CITY OF MERCER ISLAND





INSPECTION REQUESTS:

| online | 2: |
|--------|----------------------|
| _ | MyBuildingPermit.com |
| | |

| IONE: 206.275.7605 www.mercergov.org | | a service of eCityGov.n |
|---|--|---|
| lePlan | ASHINGTO | voicemail: (206) 275-7730 |
| OTE: ALL RECORDS AND DRAWINGS ARE SUBJECT TO | O PUBLIC DISCLOSURE | AS REQUIRED BY RCW 42.56 |
| CONTACT INFORMATION: pplicant is to complete the following information. | | |
| pplicant Contact information <i>prior</i> to permit issuance: | Applicant Contac | ct information <i>post</i> permit issuance: |
| lame: | Name: | |
| . dadas sas | | |
| ddress: | Address: | |
| hone: | Phone: | |
| mail: | Email: | |
| is the Engineer of Record's responsibility to specify all require owner is responsible for hiring an approved private Special spectors (except Geotechnical) must be WABO certified. Then Special Inspection or Structural Observation is required, to spection. Note: Inspection by the City Inspector is required in the Low. Do not cover or conceal any work prior to the City inspector. | ed Special Inspections or I Inspector for the checke he report shall be submitted addition to the Special In | Structural Observation (check items below). ed inspections noted below. All Special ed to the City Building Inspector prior to the City |
| STRUCTURAL OBSERVATION BY ENGINEER OF RECORD (EO | | |
| Engineer of Record: C | • | Phone: |
| ☐ General Conformance to Construction Documents | Other: | |
| SOILS / GEOTECHNICAL: Special Inspector: | omnany: | Dhana |
| Special Inspector: C Erosion control measures | | inage placement |
| Shoring installation and monitoring | Verify fill mate | rial and compaction |
| ☐ Observe and monitor excavation☐ Verification of soil bearing | | ation t (auger cast/driven pile) |
| Other: | Other: | . (a.a.g.a. a.a.a) |
| REINFORCED CONCRETE: | | |
| Special Inspector: C | | |
| Concrete strengthReinforcing steel and concrete placement | | construction Precast construction |
| Shotcrete placement | | |
| Other: | Other: | |
| STRUCTURAL STEEL: (AISC 360, Chapter N) | | |
| Special Inspector: C | <u> </u> | |
| Fabrication and shop weldsStructural steel erection, field welds and bolting | | e construction |
| Other: | | |
| STRUCTURAL MASONRY: | | |
| Special Inspector: C | _ | |
| ✓ Mortar strength✓ Masonry unit strength | | onry installation I veneer installation |
| Other: | Other: | I veneer installation |
| Other: | Other: | |
| WOOD: | | |
| Special Inspector / Engineer of Record: C | omnany: | Phone: |
| ☐ Lateral resisting system construction | | diaphragm construction |
| Other: | Other: | |
| OTHER SPECIAL INSPECTIONS: | | |
| <u>·</u> | ompany: | |
| Epoxy grout installationsExpansion anchor installations | Stucco installated Infiltration Systems | |
| Other post installed anchors | | tion Finish System (EIFS) installation |
| Alternative construction methods: | Other: | |
| Alternative construction materials: EFERRED SUBMITTALS: e Applicant is required to select all deferred submittals / sho | Other: | to the City for review and approval prior to item |
| orication / construction. | . p | S.c, 10. Ferrest and approval prior to item |
| Connector plate wood trusses Metal joist / metal trusses | Post tension la | • |
| ✓ Metal joist / metal trusses✓ Premanufactured structures (stairs, etc.) | Exterior claddi Window wall / | curtain wall construction |
| Precast concrete elements | Other: | |
| Other: | ONL | |
| NERGY CODE COMPLIANCE INFORMATI licate where the following information is located in the draw | | cornorate or include the Recidential Energy Code |
| escriptive Compliance (RECPC) Form into the drawing set. | The sect Alternatively, inc | or portite or include the Nesidential Ellergy Code |
| Sheet: | | |
| Ruilding envelope: | Air Lockers To | octing was a second |
| Building envelope: wsec Table 402.1.1 (include U-factors, insulation and moisture control) | | esting. IRC Section R402.4.1.2 WA Amendments r leakage test report verifying air leakage rate |
| Whole house ventilation: IRC Section M1507 WA Amended | does not t | o exceed 5 air changes per hour. |
| (include ventilation option and duct sizing if applicable) Figure Credit Information: westerness. | | Testing. wsec R403.2.2 ion Test. wsec R403.2.2.1 |
| Energy Credit Information: WSEC Table 406.2 (include specific, written requirements) | \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | |
| RECPC Form Information: | | |
| (if incorporated within drawing set) http://www.mercergov.org/files/2012ResidentialEnergyCalcForm.pdf | | |

| ~ | PROJECT ALERTS: Construction of the project shall be from <i>approved plans only</i> . No deviation from the approved project plans is allowed without prior | |
|----------|---|--------------------|
| _ | Refer to "Conditions of Permit Approval" provided at permit issuance for required construction rules and regulations, including: Site Considerations Refer to "Conditions of Permit Approval" provided at permit issuance for required construction rules and regulations, including: Additional Fire Code Requirements Planning Requirements Planning Requirements Noise Abatement Certification Access Road Requirements Water Service Requirements Refer to "Preconstruction Meeting Checklist" provided at the preconstruction meeting for development related requirements. Temporary site address with minimum 6" high numbers visible from the street must be installed. Erosion control measures must be as shown on approved project drawings. All erosion control is to be in place and inspected prior to the start of any site work. A City of Mercer Island Business License is required for all subcontractors. Call (206) 275-7783 for more information. | TO BE COMPLETED BY |
| | ✓ Tree protection as shown on approved drawings shall be installed at tree dripline prior to start of any site work and must remain in place throughout the project. ✓ No trees shall be cut without a City of Mercer Island tree permit. ☐ Replacement trees must be a minimum of six feet tall at installation. They must be planted and approved prior to final inspection. ☐ For this project, trees are authorized to be removed and replaced with trees. ☐ This project appears to be within a protected eagle nest area. Contact Federal Fish and Wildlife at (360) 534-9304 or visit their website at http://www.fws.gov/pacific/eagle FIRE PROTECTION REQUIREMENTS: | |
| | Fire Sprinkler | |
| , | FCA2 FCA4 FCA4 FCA4 FCA4 FCA4 Fries sprinkler design calculations must be provided prior to determining water supply system requirements. Water Supply system upgrade required City Installation. Applicant Installation. Required Service Line Size: Required Supply Line Size: Required Meter Size: (water main to meter) (water main to house) | |
| | Abandonment of existing service and meter required at main. ✓ Pressure reducing valve required if pressure exceeds 80 psi. ✓ Reduced pressure backflow assembly (RPBA) required for all lots with waterfront or non-city water supply (private wells or lake irrigation). ☐ Additional water supply requirements: | COMPLETED BY DSG |
| | Side sewer requires a backflow preventer when connecting to the lake line or when the elevation of the lowest plumbing fixture is lower than the elevation of the upstream manhole rim or when side sewer is shared with one or more properties. □ Video tape of existing sewer required (see standard details) □ New connection. □ Connect to existing. Disconnect permit required. □ Reconnect permit required. □ Other: □ Note: When side sewer is to be connected to the lake line you will need to schedule three (3) days in advance with the City of Mercer Island Maintenance Department at (206) 275-7800. | TO BE C |
| (| APPROVED CODE ALTERNATIVES: Code alternatives must be Inspected. Refer to the Inspection Checklist CA1: CA2: CA2: | |
| : | SURVEY REQUIREMENTS (The following survey information must be submitted when checked): Surveyor shall verify points chosen for height calculations and point verification shall be submitted at the time of City foundation inspection. A property survey may be required to verify setbacks and in some cases buildings must be surveyed onto the lot. The City reserves the right to request an impervious area survey at any time prior to issuance of Certificate of Occupancy. Surveyor: Building height survey Building setback survey Impervious surface survey Impervious surface survey | |
| | Other: MAXIMUM 40 PERCENT ALTERATION INSPECTION: MICC 19.01.050(D)(1)(b)(i) A Building Inspection prior to demolition is required for all legally nonconforming single family dwelling to ensure no more than 40 percent of the dwelling's exterior walls are structurally altered. Contact the Building Inspector at (206) 275-7730. Civil / Drainage LUP / Setback requirements GEOTECHNICAL INFORMATION: and clearing, grading, filling and foundation work within geologic hazard areas is NOT PERMITTED between October 1 and April 1 | |
| \ | without an approved Seasonal Development Limitation Waiver. Geotechnical Report provided. All construction must comply with the recommendations of the Geotechnical Report. A copy of report and other geotechnical information must be kept on site at all times. Geotechnical Engineer SEASONAL DEVELOPMENT LIMITATION RESTRICTION: | BY DSG |
| | Applies (Geologic Hazard area). Grading not permitted between October 1 through April 1. Waiver approved. Grading and excavation permitted subject to all conditions noted in Seasonal Development Limitation Waiver Permit. Permit number Approved by Date | BE COMPLETED I |

| | STRUCTION INSPECTIONS: onsibility to contact DSG to schedule ALL inspections appropriate for the project. Request inspections online at | | | |
|---|---|--------------------------|---|---------------|
| www.MyBuildingPermit in advance of desired in | com or by calling the Inspection Hotline at (206) 275-7730. Allow at least 24 hours (48 hours for Reinforcing steel) spection. Be specific as to type of inspection. | | | اہم |
| Inspector shall initial applicants responsibi | and date appropriate inspection <i>only</i> if approved. Note: <i>Items marked with an "*" require a separate permit.</i> It is the lity to apply for and obtain all City of Mercer Island permits. Order of typical sequencing) | | | PERMIT NUMBER |
| Inspector Date App | roved Pre-construction Meeting to Review Conditions of Permit Approval. Tree protection | | • · · · · · · · · · · · · · · · · · · · | RMI |
| * | Tree protection Erosion control | | l | PE |
| * | Sewer disconnect and cap. If applicable, separate side-sewer permit required Right-of-way use or work / easement, material delivery, etc. If applicable, | | | |
| ** | separate ROW permit required | >_ | | |
| | Land clearing, grading and demolition Temporary power | PANC have been | | |
| | Pilings / Shoring / Shotcrete. If applicable, provide survey letter (property line); Geotechnical Engineer / Special Inspector | A | | |
| | reports of inspections (pile and shoring installation, etc.) | | | |
| | Footings, setbacks, UFER ground. If applicable, provide survey letter (building height and setbacks); Special Inspector reports of inspections | - OCCU | pprove | |
| | (soil bearing capacity, compaction, earthwork, pile installation, etc.) | | | |
| | Foundation walls / concrete columns Roof and footing drains | O | ed an | |
| | Foundation damproofing Storm drainage, including (but not limited to): | FICATE OF | orm | |
| <u>*</u> | Connections to storm | CA | perf | |
| | main in ROW Detention systems Storm drain in ROW | , , | 4 | |
| | Infiltration systems | ERT | | |
| | Catch basins including Pump systems Oil-water separator tees Retaining wall drainage | CE | | |
| ** | Water Service Water Supply | | | |
| | Water as-built drawings | | | |
| * | Side sewer installation, including (but not limited to): • Connections to side • Back-flow valves | | | |
| | sewer main • Grinder pump systems | | | |
| | • Connections to existing • Sewer manholes side sewer | | | |
| | Driveway / Access road Underslab electrical / mechanical / plumbing | | | |
| | Underslab insulation / vapor barrier / reinforcing | | | |
| | Underfloor framing Nailing-Roof sheathing. If applicable, provide Special Inspection | | | |
| | letter for lateral wood inspection. Nailing-Exterior wall and Shearwall. If applicable, provide Special | | | |
| | Inspection letter for lateral wood inspection. | | | |
| | Rough hydronic installation Rough electric installation | | | |
| * | Rough fire alarm (wiring inspection) | | | |
| | Rough plumbing installation (DWV, water) Rough mechanical | | | |
| * | Gas Piping Rough fire sprinkler / hydrostatic and flow (bucket) test | | | |
| | Framing and glazing. If applicable, provide Special Inspection letter for | | | |
| | lateral wood inspection, welding epoxy anchors, etc. Masonry construction (fireplace / walls / veneer / etc.) | | | |
| | Insulation installation Stucco (paper and lath) | | | |
| | Shower pan (or tub) | | | |
| | Miscellaneous Code Alternative CA1: | | | |
| | Code Alternative CA2: | | | |
| | Impact Fees Paid (If applicable) | | | |
| | Final Inspection: Tree Restoration TT Final Inspection: Fire protection, including (but not limited to): TF | | | |
| | Sprinkler Fuel Tank Installation | | | |
| | • Access Road • Fire Extinguishing System • Fire Code Alternatives (see below) • Fire Alarm System | | | |
| | ☐ FCA1: ☐ FCA3: ☐ FCA2: ☐ FCA4: | | | |
| | Final Inspection: Water supply protection, including (but not limited to) | | | |
| | • Waterfront property • Well water on property | | ı | F |
| | • Fire / lawn sprinkler • Boiler Final Inspection: Site and utility: includes landscape, utilities and ROW. Site | Ċ |) 山山 | <u></u> |
| | restoration complete and as-built drawings ready for submittal. | | Z | |
| | Final Inspection: Building, including electrical / mechanical / plumbing. If | RC | Z | 0 |
| | Inspectors, Geotechnical Engineer, and exterior wall cladding inspectors (EIFS). | _ | 2 | |
| | RARY CERTIFICATE OF OCCUPANCY (TCO): onal fees will be required and must be approved prior to occupancy. TCO requires tree plantings be completed. | F ~ | Ш | |
| Applicant option. Additi | onal fees will be required and must be approved prior to occupancy. TCO requires tree plantings be completed. | E KEPT | | |
| | Start Date End Date | r BE I | | |
| | EQUIRED CITY INSPECTIONS: | UST T AL | N | |
| Call the appropriate cor | ntact to arrange the inspection. | S MU | Ŏ | |
| Required Inspection(s) | : Contact: Phone: Scheduling: | NGS SITE | | |
| | | NG W | O Y | |
| | | DRAWINGS UILDING SITE | Ö | |
| IMPACT FEES: | PLAN REVIEW APPROVALS: | ED D BUIL | | |
| If applicable. | Not all review disciplines may be required to review the documents. | | | |
| ☐ Impact fees ap | ply and are due prior to Final Inspection or on | PPROV IN THE | N | |

PROJECT INFORMATION

OWNER'S AGENT

GENG TAN 5280 HIGHLAND DR. BELLEVUE, WASHINGTON 98006 (206) 488—3688 GENGTAN@GMAIL.COM

PROPERTY OWNER

LIANG DU & ZHENG ZHANG 7545 EAST MERCER WAY MERCER ISLAND, WASHINGTON 98040 (650)669-9598

LEGAL DESCRIPTION

LOT 11, BLOCK 4, FLOOD'S LAKESIDE TRACTS, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 20 OF PLATS, PAGE 83, IN KING COUNTY, WASHINGTON; EXCEPT PORTION LYING WESTERLY OF THE FOLLOWING BEGINNING AT A POINT ON THE NORTHEASTERLY LINE OF SAID LOT 11 WHICH BEARS SOUTH 66°19'28" EAST 105 FEET FROM THE MOST NORTHERLY CORNER OF SAID LOT

THENCE SOUTH 20°05'32" WEST 80 FEET; THENCE SOUTHEAST TO A POINT ON THE SOUTHERLY LINE OF SAID LOT 11 WHICH BEARS NORTH 89°56'32" EAST 100 FEET FROM THE SOUTHWEST CORNER OF SAID LOT 11 AND THE TERMINUS OF SAID LINE; AND EXCEPT THAT PORTION CONVEYED TO KING COUNTY FOR ROAD PURPOSES BY DEED RECORDED UNDER RECORDING NUMBER 932658.

SITUATE IN THE COUNTY OF KING, STATE OF WASHINGTON.

ZONING

R 9.6

TAX ACCOUNT NUMBER

257950-0175

CODE

PROJECT CONFORMING CODES

2018 INTERNATIONAL BUILDING CODE—WAC 51—50 2018 INTERNATIONAL RESIDENTIAL CODE—WAC 51—51 2018 INTERNATIONAL FIRE CODE-WAC 51-54A 2018 INTERNATIONAL MECHANICAL CODE-WAC 51-52

2018 INTERNATIONAL FUEL GAS CODE-WAC 51-52

2018 UNIFORM PLUMBING CODE—WAC 51-56 AND WAC 51-57 2018 WASHINGTON STATE ENERGY CODE

CURRENT MUNICIPAL CODE

FIRE REQUIREMENTS BY CITY:

Monitored Fire Alarm "Chapter3r 29" NFPA 72 required due to deficiences related to access, grade, adn waterflow.

"NFPA Chapter 29 Monitored Fire Alarm per CoMI specifications required" DEFERRED SUBMITTALS

FIRE SPRINKLER PERMIT WATER METER PERMIT MECHANICAL PERMIT PLUMBING PERMIT ELECTRICAL PERMIT LOW VOLTAGE WIRING PERMIT

SHEET INDEX

A0.1 Coversheet & Site Diagram A1.0 Site plan & project data

A2.0 Basement Floor Plan A2.0A Existing Basement Plan for Reference A2.1 First Floor Plan

A2.1A Existing First Floor Plan for Reference A2.2 Second Floor Plan

A2.2A Existing Second Floor Plan for Reference A2.5 Window Schedule & Roof Plan

A3.0 Roof Plan A3.1 Exterior Elevations A3.2 Exterior Elevations

A4.1 Building Sections

S1.0 Structural Notes S2.0 Foundation Plan

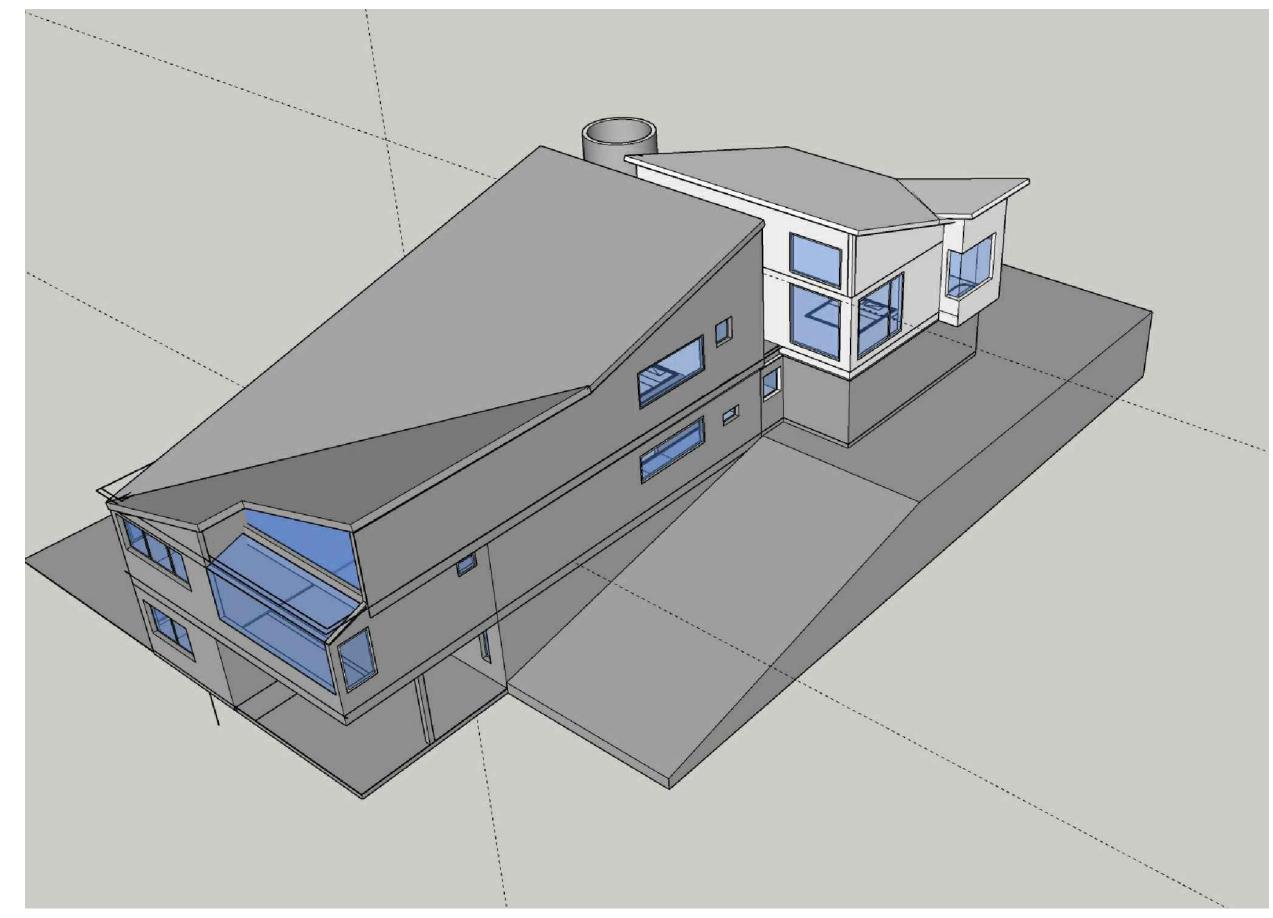
S2.1 Deck Framing Plan S2.2 Roof Framing Plan

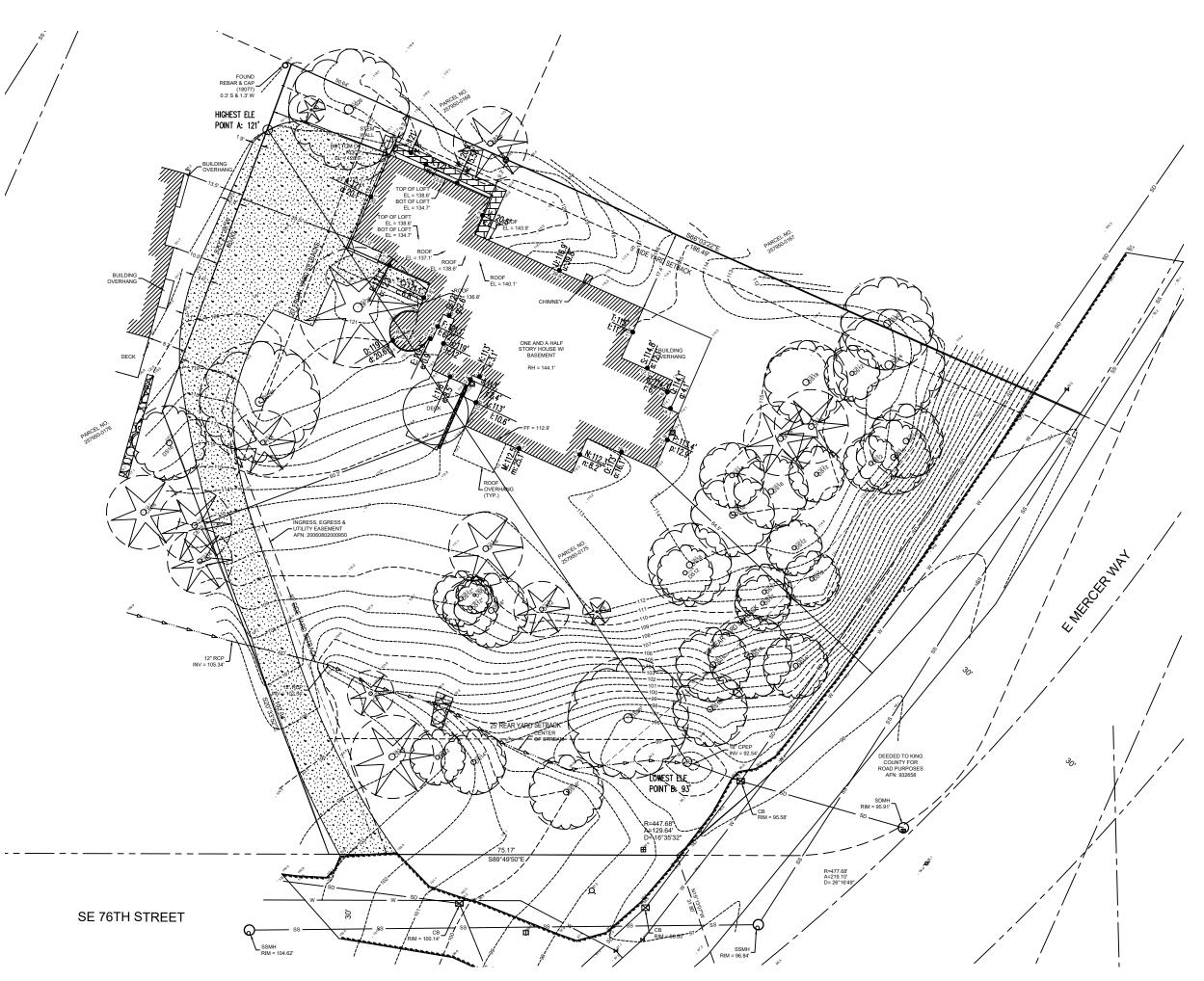
S2.3 Roof Framing Plan S3.0 Typical Structural Details S3.1 Typical Structural Details

S3.2 Typical Structural Details

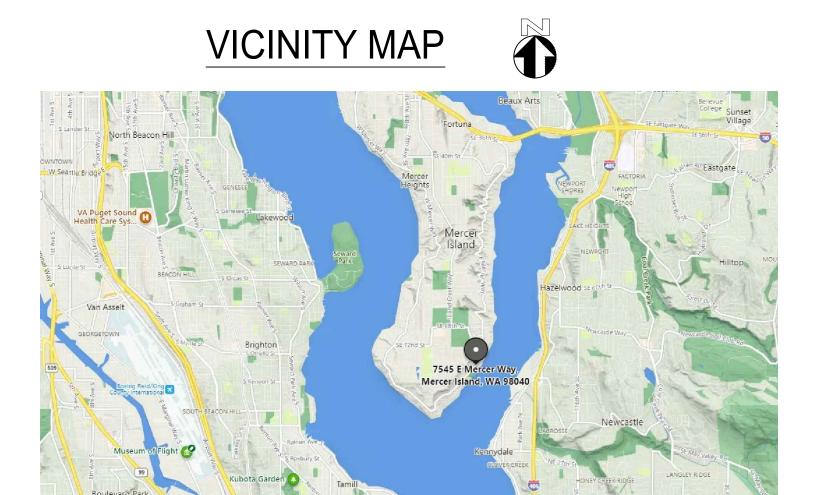
S3.3 Shear Wall Details S3.4 Typical Structural Details

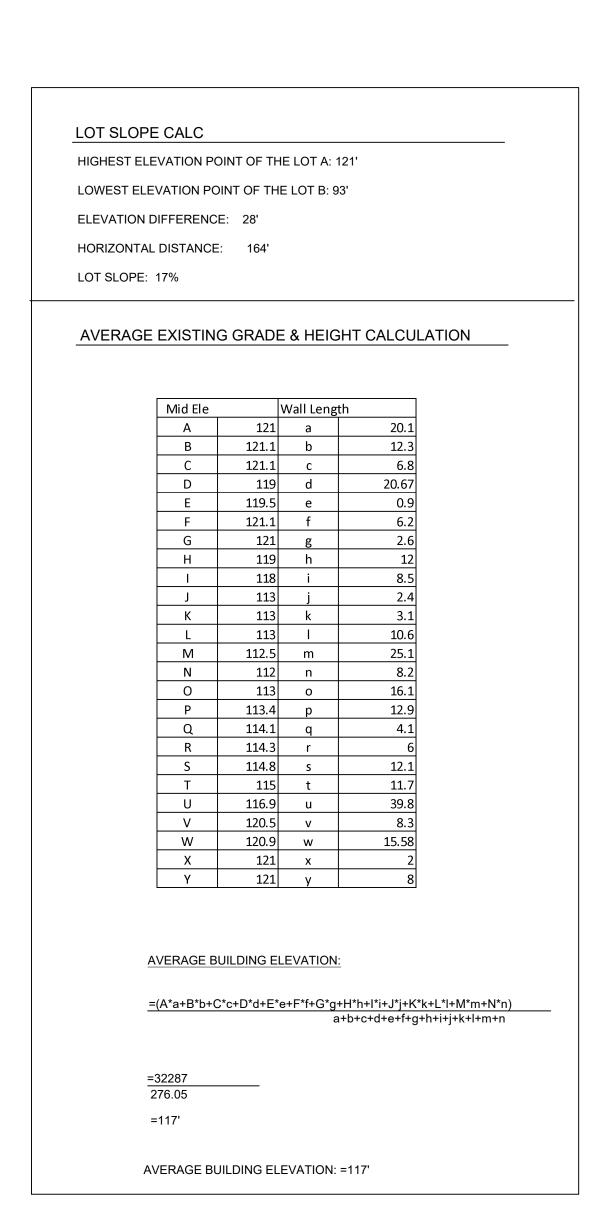
3D PERSPECTIVE





SITE PLAN DIAGRAM







Atlas Associates International 5280 Highland Dr. Bellevue, washington 206.488.3688 v gengtan•gmail.com www.Atlascreate.com

Liang Mercer House Addition

7545 E Mercer Way Mercer Island, WA 98040

project no: 22-95



Issue/Revision:

1 8-8-2022 City Permit Comments Revision

NO. ISSUED FOR

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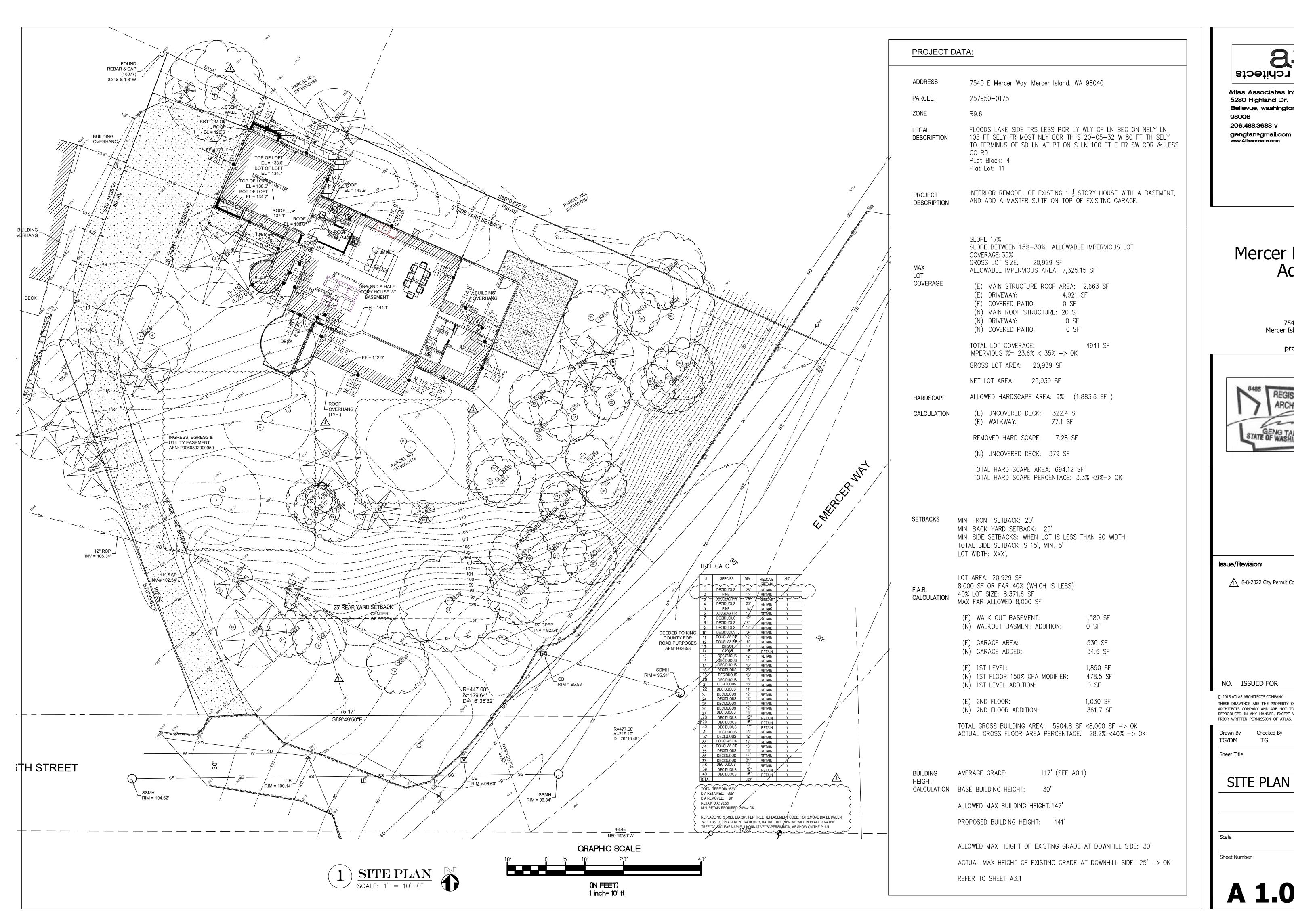
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COVER SHEET

DATE

/SITE

DIAGRAM





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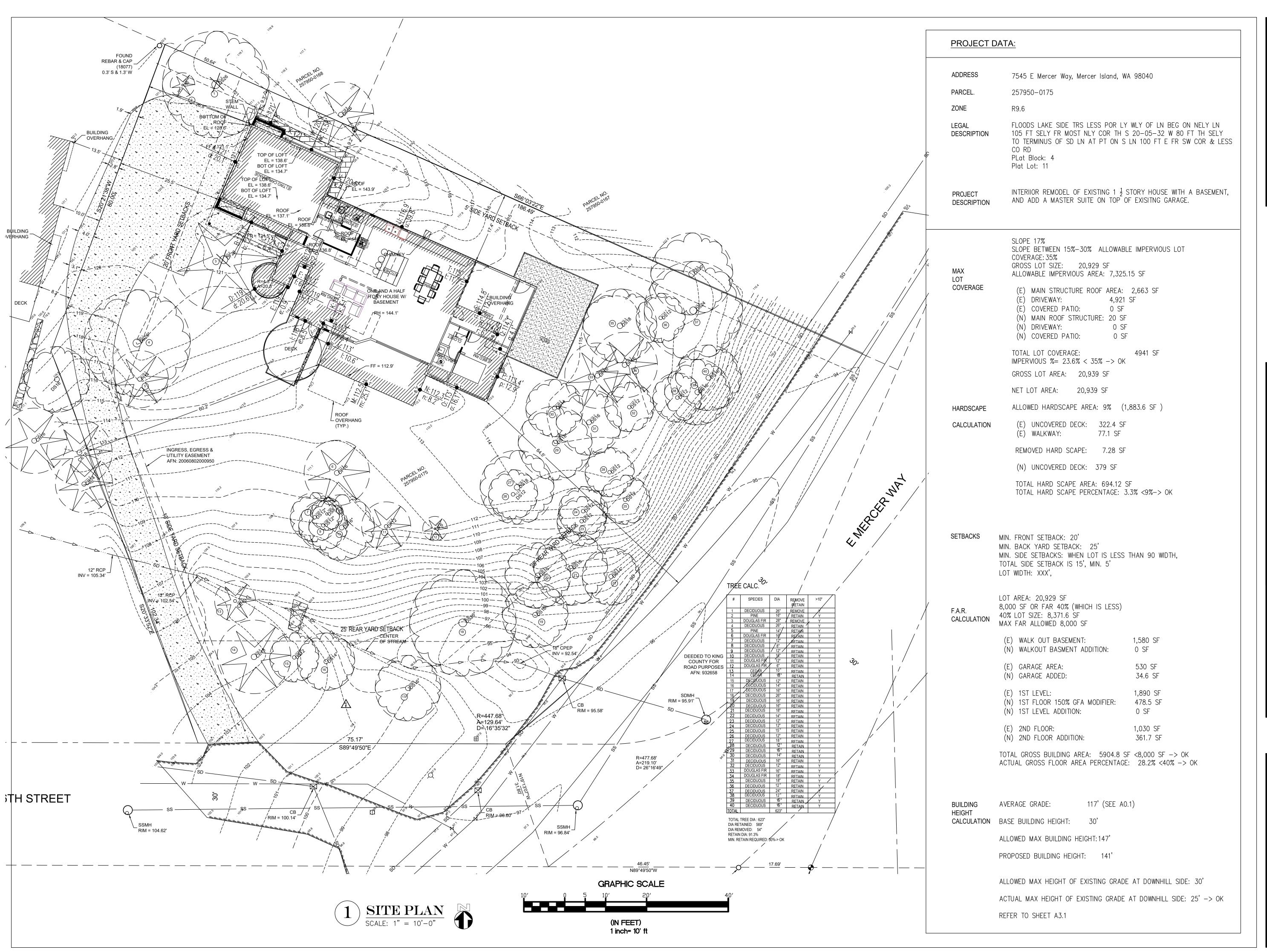
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Sheet Title

SITE PLAN





Atlas Associates International 5280 Highland Dr. Bellevue, washington 98006 206.488.3688 v gengtan@gmail.com

Liang Mercer House Addition

7545 E Mercer Way Mercer Island, WA 98040

project no: 22-95

Issue/Revision:

10-22-2021 City Permit Comments Revision

DATE

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By Checked By

TG/DM TG 9/2020

Sheet Title

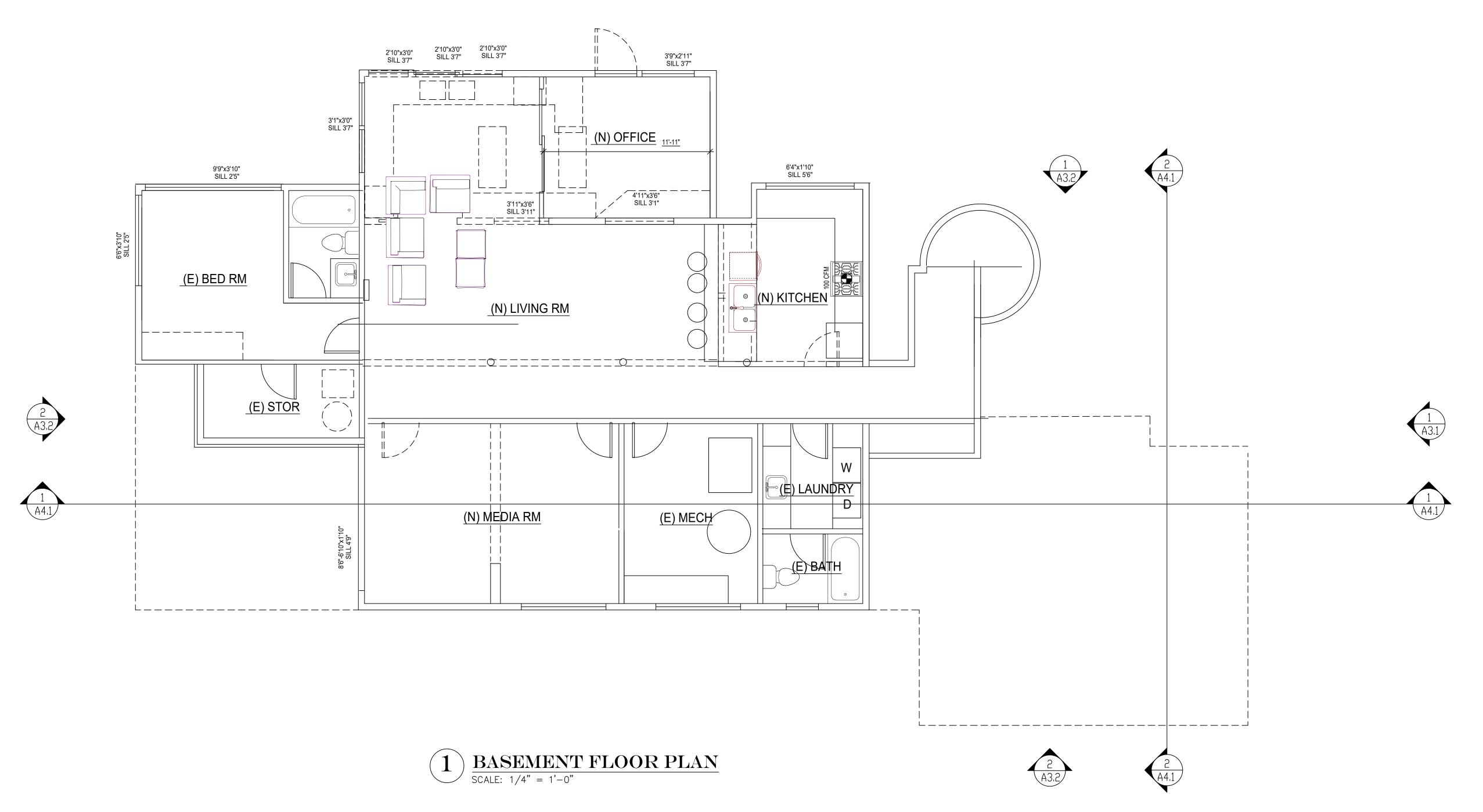
COVER SHEET
/SITE PLAN

Scale

Sheet Numb

Sheet Number

A 0.1



PLAN NOTES:

- 1. USE CONVENTIONAL FRAMING AND SHEATHING U.N.O.
- 2. ALL EXTERIOR WALLS TO BE 2x6 FRAMING U.N.O.
- 3. ALL INTERIOR WALLS TO BE 2x4 FRAMING U.N.O.
- 4. ALL DOOR JAMBS TO BE SET OFF WALLS 6" TYP. U.N.O.
- 5. ALL DIMENSIONS ARE TO FACE OF FRAMING U.N.O.
- 6. ALL EXHAUST FANS ARE TO VENTED TO OUTSIDE.
- 7. DOOR HT. AT THIS FLOOR IS 6'-8", TYP.
- 8. ALL SMOKE DETECTORS MUST BE PROVIDED w/ PRIMARY POWER FROM BUILDING WIRING, PROVIDED w/ BATTERY BACKUP, AND BE INTERCONNECTED.
- 9. ESCAPE (EGRESS) WINDOW MUST HAVE A CLEAR OPENABLE AREA OF 5.7 S.F. w/ A MINIMUM NET CLEAR HEIGHT OF 24" AND WIDTH DIMENSION OF 20". THE SILL HEIGHT MUST NOT BE MORE THAN 44" ABOVE THE FLOOR.
- 10. ALL EXTERIOR COLUMNS, BEAMS, AND JOISTS THAT ARE EXPOSED TO THE WEATHER MUST BE PRESSURE-TREATED.
- 11. SHOWER COMPARTMENTS AND WALLS AROUND BATHTUBS WITH SHOWERS SHALL BE FINISHED WITH A SMOOTH NON-ABSORBANT SURFACE TO NOT LESS THAN 72" ABOVE THE DRAIN INLET PER IBC SECTION 1209.2.3.
- WATER-RESISTANT BACKING IS REQUIRED WHERE SHOWER & WATER CLOSET WALLS WILL BE FINISHED WITH TILE OR WALL PANELS. WHERE WATER RESISTANT GYPSUM IS USED A VAPOR BARRIER SHALL NOT BE USED. IBC SECTION 2509 AND 1209.2

- 12. <u>EMERGENCY ESCAPE AND RESCUE OPENINGS</u> SHALL BE INSTALLED IN EVERY SLEEPING ROOM BELOW THE 4TH STORY AND IN BASEMENTS.
- * OPENABLE W/O KEYS OR SPECIAL TOOLS
- * MIN. 5.7 SF NET CLR OPENABLE AREA
- * MIN. 24" NET CLR OPENABLE HEIGHT * MIN. 20" NET CLR OPENABLE WIDTH
- * MAX. 44" FINISHED SILL HEIGHT IRC SECTION R310.2 & IBC SECTION 1030.
- 13. PER IRC R303.4 WHOLE HOUSE MECHANICAL VENTILATION SYSTEMS SHALL BE DESIGNED IN ACCORDANCE WITH IRC SECTION M1505.4
- EACH DWELLING UNIT OR GUEST ROOM SHALL BE EQUIPPED W/ A VENTILATION SYSTEM COMPLYING W/ SECTION M1505.4.3, M1505.4.4, COMPLIANCE IS ALSO PERMITTED TO BE DEMONSTRATED THROUGH COMPLIANCE W/ THE INTERNATIONAL MECHANICAL CODE 403.3.2
- 14. STAIR LIGHTING ALL STAIRWAYS SHALL BE PROVIDED WITH LIGHT SOURCES. LIGHT ACTIVATION CONTROLS SHALL BE ACCESSIBLE AT THE TOP AND BOTTOM OF INTERIOR STAIRWAYS AND WITHIN DWELLING UNIT FOR EXTRIOR STAIRS IRC SECTIONS R303.7 & R303.8
- 15 WHERE REQUIRED, GUARDRAILS MUST BE DESIGNED AND INSTALLED TO RESIST A CONCENTRATED LOAD OF 200 POUNDS APPLIED IN ANY DIRECTIONS AT ANY POINT ON THE HANDRAIL OR TOP RAIL AND TRANSFER THAT LOAD THROUGH THE SUPPORT TO THE STRUCTURE IN ACCORDANCE WITH ASCE 7-16. THE CONNECTION OF THE GUARDRAIL /HANDRAIL SUPPORT POST SHALL BE CAPABLE OF RESISTING ALL RESULTING LOADS.
- 16. ATTIC VENTILATION: NO WORK ON ROOF- NOT APPLY

- 17. ACCESS OPENINGS: THROUGH THE CEILING SHALL BE A MINIMUM 22"X30" WITH A MINIMUM HEADROOM OF 30" IRC. R 807.1.
- 18. EXISTING VENTILATION OPENNINGS: VERIFY THAT ANY EXISTING ATTIC SPACE VENT OPENINGS THAT ARE CONCEALED BY THE NEW WORK ARE ADDED TO THE NEW REQUIRED VENT

CRAWL SPACE VENT CALCULATION:

VENT CALCULATION: ADDITION W/ CRAWL SPACE TOTAL AREA: 1,782 SQ FT VENT $\frac{1}{150}$ VENT AREA SQ FT 8X16 FOUNDATION VENT .89 SQFT 14 VENTS EVENLY SPREAD AROUND THE PERIMETER OF CRAWL SPACE AREA.

ENERGY NOTES:

OPENING AREA.

1. ALL EXTERIOR NEW WALLS SHALL HAVE R21 BATT INSULTATION 2. NEW ROOF @TRUSS SHALL HAVE R49 INSULATION 3. ALL NEW WINDOW SHOULD HAVE U FACTOR 0.30 OR BETTER. 4. SKYLIGHT U-FACTOR 0.5 OR BETTER.

5. NEW SLAB ON GRADE FOR ADDITION SHALL HAVE R10 RIGID INSULATION. 6. NEW FLOOR R-VALUE: R30.

TOTAL ADDITION IS LESS THAN 1500 SF, 3 CREDIT REQUIRED:

HEAT HP: FURL NORMALIZATION HEAR PUMP CREDIT: 3.2(a) HAPF 9.5 CENTRALLY DUCTED HEAT PUMP: 4.2 ALL DUCTS AND FURNACE INSIDE THE CONDITIONED SPACE: 1.0





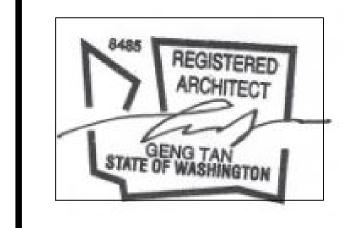
ADDITION AREA

Atlas Associates International 5280 Highland Dr. Bellevue, washington 206.488.3688 v gengtan•gmail.com www.Atlascreate.com

Liang Mercer House Addition

7545 E Mercer Way Mercer Island, WA 98040

project no: 22-95



Issue/Revision:

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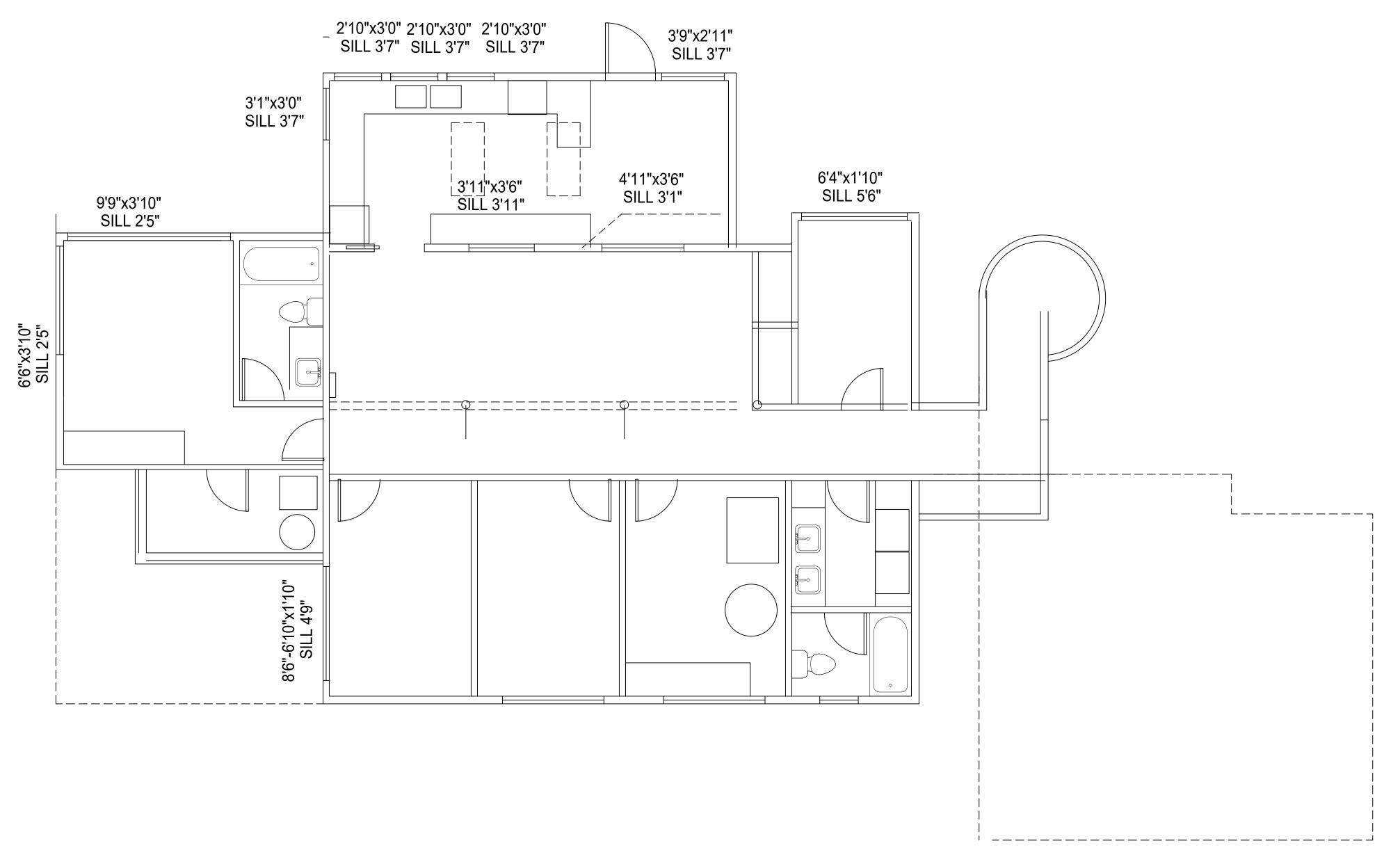
DATE

TG/DM TG

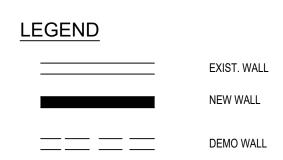
Sheet Title **BASEMENT**

FLOOR PLAN

L/4'' = 1'-0



FOR REFERENCE ONLY



1 EXISTING BASEMENT FLOOR PLAN

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



Atlas Associates International 5280 Highland Dr. Bellevue, washington 98006 206.488.3688 v gengtan@gmail.com www.Atlascreate.com

Shoreline Highland House Addition

35 NW Cherry Loop Shoreline, WA 98177

project no: 21-102



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DATE

9/2020

DM TG

Sheet Title

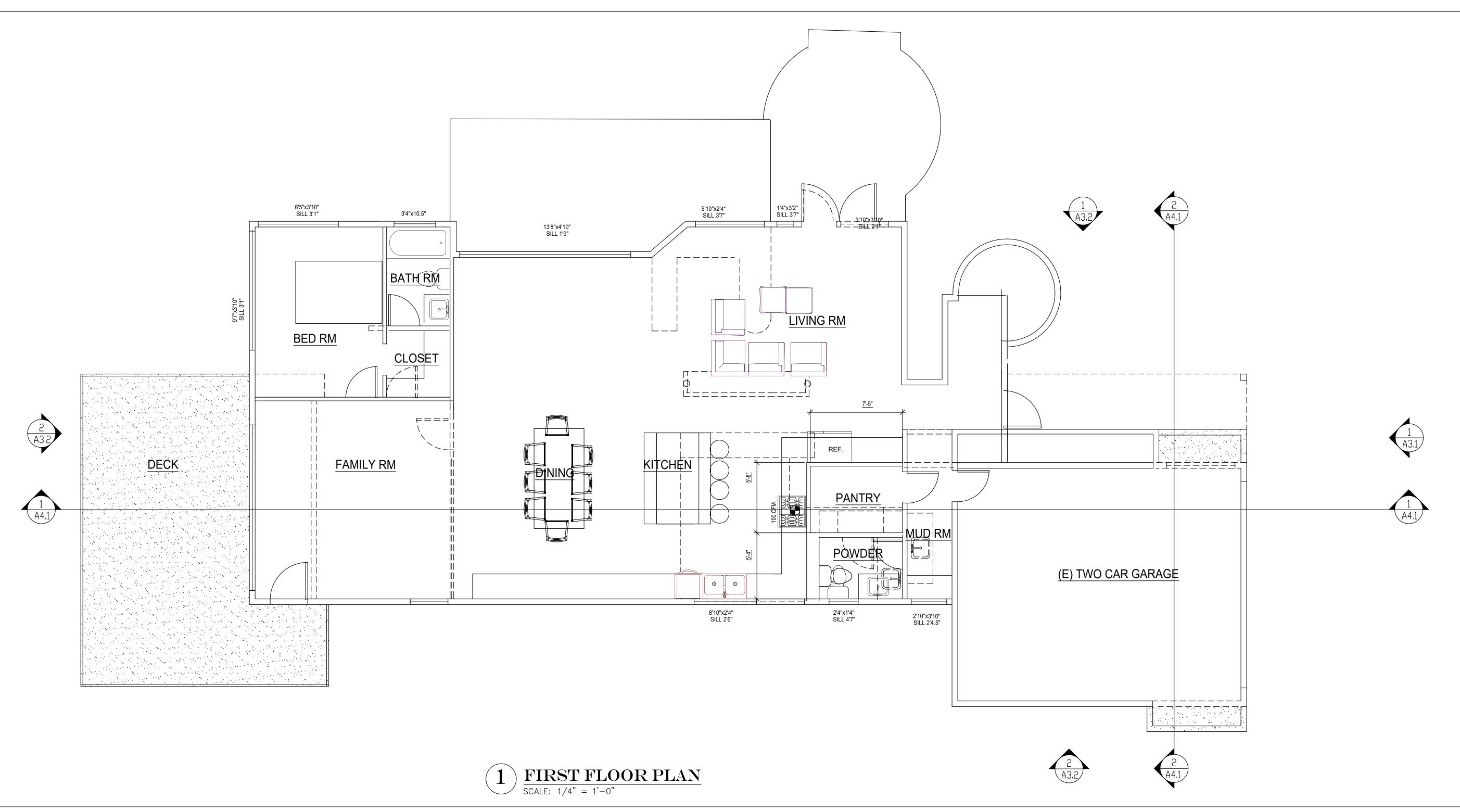
EXISTING

BASEMENT FLOOR PLAN

 $\frac{1/4"}{1} = \frac{1'-0"}{1}$

Sheet Number

A2.0A



PLAN NOTES:

- 1. USE CONVENTIONAL FRAMING AND SHEATHING U.N.O.
- 2. ALL EXTERIOR WALLS TO BE 2x6 FRAMING U.N.O.
- 3. ALL INTERIOR WALLS TO BE 2x4 FRAMING U.N.O.
- 4. ALL DOOR JAMBS TO BE SET OFF WALLS 6" TYP. U.N.O.
- 5. ALL DIMENSIONS ARE TO FACE OF FRAMING U.N.O.
- 6. ALL EXHAUST FANS ARE TO VENTED TO OUTSIDE.
- 7. DOOR HT. AT THIS FLOOR IS 6'-8", TYP.
- 8. ALL SMOKE DETECTORS MUST BE PROVIDED w/ PRIMARY POWER FROM BUILDING WIRING, PROVIDED w/ BATTERY BACKUP, AND BE INTERCONNECTED.
- 9. ESCAPE (EGRESS) WINDOW MUST HAVE A CLEAR OPENABLE AREA OF 5.7 S.F. w/ A MINIMUM NET CLEAR HEIGHT OF 24" AND WIDTH DIMENSION OF 20". THE SILL HEIGHT MUST NOT BE MORE THAN 44" ABOVE THE FLOOR.
- 10. ALL EXTERIOR COLUMNS, BEAMS, AND JOISTS THAT ARE EXPOSED TO THE WEATHER MUST BE PRESSURE-TREATED.
- 11. SHOWER COMPARTMENTS AND WALLS AROUND BATHTUBS WITH SHOWERS SHALL BE FINISHED WITH A SMOOTH NON-ABSORBANT SURFACE TO NOT LESS THAN 72" ABOVE THE DRAIN INLET PER IBC SECTION 1209.2.3.
- <u>WATER-RESISTANT BACKING</u> IS REQUIRED WHERE SHOWER & WATER CLOSET WALLS WILL BE FINISHED WITH TILE OR WALL PANELS. WHERE WATER RESISTANT GYPSUM IS USED A VAPOR BARRIER SHALL NOT BE USED. IBC SECTION 2509 AND 1209.2

- 12. <u>EMERGENCY ESCAPE AND RESCUE OPENINGS</u> SHALL BE INSTALLED IN EVERY SLEEPING ROOM BELOW THE 4TH STORY AND
- IN BASEMENTS. * OPENABLE W/O KEYS OR SPECIAL TOOLS
- * MIN. 5.7 SF NET CLR OPENABLE AREA
- * MIN. 24" NET CLR OPENABLE HEIGHT
- * MIN. 20" NET CLR OPENABLE WIDTH * MAX. 44" FINISHED SILL HEIGHT

ACCORDANCE WITH IRC SECTION M1505.4

- IRC SECTION R310.2 & IBC SECTION 1030.
- 13. PER IRC R303.4 WHOLE HOUSE MECHANICAL VENTILATION SYSTEMS SHALL BE DESIGNED IN
- EACH DWELLING UNIT OR GUEST ROOM SHALL BE EQUIPPED W/ A VENTILATION SYSTEM COMPLYING W/ SECTION M1505.4.3, M1505.4.4, COMPLIANCE IS ALSO PERMITTED TO BE DEMONSTRATED THROUGH COMPLIANCE W/ THE INTERNATIONAL MECHANICAL CODE 403.3.2
- 14. STAIR LIGHTING ALL STAIRWAYS SHALL BE PROVIDED WITH LIGHT SOURCES. LIGHT ACTIVATION CONTROLS SHALL BE ACCESSIBLE AT THE TOP AND BOTTOM OF INTERIOR STAIRWAYS AND WITHIN DWELLING UNIT FOR EXTRIOR STAIRS IRC SECTIONS R303.7 & R303.8
- 15. WHERE REQUIRED, GUARDRAILS MUST BE DESIGNED AND INSTALLED TO RESIST A CONCENTRATED LOAD OF 200 POUNDS APPLIED IN ANY DIRECTIONS AT ANY POINT ON THE HANDRAIL OR TOP RAIL AND TRANSFER THAT LOAD THROUGH THE SUPPORT TO THE STRUCTURE IN ACCORDANCE WITH ASCE 7-16. THE CONNECTION OF THE GUARDRAIL /HANDRAIL SUPPORT POST SHALL BE CAPABLE OF RESISTING ALL RESULTING LOADS.
- 16. ATTIC VENTILATION: NO WORK ON ROOF- NOT APPLY

- 17. ACCESS OPENINGS: THROUGH THE CEILING SHALL BE A MINIMUM 22"X30" WITH A MINIMUM HEADROOM OF 30" IRC. R 807.1.
- 18. EXISTING VENTILATION OPENNINGS: VERIFY THAT ANY EXISTING ATTIC SPACE VENT OPENINGS THAT ARE CONCEALED BY THE NEW WORK ARE ADDED TO THE NEW REQUIRED VENT OPENING AREA.

CRAWL SPACE VENT CALCULATION:

VENT CALCULATION: ADDITION W/ CRAWL SPACE TOTAL AREA: 1,782 SQ FT VENT $\frac{1}{150}$ VENT AREA SQ FT 8X16 FOUNDATION VENT .89 SQFT 14 VENTS EVENLY SPREAD AROUND THE PERIMETER OF CRAWL SPACE AREA.

ENERGY NOTES:

1. ALL EXTERIOR NEW WALLS SHALL HAVE R21 BATT INSULTATION 2. NEW ROOF @TRUSS SHALL HAVE R49 INSULATION 3. ALL NEW WINDOW SHOULD HAVE U FACTOR 0.30 OR BETTER. 4. SKYLIGHT U-FACTOR 0.5 OR BETTER. 5. NEW SLAB ON GRADE FOR ADDITION SHALL HAVE R10 RIGID INSULATION. 6. NEW FLOOR R-VALUE: R30.

TOTAL ADDITION IS LESS THAN 1500 SF, 3 CREDIT REQUIRED:

HEAT HP: FURL NORMALIZATION HEAR PUMP CREDIT: 3.2(a) HAPF 9.5 CENTRALLY DUCTED HEAT PUMP: 4.2 ALL DUCTS AND FURNACE INSIDE THE CONDITIONED SPACE: 1.0

LEGEND



ADDITION AREA

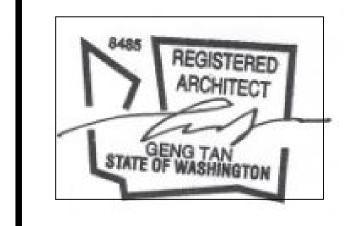
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Liang Mercer House Addition

7545 E Mercer Way Mercer Island, WA 98040

project no: 22-95



Issue/Revision:

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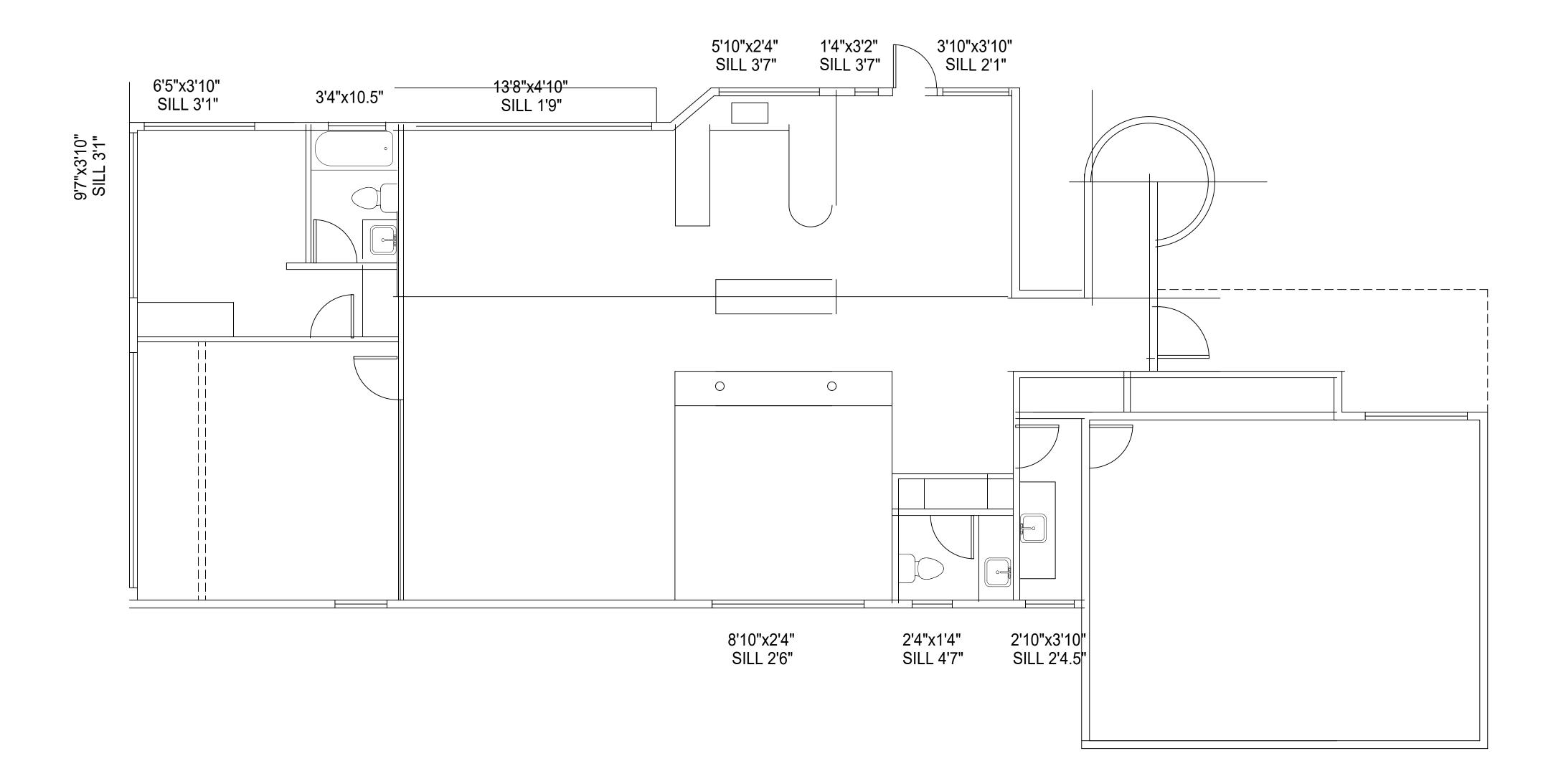
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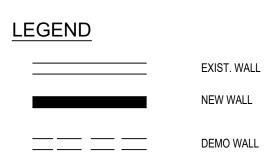
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FIRST FLOOR PLAN

1/4'' = 1'-0



FOR REFERENCE ONLY



EXISTING FIRST FLOOR PLAN $\frac{1}{\text{SCALE: }1/4" = 1'-0"}$



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project no: 21-102



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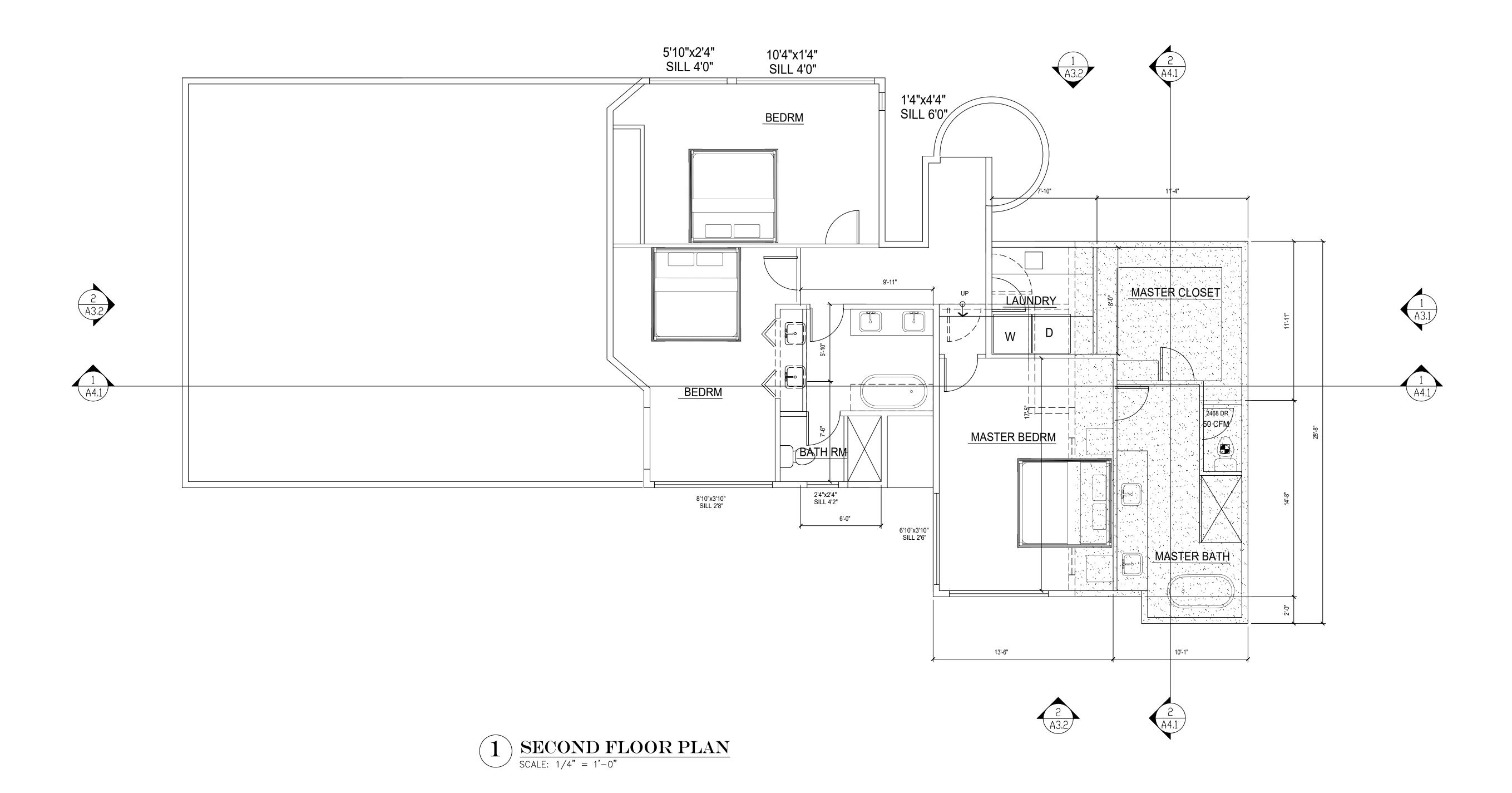
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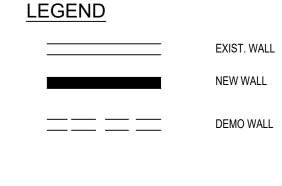
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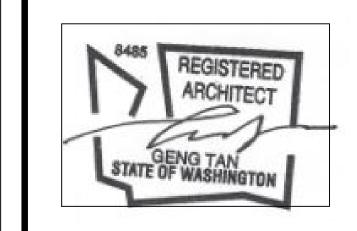
ADDITION AREA

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Liang Mercer House Addition

7545 E Mercer Way Mercer Island, WA 98040

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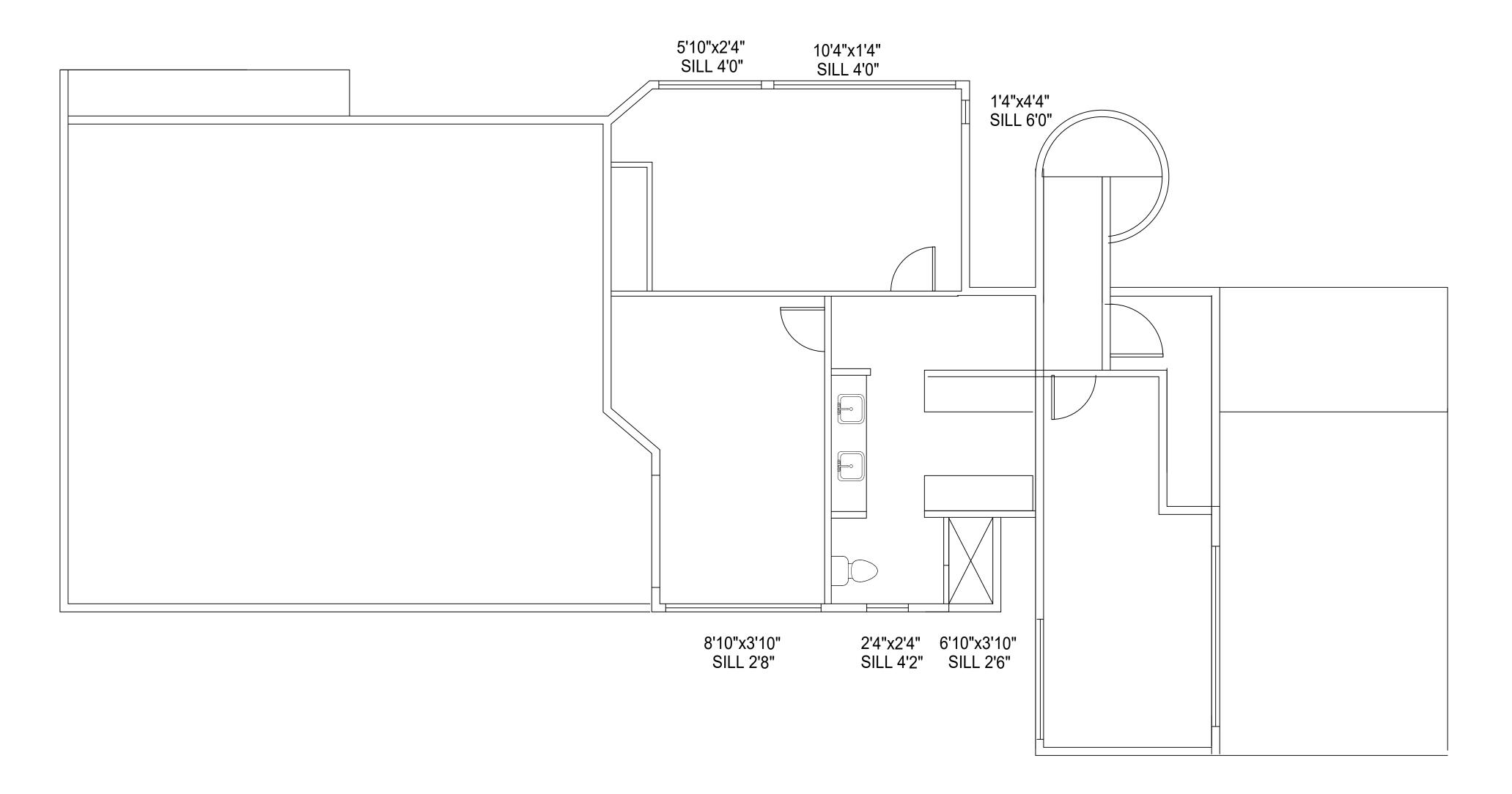
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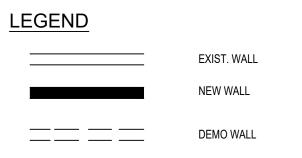
SECOND FLOOR PLAN

1/4'' = 1'-0



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Shoreline Highland House Addition

35 NW Cherry Loop Shoreline, WA 98177

project no: 21-102



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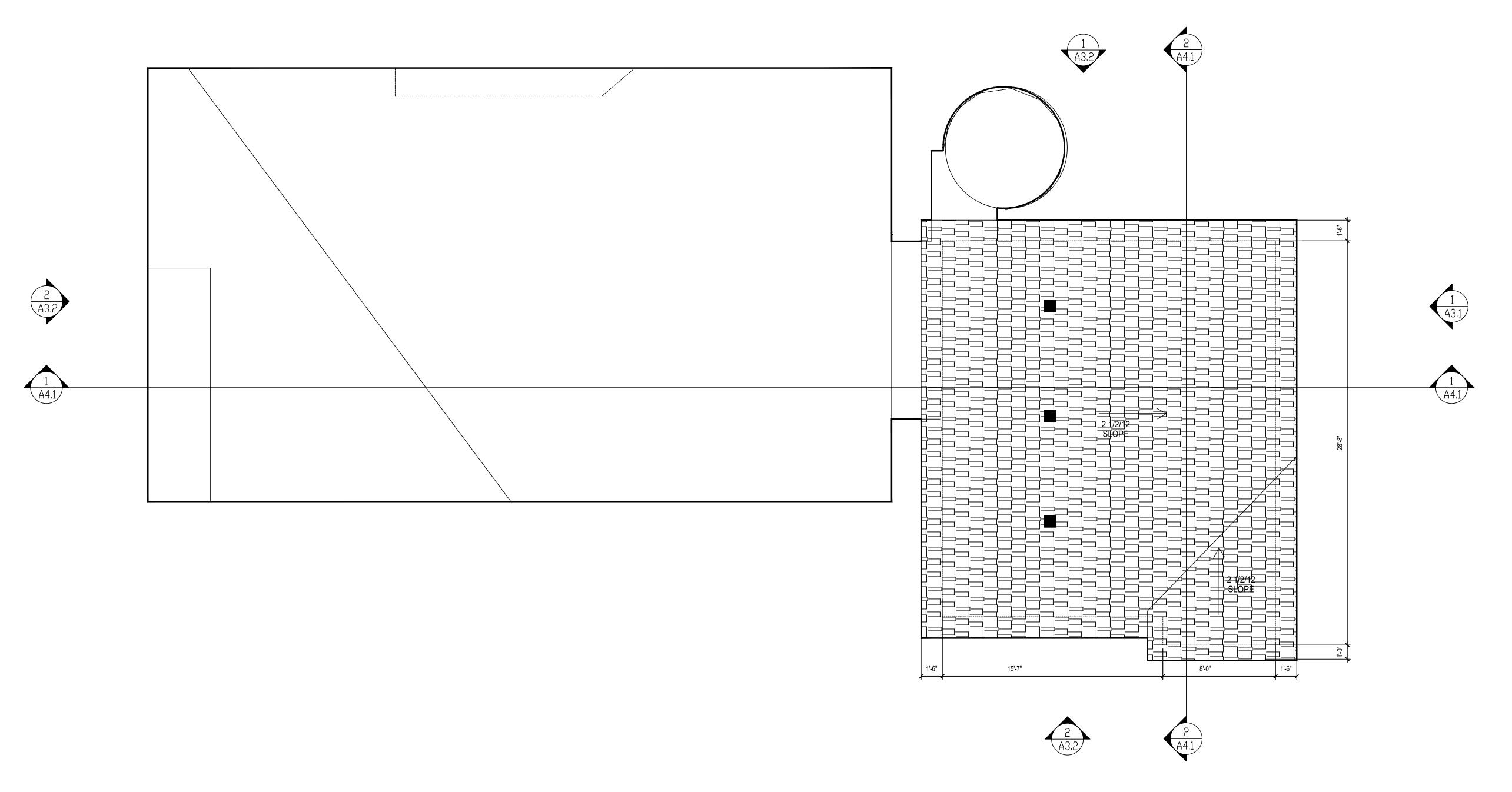
EXISTING
SECOND FLOOR

PLAN

1/4" = 1'-0"

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ROOF PLAN NOTES:

A 22X30 INCH ACCESS OPENING SHALL BE LOCATED IN A HALLWAY. CORRIDOR OR OTHER READILY ACCESSIBLE LOCATION. ATTICS WITH A MAXIMUM VERTICAL HEIGHT OF LESS THAN 30 INCHES OR AREA LESS THAN 30 SQFT IN AREA NEED NOT BE PROVIDED WITH ACCESS OPENING. A 30-INCH MINIMUM CLEAR HEADROOM IN THE OPENING. PROVIDE A RIM TO HOLD INSULATION OUT OF ACCESS DOORWAY, INSULATE ACCESS HATCH WITH R-49 RIGID FOAM BUILD UP, GASKET ATTIC ACCESS DOOR AT CEILING.

CONTINUOUS RIDGE VENT TYPICAL ON ALL RIDGES, DO NOT INSTALL ON HIP OR RIDGES SHORTER THAN 36".

GUTTERS: CONTINUOUS ALUMINUM GUTTERS, SLOPE TO DOWNSPOUTS PER BEST INDUSTRY PRACTICE. 5"K STYLE WITH 2X3 ALUMINUM DOWNSPOUTS. COLOR SELECTION BY OWNER.

RIDGE VENT: UNDER RIDGE SHINGLE OR METAL RIDGE TYPE: 1" TALL, MADE OF HEAT RESISTANT POLPROPYLENE OR EQUIVALENT; WITH 20 SQ INCH VENTILATION (NFVA) PER LINEAL FOOT.

EAVE VENT: (3) 2" DIAMETER HOLES IN SOLID BLOCKING, SCREEN WITH $\frac{1}{8}$ " METAL SCREEN.

ROOF NOTES:

PROTECT ROOF SHEATHING AS SOON AS POSSIBLE BY INSTALLING ROOFING MANUFACTURE RECOMMENDED BASE SHEET WITHIN A MAXIMUM 1 WEEK PERIOD AFTER INSTALLATION OF THE SHEATHING. CALL FOR INTERMEDIATE NALNG INSPECTION IF REQUIRED TO ACCOMPLISH THIS REQUIREMENT.

USE DRIP FLASHING IN COMBINATION WITH 90# ROLL STARTER COURSE AT EAVE.

INSTALL ALL ROOFING, FLASHING, AND CAPS PER MANUFACTURERS SPECIFICATIONS AND BEST INDUSTRY PRACTICES.

ALL VALLEYS TO RECEIVE METAL VALLEY FLASHING, MIN 24 GA.

1) THE TOTAL NET FREE VENTILATION AREA SHALL NOT BE LESS THAN $\frac{1}{300}$ OF THE AREA OF THE SPACE VENTILATED, PROVIDED THAT AT LEAST 40% BUT NOT MORE THAN 50% OF THE REQUIRED AREA IS PROVIDED BY VENTILATOR LOCATED IN THE UPPER PORTION OF THE SPACE BEING VENTILATED. THE REMAINING BLANACE OF THE REQUIRED VENTING WILL BE PROVIDED BY EAVE VENTS AND/OR LOW ROOF VENTS.

2) ALTERNATIVE METHOD: VENTILATION SHALL NOT BE LESS THAN $\frac{1}{150}$ OF THE AREA OF THE SPACE VENTILATED.

'ENTS: 1) 10"Y10" POOF VENTS

 10"X10" ROOF VENTS ARE BASED ON 51 SQ IN NET FREE VENTILATION AREA PER VENT.

 EAVE VENTS ARE BASED ON 9 SQ IN NET FREE VENTILATION AREA PER VENT.

153 SQIN (3)

ADDITION ROOF:

ROOF VENT (HIGH)

ATTIC AREA 644 SQFT VENTILATION REQ 2.15 SQFT (309.6 SQ IN)

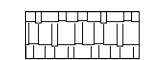
EAVE VENTS 162 SQIN (9)

TOTAL VENTILATION PROVIDED 2.18 SQFT

<u>LEGEND</u>



NEW ROOF



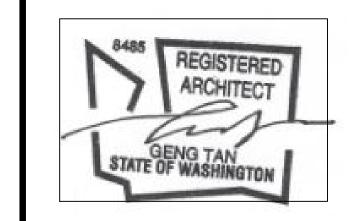
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Shoreline Highland House Addition

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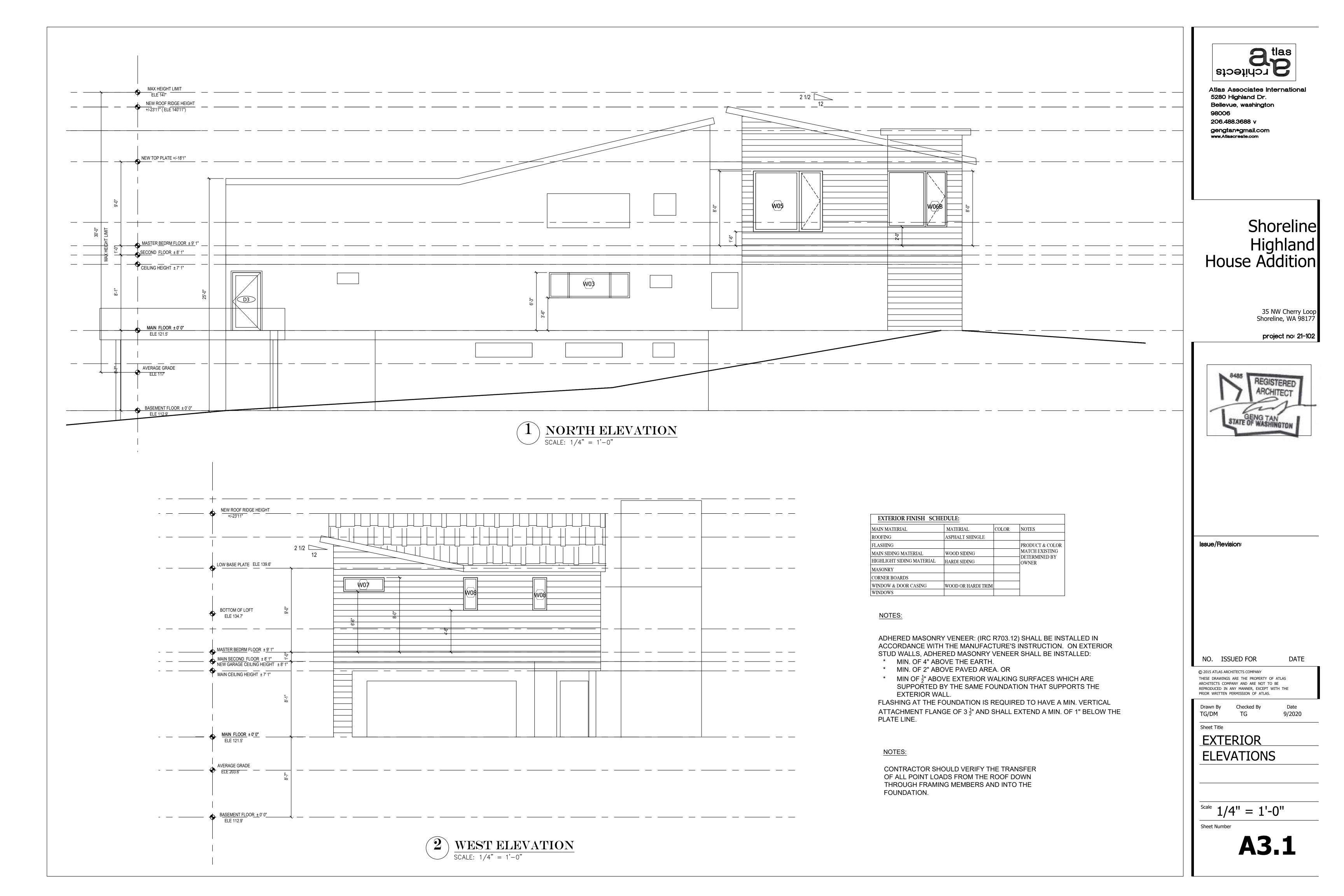
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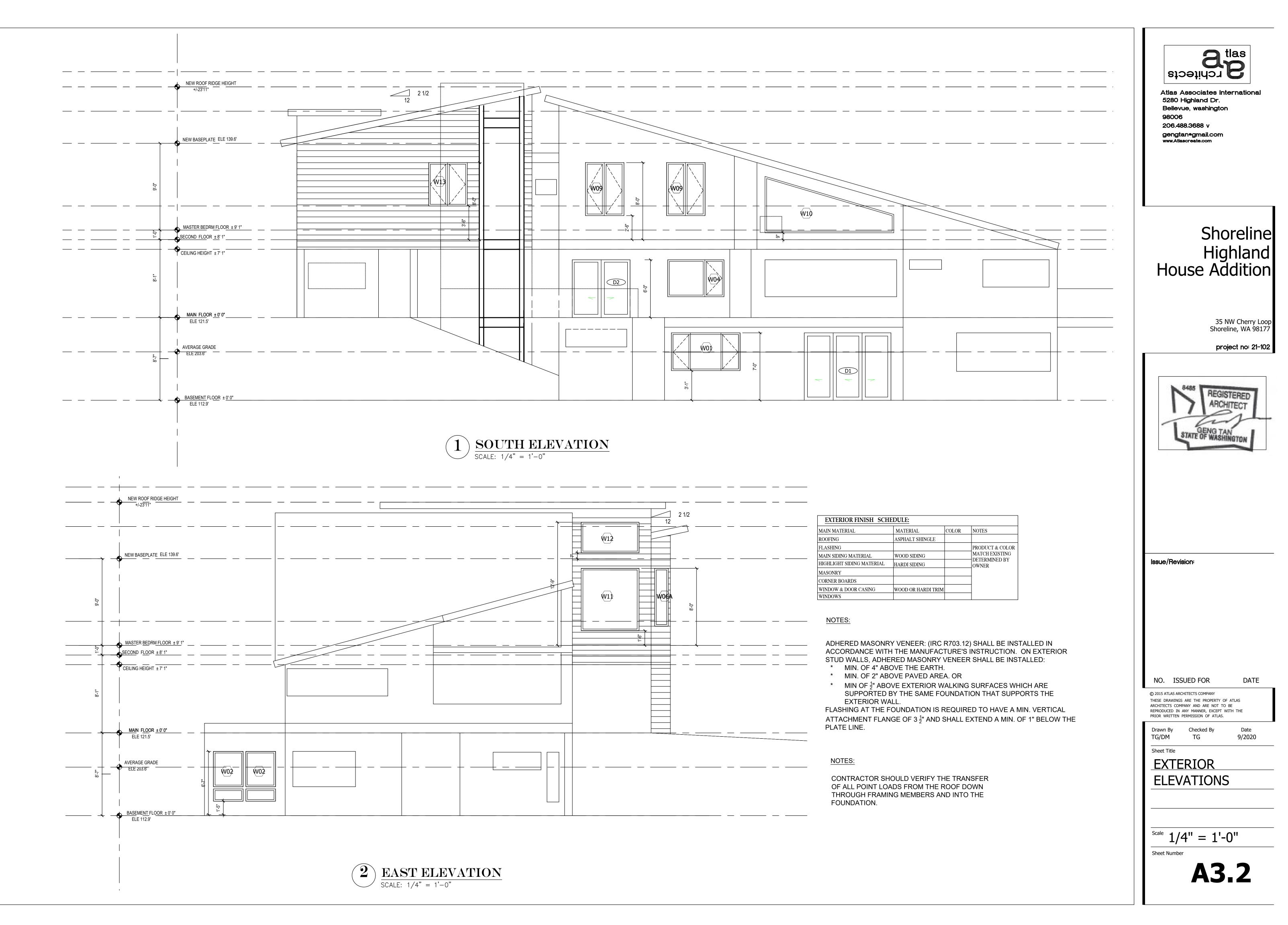
ROOF PLAN

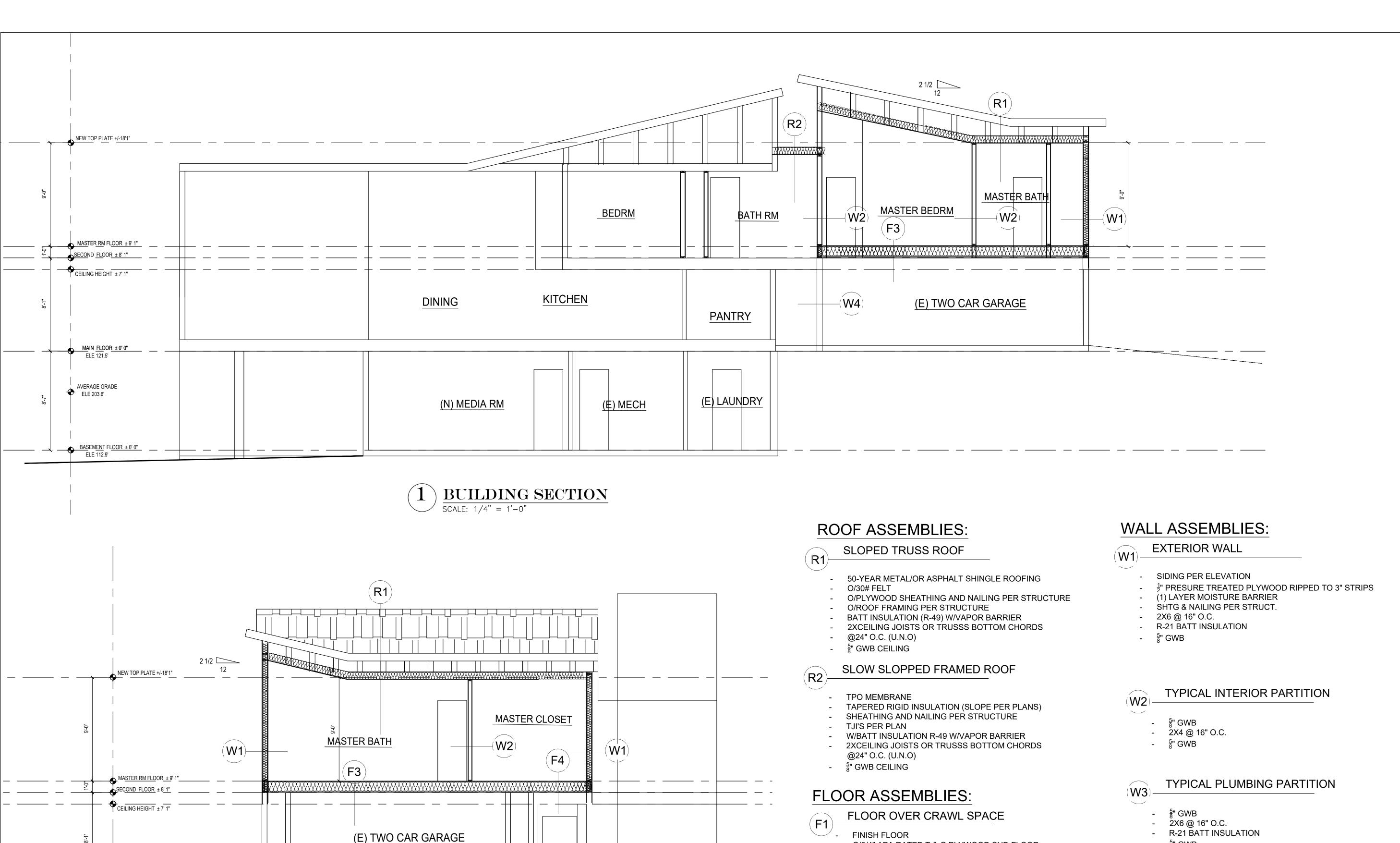
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AVERAGE GRADE

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

ELE 203.6'

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- R-21 BATT INSULATION
- \frac{5}{8}" GWB

1 HR GARAGE SEPERATION WALL

- 🖁 TYP. "X" GWB
- SHEATHING WHERE REQED PER STRUCTURE - 2X6 @ 16" O.C.
- R-21 BATT INSULATION
- 5/8" GWB
- NOTES:

O/3/4" APA RATED T & G PLYWOOD SUB-FLOOR

1-HR RATED FLOOR OVER GARAGE

FLOOR OVER EXTERIOR DECK/ENTRY

- W/R-30 FIBERGLASS BATT INSULATION HOLD TIGHT OT

- O/JOIST PER PLAN 16" O.C.

- W/O MOISTURE BARRIER

- FINISH FLOOR PER PLANS

- FLOOR JOISTS PER STRUCT

FINISH FLOOR PER PLANS

- FLOOR JOISTS PER STRUCT

- SOFFIT FINISH PER OWNER

- R-38 BATT INSULATION

SHEATHING & NAILING PER STRUCT.

- R-38 BATT INSULATION

- (2) LAYERS \(\frac{5}{8} \)" GWB

- SHEATHING & NAILING PER STRUCT.

SUB-FLOOR

CONTRACTOR SHOULD VERIFY THE TRANSFER OF ALL POINT LOADS FROM THE ROOF DOWN THROUGH FRAMING MEMBERS AND INTO THE FOUNDATION.

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Checked By 9/2020 TG/DM

BUILDING SECTION & DETAILS

DATE

1/4" = 1'-0"

Sheet Number

A4.1

GENERAL NOTES

ALL DESIGN AND CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE 2018

CONTRACTOR SHALL VERIFY ALL LEVELS, DIMENSIONS AND EXISTING CONDITIONS IN FIELD BEFORE PROCEEDING WITH ANY

EXPANSION BOLTS: EXPANSION BOLTS IN SOLID CONCRETE SHALL BE WEDGE-TYPE ANCHORS MADE OF CARBON STEEL. CONSTRUCTION OR DEMOLITION. CONTRACTOR SHALL NOTIFY THE ARCHITECT OF ANY DISCREPANCIES OR FIELD CHANGES.

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

CONTRACTOR SHALL PROVIDE ADEQUATE SHORING AND BRACING OF ALL STRUCTURAL MEMBERS, EXISTING CONSTRUCTION AND SOIL EXCAVATIONS AS REQUIRED, IN A MANNER SUITABLE TO THE WORK SEQUENCE. TEMPORARY SHORING AND BRACING SHALL NOT BE REMOVED UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH THE DRAWINGS AND MATERIALS HAVE ACHIEVED DESIGN STRENGTH. FOUNDATIONS WALLS GREATER THAN 4 FEET SHALL NOT BE BACKFILLED UNTIL THE FLOOR FRAMING AND ALL CONNECTIONS TO THE FLOOR FRAMING PER THESE DETAILS ARE

CHANGES: NO CHANGES TO THESE STRUCTURAL DRAWINGS ARE PERMITTED WITHOUT WRITTEN CONSENT OF THE ENGINEER. CHANGES WILL BE BILLED TO THE CLIENT, OWNER OR CONTRACTOR AT THE ENGINEER'S HOURLY RATE.

SUBMITTALS: SHOP DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT PRIOR TO ANY FABRICATION OR CONSTRUCTION FOR ALL THE FOLLOWING: STRUCTURAL STEEL, STEEL CANOPIES, GLUED-LAMINATED MEMBERS AND PRE-MANUFACTURED WOOD MEMBERS.

DESIGN DRAWINGS AND CALCULATIONS, FOR PRE-MANUFACTURED WOOD TRUSSES AND JOISTS SHALL BEAR THE SEAL AND SIGNATURE OF THE WASHINGTON STATE REGISTERED PROFESSIONAL ENGINEER WHO IS RESPONSIBLE FOR THE DESIGN, AND SHALL BE SUBMITTED TO THE ARCHITECT AND BUILDING OFFICIAL FOR REVIEW PRIOR TO FABRICATION.

LIVE LOADS: LIVE LOADS ARE DETERMINED IN ACCORDANCE WITH ASCE CH. 7

ROOF SNOW LOAD PS = 25 PSF

L = 40 PSF (RESIDENTIAL)SNOW LOADS: SNOW LOADS ARE DETERMINED IN ACCORDANCE WITH ASCE CH. 7 WITH THE FOLLOWING FACTORS: GROUND SNOW LOAD PG = 25 PSF CT = 1.0CE = 1.0

WIND LOADS: WIND LOADS ARE BASED ON ASCE 7-16 CH. 28 (ENVELOPE PROCEDURE) WITH THE FOLLOWING FACTORS: EXPOSURE CATEGORY = C IW = 1.0

IS = 1.0

VELOCITY (3 SEC) = 110 MPH (ULT) KZT = 1.00DESIGN WIND PRESSURED FOR DETERMINING FORCES ON COMPONENTS AND CLADDING ARE DETERMINED IN ACCORDANCE WITH ASCE 7-16 CHAPTER 30.

SEISMIC LOADS: SEISMIC LOADS ARE BASED ON THE EQUIVALENT LATERAL FORCE PROCEDURE IN ASCE 7-16 SECTION 12.8 WITH THE FOLLOWING FACTORS:

RISK CATEGORY = II SS = 1.454SITE CLASS = DS1 = 0.502DESIGN CATEGORY = DSDS = 1.163R = 6.5 (WOOD SHEAR WALL)CS = 0.179 (ULT.)IE = 1.0

CONCRETE FOUNDATIONS SHALL BEAR ON STIFF, COMPETENT, UNDISTURBED NATIVE SOIL. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL OBTAIN CONFIRMATION FROM THE BUILDING OFFICIAL THAT THE NATIVE SOIL AT THIS PROJECT IS ADEQUATE TO SUPPORT THE FOLLOWING BEARING PRESSURE: ALLOWABLE BEARING PRESSURE USED FOR STRUCTURAL DESIGN = 1500 PSF.

WHERE FOOTINGS MUST BEAR ON STRUCTURAL FILL DUE TO INADEQUATE SOIL CONDITIONS, THE FILL SHALL BE MIXED AND COMPACTED IN ACCORDANCE WITH SPECIFICATIONS PROVIDED BY A GEOTECHNICAL ENGINEER LICENSED IN THE STATE OF WASHINGTON.

BOTTOM OF FOOTING ELEVATION SHALL BE LOCATED AT MINIMUM FROST DEPTH 18" BELOW TOP OF FINISHED GRADE UNLESS REQUIRED OTHERWISE BY THE BUILDING OFFICIAL. THE CONTRACTOR SHALL CONFIRM THE MINIMUM FROST DEPTH WITH THE BUILDING OFFICIAL PRIOR TO EXCAVATION.

CONCRETE

CONCRETE WORK SHALL COMPLY, IN GENERAL, WITH ACI 301 (LATEST EDITION) "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS.

CONCRETE MIXES: CONCRETE MIXES SHALL CONFORM ACI 318 CH. 5. MINIMUM CONCRETE STRENGTH F'C AT 28 DAYS

SLAB-ON-GRADE, CURBS AND PADS - 2500 PSI FOOTINGS - 3000 PSI - 3000 PSI WALLS, STEMS

WATER/CEMENT RATIO SHALL BE MEASURED BY WEIGHT AND SHALL BE BASED ON THE TOTAL CEMENTITIOUS MATERIAL. WATER/CEMENT RATIO SHALL BE DETERMINED BY THE SUPPLIER BASED ON STRENGTH REQUIREMENTS AND SHALL NOT EXCEED 0.55. WATER-REDUCING ADMIXTURES MAY BE INCORPORATED IN CONCRETE MIX DESIGNS, BUT SHALL CONFORM TO ASTM C 464 AND BE USED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. CACL AND OTHER WATER-SOLUBLE CHLORIDE ADMIXTURES SHALL NOT BE USED.

REINFORCING STEEL: ALL REINFORCING SHALL BE DEFORMED BAR (REBAR) WITH BAR DIAMETERS SPECIFIED IN THESE DRAWINGS AND PROPERTIES BELOW:

ALL REINFORCING UNLESS NOTED OTHERWISE - ASTM A615, GRADE 60 - ASTM A615, GRADE 40 #3 STIRRUPS AND TIES WELDED REBAR - ASTM A706, GRADE 60 GALVANIZED WELDED WIRE FABRIC

REINFORCING STEEL SHALL BE DETAILED IN ACCORDANCE WITH ACI 315 "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES."

REINFORCING STEEL SHALL BE LAPPED AS NOTED ON THE DRAWINGS. WHERE LAP LENGTH IS NOT SHOWN, REINFORCING BARS SHALL BE LAPPED AS FOLLOWS:

#5 AND SMALLER 48 BAR DIAMETERS 60 BAR DIAMETERS #6 AND LARGER

MINIMUM CONCRETE COVER OVER REINFORCING SHALL BE AS FOLLOWS:

NONSTRUCTURAL SLAB-ON-GRADE MID—DEPTH WALL BARS: INTERIOR FACE - 3/4"

EXPOSED TO EARTH/WEATHER -1-1/2" (#5 AND SMALLER), 2" (#6 AND LARGER) FOOTINGS: BOTTOM BARS - 3" (CAST AGAINST EARTH)

TOP BARS - 1-1/2"

SIDE BARS - 2"

PROVIDE SUPPORTS AS REQUIRED FOR PROPER ALIGNMENT AND CONCRETE COVER AROUND THE REINFORCEMENT. CONSULT THE CRSI MANUAL OF STANDARD PRACTICE MSP-1 FOR SPECIFIC INFORMATION.

USE OF DRILLED CONCRETE ANCHORS, INCLUDING EXPANSION BOLTS AND ADHESIVE ANCHORS, WHERE NOT SPECIFIED IN THESE DOCUMENTS SHALL BE SUBJECT TO APPROVAL BY THE ENGINEER, ARCHITECT AND THE BUILDING INSPECTOR

BOLT SIZE, SPACING AND EMBEDMENT LENGTH SHALL BE AS DESIGNATED IN THESE DRAWINGS. BOLTS SHALL BE INSTALLED PER THE MANUFACTURER'S INSTRUCTIONS WITH INSPECTION PER SCHEDULE. EXPANSION BOLTS SHALL BE SIMPSON STRONG BOLT 2 OR APPROVED EQUAL. A CURRENT ICBO OR ICC REPORT SHALL BE SUBMITTED FOR

ADHESIVE ANCHORS: ADHESIVE OR EPOXY TYPE ANCHORS IN SOLID CONCRETE SHALL BE INSTALLED PER THE MANUFACTURER'S INSTRUCTIONS. ANCHOR SIZE, SPACING AND EMBEDMENT LENGTH SHALL BE AS DESIGNATED IN THESE DRAWINGS. ADHESIVE SHALL BE SIMPSON SET 3G. A CURRENT ICBO OR ICC REPORT SHALL BE SUBMITTED FOR

SAWN LUMBER: STRUCTURAL SAWN LUMBER SHALL BE KILN DRIED AND BE OF THE SPECIES AND GRADE NOTED BELOW

| \ | JLIILIN. | | |
|---|---------------------------------|----------------|----------|
| | <u>USE</u> | <u>GRADE</u> | FB (PSI) |
| | WALL STUDS | HEF FIR STUD | 675 |
| | PLATES, PLANKS, JOISTS, RAFTERS | HEM FIR #2 | 850 |
| | 4X BEAMS | HEM FIR #2 | 850 |
| | 6X BEAMS | HEM FIR #2 | 675 |
| | 4X BEAMS | DOUGLAS FIR #1 | 1350 |
| | 6X BEAMS | DOUGLAS FIR #1 | 1350 |
| | 4X POSTS | HEM FIR #2 | 850 |
| | 6X POSTS | HEM FIR #2 | 675 |
| | 6X POSTS | DOUGLAS FIR #1 | 1200 |
| | | | |

GLUED LAMINATED MEMBERS: GLUED LAMINATED MEMBERS SHALL EACH BEAR AN AITC IDENTIFICATION MARK AND BE ACCOMPANIED BY AN AITC CERTIFICATE OF CONFORMANCE. ONE COAT OF END SEALER SHALL BE APPLIED IMMEDIATELY AFTER TRIMMING EITHER SHOP OR FIELD. MEMBERS SHALL BE VISUAL GRADED WESTERN SPECIES INDUSTRIAL, ARCHITECTURAL OR PREMIUM GRADE WITH STRENGTH AS FOLLOWS:

SYMBOL SPECIES <u>FB (PSI)</u> <u>E (PSI)</u> GLB 24F-V8 DF/DF 2400/2400 psi

ALL WOOD CONNECTORS SHALL BE MANUFACTURED BY SIMPSON STRONG TIE COMPANY (OR APPROVED EQUAL), AND OF THE SIZE AND TYPE SHOWN ON THE DRAWINGS. ALL WOOD CONNECTORS IN CONTACT WITH PRESERVATIVE-TREATED WOOD SHALL BE TRIPLE ZINC G-185 GALVANIZED (1.85 OZ/SQ FT COATING).

ENGINEERED METAL-PLATE-CONNECTED WOOD TRUSSES SHALL BE DESIGNED BY A LICENSED PROFESSIONAL ENGINEER. THE CONTRACTOR SHALL SUBMIT ENGINEERED TRUSS SHOP DRAWINGS TO THE STRUCTURAL ENGINEER OF RECORD FOR REVIEW AND APPROVAL. TRUSS SHOP DRAWINGS SHALL BEAR THE SEAL AND SIGNATURE OF A LICENSED DESIGN PROFESSIONAL CURRENTLY REGISTERED FOR PRACTICE IN THE STATE OF CT. SHOP DRAWINGS SHALL INDICATE ALL LOADING CASES CONSIDERED, MAXIMUM DEFLECTIONS AND MAXIMUM END REACTIONS FOR EACH TYPICAL TRUSS CONFIGURATION. TRUSS SHOP DRAWINGS SHALL INDICATE COMPRESSION MEMBERS REQUIRING ADDITIONAL FIELD-INSTALLED LATERAL BRACING. TRUSS DEFLECTIONS SHALL BE LIMITED TO 1360 OF SPAN.

MINIMUM WOOD NAILING REQUIREMENTS: UNLESS OTHERWISE NOTED ON THE DRAWINGS, TYPICAL WOOD FRAMING SHALL BE FASTENED PER IBC 2018 TABLE 2304.10.1.

RATED SHEATHING: STRUCTURAL PANELS SHALL BEAR THE APA TRADEMARK OF THE AMERICAN PLYWOOD ASSOCIATION.

SHEAR WALL SHTG MIN. 7/16" 32/16 MIN. C-D INT APA WITH EXTERIOR GLUE (CDX) ROOF SHTG MIN. 15/32" 32/16 MIN. C-D INT APA WITH EXTERIOR GLUE (CDX)

SUB FLOOR SHTG MIN. 3/4" 48/24 T&G MIN. C-D INT APA WITH EXTERIOR GLUE (CDX)

SHEATHING SHALL BE ORIENTATED OVER THE SUPPORTS AS SHOWN ON THE DRAWINGS. SHEAR WALL SHEATHING SHALL BE BLOCKED AT ALL PANEL EDGES AS SHOWN IN THE SHEAR WALL SCHEDULE.

PREMANUFACTURED OPEN WEB WOOD TRUSSES: TRUSSES SHALL BE DESIGN BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF WASHINGTON, WHO IS REGULARLY ENGAGED IN THE DESIGN OF PLATE-CONNECTED WOOD TRUSSES. TRUSS DESIGN SHALL BE ACCORDANCE WITH IBC SECTION 2303.4.

TRUSSES SHALL BE DESIGN FOR THE FOLLOWING DEAD LOADS: TOP CHORD BOTTOM CHORD

ROOF TRUSSES 15 PSF 10 PSF 25 PSF IN ADDITION TO DEAD LOADS, THE DESIGN SHALL INCLUDE THE LIVE, WIND, SNOW AND SNOW DRIFT LOADS AS IDENTIFIED IN THE "DESIGN LOADS" SECTION OF THESE DRAWINGS. IN ADDITION, THE TRUSS DESIGN SHALL INCLUDE

CONCENTRATED AND AXIAL LOADS SHOWN ON FRAMING PLANS AND HANGER SCHEDULES IN THESE DRAWINGS. ROOF TRUSSES SHALL BE DESIGNED FOR WIND NET UPLIFT OF 10 PSF UNLESS OTHERWISE NOTED ON THE DRAWINGS. FLOOR TRUSSES SHALL BE DESIGN FOR MAXIMUM LIVE LOAD DEFLECTION = 1/2" AND MINIMUM LIVE LOAD DEFLECTION TRUSSES SHALL BE FABRICATED BY A MANUFACTURER WHO IS A MEMBER OF THE TRUSS PLATE INSTITUTE. TRUSSES

SHALL BE SUPPLIED WITH THE PROPER HANGERS, END CONNECTIONS, BRIDGING, BRACING TO PROVIDE LATERAL STABILITY OF ALL TRUSS MEMBERS, AND TIE-DOWN CONNECTIONS TO BEAMS AND TOPS OF WALLS. TRUSSES SHALL BE SUPPLIED WITH TAPERED HARDWOOD SHIMMING SO THAT EVERY CHORD BEARS ON THE FULL WIDTH OF EVERY SUPPORT, WITHOUT NOTCHING THE TRUSS MEMBERS. THE TRUSS MANUFACTURER IS RESPONSIBLE FOR ENSURING THE BEARING SEAT DOES NOT EXCEED THE SILL PLATE CAPACITY OF THE SUPPORTING ELEMENT.

BUILDING OFFICIAL INSPECTIONS

THE FOLLOWING RECOMMENDED MINIMUM ITEMS SHALL BE INSPECTED BY A QUALIFIED INDIVIDUAL PROVIDED BY THE BUILDING OFFICIAL:

-FOOTINGS BEAR ON COMPETENT NATIVE SOIL PER THE "FOUNDATIONS" SECTION ABOVE -FOOTING REINFORCEMENT

-VERIFY TYPE, SIZE AND GRADE OF STRUCTURAL STEEL MEMBERS AND BOLTS

-SHEAR WALL SILL PLATE ANCHORS AND WASHERS PER SCHEDULE

-SHEAR WALL NAILING AND SHEAR CLIPS PER SCHEDULE

-SHEAR WALL HOLD-DOWNS

TYPICAL DETAILS

IN ADDITION TO THE DETAILS AND SCHEDULES ON THE FRAMING PLANS, THOSE NOTED AS "TYPICAL" SHALL BE USED THROUGHOUT THE STRUCTURE AS APPLICABLE.

SHEET INDEX

S1.0 STRUCTURAL NOTES S3.0 TYPICAL STRUCTURAL DETAILS S3.1 TYPICAL STRUCTURAL DETAILS S2.0 FOUNDATION PLANS S3.2 TYPICAL STRUCTURAL DETAILS S2.1 MAIN FLOOR FRAMING PLANS S2.2 2ND FLOOR FRAMING PLANS S3.3 SHEAR WALL DETAILS S2.3 ROOF FRAMING PLANS S3.4 TYPICAL STRUCTURAL DETAILS

| | | ROOF | |
|---|--|---|----------------------|
| | DESCRIPTION OF BUILDING ELEMENTS | NUMBER AND TYPE OF FASTENER | SPACING AND LOCATION |
| 1. | Blocking between ceiling joists, rafters or trusses to top plate or other framing below | 3-8d common (2 $\frac{1}{2}$ " x 0.131"): or 3-10d box (3" x 0.128"); or 3-3" x 0.131" nails; or 3-3" 14 gage staples, $\frac{7}{16}$ " crown | Each end, toenail |
| | Blocking between rafters or truss not at the wall | 2-8d common (2 ½" x 0.131") 2-3" x 0.131" nails 2-3"14 gage staples | Each end, toenail |
| | top plate, to rafter or truss | 2-16 d common (3 ½" × 0.162") 3-3" × 0.131" nails 3-3" 14 gage staples | End nail |
| | Flat blocking to truss and web filler | 16d common (3 ½" × 0.162") @ 6" o.c. 3" × 0.131" nails @ 6" o.c. 3" × 14 gage staples @ 6".c | Face nail |
| 2. | Ceiling joists to top plate | 3-8d common (2 $\frac{1}{2}$ " × 0.131"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails; or 3-3" 14 gage staples, $\frac{7}{16}$ " crown | Each joist, toenail |
| 3. | Ceiling joist not attached to parallel rafter, laps over partitions (no thrust) (see Section 2308.7.3.1, Table 2308.7.3.1) | 3-16d common (3 $\frac{1}{2}$ " x 0.162"); or 4-10d box (3" x 0.128"); or 4-3" x 0.131" nails; or 4-3" 14 gage staples, $\frac{7}{16}$ " crown | Face nail |
| 4. | Ceiling joist attached to parallel rafter (heel joint) (see Section 2308.7.3.1, Table 2308.7.3.1) | Per Table 2308.7.3.1 | Face nail |
| 5. | Collar tie to rafter | 3-10d common (3" x 0.148"); or 4-10d box (3" x 0.128"); or 4-3" x 0.131" nails; or 4-3" 14 gage staples, $\frac{7}{16}$ " crown | Face nail |
| 6. | Rafter or roof truss to top plate (See Section 2308.7.5, Table 2308.7.5) | 3-10 common (3" x 0.148"); or 3-16d box ($3\frac{1}{2}$ " x 0.135"); or 4-10d box (3" x 0.128"); or 4-3" x 0.131 nails; or 4-3" 14 gage staples, $\frac{7}{16}$ " crown | Toenail ^C |
| | Deef reflect to ride and the second of the s | 2-16d common ($3\frac{1}{2}$ " x 0.162"); or 3-10d box (3" x 0.128"); or 3-3" x 0.131" nails; or 3-3" 14 gage staples, $\frac{7}{16}$ " crown; or | End nail |
| 7. Roof rafters to ridge valley or hip rafters; or roof rafter to 2-inch ridge beam | | 3-10d common (3 $\frac{1}{2}$ " x 0.148"); or 3-16d box (3 $\frac{1}{2}$ " x 0.135"); or 4-10d box (3" x 0.128"); or 4-3" x 0.131" nails; or 4-3" 14 gage staples, $\frac{7}{16}$ " crown | Toenail |
| | | WALL | |
| | | 16d common (3 ½" x 0.162") | 24" o.c. face nail |

| | | 16d common (3 ½" x 0.162") | 24" o.c. face nail |
|-----|--|--|--|
| 8. | Stud to stud (not at braced wall panels) | 10d box (3" x 0.128"); or 3" x 0.131" nails; or 3-3" 14 gage staples, $\frac{7}{16}$ " crown | 16" o.c. face nail |
| | | 16d common (3 ½" x 0.162"); or | 16" o.c. face nail |
| 9. | Stud to stud and abutting studs at intersecting wall corners (at braced wall panels) | 16d box (3 ½" x 0.135"); or | 12" o.c. face nail |
| | | 3" x 0.131" nails; or 3-3" 14 gage staples, $\frac{7}{16}$ " crown | 12" o.c. face nail |
| | Delite on teacher (Olite Olite and on) | 16d common (3 ½" x 0.162"); or | 16" o.c. each edge, face nail |
| 10. | Built-up header (2" to 2" header) | 16d box (3 ½" x 0.135") | 16" o.c. each edge, face nail |
| 11. | Continuous header to stud | 4-8d common (2 ½" x 0.131"); or 4-10d box (3" x 0.128") | Toenail |
| | | 16d common (3 ½" × 0.162"); or | 16" o.c. face nail |
| 12. | Top plate to top plate | 10d box (3" × 0.128"); or 3" x 0.131" nails; or 3" 14 gage staples, ⁷ / ₆ " crown | 12" o.c. face nail |
| 13. | Top plate to top plate, at end joints | 8-16d common (3 $\frac{1}{2}$ " x 0.162"); or 12-10d box (3" x 0.128"); or 12-3"x 0.131" nails; or 12-3" 14 gage staples, $\frac{7}{16}$ " crown | Each side of end joint, face nail (minimum 24" lap splice length each side of end joint) |
| | | 16d common (3 ½" x 0.162"); or | 16" o.c. face nail |
| 14. | Bottom plate to joist, rim joist, band joist or blocking (not at braced wall panels) | 16d box (3 ½" x 0.135"); or 3" x 0.131" nails; or 3" 14 gage staples, 7/16" crown | 12" o.c. face nail |
| 15. | Bottom plate to joist, rim joist, band joist or blocking at braced wall panels | 2-16d common (3 $\frac{1}{2}$ "× 0.162"); or 3-16d box (3 $\frac{1}{2}$ " x 0.135"); or 4-3" x 0.131" nails; or 4-3" 14 gage staples, $\frac{7}{16}$ " crown | 16" o.c. face nail |
| 46 | Stud to top or bottom plate | 4-8d common (2 1/2" x 0.131"); or 4-10d box (3" x 0.128"); or 4-3" x 0.131" nails; or 4-3" 14 gage staples, $\frac{7}{16}$ " crown; or | Toenail |
| 16. | Stud to top of bottom plate | 2-16d common (3 1/2" x 0.162"); or 3-10d box (3" x 0.128"); or 3-3" x 0.131" nails; or 3-3" 14 gage staples, $\frac{7}{16}$ " crown | End nail |
| 17. | Top plates, laps at corners and intersections | 2-16d common (3 $\frac{1}{2}$ " x 0.162"); or 3-10d box (3" x 0.128"); or 3-3" x 0.131" nails; or 3-3" 14 gage staples, $\frac{7}{16}$ " crown | Face nail |
| 18. | 1″ brace to each stud and plate | 2-8d common (2 $\frac{1}{2}$ " x 0.131"); or 2-10d box (3" x 0.128"); or 2-3" x 0.131" nails; or 2-3" 14 gage staples, $\frac{7}{16}$ " crown | Face nail |
| 19. | 1" x 6" sheathing to each bearing | 2-8d common (2 1/2" x 0.131"); or 2-10d box (3" x 0.128") | Face nail |
| 20. | 1" x 8" and wider sheathing to each bearing | 2-8d common (2 1/2" x 0.131"); or 3-10d box (3" x 0.128") | Face nail |
| | | | |

WOOD STRUCTURAL PANELS (WSP), SUBFLOOR, ROOF AND INTERIOR WALL SHEATHING TO FRAMING AND PARTICLEBOARD WALL SHEATHING TO FRAMING^a Intermediate supports

| | | 6d common or deformed (2" x 0.113") (subfloor and wall) | 6 | 12 |
|-----|---|--|------------|----|
| | | 8d box or deformed $(2\frac{1}{2}" \times 0.113")$ (roof) | 6 | 12 |
| | | 2 3/8" x 0.113" nail (subfloor and wall) | 6 | 12 |
| 30. | 3/8" - 1/2" | $1\frac{3''}{4}$ 16 gage staple, $\frac{7}{16}$ " crown (subfloor and wall) | 4 | 8 |
| | | 2 $\frac{3}{8}$ " x 0.113" nail (roof) | 4 | 8 |
| | | $1\frac{3}{4}$ " 16 gage staple, $\frac{7}{16}$ " crown (roof) | | 6 |
| 31. | 19/ " 3/" | 8d common (2 ½" x 0.131"); or 6d deformed (2" × 0.113") | 6 | 12 |
| 31. | 19/32" - 3/4" | $2\frac{3}{8}$ " x 0.113" nail; or 2" 16 gage staple, $\frac{7}{16}$ " crown | 4 | 8 |
| 32. | 7/8" - 1 1/4" | 10d common (3" x 0.148"); or 8d deformed (2 ½" x 0.131") | 6 | 12 |
| | OTHER EXTE | ERIOR WALL SHEATHIN | I G | |
| 33. | 1/2" fiberboard sheathing ^b | $1\frac{1}{2}$ " galvanized roofing nail $(\frac{7}{16})$ " head diameter); or $1\frac{1}{4}$ " 16 gage staple with $\frac{7}{16}$ " or 1" crown | 3 | 6 |
| 34. | ²⁵ / ₃₂ " fiberboard sheathing ^b | 1 $\frac{3}{4}$ " galvanized roofing nail $(\frac{7}{16}$ " diameter head); or | 3 | 6 |

WOOD STRUCTURAL PANELS, COMBINATION SUBFLOOR UNDERLAYMENT TO FRAMING

 $1\frac{1}{2}$ " 16 gage staple with $\frac{7}{16}$ " or 1" crown

| | | | Edges (inches) | Intermediate supports (inches) |
|-----|--------------------------|--|-------------------|--------------------------------|
| 35. | $\frac{3}{4}$ " and less | 8d common (2 $\frac{1}{2}$ " x 0.131"); or 6d deformed (2" x 0.113") | 6 | 12 |
| 36. | 7∕8" - 1" | 8d common (2 $\frac{1}{2}$ " x 0.131"); or 8d deformed (2 $\frac{1}{2}$ " x 0.131") | 6 | 12 |
| 37. | $\frac{3}{4}$ " and less | 8d common (2 $\frac{1}{2}$ " x 0.131"); or 6d deformed (2" x 0.113") | 6 | 12 |
| | | PANEL SIDING TO FRAMING | | |
| 38. | 1/2" or less | 6d corrosion-resistant siding (1 $\frac{7}{8}$ " x 0.106"); or 6d corrosion-resistant casing (2" x 0.099") | 6 | 12 |
| 39. | 5/8" | 8d corrosion-resistant siding (2 \frac{3}{8}" \times 0.128"); or 8d corrosion-resistant casing | 6 | 12 |

 $(2\frac{1}{2}" \times 0.113")$

INTERIOR PANELING

ld casing (1 ½" x 0.080"); or 4d finish $(1\frac{1}{2}" \times 0.072")$ od casing (2" x 0.099"); or 6d finish (Panel supports at 24 inches)

For SI: 1 inch = 25.4 mm.

Nails spaced at 6 inches at intermediate supports where spans are 48 inches or more. For nailing of wood structural panel and particleboard diaphragms and shear walls, refer to Section 2305. Nails for wall sheathing are permitted to be common, box or casing. Spacing shall be 6 inches on center on the edges and 12 inches on center at intermediate supports for nonstructural applications. Panel supports at 16 inches (20 inches if strength axis in the long direction of the panel, unless otherwise marked). Where a rafter is fastened to an adjacent parallel ceiling joist in accordance with this schedule and the ceiling joist is fastened to the top plate in accordance with this schedule, the number of toenails in the rafter shall be permitted to be reduced by one nail.

6/02/2022

(inches)



erc

emode

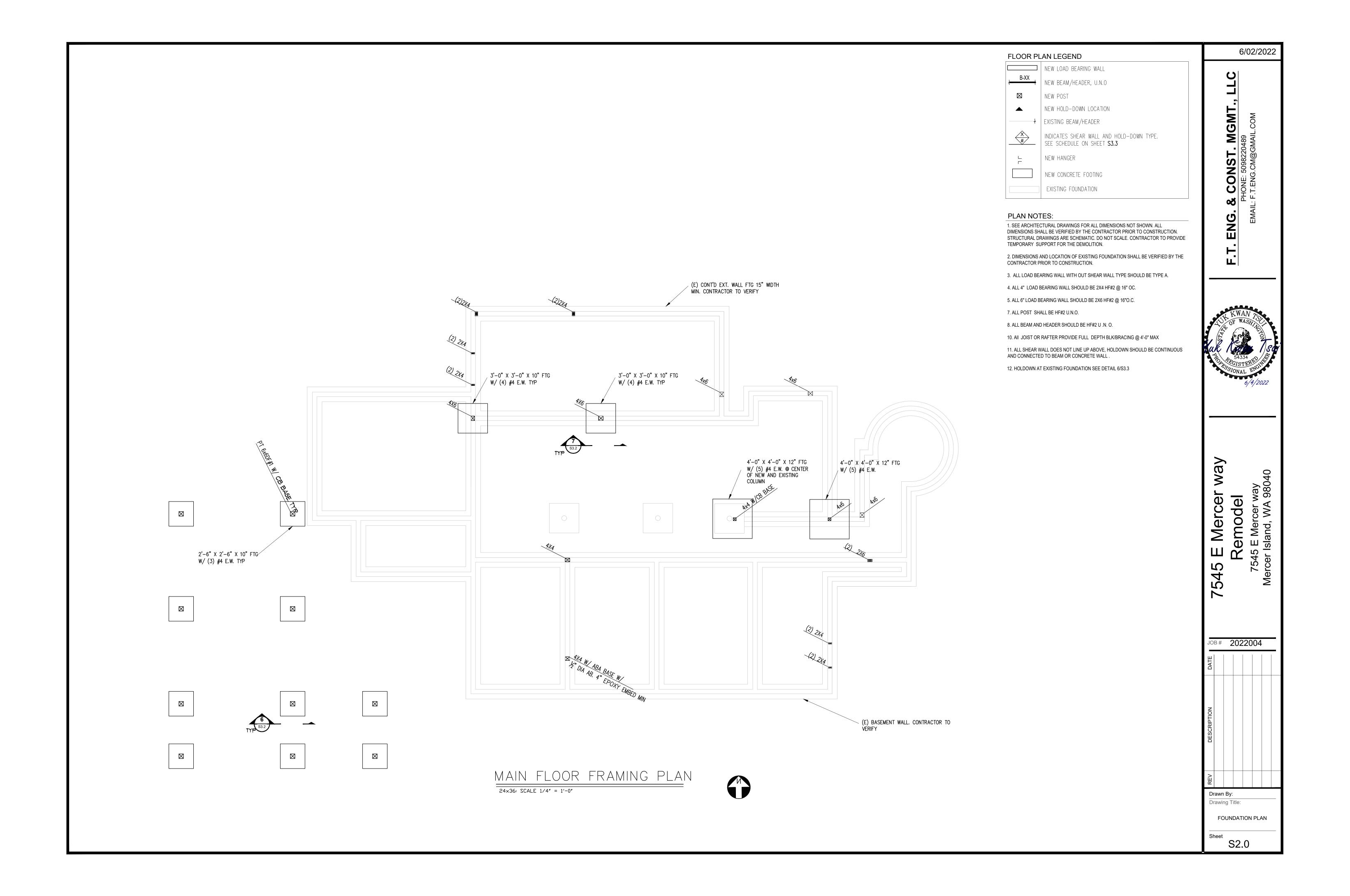
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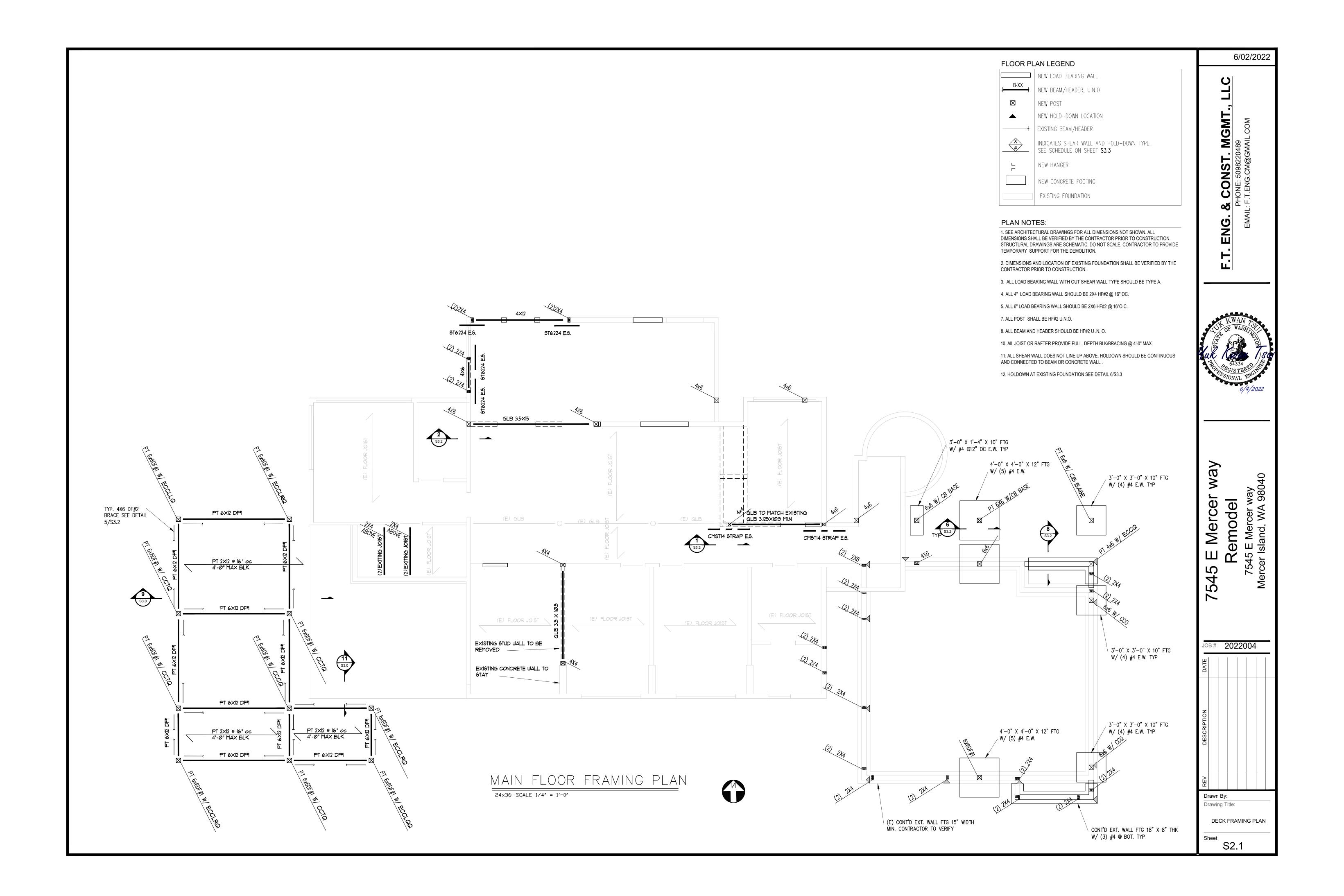
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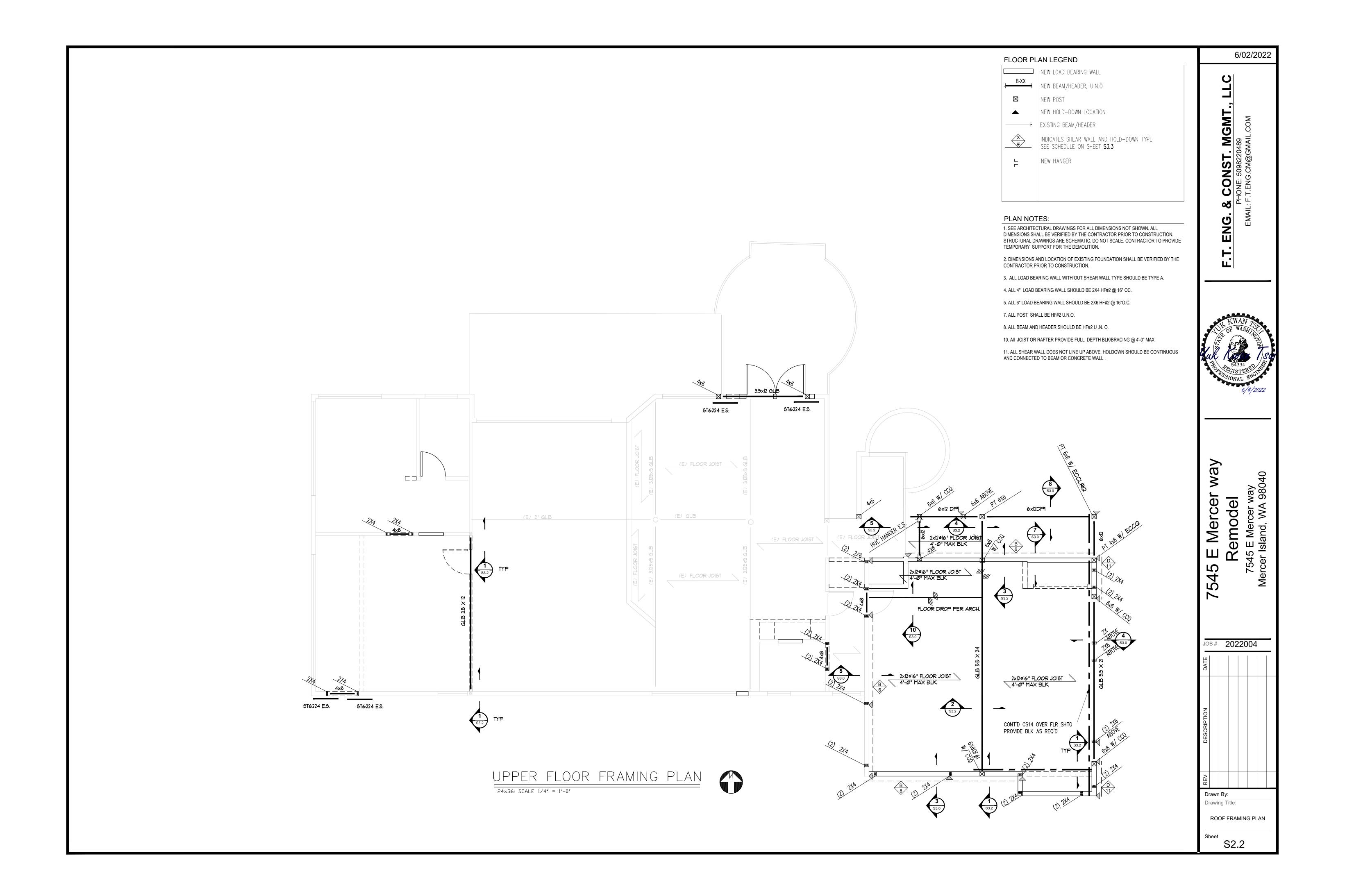
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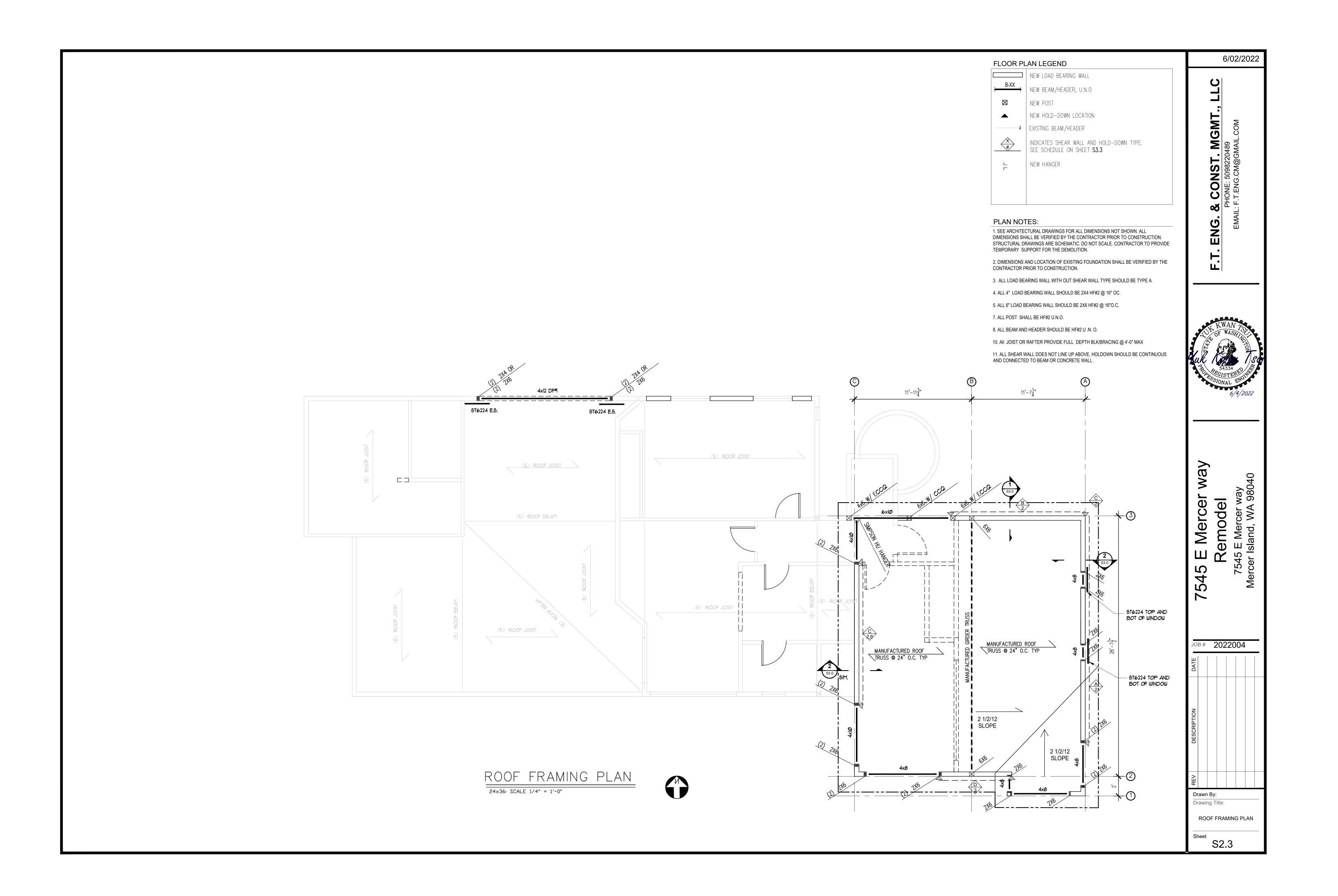
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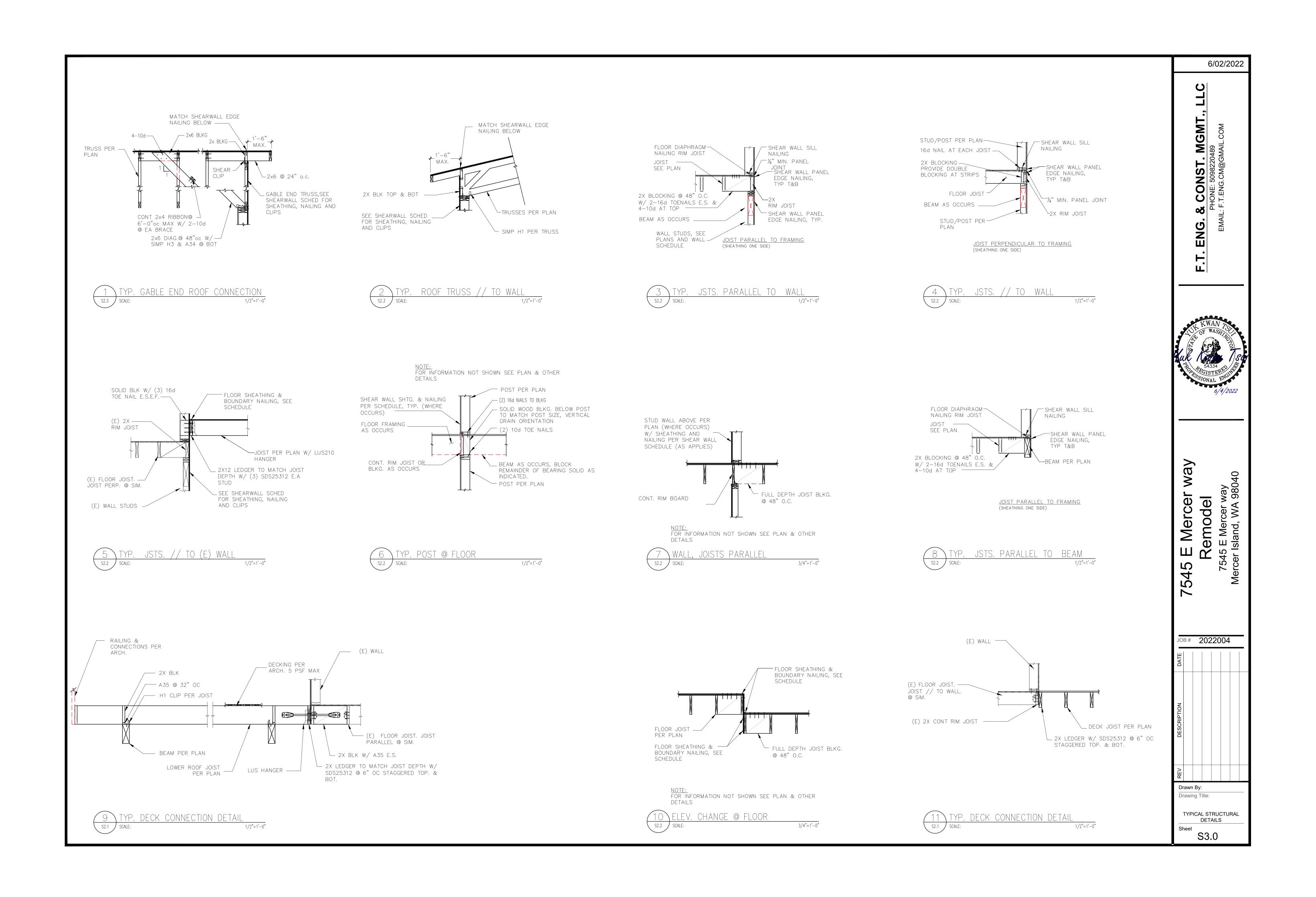
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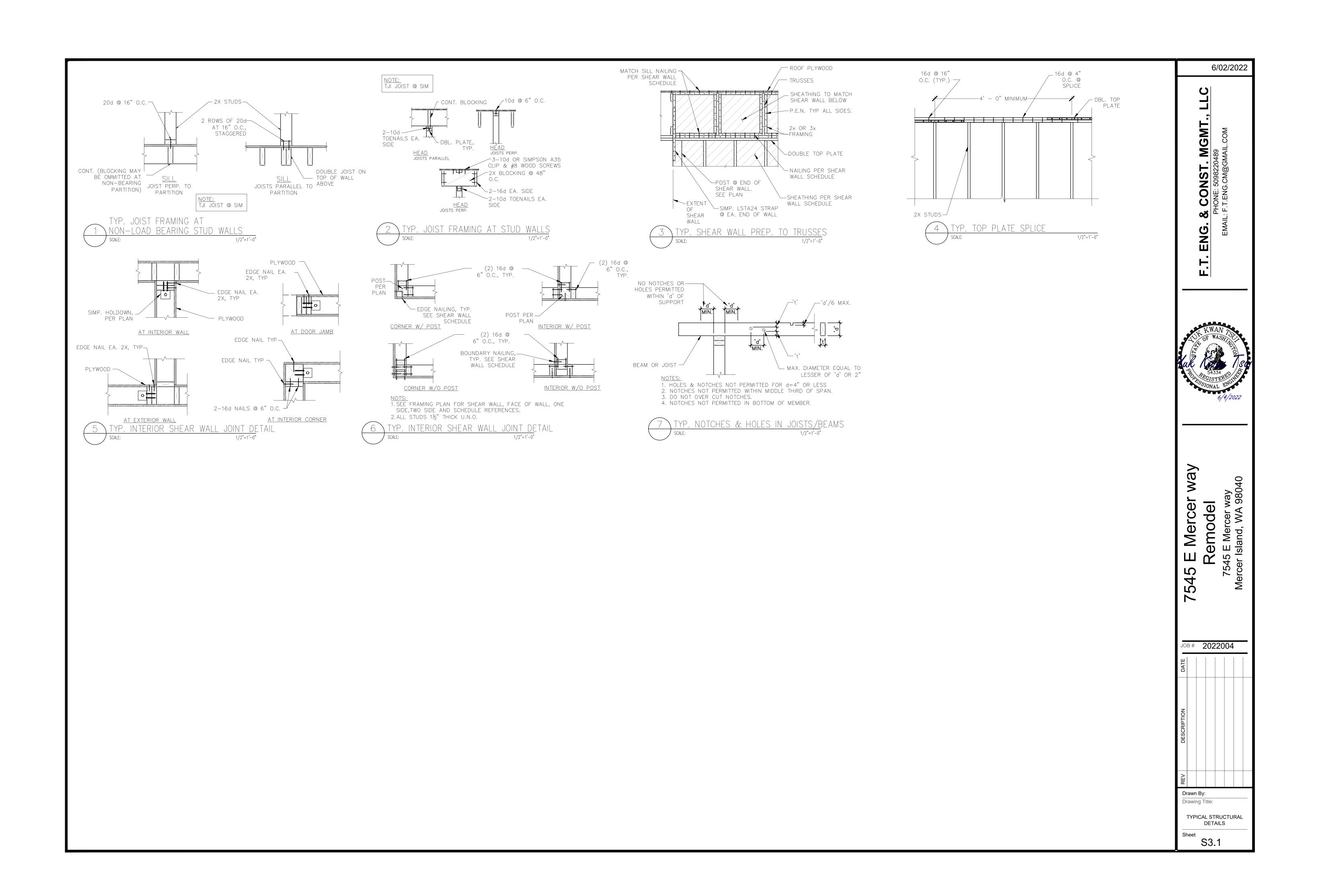


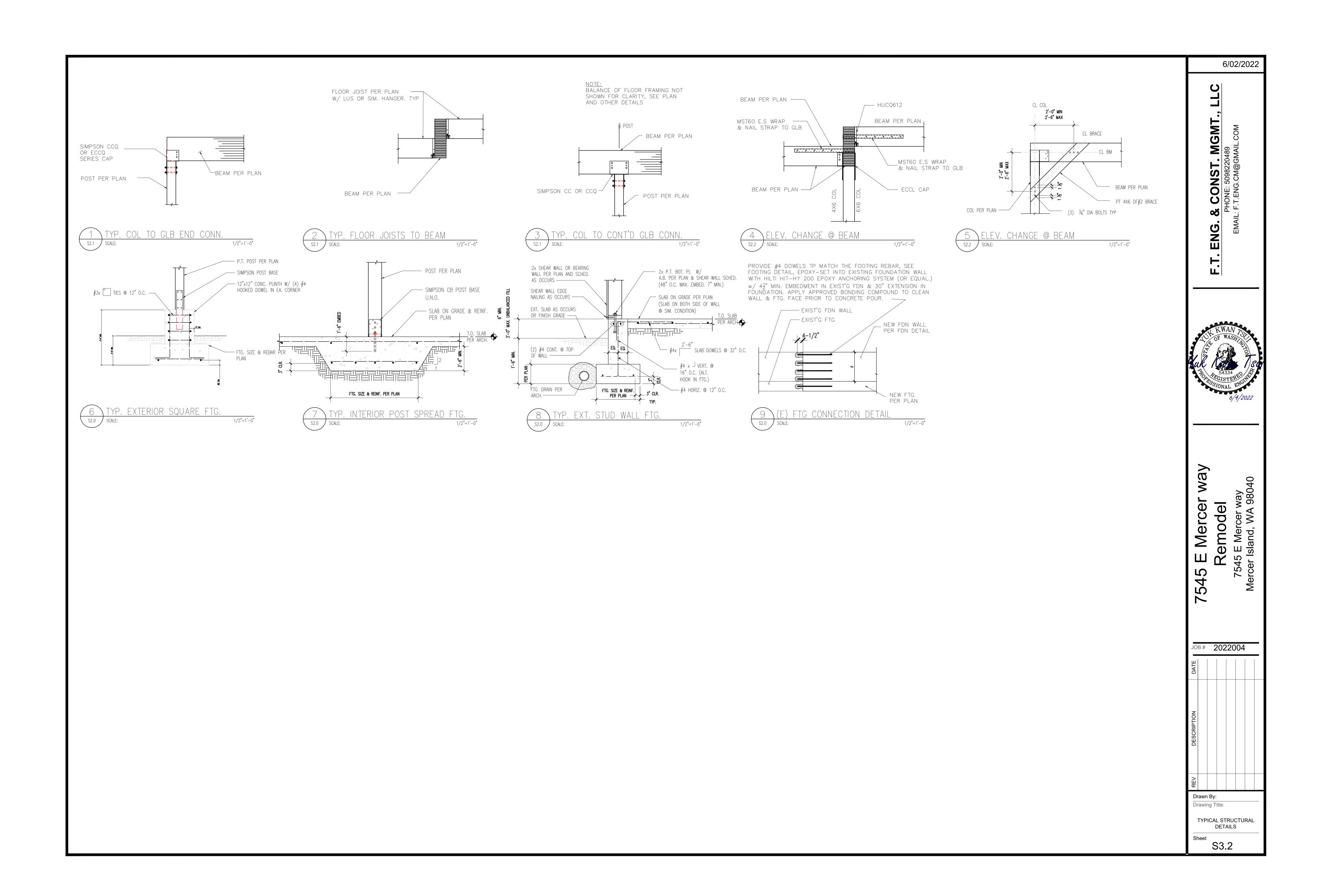


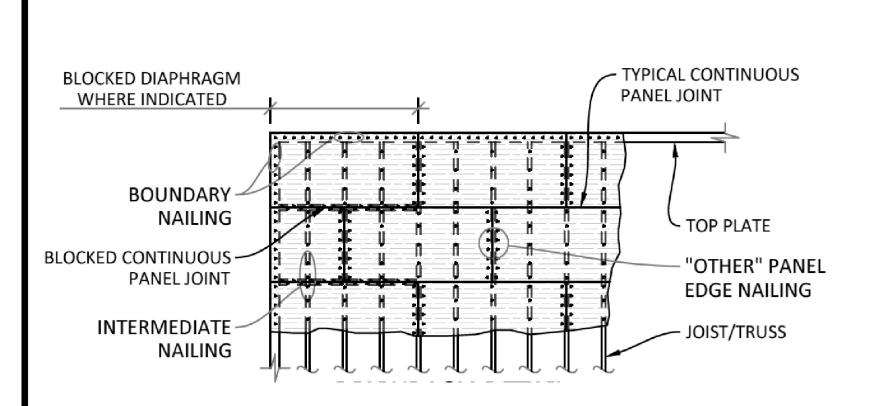








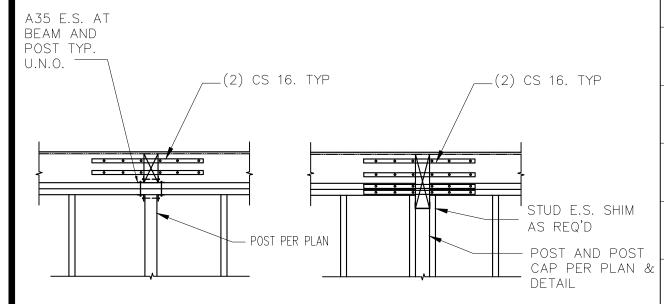




*PROVIDE 1/8" GAP @ TYP. PANEL JOINT

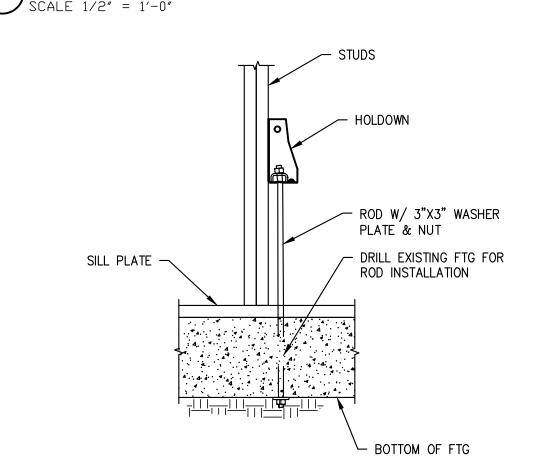
| DIAPHRAGM NAILING SCHEDULE | | | | | | | | | |
|----------------------------|------------|--------------|-----------------|---|---|--|--|--|--|
| LOCATION | SHEATHING | BLKG REQD | SIZE OF NAIL | NAIL SPACING AT BOUNDARIES AND "OTHER" PANEL EDGES | NAIL SPACING AT INTERMEDIATE FRAMING MEMBERS | NAIL SPACING AT BLOCKED PANEL JOINTS | | | |
| ROOF | SEE STRUCT | NO | 10d | 6" OC | 12" OC | 6" OC | | | |
| SUB-FLR | NOTES | NO | 10d & GLUE | 4" OC | 12" OC | 4" OC | | | |

- 1. ALL DIAPHRAGM SHEATHING IS TO BE STAGGERED IN THE DIRECTION OF THE PLYWOOD SPAN PER
- DIAPHRAGM DETAIL 2. PROVIDE BOUNDARY NAILING CONTINUOUS AROUND THE ENTIRE PERIMETER OF THE DIAPHRAGM
- 3. NAILS SHALL BE COMMON OR GALVANIZED BOX 4. ALL FRAMING MEMBERS SHALL BE 2x MINIMUM NOMINAL WIDTH



NOIL: Balance of Framing not shown for clarity

TYP. STRAP AT BEAM



SOLID BLK. @-_SEE TYP. STUD LOCATIONS W/O WALL FRAMING DET. SEE PLAN FOR HEADER-PLWD. EDGE FOR HEADER ST6224 TYP@ SHEAR WALL OPENING FIELD NAIL SEE -EDGE HOLDOWN NAILING PLANS, TYP. @ HOLDOWN POST SEE PLANS FOR-__16d @ 12" O.C. _2X TRIMMER STUD SIZE @ PER PLAN
POST OR TS COL. SEE ALL PLWD. EDGES PLANS & TYP. DETS. EDGE NAIL, SEE— - HOLDOWN ANCORS PLANS, TYP. WHERE OCCURS SEE PLANS & TYP. DETS. 2X TRIMMER PER PLAN SILL BOLT, SEE PLANS, TYP.-

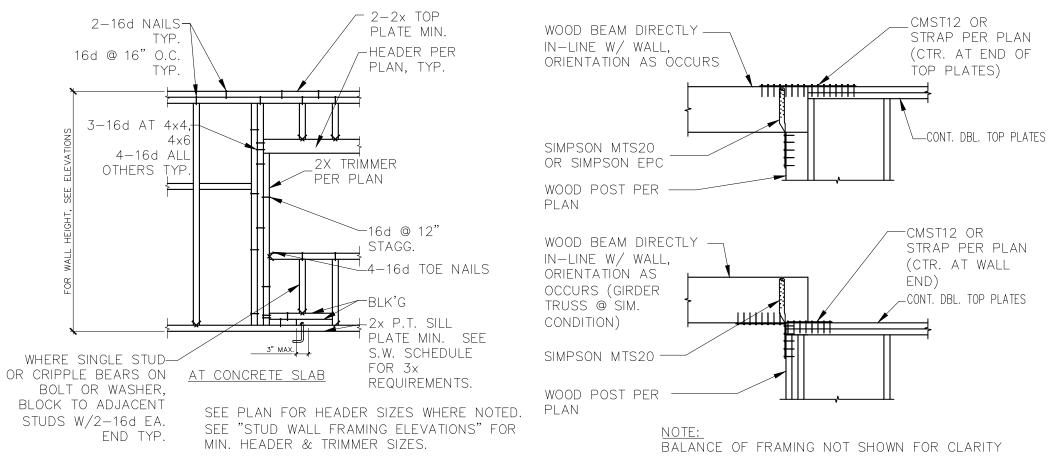
HEADERS KINGSTUDS AND OTHER REFERENCES ON PLAN GOVERN OVER TYPICAL DETAIL SEE SHEAR WALL PLYWOOD NAILING DETAIL FOR ADDITIONAL INFORMATION 3. AT WOOD FRAMED WALLS USE SILL CONNECTION PER SHEAR WALL SCHEDULE

| SHEAR WALL SCHEDULE | | | | | | | | | | | |
|---------------------|------|---|------|------|-------------------|---------------|-------------------|---------------|--|------------------------------------|----------------|
| | MARK | SHEATHING | SIDE | SIZE | PANEL NAI EDGE | LING FIELD | PANEL BLOCKING | SILL PLATE | ANCHOR BOLTS (MIN. 7" EMBED) | SHEAR CLIP | VALUE (PLF) |
| | Â | 7/16" APA RATED SHEATHING WITH STUDS @ 16" O.C. | ONE | 8d | 6" O.C. | 12" O.C. | 2x | 2× | 5/8" x 10" @ 48" O.C. OR UFP10-SDS3 @ 48" O.C. | SIMPSON LTP4/A35 @ 18"O.C. | 230 |
| | B | 7/16" APA RATED SHEATHING WITH STUDS @ 16" O.C. | ONE | 8d | 4" O.C. | 12" O.C. | Зx | 3x (2) 2x | 5/8" x 12" @ 42" 0.C. OR UFP10-SDS3 @ 42" 0.C. | SIMPSON LTP4/A35 @ 18" O.C. | 380 |
| | Ĉ | 7/16" APA RATED SHEATHING WITH STUDS @ 16" O.C. | ONE | 8d | 3" O.C. | 12" O.C. | Зx | 3x (2) 2x | 5/8" x 12" @ 36" O.C. OR UFP10-SDS3 @ 36" O.C. | SIMPSON LTP4/A35 @ 16" O.C. | 420 |
| | D | 7/16" APA RATED SHEATHING WITH STUDS @ 16" O.C. | ONE | 10d | 3" O.C. | 12" O.C. | Зx | 3x (2) 2x | 5/8" X 12" @ 24" O.C. OR UFP10-SDS3 @ 24" O.C. | SIMPSON LTP4/A35 @ 12" O.C. | 560 |
| & | E | 7/16" APA RATED SHEATHING WITH STUDS @ 16" O.C. | TWO | 8d | 6" O.C. | 12" O.C. | 3x | 3x (2) 2x | - 5/8" X 12" @ 32" O.C. | SIMPSON LTP4 E.F. @ 24" O.C. | 520 |
| | F | 7/16" APA RATED SHEATHING WITH STUDS @ 16" O.C. | TWO | 8d | 4" O.C. | 12" O.C. | 3x | 3x (2) 2x | - 5/8" x 12" @ 24" O.C. | SIMPSON LTP4 E.F. @ 18" O.C. | 760 |
| | G | 7/16" APA RATED SHEATHING WITH STUDS @ 16" O.C. | TWO | 8d | 3" O.C. | 12" O.C. | Зx | 3x (2) 2x | - 5/8" x 12" @ 16" O.C. | SIMPSON LTP4 E.F. @ 16" O.C. | 980 |
| | H | 7/16" APA RATED SHEATHING WITH STUDS @ 16" O.C. | TWO | 10d | 3" O.C. | 12" O.C. | 3× | 3x (2) 2x | 5/8" x 12" @ 12" O.C. | SIMPSON LTP4 E.F. @ 12" O.C. | 1,200 |

NOTES:

- 1. SOME SHEAR WALLS LISTED MAY NOT BE USED IN THIS PROJECT. REFER TO PLAN FOR TYPES USED.
- 2. 8d NAIL = $2 \frac{1}{2}$ " x 0.131" COMMON OR $2 \frac{1}{2}$ " x 0.113" GALVANIZED BOX. 10d NAIL = $3" \times 0.148"$ COMMON OR $3" \times 0.128"$ GALVANIZED BOX.
- 3. IF ANCHOR BOLT SPACING IS GREATER THAN SHEAR WALL LENGTH INSTALL (1) ANCHOR BOLT WITHIN 12" OF EACH END.
- 4. NAIL SIZES SHOWN ARE FOR COMMON NAILS OR GALVANIZED BOX. POWER DRIVEN NAILS SHALL COMPLY WITH ESR 1539 FOR RECOMMENDED SPACING AND INSTALLATION TO COMPLY WITH THE ABOVE SHEAR WALL SCHEDULE.
- 5. SILL PLATE ANCHORS SHALL INCLUDE A STEEL PLATE WASHER NOT LESS THAN 0.229"x3"x3" IN SIZE PER AF&PA SDPWS SECTION 4.3.6.4.3. THE HOLE IN THE PLATE WASHER SHALL BE PERMITTED TO BE DIAGONALLY SLOTTED WITH A WIDTH OF UP TO 3/6" LARGER THAN THE BOLT DIAMETER AND A SLOT LENGTH NOT TO EXCEED 1-3/4", PROVIDED A STANDARD CUT WASHER IS PLACED BETWEEN THE PLATE WASHER AND THE NUT. THE PLATE WASHER SHALL EXTEND TO WITHIN ½" OF THE EDGE OF THE BOTTOM PLATE ON THE SIDE(S) WITH SHEATHING.
- IN SEISMIC DESIGN CATEGORY D, E, OR F, WHERE SHEAR DESIGN VALUES EXCEED 700 POUNDS PER LINEAR FOOT (350 PLF ASD), ALL FRAMING MEMBERS RECEIVING EDGE NAILING FROM ABUTTING PANELS SHALL NOT BE LESS THAN A SINGLE 3-INCH NOMINAL MEMBER, OR TWO 2-INCH NOMINAL MEMBERS FASTENED TOGETHER IN ACCORDANCE WITH SECTION 2306.1 TO TRANSFER THE DESIGN SHEAR VALUES BETWEEN FRAMING MEMBERS. WOOD STRUCTURAL PANEL JOINT AND SILL PLATE NAILING SHALL BE STAGGERED IN ALL CASES.
- 7. WHERE PANELS ARE APPLIED TO BOTH FACES OF A WALL AND NAIL SPACING IS LESS THAN 6" O.C. ON EITHER SIDE, PANEL JOINTS SHALL BE OFFSET TO FALL ON DIFFERENT FRAMING MEMBERS. ALTERNATIVELY, THE WIDTH OF THE NAILED FACE OF FRAMING MEMBERS SHAL BE 3" NOMINAL OR GREATER AT ADJOINING PANEL EDGES AND NAILS AT ALL PANEL EDGES SHALL BE STAGGERED.
- 8. SHEAR WALL NAILING MUST BE INSTALLED SUCH THAT THE NAIL HEAD OR CROWN IS FLUSH WITH THE SURFACE OF SHEATHING. OVERDRIVEN OR OVER PENETRATED NAILS WILL NOT BE ALLOWED OR COUNTED AS APPROPRIATE NAILING.

SHEAR WALL SCHEDULE



 \sim typ. Stud wall opening framing \sim typ. Tie strap conn. Details

| | HOLDOWN SCHEDULE | | | | | | | | | | |
|------|----------------------------------|---------------------|----------------------------------|------------------------------|-------------------------------|--|----------------|--|--|--|--|
| MARK | HOLDOWN | WOOD MEMBER | WOOD FASTENER | ANCHOR BOLT | ANCHOR BOLT EMBEDMENT (IN) | COMMENTS SEE NOTES BELOW | VALUE (LBS) | | | | |
| | NONE REQUIRED | | | | | | | | | | |
| 1 | SIMPSON MST37 | (2) 2x | (22) 16d NAILS 1/2 TOP & BOT. | N/A | N/A | WRAP & NAIL STRAP TO BEAM/HEADER BELOW AS REQUIRED | 2,135 | | | | |
| 2 | SIMPSON MST48 | (2) 2x | (32) 16d NAILS 1/2 TOP & BOT. | N/A | N/A | WRAP & NAIL STRAP TO BEAM/HEADER BELOW AS REQUIRED | 3,425 | | | | |
| 3 | SIMPSON MST60 | (2) 2x | (48) 16d NAILS 1/2 TOP & BOT. | N/A | N/A | WRAP & NAIL STRAP TO BEAM/HEADER BELOW AS REQUIRED | 4,830 | | | | |
| 4 | SIMPSON CMST12 | (1) 4x | (86) 16d NAILS 1/2 TOP & BOT. | N/A | N/A | WRAP & NAIL STRAP TO BEAM/HEADER BELOW AS REQUIRED 39" END LENGTH | 9,215 | | | | |
| 5 | SIMPSON LSTHD8 OR LSTHD8RJ | (2) 2× SEE NOTES | (24) 16d SINKERS | N/A | 8" | SEE NOTES 1, 2, 3, AND 4 USE (3) 2x AT CORNERS | 1,220 | | | | |
| 6 | SIMPSON HDU2-SDS2.5 | (2) 2× | (6) SIMPSON SDS SCREWS | 5/8" DIA. SIMP. SSTB16 | 12-5/8" | SEE NOTES 1, 2, 3, AND 4 | 2215 | | | | |
| 7 | SIMPSON HDU4-SDS2.5 | (2) 2× | (14) SIMPSON SDS SCREWS | 5/8" DIA. SIMP. SSTB20 | 16-5/8" | SEE NOTES 1, 2, 3, AND 4 | 3285 | | | | |
| 8 | SIMPSON HDU5-SDS2.5 | (2) 2x | (14) SIMPSON SDS SCREWS | 5/8" DIA. SIMP. SSTB24 | 20-5/8" | SEE NOTES 1, 2, 3, AND 4 | 4340 | | | | |
| 9 | SIMPSON HDU8-SDS2.5 | (1) 4x | (20) SIMPSON SDS SCREWS | 7/8" DIA. SIMP. SB7/8x24 | 18" | SEE NOTES 1, 2, 3, AND 4 | 5820 | | | | |
| 10 | SIMPSON HHDQ11-SDS2.5 | (1) 6x | (24) SIMPSON SDS SCREWS | 1" DIA. A307 THREADED ROD | de = 16" W = 48" | SEE NOTES 1, 2, 3, 4 AND 5 | 8030 | | | | |
| 11 | SIMPSON HHDQ14-SDS2.5 | (1) 6x | (30) SIMPSON SDS SCREWS | 1" DIA. A307 THREADED ROD | de = 16" W = 48" | SEE NOTES 1, 2, 3, 4 AND 5 | 12375 | | | | |
| 12 | SIMPSON HDU14-SDS2.5 | (1) 6x | (36) SIMPSON SDS SCREWS | 1" DIA. A307 THREADED ROD | de = 16" W = 48" | SEE NOTES 1, 2, 3, 4 AND 5 | 12425 | | | | |

- 1. DOUBLE STUDS ARE REQUIRED AT HOLDOWNS UNLESS NOTED OTHERWISE. DOUBLE STUDS SHALL BE LAMINATED TOGETHER WITH 16d NAILS AT 6" O.C. FULL HEIGHT (TYPICAL).
- 2. PROVIDE HOLDOWN NOTED WITHIN 6" FROM EACH END OF EACH SHEAR WALL SHOWN ON PLANS.
- 3. ADD (2) EXTRA VERTICAL DOWEL WITH STANDARD HOOK IN FOOTING AT EACH ANCHOR BOLT LOCATION.
- 4. ADJUST FOOTING AND STEM WALL HEIGHT TO ACCOMMODATE ANCHOR BOLT EMBEDMENT REQUIREMENTS. 5. ADJUST FOOTING AND STEM WALL HEIGHT TO ACCOMMODATE ANCHOR BOLT EMBEDMENT REQUIREMENTS.
- 6. SEE THREADED ROD ANCHOR DETAIL.
- 7. FOR EXISTING STEM WALL, DRILL AND EPOXY ANCHOR. USE A307 THREADED ROD WITH SIMPSON SET-XP EPOXY. SEE PLANS AND DETAILS FOR REQUIRED
- 8. ALL HOLDOWN ANCHORS AND BOLTS SHALL BE INSTALLED IN THE CORRECT LOCATION IN THE TOP OF THE CONCRETE WALL AND SECURED TO THE FORMS PRIOR TO CONCRETE INSTALLATION. THERE IS NO PRACTICAL SOLUTION TO POST-INSTALLED HOLDOWN ANCHORS IN THE TOP OF THE 8" CONCRETE STEM WALL. NO EPOXY OR MECHANICAL ANCHOR BOLT ALTERNATIVES WILL BE OFFERED FOR MISSING OR MISPLACED EMBEDDED ANCHORS. CONCRETE FOOTINGS AND STEM WALLS MAY HAVE TO BE REMOVED AT CONTRACTOR'S EXPENSE TO MITIGATE MISPLACED, MISALIGNED, OR MISSING HOLDOWN ANCHORS OR BOLTS.

HOLDOWN SCHEDULE

SCALE NTS

ONS C

6/02/2022

JOB# 2022004

Drawn By: Drawing Title: SHEAR WALL DETAILS

S3.3