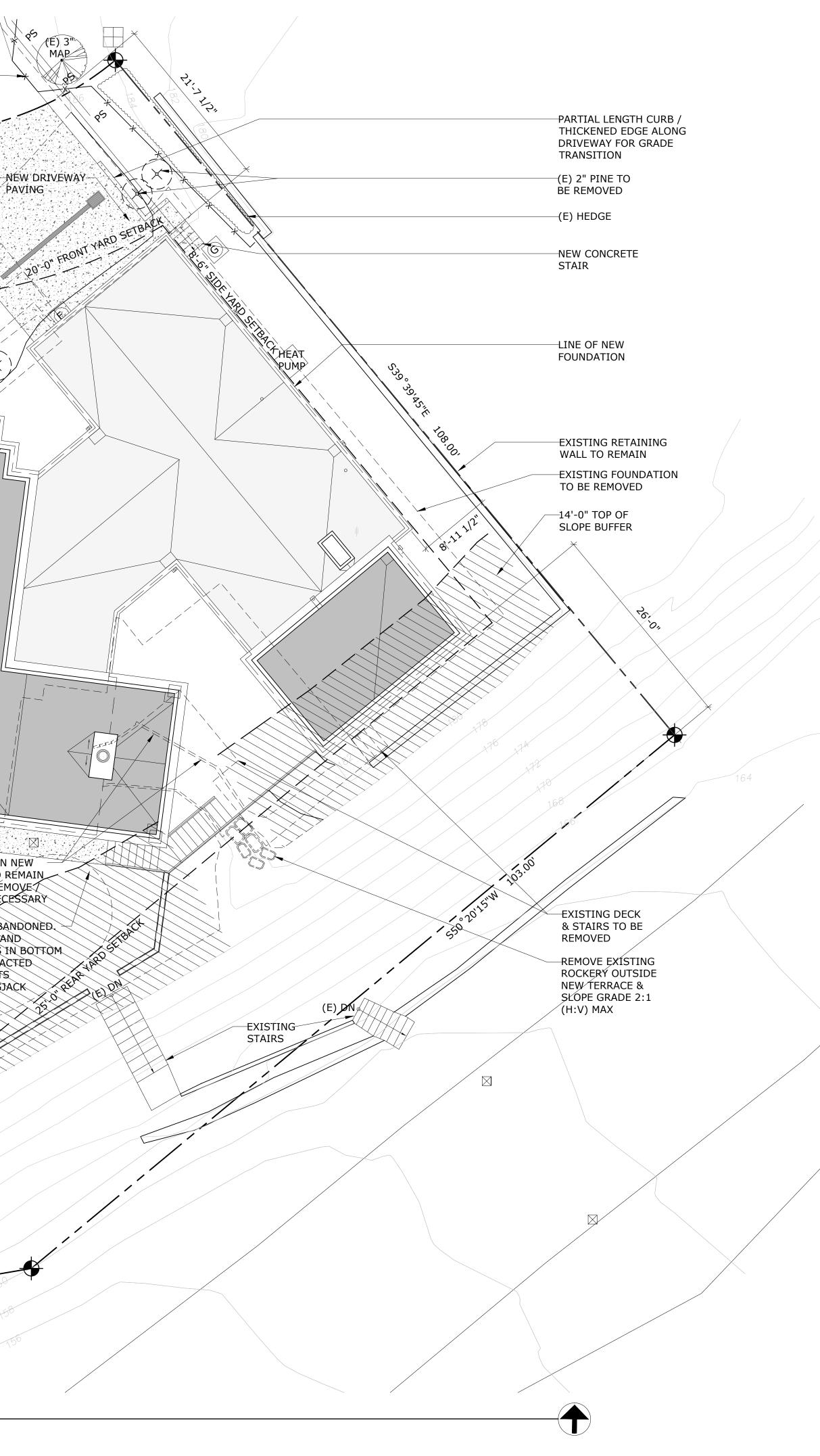
SOIL INSPECTION REQUIRED BY ENGINEER

SOILS IS REQUIRED BY A LICENSED CIVIL ENGINEER. THIS IS REQUIRED BEFORE FINAL SIGN-OFF BY CITY.



DAY RESIDENCE 9843 MERCERWOOD DRIVE, MERCER ISLAND, WA 98040 APN 545600-0490 2019-226

TREE PROTECTION FENCING PER CIVIL REBAR CAP BENCHMARK ELEVATION 187.9', SEE SURVEY 7 PAVING NEW HARDSCAPE EXISTING ROCKERY EXISTING PAVING TO BE REMOVED (E) 2" PINE TO-BE REMOVED 6'-11 1/2" NEW ENTRY PAVING EXISTING FOUNDATION WALL TO REMAIN, SEE ELEVATIONS FOR MODIFICATIONS 147 21 EXISTING ROCKERY NEW CONC WALK-TO REPLACE EXISTING NEW CONC-STAIR NEW . UP EXISTING CONC-AL 7'-11 1/2" STAIR TO BE REMOVE ROCKERY WITHIN NEW REMOVED & FOOTPRINT. ROCKERY TO REMAIN **RE-POURED** UNDER NEW TERRACE, REMOVE MODIFY PORTIONS AS NECESSARY FOR NEW FOUNDATION <u>TBA(</u> NEW CONC-PAVING EXISTING POOL TO BE ABANDONED. DEMO TOP 2FT OF CONC AND PROVIDE (2) 2'X2' HOLES IN BOTTOM OF SHELL, FILL W/ COMPACTED NATIVE SOILS @ 12" LIFTS COMPACTED W/ JUMPINGJACK SI IS DIN " SIDE YAR VARIABLE SETBACK -<u>e</u> COMPACTOR NEW PARTIAL HT SEAT WALL 1'-6" MAX HT W/ STONE CAP, DOES NOT PROVIDE ANY RETAINAGE EXISTING POOL DECK PAVING TO BE REMOVED 18'-0" TOP OF -SLOPE BUFFER $\begin{array}{|c|c|c|c|}\hline 1 & SITE PLAN \\\hline A1.1 & SCALE: 1/8" = 1'-0" \\\hline \end{array}$



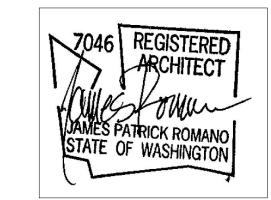
w.conardromano.c

514 - 28th Avenue East Seattle Washington 9 206 329 4227

ROMANO A R C H I T E C T

CONARD

DAY RESIDENCE 9843 MERCERWOOD DRIVE MERCER ISLAND, WA 98040



stamp

File Name: DAY 1.0 site plan Plot Date: 12/7/21 Project ID: DAY Drawn: EV Checked: JR mark date issue description 12/1/23 BUILDING PERMIT 12/7/23 CAR2 REVIEW

Issue For: **PERMIT** sheet info



0 1 if scale is not 1", this drawing has been enlarged or reduced sheet title

A1.1

sheet number

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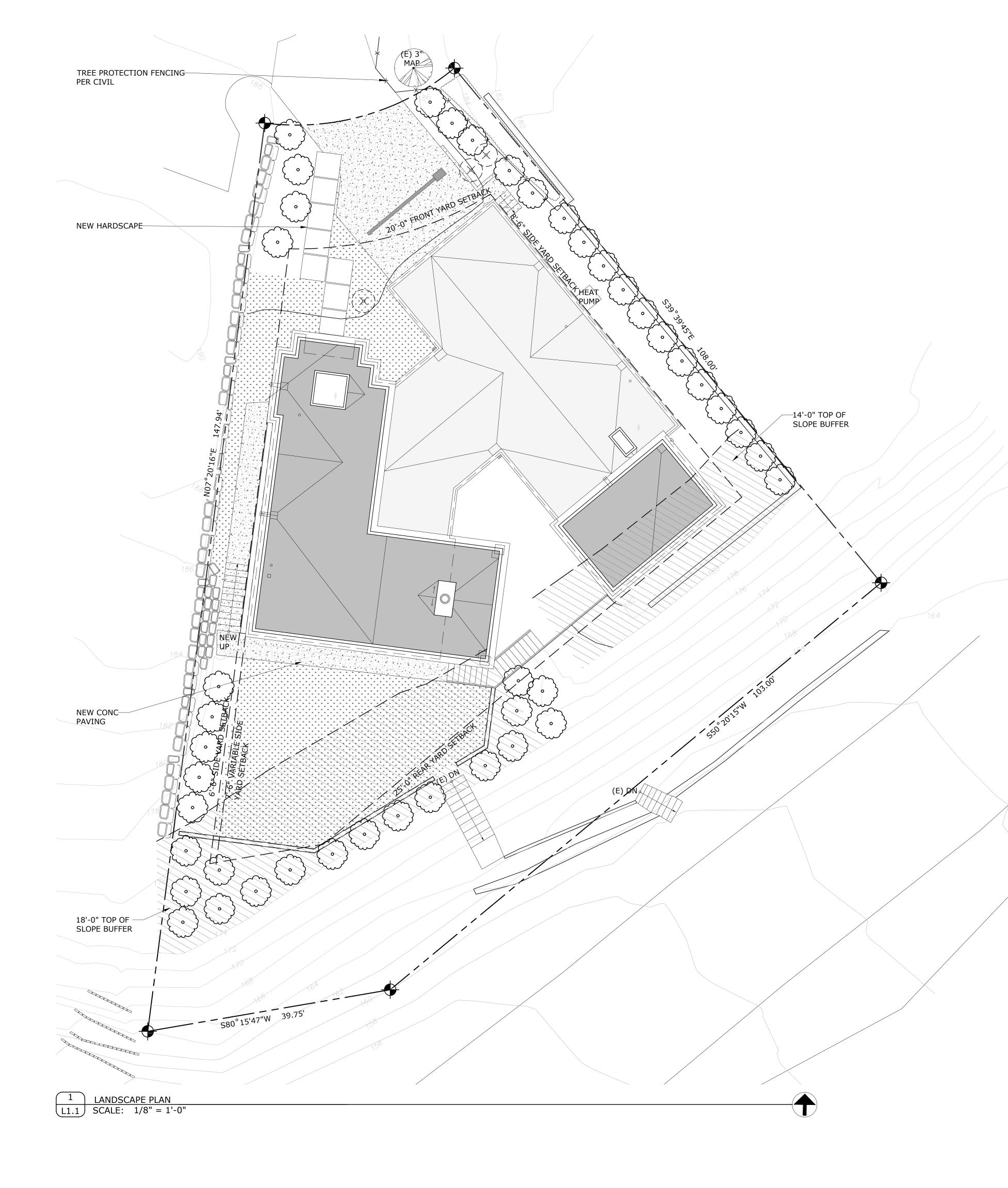
SITE INFORMATION

ASSESSOR'S PARCEL NUMBER: 545600-0490

LEGAL DESCRIPTION: MERCERWOOD DIV # 3 LESS SLY 10 FT5

WET SEASON GRADING RESTRICTION

LAND CLEARING, GRADING, FILLING, AND FOUNDATION WORK ARE NOT PERMITTED BETWEEN NOVEMBER 1 THROUGH OCTOBER 1 ON SITES WITH EROSION, POTENTIAL SLIDE, OR STEEP SLOPE HAZARD.



ww.conardromano

514 - 28th Avenue East Seattle Washington 98 206 329 4227

CONARD ROMANO A R C H I T E

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DAY RESIDENCE 9843 MERCERWOOD DRIVE MERCER ISLAND, WA 98040

ECA TOP OF SLOPE

ECA BUFFER

EXISTING TREE

TREE TO BE REMOVED

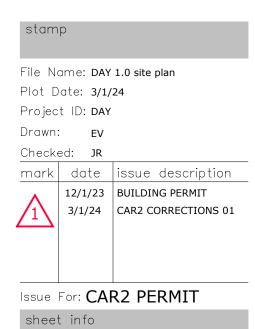
NEW LAWN AREA

NEW SHRUB / TREE

PLANTING LEGEND

LAWN:

LANDSCAPE LEGEND





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sheet number

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TREES: ARBORVITAE HEDGES DWARF PINE DWARF BLUE SPRUCE FLOWERING DOGWOOD HINOKI CYPRESS JAPANESE MAPLE VINE MAPLE

KENTUCKY BLUE GRASS

RHODODENDRONS DWARF

ASSORTMENT ORNAMENTAL GRASSES,

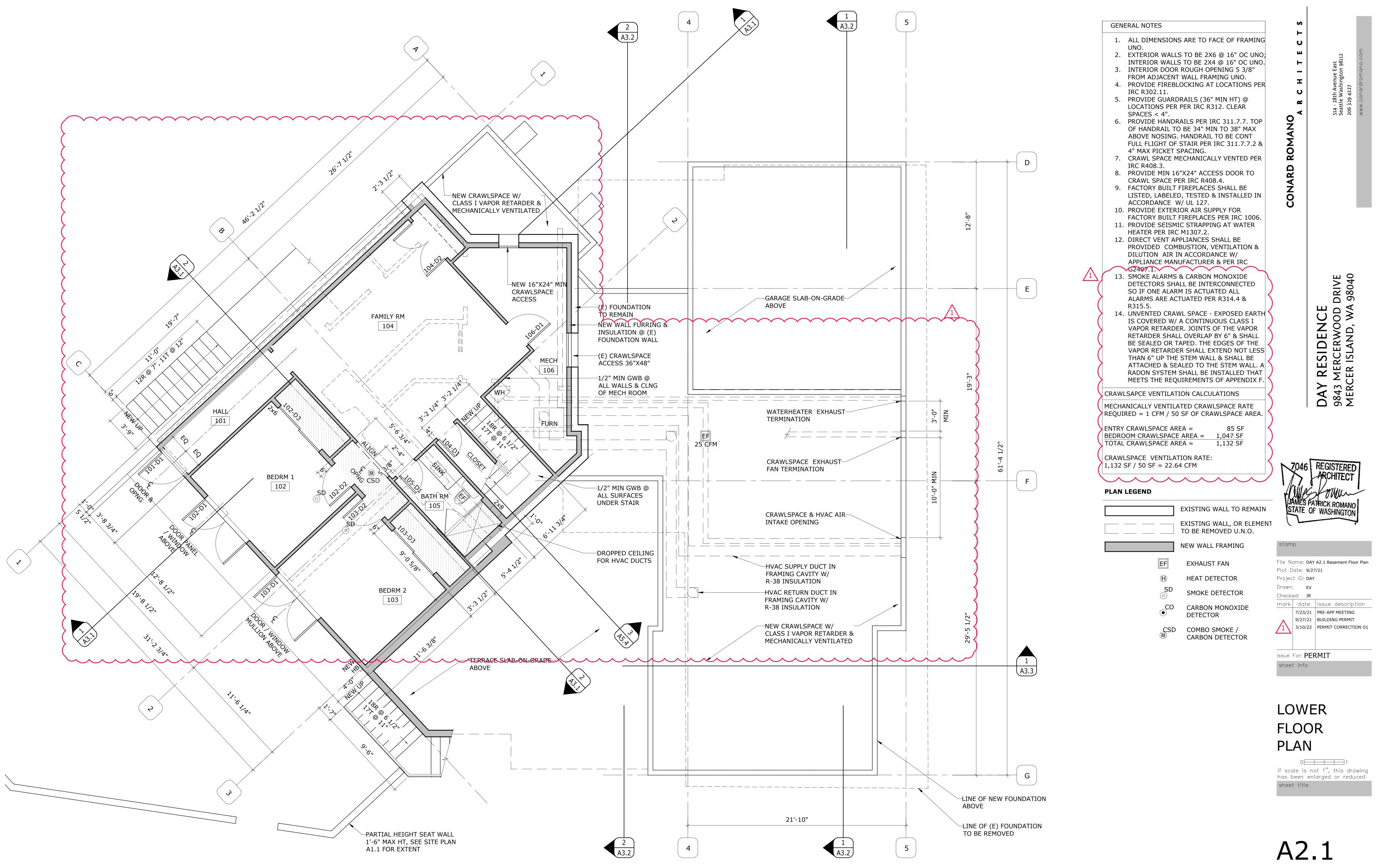
BLUE HYDRANGEAS

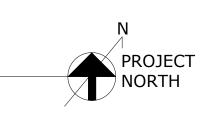
SHRUBS:

AZALEAS

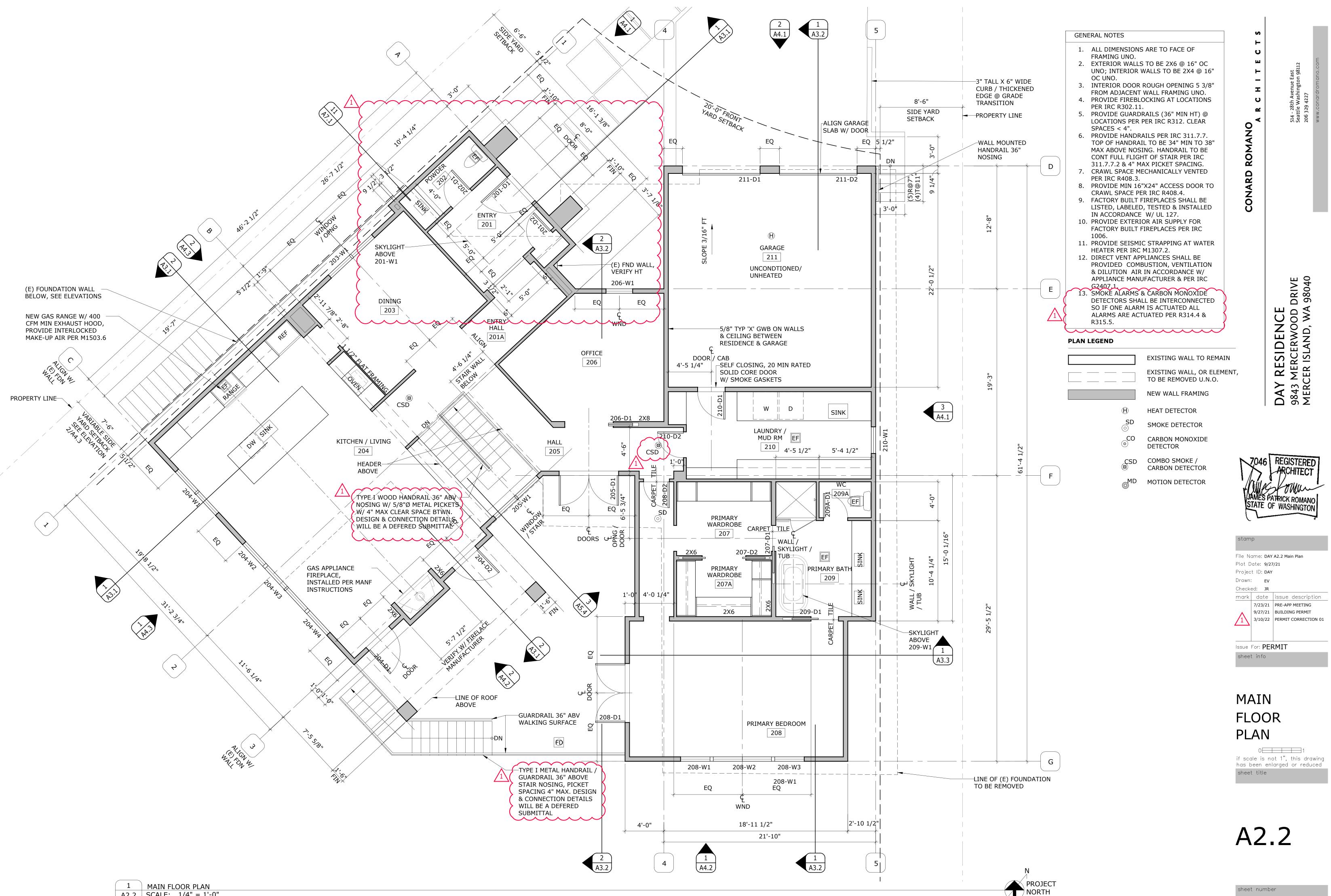
BOXWOODS

FERNS, & MOSS

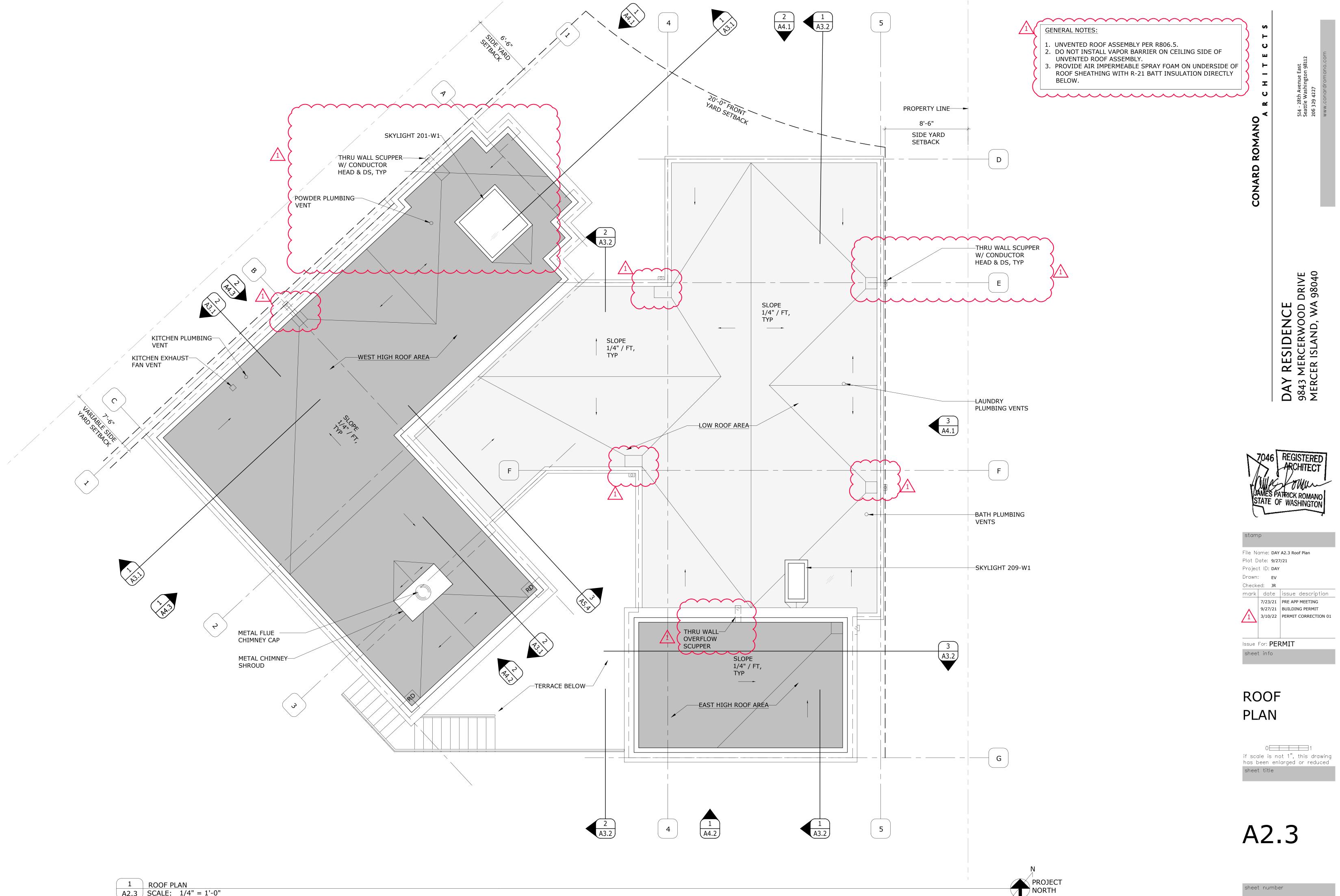




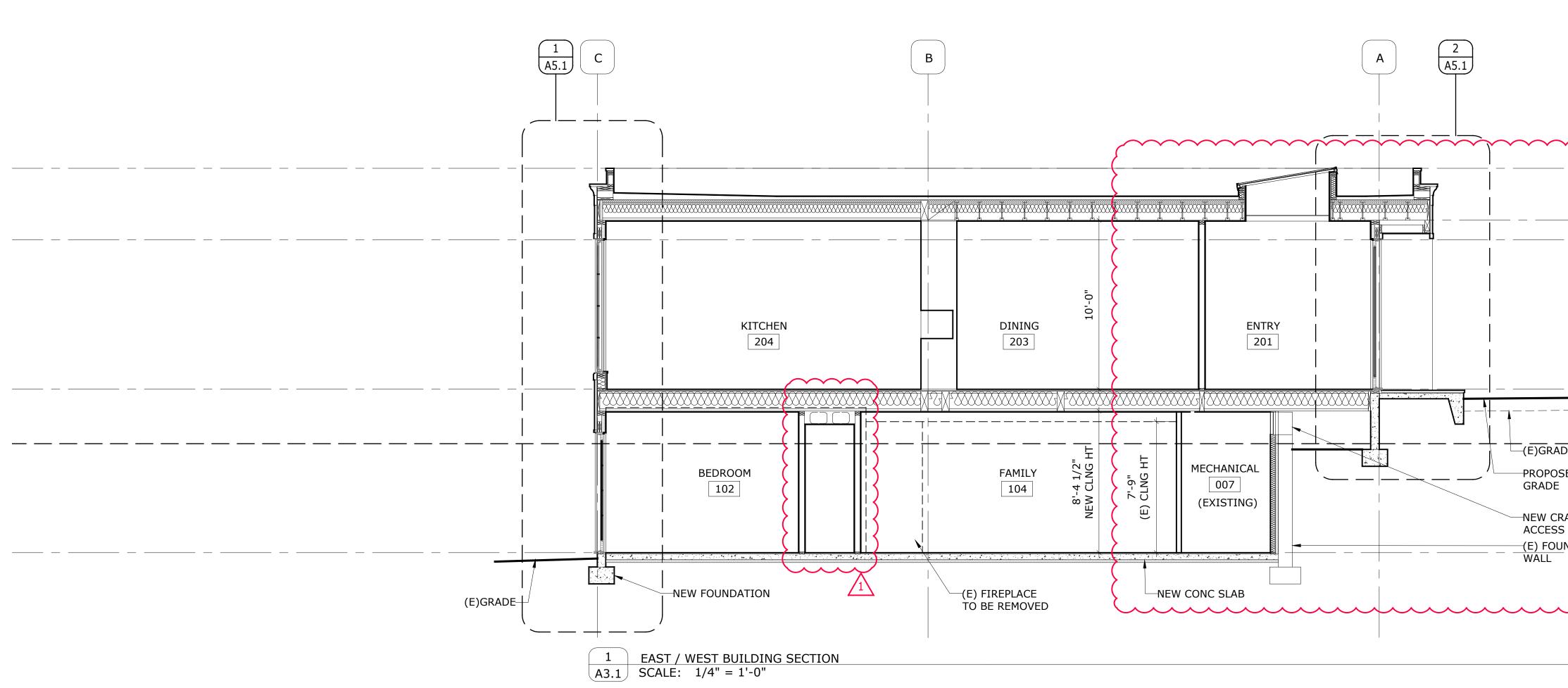
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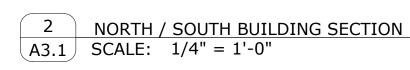


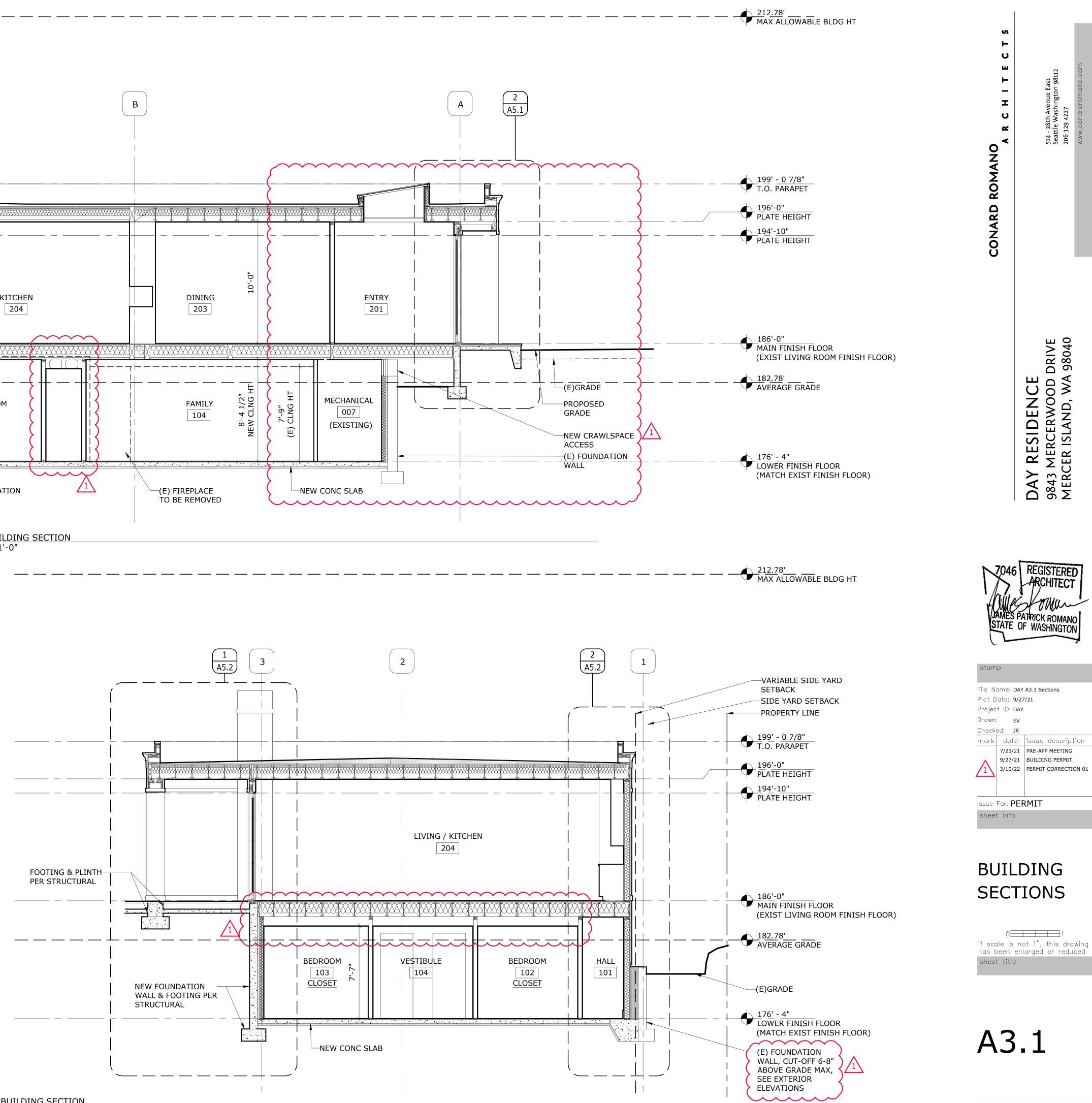
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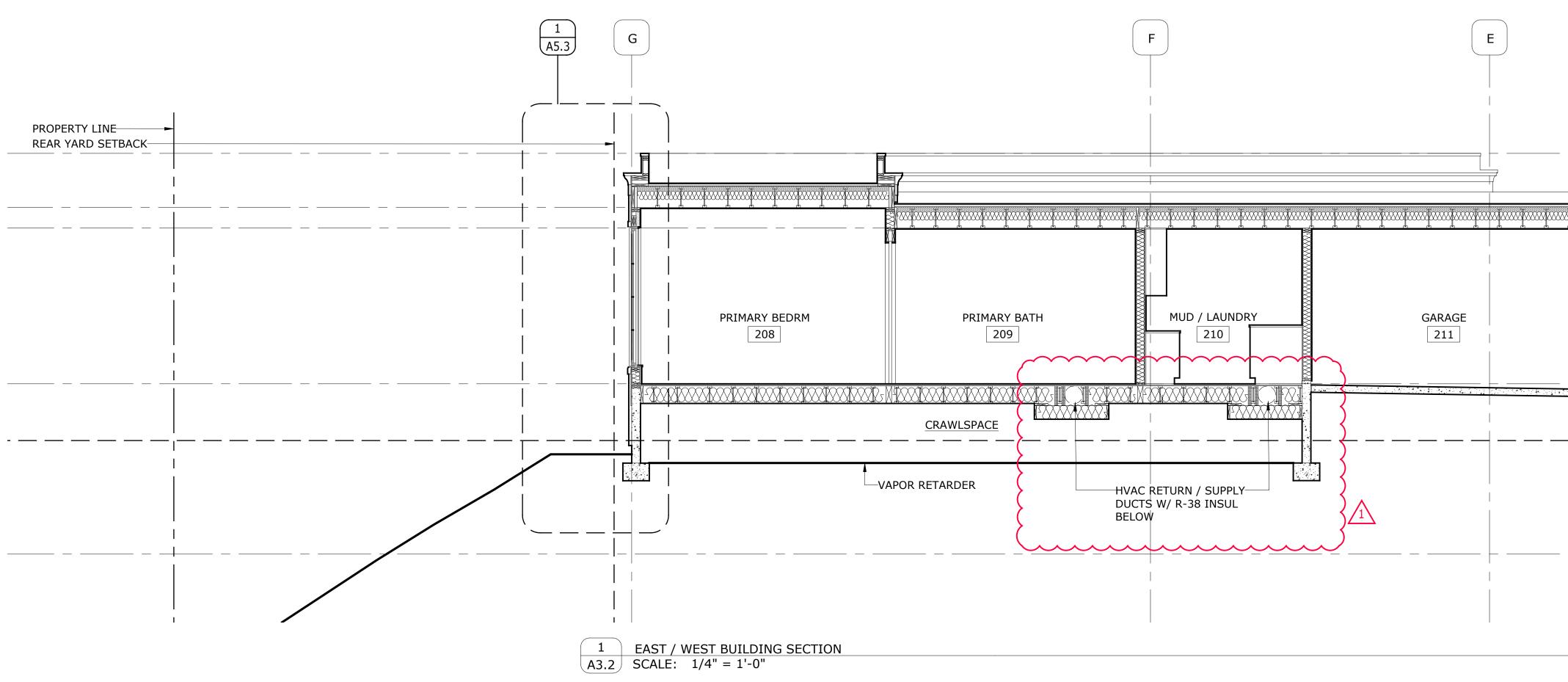


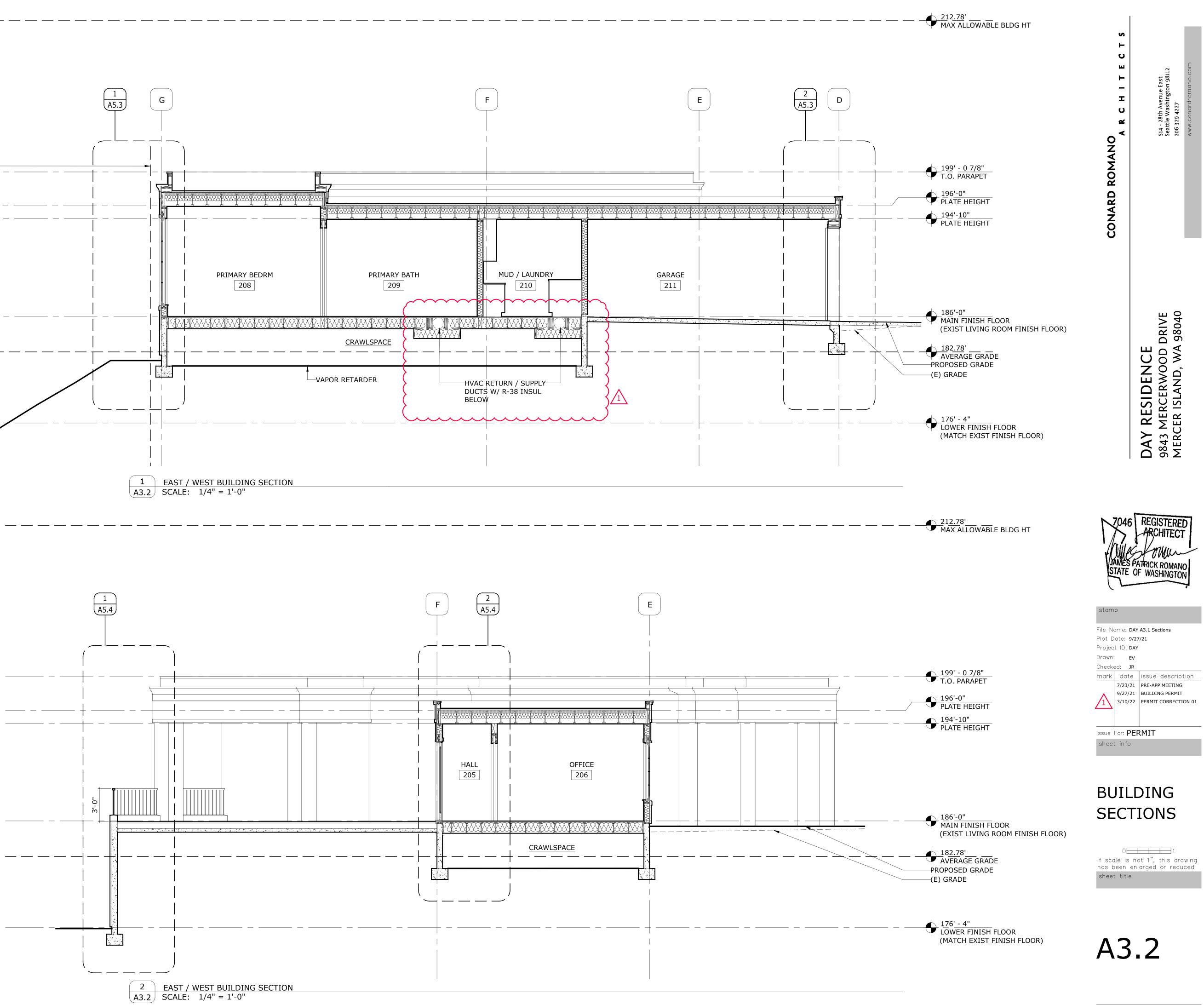


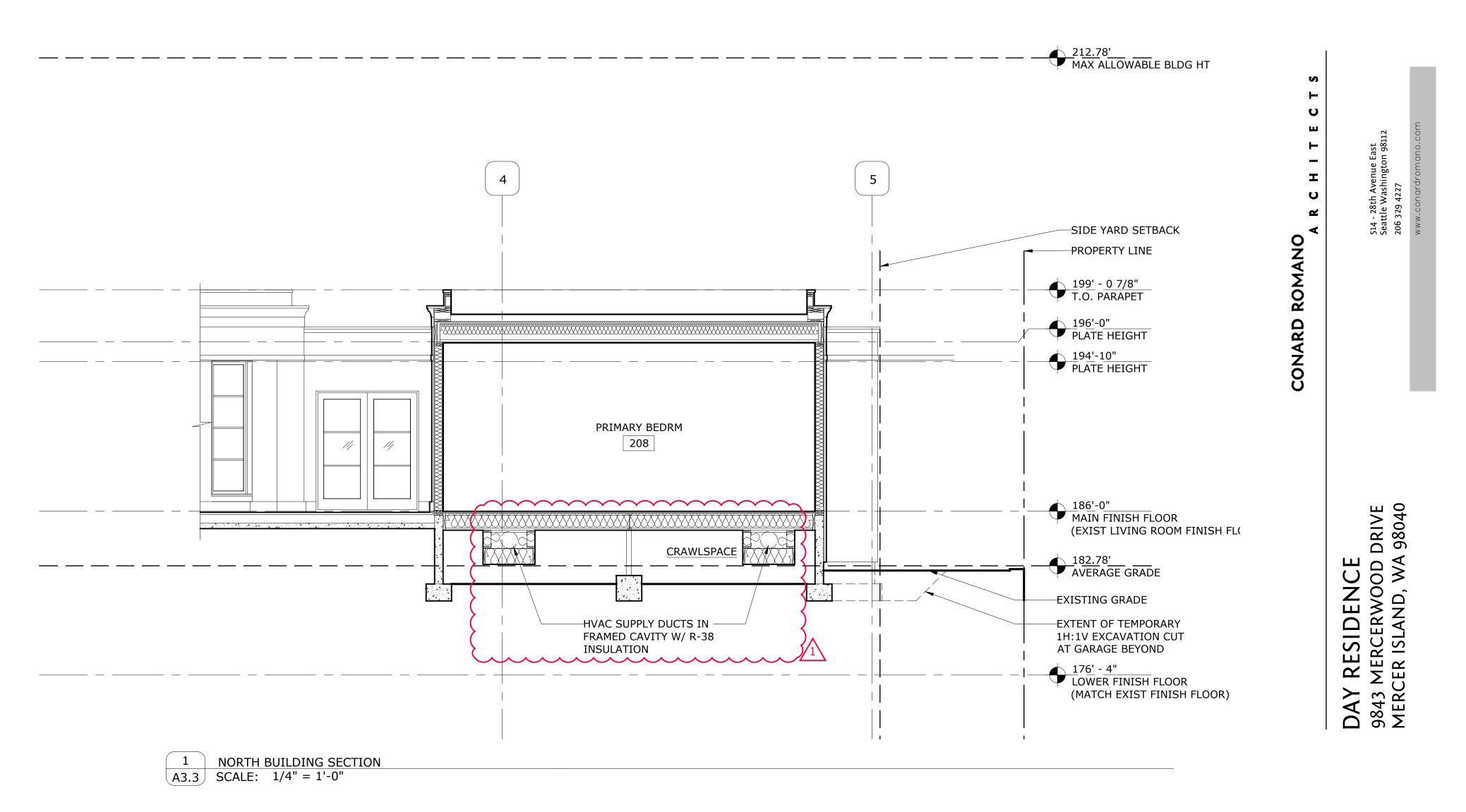


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sheet number









stamp

 File Name: DAY A3.1 Sections

 Plot Date: 9/27/21

 Project ID: DAY

 Drawn:
 EV

 Checked:
 JR

 mark
 date

 9/27/21
 PRE-APP MEETING

 9/27/21
 BUILDING PERMIT

 3/10/22
 PERMIT CORRECTION 01

Issue For: **PERMIT** sheet info

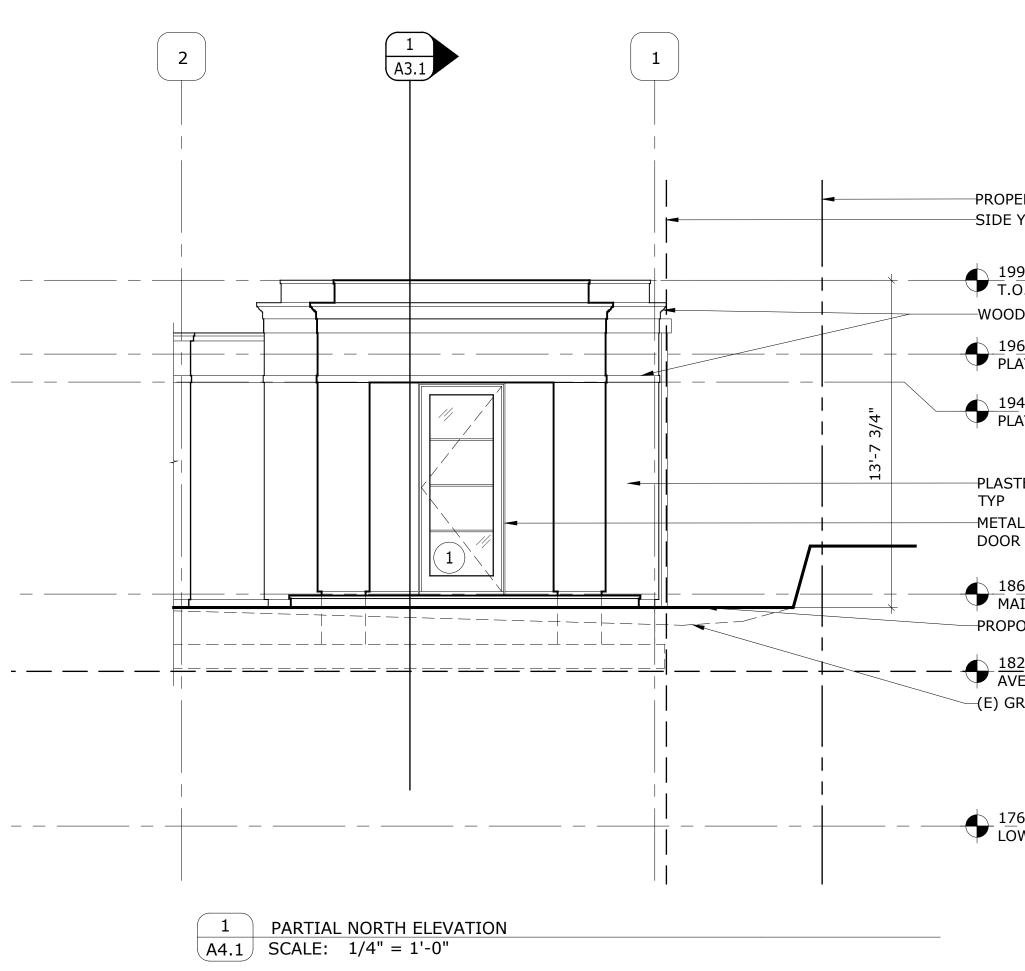


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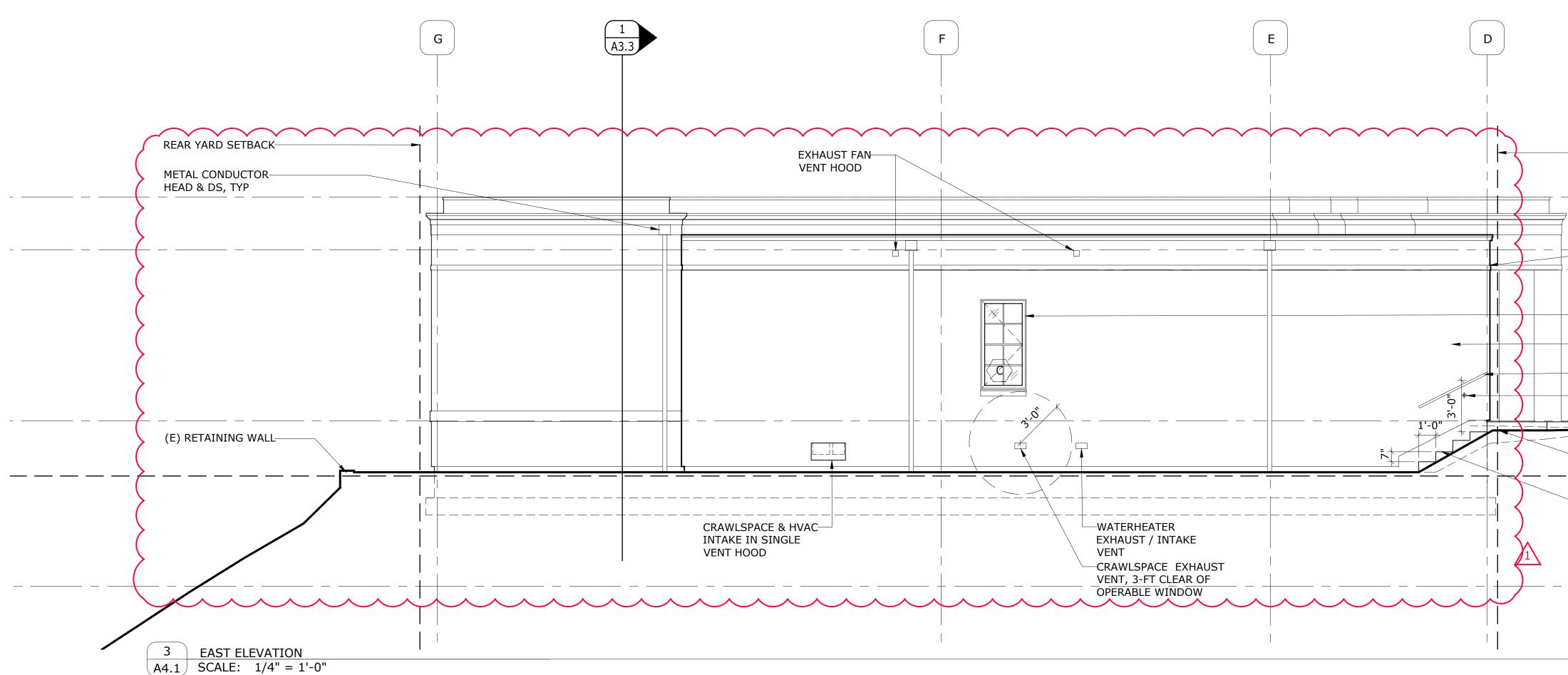


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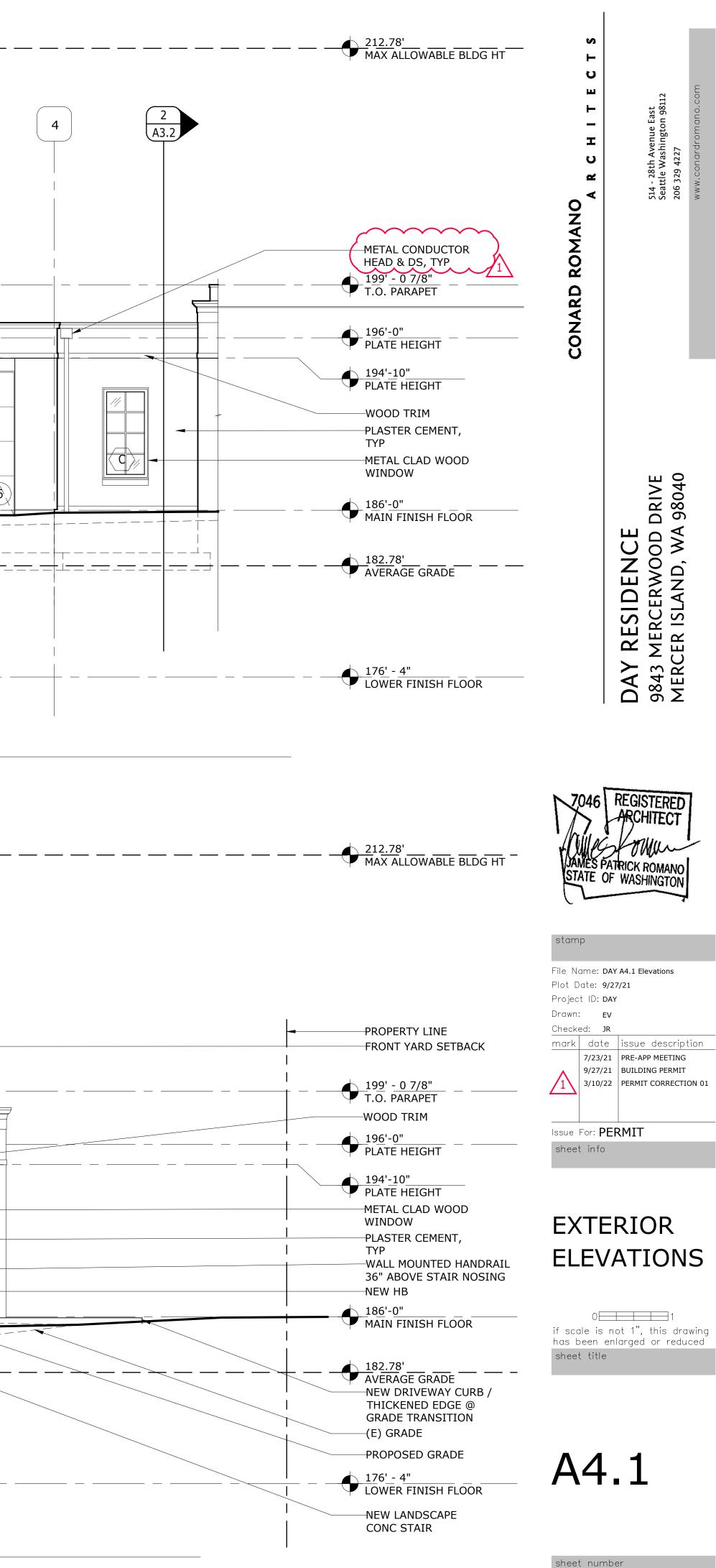


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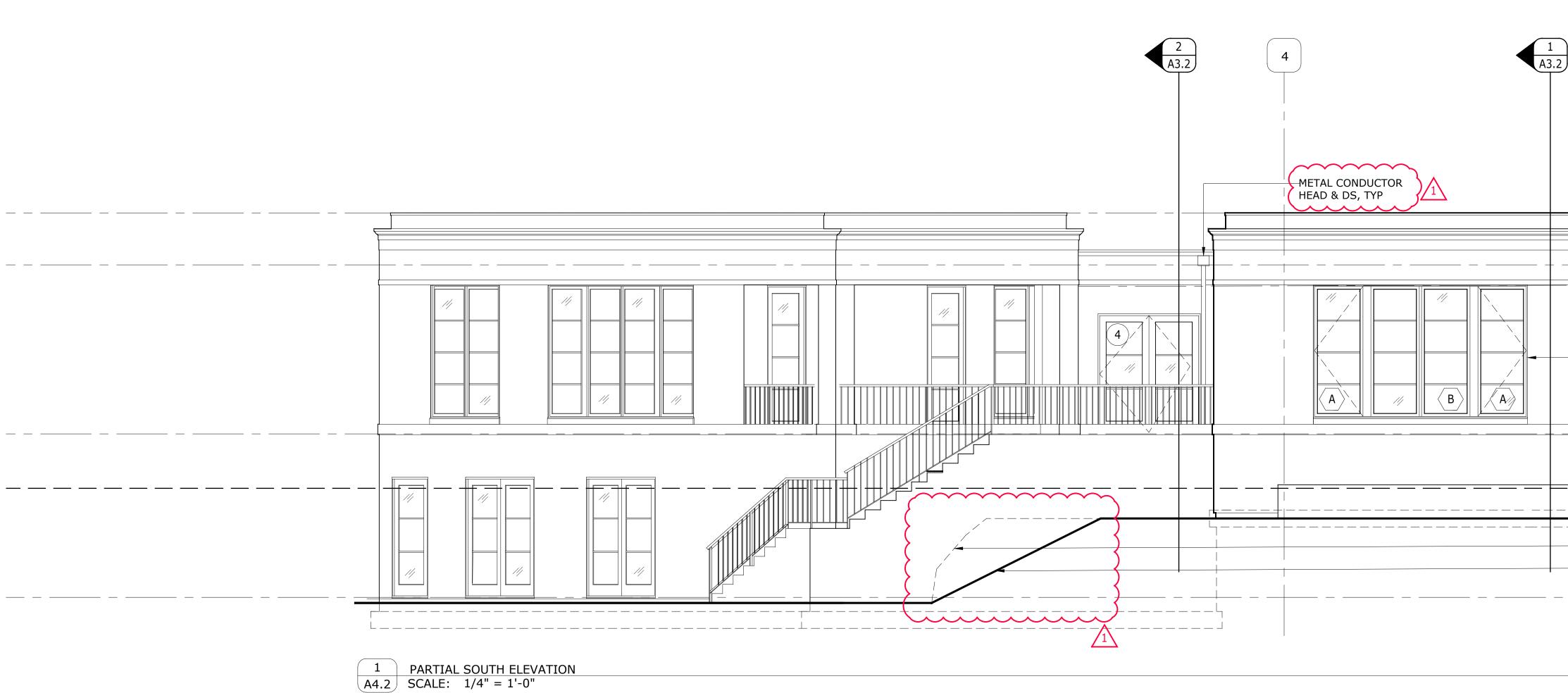


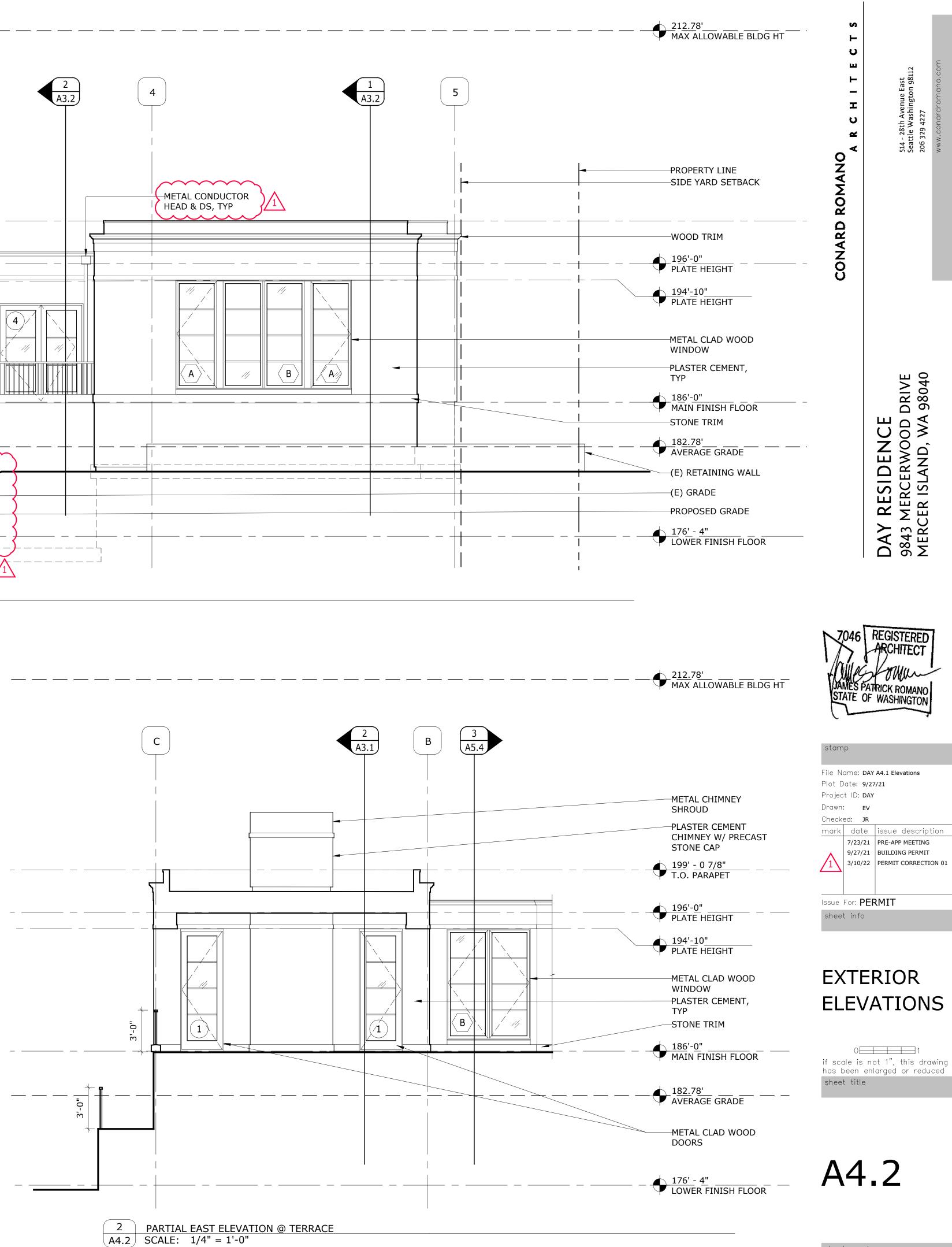
A 212.78' MAX ALLOWABLE BLDG HT

| | 5 | 1 A3.2 |
|--|--|-----------|
| ERTY LINE YARD SETBACK 9' - 0 7/8" | PROPERTY LINE | |
| D. PARAPET D TRIM 6'-0" | | |
| ATE HEIGHT 4'-10" ATE HEIGHT | | |
| FER CEMENT, L CLAD WOOD | | |
| 6'-0" | NEW DRIVEWAY W/ 3" TALL CURB / THICKENED EDGE @ GRADE TRANSITION | |
| OSED GRADE 2.78' ERAGE GRADE | (E) RETAINING WALL | |
| RADE | | |
| 6' - 4" | (E) GRADE | |
| WER FINISH FLOOR | | |
| | 2PARTIAL NORTH ELEVATIONA4.1SCALE:1/4" = 1'-0" | |

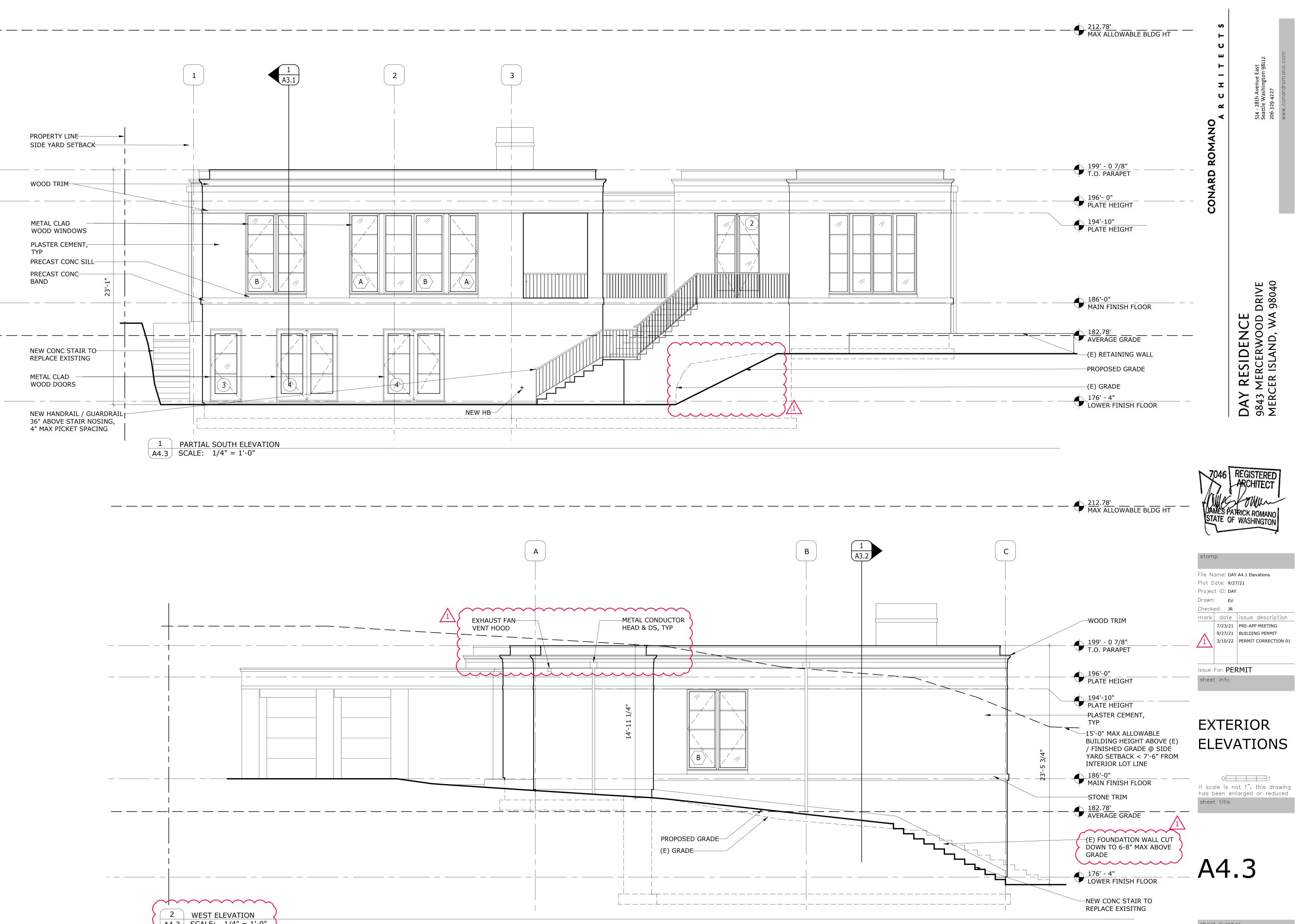


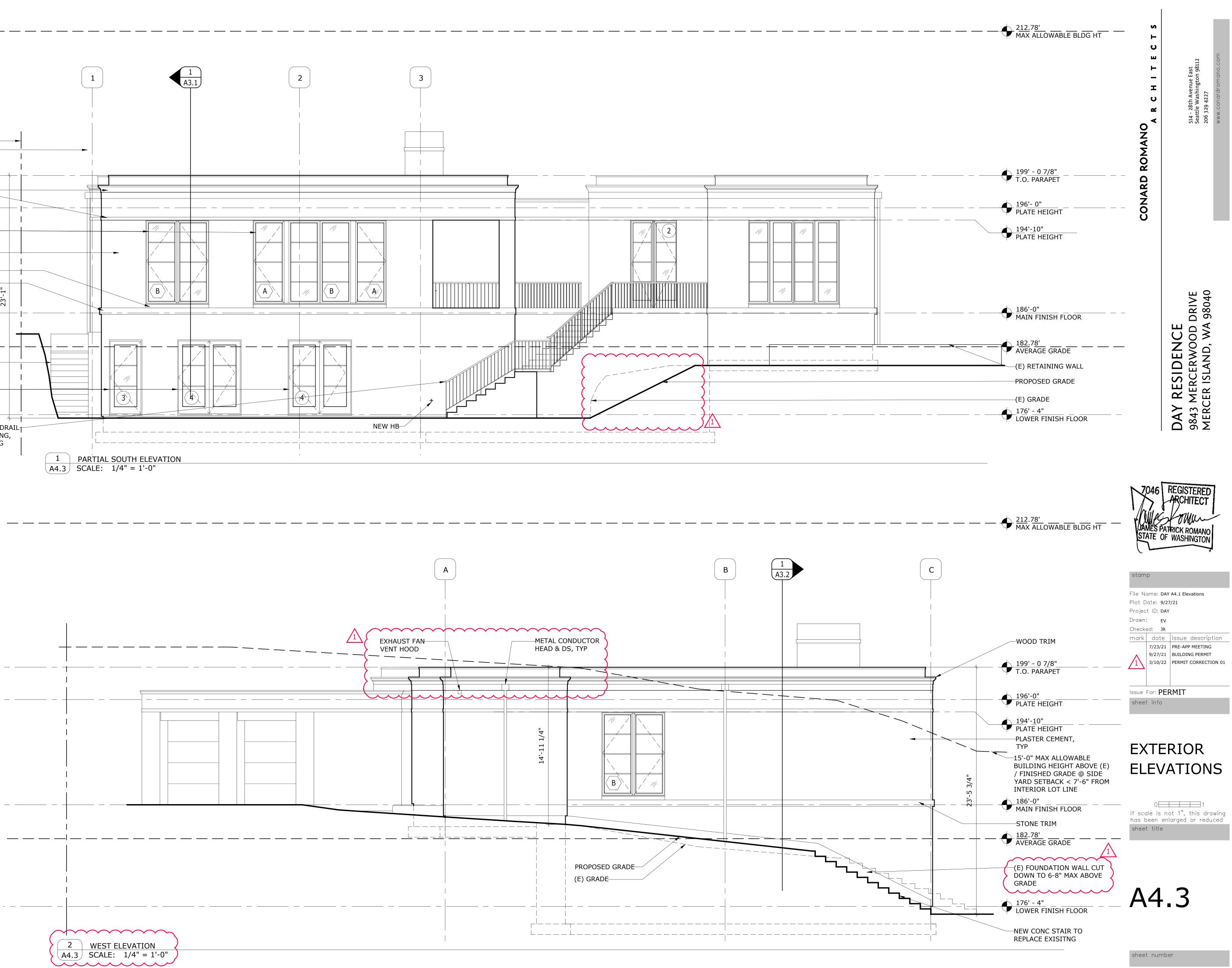
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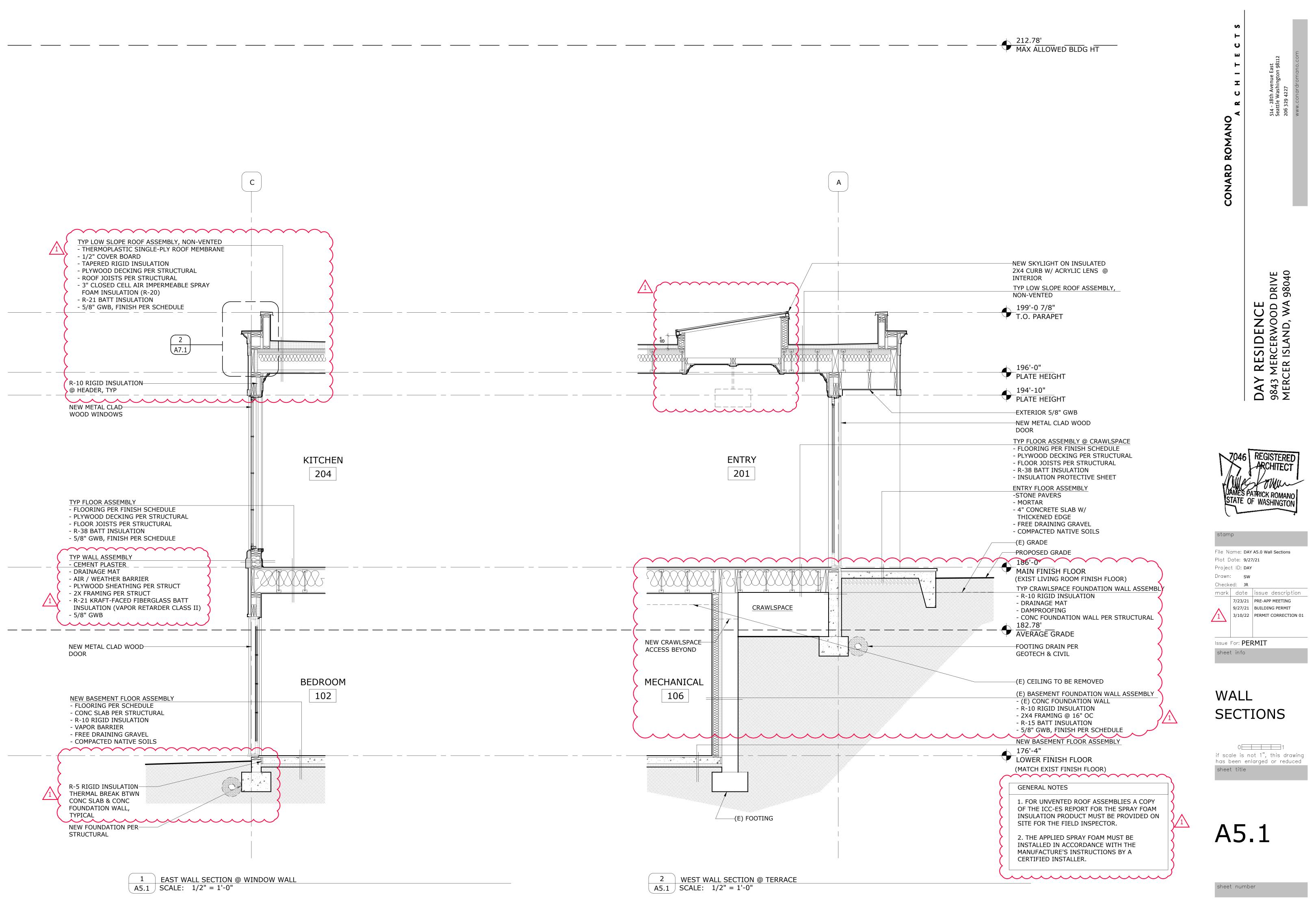


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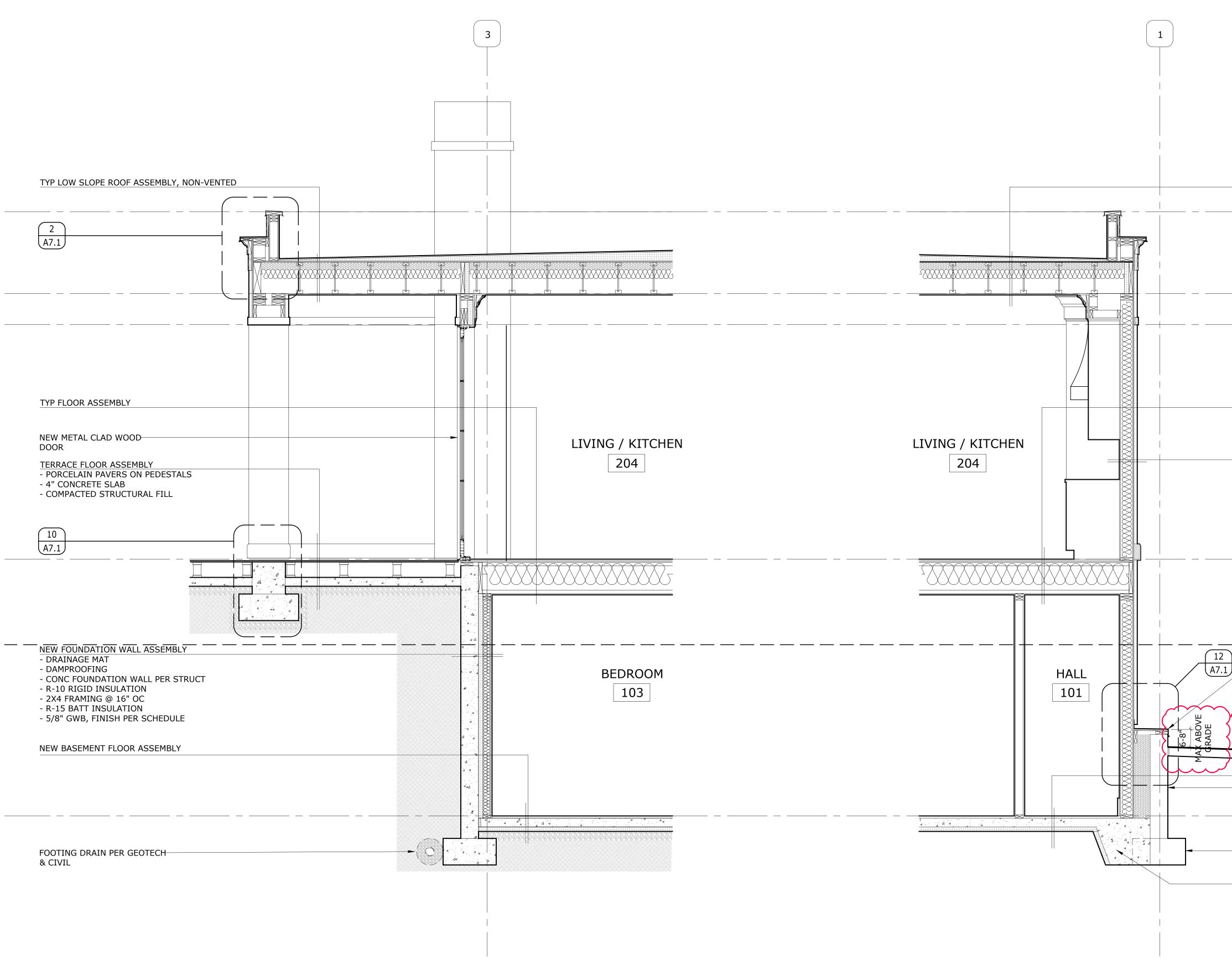




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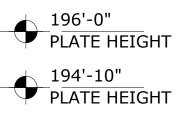


GENERAL NOTES

1. FOR UNVENTED ROOF ASSEMBLIES A COPY OF THE ICC-ES REPORT FOR THE SPRAY FOAM INSULATION PRODUCT MUST BE PROVIDED ON SITE FOR THE FIELD INSPECTOR.

2. THE APPLIED SPRAY FOAM MUST BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURE'S INSTRUCTIONS BY A CERTIFIED INSTALLER.

TYP LOW SLOPE ROOF ASSEMBLY , NON-VENTED 199'-0 7/8" T.O. PARAPET



TYP FLOOR ASSEMBLY

TYP WALL ASSEMBLY



186'-0" MAIN FINISH FLOOR (EXIST LIVING ROOM FINISH FLOOR)



METAL CAP FLASHING

(E) / NEW CONC WALK

NEW BASEMENT FLOOR ASSEMBLY —(E) FOUNDATION WALL

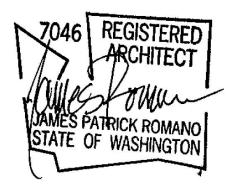
176'-4" LOWER FINISH FLOOR (MATCH EXIST FINISH FLOOR) –(E) FOOTING

-NEW FOOTING PER STRUCTURAL

ROMANO CONARD

υ

DAY RESIDENCE 9843 MERCERWOOD DRIVE MERCER ISLAND, WA 98040



stamp. File Name: DAY A5.0 Wall Sections Plot Date: 9/27/21 Project ID: DAY Drawn: **sw** Checked: JR mark date issue description 7/23/21 PRE-APP MEETING 9/27/21 BUILDING PERMIT 3/10/22 PERMIT CORRECTION 01 /1Issue For: **PERMIT**

sheet info



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sheet number

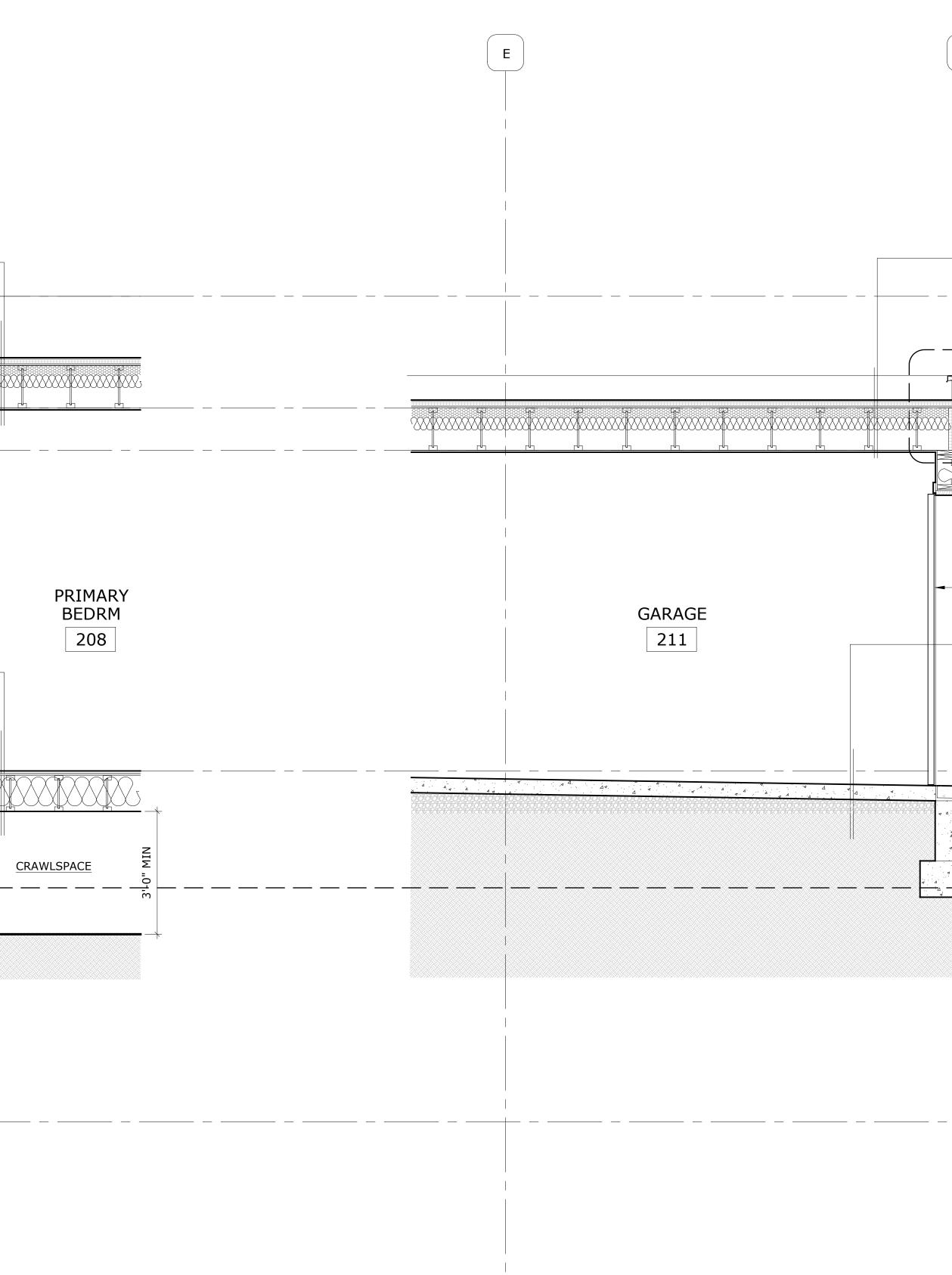
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st 98

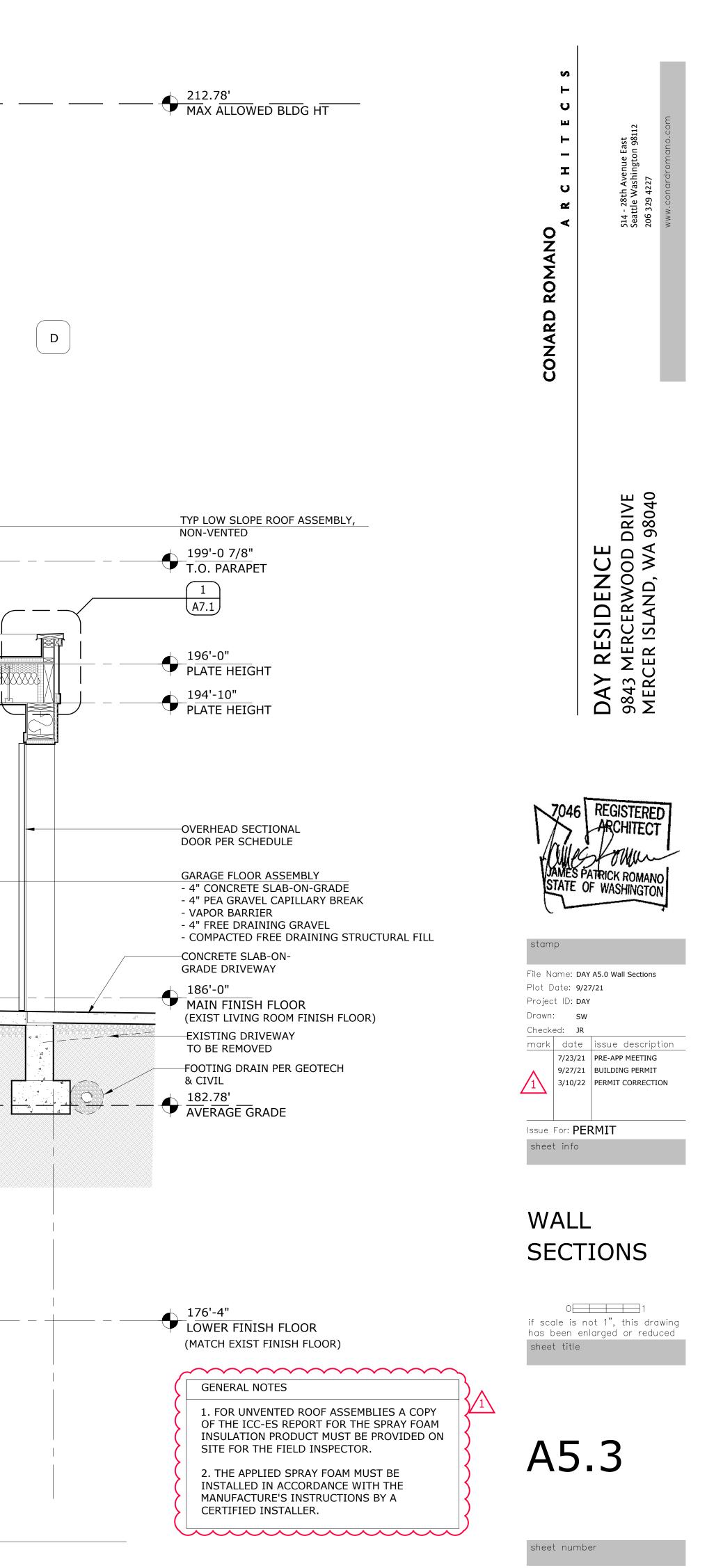
514 - 28th Av Seattle Wash 206 329 4227

| G |
|--|
| |
| |
| TYP LOW SLOPE ROOF ASSEMBLY, NON-VENTED |
| |
| |
| |
| |
| NEW METAL CLAD WOOD |
| TYP FLOOR ASSEMBLY @ CRAWLSPACE |
| TYP WALL ASSEMBLY |
| FOUNDATION WALL ASSEMBLY - CEMENT PLASTER FINISH - CONCRETE WALL PER STRUCTURAL - R-10 RIGID INSULATION |
| FOOTING DRAIN PER GEOTECH |
| |

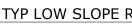


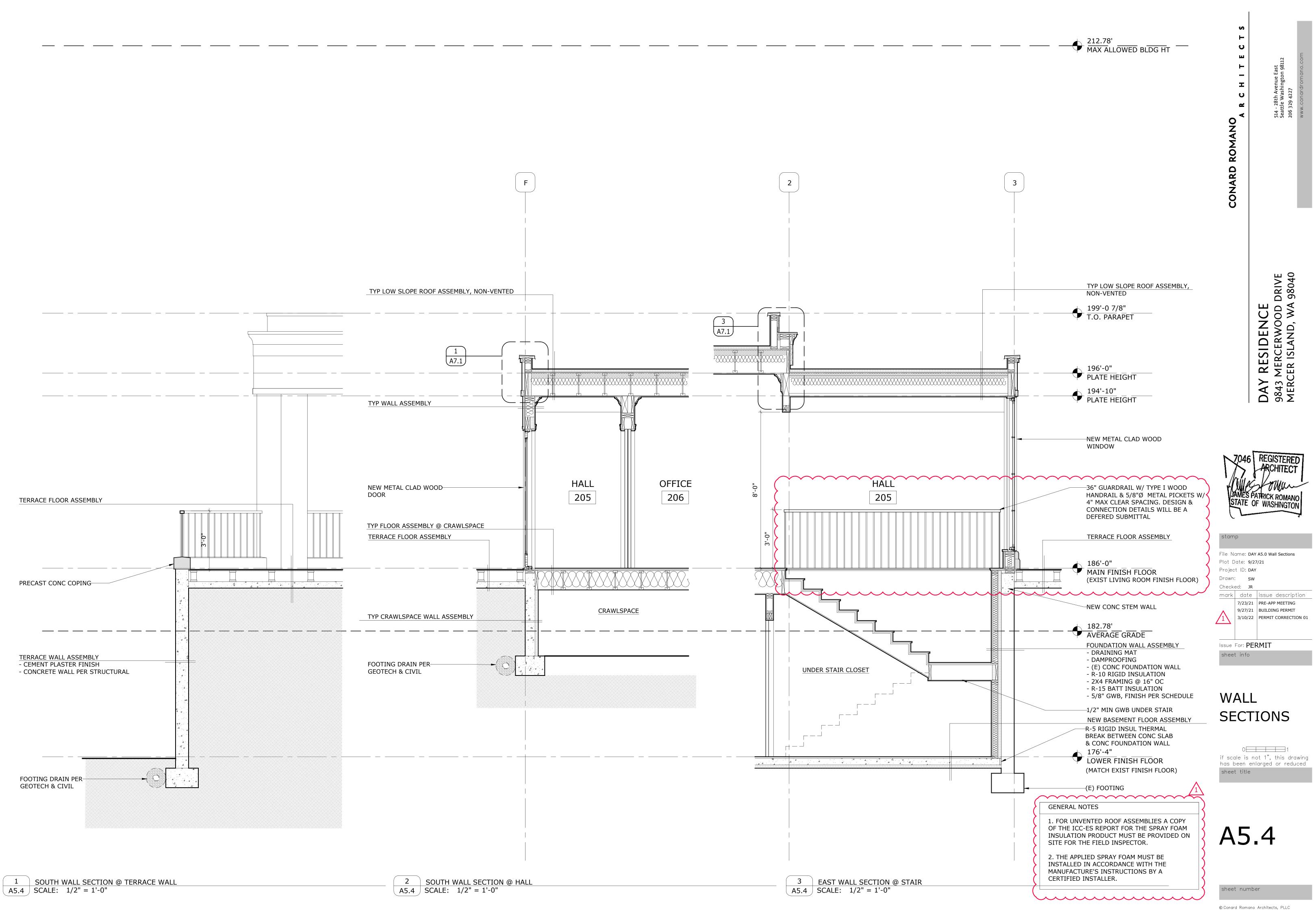




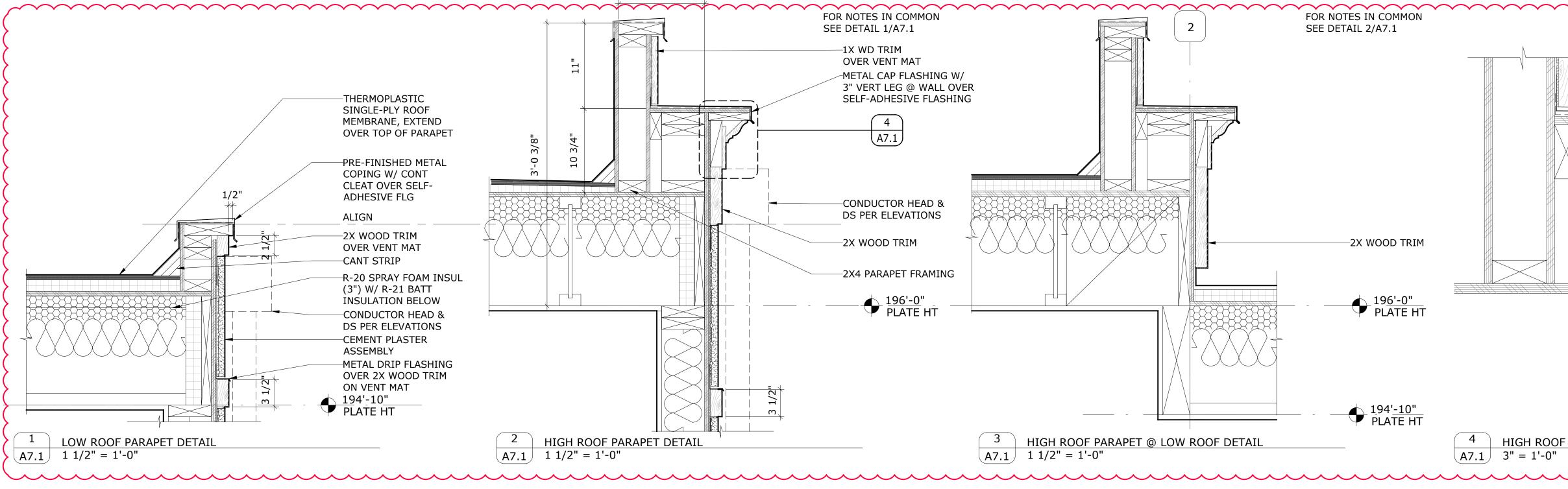


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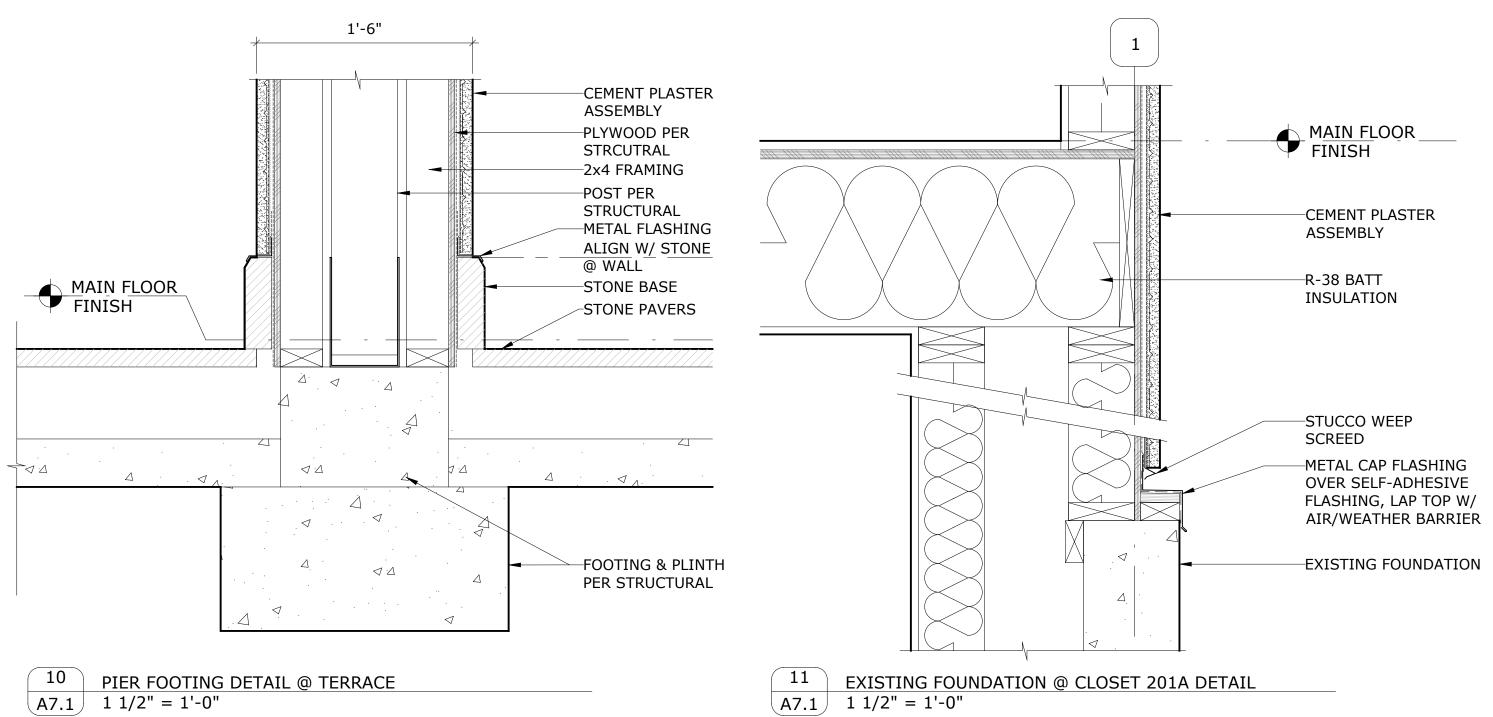




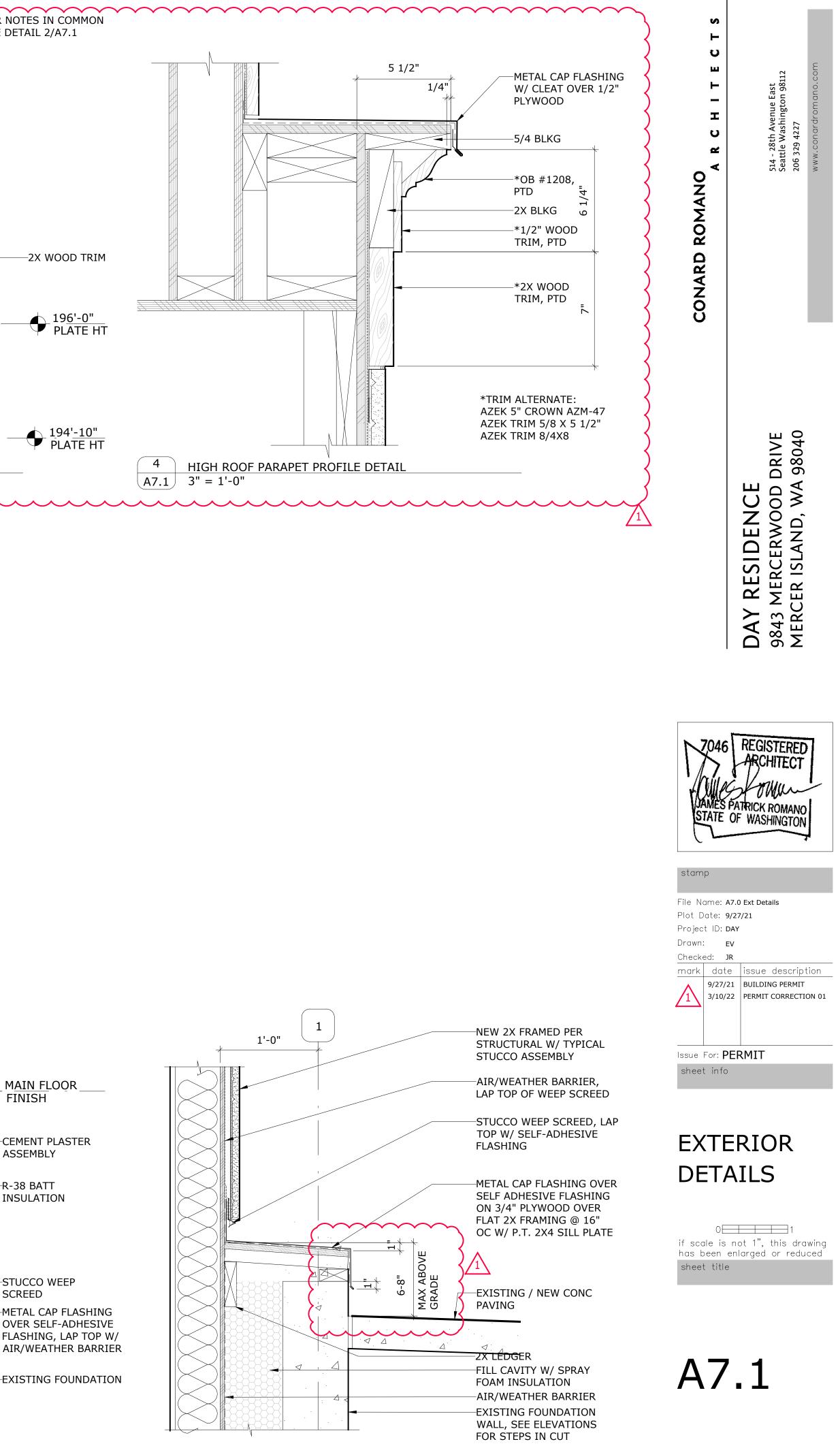




11"



11EXISTING FOUNDATION @ CLOSET 201A DETAILA7.11 1/2" = 1'-0"



sheet number

EXTERIOR DOOR & WINDOW SCHEDULE

| | | | | | | | | | | F | ROPER | TIES | | * GLAZING | | | | * | * ENERGY | | | | | |
|------|--------------------|------------------|--------------|----------|-------------|---------------------------|----------------|--------|--------|----------|-------|------|---------|--------------|--------|-------------------|----------|-------|----------|------------|---------|---------|-------|--------------------------|
| OOR | ROOM | DOOR # | DOOR TYPE | WDW # | WDW TYPE | MANUFACTURER MODEL NO. | OPERATION TYPE | MUNTIN | SCREEN | | | INT | INT EXT | тнк | TYPE | *** ROUGH OPENING | | AREA | FR | FRAME SIZE | | U-VALUE | E UA | COMMENTS - SEE LEGEND |
| | | | | | | | | | | | | FIN | FIN | | | WIDTH X | HEIGHT | (SF) | WIDTH | XH | HEIGHT | U VALUE | υA | |
| OWER | HALL 101 | 101-D1 | 3 | | | MARVIN UOFD | OUTSWING | 7/8" | Γ_ | 1 3/4" | WD | PTD | FAC | 1" | LoE272 | 38 1/2" x | 86 1/2" | 23.13 | 37 1/2" | | 86" | 0.28 | 6.48 | T 1 |
| JWER | BEDRM 1 102 | 101-D1 102-D1 | 4 | | | MARVIN UOFD | OUTSWING | 7/8" | - | 1 3/4" | WD | PTD | FAC | 1" | LoE272 | 73 5/8" x | 86 1/2" | 44.23 | 72 5/8" | x | 86" | 0.28 | 12.38 | |
| - | BEDRM 2 103 | 102-01 | 4 | | | MARVIN UOFD | OUTSWING | 7/8" | - | 1 3/4" | WD | PTD | FAC | 1" | LoE272 | 73 5/8" x | 86 1/2" | 44.23 | 72 5/8" | x | 86" | 0.28 | 12.38 | _ |
| | | | | | | | | - / - | | , - | | | | _ | | | | | | | | | | |
| 1AIN | ENTRY 201 | 201-D1 | 1 | \sim | | MARVIN-UOFD | INSWING | 7/8" | - | 1 3/4" | WD | PTD | FAC | 1" | LoE272 | 45 1/2" x | 106 3/4" | 33.73 | 44 7/16" | x 1 | 06 1/4" | 0.28 | 9.44 | 1 |
| | | | /1 (| 201-W1 | D | CRYSTALITE 5842 | FIXED | - | - | PER MANF | MTL | PTD | FAC | 1" | LoE366 | 60" x | 60" | - | 68" | x | 68" | 0.48 | - | 1,5 |
| | DINING 203 | | | 203-W1 | В | MARVIN UCA | CASEMENT | 7/8" | - | PER MANF | WD | PTD | FAC | 1" | LoE272 | 73" x | 95 5/8" | 48.48 | 72" | x S | 95 1/8" | 0.28 | 13.57 | 1 |
| | KITCHEN/LIVING 204 | 204-D1 | 1 | | | MARVIN UOFD | OUTSWING | 7/8" | - | 1 3/4" | WD | PTD | FAC | 1" | LoE272 | 38 1/2" x | 106 3/4" | 28.54 | 37 7/16" | x 1 | 06 1/4" | 0.28 | 7.99 | 1 |
| | | 204-D2 | 1 | | | MARVIN UOFD | OUTSWING | 7/8" | - | 1 3/4" | WD | PTD | FAC | 1" | LoE272 | 38 1/2" x | 106 3/4" | 28.54 | 37 7/16" | x 1 | 06 1/4" | 0.28 | 7.99 | 1 |
| | | | | 204-W1 | В | MARVIN UCA | CASEMENT | 7/8" | - | PER MANF | WD | PTD | FAC | 1" | LoE272 | 73" x | 95 5/8" | 48.48 | 72" | X S | 95 1/8" | 0.28 | 13.57 | 1,6 |
| | | | | 204-W2 | А | MARVIN UCA | CASEMENT | 7/8" | - | PER MANF | WD | PTD | FAC | 1" | LoE272 | 37" x | 95 5/8" | 24.57 | 36" | | 95 1/8" | 0.28 | 6.88 | 1,6 |
| | | | | 204-W3 | В | MARVIN UCA | FIXED CASEMENT | 7/8" | - | PER MANF | WD | PTD | FAC | 1" | LoE272 | 73" x | 95 5/8" | 48.48 | 72" | + | 95 1/8" | 0.28 | 13.57 | 1 |
| | | | | 204-W4 | A | MARVIN UCA | CASEMENT | 7/8" | - | PER MANF | WD | PTD | FAC | 1" | LoE272 | 37" x | 95 5/8" | 24.57 | 36" | X S | 95 1/8" | 0.28 | 6.88 | 1,6 |
| _ | HALL 205 | 205-D1 | 4 | | | MARVIN UOFD | OUTSWING | 7/8" | - | 1 3/4" | WD | PTD | FAC | 1" | LoE272 | 73 5/8" x | 86 1/2" | 44.23 | 72 5/8" | x | 86" | 0.28 | 12.38 | 1 |
| _ | | | | 205-W1 | В | MARVIN UCA | CASEMENT | 7/8" | - | PER MANF | WD | PTD | FAC | 1" | LoE272 | 73" x | 95 5/8" | 48.48 | 72" | | 95 1/8" | 0.28 | 13.57 | 1 |
| _ | OFFICE 206 | | | 206-W1 | C | MARVIN UCA | CASEMENT | 7/8" | - | PER MANF | WD | PTD | FAC | 1" | LoE272 | 33" x | 63 5/8" | 14.58 | 32" | | 53 1/8" | 0.28 | 4.08 | |
| _ | PRIMARY BEDRM 208 | 208-D1 | 2 | | | MARVIN UOFD | OUTSWING | 7/8" | - | 1 3/4" | WD | PTD | FAC | 1" | LoE272 | 73 5/8" x | 106 3/4" | 54.58 | 72 5/8" | | 06 1/4" | 0.28 | 15.28 | |
| _ | | | | 208-W1 | A | MARVIN UCA | CASEMENT | 7/8" | - | PER MANF | WD | PTD | FAC | 1" | LoE272 | 37" x | 95 5/8" | 24.57 | 36" | | 95 1/8" | 0.28 | 6.88 | 1,6 |
| | | | | 208-W2 | | MARVIN UCA | FIXED CASEMENT | | - | PER MANF | | | | | LoE272 | 73" x | 95 5/8" | 48.48 | 72" | | 95 1/8" | | 13.57 | - |
| - | | | | 208-W3 | | MARVIN UCA | CASEMENT | 7/8" | - | PER MANF | | | | 1" | LoE272 | 37" x | 95 5/8" | 24.57 | 36" | | 95 1/8" | 0.28 | 6.88 | 1,6 |
| _ | PRIMARY BATH 209 | 210 01 | | 209-W1 | D | CRYSTALITE 5842 | | - | - | PER MANF | | | | | LoE366 | 22" x | 46" | - | 25 1/2" | <u> </u> | 19 1/2" | 0.48 | - | 1,5 |
| ┝ | LAUNDRY/ MUD 210 | 210-D1 | 5 | 210 14/1 | | ROGUE VALLEY OR EQ | INSWING | 7/01 | - | 1 3/4" | WD | | PTD | 1" | | 36 1/2" x | 85 1/4" | 21.61 | 35 1/2" | + | 34 3/4" | 0.46 | - | 3 |
| ┝ | | 211 D1 | E | 210-W1 | L L | MARVIN UCA | CASEMENT | 7/8" | - | PER MANF | | | FAC | L | LoE272 | 33" x | 63 5/8" | 14.58 | 32" | | 53 1/8" | 0.28 | 4.08 | |
| ┝ | GARAGE 211 | 211-D1 | 0 | | | CLOPAY MODEL 33 | SECTIONAL | - | - | 1 3/8" | WD | | PTD | - | - | 96" x | 99" | - | - | - | - | - | - | 4 |
| | | 211-D2 | 6 | | | CLOPAY MODEL 33 | SECTIONAL | - | - | 1 3/8" | WD | PTD | PTD | - | - | 96" x | 99" | - | - | - | - | - | - | 4 |

COMMENTS LEGEND

* ALL GLAZING TO HAVE DUAL LOW-E COATING; CARDINAL 272 - SURFACE #2

** BUILDER SHALL SUPPLY CERTIFICATION FROM WINDOW MANUFACTURER TO THE BUILDING INSPECTOR SHOWING COMPLIANCE WITH THE SCHEDULE (FOR ENERGY COMPLIANCE & SAFETY GLAZING) *** ROUGH OPENING SIZE IS FOR ENERGY CODE CALCULATIONS ONLY. CONTRACTOR TO DETERMINE R.O. TO ACCOMMODATE WEATHERPROOFING ASSEMBLY 1. SAFETY GLAZING

2. EGRESS WINDOW

3. SOLID CORE WOOD SLAB DOOR & FRAME DEFAULT U-FACTOR BASED ON 2018 WSEC TABLE R303.1.3(2)

4. ROUGH OPENING SIZE IS EQUAL TO GARAGE DOOR PANEL SIZE. DOOR AREA EXCLUDED FROM UA CALCULATION

5. SKYLIGHT GLAZING INNER PANE CONSISTS OF LAMINATED GLASS WITH NOT LESS THAN A 30 MIL PVB FILM & TEMPERED OUTER PANE. SCREEN NOT REQUIRED. AREA NOT INCLUDED IN UA CALCULATION. MAXIMUM SKYLIGHT U-FACTOR = 0.50 6. PROVIDE FALL RESTRAINT WINDOW LIMITING HARDWARE

INTERIOR DOOR SCHEDULE

| FLOOR | DOOR | FROM - TO | DOOR OPENING SIZE TYPE | | OPERATION | DOOR PROPERTIE | | | 5 | | STOP TYPE | COMMENTS |
|-------|---------|--------------------------------------|---------------------------|---|-----------|----------------|-----|--------------------|-----|-----------|-----------|--|
| FLOOR | NUMBER | FROM - TO | | | OPERATION | THK | MTL | TL INT FIN EXT FIN | | LUCK TIPE | STOP TIPE | COMMENTS |
| LOWER | 102-D1 | FAMILY RM 104 - BEDRM 1 102 | 2'-10" x 7'-0" | А | SWING | 1 3/4" | WD | PTD | PTD | PRIVACY | | |
| LEVEL | 102-D2 | BEDRM 1 102 - CLOSET | 5'-0" x 7'-0" | Е | SLIDE | 1 3/4" | WD | PTD | PTD | - | | |
| | 103-D1 | FAMILY RM 104 - BEDRM 2 103 | 2'-10" x 7'-0" | А | SWING | 1 3/4" | WD | PTD | PTD | PRIVACY | | |
| | 103-D2 | BEDRM 2 103 - CLOSET | 5'-0" x 7'-0" | E | SLIDE | 1 3/4" | WD | PTD | PTD | _ | | |
| | 104-D1 | FAMILY RM 104 - UNDER STAIR CLOSET | 2'-4" x 7'-0" | А | SWING | 1 3/4" | WD | PTD | PTD | - | | |
| | 104-D2 | FAMILY RM 104 - CLOSET | 5'-4" x 7'-0" | В | SWING | 1 3/4" | WD | PTD | PTD | DUMMY | | INSTALL STRIKE ON TOP OF DOOR SO ITS NOT VISIBLE FROM ROOM |
| | 105-D1 | FAMILY RM 104 - BATH RM 105 | 2'-4" x 7'-0" | А | SWING | 1 3/4" | WD | PTD | PTD | PRIVACY | | |
| | 106-D1 | FAMILY RM 104 - MECH 106 | 3'-0" x 7'-0" | А | SWING | 1 3/4" | WD | PTD | PTD | - | | |
| | | | | | | | | | | | | |
| MAIN | 201-D2 | ENTRY 201 - CLOSET 201A | 2'-6" x 7'-0" | А | SWING | 1 3/4" | WD | PTD | PTD | - | | |
| LEVEL | 202-D1 | ENTRY 201 - POWDER 202 | 2'-6" x 7'-0" | А | SWING | 1 3/4" | WD | PTD | PTD | PRIVACY | | |
| | 206-D1 | HALL 205 - OFFICE 206 | 5'-0" x 7'-0" | D | POCKET | 1 3/4" | WD | PTD | PTD | - | | |
| | 207-D1 | WARDROBE 207 - PRIMARY BATH 209 | 2'-10" x 7'-0" | С | POCKET | 1 3/4" | WD | PTD | PTD | PRIVACY | | |
| | 207-D2 | WARDROBE 207 - WARDROBE 207A | 4'-8" x 7'-0" | D | POCKET | 1 3/4" | WD | PTD | PTD | - | | |
| | 208-D2 | HALL 205 - PRIMARY BEDRM 208 | 2'-10" x 7'-0" | А | SWING | 1 3/4" | WD | PTD | PTD | PRIVACY | | |
| | 209-D1 | PRIMARY BEDRM 208 - PRIMARY BATH 209 | 2'-10" x 7'-0" | С | POCKET | 1 3/4" | WD | PTD | PTD | PRIVACY | | |
| | 209A-D1 | PRIMARY BATH 209 - WC 209A | 2'-6" x 7'-0" | А | SWING | 1 3/4" | WD | PTD | PTD | - | | |
| | 210-D2 | LAUNDRY/ MUD RM 210 - HALL 205 | 2'-10" x 7'-0" | А | SWING | 1 3/4" | WD | PTD | PTD | - | | |

| TOTAL | 692.63 | |
|---|--------|--|
| EXEMPT GLAZING AREA = EXEMPT DOOR AREA = | 0.00 | |
| EXEMPT DOOR AREA = | 24.00 | |
| TOTAL CALCULATED AREA = | 668.63 | |
| | | |

| = | 187.89 | |
|---|--------|--|
| | 0.28 | |
| | | |
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514 - 28th Av Seattle Wash 206 329 4227

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CONARD

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DAY RESIDENCE 9843 MERCERWOOD DRIVE MERCER ISLAND, WA 98040



stamp

File Name: DAY A8.0 schedule Plot Date: **9/27/21** Project ID: DAY Drawn: **EV** Checked: JR mark date issue description 9/27/21 BUILDING PERMIT 9/27/21 BUILDING PERMIT 3/10/22 PERMIT CORRECTION 01

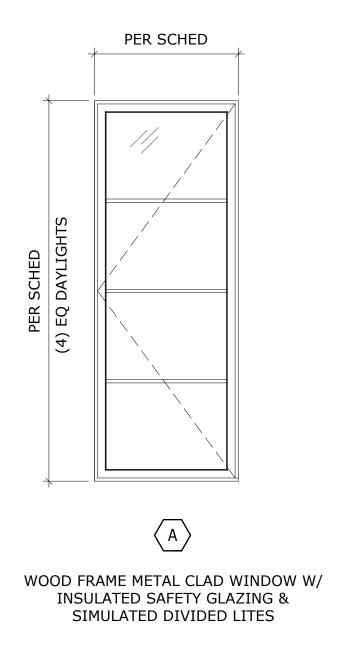
Issue For: **PERMIT** sheet info

DOOR & WINDOW SCHEDULE

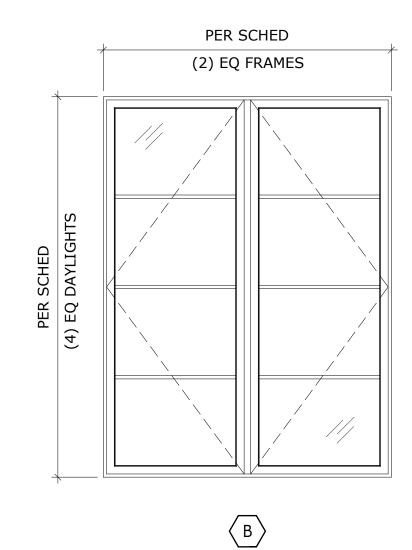
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A8.1

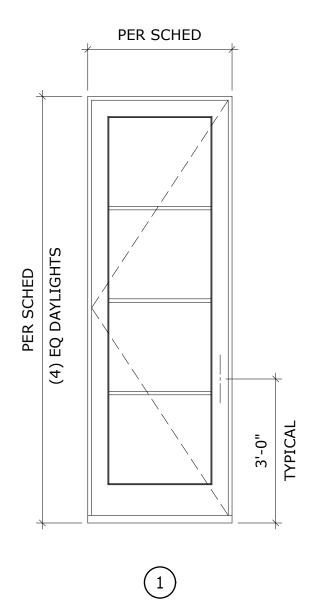
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EXTERIOR WINDOW TYPES

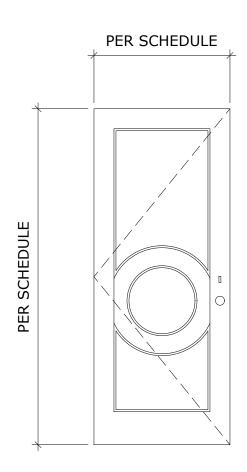


TWO WOOD FRAME METAL CLAD WINDOWS FACTORY MULLED W/ **INSULATED SAFETY GLAZING &** SIMULATED DIVIDED LITES

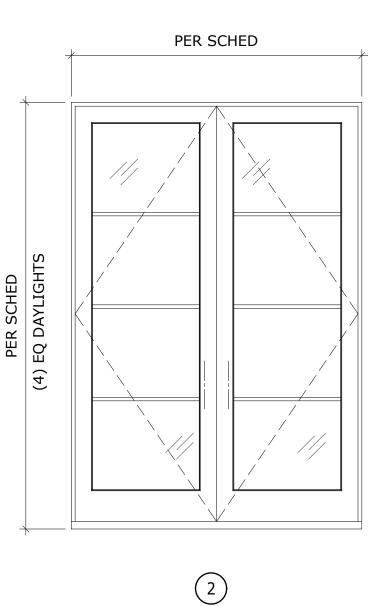


WOOD FRAME METAL CLAD SWING DOOR, W/ INSULATED SAFETY GLAZING & SIMULATED DIVIDED LITES (INSWING / OUTSWING PER SCHED)

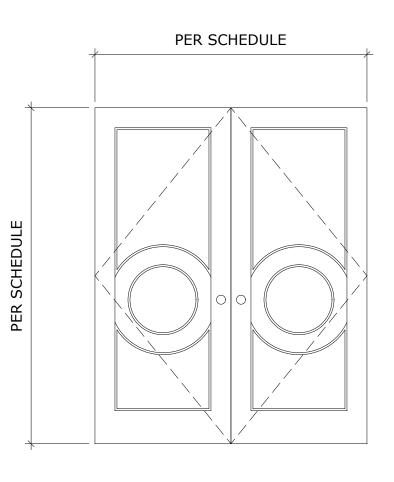
EXTERIOR DOOR TYPES



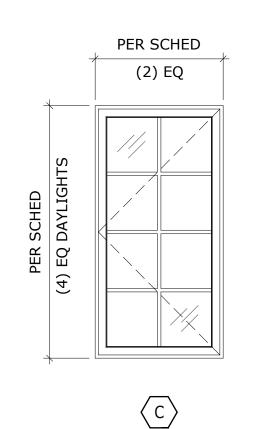
DOOR TYPE A SINGLE, STILE & RAIL, RAISED PANEL WOOD DOOR, TS3140 OR EQ



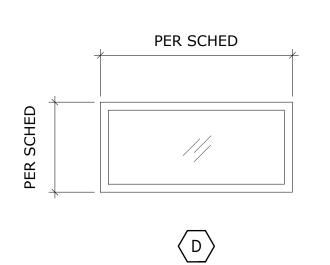
WOOD FRAME METAL CLAD PAIR SWING DOOR, W/ INSULATED SAFETY GLAZING & SIMULATED DIVIDED LITES



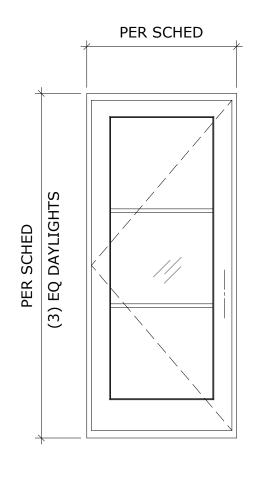
<u>DOOR TYPE B</u> PAIR, STILE & RAIL, RAISED PANEL WOOD DOOR, TS3140 OR EQ



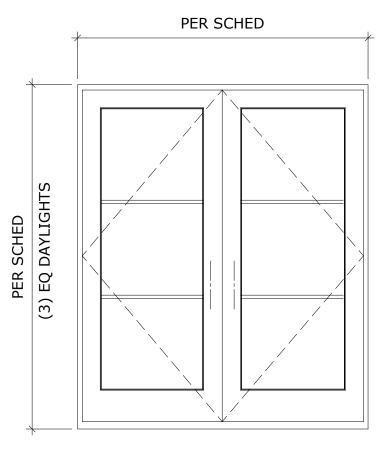




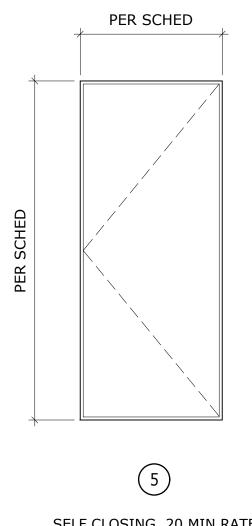
ALUM FRAME, FIXED SKYLIGHT W/ LAMINATED INNER PANE & TEMPERED OUTER PANE, INSULATED GLAZING



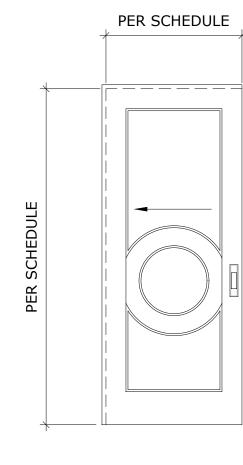
3 WOOD FRAME METAL CLAD SWING DOOR, W/ INSULATED SAFETY GLAZING & SIMULATED DIVIDED LITES (INSWING / OUTSWING PER SCHED)

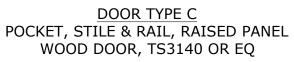


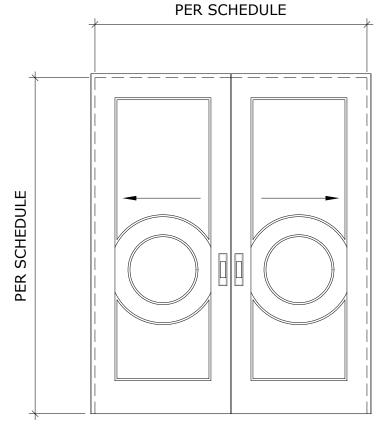
4 WOOD FRAME METAL CLAD PAIR SWING DOOR, W/ INSULATED SAFETY GLAZING & SIMULATED DIVIDED LITES



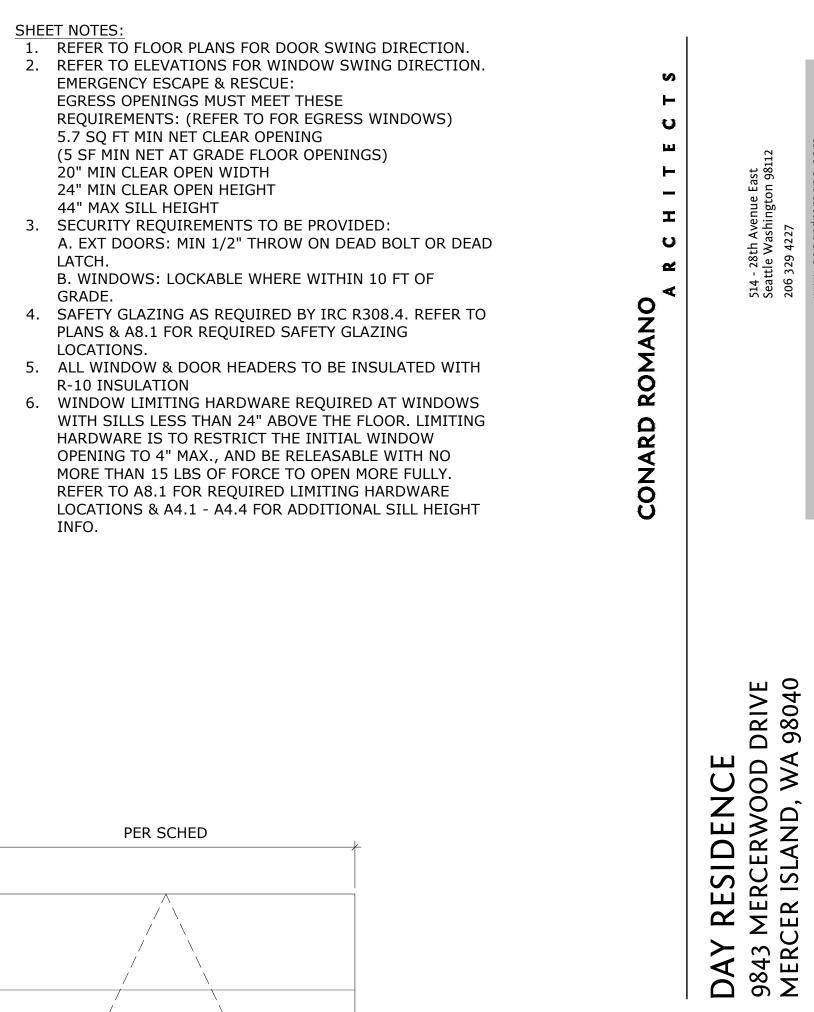
SELF CLOSING, 20 MIN RATED SOLID CORE DOOR W/ SMOKE GASKETS

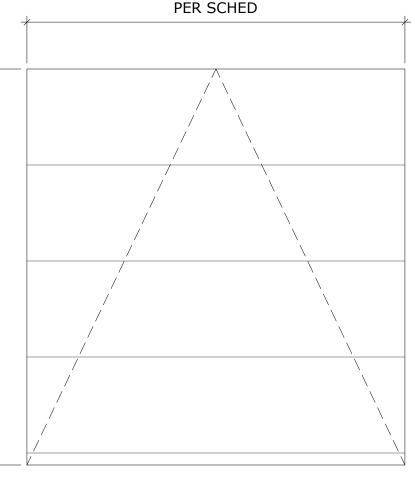




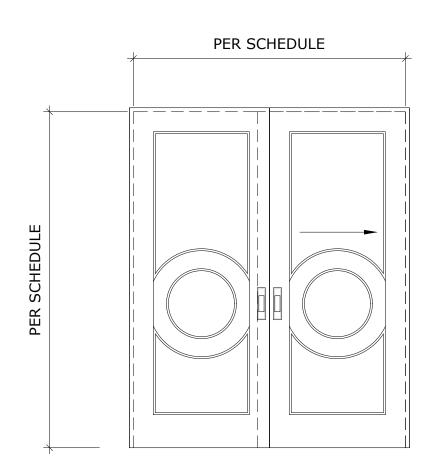


DOOR TYPE D PAIR POCKET, STILE & RAIL, RAISED PANEL WOOD DOOR, TS3140 OR EQ





6 INSULATED WOOD OVERHEAD SECTIONAL GARAGE DOOR



<u>DOOR TYPE E</u> SLIDING, STILE & RAIL, RAISED PANEL WOOD DOOR, TS3140 OR EQ

⁰

File Name: DAY A8.0 schedule Plot Date: **9/27/21** Project ID: DAY Drawn: EV Checked: JR mark date issue description 9/27/21 BUILDING PERMIT

7046 REGISTERED ARCHITECT

JAMES PATRICK ROMANO STATE OF WASHINGTON

Issue For: **PERMIT** sheet info

stamp

DOOR & WINDOW TYPES

0 1 if scale is not 1", this drawing has been enlarged or reduced sheet title

A8.2

sheet number

GENERAL STRUCTURAL NOTES

THE FOLLOWING APPLY UNLESS SHOWN OTHERWISE ON THE DRAWINGS

CRITERIA

1. ALL MATERIALS, WORKMANSHIP, DESIGN, AND CONSTRUCTION SHALL CONFORM TO THE DRAWINGS. SPECIFICATIONS, AND THE INTERNATIONAL BUILDING CODE (IBC) 2018 EDITION

| 2. DESIGN LOADING CR | ITERIA | |
|----------------------|---|---------------------------|
| FLOOR LIVE LOAD (RE | ESIDENTIAL) | 40 PSF |
| FLOOR LIVE LOAD (RE | ESIDENTIAL DECKS AND BALCONIES) | 60 PSF |
| SNOW | | 25 PSF |
| WIND | METHOD - DIRECTI | |
| | Kzt=1.33, GCpi=0.18, 110 MPH (RISK CATEGOR | Y II (EXPOSURE "C") $/_1$ |
| EARTHQUAKE | ANALYSIS PROCEDURE: EQUIVALENT LATERAL F | |
| | LATERAL SYSTEM: LIGHT FRAMED SHEAR WALLS | |
| | SDC D, SITE CLASS D (GEO), Ie=1.0, Ss=1.40, S1= | =0.54, |
| | Sds=0.933, Sd1=NULL, Cs=0.144, R=6.5, | |
| | SEISMIC DESIGN BASE SHEAR Vsx=19.2 KIPS | |

- 3. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS FOR BIDDING AND CONSTRUCTION. CONTRACTOR SHALL VERIFY DIMENSIONS AND CONDITIONS FOR COMPATIBILITY AND SHALL NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
- 4. PRIMARY STRUCTURAL ELEMENTS NOT DIMENSIONED ON THE STRUCTURAL PLANS AND DETAILS SHALL BE LOCATED BY THE ARCHITECTURAL PLANS AND DETAILS. VERTICAL DIMENSION CONTROL IS DEFINED BY THE ARCHITECTURAL WALL SECTIONS, BUILDING SECTIONS, AND PLANS. DETAILING AND SHOP DRAWING PRODUCTION FOR STRUCTURAL ELEMENTS WILL REQUIRE DIMENSIONAL INFORMATION CONTAINED IN BOTH ARCHITECTURAL AND STRUCTURAL DRAWINGS.
- 5. CONTRACTOR SHALL PROVIDE TEMPORARY BRACING FOR THE STRUCTURE AND STRUCTURAL COMPONENTS UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH THE PLANS. CONFORM TO ASCE 37-14 "DESIGN LOADS ON STRUCTURES DURING CONSTRUCTION."
- 6. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES REQUIRED TO PERFORM THE CONTRACTOR'S WORK. THE STRUCTURAL ENGINEER HAS NO OVERALL SUPERVISORY AUTHORITY OR ACTUAL AND/OR DIRECT RESPONSIBILITY FOR THE SPECIFIC WORKING CONDITIONS AT THE SITE AND/OR FOR ANY HAZARDS RESULTING FROM THE ACTIONS OF ANY TRADE CONTRACTOR. THE STRUCTURAL ENGINEER HAS NO DUTY TO INSPECT, SUPERVISE, NOTE, CORRECT, OR REPORT ANY HEALTH OR SAFETY DEFICIENCIES TO THE OWNER, CONTRACTORS, OR OTHER ENTITIES OR PERSONS AT THE PROJECT SITE.
- 7. CONTRACTOR-INITIATED CHANGES SHALL BE SUBMITTED IN WRITING TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR APPROVAL PRIOR TO FABRICATION OR CONSTRUCTION. CHANGES SHOWN ON SHOP DRAWINGS ONLY WILL NOT SATISFY THIS REQUIREMENT.
- 8. DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED BUT ARE OF SIMILAR CHARACTER TO DETAILS SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED, SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND THE STRUCTURAL ENGINEER.
- 9. ALL STRUCTURAL SYSTEMS WHICH ARE TO BE COMPOSED OF COMPONENTS TO BE FIELD ERECTED SHALL BE SUPERVISED BY THE SUPPLIER DURING MANUFACTURING, DELIVERY, HANDLING, STORAGE AND ERECTION IN ACCORDANCE WITH INSTRUCTIONS PREPARED BY THE SUPPLIER. MANUFACTURERS INSTALLATION INSTRUCTIONS SHALL BE AVAILABLE ON THE JOB SITE AT THE TIME OF INSPECTION FOR THE INSPECTORS USE AND REFERENCE.

GEOTECHNICAL

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

| > | ALLOWABLE SOIL PRESSURE | 2500 PSF |
|---|--|---------------|
| > | LATERAL EARTH PRESSURE (RESTRAINED/UNRESTRAINED) | 45 PCF/35 PCF |
| | TRAFFIC SURCHARGE | 70 PSF • |
| > | SEISMIC SURCHARGE | 8H . |
| > | PASSIVE PRESSURE | 300 PCF |
| > | COEFFICIENT OF FRICTION | 0.40 |
| | 3" DIAMETER STANDARD WEIGHT PIPE PILE CAPACITY | 6 TONS |
| > | | |

SOILS REPORT REFERENCE: GEOTECHNICAL ENGINEERING STUDY, PROPOSE DAY RESIDENCE REMODEL, PREPARED BY GEOTECH CONSULTANTS INC, DATED AUGUST 19 2019, FILE NUMBER JN19233

1.3" DIAMETER STANDARD WEIGHT PIPE PILES SHALL BE DRIVEN TO REFUSAL AS DEFINED BY THE SOILS ENGINEER. PIPE PILES SHALL BE INSTALLED IN STRICT CONFORMANCE TO SOILS ENGINEER'S REQUIREMENTS. TESTING OF PILES SHALL BE ACCORDANCE WITH SOILS ENGINEER'S REQUIREMENTS AND AT A MINIMUM BE TESTED IN ACCORDANCE TO ASTM STANDARD D1143-81 FOR A MINIMUM OF (1) PILE OR 3% OF 3" DIAMETER PILES UP TO (5) PILES MAXIMUM; USE OF THE QUICK LOAD TEST METHOD IN THE STANDARD IS THE MINIMUM REQUIRED. STEEL PIPE SHALL CONFORM TO ASTM 53, GRADE A OR B, Fy = 35 KSI. PILES SHALL BE DRIVEN IN NOMINAL SECTIONS AND CONNECTED WITH COMPRESSION FITTED SLEEVE COUPLERS. PIPE JOINTS SHOULD NOT BE WELDED TOGETHER. PILES SHALL BE PLACED WITHIN 3" OF SPECIFIED LOCATION. THE CONTRACTOR SHALL DETERMINE THE LOCATION OF ALL ADJACENT UNDERGROUND UTILITIES PRIOR TO DRIVING PILES. _____

CONCRETE

12. CONCRETE SHALL BE MIXED, PROPORTIONED, CONVEYED AND PLACED IN ACCORDANCE WITH ACI 318 AND ACI 301, INCLUDING TESTING PROCEDURES. CONCRETE SHALL ATTAIN A 28-DAY STRENGTH OF f'C = 3000 PSI. SLUMP OF CONCRETE SHALL NOT EXCEED 6". STRUCTURAL DESIGN IS BASED ON A CONCRETE STRENGTH OF f'c = 2500 PSI, THEREFORE NO CONCRETE STRENGTH TESTING REQUIRED. CONCRETE EXPOSURE CATEGORIES ARE F1, S0, W0, AND C1.

ALL CONCRETE WITH SURFACES EXPOSED TO STANDING WATER SHALL BE AIR-ENTRAINED WITH AN AIR-ENTRAINING AGENT CONFORMING TO ASTM C260. TOTAL AIR CONTENT FOR FROST-RESISTANT CONCRETE SHALL BE IN ACCORDANCE WITH ACI 318-14, TABLE 19.3.3.1.

- 13.REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60, fy = 60 KSI. EXCEPTIONS: ANY BARS SPECIFICALLY SO NOTED ON THE DRAWINGS SHALL BE GRADE 40, fy = 40 KSI. WELDED WIRE WIRE FABRIC SHALL CONFORM TO ASTM A1064. SPIRAL REINFORCEMENT SHALL BE DEFORMED WIRE CONFORMING TO ASTM A615, GRADE 60, fy = 60 KSI.
- 14. DETAILING OF REINFORCING STEEL (INCLUDING HOOKS AND BENDS) SHALL BE IN ACCORDANCE WITH ACI 315-99 AND 318-14. LAP ALL CONTINUOUS REINFORCEMENT #6 AND SMALLER 48 BAR DIAMETERS OR 2'-0" MINIMUM. PROVIDE CORNER BARS AT ALL WALL AND FOOTING INTERSECTIONS. LAP CORNER BARS #5 AND SMALLER 48 BAR DIAMETERS OR 2'-0" MINIMUM. LAPS OF LARGER BARS SHALL BE MADE IN ACCORDANCE WITH ACI 318-14, CLASS B. LAP ADJACENT MATS OF WELDED WIRE FABRIC A MINIMUM OF 8" AT SIDES AND ENDS.

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

- 15. CONCRETE PROTECTION (COVER) FOR REINFORCING STEEL SHALL BE AS FOLLOWS:
- FOOTINGS AND OTHER UNFORMED SURFACES CAST AGAINST AND PERMANENTLY EXPOSED to earth FORMED SURFACES EXPOSED TO EARTH OR W
- FORMED SURFACES EXPOSED TO EARTH OR W COLUMN TIES OR SPIRALS AND BEAM STIRRUPS SLABS AND WALLS (INT FACE)

ANCHORAGE

- INSPECTION OF INSTALLATION IS REQUIRED. RODS SHALL BE ASTM A36, UNO.
- CAPACITIES. SPECIAL INSPECTION OF INSTALLATION IS REQUIRED.
- GROUTED CELLS. SPECIAL INSPECTION OF INSTALLATION IS REQUIRED.
- TO NEAREST CONCRETE EDGE.

WOOD

TO THE FOLLOWING MINIMUM STANDARDS:

| | JOISTS AND BEAMS | (2x AND 3x MEMBE |
|-----|---------------------|------------------|
| | | (4x MEMBERS) |
| Λ | BEAMS | (6x AND LARGER) |
| /1\ | POSTS | (4x MEMBERS) |
| | | (6x AND LARGER) |

STUDS, PLATES AND MISC FRAMING

- Fc = 2300 PSI, Fb = 2000 PSI, E = 1900 KSI.
- 22. MANUFACTURED LUMBER, PSL, LVL, AND LSL, SHALL BE MANUFACTURED UNDER A PROCESS MINIMUM PROPERTIES:

| PSL (2.0E) | Fb = 2900 PSI |
|-------------------|---------------|
| LVL (2.0E) | Fb = 2600 PSI |
| LSL (1.55E) | Fb = 2325 PSI |
| PSL COLUMN (1.8E) | Fc = 2500 PSI |

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

MANUFACTURED LUMBER PRODUCTS SHALL BE INSTALLED WITH A MOISTURE CONTENT OF 12% OR LESS. THE CONTRACTOR SHALL MAKE PROVISIONS DURING CONSTRUCTION TO PREVENT THE MOISTURE CONTENT OF INSTALLED BEAMS FROM EXCEEDING 12%. EXCESSIVE DEFLECTIONS MAY OCCUR IF MOISTURE CONTENT EXCEEDS THIS VALUE.

23. PREFABRICATED PLYWOOD WEB JOIST DESIGN SHOWN ON PLANS IS BASED ON JOISTS MANUFACTURED BY THE TRUS-JOIST CORPORATION. ALTERNATE PLYWOOD WEB JOIST PLYWOOD WEB JOIST PROVIDED.

| /EATHER (#6 BARS OR LARGER) | 2 |
|------------------------------|-------------|
| /EATHER (#5 BARS OR SMALLER) | 1-1/2 |
| S | 1-1/2 |
| GREATER OF BAR DIAMETER PLUS | 1/8" OR 3/4 |

16. EPOXY-GROUTED ITEMS (THREADED RODS OR REINFORCING BAR) SPECIFIED ON THE DRAWINGS SHALL BE INSTALLED USING "SET-XP" EPOXY ADHESIVE AS MANUFACTURED BY THE SIMPSON STRONG TIE COMPANY. INSTALL IN STRICT ACCORDANCE WITH ICC-ES REPORT ESR-2508 AND IAMPO-UES REPORT ER-265. SUBSTITUTIONS PROPOSED BY THE CONTRACTOR SHALL BE SUBMITTED FOR REVIEW WITH CURRENT ICC REPORTS INDICATING EQUIVALENT OR GREATER LOAD CAPACITIES. SPECIAL

17. HEAVY DUTY THREADED CONCRETE ANCHORS SPECIFIED ON THE DRAWINGS SHALL BE "TITEN HD SCREW ANCHOR" AS MANUFACTURED BY THE SIMPSON STRONG TIE COMPANY. INSTALL IN STRICT ACCORDANCE WITH ICC-ES REPORT ESR-2713 AND ESR-1056, INCLUDING MINIMUM EMBEDMENT AND EDGE DISTANCE REQUIREMENTS. SUBSTITUTIONS PROPOSED BY THE CONTRACTOR SHALL BE SUBMITTED FOR REVIEW WITH CURRENT ICC REPORTS INDICATING EQUIVALENT OR GREATER LOAD

18. EXPANSION BOLTS INTO CONCRETE AND CONCRETE MASONRY UNITS SHALL BE "STRONG-BOLT 2" ANCHORS AS MANUFACTURED BY THE SIMPSON STRONG TIE COMPANY. INSTALL IN STRICT CONFORMANCE TO ICC-ES REPORT ESR-3037 AND IAPMO-UES REPORT ER-240, INCLUDING MINIMUM EMBEDMENT AND EDGE DISTANCE REQUIREMENTS. SUBSTITUTIONS PROPOSED BY THE CONTRACTOR SHALL BE SUBMITTED FOR REVIEW WITH CURRENT ICC REPORTS INDICATING EQUIVALENT OR GREATER LOAD CAPACITIES. BOLTS INTO CONCRETE MASONRY OR BRICK MASONRY UNITS SHALL BE INTO FULLY

19. DRIVE PINS AND OTHER POWDER-ACTUATED FASTENERS SHALL BE LOW VELOCITY TYPE (PDPWL-300MG, 0.145" DIAMETER, UNO) AS MANUFACTURED BY THE SIMPSON STRONG TIE COMPANY OR AN APPROVED EQUIVALENT IN STRENGTH AND EMBEDMENT. INSTALL IN STRICT ACCORDANCE WITH ICC-ES REPORT ESR-2138. MINIMUM EMBEDMENT IN CONCRETE SHALL BE 1", UNO. MAINTAIN AT LEAST 3"

20.ALL 2x LUMBER SHALL BE KILN DRIED OR MC-19, AND ALL LUMBER SHALL BE GRADED AND MARKED IN CONFORMANCE WITH WCLIB STANDARD GRADING RULES FOR WEST COAST LUMBER NO 17. FURNISH

> DOUGLAS FIR - LARCH NO 2 ERS) MINIMUM BASE VALUE, Fb = 900 PSI

> > DOUGLAS FIR-LARCH NO 2 MINIMUM BASE VALUE, Fb = 900 PSI

DOUGLAS FIR-LARCH NO 2

MINIMUM BASE VALUE, Fb = 875 PSI DOUGLAS FIR-LARCH NO 2

MINIMUM BASE VALUE, FC = 1350 PSI

DOUGLAS FIR-LARCH NO 2 MINIMUM BASE VALUE, Fc = 600 PSI

DOUGLAS FIR - LARCH NO 2

21. GLUED LAMINATED MEMBERS SHALL BE FABRICATED IN CONFORMANCE WITH ASTM AND ANSI/AITC STANDARDS. EACH MEMBER SHALL BEAR AN AITC OR APA-EWS IDENTIFICATION MARK AND SHALL BE ACCOMPANIED BY AN AITC OR APA-EWS CERTIFICATE OF CONFORMANCE. ALL SIMPLE SPAN GLULAM BEAMS SHALL BE DOUGLAS FIR COMBINATION 24F-V4, Fb = 2400 PSI, Fv = 265 PSI, E = 1800 KSI, UNO. ALL CANTILEVER GLULAM BEAMS SHALL BE DOUGLAS FIR COMBINATION 24F-V8, Fb = 2400 PSI, Fv = 265 PSI, E = 1800 KSI, UNO. GLUED LAMINATED COLUMNS SHALL BE DOUGLAS FIR COMBINATION 3, L2D GRADE,

APPROVED BY THE NATIONAL RESEARCH BOARD. EACH PIECE SHALL BEAR A STAMP OR STAMPS NOTING THE NAME AND PLANT NUMBER OF THE MANUFACTURER, THE GRADE, THE NATIONAL RESEARCH BOARD NUMBER, AND THE QUALITY CONTROL AGENCY. ALL PSL, LVL, AND LSL LUMBER SHALL BE MANUFACTURED IN ACCORDANCE WITH ICC-ES REPORT ESR-1387 USING DOUGLAS FIR VENEER GLUED WITH A WATERPROOF ADHESIVE MEETING THE REQUIREMENTS OF ASTM D2559 WITH ALL GRAIN PARALLEL WITH THE LENGTH OF THE MEMBER. THE MEMBERS SHALL HAVE THE FOLLOWING

| E = 2000 KSI | Fv = 290 PSI |
|--------------|--------------|
| E = 2000 KSI | Fv = 285 PSI |
| E = 1550 KSI | Fv = 310 PSI |
| E = 1800 KSI | Fv = 190 PSI |

MANUFACTURERS MAY BE USED SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND STRUCTURAL ENGINEER. ALTERNATE JOIST HANGERS AND OTHER HARDWARE MAY BE SUBSTITUTED FOR ITEMS SHOWN PROVIDED THEY HAVE CURRENT ICC APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. ALL JOIST HANGERS AND OTHER HARDWARE SHALL BE COMPATIBLE IN SIZE WITH

- 24.PLYWOOD SHEATHING SHALL BE GRADE C-D, EXTERIOR GLUE OR STRUCTURAL II, EXTERIOR GLUE IN CONFORMANCE WITH DOC PS-1 OR PS-2.
- WALL SHEATHING SHALL BE 7/16" or 1/2" (NOMINAL) WITH SPAN RATING 24/0
- FLOOR SHEATHING SHALL BE 3/4" T&G (NOMINAL) WITH SPAN RATING 48/24
- WATERPROOF DECK SHEATHING SHALL BE 3/4" T&G (NOMINAL) WITH SPAN RATING 48/24
- FLAT ROOF SHEATHING SHALL BE 3/4" T&G (NOMINAL) WITH SPAN RATING 48/24
- ROOF SHEATHING SHALL BE 1/2" or 7/16" (NOMINAL) WITH SPAN RATING 32/16 FOR ROOFS WITH A PITCH GREATER THAN 2:12
- REFER TO WOOD FRAMING NOTES BELOW FOR TYPICAL NAILING REQUIREMENTS.
- 25.ALL WOOD IN DIRECT CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE-TREATED WITH AN APPROVED PRESERVATIVE OR (2) LAYERS OF ASPHALT IMPREGNATED BUILDING PAPER SHALL BE PROVIDED BETWEEN UNTREATED WOOD AND CONCRETE OR MASONRY.
- 26.PRESSURE TREATED WOOD (INCLUDES PRESERVATIVE AND FIRE TREATED) SHALL BE TREATED PER AWPA STANDARDS. PRESSURE TREATED WOOD FOR ABOVE GROUND USE SHALL BE TREATED TO RETENTION OF 0.25 PCF. WOOD IN CONTINUOUS CONTACT WITH FRESH WATER OR SOIL SHALL BE TREATED TO A RETENTION OF 0.40 PCF. SODIUM BORATE (SBX) TREATED WOOD SHALL NOT BE USED WHERE EXPOSED TO WEATHER. FASTENERS AND TIMBER CONNECTORS WITHOUT AMMONIA IN DIRECT CONTACT WITH ACQ-A TO A RETENTION LEVEL OF 0.40 PCF), CBA-A (UP TO A RETENTION LEVEL OF 0.41 PCF), CA-B (UP TO A RETENTION LEVEL OF 0.21 PCF), SHALL BE G185 OR A185 HOT DIPPED OR CONTINUOUS HOT-GALVANIZED PER ASTM A653. FASTENERS AND TIMBER CONNECTORS WITH AMMONIA IN DIRECT CONTACT WITH ACQ-A (OVER A RETENTION LEVEL OF 0.40 PCF), CBA-A (OVER A RETENTION LEVEL OF 0.41 PCF), CA-B (OVER A RETENTION LEVEL OF 0.21 PCF), OR WITH ACZA TREATED WOOD SHALL BE TYPE 304 OR 316 STAINLESS STEEL.
- 27.TIMBER CONNECTORS CALLED OUT BY LETTERS AND NUMBERS SHALL BE "STRONG-TIE" BY SIMPSON COMPANY, AS SPECIFIED IN THEIR CATALOG NUMBER C-C-2019. EQUIVALENT DEVICES BY OTHER MANUFACTURERS MAY BE SUBSTITUTED, PROVIDED THEY HAVE CURRENT ICC APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. PROVIDE NUMBER AND SIZE OF FASTENERS AS SPECIFIED BY MANUFACTURER. CONNECTORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

ALL 2x JOISTS SHALL BE CONNECTED TO FLUSH BEAMS WITH "LUS" SERIES JOIST HANGERS. ALL TJI JOISTS SHALL BE CONNECTED TO FLUSH BEAMS WITH "IUS" SERIES JOIST HANGERS. ALL DOUBLE-JOISTS BEAMS SHALL BE CONNECTED TO FLUSH BEAMS WITH "MIU" SERIES JOIST HANGERS

WHERE CONNECTOR STRAPS CONNECT (2) MEMBERS, PLACE ONE-HALF OF THE NAILS OR BOLTS IN EACH MEMBER.

ALL SHIMS SHALL BE SEASONED AND DRIED AND THE SAME GRADE (MINIMUM) AS MEMBERS CONNECTED.

28.WOOD FASTENERS

A. NAIL SIZES SPECIFIED ON DRAWINGS ARE BASED ON THE FOLLOWING SPECIFICATIONS:

| SIZE | TYPE | LENGTH | DIAMETER |
|------|--------|--------|----------|
| 8d | COMMON | 2-1/2" | 0.131" |
| 10d | GUN | 3" | 0.131" |
| 12d | GUN | 3-1/4" | 0.131" |
| 16d | GUN | 3-1/2" | 0.131" |
| | | | |

IF CONTRACTOR PROPOSES THE USE OF ALTERNATE NAILS, THEY SHALL SUBMIT NAIL SPECIFICATIONS TO THE STRUCTURAL ENGINEER (PRIOR TO CONSTRUCTION) FOR REVIEW AND APPROVAL.

NAILS - PLYWOOD (APA RATED SHEATHING) FASTENERS TO FRAMING SHALL BE DRIVEN FLUSH TO FACE OF SHEATHING WITH NO COUNTERSINKING PERMITTED.

- B. ALL BOLTS IN WOOD MEMBERS SHALL CONFORM TO ASTM A307. PROVIDE WASHERS UNDER THE HEADS AND NUTS OF ALL BOLTS AND LAG BOLTS BEARING ON WOOD. INSTALLATION OF LAG SCREWS SHALL CONFORM TO THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION (2018 EDITION) WITH A LEAD BORE HOLE OF 60-70% OF THE SHANK DIAMETER. LEAD HOLES ARE NOT REQUIRED FOR 3/8" AND SMALLER LAG SCREWS. BOLT HOLES SHALL BE A MINIMUM OF 1/32" TO A MAXIMUM OF 1/16" LARGER THAN THE BOLT DIAMETER. HOLES SHALL BE ACCURATELY ALIGNED IN MAIN MEMBERS AND SIDE PLATES/MEMBERS. BOLTS SHALL NOT BE FORCIBLY DRIVEN.
- C. SDS AND SDWS SCREWS CALLED OUT ON PLAN ARE TIMBER SCREWS MANUFACTURED BY SIMPSON STRONG-TIE COMPANY. SCREWS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS. EQUIVALENT SCREWS BY OTHER MANUFACTURERS MAY BE SUBSTITUTED, PROVIDED THEY HAVE CURRENT ICC APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. LAG SCREWS ARE NOT AN EQUIVALENT SUBSTITUTION.

29. WOOD FRAMING NOTES - THE FOLLOWING APPLY UNLESS NOTED OTHERWISE ON THE PLANS:

- A. ALL WOOD FRAMING DETAILS NOT SHOWN OTHERWISE SHALL BE CONSTRUCTED TO THE MINIMUM STANDARDS OF THE IBC, THE AITC "TIMBER CONSTRUCTION MANUAL", AND THE AF&PA "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION". MINIMUM NAILING, SHALL CONFORM TO TABLE 2304.10.1. OF THE IBC, UNO. COORDINATE THE SIZE AND LOCATION OF ALL OPENINGS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.
- B. WALL FRAMING: REFER TO ARCHITECTURAL DRAWINGS FOR THE SIZE OF ALL WALLS. ALL STUDS SHALL BE SPACED AT 16"oc, UNO. (2)STUDS MINIMUM SHALL BE PROVIDED AT THE END OF ALL WALLS AND AT EACH SIDE OF ALL OPENINGS, AND AT BEAM OR HEADER BEARING LOCATIONS. (2)2x8 HEADERS SHALL BE PROVIDED OVER ALL OPENINGS IN STRUCTURAL WALLS, UNO. NAIL MULTI-MEMBER HEADERS WITH (2) ROWS 10d AT 12" oc. SOLID BLOCKING FOR WOOD COLUMNS SHALL BE PROVIDED THROUGH FLOORS TO SUPPORTS BELOW. PROVIDE CONTINUOUS SOLID BLOCKING AT MID-HEIGHT OF ALL STUD WALLS OVER 10'-0" IN HEIGHT.

ALL WALLS SHALL HAVE A SINGLE BOTTOM PLATE AND A DOUBLE TOP PLATE. END NAIL TOP PLATE AND BOTTOM PLATE TO EACH STUD WITH (3)10d NAILS. FACE NAIL DOUBLE TOP PLATES WITH 10d AT 12" oc AND LAP MINIMUM 4'-0" AT JOINTS AND PROVIDE (12)10d NAILS AT 4" oc EACH SIDE OF JOINT. AT TOP PLATE INTERSECTIONS PROVIDE (3)10d FACE NAILS.

ALL STUD WALLS SHALL HAVE THEIR LOWER WOOD PLATES ATTACHED TO WOOD FRAMING BELOW WITH (2) ROWS OF 12d NAILS AT 16" OC, OR ATTACHED TO CONCRETE BELOW WITH 5/8" DIAMETER ANCHOR BOLTS AT 4'-0"oc EMBEDDED 7" MINIMUM, UNO. THERE SHALL BE A MINIMUM OF (2)BOLTS PER PLATE SECTION WITH (1)BOLT LOCATED NOT MORE THAN 12" OR LESS THAN 4-1/2" FROM EACH END OF THE PLATE SECTION. INDIVIDUAL MEMBERS OF BUILT-UP POSTS SHALL BE NAILED TO EACH OTHER WITH (2) ROWS OF 10d AT 16" oc. UNLESS NOTED OTHERWISE, GYPSUM WALLBOARD SHALL BE FASTENED TO THE INTERIOR SURFACE OF ALL STUDS AND PLATES WITH #6 x 1-1/4" TYPE S OR W SCREWS AT 12"oc. UNLESS NOTED OTHERWISE, 7/16" OR 1/2" (NOMINAL) APA RATED SHEATHING (SPAN RATING 24/0) SHALL BE NAILED TO ALL EXTERIOR SURFACES WITH 8d NAILS AT 6"oc AT PANEL EDGES AND TOP AND BOTTOM PLATES (BLOCK UN-SUPPORTED EDGES) AND TO ALL INTERMEDIATE STUDS AND BLOCKING WITH 8d NAILS AT 12"oc. ALLOW 1/8" SPACING AT ALL PANEL EDGES AND PANEL ENDS.

C. FLOOR AND ROOF FRAMING: PROVIDE DOUBLE JOISTS UNDER ALL PARALLEL PARTITIONS THAT EXTEND OVER MORE THAN HALF THE JOIST LENGTH AND AROUND ALL OPENINGS IN FLOORS OR ROOFS, UNO. PROVIDE SOLID BLOCKING AT ALL BEARING POINTS. TOENAIL TIMBER JOISTS TO SUPPORTS WITH (3)10d NAILS AND NAIL TJI JOISTS TO SUPPORTS WITH (2)10d NAILS. ATTACH JOISTS TO BEAMS WITH SIMPSON JOIST HANGERS IN ACCORDANCE WITH NOTES ABOVE. NAIL ALL MULTI-JOIST BEAMS TOGETHER WITH (2) ROWS 10d AT 12"oc. TOENAIL RIM JOIST TO TOP PLATE WITH 10d AT 6"oc. TOENAIL BLOCKING BETWEEN JOISTS TO TOP PLATE WITH (3) 10d NAILS.

UNLESS NOTED OTHERWISE ON THE PLANS, PLYWOOD ROOF AND FLOOR SHEATHING SHALL BE LAID UP WITH GRAIN PERPENDICULAR TO SUPPORTS WITH END JOINTS STAGGERED, AND NAILED AT 6"oc WITH 8d NAILS TO FRAMED PANEL EDGES, STRUTS AND OVER STUD WALLS AS SHOWN ON PLANS AND AT 12" OC TO INTERMEDIATE SUPPORTS. PROVIDE APPROVED PLYWOOD EDGE CLIPS CENTERED BETWEEN JOISTS/TRUSSES AT UNBLOCKED ROOF SHEATHING EDGES. ALL FLOOR SHEATHING EDGES SHALL HAVE APPROVED T&G JOINTS OR SHALL BE SUPPORTED WITH SOLID BLOCKING. ALLOW 1/8" SPACING AT ALL PANEL EDGES AND ENDS OF FLOOR AND ROOF SHEATHING. TOENAIL BLOCKING TO SUPPORTS WITH 10d AT 12"oc, UNO.

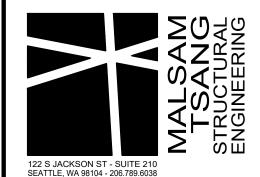
30.NOTCHES AND HOLES IN WOOD FRAMING:

- A. SAWN LUMBER JOISTS AND RAFTERS: NOTCHES AT THE ENDS OF JOISTS SHALL NOT EXCEED 1/4 THE JOIST DEPTH. NOTCHES IN THE TOP OR BOTTOM OF JOISTS SHALL NOT EXCEED 1/6 THE JOIST DEPTH. BE LONGER THAN 1/3 THE JOIST DEPTH, OR BE LOCATED IN THE MIDDLE 1/3 OF THE SPAN. HOLES SHALL NOT BE WITHIN 2" OF THE TOP OR BOTTOM OF THE JOIST AND THE DIAMETER SHALL NOT EXCEED 1/3 THE JOIST DEPTH. SPACING BETWEEN HOLES SHALL BE A MINIMUM OF (2) TIMES THE DIAMETER OF THE LARGEST HOLE OR 2" AND SHALL BE LOCATED A MINIMUM OF 2" FROM ANY NOTCH.
- B. EXTERIOR AND BEARING WALLS: WOOD STUDS ARE PERMITTED TO BE NOTCHED TO A DEPTH NOT EXCEEDING 1/4 OF ITS WIDTH. A HOLE NOT GREATER IN DIAMETER THAN 40% OF THE STUD WIDTH IS PERMITTED IN WOOD STUDS. HOLES SHALL NOT BE WITHIN 5/8" TO THE EDGE OF THE STUD. SPACING BETWEEN HOLES SHALL BE A MINIMUM OF (2) TIMES THE DIAMETER OF THE LARGEST HOLE OR 2" AND SHALL NOT BE LOCATED AT THE SAME SECTION AS A NOTCH.
- C. CUTS, NOTCHES, AND HOLES IN MANUFACTURED LUMBER, PREFABRICATED PLYWOOD WEB JOISTS, AND PREFABRICATED TRUSSES ARE PROHIBITED EXCEPT WHERE NOTED ON STRUCTURAL PLANS OR PERMITTED BY MANUFACTURER'S RECOMMENDATIONS.
- 31. ELECTRICAL, MECHANICAL, PLUMBING, AND DRAINAGE SYSTEMS SHALL BE DESIGNED TO ACCOMMODATE THE DIFFERENTIAL SHRINKAGE OR MOVEMENT OF THE WOOD STRUCTURE (3/8" PER FLOOR).
- 32. DEFLECTION OF CANTILEVERS SHALL BE CLOSELY MONITORED BY THE CONTRACTOR DURING CONSTRUCTION. CONTRACTOR TO VERIFY AND ENSURE ALL POST CAPS AND POST BEARING CONDITIONS ARE INSTALLED IN STRICT CONFORMANCE TO THE STRUCTURAL PLANS. CANTILEVERS IN WOOD FRAMING CAN DEFLECT UP TO 1/8" PER FOOT (I.E. 4' CANTILEVER MAY DEFLECT 1/2"). IF DEFLECTION EXCEEDS 1/8" PER FOOT NOTIFY STRUCTURAL ENGINEER IMMEDIATELY. BEFORE FINISHES ARE INSTALLED, FLOORS AT OR ABOVE CANTILEVERS MAY REQUIRE LEVELING COMPOUND AND SOFFITS FURRED TO MAKE THEM LEVEL.

RENOVATION

- 33. CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS, MEMBER SIZES, AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS ARE INTENDED AS GUIDELINES ONLY AND MUST BE VERIFIED.
- 34. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS BEFORE COMMENCING CONSTRUCTION AND/OR DEMOLITION. SHORING SHALL BE INSTALLED TO SUPPORT EXISTING CONSTRUCTION AS REQUIRED AND IN A MANNER SUITABLE TO THE WORK SEQUENCES. DEMOLITION DEBRIS SHALL NOT BE ALLOWED TO DAMAGE OR OVERLOAD THE EXISTING STRUCTURE. LIMIT CONSTRUCTION LOADING (INCLUDING DEMOLITION DEBRIS) ON EXISTING FLOOR SYSTEMS TO 20 PSF.
- 35. CONTRACTOR SHALL CHECK FOR DRYROT AT ALL AREAS OF NEW WORK. ALL ROT SHALL BE REMOVED AND DAMAGED MEMBERS SHALL BE REPLACED OR REPAIRED AS DIRECTED BY THE STRUCTURAL ENGINEER OR ARCHITECT.
- 36.EXISTING REINFORCING SHALL BE SAVED WHERE AND AS NOTED ON THE PLANS. SAW CUTTING, IF AND WHERE USED, SHALL NOT CUT EXISTING REINFORCING THAT IS TO BE SAVED.
 - A. ALL NEW OPENINGS THROUGH EXISTING WALLS, SLABS AND BEAMS SHALL BE ACCOMPLISHED BY SAW CUTTING WHEREVER POSSIBLE.
 - B. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND LOCATION OF MEMBERS PRIOR TO CUTTING ANY OPENINGS.
 - C. SMALL ROUND OPENINGS SHALL BE ACCOMPLISHED BY CORE DRILLING, IF POSSIBLE.
 - D. WHERE NEW REINFORCING TERMINATES AT EXISTING CONCRETE, DOWELS EPOXY GROUTED INTO EXISTING CONCRETE SHALL BE PROVIDED TO MATCH HORIZONTAL REINFORCING, UNO.
- 37.ALL EXTERIOR MASONRY WALLS SHALL BE INSPECTED AND REPAIRED AS FOLLOWS: SCRAPE ALL LOOSE AND WEAKENED MORTAR OUT TO FULL DEPTH OF THE DETERIORATION; REMOVE AND REPLACE ANY LOOSE MASONRY UNITS; CHECK FOR LOOSE FACING BRICK VENEERS; TUCK POINT ALL JOINTS SOLID. ALL MASONRY RESTORATION AND REPAIR SHALL BE PERFORMED IN SUCH A MANNER THAT THE EXISTING STRUCTURE IS NOT WEAKENED OR LEFT UNSUPPORTED DURING THE PROCESS OF THE WORK. ALL EXTERIOR APPENDAGES SUCH AS FIRE ESCAPES, CORNICES AND EYEBROWS SHALL BE INSPECTED FOR STRUCTURAL INTEGRITY AND THE CONDITION OF THE CONNECTIONS TO THE STRUCTURE. THE CONTRACTOR SHALL PROVIDE THE STRUCTURAL ENGINEER WITH THE RESULTS OF THE INSPECTION.
- 38. WHERE NEW EXCAVATIONS EXTEND BELOW AND UNDERMINE EXISTING FOOTINGS THE CONTRACTOR SHALL TAKE APPROPRIATE MEASURES TO PROVIDE TEMPORARY SUPPORT TO THE STRUCTURE AND EXISTING FOUNDATION AS REQUIRED. THE CONTRACTOR IS RESPONSIBLE TO INSTALL ALL TEMPORARY SUPPORT AS REQUIRED UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH THE PLANS.
- 39. DEMOLITION AND REMOVAL OF THE EXISTING SLAB ON GRADE OR EXISTING FLOOR FRAMING WILL RESULT IN AN UNBRACED CONDITION AT THE EXISTING FOUNDATION WALLS. EXCAVATIONS MAY ALSO EXTEND BELOW AND UNDERMINE THE EXISTING FOOTINGS. THE CONTRACTOR SHALL TAKE APPROPRIATE MEASURES TO PROVIDE TEMPORARY SUPPORT TO THE STRUCTURE AND EXISTING FOUNDATION AS REQUIRED. THE CONTRACTOR IS RESPONSIBLE TO INSTALL ALL TEMPORARY SUPPORT AS REQUIRED UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH THE plans.





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PROJECT NO 0139.2021.02.01 PROJECT MANAGER DDF DRAWN ENGINEER DYLAN STEELE 206.712.6310 DYLANS@MALSAM-TSANG.COM

| REV | DESCRIPTION | DATE |
|-----------|------------------|---------|
| | PERMIT SET | 9.27.21 |
| Λ | PLAN REVISIONS 1 | 3.10.22 |
| | | |

| ARCH | CONARD ROMANO ARCH |
|--------|------------------------|
| | 206.329.4227 |
| CLIENT | RICHARD AND LESLIE DAY |
| | |

GENERAL STRUCTURAL NOTES



Plotted by: jonathond Plotted Date: Mar 09, 2022 - 9:37an

GENERAL STRUCTURAL NOTES CONT.

THE FOLLOWING APPLY UNLESS SHOWN OTHERWISE ON THE DRAWINGS

QUALITY ASSURANCE

40.SPECIAL INSPECTION SHALL BE PROVIDED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND SECTIONS 110, 1704 AND 1705 OF THE IBC BY A QUALIFIED TESTING AGENCY DESIGNATED BY THE ARCHITECT, AND RETAINED BY THE BUILDING OWNER. THE ARCHITECT, STRUCTURAL ENGINEER, AND BUILDING DEPARTMENT SHALL BE FURNISHED WITH COPIES OF ALL INSPECTION AND TEST RESULTS. SPECIAL INSPECTION OF THE FOLLOWING TYPES OF CONSTRUCTION SHALL BE PERFORMED.

SOIL CONDITIONS, FILL PLACEMENT, AND DENSITY PILE OR PIER FOUNDATIONS CONCRETE CONSTRUCTION PRECAST CONCRETE ERECTION POST-TENSION CONSTRUCTION STUD RAIL INSTALLATION EPOXY GROUTED INSTALLATIONS EXPANSION BOLTS AND THREADED EXPANSION INSERTS ADHERED MASONRY VENEER MASONRY VENEER MASONRY CONSTRUCTION STRUCTURAL STEEL FABRICATION AND ERECTION

METAL DECK INSTALLATION (INCLUDING FIELD WELDING)

OPEN WEB STEEL JOISTS AND GIRDERS

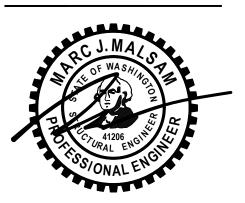
PER SOILS REPORT PER SOILS REPORT PER TABLE 1705.3 PER TABLE 1705.3 PER TABLE 1705.3 PER MANUFACTURER PER MANUFACTURER PER MANUFACTURER PER TMS 402/ACI 530/ASCE 5 AND TMS 602/ACI530.1/ASCE 6 PER AISC 360 PER SDI QA/QC PER TABLE 1705.2.3



DAY RESIDENCE 9843 MERCERWOOD DRIVE MERCER ISLAND, WA 98117

ABBREVIATIONS

| ADDKLV | IATIONS | | | | |
|--------|---------------|-------|-------------------|--------|-------------------|
| ± | PLUS OR MINUS | GL | GLUE LAMINATED | OSB | ORIENTED STRAND |
| Ø | DIAMETER | | TIMBER | | BOARD |
| AB | ANCHOR BOLT | GR | GRADE | PLF | POUNDS PER LINEAR |
| ADDL | ADDITIONAL | GT | GIRDER TRUSS | | FOOT |
| ALT | ALTERNATE | GWB | GYPSUM WALLBOARD | PLY | PLYWOOD |
| APPROX | APPROXIMATE | HD | HOLDOWN | PREFAB | PREFABRICATED |
| ARCH | ARCHITECT, | HDR | HEADER | PSF | Pounds per |
| | ARCHITECTURAL | HF | HEM FIR | | SQUARE FOOT |
| BLKG | BLOCKING | HGR | HANGER | PSI | Pounds per |
| BM | BEAM | НM | HIP MASTER | | SQUARE INCH |
| BOE | BOTTOM OF | HORIZ | HORIZONTAL | PSL | PARALLEL STRAND |
| | EXCAVATION | HT | HEIGHT | | LUMBER |
| BOT | BOTTOM | IBC | INTERNATIONAL | PT | PRESSURE TREATED |
| Ģ | CENTERLINE | | BUILDING CODE | | LUMBER |
| CLR | CLEARANCE | INT | INTERIOR | REINF | REINFORCING |
| CONT | CONTINUOUS | IRC | INTERNATIONAL | reqd | REQUIRED |
| DBL | DOUBLE | | RESIDENTIAL CODE | SOG | slab on grade |
| DF | DOUGLAS FIR | JST | JOIST | SQ | SQUARE |
| DP | DEEP, DEPTH | K | KIPS (1000 LBS) | STD | STANDARD |
| DN | DOWN | KP | KING POST | SW | SHEARWALL |
| DS | DRAG STRUT | L | LENGTH | T&G | TONGUE AND GROOVE |
| DWGS | DRAWINGS | LBS | POUNDS | THRD | THREADED |
| (E) | EXISTING | LONG | LONGITUDINAL | TPL | TRIPLE |
| EA | EACH | LSL | LAMINATED | transv | TRANSVERSE |
| EMBED | EMBEDMENT | | STRUCTURAL LUMBER | TYP | TYPICAL |
| EQ | EQUAL | LVL | LAMINATED VENEER | UNO | UNLESS NOTED |
| EQUIV | EQUIVALENT | | LUMBER | | OTHERWISE |
| EW | EACH WAY | MAX | MAXIMUM | VERT | VERTICAL |
| EXP | EXPANSION | MB | MACHINE BOLT | W | WIDE OR WIDTH |
| EXT | EXTERIOR | MFR | MANUFACTURER | w/ | WITH |
| FDN | FOUNDATION | MIN | MINIMUM | w/o | WITHOUT |
| FRMG | FRAMING | MISC | MISCELLANEOUS | WHS | WELDED HEADED |
| FT | FEET | NO | NUMBER | | STUD |
| FTG | FOOTING | NTS | NOT TO SCALE | WTS | WELDED THREADED |
| GA | GAUGE | | ON CENTER | | |
| GALV | GALVANIZED | OPP | OPPOSITE | WWM | WELDED WIRE MESH |



PROJECT NO0139.2021.02.01PROJECT MANAGERIHLDRAWNDDEENGINEERDYLAN STEELE206.712.6310DYLANS@MALSAM-TSANG.COMREVDESCRIPTIONDATEPERMIT SET9.27.21

PLAN REVISIONS 1

3.10.22

| CLIENT | RICHARD AND LESLIE DAY |
|--------|------------------------|
| | 206.329.4227 |
| ARCH | CONARD ROMANO ARCH |
| | |
| | |

GENERAL STRUCTURAL NOTES CONT



PIPE PILE NOTES

- 1. REFER TO GENERAL STRUCTURAL NOTES SHEET \$1.0 FOR ADDITIONAL REQUIREMENTS.
- 2. REFER TO SOILS REPORT FOR ADDITIONAL PILE INSTALLATION REQUIREMENTS.
- 3. CONTRACTOR TO VERIFY ALL ELEVATIONS AND DIMENSIONS WITH ARCHITECTURAL DRAWINGS, SURVEY DRAWINGS, AND EXISTING SITE CONDITIONS.
- 4. DO NOT SCALE DRAWINGS. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS.

PILE SPECIFICATIONS

- 1. 3" DIAMETER STANDARD WEIGHT PIPE PILES SHALL BE DRIVEN TO REFUSAL WITH A MINIMUM 850-LB HYDRAULIC HAMMER AS DEFINED BY THE SOILS ENGINEER. THE DRIVING CRITERIA WILL BE DETERMINED BASED ON THE ACTUAL HAMMER SIZE SELECTED BY THE CONTRACTOR AND THE STATIC LOAD TEST PROGRAM.
- 2. GEOTECHNICAL SPECIAL INSPECTOR SHALL BE CONTINUOUSLY PRESENT DURING PIPE PILE INSTALLATION AND TESTING.
- 3. STEEL PIPE SHALL CONFORM TO ASTM A53, GRADE A OR B, Fy = 35 KSI. PILES SHALL BE DRIVEN IN NOMINAL SECTIONS AND CONNECTED WITH COMPRESSION FITTED SLEEVE COUPLERS. PIPE JOINTS ARE NOT ALLOWED TO BE WELDED TOGETHER.
- 4. PIPE PILES NEED TO BE PLACED WITHIN 3" OF SPECIFIED LOCATION. THE CONTRACTOR SHALL DETERMINE THE LOCATION OF ALL ADJACENT UNDERGROUND UTILITIES PRIOR TO DRIVING PILES.

LEGEND

| | CONCRETE FOOTING ABOVE |
|---|--------------------------|
| | CONCRETE WALL BELOW |
| | (E)CONCRETE WALL BELOW |
|] | STRUCTURAL WALL ABOVE |
| j | (E)STRUCTURAL WALL ABOVE |
| | STEP PER ARCH |

- PLUMBING PENETRATION ABOVE
- 3"Ø STANDARD WEIGHT PIPE PILE (6-TON CAPACITY) REFER TO 1/S3.1 FOR EMBEDMENT INTO FOOTING 0

(>

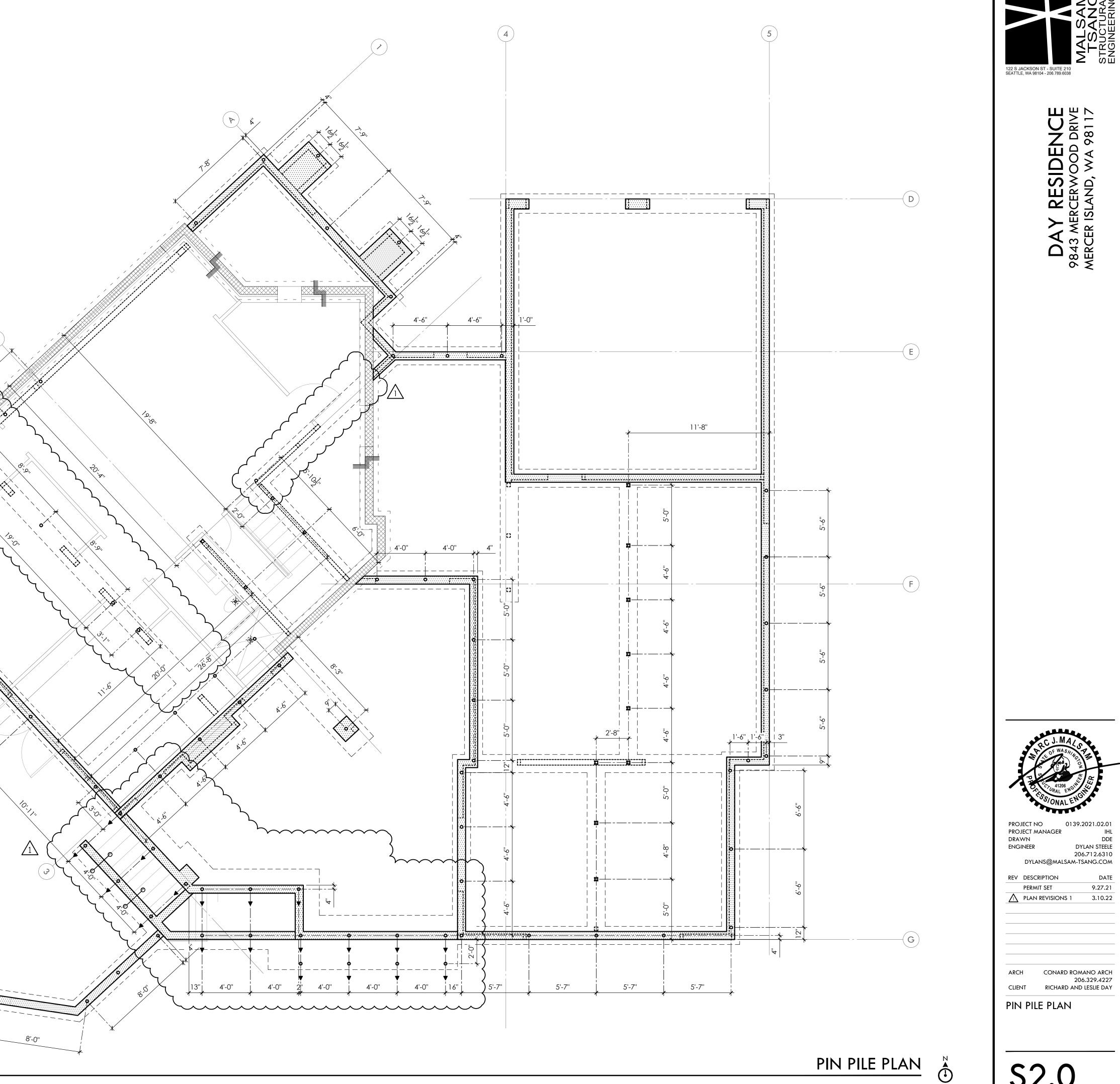
8'-0"

8'-0"

(**२**)

8'-0"

● 3"Ø BATTERED PIPE PILE (1H: 4V) IN DIRECTION OF ARROW



S2.0 SCALE - 1/4" = 1'-0"

PLAN NOTES

- 1. BOTTOM OF ALL FOOTINGS SHALL BE 18" MINIMUM BELOW LOWEST ADJACENT GRADE, UNO.
- 2. SLAB ON GRADE SHALL BE 4" MINIMUM THICKNESS. REINFORCE WITH 6x6 W1.4 x W1.4 WWM CENTERED IN SLAB. PROVIDE RIGID INSULATION AT INTERIOR SPACES AND VAPOR BARRIER BELOW SLAB PER ARCHITECTURAL DRAWINGS OVER 4" MINIMUM FREE DRAINING GRAVEL
- OVER FIRM NATIVE SOILS OR STRUCTURAL FILL PER SOILS ENGINEER. 3. REFER TO SHEET \$3.0 FOR TYPICAL FOUNDATION AND CONCRETE DETAILS.
- 4. STHD HOLDOWNS ARE DIMENSIONED TO THE CENTERLINE OF STRAP. HDU HOLDOWNS ARE DIMENSIONED TO THE CENTERLINE OF ANCHOR BOLT. DIMENSIONS ARE BASED OFF OF DRAWINGS PROVIDED BY THE ARCHITECT AND SHOULD BE VERIFIED.
- 5. REFER TO GENERAL STRUCTURAL NOTES SHEET \$1.0 FOR ADDITIONAL REQUIREMENTS. 6. DO NOT SCALE DRAWINGS. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS.

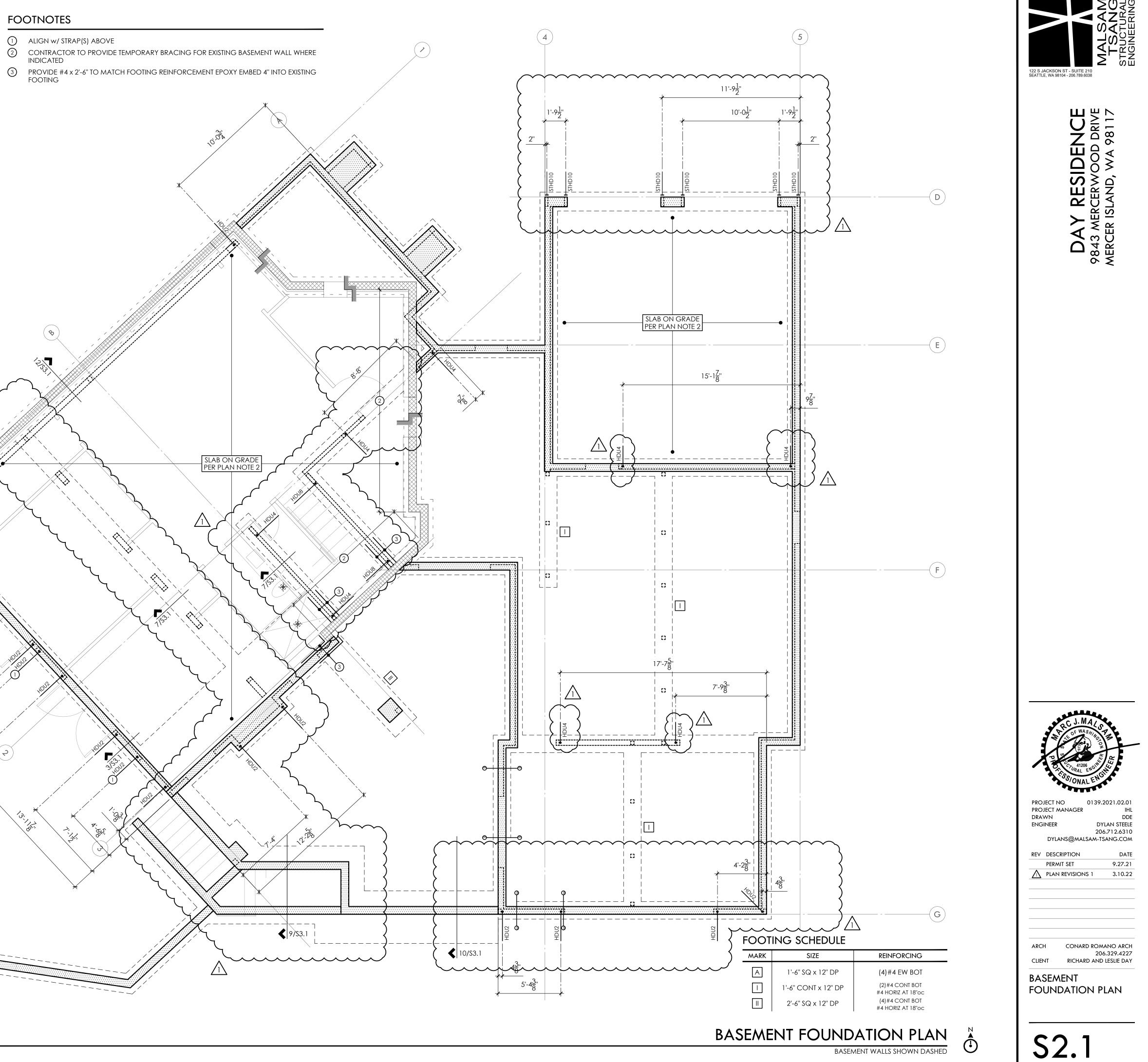
FOOTNOTES

| (1) | ALIGN |
|-----|-----------------|
| 2 | CONTR INDICA |
| (3) | PROVIE |

2

LEGEND

| | CONCRETE WALL BELOW |
|------|----------------------------|
| | (E)CONCRETE WALL BELOW |
| [] | STRUCTURAL WALL ABOVE |
| [] | (E)STRUCTURAL WALL ABOVE |
| | STEP PER ARCH |
| -+++ | PLUMBING PENETRATION ABOVE |
| o0 | FOOTING STEP PER 8/S3.0 |



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

PLAN NOTES

- 1. TYPICAL FLOOR FRAMING CONSISTS OF 3/4" T&G APA RATED SHEATHING (SPAN RATING 48/24) OVER 14" TJI 230'S AT 16" OC, UNO. PROVIDE DBL JOISTS UNDER ALL PARALLEL PARTITIONS THAT EXTEND OVER MORE THAN HALF THE JOIST LENGTH.
- TYPICAL FLOOR FRAMING CONSISTS OF 3/4" T&G APA RATED SHEATHING (SPAN RATING 48/24) OVER 11-7/8" TJI 210's AT 16"oc, UNO. PROVIDE DOUBLE JOISTS UNDER ALL PARALLEL PARTITIONS THAT EXTEND OVER MORE THAN HALF THE JOIST LENGTH.
- 3. GLUE AND NAIL FLOOR SHEATHING w/ 8d AT 6"oc AT FRAMED PANEL EDGES AND OVER SHEAR-WALLS AND AT 12"oc IN FIELD, UNO.
- 4. "SW " INDICATES SHEARWALL BELOW FRAMING SHOWN. REFER TO SHEARWALL SCHEDULE ON 4/S4.0 FOR ADDITIONAL INFORMATION. ALL EXTERIOR WALLS ARE SW6, UNO.
- 5. ALL REQUIRED HEADERS ARE SHOWN ON PLAN. REFER TO DETAIL 8/S4.0 FOR ADDITIONAL REQUIREMENTS.
- 6. ALL HEADERS CRAWLSPACE SHALL BE 4x10, UNO. PROVIDE PT 4x6 POST AT SPLICES, PT 4x4 POSTS ELSEWHERE, UNO. REFER TO DETAIL 7/S4.2 FOR ADDITIONAL REQUIREMENTS.
- 7. PROVIDE (2)BEARING (TRIMMER) STUDS AT EACH END OF ALL HEADERS AND BEAMS 6'-0" IN LENGTH AND OVER, UNO.
- 8. WHERE POSTS OCCUR, PROVIDE SOLID VERTICAL GRAIN BLOCKING THRU FLOOR TO MATCHING SUPPORTS BELOW, UNO.
- 9. TYPICAL WALL FRAMING CONSISTS OF 2x6's AT 16"oc AT EXTERIOR WALLS AND 2x4's or 2x6's AT 16"oc AT INTERIOR WALLS PER ARCH DRAWINGS, UNO.
- 10. BOTTOM OF ALL FOOTINGS SHALL BE 18" MINIMUM BELOW LOWEST ADJACENT GRADE, UNO.
- 11. SLAB ON GRADE SHALL BE 4" MINIMUM THICKNESS. REINFORCE WITH 6x6 W1.4 x W1.4 WWM CENTERED IN SLAB. PROVIDE RIGID INSULATION AT INTERIOR SPACES AND VAPOR BARRIER BELOW SLAB PER ARCHITECTURAL DRAWINGS OVER 4" MINIMUM FREE DRAINING GRAVEL OVER FIRM NATIVE SOILS OR STRUCTURAL FILL PER SOILS ENGINEER.
- 12. STHD HOLDOWNS ARE DIMENSIONED TO THE CENTERLINE OF STRAP. HDU HOLDOWNS ARE DIMENSIONED TO THE CENTERLINE OF ANCHOR BOLT. DIMENSIONS ARE BASED OFF OF DRAWINGS PROVIDED BY THE ARCHITECT AND SHOULD BE VERIFIED.
- 13. REFER TO SHEET \$4.0 FOR TYPICAL WOOD FRAMING DETAILS.
- 14. REFER TO SHEET \$3.0 FOR TYPICAL FOUNDATION AND CONCRETE DETAILS.
- 15. REFER TO GENERAL STRUCTURAL NOTES SHEET \$1.0 FOR ADDITIONAL REQUIREMENTS.
- 16. DO NOT SCALE DRAWINGS. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS.

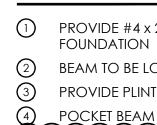
LEGEND

| | CONCRETE WALL BELOW |
|------------|-----------------------------------|
| | (E)CONCRETE WALL BELOW |
| | STRUCTURAL WALL BELOW |
| [] | STRUCTURAL WALL ABOVE |
| | (E)STRUCTURAL WALL BELOW |
| ••• | SPAN AND EXTENTS |
| | SPAN AND EXTENTS OF FRAMING BELOW |
| | HEADER/BEAM BELOW FRAMING - TYP |
| | (E)HEADER/BEAM |
| (×) | NUMBER OF BUILT UP STUDS |
| | PLUMBING PENETRATION ABOVE |

- HORIZ CS16 x 3'-0" BEAM TO BEAM
- FOOTING STEP PER 8/S3.0

FLUSH BEAM SCHEDULE

| MARK | SIZE () | BRG STUDS | HANGER |
|------|--|-----------|------------------------------|
| B1 | LSL 1-3/4 x 11-7/8 | 2 | HUS1.81/10 |
| B2 | GL 3-1/2 x 11-7/8 or LSL 3-1/2 x 11-7/8 | 2 2 | HHUS410@ HHUS410 |
| B3 | GL 5-1/2 x 11-7/8 or PSL 5-1/4 x 11-7/8 | 3 3 | HGU\$5.50/10 HGU\$5.50/10 |
| B4 | PSL 7 x 11-7/8 | 4 | HGU\$7.25/10 |
| B5 | LSL 1-3/4 x 14 | 2 | HUS1.81/10 |
| B6 | LSL 3-1/2 x 14 | 2 | HHUS410 |
| B7 | PSL 5-1/4 x 14 | 3 | HGU\$5.50/12 |
| B8 | PSL 7 x 14 | 4 | HGU\$7.25/12 |
| | | | |



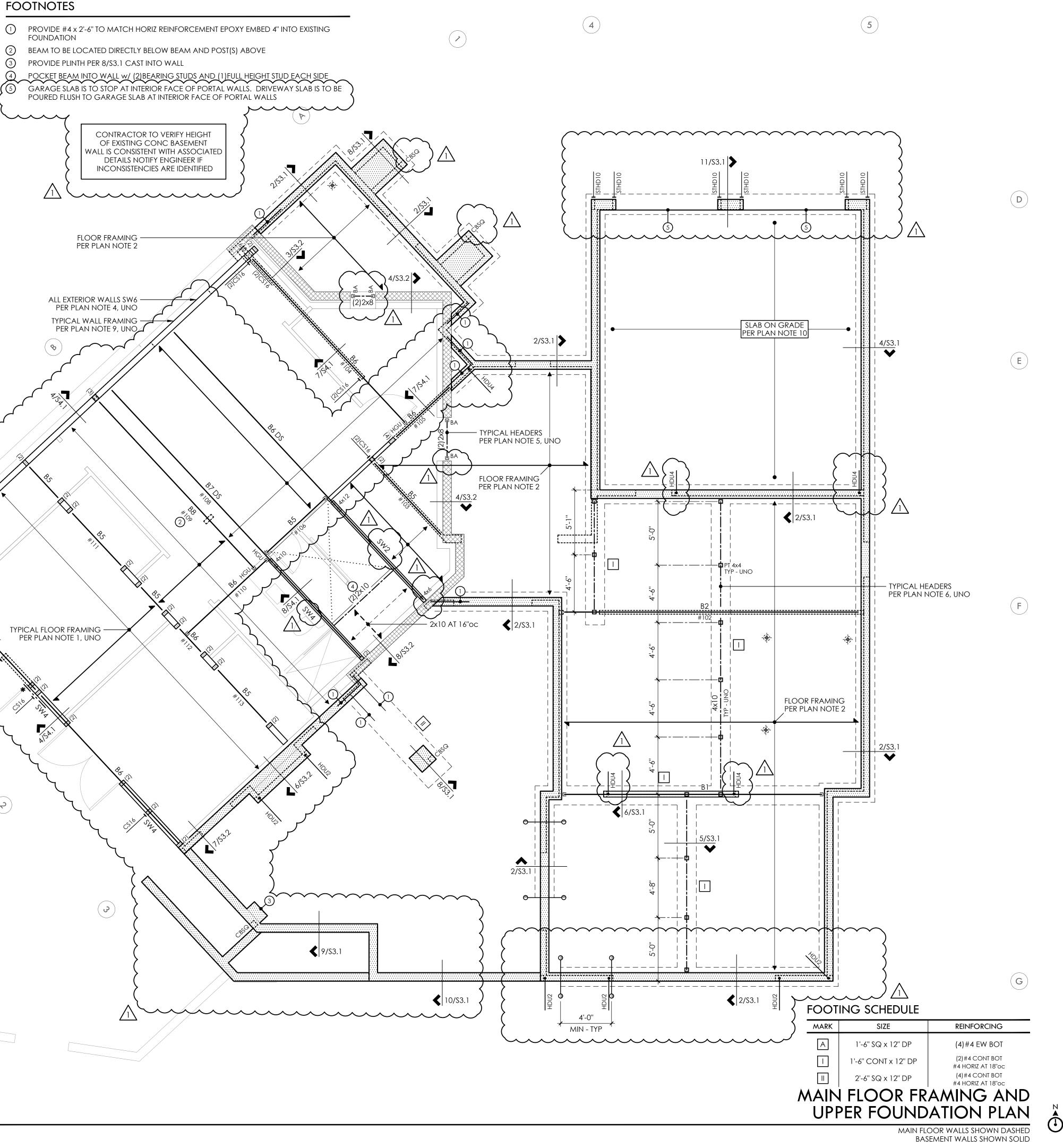
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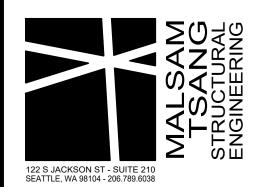
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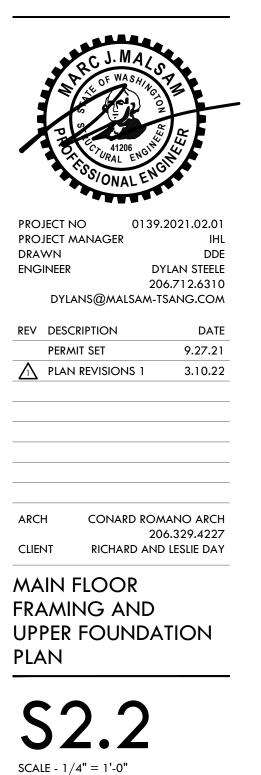
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| (1) | ALL GLULAM BEAMS ARE 24F-V4 - UNO |
|--------------|------------------------------------|
| ୭ | PROVIDE HUC410 WHERE REQUIRED - UN |





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PLAN NOTES

- 1. TYPICAL ROOF FRAMING CONSISTS OF TAPERED RIGID INSULATION PER ARCH OVER 3/4" T&G APA RATED SHEATHING (SPAN RATING 48/24) OVER 14" TJI 210'S AT 16"oc, UNO. PROVIDE TJI BLKG BETWEEN RAFTERS AT 8'-0"oc, DRILL TO VENT AS REQUIRED. PROVIDE H8 EACH END OF ALL RAFTERS, H8 EACH SIDE OF ALL MULTIPLE RAFTERS, UNO. REFER TO DETAIL 1/S4.2 FOR ADDITIONAL REQUIREMENTS.
- 2. NAIL ROOF SHEATHING w/ 8d AT 6" oc AT FRAMED PANEL EDGES AND OVER SHEARWALLS, AND AT 12"oc IN FIELD, UNO.
- 3. "SW_" INDICATES SHEARWALL BELOW FRAMING SHOWN. REFER TO SHEARWALL SCHEDULE ON 4/S4.0 FOR ADDITIONAL INFORMATION. ALL EXTERIOR WALLS ARE SW6, UNO.
- 4. ALL REQUIRED HEADERS ARE SHOWN ON PLAN. REFER TO DETAIL 8/S4.0 FOR ADDITIONAL REQUIREMENTS.
- 5. PROVIDE (2)BEARING (TRIMMER) STUDS AT EACH END OF ALL HEADERS AND BEAMS 6'-0" IN LENGTH AND OVER, UNO.
- 6. WHERE POSTS OCCUR, PROVIDE SOLID VERTICAL GRAIN BLOCKING THRU FLOOR TO MATCHING SUPPORTS BELOW, UNO.
- 7. TYPICAL WALL FRAMING CONSISTS OF 2x6's AT 16"oc AT EXTERIOR WALLS AND 2x4's or 2x6's AT 16"oc AT INTERIOR WALLS PER ARCH DRAWINGS, UNO.
- 8. REFER TO SHEET \$4.0 FOR TYPICAL WOOD FRAMING DETAILS.
- 9. REFER TO GENERAL STRUCTURAL NOTES SHEET \$1.0 FOR ADDITIONAL REQUIREMENTS.
- 10. DO NOT SCALE DRAWINGS. REFER TO ARCH DRAWINGS FOR ALL DIMENSIONS.

| 2 | (2)A35 |
|------------------|---------|
| Q | ALIGN |
| (4) [•] | SHEAR |
| 5 | WALL IS |
| | |

LEGEND

| | STRUCTURAL WALL BELOW |
|----------|---|
| | (E)STRUCTURAL WALL BELOW |
| | SPAN AND EXTENTS |
| | HEADER/BEAM BELOW FRAMING - TYP |
| SLOPE DN | DIRECTION OF SLOPE |
| (×) | NUMBER OF BUILT UP STUDS |
| | STEP PER ARCH |
| * | HORIZ CS16 x 3'-0'' - BEAM TO BEAM |
| | HORIZ CS16 x X'-0" OVER FLOOR SHEATHING - LAP RIM/BEAM 1'-6" AND NAIL REMAINING LENGTH TO SNUG FIT FLAT 2x6 BLOCKING BETWEEN JOISTS |
| DS | DRAG STRUT - NAIL THRU SHEATHING w/ 8d AT 4"0c INTO ENTIRE LENGTH OF MEMBER |

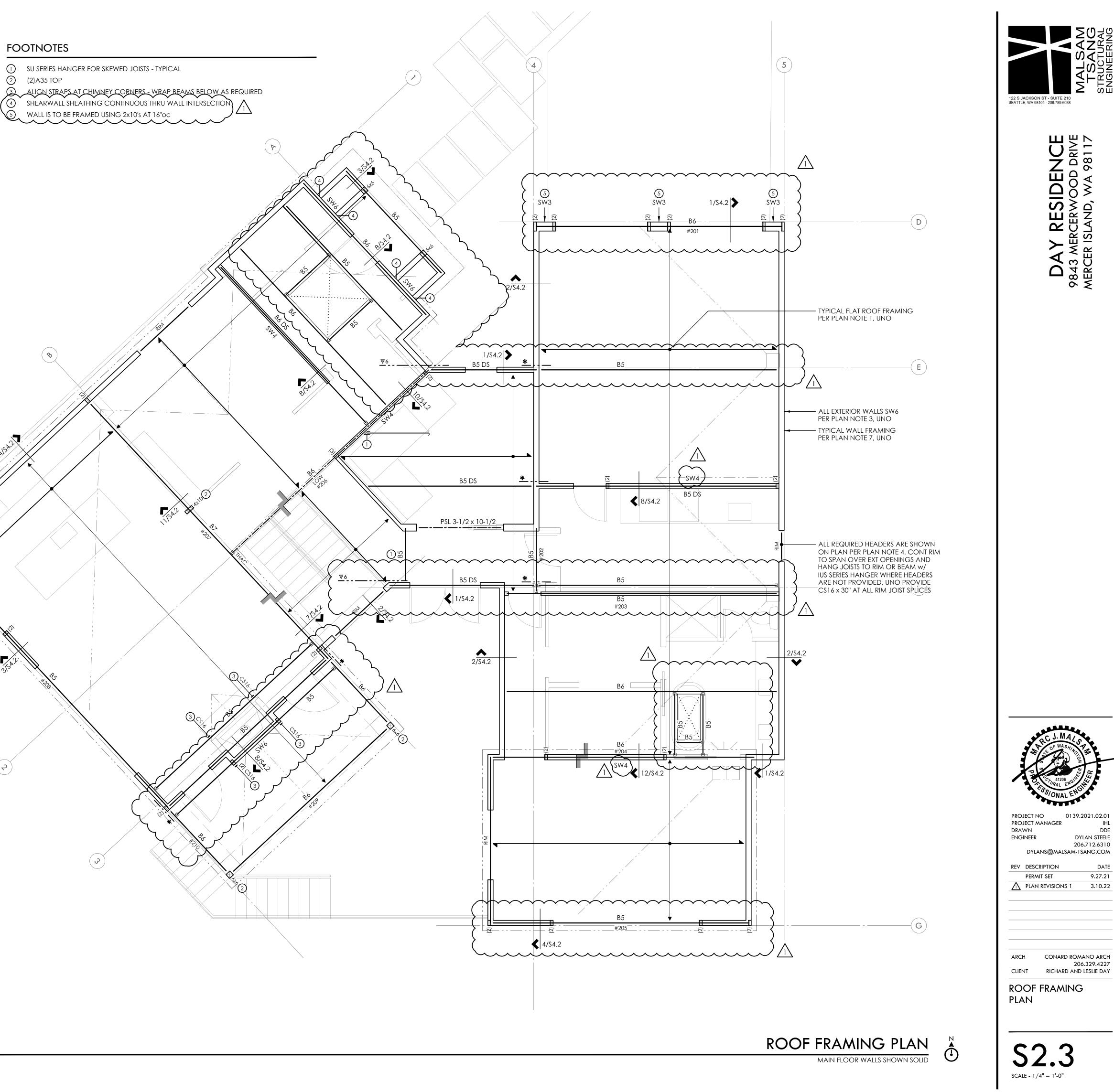
FLUSH BEAM SCHEDULE

| MARK | SIZE () | BRG STUDS | HANGER |
|------|--|-----------|----------------------------|
| B1 | LSL 1-3/4 x 11-7/8 | 2 | HU\$1.81/10 |
| B2 | GL 3-1/2 x 11-7/8 or LSL 3-1/2 x 11-7/8 | 2 2 | HHUS410② HHUS410 |
| B3 | GL 5-1/2 x 11-7/8 or PSL 5-1/4 x 11-7/8 | 3 3 | HGUS5.50/10 HGUS5.50/10 |
| B4 | PSL 7 x 11-7/8 | 4 | HGU\$7.25/10 |
| B5 | LSL 1-3/4 x 14 | 2 | HUS1.81/10 |
| B6 | LSL 3-1/2 x 14 | 2 | HHUS4102 |
| B7 | PSL 5-1/4 x 14 | 3 | HGU\$5.50/12 |
| B8 | PSL 7 x 14 | 4 | HGU\$7.25/12 |

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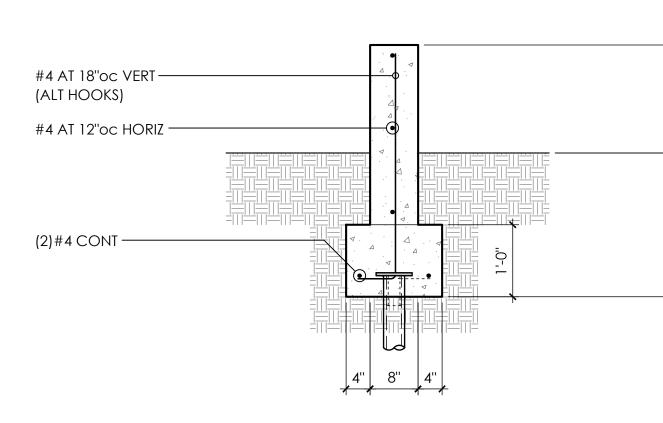
1) ALL GLULAM BEAMS ARE 24F-V4 - UNO

PROVIDE HUC410 WHERE REQUIRED - UNO



A R R D E \/ I A TIONIS

| ± | PLUS OR MINUS | GL | GLUE LAMINATED | OSB | ORIENTED STRAND |
|--------|---------------|-------|-------------------|--------|-------------------|
| Ø | DIAMETER | | TIMBER | | BOARD |
| AB | ANCHOR BOLT | GR | GRADE | PLF | POUNDS PER LINEAR |
| ADDL | ADDITIONAL | GT | GIRDER TRUSS | | FOOT |
| ALT | ALTERNATE | GWB | GYPSUM WALLBOARD | PLY | PLYWOOD |
| APPROX | APPROXIMATE | HD | HOLDOWN | PREFAB | PREFABRICATED |
| ARCH | ARCHITECT, | HDR | HEADER | PSF | Pounds per |
| | ARCHITECTURAL | HF | HEM FIR | | SQUARE FOOT |
| BLKG | BLOCKING | HGR | HANGER | PSI | Pounds per |
| BM | BEAM | НM | HIP MASTER | | SQUARE INCH |
| BOE | BOTTOM OF | HORIZ | HORIZONTAL | PSL | PARALLEL STRAND |
| | EXCAVATION | HT | HEIGHT | | LUMBER |
| BOT | BOTTOM | IBC | INTERNATIONAL | PT | PRESSURE TREATED |
| С С | CENTERLINE | | BUILDING CODE | | LUMBER |
| CLR | CLEARANCE | INT | INTERIOR | REINF | REINFORCING |
| CONT | CONTINUOUS | IRC | INTERNATIONAL | reqd | REQUIRED |
| DBL | DOUBLE | | RESIDENTIAL CODE | SOG | SLAB ON GRADE |
| DF | DOUGLAS FIR | JST | JOIST | SQ | SQUARE |
| DP | DEEP, DEPTH | К | KIPS (1000 LBS) | STD | STANDARD |
| DN | DOWN | KP | KING POST | SW | SHEARWALL |
| DS | DRAG STRUT | L | LENGTH | T&G | TONGUE AND GROOV |
| DWGS | DRAWINGS | LBS | POUNDS | THRD | THREADED |
| (E) | EXISTING | long | LONGITUDINAL | TPL | TRIPLE |
| EA | EACH | LSL | LAMINATED | transv | TRANSVERSE |
| EMBED | EMBEDMENT | | STRUCTURAL LUMBER | TYP | TYPICAL |
| EQ | EQUAL | LVL | LAMINATED VENEER | UNO | UNLESS NOTED |
| EQUIV | EQUIVALENT | | LUMBER | | OTHERWISE |
| EW | EACH WAY | MAX | MAXIMUM | VERT | VERTICAL |
| EXP | | MB | MACHINE BOLT | W, | WIDE OR WIDTH |
| EXT | EXTERIOR | MFR | MANUFACTURER | w/ | WITH |
| FDN | FOUNDATION | MIN | | w/o | |
| FRMG | FRAMING | MISC | MISCELLANEOUS | WHS | WELDED HEADED |
| FT | FEET | NO | NUMBER | | |
| FTG | FOOTING | NTS | NOT TO SCALE | WTS | |
| GA | GAUGE | | ON CENTER | \ | |
| GALV | GALVANIZED | OPP | OPPOSITE | WWM | WELDED WIRE MESH |



LEVEL BACKFILL FOR A ----

DISTANCE GREATER THAN "H"

PROVIDE FREE-DRAINING -

AT WALLS GREATER-

1-1/2" x 2-1/2" KEYWAY

4

THAN 6'-0'', PROVIDE

SLAB ON GRADE —

AT H<6'-0'', (2)#4

AT H>6'-0'', (2)#5[∐]

TOP AND BOTTOM

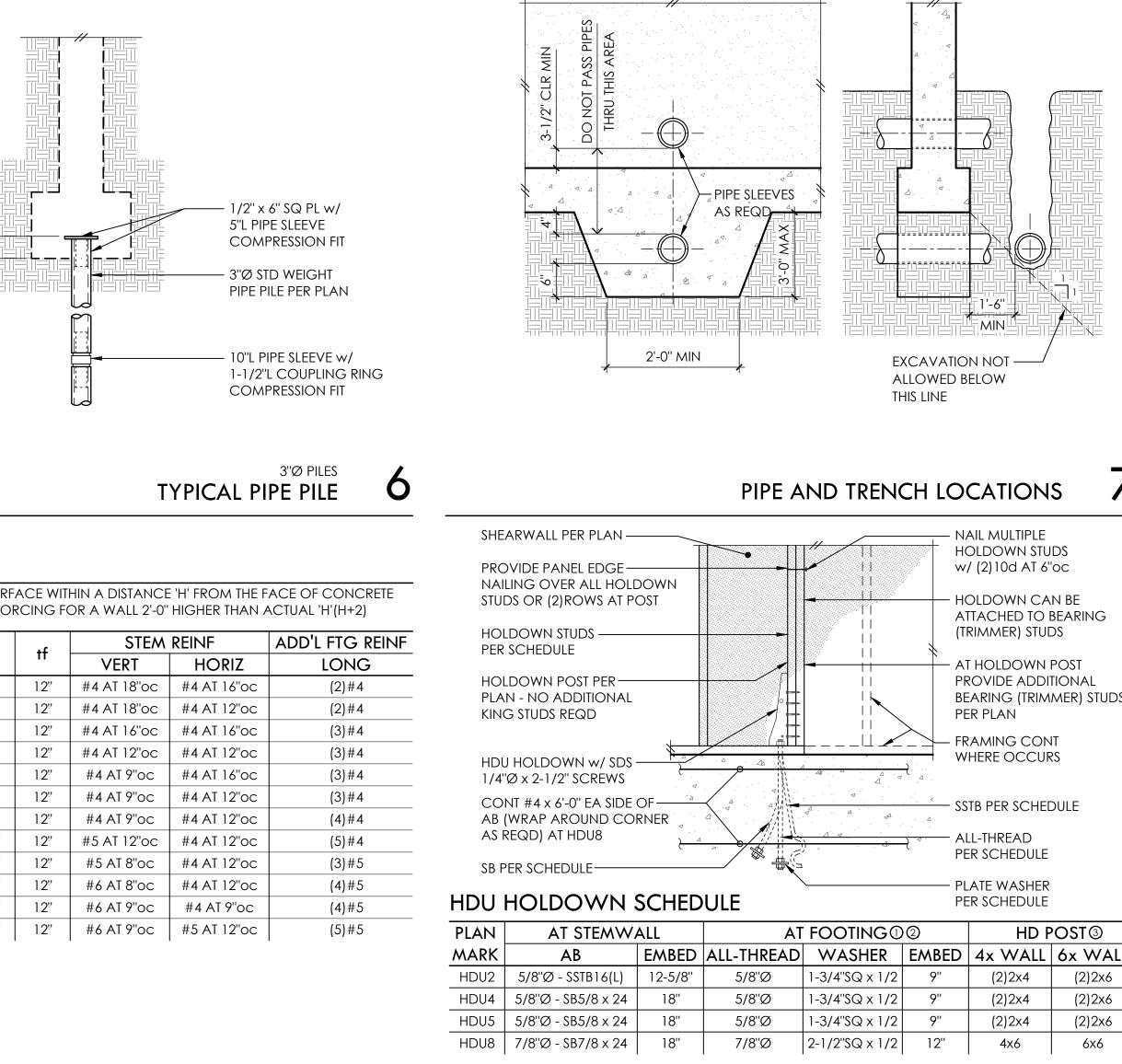
TOP AND BOTTOM

MATERIAL

PER PLAN







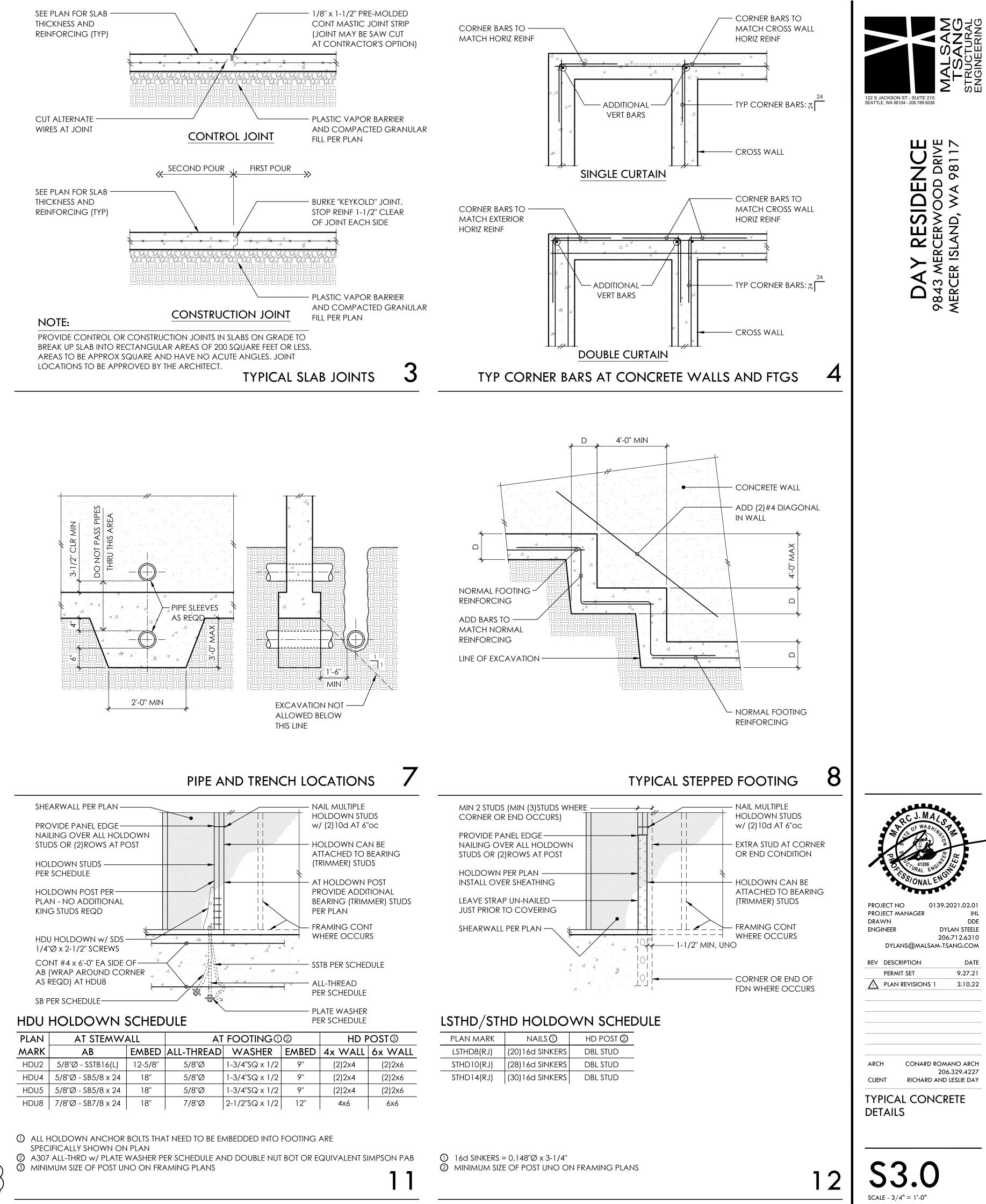
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| | NOTE: | | | | | |
|---------------------|---------------------------------|-------|--------|-----|--------|---|
| | WHERE RETAINED WALL, PROVIDE | | | | | |
| | ŀ | 4 | B1 | ts | B2 | 1 |
| | | 011 | 1'-2" | 6'' | 9" | 1 |
| | 4 | -0'' | 1'-3" | 8'' | 9" | 1 |
| | | 0" | 1'-9'' | 6'' | 9" | 1 |
| | 5 | -0'' | 1'-9'' | 8'' | 9" | 1 |
| AND 2" CLR AT #6 I | | 0" | 2'-3'' | 6'' | 9" | 1 |
| | 6- | -0'' | 2'-0'' | 8'' | 9" | 1 |
| PLACE SLAB PRIOR TO | 7'- | -0'' | 2'-6'' | 8'' | 9" | 1 |
| BACKFILLING WALL | | -0'' | 2'-9'' | 8" | 1'-0'' | 1 |
| | 9'- | -0'' | 3'-3'' | 8" | 1'-3" | 1 |
| | 10 | '-0'' | 4'-3'' | 8" | 1'-6" | 1 |
| | 11 | '-0'' | 4'-3'' | 10" | 1'-6" | 1 |
| | 12 | '-0'' | 4'-9'' | 12" | 1'-6" | 1 |
| | DDAIN | | | | | |
| FOOTING | DRAIN | | | | | |

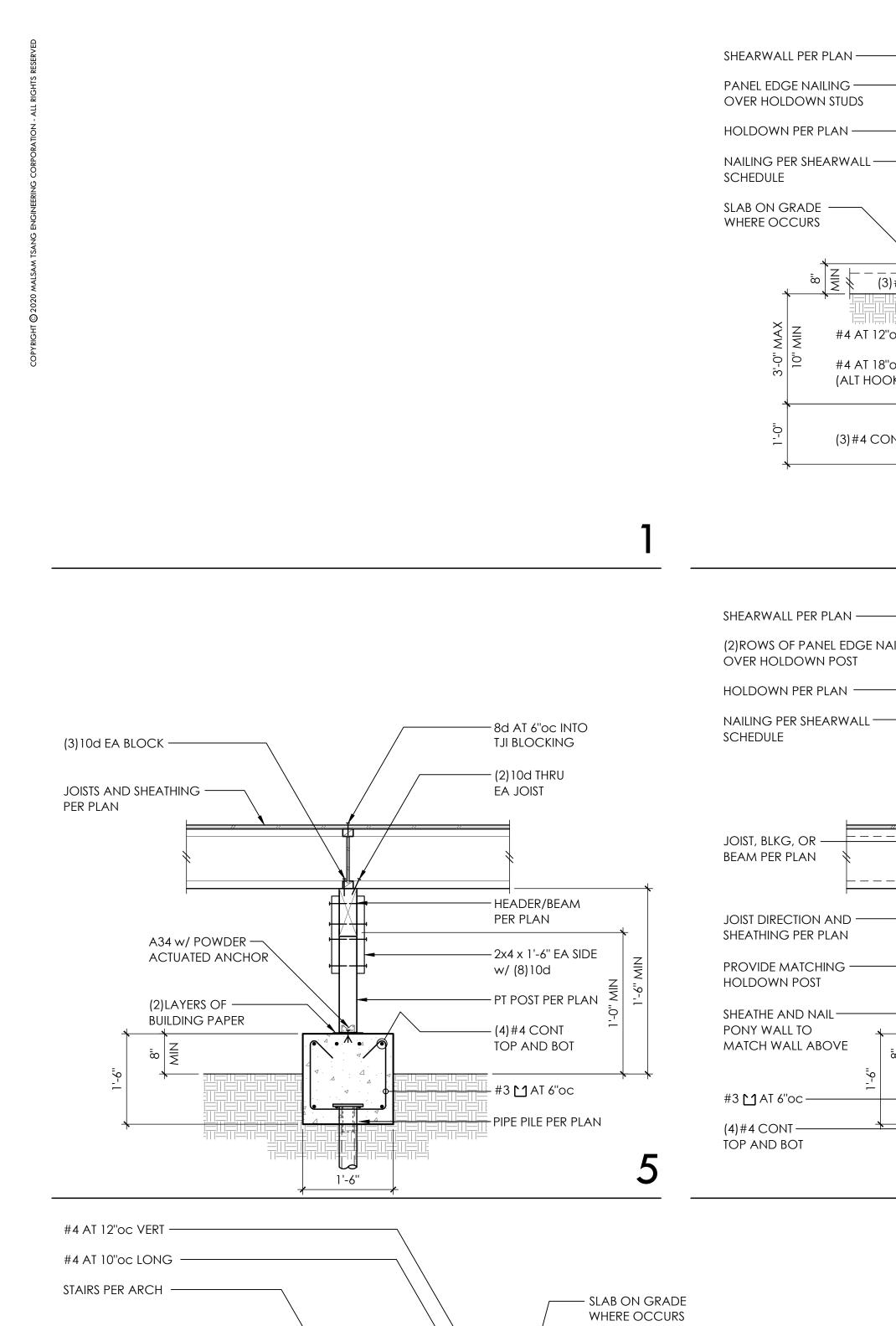
| B2 | | | |
|----|---|------------|---------|
| | F | PIPE PILES | PER PLA |

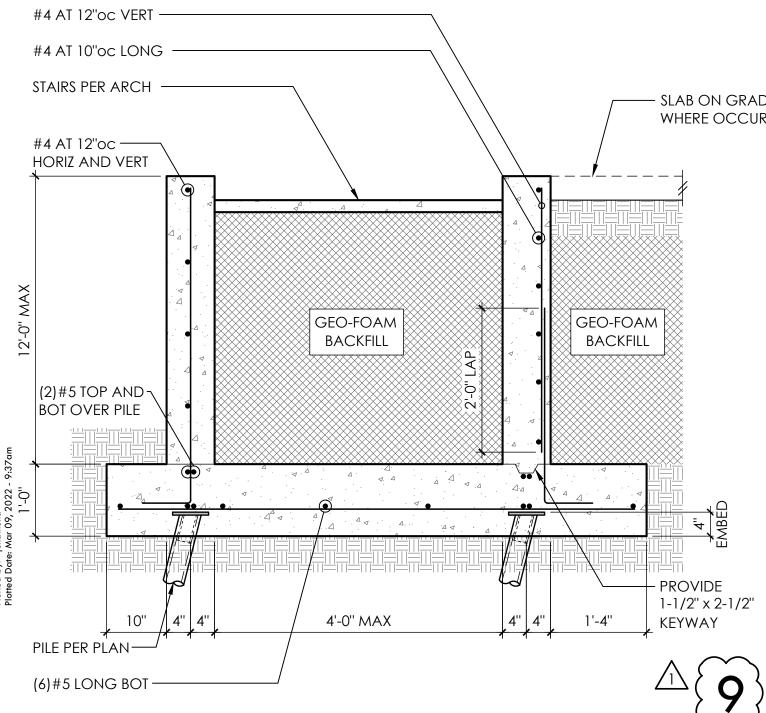
LAP SPLICE GREATER OF 48 BAR DIAMETERS OF LARGER BAR OR 24" MIN

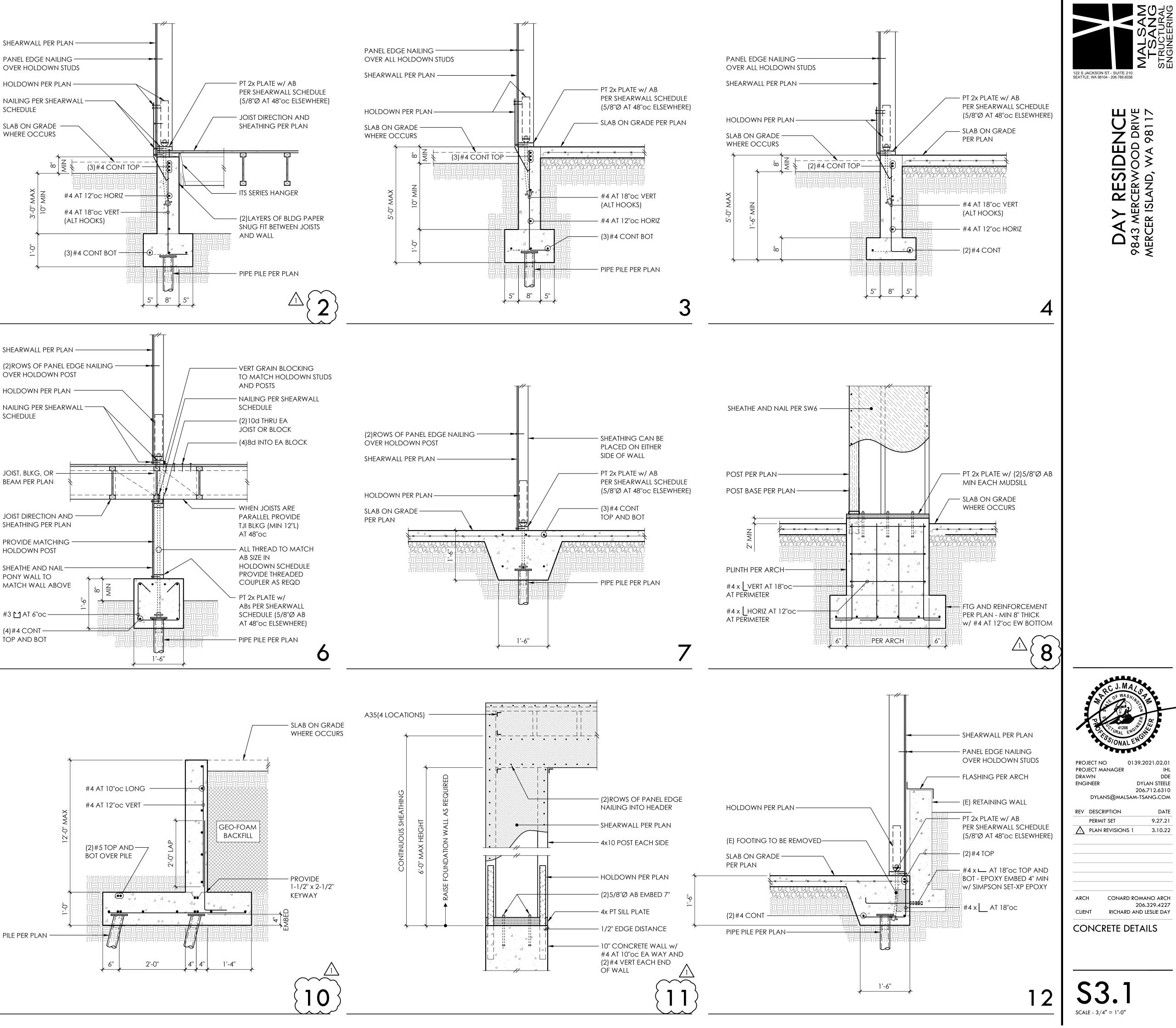
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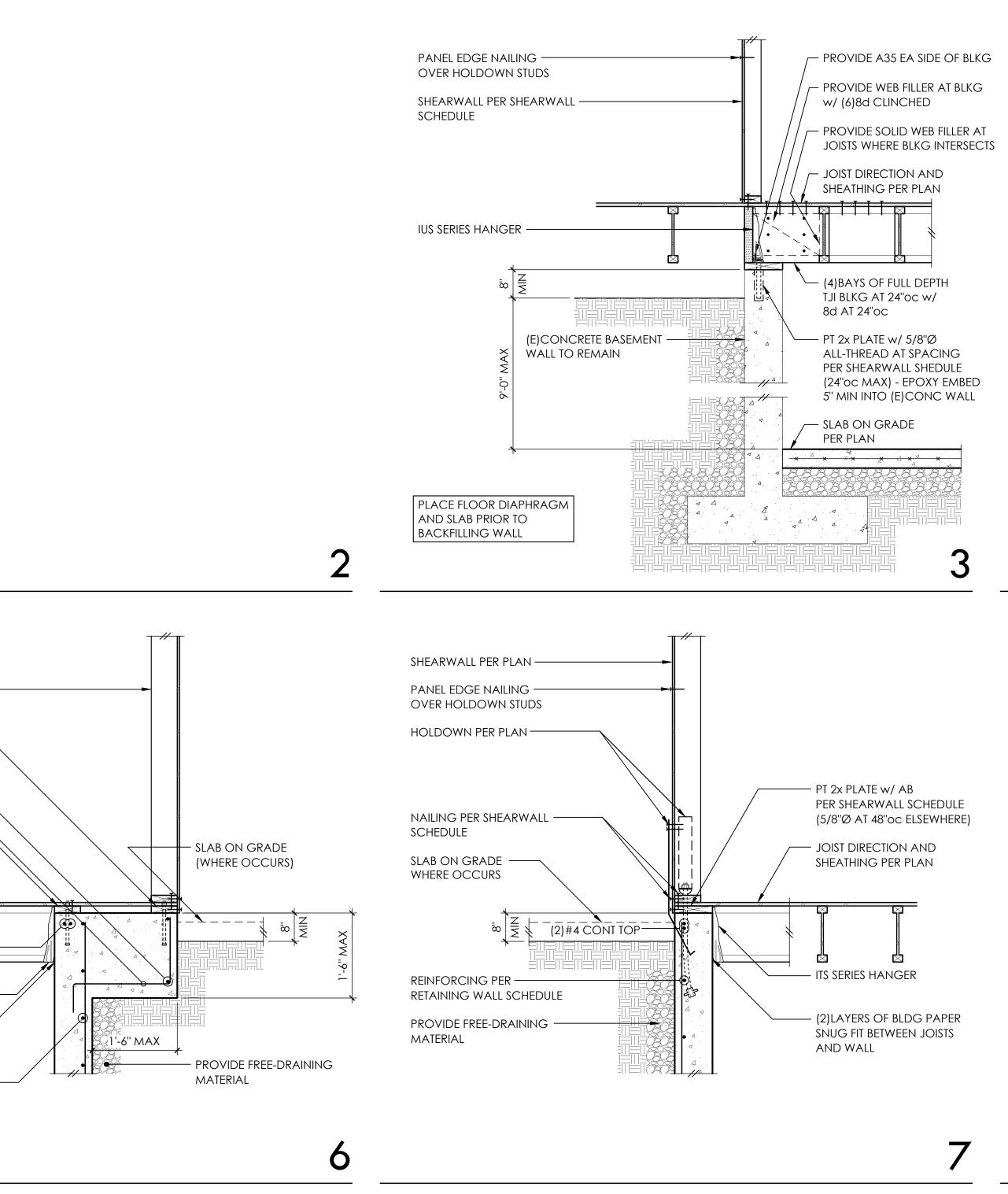




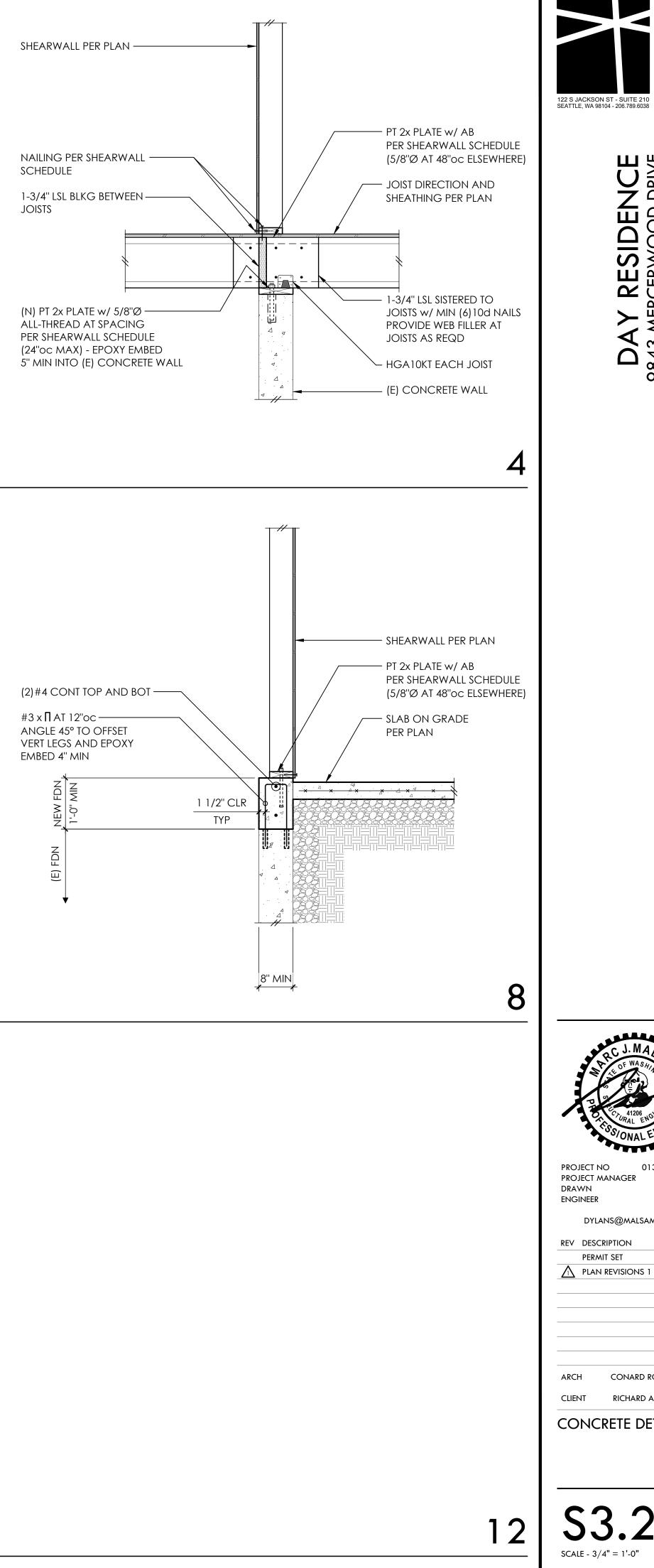


| SHEATHE AND NAIL |
|---|
| PT 2x PLATE w/ AB PER SHEARWALL SCHEDULE (5/8''Ø AT 48''oc ELSEWHERE) |
| #4 CONT TOP AND BOT |
| #4 x 🗝 AT 12"oc ——— |
| PT 2x PLATE w/ 5/8"Ø AB's AT 48"oc |
| JOISTS AND SHEATHING |
| (2)#4 CONT TOP |
| ITS SERIES HANGER |
| (2)LAYERS OF BLDG PAPER SNUG FIT BETWEEN JOISTS AND WALL |
| REINFORCING PER 10/S3.0 |
| |

9

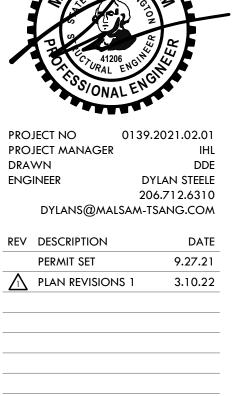


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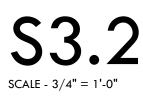




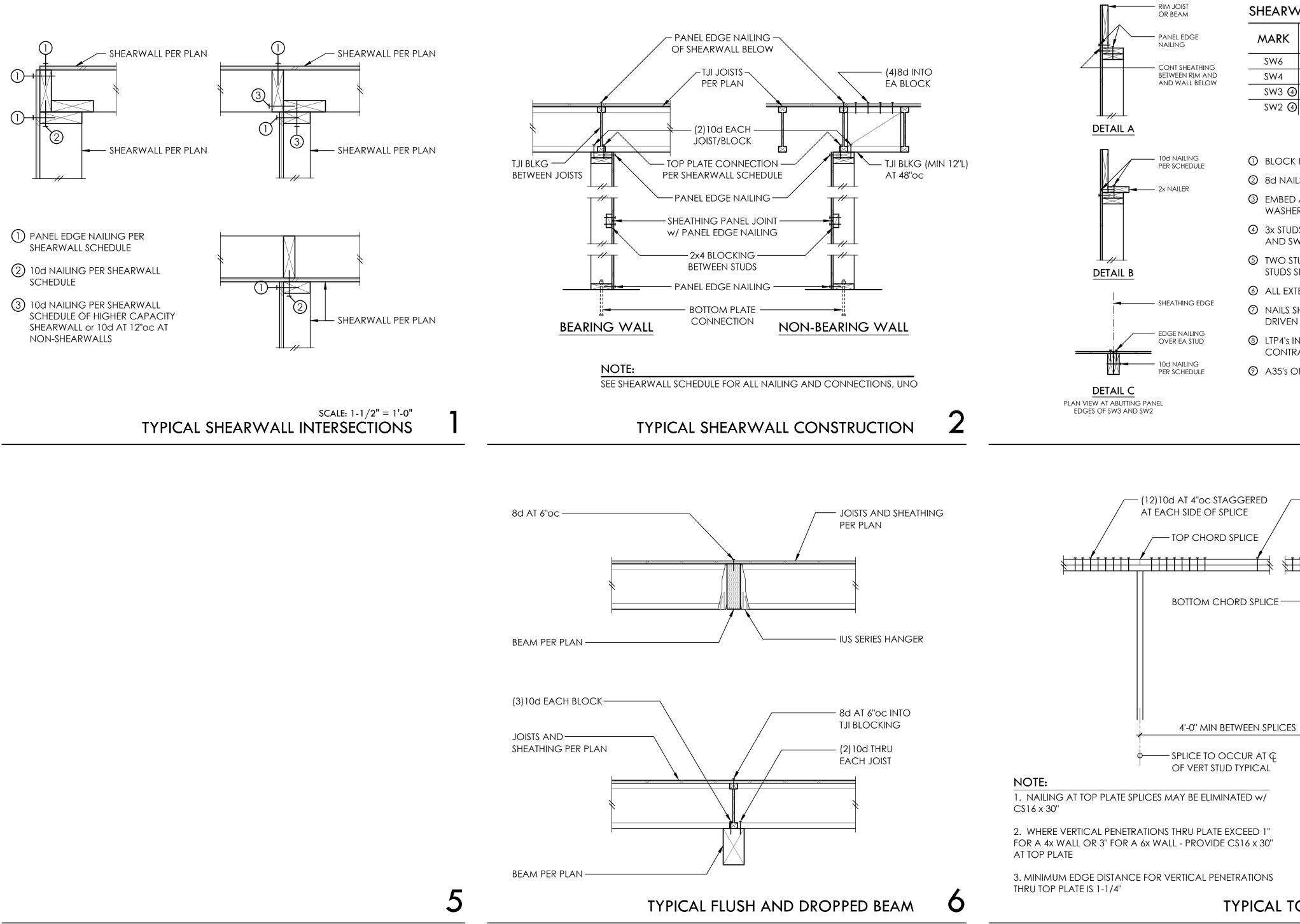
DAY RESIDENCE 9843 MERCERWOOD DRIVE MERCER ISLAND, WA 98117



CONARD ROMANO ARCH 206.329.4227 RICHARD AND LESLIE DAY CONCRETE DETAILS







SHEARWALL SCHEDULE 000000

| MARK | | PANEL EDGE | TOP PLATE CONNECTION | | BASE PLATE CONNECTION | |
|-------|-----------------------|------------|----------------------|--------------|-----------------------|---------------------|
| | SHEATHING | NAILING | TJI | RIM/BEAM ®Ø | AT WOOD | AT CONCRETE |
| SW6 | 1/2" PLY or 7/16" OSB | 8d AT 6"oc | 10d AT 6"oc | A35 AT 30"oc | 12d AT 6"oc | 5/8''Ø AB AT 48''oc |
| SW4 | 1/2" PLY or 7/16" OSB | 8d AT 4"oc | 10d AT 4"oc | A35 AT 18"oc | 12d AT 4"oc | 5/8''Ø AB AT 42''oc |
| SW3 4 | 1/2" PLY or 7/16" OSB | 8d AT 3"oc | (2)ROWS 10d AT 6"oc | A35 AT 16"oc | (2)ROWS 12d AT 6"oc | 5/8''Ø AB AT 36''oc |
| SW2 ④ | 1/2" PLY or 7/16" OSB | 8d AT 2"oc | (2)ROWS 10d AT 4"oc | A35 AT 12"oc | (2)ROWS 12d AT 4"oc | 5/8"Ø AB AT 24"oc |

① BLOCK PANEL EDGES WITH 2x4 LAID FLAT AND NAIL PANELS TO INTERMEDIATE SUPPORTS WITH 8d AT 12"oc.

- ② 8d NAILS SHALL BE 0.131"Ø x 2-1/2", 10d NAILS SHALL BE 0.131"Ø x 3", AND 12d NAILS SHALL BE 0.131"Ø x 3-1/4".
- ③ EMBED ANCHOR BOLTS AT LEAST 7". ALL BOLTS SHALL HAVE 3" x 3" x 0.229" PLATE WASHERS. THE PLATE WASHER SHALL EXTEND TO WITHIN 1/2" OF THE EDGE OF THE BOTTOM PLATE ON THE SIDE WITH SHEATHING.
- ④ 3x STUDS OR DBL STUDS NAILED TOGETHER w/ 10d NAILING IS REQD AT ABUTTING PANEL EDGES OF SW3 AND SW2. REFER TO DETAIL C. WHERE 3x STUDS ARE USED, STAGGER NAILS AT ADJOINING PANEL EDGES.
- 5 TWO STUDS MINIMUM OR POST PER PLAN ARE REQUIRED AT EACH END OF ALL SHEARWALLS AND ALL END STUDS SHALL RECEIVE PANEL EDGE NAILING.
- 6 ALL EXTERIOR WALLS SHALL BE SW6, UNLESS NOTED OTHERWISE.
- 🔿 NAILS SHALL NOT BE SPACED LESS THAN 3/8" FROM EDGES OF SHEATHING. SHEATHING NAILS SHALL BE DRIVEN SO THEIR HEADS ARE FLUSH WITH SHEATHING (NOT COUNTERSUNK).
- ITP4's INSTALLED OVER SHEATHING WITH 8d (0.131"Ø x 2-1/2") NAILS MAY BE SUBSTITUTED FOR A35'S AT CONTRACTORS OPTION.
- ③ A35's OR LTP4'S MAY BE ELIMINATED PER DETAIL A OR DETAIL B.

ELSEWHERE

- 10d AT 12"oc STAGGERED

1. NAILING AT TOP PLATE SPLICES MAY BE ELIMINATED w/

2. WHERE VERTICAL PENETRATIONS THRU PLATE EXCEED 1" FOR A 4x WALL OR 3" FOR A 6x WALL - PROVIDE CS16 x 30"

3. MINIMUM EDGE DISTANCE FOR VERTICAL PENETRATIONS

AT SHEARWALLS

SHEARWALL PER PLAN ------

SHEATHING PER PLAN-

JOIST DIRECTION -

LEAVE HOLDOWN —

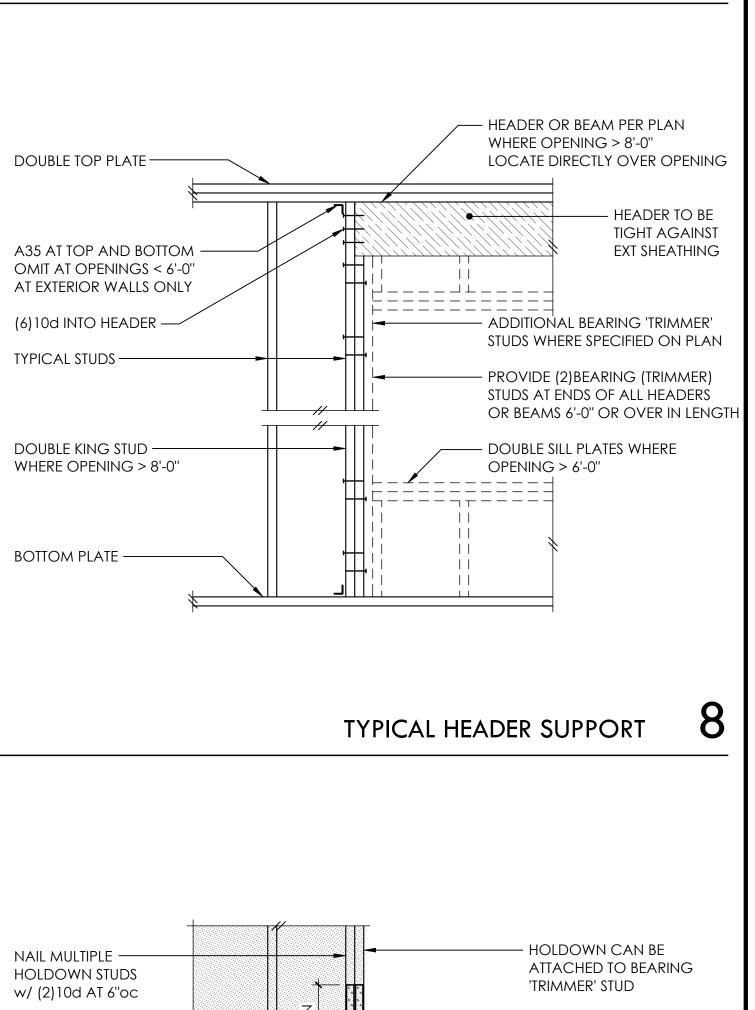
UN-NAILED UNTIL JUST PRIOR TO COVERING

PER PLAN



 $\Box \omega$ ш S ≥ ۵ S S ER IS \succ PA 9843 A MERCEF

4



- CS HOLDOWN PER PLAN INSTALLED OVER SHEATHING w/ (16)8d EA END OF STRAP

FULL WIDTH VERT GRAIN 2x BLKG TO MATCH HOLDOWN STUDS

- HEADER/BEAM PER PLAN

- REFER TO PLAN FOR LOCATIONS WHERE WALL CONTINUES

- BEARING (TRIMMER) STUD BELOW HEADER/BEAM

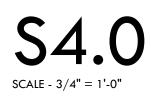


0139.2021.02.01 PROJECT NO PROJECT MANAGER IHL DDE DRAWN ENGINEER DYLAN STEELE 206.712.6310 DYLANS@MALSAM-TSANG.COM

REV DESCRIPTION DATE 9.27.21 PERMIT SET 3.10.22 PLAN REVISIONS 1

| ARCH | CONARD ROMANO ARCH |
|--------|------------------------|
| | 206.329.4227 |
| CLIENT | RICHARD AND LESLIE DAY |
| | |

TYPICAL WOOD FRAMING DETAILS



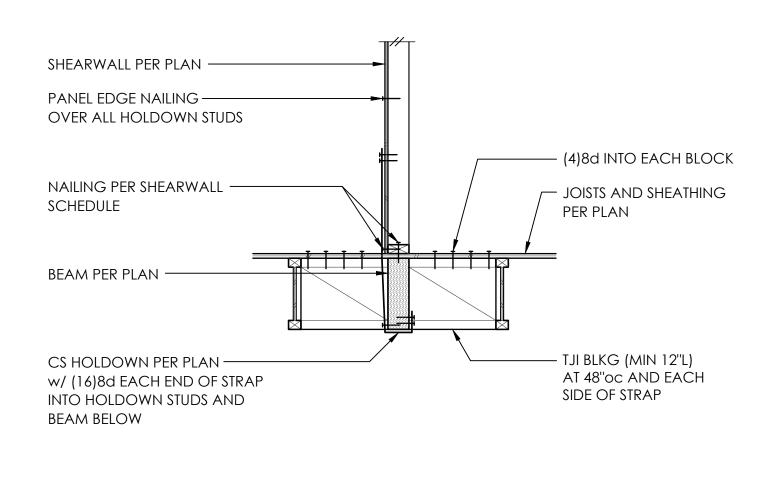
TYPICAL CS16 HOLDOWN 12

__ __ __ __ __ __ __

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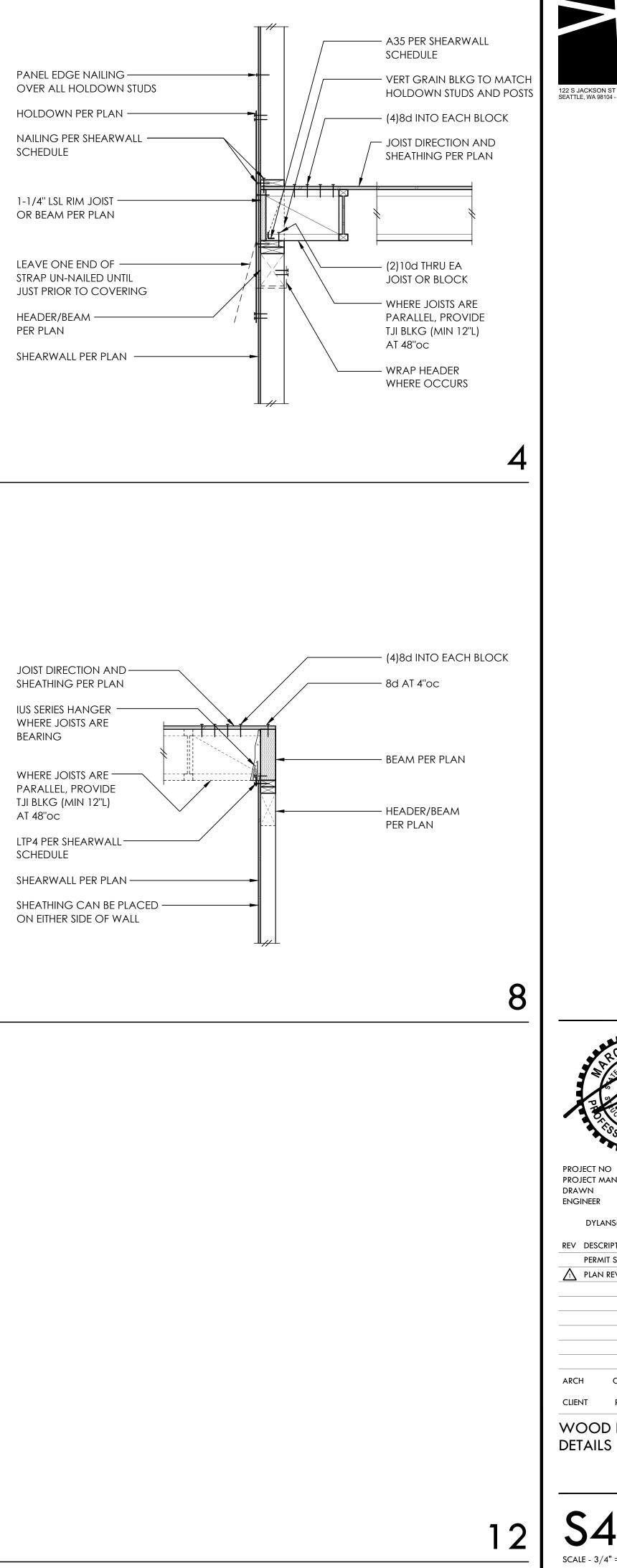
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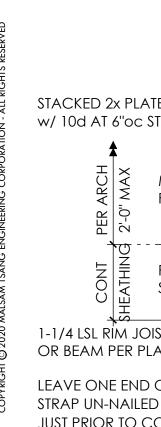
DAY RESIDENCE 9843 MERCERWOOD DRIVE MERCER ISLAND, WA 98117

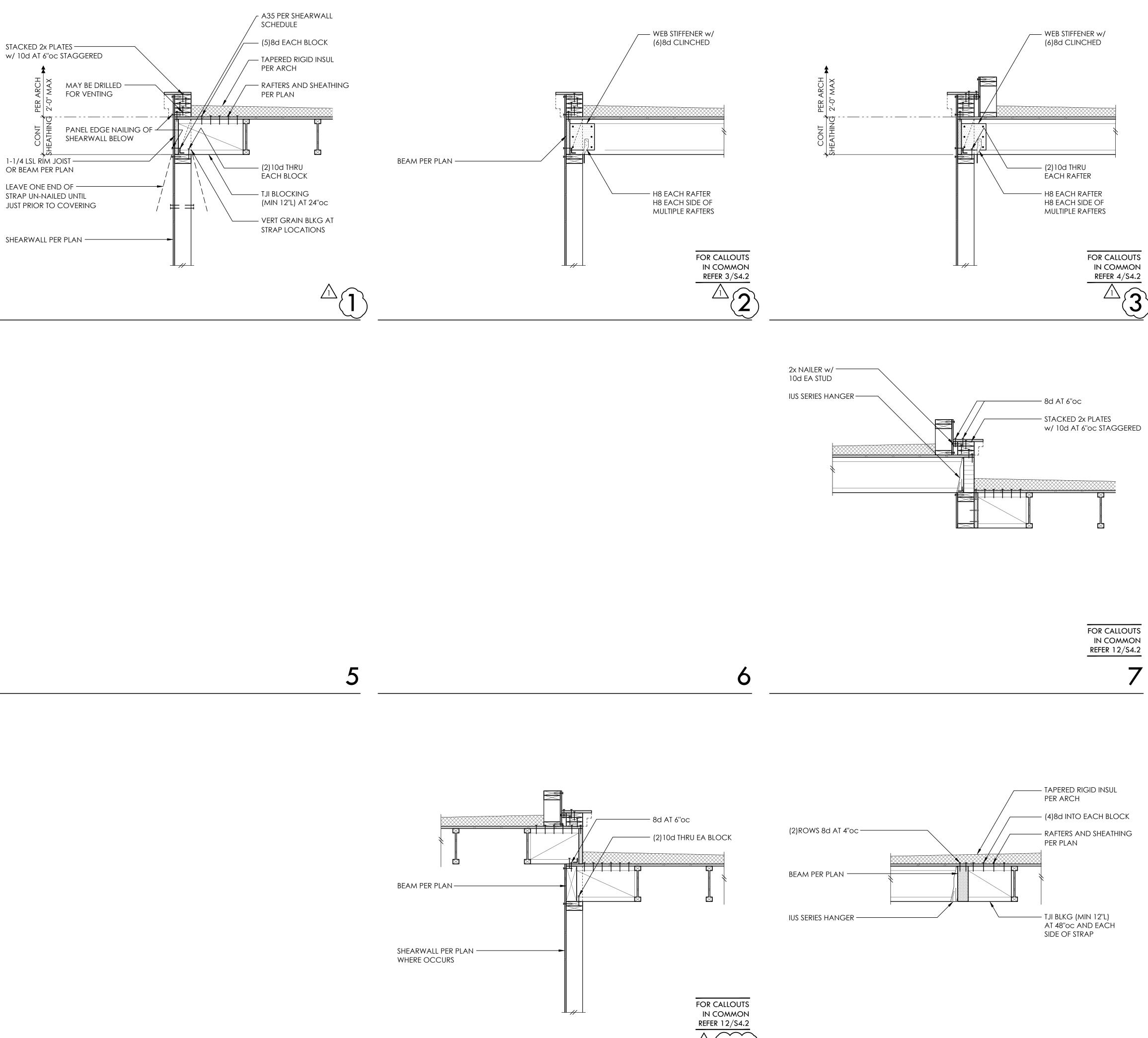


REV DESCRIPTION DATE PERMIT SET 9.27.21 Λ plan revisions 1 3.10.22

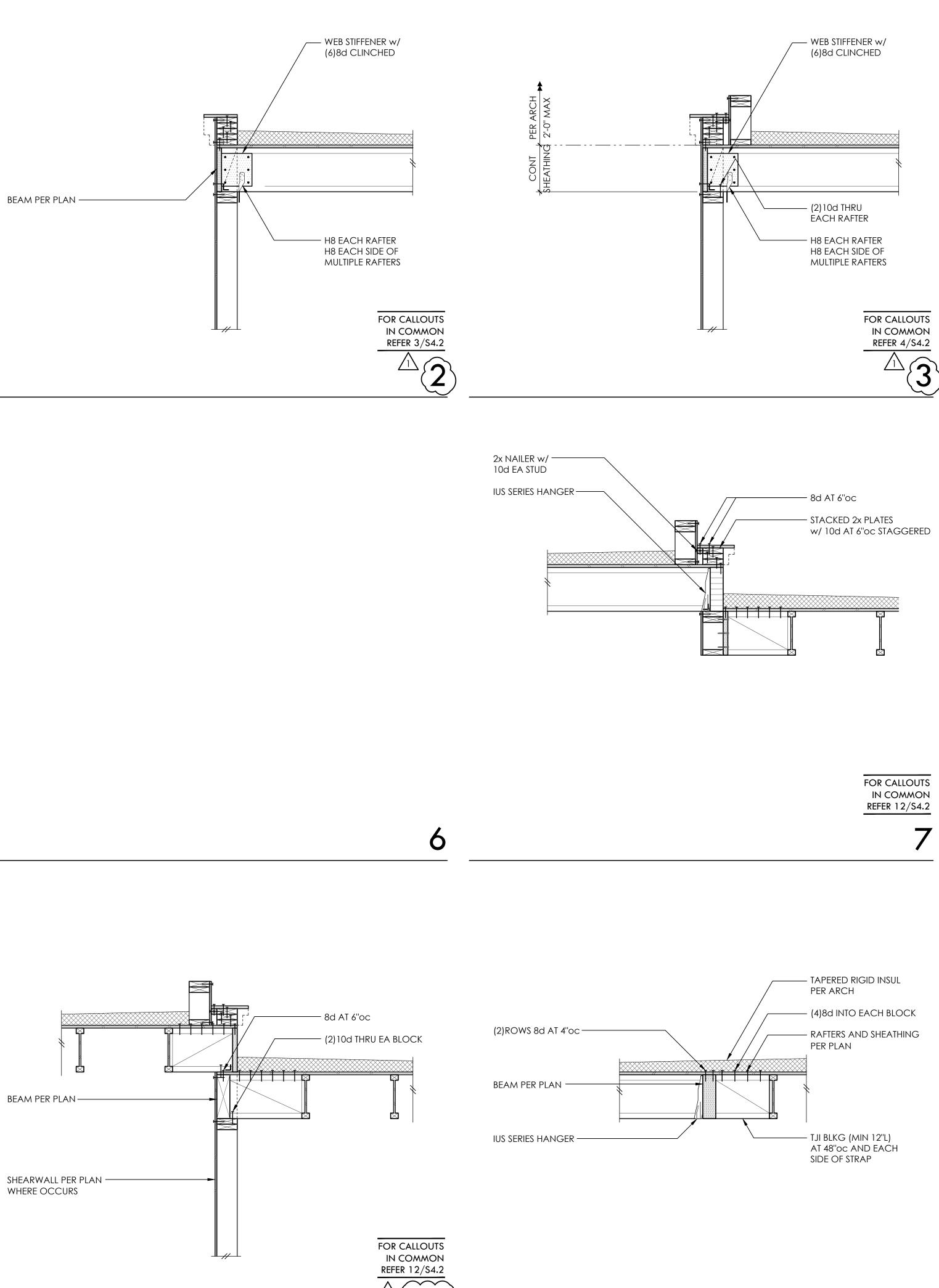
CONARD ROMANO ARCH ARCH 206.329.4227 CLIENT RICHARD AND LESLIE DAY WOOD FRAMING



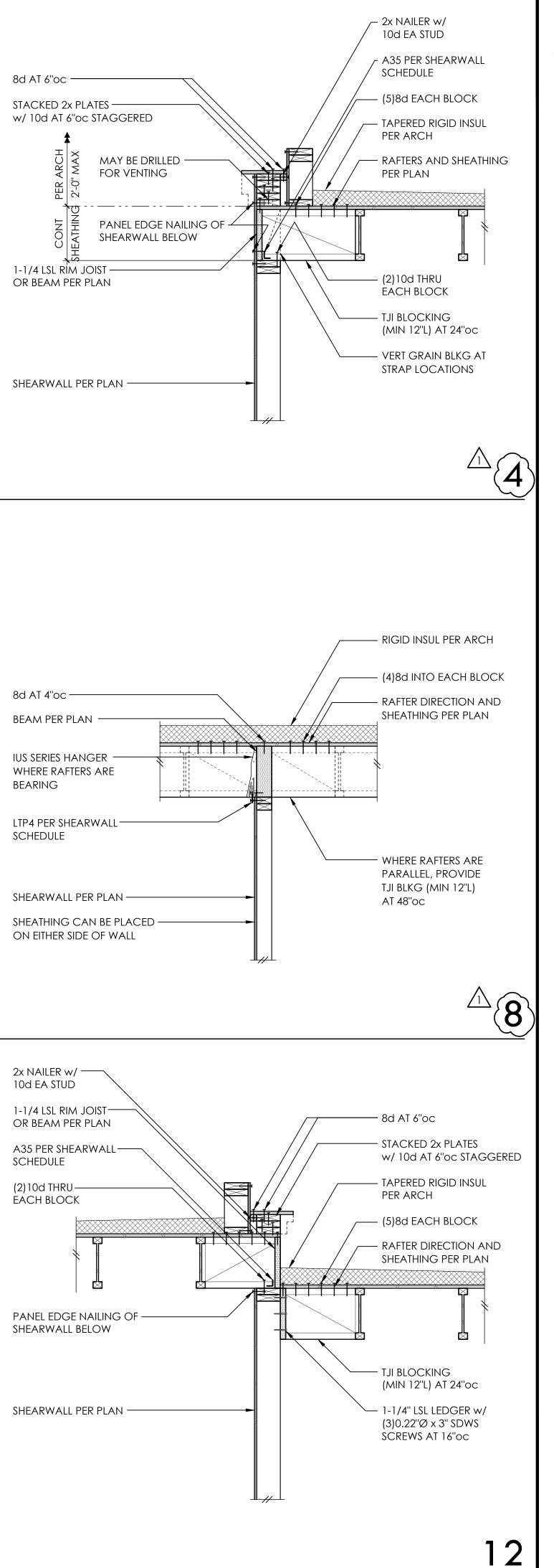




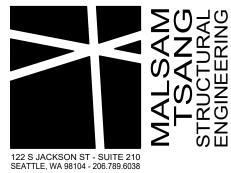




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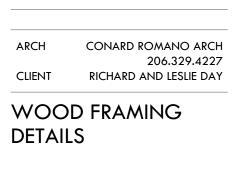
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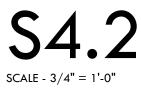


DAY RESIDENCE 9843 MERCERWOOD DRIVE MERCER ISLAND, WA 98117



| RAWN | | DDE | |
|------|------------------|--------------|--|
| NG | INEER | DYLAN STEELE | |
| | | 206.712.6310 | |
| | DYLANS@MALSA | M-TSANG.COM | |
| EV | DESCRIPTION | DATE | |
| | PERMIT SET | 9.27.21 | |
| 1 | PLAN REVISIONS 1 | 3.10.22 | |
| | | | |
| | | | |





Community Planning & Development 9611 SE 36th Street Mercer Island, WA 98040

Critical Area Review 2 Project Narrative

Land Use Reviewer:

Richard and Leslie Day hired Conard Romano Architects to design a new singlefamily residence to replace the existing residence on the lot. The proposed residence is a single-story structure with a walk out basement utilizing the existing basement foundation. The areas with new crawlspace foundation and a portion new basement foundation along the west lot line have been setback from the lot lines to conform to the MICC Title 19 building development setbacks. The southern portion of the Primary Bedroom and new terrace with stair structure descending to the lower yard area are located within the steep slope hazard buffer from the top of the slope.

The plans for the new structure were previously submitted and approved under permit number 2109-226. The permit was never issued because the owner's chose not to start the project for various economic reasons at the time, which have now been resolved. The development plans being submitted for permit number 2312-031 have not changed from the previously approved plans.

Thank you,

Erik Voris

514 – 28TH Avenue East Seattle Washington 98112 206 329 4227

CITY OF MERCER ISLAND

COMMUNITY PLANNING & DEVELOPMENT

9611 SE 36TH STREET | MERCER ISLAND, WA 98040 PHONE: 206.275.7605 | <u>www.mercergov.org</u> Inspection Requests: Online: <u>www.MyBuildingPermit.com</u> VM: 206.275.7730



CONCURRENT REVIEW

I am requesting that my permit submittal be accepted and reviewed concurrently during the review of our land use action (File # _______). I fully understand that the land use application must be approved prior to the issuance of the permit. I take full responsibility for all fees incurred for the permit review and understand that the fees are payable to the City of Mercer Island regardless of the land use outcome. I hold the City harmless for any actions arising from the concurrent review of the permit application, including but not limited to the potential denial of the permit if the land use action is denied.

r C

Signature

Name

Project Address

email

Date

Phone #

Instrument Number: 20240319000351 Document:N Rec: \$306.50 Page-1 of 4 Record Date:3/19/2024 11:17 AM King County, WA

| Return Address: RICHARD DAY 2630 1994 AVE. S.F. UNIT 303 A MERCER IS., WA 98040 | 20240319000351 NOTICE Rec: \$306.50 3/19/2024 11:17 AM KING COUNTY, WA |
|---|---|
| Document Title(s) (or transactions contained th | STATE RECORDER'S Cover Sheet (RCW 65.04) herein): (all areas applicable to your document <u>must</u> be filled in) _2. |
| 3 | 2 4 |
| Reference Number(s) of Documents assi | |
| Additional reference #'s on page of docume | |
| Grantor(s) Exactly as name(s) appear on docum 1. <u>Richard</u> Day | |
| 2 | |
| Additional names on page of document. | |
| Grantee(s) Exactly as name(s) appear on docum 1. <u>City</u> of <u>Mencen</u> Island 2. | <u></u> |
| Additional names on page of document. | |
| Legal description (abbreviated: i.e. lot, block, Lot G Block N Plat/5e Additional legal description Additional legal is on page of document. | ection NE18 Township 24 Range 05 |
| Assessor's Property Tax Parcel/Account assigned 5456000490 | Number Assessor Tax # not yet |
| | provided on this form. The staff will not read the document ing information provided herein. |
| referred to as an emergency nonstandard docume | Precording fee (as provided in RCW 36.18.010 and ent), because this document does not meet margin and understand that the recording process may cover up or ginal document as a result of this request." |
| | |
| | Signature of Requesting Party |

Instrument Number: 20240319000351 Document:N Rec: \$306.50 Page-2 of 4 Record Date:3/19/2024 11:17 AM King County, WA

Document Title: - Notice on Title - Critical Areas

Legal description (abbreviated)

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Lot <u>6</u> Block <u>N</u> Plat/Section <u>NE 18</u> Township <u>24</u> Range <u>05</u>

Additional legal description on page <u>3</u> of document.

Assessor's Property Tax Parcel/Account Number: 5456000490

DO NOT WRITE IN MARGINS

cial Copy

The Auditor/Recorder will rely on the information provided on this form. The staff will not read the attached document to verify the accuracy or completeness of the indexing information provided herein.

Instrument Number: 20240319000351 Document:N Rec: \$306.50 Page-3 of 4 Record Date:3/19/2024 11:17 AM King County, WA

| For Permit Number | CA023-032 |
|-------------------|---|
| For Parcel Number | 5456000490 |
| | 343000430 |
| Street Address | 9843 Mercerwood Dr. Mercer Island, WA 98040 |

This property contains critical areas (e.g. wetlands, streams, geologically hazardous areas, etc.) and/or critical area buffers as defined by the Mercer Island City Code (MICC) 19.07 and regulated by provisions in MICC 19.07.160, MICC 19.07.170, MICC 19.07.180, and/or MICC 19.07.190.

Due to development activity within a critical area and/or associated buffer, a City of Mercer Island Critical Area Study and Mitigation Plan has been required to be prepared and implemented for this property. This mitigation plan consists of planting and landscaping disturbed areas outside the building footprint to provide permanent erosion protection. The redevelopment will include a storm drainage collection and disposal system to reduce the potential for surface runoff reaching the eastern slope. A temporary erosion control system shall be in place and monitored during the construction activity. For further information regarding related requirements and limitations, please contact the City of Mercer Island Community Planning and Development Department.

This notice shall run with the land and shall not be removed except upon specific written authorization approved by the City of Mercer Island and recorded herein by King County.

I, Richard Day, hereby certify that I am the owner of the above-referenced property.

Owner's Signature

State of Washington, County of King

SUBSCRIBED AND SWORN TO before me this 1 day of Carch

Notary Seal

ublic Signature

SATYA SHEELA MANDALIKA **Notary** Public State of Washington Commission # 20102832 My Comm. Expires Jan 5, 2028

SHEELA MANDALIKA . Notary Public Printed Name

Commission Expiration

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Legal Description

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LOT 6 IN BLOCK N OF MERCER WOOD, ACCORDINFG TO THE PLAT THEREOF RECORDED IN VOLUME 52

OF PLATS, PAGES 32 AND 33, RECORDS OF KING COUNTY, WASHINGTON.

| I, <u>Richard Day</u> , hereby certify that I am the owne | er of the above-referenced property. |
|--|--|
| Owner's Signature | |
| State of Washington, County of King | C |
| SUBSCRIBED AND SWORN TO before me this 1 | _day of Carch_, 2024 |
| Notary Seal | H. Say Steel Notary Public Signature |
| SATYA SHEELA MANDALIKA | SATYA SHEELA MANDA LIFA. Notary Public Printed Name |
| Notary Public State of Washington Commission # 20102832 My Comm. Expires Jan 5, 2028 | Jan 5 2028 Commission Expiration |
| A CONTRACTOR OF THE OWNER OF THE | |

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City of Mercer Island Property Hazard Report

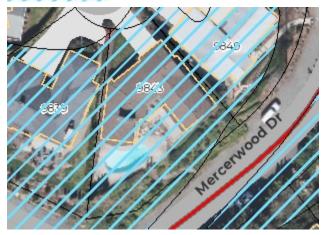


Site Address: 9843 MERCERWOOD DR

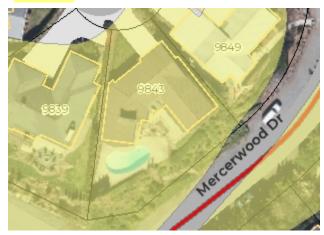
Parcel #: 5456000490

Report Generated on February 14, 2024

Potential Slide:



Erosion:



Wind Exposure:



Steep Slope:

No Hazard Found

Seismic:



 Wind Speed Up Values
 1.0
 1.3
 1.6
 1.9



These maps are for the use of City of Mercer Island staff for the purposes of permit application evaluation. It provides a general assessment of known or suspect hazard areas for which the City will require site and project specific evaluation by a Washington State licensed engineer, geologist or engineering geologist prior to issuing a site for development. All areas have not specifically evaluated for hazards and there may be locations that are not correctly represented on these maps. It is the responsibility of the property owners and map users to evaluate risk associated with their proposed development. No site-specific assessment of risk is implied or otherwise indicated by the City of Mercer Island by these maps.



206.275.7605 www.mercerisland.gov/cpd

January 10, 2024

Attn: Erik Voris 514 28th Ave SE Seattle, WA 98112 Via: Email

RE: CAO23-032 Letter of Completeness; 9843 Mercerwood Dr, Mercer Island, WA 98040

The City of Mercer Island received the above referenced application for a Critical Area Review 2 for the property located at 9843 Mercerwood Dr, Mercer Island, WA 98040 on December 28, 2023. The City has assigned file number CAO23-032 to the Critical Area Review 2 application. Following review of the application, City staff has determined that the application is complete and has established a vesting date of January 10, 2024.

The application is scheduled for mailing and posting on January 16, 2024 as required by MICC 19.15.030.

Formal review of the application will now begin in compliance with Mercer Island City Code, Chapter 19. As review progresses, additional documentation will most likely be requested.

Pursuant to Mercer Island City Code 19.15.110(B), if the applicant fails to provide the required information within 60 days from the date of any request for information, the application shall lapse, and become null and void.

Please do not hesitate to contact me at 206-275-7712 or via e-mail at <u>molly.mcguire@mercerisland.gov</u> if you have any questions.

Sincerely,

Molly Mc Guire

Molly McGuire, Planner City of Mercer Island Community Planning and Development

9611 SE 36TH STREET | MERCER ISLAND, WA 98040 206.275.7605 | <u>www.mercerisland.gov</u>



PUBLIC NOTICE OF APPLICATION

NOTICE IS HEREBY GIVEN for the application described below:

File No.: CAO23-032

Permit Type: Type III

Description of
Request:A request for a Critical Area Review 2 for the demolition and rebuild of
a 3,489 SF single-family residence located on a site containing
geologically hazardous areas.

Applicant/Owner: Erik Voris / Day, Leslie A and Richard L

Location of9843 Mercerwood Dr, Mercer Island WA 98040Property:King County Assessor tax parcel number: 5456000490

SEPA Compliance:

The project is exempt from SEPA Review pursuant to <u>WAC 197-11-800</u>.

Project Documents: https://mieplan.mercergov.org/public/CAO23-032

Written Comments: This may be the only opportunity to comment on this proposal. Written comments on this proposal may be submitted to the City of Mercer Island either by email, in person, or by mail to the City of Mercer Island, 9611 SE 36th Street, Mercer Island, WA 98040-3732. Anyone may comment on the application, receive notice, and request a copy of the decision once made. Only those persons who submit written comments or participate at the public hearing (if a hearing is required) will be parties of record; and only parties of record will have the right to appeal.

| Public Hearing and Public Meeting: | Pursuant to <u>MICC 19.15.030</u> Tables A and B, a public hearing is not required for Type I-III permits. | | | |
|--|--|--|--|--|
| Applicable Development Regulations | Applications for Critical Area Review 2 are required to be processed as Type III land use reviews pursuant to Mercer Island City Code (MICC) 19.15.030. Processing requirements for Type III land use reviews are further detailed in MICC 19.15.030. The city's subdivision requirements are contained in <u>Chapter 19.08 MICC</u> . | | | |
| Other Associated Permits: | Permit No(s): 2312-031 | | | |
| Environmental Documents: | Copies of all studies and/or environmental documents are available through the above project documents link. | | | |
| Application Process Information: | Date of Application: Determined to Be Complete: Weekly Permit Bulletin Notice: Date Mailed: Date Posted on Site: Comment Period Ends: | December 28, 2023 January 10, 2024 January 16, 2024 January 16, 2024 January 16, 2024 5:00PM on February 16, 2024 | | |

| Project Contact: | Molly McGuire, Planner |
|------------------|---|
| | molly.mcguire@mercerisland.gov (206) 275-7712 |



206.275.7605 www.mercerisland.gov/cpd

February 21, 2024 Attn: Erik Voris 514 28th Ave E Seattle, WA 98112 Via: Email RE: CAO23-032 Review Letter 1; 9843 Mercerwood Dr, Mercer Island, WA 98040

Dear Erik Voris,

The City of Mercer Island Community Planning and Development Department has completed a review for compliance with the zoning code, Title 19 of the Mercer Island City Code (MICC) for the above Critical Area Review 2 application. The following issues need to be addressed in your resubmission:

Planning:

- 1. The Development Application Form needs to be signed (see attached).
- Provide a Critical Areas Notice on Title consistent with the requirements in MICC 19.07.070. Submit a draft copy to <u>molly.mcguire@mercerisland.gov</u> for review prior to signing, notarizing, and recording.
- 3. The Geotechnical Engineering Study and Critical Area Study prepared by Geotech Consultants, Inc. must include a detailed analysis of mitigation sequencing consistent with MICC 19.07.100. Provide a revised GES/CAS that includes mitigation sequencing for the proposed alteration to the geologically hazardous areas.
- 4. A landscaping plan is required for all disturbed areas outside of building footprints and installation of hardscape per MICC 19.07.160(B)(2)(d).

The City's processing of the Critical Area Review 2 application has been put on hold until these issues are resolved. Pursuant to MICC 19.15.110, all requested information must be submitted within 60 days or a request for extension requested. The deadline for a complete response or request for extension is <u>April 21, 2024</u>. If a complete response is not received or an extension response has not been received prior to that date, the application will expire and be canceled for inactivity. No additional notification regarding this deadline or expiration of the application will be provided.

Sincerely,

Molly Mc Guire

Molly McGuire, Planner City of Mercer Island Community Planning and Development <u>molly.mcguire@mercerisland.gov</u> (206) 275-7712

Responding and Resubmitting: Click for More Detailed Instructions

- 1. Reply to all review comments within the review letter above.
- 2. Update your drawings, and any necessary supplemental documents or forms.
- 3. Upload updated drawings to the Mercer Island Permit Submittal Portal.

Having Trouble? Please Review the Following:

Accessing, Reviewing, and Responding to MIePlan Comments

Troubleshooting MIePlan

<u>MIePlan Overview</u>

Thank you for your participation in the MIePlan review process.



206.275.7605 www.mercerisland.gov/cpd

March 4, 2024 Attn: Erik Voris 514 28th Ave E Seattle, WA 98112 Via: Email RE: **CAO23-032** Review Letter 2; 9843 Mercerwood Dr, Mercer Island, WA 98040

Dear Erik Voris,

The City of Mercer Island Community Planning and Development Department has completed a review for compliance with the zoning code, Title 19 of the Mercer Island City Code (MICC) for the above Critical Area Review 2 application. The following issues need to be addressed in your resubmission:

Planning:

1. Provide a recorded Critical Areas Notice on Title consistent with the requirements in MICC 19.07.070.

The City's processing of the Critical Area Review 2 application has been put on hold until these issues are resolved. Pursuant to MICC 19.15.110, all requested information must be submitted within 60 days or a request for extension requested. The deadline for a complete response or request for extension is <u>May 3, 2024</u>. If a complete response is not received or an extension response has not been received prior to that date, the application will expire and be canceled for inactivity. No additional notification regarding this deadline or expiration of the application will be provided.

Sincerely,

Molly Mc Guire

Molly McGuire, Planner City of Mercer Island Community Planning and Development <u>molly.mcguire@mercerisland.gov</u> (206) 275-7712

Responding and Resubmitting: <u>Click for More Detailed Instructions</u>

- 1. Reply to all review comments within the review letter above.
- 2. Update your drawings, and any necessary supplemental documents or forms.
- 3. Upload updated drawings to the Mercer Island Permit Submittal Portal.

Having Trouble? Please Review the Following:

Accessing, Reviewing, and Responding to MIePlan Comments Troubleshooting MIePlan <u>MIePlan Overview</u>

Thank you for your participation in the MIePlan review process.

TRANSMITTAL SHEET

| To: | City of Mercer Island | From: | Erik Voris |
|----------|--|------------|--------------------|
| Company: | Department Services – Building & Planning | Project: | Project CA023-032 |
| Address: | 9611 SE 36 Street Mercer Island, WA 98040 | Date: | 3/1/2024 |
| | | Regarding: | Correction Cycle#1 |

In addition to the transmitted documents, please refer to the specific responses to each plan reviewer's correction comments below.

Critical Area Review 2 Corrections received on 2/21/24 from Molly McGuire

- 1. The Development Application Forms needs to be signed.
- Provide a Critical Area Notice on Title consistent with the requirements in MICC 19.07.070. Submit a draft copy to <u>molly.mcquire@mercerisland.gov</u> for review prior to signing, notarizing and recording.
- 3. The Geotechnical Engineering Study and Critical Area Study prepared by Geotech Consultants, Inc. must include a detailed analysis of mitigation sequencing for the proposed alteration to the geologically hazardous area.
- 4. A landscaping plan is required for all disturbed areas outside of building footprints and the installation of hardscape per MICC 19.07.160(B)(2)(d).

Response:

- **1** The Development Application has been signed.
- 2 The draft of the Critical Area Notice on Title has been sent to Molly McGuire for review.
- 3 The Geotech Consultant has provided an addendum to the Critical Area Study to address the mitigation sequencing.
- 4 L1.1 Landscape Plan has been added to the Plan Set.

Thank you,

Erik Voris

514 – 28TH Avenue East Seattle Washington 98112 206 329 4227



January 15, 2024

JN 19233

Richard and Leslie Day 9483 Mercerwood Drive Seattle, Washington 98040 *via email: <u>rday@columbiasoft.com</u>*

Subject: Transmittal Letter – Geotechnical Engineering Study and Critical Area Study Proposed Day Residence Remodel 9843 Mercerwood Drive Mercer Island, Washington

Greetings:

Attached to this transmittal letter is our geotechnical engineering report and Critical Area Study for the proposed remodel of your residence on Mercer Island. The scope of our services consisted of exploring site surface and subsurface conditions, completing slope stability analyses, and then developing this report to provide recommendations for general earthwork and design considerations for foundations, retaining walls, subsurface drainage, and temporary excavations.

The attached report contains a discussion of the study and our recommendations. Please contact us if there are any questions regarding this report, or for further assistance during the design and construction phases of this project.

Respectfully submitted,

GEOTECH CONSULTANTS, INC.

Mr. R. M.S.

Marc R. McGinnis, P.E. Principal

cc: **Conard Romano Architects** – Erik Voris and Jim Romano via email: <u>erik@conardromano.com</u> & jim@conardromano.com

Mercer Builders – Thom Schultz via email: thom.schultz@mercerbulders.com

MRM:kg

GEOTECHNICAL ENGINEERING REPORT AND CRITICAL AREA STUDY Proposed Day Residence Remodel 9843 Mercerwood Drive Mercer Island, Washington

This report presents the findings and recommendations of our geotechnical engineering study for the site of the proposed residence remodel on Mercer Island.

We were provided with the December 7, 2023 plans prepared by Conard Romano Architects. A copy of the topographic survey prepared by Terrane was also provided. Based on this information, and our discussions with the project team, we understand that the existing residence will undergo a substantial remodel. As a part of this work, the existing basement area in the southwestern portion of the current home will be expanded toward the south and southeast. The main floor above will also be expanded to this new basement footprint. The existing north and west basement walls will remain in place. At the north end of the basement area, a main floor extension will be constructed to reconfigure the front entry for the house. The footprint of the main floor on the eastern half of the house will be somewhat reconfigured, but will extend no further toward the south. The existing in-ground swimming pool located to the south of the existing basement area will be filled in and abandoned as a part of the work. No work on the short steep slope located to the south of the developed area of the property is planned.

If the scope of the project changes from what we have described above, we should be provided with revised plans in order to determine if modifications to the recommendations and conclusions of this report are warranted.

SITE CONDITIONS

SURFACE

The Vicinity Map, Plate 1, illustrates the general location of the site in the northeast quadrant of Mercer Island, upslope of East Mercer Way. The irregular-shaped subject site is located inside the curve of Mercerwood Drive. A cul-de-sac at the end of 98th Place Southeast abuts the site to the north.

A one-story residence with a main floor elevation of approximately 184.5 feet is located on the northern half of the property. A concrete driveway connects the northern adjacent cul-de-sac to an attached garage at the northern end of the house. The residence is roughly L-shaped, with a rectangular wing that extends southeast from the garage, paralleling the property's northeast property line. There are modular block walls to the north and east of this northern leg of the "L". The grade drops down to the north and east across these walls. An irregular-shaped wing extends southwest from the garage. The southwestern corner of the house overlies a basement (with a finished floor elevation of 176.3 feet) that daylights to the south-southwest. We observed several cracks in the middle of the south basement wall that could indicate excessive settlement of the shallower portion of the basement.

The ground surface slopes downwards from north to southeast across the site. A gently sloping yard is located north of the residence with a ground surface elevation ranging from 186 feet down to 182 feet. A stone-paver-covered deck is located south of the southeastern wing of the house at the

main floor elevation. However, the grade drops from the deck down to a concrete patio southwest of the residence off the daylight basement; the lower patio also contains an in-ground swimming pool. A rockery separates the lower patio/pool area and the upper deck. The southern edge of the property contains a steep slope that descends from the deck and patio levels, down to the Mercerwood Drive street elevation. Based on the provided topographic map, this southeastern steep slope has an inclination of 60 to 65 percent and a height of 18 to 20 feet.

The City of Mercer Island maps the subject site within several geologic hazard areas. Specifically, the subject site is mapped to lie within both a potential landslide hazard area and an erosion hazard area. The northeast corner of the property is also mapped as a seismic hazard area. We have not observed any indications of recent or historic slope instability on, or around the site during the several visits we have made to the site between our explorations in July 2019 and the date of this current report. Our review of the Landslide Hazard Assessment (Troos & Wisher, 2009) does not show any documented landslides within several blocks of the site.

SUBSURFACE

The subsurface conditions were explored by drilling four test borings at the approximate locations shown on the Site Exploration Plan, Plate 2. Our exploration program was based on the proposed construction, anticipated subsurface conditions and those encountered during exploration, and the scope of work outlined in our proposal. Access was limited by existing features and utilities.

The borings were drilled on July 11, 2019 using a portable Acker drill. This drill system utilizes a small, gasoline-powered engine to advance a hollow-stem auger to the sampling depth. Samples were taken at approximate 5-foot intervals with a standard penetration sampler. This split-spoon sampler, which has a 2-inch outside diameter, is driven into the soil with a 140-pound hammer falling 30 inches. The number of blows required to advance the sampler a given distance is an indication of the soil density or consistency. A geotechnical engineer from our staff observed the drilling process, logged the test borings, and obtained representative samples of the soil encountered. The Test Boring Logs are attached as Plates 3 through 6.

Soil Conditions

Test Borings 1 and 2 were conducted south of the residence at the lower patio/basement elevation and upper deck elevation respectively. Medium-dense, native, non-plastic, sandy silt was revealed below a depth of 2.5 feet in both test borings. The native soils became dense (glacially compressed) below 5 feet and became denser with depth. The silt became very dense below 15 feet in Test Boring 1, and extended to the maximum-explored depth of 21.5 feet.

Test Boring 3 was conducted near the southeast corner of the residence above the 3-foottall modular block wall at the top of the southeastern steep slope. Loose sandy silt fill soils with organics were encountered to a depth of 3 feet, overlying native, loose, non-plastic, sandy silt. The underlying native soils became medium-dense below 5 feet, dense below 10 feet, and very dense below 15 feet. At this location, probing indicates the bottom of the house's footing to be no more than 12 to 18 inches below the ground surface.

Near the northeast corner of the residence, Test Boring 4 encountered loose, native, nonplastic, sandy silt beneath the ground surface. The native silt became medium-dense below 5 feet and dense below 7.5 feet. The top of the footing in this area is approximately 2 feet below grade.

No obstructions were revealed by our explorations. However, debris, buried utilities, and old foundation and slab elements are commonly encountered on sites that have had previous development.

Groundwater Conditions

No groundwater seepage was observed in our subsurface explorations. The test borings were left open for only a short time period, and were conducted at the end of summer. It should be noted that groundwater levels vary seasonally with rainfall and other factors.

The stratification lines on the logs represent the approximate boundaries between soil types at the exploration locations. The actual transition between soil types may be gradual, and subsurface conditions can vary between exploration locations. The logs provide specific subsurface information only at the locations tested. If a transition in soil type occurred between samples in the borings, the depth of the transition was interpreted. The relative densities and moisture descriptions indicated on the test boring logs are interpretive descriptions based on the conditions observed during drilling.

CRITICAL AREA STUDY (MICC 19.07)

Potential Landslide Hazard Area: The majority of the site is located within a mapped Potential Landslide Hazard area.

The Potential Slide Area mapping covers much of the general vicinity. The core of the subject site consists of dense/hard, glacially compressed, native soil that has a low potential for deep-seated landslides. However, this competent soil is overlain by looser fill and medium-dense native soils that could experience shallow slope movement, particularly during a large earthquake.

All structures will be supported on the glacially-compressed soils, protecting them in the event of any future shallow soil movement. The recommendations presented in our report are intended to provide stability for the new development in the event of slope instability, thereby mitigating the Potential Landslide Hazard risk. No buffers are necessary to mitigate the mapped Potential Landslide Hazard.

Seismic Hazard: The northeastern portion of the site is mapped as a Seismic Hazard Area. The explorations conducted on the site around the footprint of the existing/proposed structure revealed dense to very dense, glacially-compressed soils. These competent soils, which will support the development, are not susceptible to seismic liquefaction, even under the shaking of the Maximum Considered Earthquake (MCE). No further measures are needed to mitigate the mapped Seismic Hazard.

Steep Slope Hazard Areas: The short steep slope on the south portion of the site is not mapped as Steep Slope Hazard areas by the City of Mercer Island.

It is our opinion that no buffers or setbacks are needed from the Steep Slope areas on, or adjoining, the site, provided the recommendations presented in this report are followed. The recommendations presented in the report are intended to prevent adverse impacts to the stability of

the Steep Slopes, and to protect the planned development from foreseeable future soil movement on the slopes.

Erosion Hazard Area: The site also meets the City of Mercer Island's criteria for an Erosion Hazard Area.

Excavation and construction of the planned construction can be accomplished without adverse erosion impacts to the site and surrounding properties by exercising care and being proactive with the maintenance and potential upgrading of the erosion control system through the entire construction process. Proper erosion control implementation will be important to prevent adverse impacts to the site and neighboring properties, particularly if grading and construction occurs during the wet season. The temporary erosion control measures needed during the site development will depend heavily on the weather conditions that are encountered during the site work. One of the most important considerations, particularly during wet weather, is to immediately cover any bare soil areas to prevent accumulated water or runoff from the work area from becoming silty in the first place. Silty water cannot be discharged off the site, so a temporary holding tank should be planned for wet weather earthwork, and specialty permits may be needed to discharge collected water. A wire-backed silt fence bedded in compost, not native soil, or sand, should be erected as close as possible to the planned work area, and the existing vegetation outside of the perimeter of the silt fence should be left in place. Rocked construction access and staging areas should be established wherever trucks will have to drive off of pavements, in order reduce the amount of soil or mud carried off the property by trucks and equipment. Covering the base of the excavation with a layer of clean gravel or rock is also prudent to reduce the amount of mud and silty water generated. Cut slopes and soil stockpiles should be covered with plastic during wet weather. Soil stockpiles should be minimized. Silty water accumulating in the excavation must not be allowed to flow off the site. In wet conditions, this may require the use of temporary holding tanks (aka Baker tanks). Following rough grading, it may be necessary to mulch or hydroseed bare areas that will not be immediately covered with landscaping or an impervious surface.

Buffers and Mitigation: We recognize that the planned development will occur within the designated critical areas and their applicable prescriptive buffers. The recommendations presented in this geotechnical report are intended to allow the project to be constructed in the proposed configuration without the need for a buffer from the top of the short southern steep slope. Following the recommendations of this report, the planned development will not adversely impact the stability of the neighboring properties or result in a need for increased critical area buffers on those adjacent properties. The geotechnical recommendations associated with foundations, shoring, and erosion control will mitigate any potential hazards to geologic critical areas on the site.

Summary of Slope Stability Analysis: We utilized the Slope/W computer program to assess the stability of the site for the development scenarios at the eastern and western perimeter of the site. The results of the slope stability analyses for both static and seismic conditions are attached to the end of this report as Appendix A. According to the International Building Code (IBC) and ASCE 7, the Design Earthquake for seismic analyses is equal to two-thirds of the Maximum Considered Earthquake (MCE). As noted later in the report, the peak ground acceleration for the MCE is 0.661g. Using a technique presented by the Federal Highway Administration (FHWA), we reduced the peak ground acceleration due to the effects of wave scatter near slopes. For the seismic slope analyses, we utilized a horizontal seismic coefficient of one-half of this value, or 0.288g.

The slope stability analyses confirm that the safety factor against a failure undermining the planned reconstructed structure is in excess of 1.1 and 1.5 for seismic and static conditions, respectively.

The slope stability analyses are included at the end of this report.

Statement of Risk: In order to satisfy the City of Mercer Island's requirements, we make the following statement:

The design and construction practices recommended in this report for the proposed alteration will render the development as safe as if it were not located in a geologically hazardous area and will not cause adverse geotechnical impacts to the adjacent properties.

CONCLUSIONS AND RECOMMENDATIONS

GENERAL

THIS SECTION CONTAINS A SUMMARY OF OUR STUDY AND FINDINGS FOR THE PURPOSES OF A GENERAL OVERVIEW ONLY. MORE SPECIFIC RECOMMENDATIONS AND CONCLUSIONS ARE CONTAINED IN THE REMAINDER OF THIS REPORT. ANY PARTY RELYING ON THIS REPORT SHOULD READ THE ENTIRE DOCUMENT.

The test borings conducted for this study encountered native, medium-dense sandy silt at depths of 2.5 to 5 feet beneath the ground surface across the subject site. The native silt soils became denser with depth and extended to the maximum-explored depth of 21.5 feet below grade. Due to the hardscaping alongside most of the residence, it was difficult to accurately determine what soil the existing footings bear on. However, based on our observations and test borings, it appears that most of the existing basement's footings and the northern, upslope main floor footings likely bear on the medium-dense, native, sandy silt soils suitable to support the lightly-loaded building. However, based on test holes along the perimeter footings on the southeast and northeast corners of the house, and cracks in the southwest foundation, it appears likely that the southeast wing of the residence and potentially the southern perimeter of the basement bears on loose upper soils. Considering this, we recommend for design purposes, that any existing footings to be reused in the southern half of the basement and the southeastern wing of the main floor be underpinned with 2inch-diameter pipe piles. Pipe piles should be planned for any new foundations to be built in these areas. Once construction begins, it will be possible to more-closely evaluate the transition between suitable bearing soil beneath the existing footings, and if some of the pipe piles can be eliminated. The remaining existing northern footings can be re-used for a design allowable bearing pressure of 2,500 pounds per square foot (psf); however, if additional loads are applied to the existing foundations, we recommend they be underpinned as well. New conventional footings could be used for the northern half of the building footprint, provided they are supported on the medium-dense or denser native silt. The northern main floor expansion for the front entry should be planned to be supported on pipe piles, as it is located where the existing basement wall would have been backfilled after its construction.

As previously discussed, the majority of the subject site is mapped by the City of Mercer Island as both a Potential Landslide Hazard and an Erosion Hazard. The northeast corner of the site is mapped as a Seismic Hazard area as well. Based on the dense underlying silt soils and lack of groundwater encountered in our subsurface explorations onsite, it is our opinion that the soil is not liquefiable and the site not a seismic hazard area. The test borings conducted for this study indicate the subject site and the core of the southeastern steep slope are comprised of dense to very dense sandy silt soils not susceptible to deep-seated soil movement. However, as with any steep slope in the Puget Sound region, there is the possibility of movement of the loose near-surface soils, such as the loose fill soils found behind the small block wall along the top of the slope near the southeast corner of the residence. These shallow "skin slides" most commonly occur after extended periods of heavy precipitation. The recommendation to support the downslope, southeastern and southwestern foundations on small-diameter pipe piles embedded into the dense underlying soils that comprise the core of the slope is intended to prevent the footing from becoming undermined in the event of potential future shallow soil movement.

The silt soils that underlie the subject site have a low recompacted strength and very poor drainage characteristics. Therefore, it will not be feasible to reuse the onsite soils for structural fill beneath foundations, wall backfill, or structural fill that will support on-grade elements. It will be necessary to import granular, well-draining material for structural fill.

The dense to very dense, glacially-compressed soil that lies close to the ground surface is essentially impervious. In our professional opinion, the use of infiltration or dispersion on this site is infeasible. Attempting to use on-site infiltration or dispersion would likely cause adverse drainage impacts to both the existing residence, and the neighboring properties, and could increase the potential for seepage and/or instability on the southern steep slope.

The mapped Erosion Hazard, and appropriate temporary erosion control measures are discussed above.

The concrete shell of the swimming pool can be left in place wherever new, or future, structures are not planned. If the existing pool has a connection to the sewer or storm sewer, this should be capped. The pool shell should be cut or broken to several feet below the final ground surface, so as not to impede new or future utilities or landscaping. Holes should be cut or broken at several locations in the bottom of the pool shell, in order to allow any water accumulating in the filled pool shell to drain away. On-site soil can be used to fill the pool shell, but this soil must be wellcompacted in lifts to prevent settlement of the patio slab that will be constructed on top of the fill.

The drainage and/or waterproofing recommendations presented in this report are intended only to prevent active seepage from flowing through concrete walls or slabs. Even in the absence of active seepage into and beneath structures, water vapor can migrate through walls, slabs, and floors from the surrounding soil, and can even be transmitted from slabs and foundation walls due to the concrete curing process. Water vapor also results from occupant uses, such as cooking, cleaning, and bathing. Excessive water vapor trapped within structures can result in a variety of undesirable conditions, including, but not limited to, moisture problems with flooring systems, excessively moist air within occupied areas, and the growth of molds, fungi, and other biological organisms that may be harmful to the health of the occupants. The designer or architect must consider the potential vapor sources and likely occupant uses, and provide sufficient ventilation, either passive or mechanical, to prevent a build up of excessive water vapor within the planned structure.

Geotech Consultants, Inc. should be allowed to review the final development plans to verify that the recommendations presented in this report are adequately addressed in the design. Such a plan review would be additional work beyond the current scope of work for this study, and it may include revisions to our recommendations to accommodate site, development, and geotechnical constraints that become more evident during the review process.

We recommend including this report, in its entirety, in the project contract documents. This report should also be provided to any future property owners so they will be aware of our findings and recommendations.

SEISMIC CONSIDERATIONS

In accordance with the International Building Code (IBC), the site class within 100 feet of the ground surface is best represented by Site Class Type D (Stiff Soil). As noted in the *ASCE 7 Hazard Tool* website, under ASCE 7-16, the mapped spectral acceleration value for a 0.2 second (S_s) and 1.0 second period (S_1) equals 1.41g and 0.49g, respectively.

The IBC and ASCE 7 require that the potential for liquefaction (soil strength loss) during an earthquake be evaluated for the peak ground acceleration of the Maximum Considered Earthquake (MCE), which has a probability of occurring once in 2,475 years (2 percent probability of occurring in a 50-year period). The MCE peak ground acceleration adjusted for site class effects (F_{PGA}) equals 0.661g. The soils beneath the site are not susceptible to seismic liquefaction under the ground motions of the MCE because of their dense nature and the absence of near-surface groundwater.

CONVENTIONAL FOUNDATIONS

We recommend that new, continuous and individual spread footings have minimum widths of 12 and 16 inches, respectively. Exterior footings should also be bottomed at least 18 inches below the lowest adjacent finish ground surface for protection against frost and erosion. The local building codes should be reviewed to determine if different footing widths or embedment depths are required. Footing subgrades must be cleaned of loose or disturbed soil prior to pouring concrete. Depending upon site and equipment constraints, this may require removing the disturbed soil by hand.

We recommend against the use of thickened slabs for residential construction, as it is difficult to impossible ensure that the subgrades have been appropriately prepared. Also, the compacted slab fill throughout the slab subgrade preparation has to be protected from disturbance by the earthwork, foundation, and utility contractors.

An allowable bearing pressure of 2,500 pounds per square foot (psf) is appropriate for new or existing footings supported on competent native soil. A one-third increase in this design bearing pressure may be used when considering short-term wind or seismic loads. For the above design criteria, it is anticipated that the total post-construction settlement of footings founded on competent native soil, or on structural fill up to 5 feet in thickness, will be about one inch, with differential settlements on the order of one half-inch in a distance of 50 feet along a continuous footing with a uniform load.

Lateral loads due to wind or seismic forces may be resisted by friction between the foundation and the bearing soil, or by passive earth pressure acting on the vertical, embedded portions of the foundation. For the latter condition, the foundation must be either poured directly against relatively level, undisturbed soil or be surrounded by level, well-compacted fill. We recommend using the following ultimate values for the foundation's resistance to lateral loading:

| PARAMETER | ULTIMATE VALUE | |
|-------------------------|-------------------|--|
| Coefficient of Friction | 0.40 | |
| Passive Earth Pressure | 300 pcf | |

Where: pcf is Pounds per Cubic Foot, and Passive Earth Pressure is computed using the Equivalent Fluid Density.

If the ground in front of a foundation is loose or sloping, the passive earth pressure given above will not be appropriate. The above ultimate values for passive earth pressure and coefficient of friction do not include a safety factor.

PIPE PILES

A 2-inch-diameter pipe pile driven with a minimum 90-pound jackhammer or a 140-pound Rhino hammer to a final penetration rate of 1-inch or less for one minute of continuous driving may be assigned an allowable compressive load of 3 tons. Extra-strong steel pipe should be used for 2-inch-diameter piles.

Three- or 4-inch-diameter pipe piles driven with a 850- or 1,100- or 2,000-pound hydraulic jackhammer to the following final penetration rates may be assigned the following compressive capacities.

| INSIDE PILE DIAMETER | RATE | FINAL DRIVING RATE (1,100-pound hammer) | FINAL DRIVING RATE (2,000-pound hammer) | ALLOWABLE COMPRESSIVE CAPACITY |
|----------------------------|-------------|--|--|--------------------------------------|
| 3 inches | 10 sec/inch | 6 sec/inch | 2 sec/inch | 6 tons |
| 4 inches | 16 sec/inch | 10 sec/inch | 4 sec/inch | 10 tons |

Note: The refusal criteria indicated in the above table are valid only for pipe piles that are installed using a hydraulic impact hammer carried on leads that allow the hammer to sit on the top of the pile during driving. If the piles are installed by alternative methods, such as a vibratory hammer or a hammer that is hard-mounted to the installation machine, numerous load tests to 200 percent of the design capacity would be necessary to substantiate the allowable pile load. The appropriate number of load tests would need to be determined at the time the contractor and installation method are chosen.

As a minimum, Schedule 40 pipe should be used for 3- or 4-inch piles.

The site soils are not highly organic, and are not located near salt water. As a result, they do not have an elevated corrosion potential. Considering this, it is our opinion that standard "black" pipe can be used, and corrosion protection, such as galvanizing, is not necessary for the pipe piles.

Pile caps and grade beams should be used to transmit loads to the piles. Isolated pile caps should include a minimum of two piles to reduce the potential for eccentric loads being applied to the piles. Subsequent sections of pipe can be connected with slip or threaded couplers, or they can be welded together. If slip couplers are used, they should fit snugly into the pipe sections. This may require that shims be used or that beads of welding flux be applied to the outside of the coupler.

Due to their small diameter, the lateral capacity of vertical pipe piles is relatively small. Lateral loads due to wind or seismic forces may be resisted by passive earth pressure acting on the vertical, embedded portions of the foundation. For this condition, the foundation must be either poured directly against relatively level, undisturbed soil or be surrounded by level compacted fill. We recommend using a passive earth pressure of 300 pounds per cubic foot (pcf) for this resistance. We recommend a safety factor of at least 1.5 for the foundation's resistance to lateral loading, when using the above ultimate passive value. If the ground in front of a foundation is loose or sloping, the passive earth pressure given above will not be appropriate.

FOUNDATION AND RETAINING WALLS

Retaining walls backfilled on only one side should be designed to resist the lateral earth pressures imposed by the soil they retain. The following recommended parameters are for walls that restrain <u>level</u> backfill:

| PARAMETER | VALUE |
|-------------------------|---------|
| Active Earth Pressure * | 40 pcf |
| Passive Earth Pressure | 300 pcf |
| Coefficient of Friction | 0.40 |
| Soil Unit Weight | 130 pcf |

Where: pcf is Pounds per Cubic Foot, and Active and Passive Earth Pressures are computed using the Equivalent Fluid Pressures.

* For a restrained wall that cannot deflect at least 0.002 times its height, a uniform lateral pressure equal to 10 psf times the height of the wall should be added to the above active equivalent fluid pressure. This applies only to walls with level backfill.

The design values given above do not include the effects of any hydrostatic pressures behind the walls and assume that no surcharges, such as those caused by slopes, vehicles, or adjacent foundations will be exerted on the walls. If these conditions exist, those pressures should be added to the above lateral soil pressures. Where sloping backfill is desired behind the walls, we will need to be given the wall dimensions and the slope of the backfill in order to provide the appropriate design earth pressures. The surcharge due to traffic loads behind a wall can typically be accounted for by adding a uniform pressure equal to 2 feet multiplied by the above active fluid density. Heavy construction equipment should not be operated behind retaining and foundation walls within a distance equal to the height of a wall, unless the walls are designed for the additional lateral pressures resulting from the equipment.

The values given above are to be used to design only permanent foundation and retaining walls that are to be backfilled, such as conventional walls constructed of reinforced concrete or masonry. It is not appropriate to use the above earth pressures and soil unit weight to back-calculate soil strength parameters for design of other types of retaining walls, such as soldier pile, reinforced earth, modular or soil nail walls. We can assist with design of these types of walls, if desired.

The passive pressure given is appropriate only for a shear key poured directly against undisturbed native soil, or for the depth of level, well-compacted fill placed in front of a retaining or foundation wall. The values for friction and passive resistance are ultimate values and do not include a safety factor. Restrained wall soil parameters should be utilized the wall and reinforcing design for a distance of 1.5 times the wall height from corners or bends in the walls, or from other points of restraint. This is intended to reduce the amount of cracking that can occur where a wall is restrained by a corner.

Wall Pressures Due to Seismic Forces

Under the IBC, seismic surcharges should be applied in the design of walls that retain more than 6 feet. The surcharge wall loads that could be imposed by the design earthquake can be modeled by adding a uniform lateral pressure to the above-recommended active

pressure. The recommended surcharge pressure is 8H pounds per square foot (psf), where H is the design retention height of the wall. Using this increased pressure, the safety factor against sliding and overturning can be reduced to 1.2 for the seismic analysis.

Retaining Wall Backfill and Waterproofing

Backfill placed behind retaining or foundation walls should be coarse, free-draining structural fill containing no organics. This backfill should contain no more than 5 percent silt or clay particles and have no gravel greater than 4 inches in diameter. The percentage of particles passing the No. 4 sieve should be between 25 and 70 percent. Free-draining backfill should be used for the entire width of the backfill where seepage is encountered. For increased protection, drainage composites should be placed along cut slope faces, and the walls should be backfilled entirely with free-draining soil. The later section entitled **Drainage Considerations** should also be reviewed for recommendations related to subsurface drainage behind foundation and retaining walls.

The soils that will be excavated for this project are not free-draining, and should not be reused for compacted fill behind walls that are taller than approximately 2 feet in height.

The purpose of these backfill requirements is to ensure that the design criteria for a retaining wall are not exceeded because of a build-up of hydrostatic pressure behind the wall. Also, subsurface drainage systems are not intended to handle large volumes of water from surface runoff. The top 12 to 18 inches of the backfill should consist of a compacted, relatively impermeable soil or topsoil, or the surface should be paved. The ground surface must also slope away from backfilled walls at one to 2 percent to reduce the potential for surface water to percolate into the backfill.

Water percolating through pervious surfaces (pavers, gravel, permeable pavement, etc.) must also be prevented from flowing toward walls or into the backfill zone. Foundation drainage and waterproofing systems are not intended to handle large volumes of infiltrated water. The compacted subgrade below pervious surfaces and any associated drainage layer should therefore be sloped away. Alternatively, a membrane and subsurface collection system could be provided below a pervious surface.

It is critical that the wall backfill be placed in lifts and be properly compacted, in order for the above-recommended design earth pressures to be appropriate. The recommended wall design criteria assume that the backfill will be well-compacted in lifts no thicker than 12 inches. The compaction of backfill near the walls should be accomplished with hand-operated equipment to prevent the walls from being overloaded by the higher soil forces that occur during compaction. The section entitled **General Earthwork and Structural Fill** contains additional recommendations regarding the placement and compaction of structural fill behind retaining and foundation walls.

The above recommendations are not intended to waterproof below-grade walls, or to prevent the formation of mold, mildew or fungi in interior spaces. Over time, the performance of subsurface drainage systems can degrade, subsurface groundwater flow patterns can change, and utilities can break or develop leaks. Therefore, waterproofing should be provided where future seepage through the walls is not acceptable. This typically includes limiting cold-joints and wall penetrations, and using bentonite panels or membranes on the outside of the walls. There are a variety of different waterproofing materials and systems, which should be installed by an experienced contractor familiar with the anticipated

construction and subsurface conditions. Applying a thin coat of asphalt emulsion to the outside face of a wall is not considered waterproofing, and will only help to reduce moisture generated from water vapor or capillary action from seeping through the concrete. As with any project, adequate ventilation of basement and crawl space areas is important to prevent a buildup of water vapor that is commonly transmitted through concrete walls from the surrounding soil, even when seepage is not present. This is appropriate even when waterproofing is applied to the outside of foundation and retaining walls. We recommend that you contact an experienced envelope consultant if detailed recommendations or specifications related to waterproofing design, or minimizing the potential for infestations of mold and mildew are desired.

The **General**, **Slabs-On-Grade**, and **Drainage Considerations** sections should be reviewed for additional recommendations related to the control of groundwater and excess water vapor for the anticipated construction.

SLABS-ON-GRADE

The building floors can be constructed as slabs-on-grade atop non-organic native soil, or on structural fill. The subgrade soil must be in a firm, non-yielding condition at the time of slab construction or underslab fill placement. Any soft areas encountered should be excavated and replaced with select, imported structural fill.

Even where the exposed soils appear dry, water vapor will tend to naturally migrate upward through the soil to the new constructed space above it. This can affect moisture-sensitive flooring, cause imperfections or damage to the slab, or simply allow excessive water vapor into the space above the slab. All interior slabs-on-grade should be underlain by a capillary break drainage layer consisting of a minimum 4-inch thickness of clean gravel or crushed rock that has a fines content (percent passing the No. 200 sieve) of less than 3 percent and a sand content (percent passing the No. 4 sieve) of no more than 10 percent. Pea gravel or crushed rock are typically used for this layer.

As noted by the American Concrete Institute (ACI) in the *Guides for Concrete Floor and Slab Structures*, proper moisture protection is desirable immediately below any on-grade slab that will be covered by tile, wood, carpet, impermeable floor coverings, or any moisture-sensitive equipment or products. ACI recommends a minimum 10-mil thickness vapor retarder for better durability and long term performance than is provided by 6-mil plastic sheeting that has historically been used. A vapor retarder is defined as a material with a permeance of less than 0.3 perms, as determined by ASTM E 96. It is possible that concrete admixtures may meet this specification, although the manufacturers of the admixtures should be consulted. Where vapor retarders are used under slabs, their edges should overlap by at least 6 inches and be sealed with adhesive tape. The sheeting should extend to the foundation walls for maximum vapor protection.

If no potential for vapor passage through the slab is desired, a vapor *barrier* should be used. A vapor barrier, as defined by ACI, is a product with a water transmission rate of 0.01 perms when tested in accordance with ASTM E 96. Reinforced membranes having sealed overlaps can meet this requirement.

We recommend that the contractor, the project materials engineer, and the owner discuss these issues and review recent ACI literature and ASTM E-1643 for installation guidelines and guidance on the use of the protection/blotter material.

The *General*, *Permanent Foundation and Retaining Walls*, and *Drainage Considerations* sections should be reviewed for additional recommendations related to the control of groundwater and excess water vapor for the anticipated construction.

EXCAVATIONS AND SLOPES

Temporary excavation slopes should not exceed the limits specified in local, state, and national government safety regulations. Also, temporary cuts should be planned to provide a minimum 2 to 3 feet of space for construction of foundations, walls, and drainage. Temporary cuts to a maximum overall depth of about 4 feet may be attempted vertically in unsaturated soil, if there are no indications of slope instability. However, vertical cuts should not be made near property boundaries, or existing utilities and structures. Unless approved by the geotechnical engineer of record, it is important that vertical cuts not be made at the base of sloped cuts. Based upon Washington Administrative Code (WAC) 296, Part N, the soil at the subject site would generally be classified as Type B. Therefore, temporary cut slopes greater than 4 feet in height should not be excavated at an inclination steeper than 1:1 (Horizontal:Vertical), extending continuously between the top and the bottom of a cut.

The above-recommended temporary slope inclination is based on the conditions exposed in our explorations, and on what has been successful at other sites with similar soil conditions. It is possible that variations in soil and groundwater conditions will require modifications to the inclination at which temporary slopes can stand. Temporary cuts are those that will remain unsupported for a relatively short duration to allow for the construction of foundations, retaining walls, or utilities. Temporary cut slopes should be protected with plastic sheeting during wet weather. It is also important that surface runoff be directed away from the top of temporary slope cuts. Cut slopes should also be backfilled or retained as soon as possible to reduce the potential for instability. Please note that loose soil can cave suddenly and without warning. Excavation, foundation, and utility contractors should be made especially aware of this potential danger. These recommendations may need to be modified if the area near the potential cuts has been disturbed in the past by utility installation, or if settlement-sensitive utilities are located nearby.

All permanent cuts into native soil should be inclined no steeper than 2.5:1 (H:V). Water should not be allowed to flow uncontrolled over the top of any temporary or permanent slope. All permanently exposed slopes should be seeded with an appropriate species of vegetation to reduce erosion and improve the stability of the surficial layer of soil.

Any disturbance to the existing slope outside of the building limits may reduce the stability of the slope. Damage to the existing vegetation and ground should be minimized, and any disturbed areas should be revegetated as soon as possible. Soil from the excavation should not be placed on the slope, and this may require the off-site disposal of any surplus soil.

DRAINAGE CONSIDERATIONS

Footing drains should be used where: (1) crawl spaces or basements will be below a structure; (2) a slab is below the outside grade; or, (3) the outside grade does not slope downward from a building. Drains should also be placed at the base of all earth-retaining walls. These drains should be surrounded by at least 6 inches of 1-inch-minus, washed rock that is encircled with non-woven, geotextile filter fabric (Mirafi 140N, Supac 4NP, or similar material). At its highest point, a perforated pipe invert should be at least 6 inches below the bottom of a slab floor or the level of a crawl space.

The discharge pipe for subsurface drains should be sloped for flow to the outlet point. Roof and surface water drains must not discharge into the foundation drain system. A typical footing drain detail is attached to this report as Plate 7. For the best long-term performance, perforated PVC pipe is recommended for all subsurface drains. Clean-outs should be provided for potential future flushing or cleaning of footing drains.

As a minimum, a vapor retarder, as defined in the **Slabs-On-Grade** section, should be provided in any crawl space area to limit the transmission of water vapor from the underlying soils. Crawl space grades are sometimes left near the elevation of the bottom of the footings. As a result, an outlet drain is recommended for all crawl spaces to prevent an accumulation of any water that may bypass the footing drains. Providing a few inches of free draining gravel underneath the vapor retarder is also prudent to limit the potential for seepage to build up on top of the vapor retarder.

No groundwater was observed during our field work. If seepage is encountered in an excavation, it should be drained from the site by directing it through drainage ditches, perforated pipe, or French drains, or by pumping it from sumps interconnected by shallow connector trenches at the bottom of the excavation.

The excavation and site should be graded so that surface water is directed off the site and away from the tops of slopes. Water should not be allowed to stand in any area where foundations, slabs, or pavements are to be constructed. Final site grading in areas adjacent to a building should slope away at least one to 2 percent, except where the area is paved. Surface drains should be provided where necessary to prevent ponding of water behind foundation or retaining walls. A discussion of grading and drainage related to pervious surfaces near walls and structures is contained in the *Foundation and Retaining Walls* section.

GENERAL EARTHWORK AND STRUCTURAL FILL

All building and pavement areas should be stripped of surface vegetation, topsoil, organic soil, and other deleterious material. The stripped or removed materials should not be mixed with any materials to be used as structural fill, but they could be used in non-structural areas, such as landscape beds.

Structural fill is defined as any fill, including utility backfill, placed under, or close to, a building, or in other areas where the underlying soil needs to support loads. All structural fill should be placed in horizontal lifts with a moisture content at, or near, the optimum moisture content. The optimum moisture content is that moisture content that results in the greatest compacted dry density. The moisture content of fill is very important and must be closely controlled during the filling and compaction process.

The allowable thickness of the fill lift will depend on the material type selected, the compaction equipment used, and the number of passes made to compact the lift. The loose lift thickness should not exceed 12 inches, but should be thinner if small, hand-operated compactors are used. We recommend testing structural fill as it is placed. If the fill is not sufficiently compacted, it should be recompacted before another lift is placed. This eliminates the need to remove the fill to achieve the required compaction.

The following table presents recommended levels of relative compaction for compacted fill:

| LOCATION OF FILL PLACEMENT | MINIMUM RELATIVE COMPACTION |
|---|---|
| Beneath slabs or walkways | 95% |
| Filled slopes and behind retaining walls | 90% |
| Beneath pavements | 95% for upper 12 inches of subgrade; 90% below that level |

Where: Minimum Relative Compaction is the ratio, expressed in percentages, of the compacted dry density to the maximum dry density, as determined in accordance with ASTM Test Designation D 1557-91 (Modified Proctor).

Structural fill that will be placed in wet weather should consist of a coarse, granular soil with a silt or clay content of no more than 5 percent. The percentage of particles passing the No. 200 sieve should be measured from that portion of soil passing the three-quarter-inch sieve.

LIMITATIONS

The conclusions and recommendations contained in this report are based on site conditions as they existed at the time of our exploration and assume that the soil and groundwater conditions encountered in the test borings are representative of subsurface conditions on the site. If the subsurface conditions encountered during construction are significantly different from those observed in our explorations, we should be advised at once so that we can review these conditions and reconsider our recommendations where necessary. Unanticipated conditions are commonly encountered on construction sites and cannot be fully anticipated by merely taking samples in test borings. Subsurface conditions can also vary between exploration locations. Such unexpected conditions frequently require making additional expenditures to attain a properly constructed project. It is recommended that the owner consider providing a contingency fund to accommodate such potential extra costs and risks. This is a standard recommendation for all projects.

The recommendations presented in this report are directed toward the protection of only the new development from damage due to slope movement. Predicting the future behavior of steep slopes and the potential effects of development on their stability is an inexact and imperfect science that is currently based mostly on the past behavior of slopes with similar characteristics. Landslides and soil movement can occur on steep slopes before, during, or after the development of property. The owner of any property containing, or located close to steep slopes must ultimately accept the possibility that some slope movement could occur, resulting in possible loss of ground or damage to the facilities around the residence.

This report has been prepared for the exclusive use of Richard and Leslie Day and their representatives, for specific application to this project and site. Our conclusions and recommendations are professional opinions derived in accordance with our understanding of current local standards of practice, and within the scope of our services. No warranty is expressed or implied. The scope of our services does not include services related to construction safety precautions, and our recommendations are not intended to direct the contractor's methods, techniques, sequences, or procedures, except as specifically described in our report for

consideration in design. Our services also do not include assessing or minimizing the potential for biological hazards, such as mold, bacteria, mildew and fungi in either the existing or proposed site development.

ADDITIONAL SERVICES

In addition to reviewing the final plans, Geotech Consultants, Inc. should be retained to provide geotechnical consultation, testing, and observation services during construction. This is to confirm that subsurface conditions are consistent with those indicated by our exploration, to evaluate whether earthwork and foundation construction activities comply with the general intent of the recommendations presented in this report, and to provide suggestions for design changes in the event subsurface conditions differ from those anticipated prior to the start of construction. However, our work would not include the supervision or direction of the actual work of the contractor and its employees or agents. Also, job and site safety, and dimensional measurements, will be the responsibility of the contractor.

During the construction phase, we will provide geotechnical observation and testing services when requested by you or your representatives. Please be aware that we can only document site work we actually observe. It is still the responsibility of your contractor or on-site construction team to verify that our recommendations are being followed, whether we are present at the site or not.

The following are attached to complete this report:

| Plate 1 | Vicinity Map |
|--------------|------------------------------|
| Plate 2 | Site Exploration Plan |
| Plates 3 - 6 | Test Boring Logs |
| Plate 7 | Typical Footing Drain Detail |

Slope Stability Analyses

Please contact us if you have any questions regarding this report, or if we can be of further assistance.

Respectfully submitted,

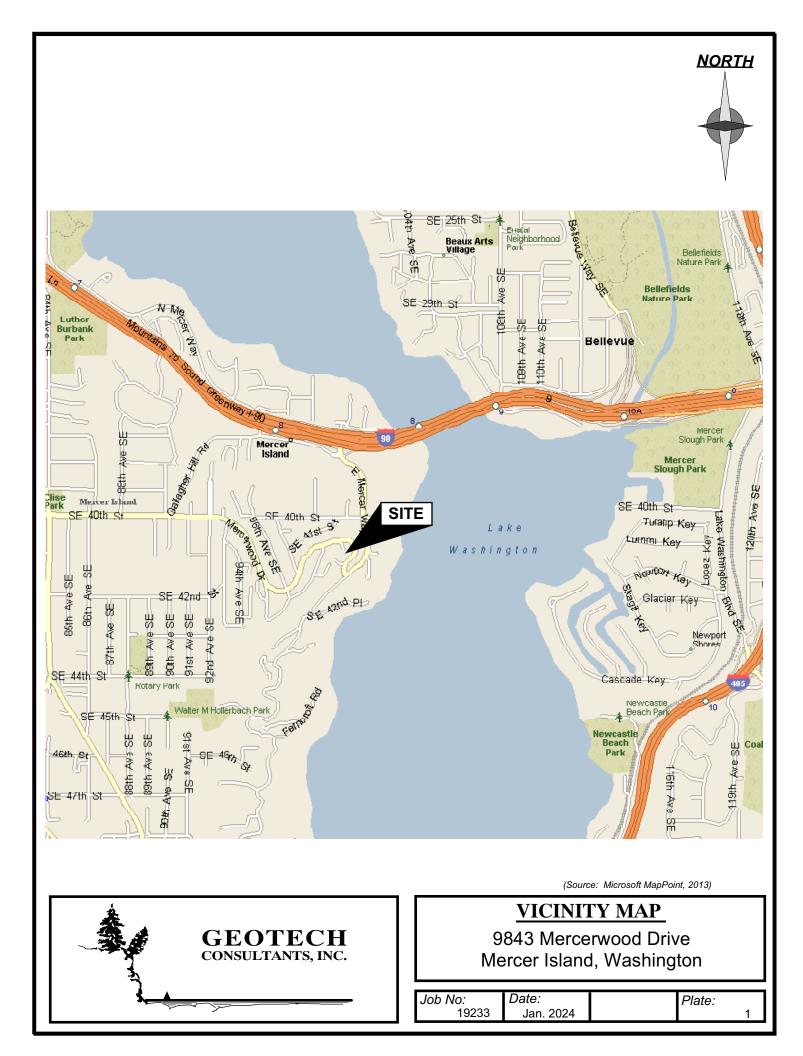
GEOTECH CONSULTANTS, INC.

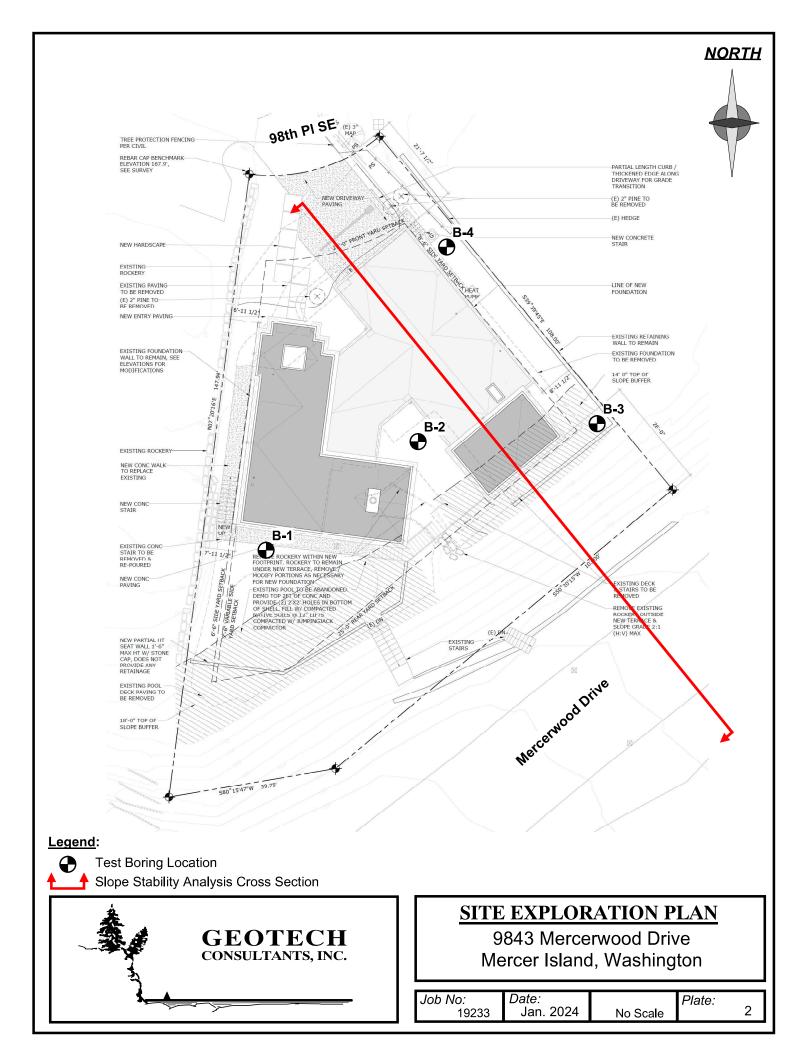
Adam S. Moyer Geotechnical Engineer

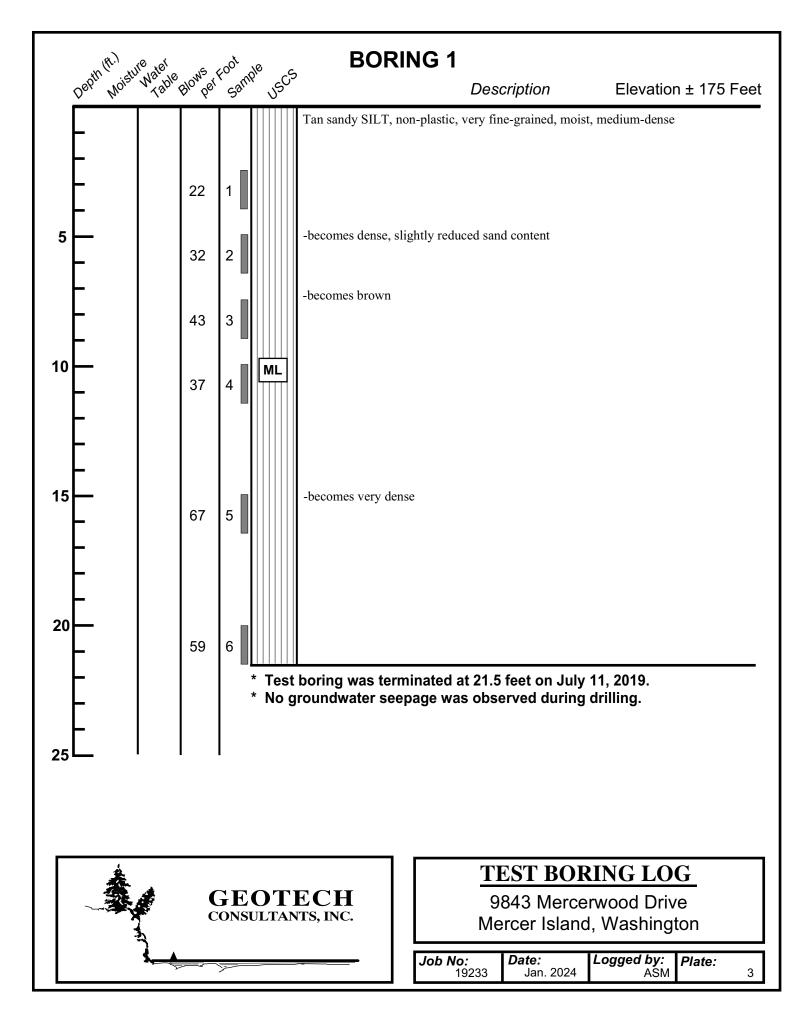


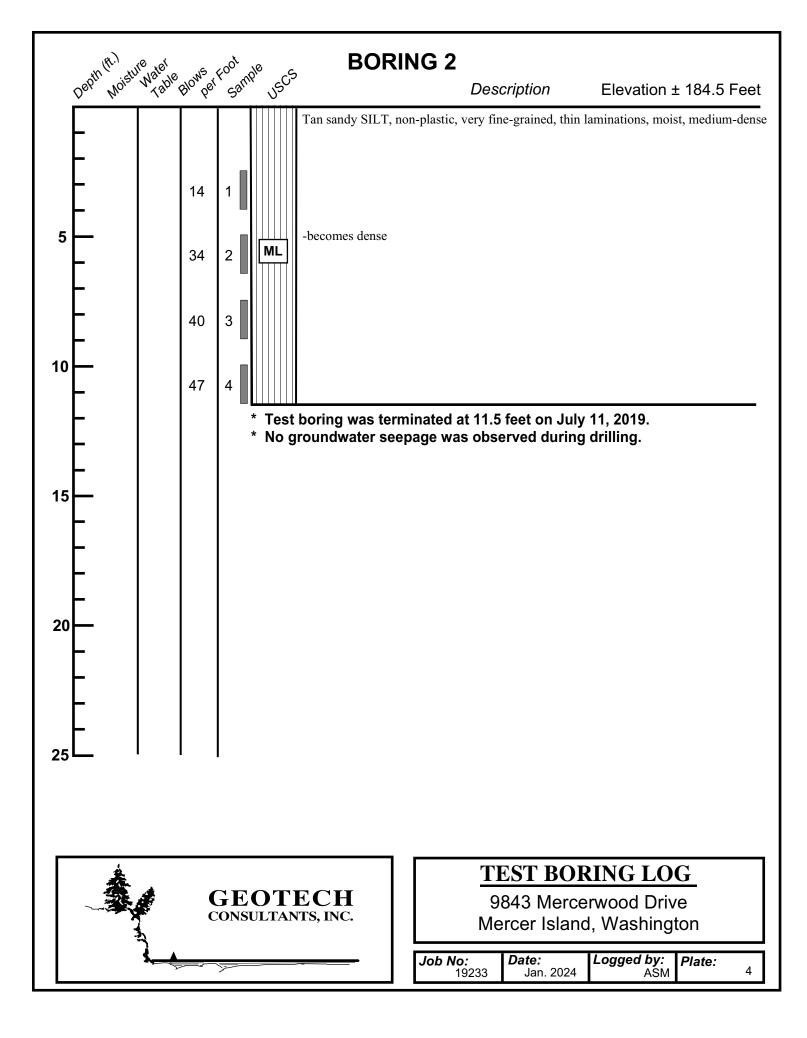
Marc R. McGinnis, P.E. Principal

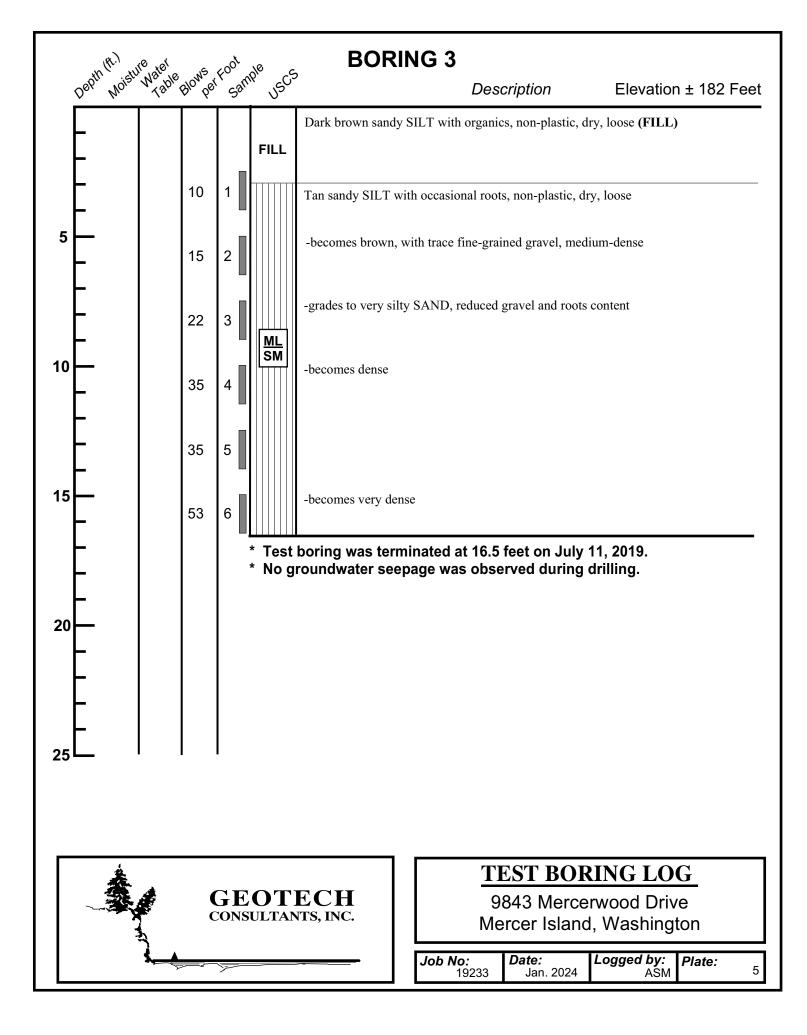
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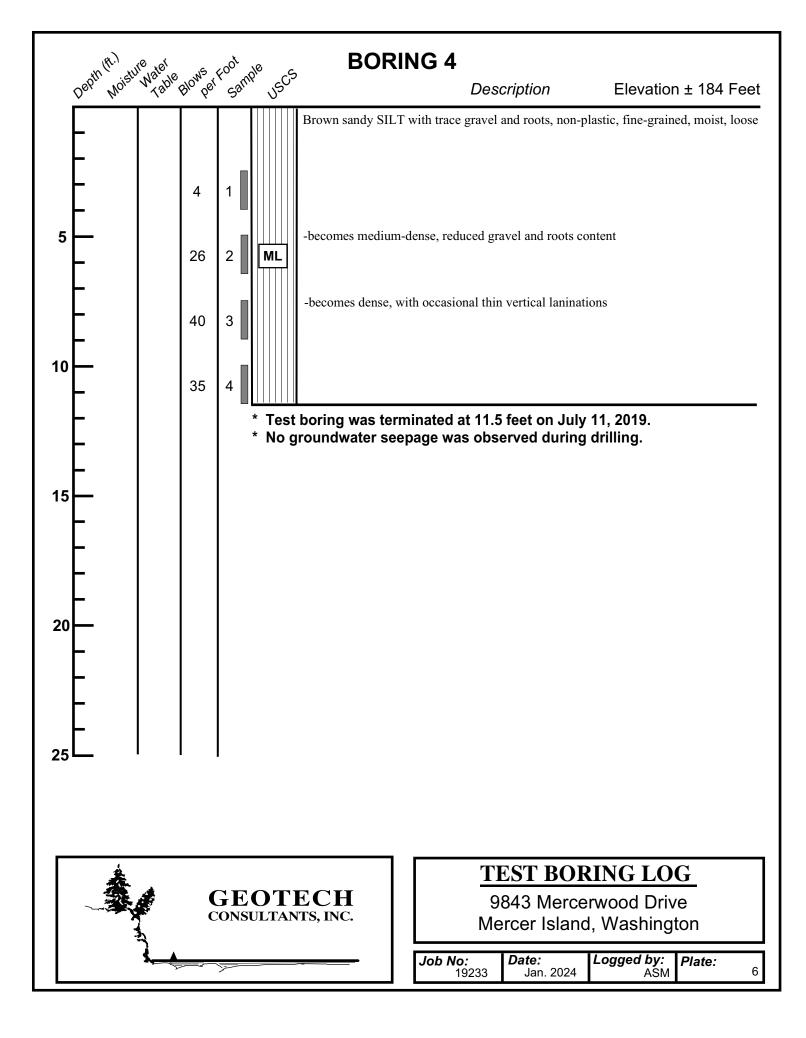


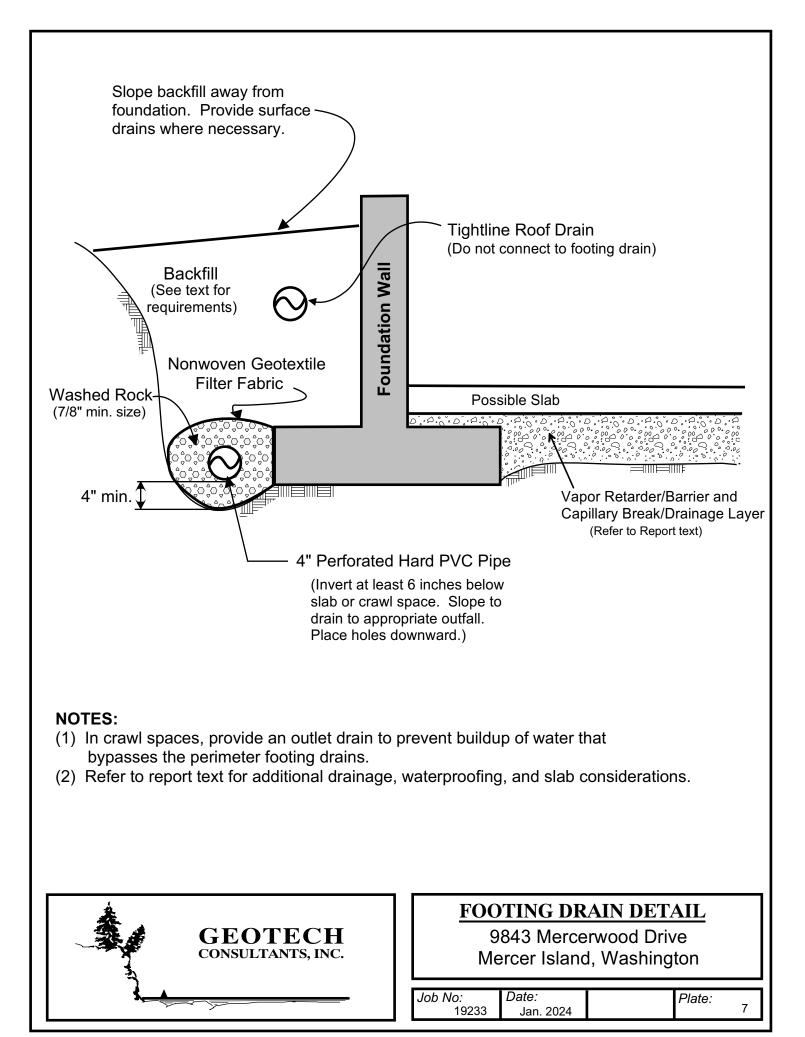






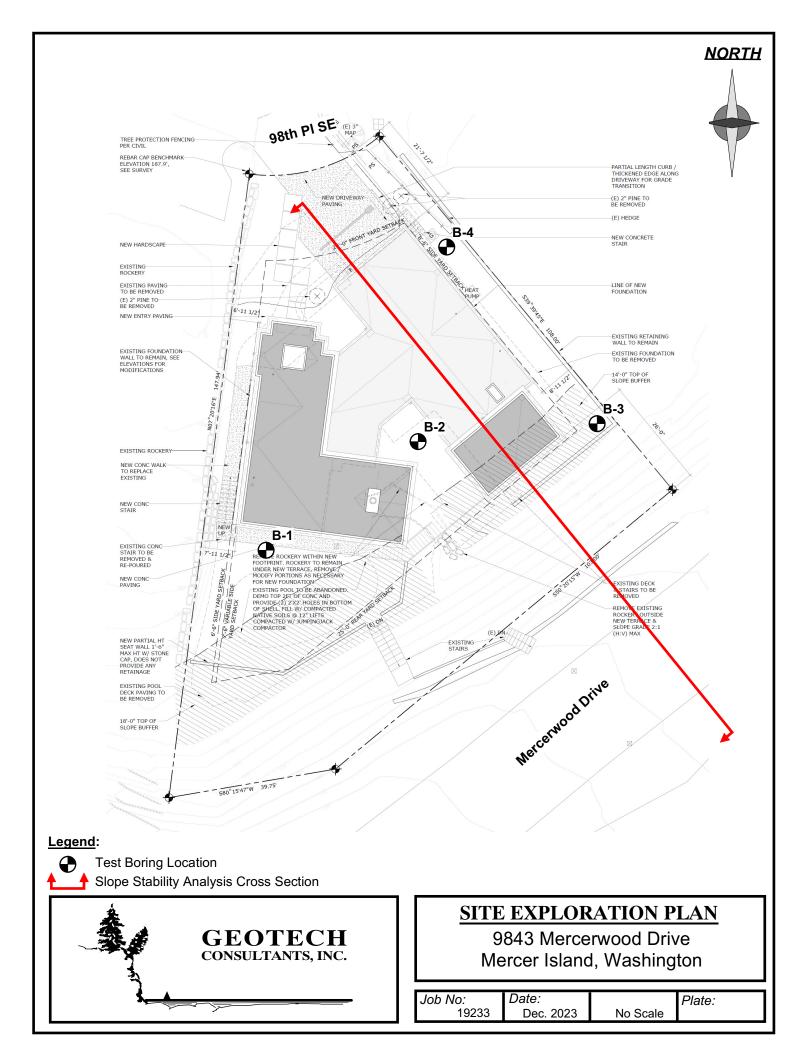






SLOPE STABILITY ANALYSES

9843 MERCERWOOD DRIVE MERCER ISLAND, WASHINGTON



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Cross Section

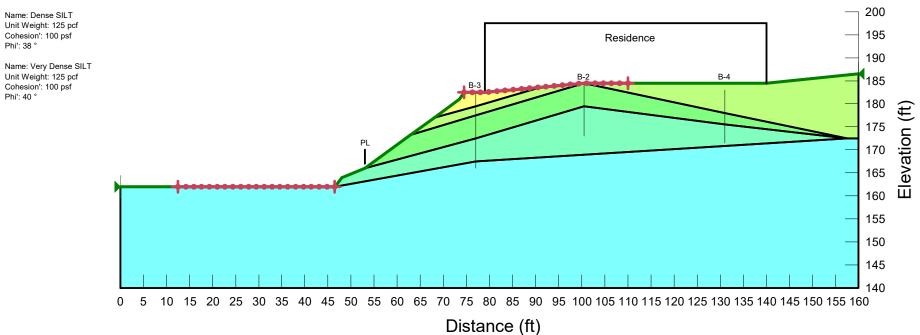
Materials

Loose Silt FILL
 Loose SILT
 Medium-dense SILT
 Dense SILT
 Very Dense SILT

Name: Loose Silt FILL Unit Weight: 120 pcf Cohesion': 0 psf Phi': 28 °

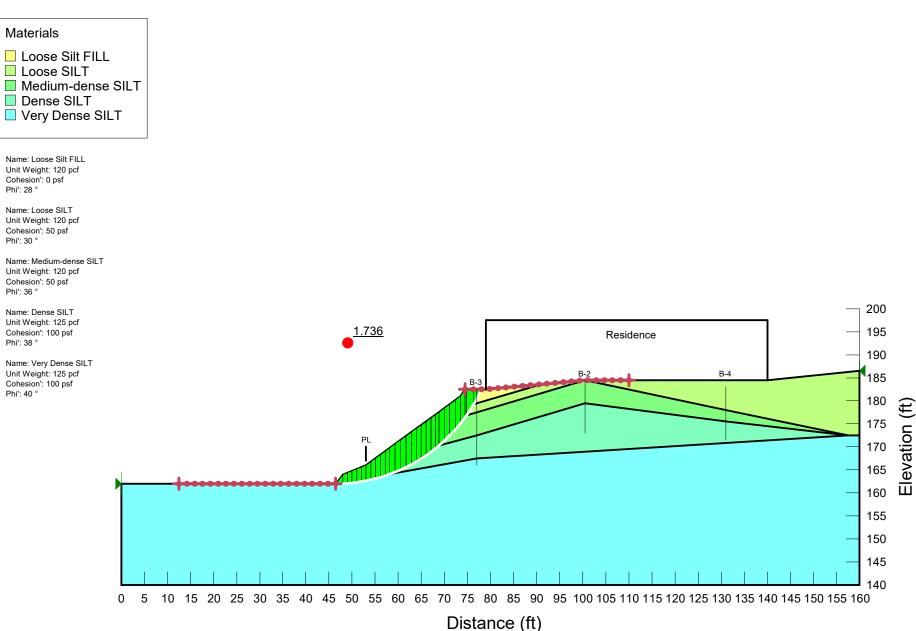
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Name: Medium-dense SILT Unit Weight: 120 pcf Cohesion': 50 psf Phi': 36 °



JN 19233 - Day Slope Stability Analysis

Static



Static

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File Information

File Version: 8.15 Title: 19233 Created By: Adam Moyer Last Edited By: Adam Moyer Revision Number: 24 Date: 12/29/2023 Time: 12:52:20 PM Tool Version: 8.15.6.13446 File Name: 19233 Slope Stability Analysis.gsz Directory: C:\Users\AdamM\Geotech Consultants\Shared Documents - Documents\2019 Jobs\19233 Day (MRM)\ Last Solved Date: 12/29/2023 Last Solved Time: 12:52:43 PM

Project Settings

Length(L) Units: Feet Time(t) Units: Seconds Force(F) Units: Pounds Pressure(p) Units: psf Strength Units: psf Unit Weight of Water: 62.4 pcf View: 2D Element Thickness: 1

Analysis Settings

Static

Kind: SLOPE/W Method: Morgenstern-Price Settings Side Function Interslice force function option: Half-Sine PWP Conditions Source: (none) Slip Surface Direction of movement: Right to Left Use Passive Mode: No Slip Surface Option: Entry and Exit Critical slip surfaces saved: 1 Resisting Side Maximum Convex Angle: 1° Driving Side Maximum Convex Angle: 5° Optimize Critical Slip Surface Location: No Tension Crack Tension Crack Option: (none) F of S Distribution F of S Calculation Option: Constant Advanced Number of Slices: 30 F of S Tolerance: 0.001 Minimum Slip Surface Depth: 0.1 ft Search Method: Root Finder Tolerable difference between starting and converged F of S: 3 Maximum iterations to calculate converged lambda: 20 Max Absolute Lambda: 2

Materials

Loose Silt FILL

Model: Mohr-Coulomb Unit Weight: 120 pcf Cohesion': 0 psf Phi': 28 ° Phi-B: 0 °

Loose SILT

Model: Mohr-Coulomb Unit Weight: 120 pcf Cohesion': 50 psf Phi': 30 ° Phi-B: 0 °

Medium-dense SILT

Model: Mohr-Coulomb Unit Weight: 120 pcf Cohesion': 50 psf Phi': 36 ° Phi-B: 0 °

Dense SILT

Model: Mohr-Coulomb Unit Weight: 125 pcf Cohesion': 100 psf Phi': 38 ° Phi-B: 0 °

Very Dense SILT

Model: Mohr-Coulomb Unit Weight: 125 pcf Cohesion': 100 psf Phi': 40 ° Phi-B: 0 °

Slip Surface Entry and Exit

Left Projection: Range Left-Zone Left Coordinate: (12.5, 162) ft Left-Zone Right Coordinate: (46.47353, 162) ft Left-Zone Increment: 20 Right Projection: Range Right-Zone Left Coordinate: (74.5, 182.5) ft Right-Zone Right Coordinate: (110, 184.5) ft Right-Zone Increment: 20 Radius Increments: 20

Slip Surface Limits

Left Coordinate: (0, 162) ft Right Coordinate: (160, 186.5) ft

Points

| | X (ft) | Y (ft) |
|----------|--------|--------|
| Point 1 | 0 | 162 |
| Point 2 | 46.5 | 162 |
| Point 3 | 48 | 164 |
| Point 4 | 53 | 166 |
| Point 5 | 73.5 | 181 |
| Point 6 | 74.5 | 182.5 |
| Point 7 | 77 | 182.5 |
| Point 8 | 79 | 182.5 |
| Point 9 | 100.5 | 184.5 |
| Point 10 | 131 | 183 |
| Point 11 | 140 | 184.5 |
| Point 12 | 160 | 186.5 |
| Point 13 | 0 | 140 |
| Point 14 | 160 | 140 |
| Point 15 | 100.5 | 179.5 |
| Point 16 | 100.5 | 173 |
| Point 17 | 77 | 179.5 |
| Point 18 | 77 | 177.5 |
| Point 19 | 77 | 172.5 |
| Point 20 | 77 | 167.5 |
| Point 21 | 77 | 166 |
| Point 22 | 131 | 178 |
| Point 23 | 131 | 175.5 |

| Point 24 | 131 | 171.5 |
|----------|----------|-----------|
| Point 25 | 157.5 | 172.5 |
| Point 26 | 160 | 172.5 |
| Point 27 | 62.83959 | 173.20105 |
| Point 28 | 90.95477 | 183.58762 |
| Point 29 | 68.13707 | 177.00835 |

Regions

| Material | Points | Area (ft²) |
|-------------------|---|--|
| Very Dense SILT | 13,1,2,20,25,26,14 | 4,274.1 |
| Medium-dense SILT | 4,27,18,9,22,25,23,15,19 | 354.83 |
| Loose SILT | 17,28,9,18,27,29 | 61.075 |
| Loose SILT | 9,11,12,26,25,22 | 394.25 |
| Loose Silt FILL | 28,8,7,6,5,29,17 | 37.977 |
| Dense SILT | 3,2,20,25,23,15,19,4 | 582.38 |
| | Very Dense SILT Medium-dense SILT Loose SILT Loose SILT Loose Silt FILL | Very Dense SILT 13,1,2,20,25,26,14 Medium-dense SILT 4,27,18,9,22,25,23,15,19 Loose SILT 17,28,9,18,27,29 Loose SILT 9,11,12,26,25,22 Loose Silt FILL 28,8,7,6,5,29,17 |

Current Slip Surface

Slip Surface: 8,433 F of S: 1.736 Volume: 161.1035 ft³ Weight: 19,605.733 lbs Resisting Moment: 603,449.7 lbs-ft Activating Moment: 347,644.86 lbs-ft Resisting Force: 14,737.7 lbs Activating Force: 8,490.9056 lbs F of S Rank (Analysis): 1 of 9,261 slip surfaces F of S Rank (Query): 1 of 9,261 slip surfaces Exit: (44.774853, 162) ft Entry: (78.059288, 182.5) ft Radius: 35.078908 ft Center: (46.141256, 197.05229) ft

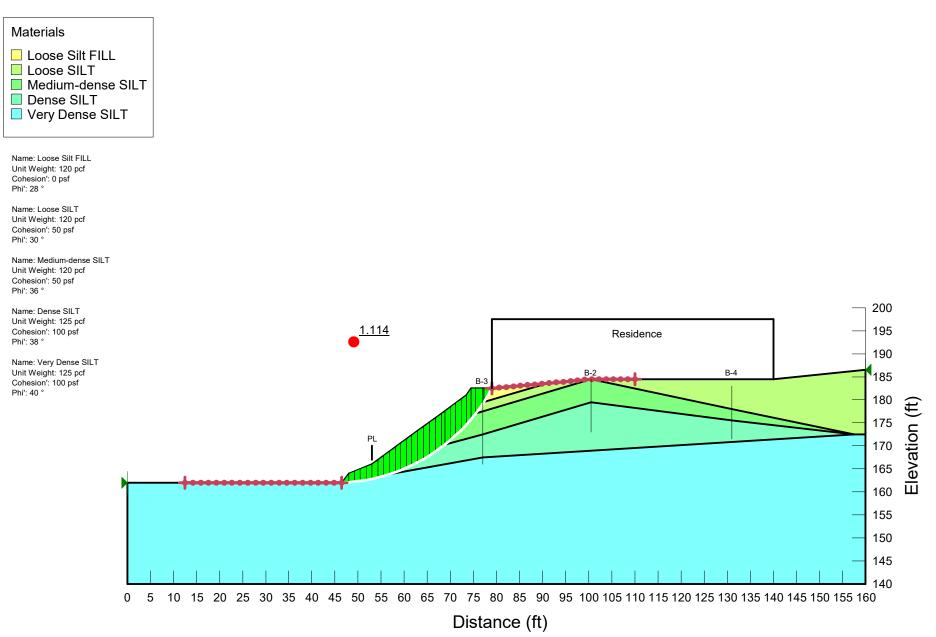
Slip Slices

| | X (ft) | Y (ft) | PWP (psf) | Base Normal Stress (psf) | Frictional Strength (psf) | Cohesive Strength (psf) |
|-------------|-----------|-----------|--------------|-----------------------------|------------------------------|----------------------------|
| Slice 1 | 45.20614 | 161.9885 | 0 | 6.6781645 | 5.6036454 | 100 |
| Slice 2 | 46.068713 | 161.9761 | 0 | 14.348602 | 12.039907 | 100 |
| Slice 3 | 47.25 | 161.99893 | 0 | 156.18546 | 131.05516 | 100 |
| Slice 4 | 48.5 | 162.05636 | 0 | 327.73222 | 274.99999 | 100 |
| Slice 5 | 49.5 | 162.13816 | 0 | 386.46923 | 324.28619 | 100 |
| Slice 6 | 50.5 | 162.24888 | 0 | 438.2985 | 367.77611 | 100 |
| Slice 7 | 51.5 | 162.38879 | 0 | 481.54208 | 404.06178 | 100 |
| Slice 8 | 52.5 | 162.55826 | 0 | 514.93808 | 432.08435 | 100 |
| Slice 9 | 53.519276 | 162.76216 | 0 | 559.35143 | 469.35158 | 100 |
| Slice 10 | 54.557829 | 163.00225 | 0 | 612.83002 | 514.22544 | 100 |

| Slice 11 | 55.596381 | 163.27597 | 0 | 653.00492 | 547.93618 | 100 |
|-------------|-----------|-----------|---|-----------|-----------|-----|
| Slice 12 | 56.634933 | 163.58415 | 0 | 680.20619 | 570.76077 | 100 |
| Slice 13 | 57.673486 | 163.92775 | 0 | 695.35286 | 583.47033 | 100 |
| Slice 14 | 58.773615 | 164.33279 | 0 | 692.74314 | 541.23026 | 100 |
| Slice 15 | 59.935322 | 164.80551 | 0 | 687.08642 | 536.81074 | 100 |
| Slice 16 | 61.097029 | 165.32781 | 0 | 672.88985 | 525.71917 | 100 |
| Slice 17 | 62.258736 | 165.90218 | 0 | 652.14351 | 509.51035 | 100 |
| Slice 18 | 63.369338 | 166.50146 | 0 | 627.26336 | 490.07185 | 100 |
| Slice 19 | 64.428834 | 167.12389 | 0 | 599.82771 | 468.63677 | 100 |
| Slice 20 | 65.48833 | 167.79793 | 0 | 570.35607 | 445.611 | 100 |
| Slice 21 | 66.547826 | 168.52725 | 0 | 539.37496 | 421.40591 | 100 |
| Slice 22 | 67.607322 | 169.31623 | 0 | 507.16296 | 396.23913 | 100 |
| Slice 23 | 68.473583 | 170.00406 | 0 | 480.97563 | 375.77935 | 100 |
| Slice 24 | 69.396333 | 170.80123 | 0 | 463.57659 | 336.80811 | 50 |
| Slice 25 | 70.568809 | 171.88968 | 0 | 432.9485 | 314.55549 | 50 |
| Slice 26 | 71.741286 | 173.08496 | 0 | 399.8947 | 290.5405 | 50 |
| Slice 27 | 72.913762 | 174.40413 | 0 | 363.10711 | 263.81276 | 50 |
| Slice 28 | 74 | 175.75105 | 0 | 350.15777 | 254.40451 | 50 |
| Slice 29 | 74.653889 | 176.61972 | 0 | 342.41451 | 248.77871 | 50 |
| Slice 30 | 75.612842 | 178.08541 | 0 | 264.41944 | 152.66263 | 50 |
| Slice 31 | 76.708953 | 179.85364 | 0 | 180.44622 | 95.944958 | 0 |
| Slice 32 | 77.529644 | 181.43546 | 0 | 73.438765 | 39.048084 | 0 |

JN 19233 - Day Slope Stability Analysis

Seismic



Seismic

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File Information

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Project Settings

Length(L) Units: Feet Time(t) Units: Seconds Force(F) Units: Pounds Pressure(p) Units: psf Strength Units: psf Unit Weight of Water: 62.4 pcf View: 2D Element Thickness: 1

Analysis Settings

Seismic

Kind: SLOPE/W Method: Morgenstern-Price Settings Side Function Interslice force function option: Half-Sine PWP Conditions Source: (none) Slip Surface Direction of movement: Right to Left Use Passive Mode: No Slip Surface Option: Entry and Exit Critical slip surfaces saved: 1 Resisting Side Maximum Convex Angle: 1 ° Driving Side Maximum Convex Angle: 5 ° Optimize Critical Slip Surface Location: No Tension Crack Tension Crack Option: (none) F of S Distribution F of S Calculation Option: Constant Advanced Number of Slices: 30 F of S Tolerance: 0.001 Minimum Slip Surface Depth: 0.1 ft Search Method: Root Finder Tolerable difference between starting and converged F of S: 3 Maximum iterations to calculate converged lambda: 20 Max Absolute Lambda: 2

Materials

Loose Silt FILL

Model: Mohr-Coulomb Unit Weight: 120 pcf Cohesion': 0 psf Phi': 28 ° Phi-B: 0 °

Loose SILT

Model: Mohr-Coulomb Unit Weight: 120 pcf Cohesion': 50 psf Phi': 30 ° Phi-B: 0 °

Medium-dense SILT

Model: Mohr-Coulomb Unit Weight: 120 pcf Cohesion': 50 psf Phi': 36 ° Phi-B: 0 °

Dense SILT

Model: Mohr-Coulomb Unit Weight: 125 pcf Cohesion': 100 psf Phi': 38 ° Phi-B: 0 °

Very Dense SILT

Model: Mohr-Coulomb Unit Weight: 125 pcf Cohesion': 100 psf Phi': 40 ° Phi-B: 0 °

Slip Surface Entry and Exit

Left Projection: Range Left-Zone Left Coordinate: (12.5, 162) ft Left-Zone Right Coordinate: (46.47353, 162) ft Left-Zone Increment: 20 Right Projection: Range Right-Zone Left Coordinate: (79, 182.5) ft Right-Zone Right Coordinate: (110, 184.5) ft Right-Zone Increment: 20 Radius Increments: 20

Slip Surface Limits

Left Coordinate: (0, 162) ft Right Coordinate: (160, 186.5) ft

Seismic Coefficients

Horz Seismic Coef.: 0.288

Points

| | X (ft) | Y (ft) |
|----------|--------|--------|
| Point 1 | 0 | 162 |
| Point 2 | 46.5 | 162 |
| Point 3 | 48 | 164 |
| Point 4 | 53 | 166 |
| Point 5 | 73.5 | 181 |
| Point 6 | 74.5 | 182.5 |
| Point 7 | 77 | 182.5 |
| Point 8 | 79 | 182.5 |
| Point 9 | 100.5 | 184.5 |
| Point 10 | 131 | 183 |
| Point 11 | 140 | 184.5 |
| Point 12 | 160 | 186.5 |
| Point 13 | 0 | 140 |
| Point 14 | 160 | 140 |
| Point 15 | 100.5 | 179.5 |
| Point 16 | 100.5 | 173 |
| Point 17 | 77 | 179.5 |
| Point 18 | 77 | 177.5 |
| Point 19 | 77 | 172.5 |

Seismic

| Point 20 | 77 | 167.5 |
|----------|----------|-----------|
| Point 21 | 77 | 166 |
| Point 22 | 131 | 178 |
| Point 23 | 131 | 175.5 |
| Point 24 | 131 | 171.5 |
| Point 25 | 157.5 | 172.5 |
| Point 26 | 160 | 172.5 |
| Point 27 | 62.83959 | 173.20105 |
| Point 28 | 90.95477 | 183.58762 |
| Point 29 | 68.13707 | 177.00835 |

Regions

| | Material | Points | Area (ft²) |
|----------|-------------------|--------------------------|------------|
| Region 1 | Very Dense SILT | 13,1,2,20,25,26,14 | 4,274.1 |
| Region 2 | Medium-dense SILT | 4,27,18,9,22,25,23,15,19 | 354.83 |
| Region 3 | Loose SILT | 17,28,9,18,27,29 | 61.075 |
| Region 4 | Loose SILT | 9,11,12,26,25,22 | 394.25 |
| Region 5 | Loose Silt FILL | 28,8,7,6,5,29,17 | 37.977 |
| Region 6 | Dense SILT | 3,2,20,25,23,15,19,4 | 582.38 |

Current Slip Surface

Slip Surface: 7,949 F of S: 1.114 Volume: 163.73685 ft³ Weight: 19,905.242 lbs Resisting Moment: 619,379.79 lbs-ft Activating Moment: 555,949.87 lbs-ft Resisting Force: 14,096.471 lbs Activating Force: 12,661.398 lbs F of S Rank (Analysis): 1 of 9,261 slip surfaces F of S Rank (Query): 1 of 9,261 slip surfaces Exit: (43.076177, 162) ft Entry: (79, 182.5) ft Radius: 38.614994 ft Center: (44.875484, 200.57305) ft

Slip Slices

| | X (ft) | Y (ft) | PWP (psf) | Base Normal Stress (psf) | Frictional Strength (psf) | Cohesive Strength (psf) |
|---------|-----------|-----------|--------------|-----------------------------|------------------------------|----------------------------|
| Slice 1 | 43.646814 | 161.98183 | 0 | 14.764418 | 12.388818 | 100 |
| Slice 2 | 44.788089 | 161.96237 | 0 | 35.551039 | 29.830864 | 100 |
| Slice 3 | 45.929363 | 161.97666 | 0 | 54.67282 | 45.875943 | 100 |
| Slice 4 | 47.25 | 162.03846 | 0 | 214.85004 | 180.28059 | 100 |
| Slice 5 | 48.625 | 162.14566 | 0 | 411.03368 | 344.89821 | 100 |
| Slice 6 | 49.875 | 162.28826 | 0 | 491.82666 | 412.69157 | 100 |
| Slice 7 | 51.125 | 162.47239 | 0 | 554.7927 | 465.52635 | 100 |

file:///C/...0 Documents/2019%20 Jobs/19233%20 Day%20 (MRM)/19233%20 slope%20 stability%20 analysis%20-%20 seismic%20 report.html [12/29/2023 1:30:44 PM]

| Slice 8 | 52.375 | 162.69867 | 0 | 595.42109 | 499.61762 | 100 |
|-------------|-----------|-----------|---|-----------|-----------|-----|
| Slice 9 | 53.647096 | 162.97338 | 0 | 637.01324 | 534.51758 | 100 |
| Slice 10 | 54.941289 | 163.29909 | 0 | 675.32 | 566.66076 | 100 |
| Slice 11 | 56.235482 | 163.67305 | 0 | 685.67575 | 575.35027 | 100 |
| Slice 12 | 57.47828 | 164.07798 | 0 | 653.6193 | 510.66336 | 100 |
| Slice 13 | 58.669682 | 164.51156 | 0 | 628.21488 | 490.81526 | 100 |
| Slice 14 | 59.861084 | 164.99031 | 0 | 594.34031 | 464.34954 | 100 |
| Slice 15 | 61.052487 | 165.51607 | 0 | 556.06688 | 434.44706 | 100 |
| Slice 16 | 62.243889 | 166.09101 | 0 | 516.62413 | 403.63101 | 100 |
| Slice 17 | 63.501775 | 166.75578 | 0 | 475.49351 | 371.49625 | 100 |
| Slice 18 | 64.826145 | 167.5202 | 0 | 434.85983 | 339.74973 | 100 |
| Slice 19 | 66.150515 | 168.3572 | 0 | 398.16111 | 311.07755 | 100 |
| Slice 20 | 67.474885 | 169.27261 | 0 | 365.25072 | 285.36513 | 100 |
| Slice 21 | 68.484673 | 170.01931 | 0 | 343.16848 | 268.1126 | 100 |
| Slice 22 | 69.415742 | 170.76831 | 0 | 331.24661 | 240.66475 | 50 |
| Slice 23 | 70.582673 | 171.76946 | 0 | 317.14495 | 230.41929 | 50 |
| Slice 24 | 71.749604 | 172.85593 | 0 | 303.16129 | 220.25957 | 50 |
| Slice 25 | 72.916535 | 174.03823 | 0 | 287.94914 | 209.2073 | 50 |
| Slice 26 | 74 | 175.22941 | 0 | 292.69458 | 212.65506 | 50 |
| Slice 27 | 74.996481 | 176.42324 | 0 | 275.19499 | 199.94087 | 50 |
| Slice 28 | 76.246481 | 178.09407 | 0 | 208.73372 | 120.51247 | 50 |
| Slice 29 | 77.144204 | 179.36507 | 0 | 141.93167 | 81.944288 | 50 |
| Slice 30 | 78.144204 | 181.04224 | 0 | 84.790569 | 45.083945 | 0 |



February 26, 2024

JN 19233

Richard and Leslie Day 9483 Mercerwood Drive Seattle, Washington 98040 *via email: rday@columbiasoft.com*

Subject: Addendum to Geotechnical Report/Critical Area Study – Critical Area Mitigation Sequencing Proposed Day Residence Reconstruction 9843 Mercerwood Drive Mercer Island, Washington

Reference: *Geotechnical Engineering Study and Critical Area Study*, same site and project; Geotech Consultants, Inc.; January 15, 2024.

Greetings:

This addendum to our above-referenced January 15, 2024 report has been prepared to respond to comments made by City of Mercer Island in their January 24, 2024 review letter.

MICC 19.07.100 Mitigation Sequencing

Response: In order to satisfy MICC 19.07.100 this project has addressed mitigation of impacts to the Seismic, Steep Slope, Potential Landslide, and Erosion Hazard critical areas present on site in the following manners:

- A Avoiding Impact altogether:
 - The planned development area has previously been developed with structures, landscaping, and impervious surfaces. All of the mapped geologic critical areas on the property have been disturbed or modified, including the steep slope along the east edge of the property. This steep slope will not be disturbed by the planned redevelopment, thereby avoiding any impacts to that critical area.
- B Minimizing Impact:
 - The planned work will not occur only within the gently- to moderately-sloped portions of the property, and will not extend onto the eastern steep slope. The new foundation system will be supported entirely on competent, glacially-compressed soils, which will provide a substantial improvement for seismic hazard protection for the new home over what currently exists in the existing house.
- C Rectify impacts:
 - Outside of the building areas, all areas of disturbed soil will be planted or landscaped to provide permanent erosion protection. During site earthwork, temporary erosion control measures will be implemented to prevent adverse erosion impacts.

The redevelopment will include a storm drainage collection and disposal system designed to current standards. This will reduce the potential for surface runoff reaching the eastern steep slope.

As a part of the planned redevelopment, the existing in-ground swimming pool will be decommissioned and be filled in. This will reduce the potential for future instability on the eastern steep slope.

- D Reduce or eliminate impact over time:
 - Not Applicable
- E- Compensate for impact:
 - Not Applicable.
- F Monitor the impact:
 - The planned redevelopment of the property does not adversely impact the mapped potential landslide or seismic hazard. The only potential for adverse impacts with regard to the mapped erosion is during construction, before permanent landscaping measures are fully implemented. The proper function of the temporary erosion control system will be monitored during the site work by the general contractor, as well as representatives of the City of Mercer Island and the project geotechnical engineer. The general or earthwork contractors will be responsible to take immediate action to correct any erosion control issues, such as silty runoff leaving the work area.

Please contact us if there are any questions regarding this letter.

Respectfully submitted, GEOTECH CONSULTANTS, INC.



Marc R. McGinnis, P.E. Principal Engineer

cc: **Conard Romano Architects** – Erik Voris and Jim Romano via email: <u>erik@conardromano.com</u> & jim@conardromano.com

Mercer Builders – Thom Schultz via email: <u>thom.schultz@mercerbulders.com</u>

COMMUNITY PLANNING & DEVELOPMENT

9611 SE 36TH STREET | MERCER ISLAND, WA 98040 206.275.7605 | <u>www.mercerisland.gov/cpd</u>



PUBLIC NOTICE OF DECISION

NOTICE IS HEREBY GIVEN that approval has been granted for the application described below:

| File No.: | CAO23-032 | |
|---|--|--|
| Permit Type: | Type III | |
| Description of Request: | A request for the demolition of an existing single-family residence and construction of a new single-family residence located on a site containing geologically hazardous areas. | |
| Applicant/ Owner: | Erik Voris / Day, Leslie A and Richard L | |
| Location of Property: | 9843 Mercerwood Drive, Mercer Island, WA 98040 King County Assessor tax parcel number: 5456000490 | |
| SEPA Compliance: The project is exempt from SEPA Review pursuant to <u>WAC 197-11-800(1)(b)(ii)</u> . | | |
| Applicable Development Regulations: | Pursuant to Mercer Island City Code (MICC) <u>19.15.030</u> Table A, applications for Critical Area Review 2s are required to be processed as Type III land use reviews. Processing requirements for Type III land use reviews are further detailed in MICC 19.15.030 Table B. | |
| Other Associated Permits: | Building Permit No. 2312-031. | |
| Project Documents: | https://mieplan.mercergov.org/public/CAO23-032 | |
| Decision | Approved subject to conditions | |

Decision: Approved subject to conditions.

Appeal Rights: *DISCLAIMER: This information is provided as a courtesy. It is the ultimate responsibility of the appellant to comply with all legal requirements for the filing of an appeal.*

Parties of record have the right to appeal certain permit and land use decisions. In some cases, other affected parties also have appeal rights. Depending on the type of decision, the appeal may be heard by a City Hearing Examiner, Commission, Board, or City Council, or outside the City to the State Shoreline Hearings Board, the State Growth Management Hearings Board, or King County Superior Court. For a comprehensive list of actions and the applicable entity who will hear the appeal, see MICC 19.15.030 Table B.

If you desire to file an appeal of a decision that is appealable to the City, you must submit the appropriate form and file it with the City Clerk <u>within the time stated in the Notice of</u> <u>Decision</u>. Forms are available from Community Development and Planning. Upon receipt of

a timely complete <u>appeal application</u> and <u>appeal fee</u>, an appeal hearing will be scheduled. To reverse, modify or remand a decision, the appeal hearing body must find that there has been substantial error; the proceedings were materially affected by irregularities in procedure; the decision was unsupported by material and substantial evidence in view of the entire record; or the decision is in conflict with the City's applicable decision criteria.

| Application Process Information: | Date of Application: Determined to Be Complete: Public Comment Period: | December 28, 2023 January 10, 2024 January 16, 2024 through 5:00 PM on February 16, 2024 |
|--|--|---|
| | Date Notice of Decision Issued: Appeal Filing Deadline: | April 8, 2024 5:00 PM on April 22, 2024 |
| Project Contact: | Molly McGuire, Planner molly.mcguire@mercerisland.gov (206) 275-7712 | |