

- CLEARING LIMITS SHALL BE MAINTAINED BY THE APPLICANT/ESC SUPERVISOR FOR THE DURATION OF CONSTRUCTION.
- 4. 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.
- 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 SUMP PUMPS, RELOCATION OF DITCHES AND SILT FENCES, ETC.).
- 6. THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE APPLICANT/ESC SUPERVISOR AND MAINTAINED TO ENSURE CONTINUED PROPER FUNCTIONING. WRITTEN RECORDS SHALL BE KEPT OF WEEKLY REVIEWS OF THE ESC FACILITIES DURING THE WET SEASON (OCT. 1 TO APRIL 30) AND OF MONTHLY REVIEWS DURING THE DRY SEASON (MAY 1 TO SEPT. 30).
- 7. ANY AREAS OF EXPOSED SOILS, INCLUDING ROADWAY EMBANKMENTS, THAT WILL NOT BE DISTURBED FOR TWO DAYS DURING THE WET SEASON OR SEVEN DAYS DURING THE DRY SEASON SHALL BE IMMEDIATELY STABILIZED WITH THE APPROVED ESC METHODS (E.G., SEEDING, MULCHING, PLASTIC COVERING, ETC.).
- 8. ANY AREA NEEDING ESC MEASURES NOT REQUIRING IMMEDIATE ATTENTION SHALL BE ADDRESSED WITHIN
- 9. THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN FORTY-EIGHT (48) HOURS FOLLOWING A STORM EVENT.
- 10. AT NO TIME SHALL MORE THAN ONE (1) FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A CATCH BASIN. ALL CATCH BASINS AND CONVÉYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT-LADEN WATER INTO THE DOWNSTREAM SYSTEM.
- 11. STABILIZED CONSTRUCTION ENTRANCES AND ROADS SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES, SUCH AS WASH PADS, MAY BE REQUIRED TO ENSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.
- 12. ANY PERMANENT FLOW CONTROL FACILITY USED AS A TEMPORARY SETTLING BASIN SHALL BE MODIFIED WITH THE NECESSARY 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 GRADED SO THAT THE BOTTOM AND SIDES ARE AT LEAST THREE FEET ABOVE THE FINAL GRADE OF THE PERMANENT FACILITY.
- 13. WHERE STRAW MULCH FOR TEMPORARY EROSION CONTROL IS REQUIRED, IT SHALL BE APPLIED AT A MINIMUM THICKNESS OF 2 TO 3 INCHES.
- 14. PRIOR TO THE BEGINNING OF THE WET SEASON (OCT. 1), ALL DISTURBED AREAS SHALL BE REVIEWED TO IDENTIFY WHICH ONES CAN BE SEEDED IN PREPARATION FOR THE WINTER RAINS. DISTURBED AREAS SHALL BE SEEDED WITHIN ONE WEEK OF THE BEGINNING OF THE WET SEASON. A SKETCH MAP OF THOSE AREAS TO BE SEEDED AND THOSE AREAS TO REMAIN UNCOVERED SHALL BE SUBMITTED TO THE DDES INSPECTOR. THE DDES INSPECTOR CAN REQUIRE SEEDING OF ADDITIONAL AREAS IN ORDER TO PROTECT SURFACE WATERS, ADJACENT PROPERTIES, OR DRAINAGE FACILITIES.

- 5. RAISE THE CONTAINERS OFF THE GROUND BY USING A SPILL CONTAINMENT PALLET OR SIMILAR METHOD THAT HAS
- PROVISIONS FOR SPILL CONTROL. 6. PLACE DRIP PANS OR ABSORBENT MATERIALS BENEATH ALL MOUNTED CONTAINER TAPS, AND AT ALL POTENTIAL DRIP AND SPILL LOCATIONS DURING FILLING AND UNLOADING OF CONTAINERS. ANY COLLECTED LIQUIDS OR SOILED ABSORBENT MATERIALS MUST BE REUSED, RECYCLED, OR PROPERLY DISPOSED OF.
- 7. STORE AND MAINTAIN ABSORBENT PADS OR APPROPRIATE SPILL CLEANUP MATERIALS NEAR THE CONTAINER STORAGE AREA, IN A LOCATION KNOWN TO ALL. ENSURE THAT EMPLOYEES ARE FAMILIAR WITH THE SITE'S SPILL PLAN AND/OR PROPER SPILL CLEANUP PROCEDURES.
- 8. CHECK CONTAINERS (AND ANY CONTAINMENT SUMPS) DAILY FOR LEAKS AND SPILLS. REPLACE CONTAINERS THAT ARE LEAKING, CORRODED, OR OTHERWISE DETERIORATING. IF THE LIQUID CHEMICALS ARE CORROSIVE, CONTAINERS MADE OF COMPATIBLE MATERIALS MUST BE USED INSTEAD OF METAL DRUMS. NEW OR SECONDARY CONTAINERS MUST BE LABELED WITH THE PRODUCT NAME AND HAZARDS.
- 9. PLACE DRIP PANS OR ABSORBENT MATERIALS BENEATH A CONTAINER THAT IS FOUND TO BE LEAKING. REMOVE THE DAMAGED CONTAINER AS SOON AS POSSIBLE. MOP UP THE SPILLED LIQUID WITH ABSORBENT PADS OR RAGS. ANY COLLECTED LIQUIDS OR SOILED ABSORBENT MATERIALS MUST BE REUSED, RECYCLED, OR PROPERLY DISPOSED OF.
- 1. LOCATE THE FUELING OPERATION TO ENSURE LEAKS OR SPILLS WILL NOT DISCHARGE, FLOW, OR BE WASHED INTO THE
- STORM DRAINAGE SYSTEM, SURFACE WATER, OR GROUNDWATER.
- 2. USE DRIP PANS OR ABSORBENT PADS TO CAPTURE DRIPS OR SPILLS DURING FUELING OPERATIONS. 3. IF FUELING IS DONE DURING EVENING HOURS, LIGHTING MUST BE PROVIDED.
- 4. STORE AND MAINTAIN APPROPRIATE SPILL CLEANUP MATERIALS IN THE MOBILE FUELING VEHICLE. ENSURE THAT EMPLOYEES ARE FAMILIAR WITH PROPER SPILL CONTROL AND CLEANUP PROCEDURES.
- 5. IMMEDIATELY MOP UP ANY SPILLED FUEL WITH ABSORBENT PADS OR RAGS. ANY COLLECTED LIQUIDS OR SOILED ABSORBENT MATERIALS MUST BE REUSED, RECYCLED, OR PROPERLY DISPOSED OF.
- CONCRETE SAW CUTTING, SLURRY, AND WASHWATER DISPOSAL . SLURRY FROM SAW CUTTING THE SIDEWALK SHALL BE VACUUMED SO THAT IT DOES NOT ENTER NEARBY STORM DRAINS. 2. CONCRETE TRUCK CHUTES, PUMPS, AND INTERNALS SHALL BE WASHED OUT ONLY INTO FORMED AREAS AWAITING
- INSTALLATION OF CONCRETE. 3. UNUSED CONCRETE REMAINING IN THE TRUCK AND PUMP SHALL BE RETURNED TO THE ORIGINATING BATCH PLANT FOR RECYCLING.
- 4. HAND TOOLS INCLUDING, BUT NOT LIMITED, SCREEDS, SHOVELS, RAKES, FLOATS, AND TROWELS SHALL BE WASHED OFF ONLY INTO FORMED INTO FORMED AREAS AWAITING INSTALLATION OF CONCRETE OR IMPERMEABLE ASPHALT. 5. EQUIPMENT THAT CANNOT BE EASILY MOVED, SUCH AS CONCRETE PAVERS, SHALL ONLY BE WASHED IN AREAS THAT DO
- NOT DIRECTLY DRAIN TO NATURAL OR CONSTRUCTED STORMWATER CONVEYANCES. 6. WASHDOWN FROM AREAS SUCH AS CONCRETE AGGREGATE DRIVEWAY SHALL NOT DRAIN DIRECTLY TO NATURAL OR
- CONSTRUCTED STORMWATER CONVEYANCES. WHEN NO FORMED AREAS ARE AVAILABLE, WASHWATER AND LEFTOVER PRODUCT SHALL BE CONTAINED IN A LINED CONTAINER. CONTAINED CONCRETE SHALL BE DISPOSED OF IN A MANNER THAT DOES NOT VIOLATE GROUNDWATER OR SURFACE WATER QUALITY STANDARDS.
- 8. CONTAINERS SHALL BE CHECKED FOR HOLES IN THE LINER DAILY DURING CONCRETE POURS AND REPLACED THE SAME

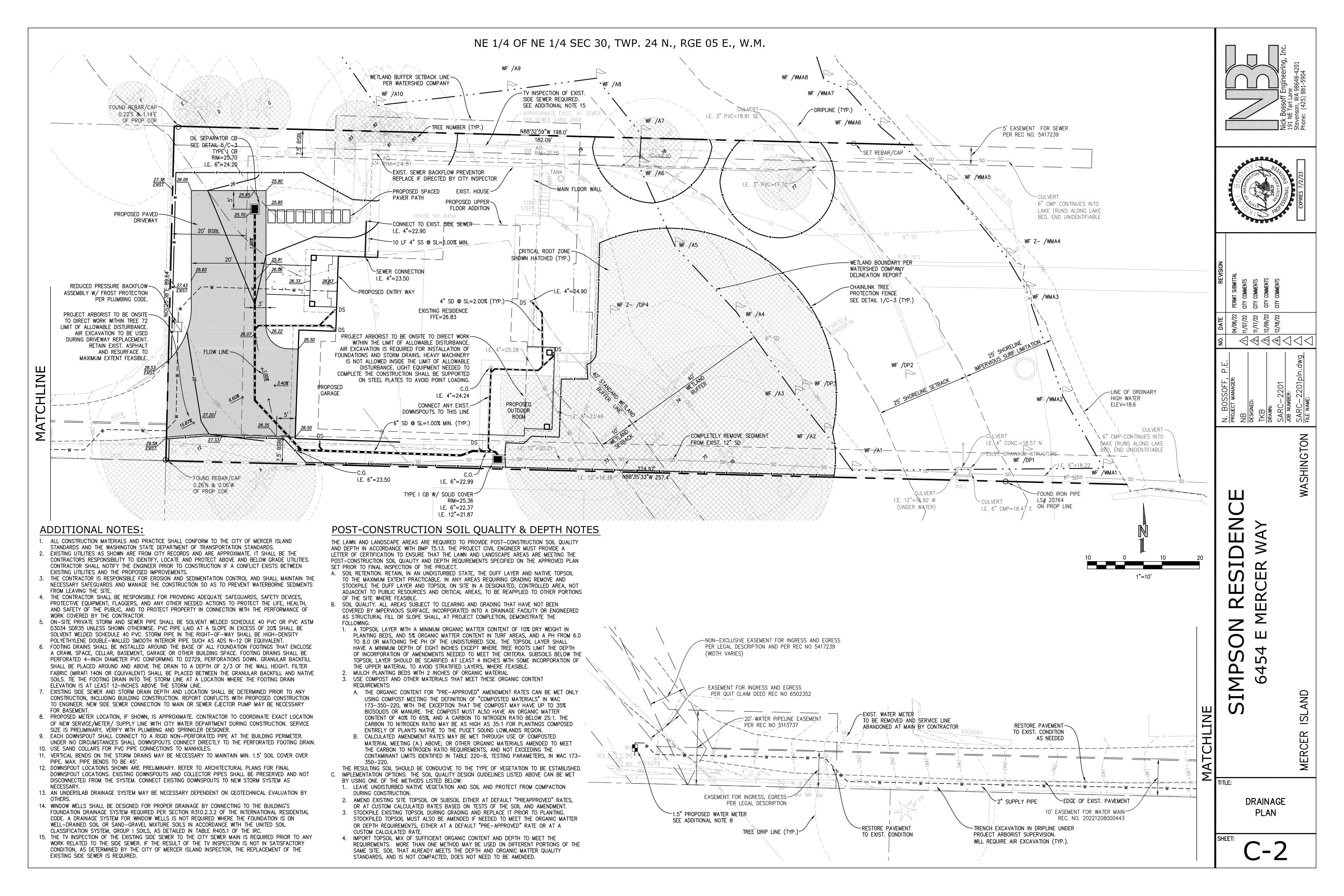
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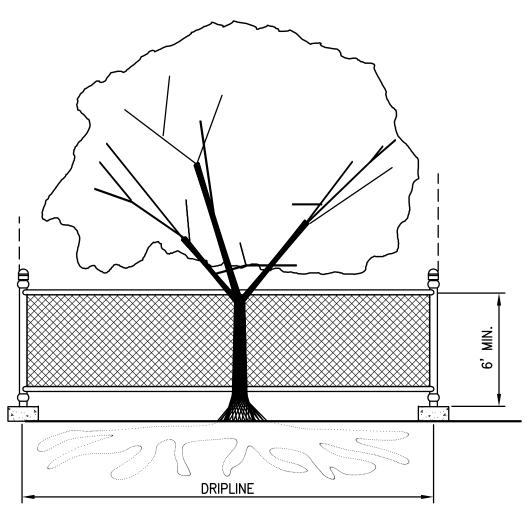
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1-800-424-5555

T.E.S.C. PLAN



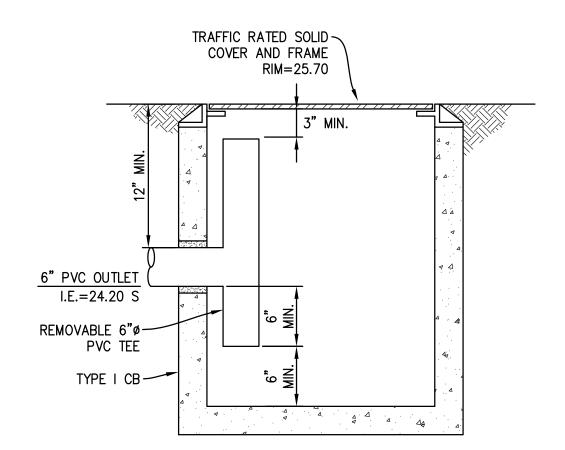


### TREE PROTECTION DURING CONSTRUCTION

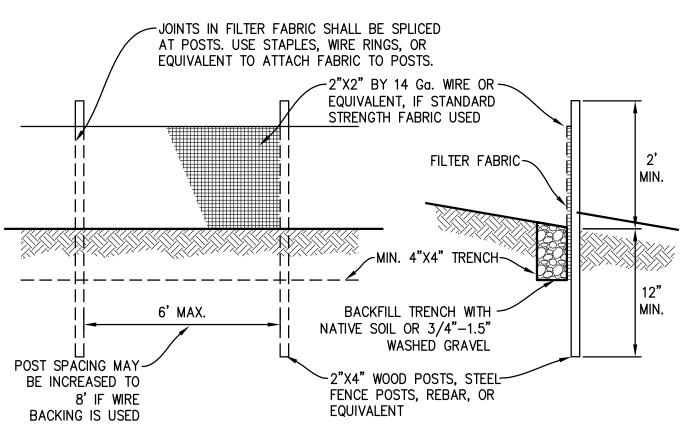
- 1. 6-FT. HIGH TEMPORARY CHAIN LINK FENCE SHALL BE PLACED AT THE DRIPLINE OF THE TREE TO BE SAVED. FENCE SHALL COMPLETELY ENCIRCLE THE TREE(S). INSTALL FENCE POSTS USING PIER BLOCKS ONLY. AVOID DRIVING POSTS OR STAKES INTO MÁJOR ROOTS.
- 2. FOR ROOTS OVER 1-IN DIA. THAT ARE DAMAGED DURING CONSTRUCTION, MAKE A CLEAN, STRAIGHT CUT TO REMOVE THE DAMAGED PORTION. ALL EXPOSED ROOTS SHALL BE TEMPORARILY COVERED WITH DAMP BURLAP TO PREVENT DRYING, AND SHALL BE COVERED WITH SOIL AS SOON AS POSSIBLE.
- 3. WORK WITHIN PROTECTION FENCE SHALL BE DONE MANUALLY. NO STOCKPILING OF MATERIALS, VEHICULAR TRAFFIC, OR STORAGE OF EQUIPMENT OR MACHINERY SHALL BE ALLOWED WITHIN THE LIMIT OF THE FENCING.

### TREE PROTECTION

SCALE: NTS



# OIL SEPARATOR CB



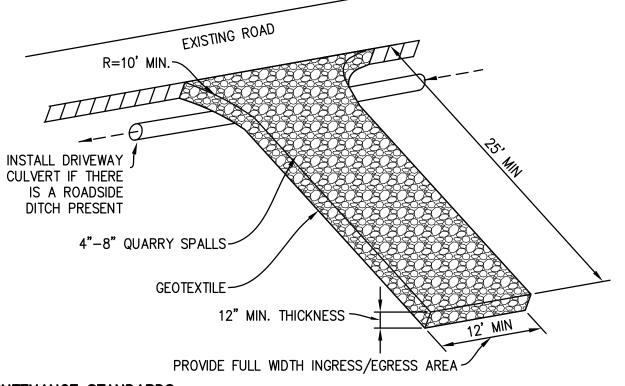
### NOTE: FILTER FABRIC FENCE SHALL BE INSTALLED ALONG CONTOUR WHENEVER POSSIBLE.

### MAINTENANCE STANDARDS

- 1. ANY DAMAGE SHALL BE REPAIRED IMMEDIATELY. 2. IF CONCENTRATED FLOWS ARE EVIDENT UPHILL OF THE FENCE, THEY MUST BE INTERCEPTED AND
- CONVEYED TO A SEDIMENT TRAP OR POND. 3. IT IS IMPORTANT TO CHECK THE UPHILL SIDE OF THE FENCE FOR SIGN OF THE FENCE CLOGGING AND ACTING AS A BARRIER TO FLOW AND THEN CAUSING CHANNELIZATION OF FLOWS PARALLEL TO THE
- FENCE. IF THIS OCCUR, REPLACE THE FENCE AND/OR REMOVE THE TRAPPED SEDIMENT. 4. SEDIMENT MUST BE REMOVED WHEN THE SEDIMENT IS 6" HIGH. 5. IF THE FILTER FABRIC HAS DETERIORATED DUE TO ULTRAVIOLET BREAKDOWN, IT SHALL BE REPLACED.

## SILT FENCE

SCALE: NTS

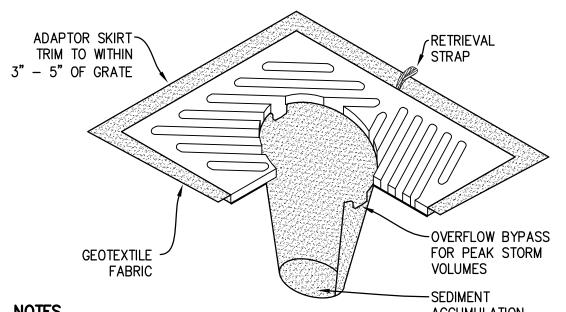


### MAINTENANCE STANDARDS

- 1. QUARRY SPALLS (OR HOG FUEL) SHALL BE ADDED IF THE PAD IS NO LONGER IN ACCORDANCE WITH THE SPECIFICATIONS.
- 2. IF THE ENTRANCE IS NOT PREVENTING SEDIMENT FROM BEING TRACKED ONTO PAVEMENT, THEN ALTERNATIVE MEASURES TO KEEP THE STREETS FREE OF SEDIMENT SHALL BE USED. THIS MAY INCLUDE STREET SWEEPING, AN INCREASE IN THE DIMENSIONS OF THE ENTRANCE, OR THE INSTALLATION OF A WHEEL WASH. IF WASHING IS USED, IT SHALL BE DONE ON AN AREA COVERED WITH CRUSHED ROCK, AND WASH WATER SHALL DRAIN TO A SEDIMENT TRAP OR POND.
- ANY SEDIMENT THAT IS TRACKED ONTO PAVEMENT SHALL BE REMOVED IMMEDIATELY BY SWEEPING. THE SEDIMENT COLLECTED BY SWEEPING SHALL BE REMOVED OR STABILIZED ON-SITE. THE PAVEMENT SHALL NOT BE CLEANED BY WASHING DOWN THE STREET, EXCEPT WHEN SWEEPING IS INEFFECTIVE AND THERE IS A THREAT TO PUBLIC SAFETY. IF IT IS NECESSARY TO WASH THE STREET, THE CONSTRUCTION OF A SMALL SUMP SHALL BE CONSIDERED. THE SEDIMENT WOULD THEN BE WASHED INTO THE SUMP.
- ANY ROCK SPALLS THAT ARE LOOSENED FROM THE PAD AND END UP ON THE ROADWAY SHALL BE REMOVED IMMEDIATELY.
- 5. IF VEHICLES ARE ENTERING OR EXITING THE SITE AT POINTS OTHER THAN THE CONSTRUCTION ENTRANCE(S), FENCING (SECTION 5.4.1) SHALL BE INSTALLED TO CONTROL TRAFFIC.

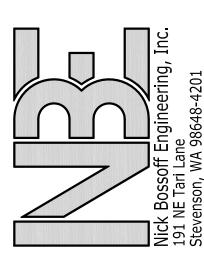
### ROCK CONSTRUCTION ENTRANCE

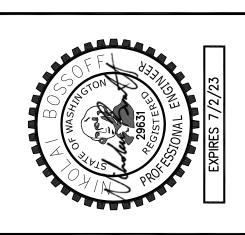
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- ACCUMULATION 1. INSERT SHALL BE INSTALLED PRIOR TO CLEARING AND GRADING ACTIVITY, OR UPON PLACEMENT OF A NEW CATCH BASIN.
- 2. SEDIMENT SHALL BE REMOVED FROM THE UNIT WHEN IT BECOMES HALF FULL.
- 3. SEDIMENT REMOVAL SHALL BE ACCOMPLISHED BY REMOVING THE INSERT, EMPTYING, AND RE-INSERTING IT INTO THE CATCH BASIN.

# **CB INSERT**





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**DETAILS** 

PROJECT MANAGER: RK

DATE: 05/11/2022

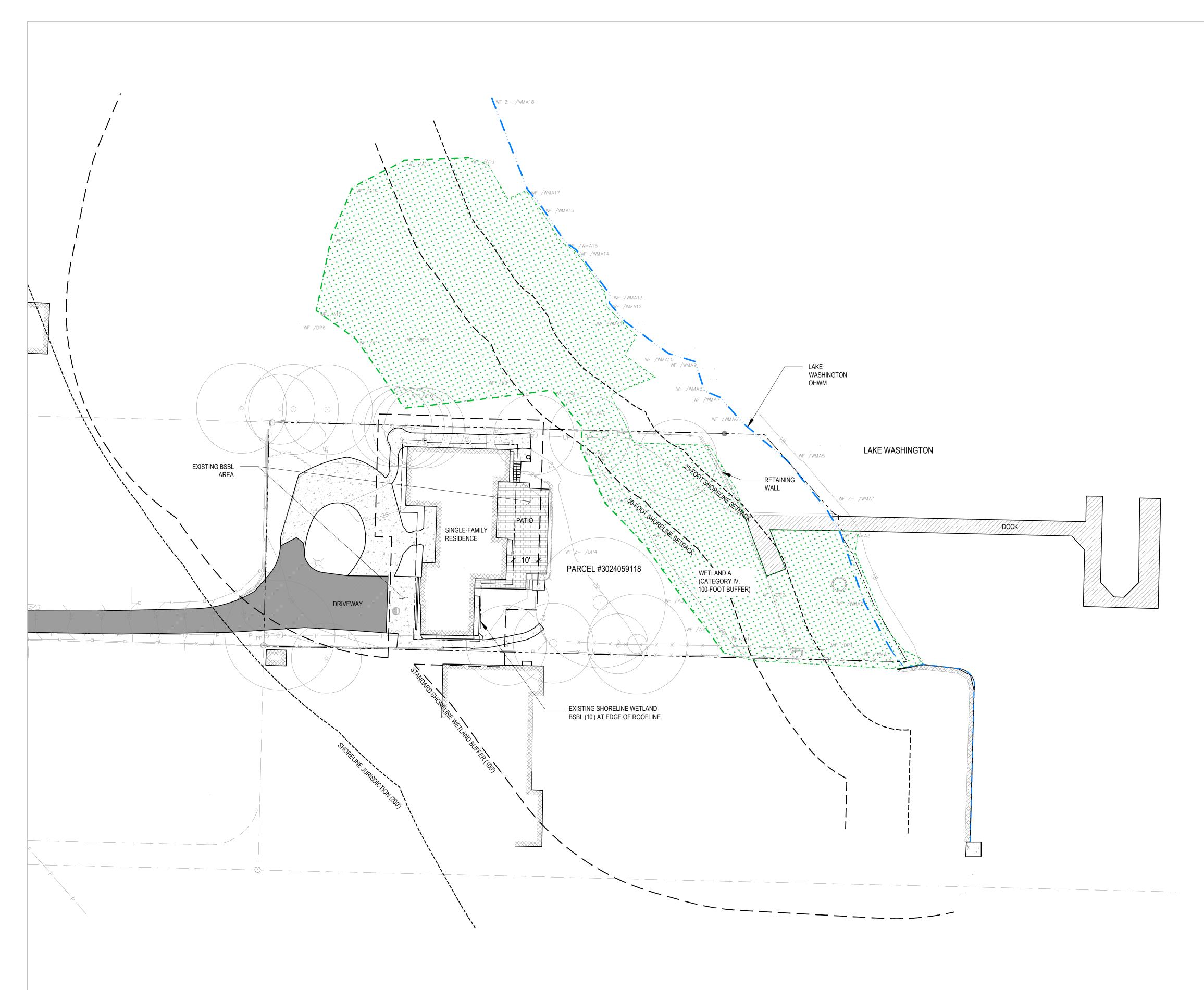
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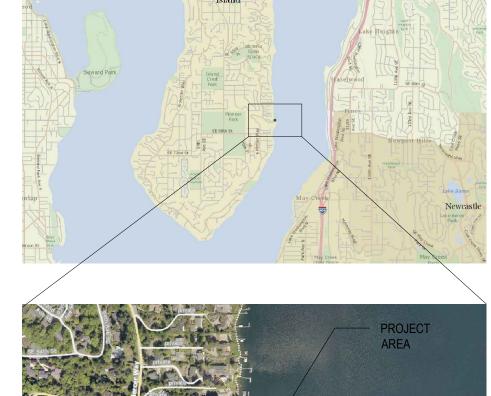
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EXISTING CONDITIONS

1.001

1 OF 5







## VICINITY MAP

DELINEATED WETLAND BOUNDARY

APPROXIMATE WETLAND BOUNDARY

DELINEATED OHWM

APPROXIMATE OHWM

STANDARD SHORELINE WETLAND BUFFER (100')

— — SHORELINE SETBACK (50')

STANDARD SHORELINE WETLAND BUFFER (10

EXISTING SHORELINE WETLAND BSBL (10')

SHORELINE JURISDICTION (200')

SHORELINE SETBACK (25')

SHEET INDEX

L001 EXISTING CONDITIONS

L002 IMPACTS ASSESSMENT

L003 MITIGATION PLANTING PLAN

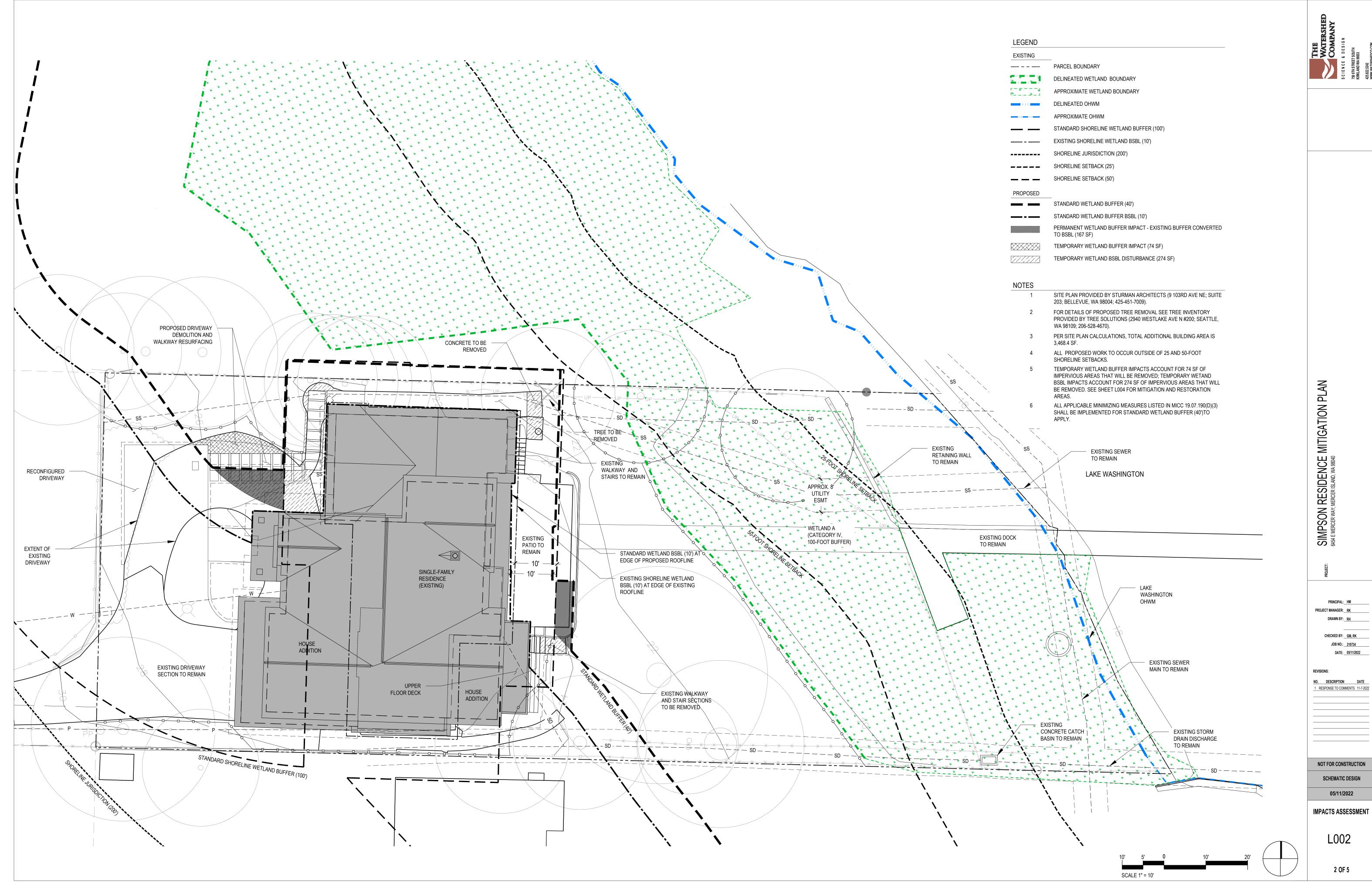
L004 PLANT SCHEDULE AND INSTALLATION DETAILS

L005 PLANT INSTALLATION SPECIFICATIONS AND MITIGATION NOTES

### NOTES

CRITICAL AREAS DELINEATED BY THE WATERSHED COMPANY ON AUGUST 20, 2021 (750 6TH STREET; KIRKLAND, WA 98033; 425-822-5242).
 SURVEY (DATED MAY 3, 2018) RECEIVED FROM TERRANE (10801 MAIN STREET; SUITE 102; BELLEVUE, WA 98004; 425-458-4488).

SCALE 1" = 20'





JOB NO.: 210734 DATE: 05/11/2022

1 RESPONSE TO COMMENTS 11-7-2022

NOT FOR CONSTRUCTION

PLANTING PLAN

## PLANT SCHEDULE

| SHRUBS | BOTANICAL / COMMON NAME                       | SIZE     | SPACING  | QTY |
|--------|---|----------|----------|-----|
|        | ACER CIRCINATUM / VINE MAPLE                  | 1 GALLON | 72" o.c. | 3   |
|        | CORNUS SERICEA / RED TWIG DOGWOOD             | 1 GALLON | 60" o.c. | 11  |
|        | LONICERA INVOLUCRATA / TWINBERRY              | 1 GALLON | 60" o.c. | 5   |
|        | MORELLA CERIFERA / WAX MYRTLE                 | 1 GALLON | 60" o.c. | 6   |
|        | PHYSOCARPUS CAPITATUS / PACIFIC NINEBARK      | 1 GALLON | 60" o.c. | 10  |
|        | RIBES SANGUINEUM / RED FLOWERING CURRANT      | 1 GALLON | 60" o.c. | 10  |
|        | ROSA NUTKANA / NOOTKA ROSE                    | 1 GALLON | 60" o.c. | 6   |
|        | RUBUS PARVIFLORUS / THIMBLEBERRY              | 1 GALLON | 48" o.c. | 8   |
|        | RUBUS SPECTABILIS / SALMONBERRY               | 1 GALLON | 60" o.c. | 12  |
|        | SYMPHORICARPOS ALBUS / COMMON WHITE SNOWBERRY | 1 GALLON | 48" o.c. | 6   |
|        | VACCINIUM OVATUM / EVERGREEN HUCKLEBERRY      | 1 GALLON | 36" o.c. | 10  |
| 100    | VIBURNUM TRILOBUM / HIGHBUSH CRANBERRY        | 1 GALLON | 48" o.c. | 3   |

| GROUNDCOVERS     | BOTANICAL / COMMON NAME ARCTOSTAPHYLOS UVA-URSI / KINNIKINNICK FRAGARIA CHILOENSIS / BEACH STRAWBERRY GAULTHERIA SHALLON / SALAL POLYSTICHUM MUNITUM / WESTERN SWORD FERN  | SIZE<br>1 GALLON<br>1 GALLON<br>1 GALLON<br>1 GALLON       | SPACING QTY.<br>36" O. C 30<br>36" O. C 30<br>36" O. C 30<br>36" O. C 30 |
|------------------|--|--|--|
| <u>EMERGENTS</u> | BOTANICAL / COMMON NAME ATHYRIUM FILIX-FEMINA / COMMON LADY FERN CAREX OBNUPTA / SLOUGH SEDGE DESCHAMPSIA CESPITOSA / TUFTED HAIR GRASS JUNCUS EFFUSUS / COMMON RUSH SCIRPUS MICROCARPUS / SMALL-FRUITED BULRUSH | SIZE 1 GALLON 1 GALLON 1 GALLON 1 GALLON 1 GALLON 1 GALLON | SPACING QTY. 36" O. C 20 |

NOTES

EMERGENT PLANT SPECIES TO BE PLANTED ONLY WITHIN WETLAND PORTION OF MITIGATION AREA; GROUNDCOVER SPECIES TO BE PLANTED ONLY OUTSIDE OF WETLAND PORTION OF MITIGATION AREA.

EMERGENT AND GROUNDCOVER PLANTS TO BE SPACED TRIANGULARLY AND ARRANGED BY SPECIES IN GROUPS OF 5-9 PLANTS.

3 SEE SHEET L003 FOR MITIGATION PLANTING PLAN.

1. PLANTING PIT SHALL NOT BE LESS THAN (2) TIMES THE WIDTH OF THE ROOT BALL DIA.

2. LOOSEN SIDES AND BOTTOM OF PLANT PIT

3. REMOVE FROM POT & ROUGH-UP ROOT BALL BEFORE INSTALLING. IF PLANT IS EXCEPTIONALLY ROOT-BOUND OR CONTAINS CIRCLING ROOTS, DO NOT PLANT AND RETURN TO NURSERY FOR AN ACCEPTABLE ALTERNATIVE. IF B&B STOCK, REMOVE ALL TWINE/WIRE, & REMOVE BURLAP FROM TOP 1/3RD OF ROOTBALL PRIOR TO PLANTING (NOTE:

CONTAINER STOCK PREFERRED)

4. SOAK PLANTING PIT AFTER PLANTING

- 4" WOOD CHIP MULCH IN ALL PLANTING BEDS. HOLD BACK MULCH FROM TRUNK/STEMS

2X MIN DIA. ROOTBALL

REMOVE DEBRIS AND LARGE ROCKS AND BACKFILL WITH NATIVE SOIL. FIRM UP SOIL AROUND PLANT

FINISH GRADE

CONTAINER PLANTING DETAIL

Scale: NTS

RESIDENCE MITIGATION PLAN MERCER ISLAND, WA 38040

PRINCIPAL: HM

DRAWN BY: RH CHECKED BY: GM, RK

PROJECT MANAGER: RK

JOB NO.: 210734

DATE: 05/11/2022

NO. DESCRIPTION DATE 1 RESPONSE TO COMMENTS 11-7-2022

NOT FOR CONSTRUCTION

SCHEMATIC DESIGN

PLANT SCHEDULE AND **INSTALLATION DETAILS** 

05/11/2022

3 OF 5

#### MITIGATION NOTES

THE PROPOSED ADDITION TO A SINGLE FAMILY RESIDENCE AND ASSOCIATED SITE IMPROVEMENTS WILL INCREASE IMPERVIOUS SURFACE WITHIN THE 200-FOOT SHORELINE JURISDICTION BY 995 SQUARE FEET. ALL PROPOSED IMPROVEMENTS WILL OCCUR OUTSIDE OF THE 25-FOOT AND 50-FOOR SHORELINE SETBACKS AND COMPLY WITH ALLOWED IMPERVIOUS SURFACE MAXIMUMS IN THESE INNER AND OUTER SHORELINE SETBACKS. PROPOSED SITE IMPROVEMENTS AS CALCULATED BY STURMAN ARCHITECTS WILL INCREASE IMPERVIOUS LOT COVERAGE BY 13,468.4 SQUARE FEET. THEREFORE, 75% OF THE VEGETATION AREA (THE 20-FT SETBACK FROM THE LAKESHORE) WILL BE ENHANCED WITH NATIVE VEGETATION AS REQUIRED BY CITY CODE.

ALL IMPROVEMENTS WILL AVOID DIRECT WETLAND IMPACTS. PERMANENT WETLAND BUFFER IMPACTS RESULTING FROM CONVERTING THE EXITING BUFFER TO BSBL TOTAL 167 SQUARE FEET AND WILL BE MITIGATED FOR AT A ONE-TO-ONE RATIO. TEMPORARY WETLAND BUFFER IMPACTS TOTAL 74 SQUARE FEET, RESULTING FROM THE REMOVAL OF EXISTING IMPERVIOUS AREAS; TEMPORARY WETLAND BUFFER IMPACTS WILL BE RESTORED WITH NATIVE GROUNDCOVERS. ADDITIONALLY, 1,323 SQUARE FEET OF AREA LOCATED ALONG THE WETLAND BUFFER AND LAKE ACCESS PATH WILL BE PLANTED WITH A DENSE HEDGEROW OF NATIVE SHRUBS AS AN IMPACT MINIMIZATION MEASURE TO REDUCE BUFFER DISTURBANCES.

#### MAINTENANCE AND MONITORING PLAN

THE SITE SHALL BE MAINTAINED AND MONITORED FOR FIVE YEARS FOLLOWING SUCCESSFUL INSTALLATION. COMPONENTS OF THE 5-YEAR MAINTENANCE AND MONITORING PLAN ARE DETAILED BELOW.

- MAINTAIN NO NET LOSS OF SHORELINE SETBACK FUNCTIONS.
- RESTORE TEMPORARY DISTURBANCE AREAS TO AN EQUIVALENT OR GREATER CONDITION.
- INCREASE NATIVE PLANT COVER AND DIVERSITY IN THE SHORELINE
- 4. MAINTAIN LOW INVASIVE PLANT COVER IN THE MITIGATION AREAS.

#### PERFORMANCE STANDARDS

THE PERFORMANCE OF THE MITIGATION AREA WILL BE GAUGED USING STANDARDS DESIGNED TO MEASURE ITS SUCCESS. IF PERFORMANCE STANDARDS ARE MET AT THE END OF YEAR 5. THE SITE WILL THEN BE DEEMED SUCCESSFUL. THE PERFORMANCE STANDARDS BELOW ONLY APPLY TO PLANTINGS WITHIN THE WETLAND BUFFER MITIGATION AREA AND SHORELINE VEGETATION AREAS.

- 1. ACHIEVE 100% SURVIVAL OF INSTALLED SHRUBS BY THE END OF YEAR 1. THIS STANDARD CAN BE MET THROUGH PLANT ESTABLISHMENT OR THROUGH REPLANTING AS NECESSARY TO ACHIEVE THE REQUIRED NUMBERS.
- 2. A SURVIVAL STANDARD OF 80% OF NATIVE SHRUBS, GROUNDCOVER, AND EMERGENT PLANTS BY YEAR 5 MAY APPLY IN LIEU OF STANDARD 4, BELOW, IN THE CASE THAT STANDARD 4 IS NOT ACHIEVED.

#### NATIVE VEGETATION COVER:

- 3. ACHIEVE 60% COVER OF SHRUBS, GROUNDCOVER, AND EMERGENT PLANTS BY YEAR 3.NATIVE VOLUNTEER SPECIES MAY COUNT TOWARDS THIS COVER STANDARD.
- 4. ACHIEVE 80% COVER OF NATIVE SHRUBS, GROUNDCOVER, AND EMERGENT PLANTS BY YEAR 5. NATIVE VOLUNTEER SPECIES MAY COUNT TOWARDS THIS COVER STANDARD.

#### INVASIVE VEGETATION COVER:

5. INVASIVE COVER: NO MORE THAN 10% COVER BY INVASIVE WEED SPECIES IN THE WETLAND BUFFER MITIGATION AREA OR SHORELINE VEGETATION AREAS IN ANY MONITORING YEAR.

6. ESTABLISH AT LEAST EIGHT SPECIES OF NATIVE SHRUBS, THREE SPECIES OF NATIVE GROUNDCOVER, AND THREE SPECIES OF NATIVE EMERGENT PLANTS WITHIN THE WETLAND BUFFER MITIGATION AREA AND SHORELINE VEGETATION AREAS.

### MAINTENANCE AND MONITORING

THIS MONITORING PROGRAM IS DESIGNED TO TRACK THE SUCCESS OF THE MITIGATION SITE OVER TIME AND TO MEASURE THE DEGREE TO WHICH IT IS MEETING THE PERFORMANCE STANDARDS OUTLINED ELSEWHERE IN THIS DOCUMENT.

AN AS-BUILT PLAN WILL BE PREPARED BY THE **RESTORATION SPECIALIST** PRIOR TO THE BEGINNING OF THE MONITORING PERIOD. THE AS-BUILT PLAN WILL BE A MARK-UP OF THE PLANTING PLANS INCLUDED IN THIS PLAN SET. THE AS-BUILT PLAN WILL DOCUMENT ANY DEPARTURES IN PLANT PLACEMENT OR OTHER COMPONENTS FROM THE ACCEPTED MITIGATION PLAN.

MONITORING WILL TAKE PLACE TWICE ANNUALLY FOR FIVE YEARS. DURING EACH YEAR THERE WILL BE A SPRING AND A LATE SUMMER FALL VISIT. FIRST-YEAR MONITORING WILL BE PERFORMED IN THE FIRST SPRING SUBSEQUENT TO INSTALLATION. IN YEAR 1, A TOTAL PLANT COUNT WILL BE CONDUCTED. IN YEARS 2 AND 3. REPRESENTATIVE SAMPLES OF THE MITIGATION AREA WILL BE ASSESSED AND PROGRESS TOWARD THE PERFORMANCE STANDARDS MEASURED. VISUAL COVER CLASS ESTIMATES WILL BE USED TO EVALUATE NATIVE COVER. IF 80% COVER BY NATIVE TREES AND SHRUBS IS NOT ACHIEVED IN YEAR 5. A FULL PLANT COUNT WILL BE CONDUCTED TO MEASURE SURVIVAL (SEE PERFORMANCE STANDARD 2.). INVASIVE SPECIES COVER WILL BE VISUALLY ESTIMATED IN EACH YEAR.

THE SPRING MONITORING VISIT WILL RECORD MAINTENANCE ISSUES SUCH AS THE NEED FOR PLANT REPLACEMENT AND INVASIVE SPECIES REMOVAL. FOLLOWING THE SPRING VISIT. THE RESTORATION SPECIALIST WILL NOTIFY THE OWNER AND/OR MAINTENANCE CREWS OF NECESSARY EARLY GROWING SEASON MAINTENANCE NEEDS. THE LATE SUMMER/EARLY FALL MONITORING VISIT WILL INCLUDE PERFORMANCE STANDARD MEASUREMENTS AND A SUBSEQUENT ANNUAL REPORT SUBMITTED TO THE CITY OF MERCER ISLAND. THE REPORT WILL CONTAIN:

- GENERAL SUMMARY OF THE SPRING VISIT.
- 2. FIRST-YEAR COUNTS OF PLANTS BY SPECIES IN THE PLANTED AREA.
- 3. COUNTS OF DEAD PLANTS WHERE MORTALITY IS SIGNIFICANT IN ANY MONITORING YEAR.
- 4. ESTIMATE OF NATIVE SAPLING TREE AND SHRUB COVER USING VISUAL COVER CLASS ESTIMATES.
- 5. ESTIMATE OF INVASIVE WEEDY COVER USING VISUAL COVER CLASS ESTIMATES.
- 6. PHOTOGRAPHIC DOCUMENTATION FROM FIXED REFERENCE POINTS.
- 7. RECOMMENDATIONS FOR MAINTENANCE OR REPAIR OF ANY PORTION OF THE MITIGATION AREA.

### **MAINTENANCE PLAN**

THE SITE WILL BE MAINTAINED FOR FIVE YEARS FOLLOWING COMPLETION OF THE CONSTRUCTION. NOTE: SPECIFICATIONS FOR ITEMS IN **BOLD** CAN BE FOUND ABOVE UNDER "MATERIAL SPECIFICATIONS AND DEFINITIONS."

- 1. REPLACE EACH PLANT FOUND DEAD IN THE SUMMER MONITORING VISITS DURING FROST-FREE PERIODS ONLY IN THE UPCOMING FALL DORMANT SEASON (OCTOBER 15 TO MARCH 1) FOR THE FIRST MONITORING YEAR. REPLACE PLANTS AS DIRECTED IN MONITORING REPORTS.
- 2. FOLLOW THE RECOMMENDATIONS NOTED IN THE SPRING MONITORING SITE VISIT
- 3. GENERAL WEEDING FOR ALL PLANTED AREAS:
- 4. AT LEAST TWICE YEARLY, REMOVE ALL COMPETING GRASS AND WEEDS, INCLUDING ROOTS, FROM BENEATH EACH INSTALLED PLANT AND ANY DESIRABLE VOLUNTEER VEGETATION TO A DISTANCE OF 18 INCHES FROM THE MAIN PLANT STEM. WEEDING SHOULD OCCUR AT LEAST TWICE DURING THE SPRING AND SUMMER. FREQUENT WEEDING WILL RESULT IN LOWER MORTALITY AND LOWER PLANT REPLACEMENT COSTS.
- 5. MORE FREQUENT WEEDING MAY BE NECESSARY DEPENDING ON WEED CONDITIONS THAT DEVELOP AFTER PLAN INSTALLATION.
- 6. DO NOT WEED THE AREA NEAR THE PLANT BASES WITH STRING TRIMMER (WEED WHACKER/WEED EATER). NATIVE PLANTS ARE EASILY DAMAGED OR KILLED, AND WEEDS EASILY RECOVER AFTER TRIMMING.
- 7. TO KEEP WEED COVERAGE THROUGHOUT THE PLANTING AREA BELOW THE 10% THRESHOLD.

- 8. APPLY SLOW RELEASE GRANULAR **FERTILIZER** TO EACH INSTALLED PLANT ANNUALLY IN THE SPRING (BY JUNE 1) OF YEARS 2
- 9. MULCH THE WEEDED AREAS BENEATH EACH PLANT WITH WOOD CHIPS AS NECESSARY TO MAINTAIN A 4-INCH-THICK WOOD CHIP MULCH LAYER AND KEEP DOWN WEEDS.
- 10. THE APPLICANT SHALL ENSURE THAT WATER IS PROVIDED FOR THE ENTIRE PLANTED AREA WITH A MINIMUM OF 2 INCHES OF WATER PROVIDED PER WEEK FROM JUNE 1 THROUGH SEPTEMBER 30 FOR AT LEAST THE FIRST TWO YEARS FOLLOWING INSTALLATION.

#### MITIGATION AREA WORK SEQUENCE (SEE MATERIALS FOR ITEMS IN BOLD)

A RESTORATION SPECIALIST SHALL MAKE SITE VISITS TO VERIFY THE FOLLOWING PROJECT MILESTONES:

- MARK THE CLEARING LIMITS WITH HIGH VISIBILITY FENCING OR SIMILAR MEANS.
- 2. INSTALL NATIVE PLANTS PER MITIGATION PLANTING PLAN AND PLANTING SCHEDULE AND INSTALLATION DETAILS ON SHEETS L003 AND
  - a. NATIVE PLANT INSTALLATION SHALL OCCUR DURING THE DORMANT SEASON (OCTOBER 15TH THROUGH MARCH 1ST) IN FROST-FREE PERIODS ONLY.
  - b. LAYOUT PLANT MATERIAL PER PLAN FOR INSPECTION BY THE RESTORATION SPECIALIST. PLANT SUBSTITUTIONS WILL NOT BE ALLOWED WITHOUT PRIOR WRITTEN APPROVAL OF THE RESTORATION SPECIALIST.
- c. INSTALL PLANTS PER PLANTING DETAILS
- 3. WATER IN EACH PLANT THOROUGHLY TO REMOVE AIR POCKETS.
- 4. INSTALL A TEMPORARY IRRIGATION SYSTEM CAPABLE OF SUPPLYING AT LEAST 1-INCH OF WATER PER WEEK TO THE ENTIRE PLANTED AREA DURING THE DRY SEASON (JUNE 1ST THROUGH SEPTEMBER 30TH).

#### MATERIAL SPECIFICATIONS AND DEFINITIONS

- 1. RESTORATION SPECIALIST: WATERSHED COMPANY [(425) 822-5242] PERSONNEL, OR OTHER PERSONS QUALIFIED TO EVALUATE ENVIRONMENTAL RESTORATION PROJECTS.
- 2. IRRIGATION SYSTEM: A SYSTEM CAPABLE OF DELIVERING AT LEAST TWO INCHES OF WATER PER WEEK FROM JUNE 1 THROUGH SEPTEMBER 30 FOR THE FIRST TWO YEARS FOLLOWING INSTALLATION.
- 3. WOOD CHIP MULCH: 9-14.4(3) BARK OR WOOD CHIPS- WSDOT STANDARD SPEC. BARK OR WOOD CHIP MULCH SHALL BE DERIVED FROM DOUGLAS FIR, PINE, OR HEMLOCK SPECIES. IT SHALL NOT CONTAIN RESIN, TANNIN, OR OTHER COMPOUNDS IN QUANTITIES THAT WOULD BE DETRIMENTAL TO PLANT LIFE. SAWDUST SHALL NOT BE USED AS MULCH.

BARK OR WOOD CHIPS WHEN TESTED SHALL BE ACCORDING TO WSDOT TEST METHOD T 123 PRIOR PLACEMENT AND SHALL MEET THE FOLLOWING LOOSE VOLUME GRADATION:

| SIEVE SIZE | PERCENT PASSING |         |  |
|------------|-----------------|---------|--|
|            | MINIMUM         | MAXIMUM |  |
| 2"         | 95              | 100     |  |
| NO. 4      | 0               | 30      |  |

IF THERE IS A SIGNIFICANT PROBLEM WITH THE RESTORATION AREAS MEETING PERFORMANCE STANDARDS, A CONTINGENCY PLAN WILL BE DEVELOPED AND IMPLEMENTED. CONTINGENCY PLANS CAN INCLUDE, BUT ARE NOT LIMITED TO: SOIL AMENDMENT, ADDITIONAL PLANT INSTALLATION, AND PLANT SUBSTITUTIONS OF TYPE, SIZE, QUANTITY, AND LOCATION.

#### PLANT INSTALLATION SPECIFICATIONS

#### QUALITY ASSURANCE

1. PLANTS SHALL MEET OR EXCEED THE SPECIFICATIONS OF FEDERAL, STATE, AND LOCAL LAWS REQUIRING INSPECTION FOR PLANT DISEASE AND INSECT CONTROL.

- 2. PLANTS SHALL BE HEALTHY, VIGOROUS, AND WELL-FORMED, WITH WELL DEVELOPED, FIBROUS ROOT SYSTEMS, FREE FROM DEAD BRANCHES OR ROOTS. PLANTS SHALL BE FREE FROM DAMAGE CAUSED BY TEMPERATURE EXTREMES, LACK OR EXCESS OF MOISTURE, INSECTS, DISEASE, AND MECHANICAL INJURY. PLANTS IN LEAF SHALL BE WELL FOLIATED AND OF GOOD COLOR. PLANTS SHALL BE HABITUATED TO THE OUTDOOR ENVIRONMENTAL CONDITIONS INTO WHICH THEY WILL BE PLANTED (HARDENED-OFF).
- 3. TREES WITH DAMAGED, CROOKED, MULTIPLE OR BROKEN LEADERS WILL BE REJECTED. WOODY PLANTS WITH ABRASIONS OF THE BARK OR SUN SCALD WILL BE REJECTED.
- 4. NOMENCLATURE: PLANT NAMES SHALL CONFORM TO FLORA OF THE PACIFIC NORTHWEST BY HITCHCOCK AND CRONQUIST, UNIVERSITY OF WASHINGTON PRESS, 2018 AND/OR TO A FIELD GUIDE TO THE COMMON WETLAND PLANTS OF WESTERN WASHINGTON & NORTHWESTERN OREGON, ED. SARAH SPEAR COOKE, SEATTLE AUDUBON SOCIETY, 1997.

- PLANTS/PLANT MATERIALS. PLANTS AND PLANT MATERIALS SHALL INCLUDE ANY LIVE PLANT MATERIAL USED ON THE PROJECT. THIS INCLUDES BUT IS NOT LIMITED TO CONTAINER GROWN, B&B OR BAREROOT PLANTS; LIVE STAKES AND FASCINES (WATTLES); TUBERS, CORMS, BULBS, ETC..; SPRIGS, PLUGS, AND LINERS.
- CONTAINER GROWN. CONTAINER GROWN PLANTS ARE THOSE WHOSE ROOTBALLS ARE ENCLOSED IN A POT OR BAG IN WHICH THAT

- 1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN SPECIFIED MATERIALS IN ADVANCE IF SPECIAL GROWING, MARKETING OR OTHER ARRANGEMENTS MUST BE MADE IN ORDER TO SUPPLY SPECIFIED MATERIALS.
- 2. SUBSTITUTION OF PLANT MATERIALS NOT ON THE PROJECT LIST WILL NOT BE PERMITTED UNLESS AUTHORIZED IN WRITING BY THE RESTORATION CONSULTANT.
- 3. IF PROOF IS SUBMITTED THAT ANY PLANT MATERIAL SPECIFIED IS NOT OBTAINABLE, A PROPOSAL WILL BE CONSIDERED FOR USE OF THE NEAREST EQUIVALENT SIZE OR ALTERNATIVE SPECIES, WITH CORRESPONDING ADJUSTMENT OF CONTRACT PRICE.
- 4. SUCH PROOF WILL BE SUBSTANTIATED AND SUBMITTED IN WRITING TO THE CONSULTANT AT LEAST 30 DAYS PRIOR TO START OF

- 1. PLANTS SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE RESTORATION CONSULTANT FOR CONFORMANCE TO SPECIFICATIONS, EITHER AT TIME OF DELIVERY ON-SITE OR AT THE GROWER'S NURSERY. APPROVAL OF PLANT MATERIALS AT ANY TIME SHALL NOT IMPAIR THE SUBSEQUENT RIGHT OF INSPECTION AND REJECTION DURING PROGRESS OF THE WORK.
- 2. PLANTS INSPECTED ON SITE AND REJECTED FOR NOT MEETING SPECIFICATIONS MUST BE REMOVED IMMEDIATELY FROM SITE OR RED-TAGGED AND REMOVED AS SOON AS POSSIBLE.
- 3. THE RESTORATION CONSULTANT MAY ELECT TO INSPECT PLANT MATERIALS AT THE PLACE OF GROWTH. AFTER INSPECTION AND ACCEPTANCE, THE RESTORATION CONSULTANT MAY REQUIRE THE INSPECTED PLANTS BE LABELED AND RESERVED FOR PROJECT. SUBSTITUTION OF THESE PLANTS WITH OTHER INDIVIDUALS, EVEN OF THE SAME SPECIES AND SIZE, IS UNACCEPTABLE.

- 1. PLANTS SHALL CONFORM TO SIZES SPECIFIED UNLESS SUBSTITUTIONS ARE MADE AS OUTLINED IN THIS CONTRACT. HEIGHT AND SPREAD DIMENSIONS SPECIFIED REFER TO MAIN BODY OF PLANT AND NOT BRANCH OR ROOT TIP TO TIP. PLANT
- DIMENSIONS SHALL BE MEASURED WHEN THEIR BRANCHES OR ROOTS ARE IN THEIR NORMAL POSITION. WHERE A RANGE OF SIZE IS GIVEN, NO PLANT SHALL BE LESS THAN THE MINIMUM SIZE AND AT LEAST 50% OF THE PLANTS SHALL BE
- AS LARGE AS THE MEDIAN OF THE SIZE RANGE. (EXAMPLE: IF THE SIZE RANGE IS 12" TO 18", AT LEAST 50% OF PLANTS MUST BE 15"

#### <u>SUBMITTALS</u>

#### PROPOSED PLANT SOURCES

1. WITHIN 45 DAYS AFTER AWARD OF THE CONTRACT, SUBMIT A COMPLETE LIST OF PLANT MATERIALS PROPOSED TO BE PROVIDED DEMONSTRATING CONFORMANCE WITH THE REQUIREMENTS SPECIFIED. INCLUDE THE NAMES AND ADDRESSES OF ALL GROWERS AND NURSERIES.

#### PRODUCT CERTIFICATES

- 1. PLANT MATERIALS LIST SUBMIT DOCUMENTATION TO CONSULTANT AT LEAST 30 DAYS PRIOR TO START OF WORK UNDER THIS SECTION THAT PLANT MATERIALS HAVE BEEN ORDERED. ARRANGE PROCEDURE FOR INSPECTION OF PLANT MATERIAL WITH CONSULTANT AT TIME OF SUBMISSION.
- 2. HAVE COPIES OF VENDOR'S OR GROWERS' INVOICES OR PACKING SLIPS FOR ALL PLANTS ON SITE DURING INSTALLATION. INVOICE OR PACKING SLIP SHOULD LIST SPECIES BY SCIENTIFIC NAME, QUANTITY, AND DATE DELIVERED (AND GENETIC ORIGIN IF THAT INFORMATION WAS PREVIOUSLY REQUESTED).

### DELIVERY, HANDLING, & STORAGE

CONTRACTOR MUST NOTIFY CONSULTANT 48 HOURS OR MORE IN ADVANCE OF DELIVERIES SO THAT CONSULTANT MAY ARRANGE FOR INSPECTION.

### PLANT MATERIALS

- 1. TRANSPORTATION DURING SHIPPING, PLANTS SHALL BE PACKED TO PROVIDE PROTECTION AGAINST CLIMATE EXTREMES. BREAKAGE AND DRYING. PROPER VENTILATION AND PREVENTION OF DAMAGE TO BARK, BRANCHES, AND ROOT SYSTEMS MUST BE
- 2. SCHEDULING AND STORAGE PLANTS SHALL BE DELIVERED AS CLOSE TO PLANTING AS POSSIBLE. PLANTS IN STORAGE MUST BE PROTECTED AGAINST ANY CONDITION THAT IS DETRIMENTAL TO THEIR CONTINUED HEALTH AND VIGOR.
- 3. HANDLING PLANT MATERIALS SHALL NOT BE HANDLED BY THE TRUNK, LIMBS, OR FOLIAGE BUT ONLY BY THE CONTAINER, BALL, BOX, OR OTHER PROTECTIVE STRUCTURE, EXCEPT BAREROOT PLANTS SHALL BE KEPT IN BUNDLES UNTIL PLANTING AND THEN HANDLED CAREFULLY BY THE TRUNK OR STEM.
- 4. LABELS PLANTS SHALL HAVE DURABLE, LEGIBLE LABELS STATING CORRECT SCIENTIFIC NAME AND SIZE. TEN PERCENT OF CONTAINER GROWN PLANTS IN INDIVIDUAL POTS SHALL BE LABELED. PLANTS SUPPLIED IN FLATS, RACKS, BOXES, BAGS, OR BUNDLES SHALL HAVE ONE LABEL PER GROUP.

### **WARRANTY**

PLANTS MUST BE GUARANTEED TO BE TRUE TO SCIENTIFIC NAME AND SPECIFIED SIZE, AND TO BE HEALTHY AND CAPABLE OF VIGOROUS

#### REPLACEMENT 1. PLANTS NOT FOUND MEETING ALL OF THE REQUIRED CONDITIONS AT THE CONSULTANT'S DISCRETION MUST BE REMOVED FROM

SITE AND REPLACED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE. 2. PLANTS NOT SURVIVING AFTER ONE YEAR TO BE REPLACED AT THE CONTRACTOR'S EXPENSE.

### PLANT MATERIAL

- 1. PLANTS SHALL BE NURSERY GROWN IN ACCORDANCE WITH GOOD HORTICULTURAL PRACTICES UNDER CLIMATIC CONDITIONS SIMILAR TO OR MORE SEVERE THAN THOSE OF THE PROJECT SITE.
- 2. PLANTS SHALL BE TRUE TO SPECIES AND VARIETY OR SUBSPECIES. NO CULTIVARS OR NAMED VARIETIES SHALL BE USED UNLESS SPECIFIED AS SUCH.

#### QUANTITIES

SEE PLANT LIST ON ACCOMPANYING PLANS AND PLANT SCHEDULES.

### ROOT TREATMENT

- 1. CONTAINER GROWN PLANTS (INCLUDES PLUGS): PLANT ROOT BALLS MUST HOLD TOGETHER WHEN THE PLANT IS REMOVED FROM
- THE POT, EXCEPT THAT A SMALL AMOUNT OF LOOSE SOIL MAY BE ON THE TOP OF THE ROOTBALL. 2. PLANTS MUST NOT BE ROOT-BOUND; THERE MUST BE NO CIRCLING ROOTS PRESENT IN ANY PLANT INSPECTED.
- 3. ROOTBALLS THAT HAVE CRACKED OR BROKEN WHEN REMOVED FROM THE CONTAINER SHALL BE REJECTED.



SIDENCE

PRINCIPAL: HM PROJECT MANAGER: RK

DRAWN BY: RH

CHECKED BY: GM, RK JOB NO.: 210734 DATE: 05/11/2022

REVISIONS: NO. DESCRIPTION DATE

1 RESPONSE TO COMMENTS 11-7-2022

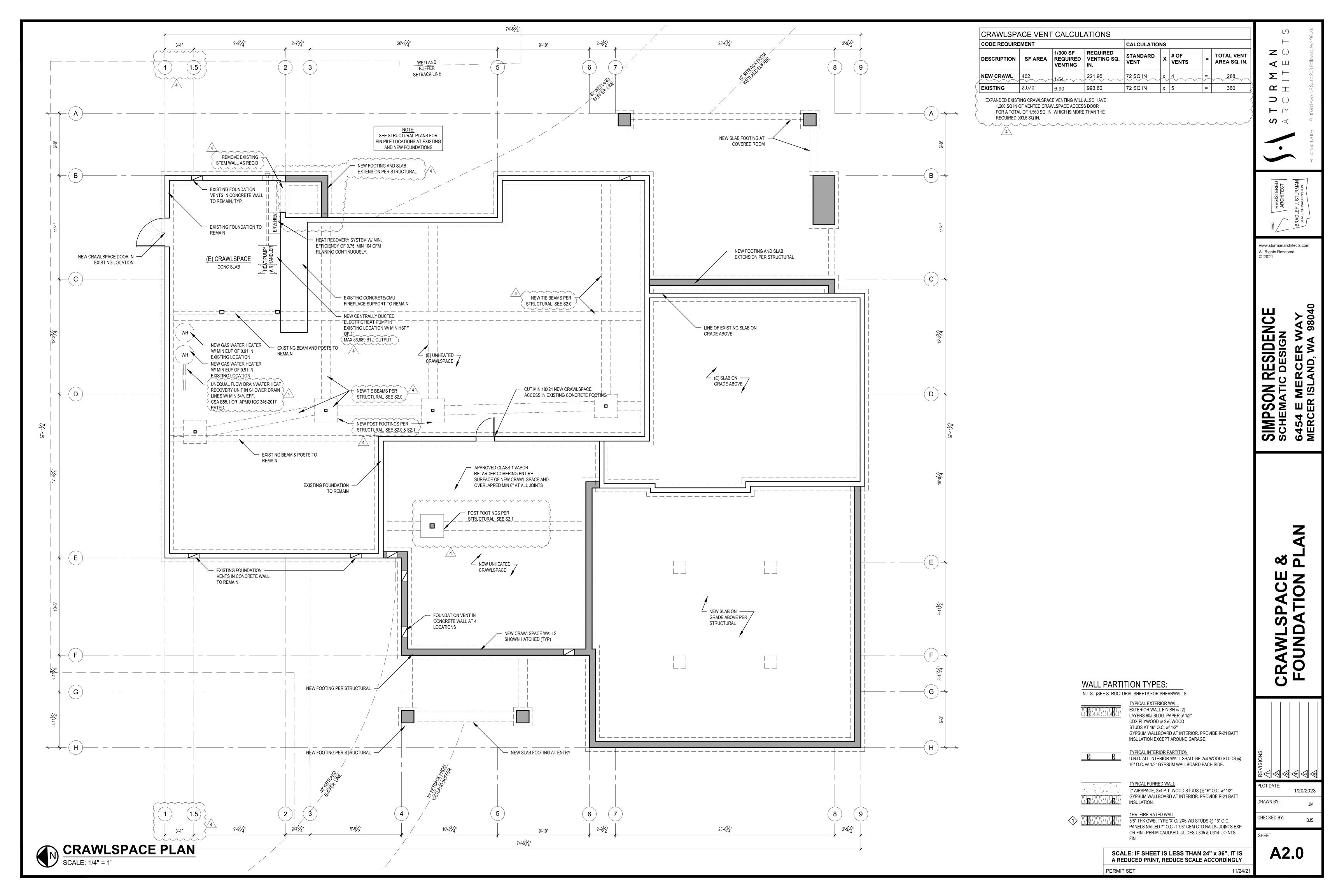
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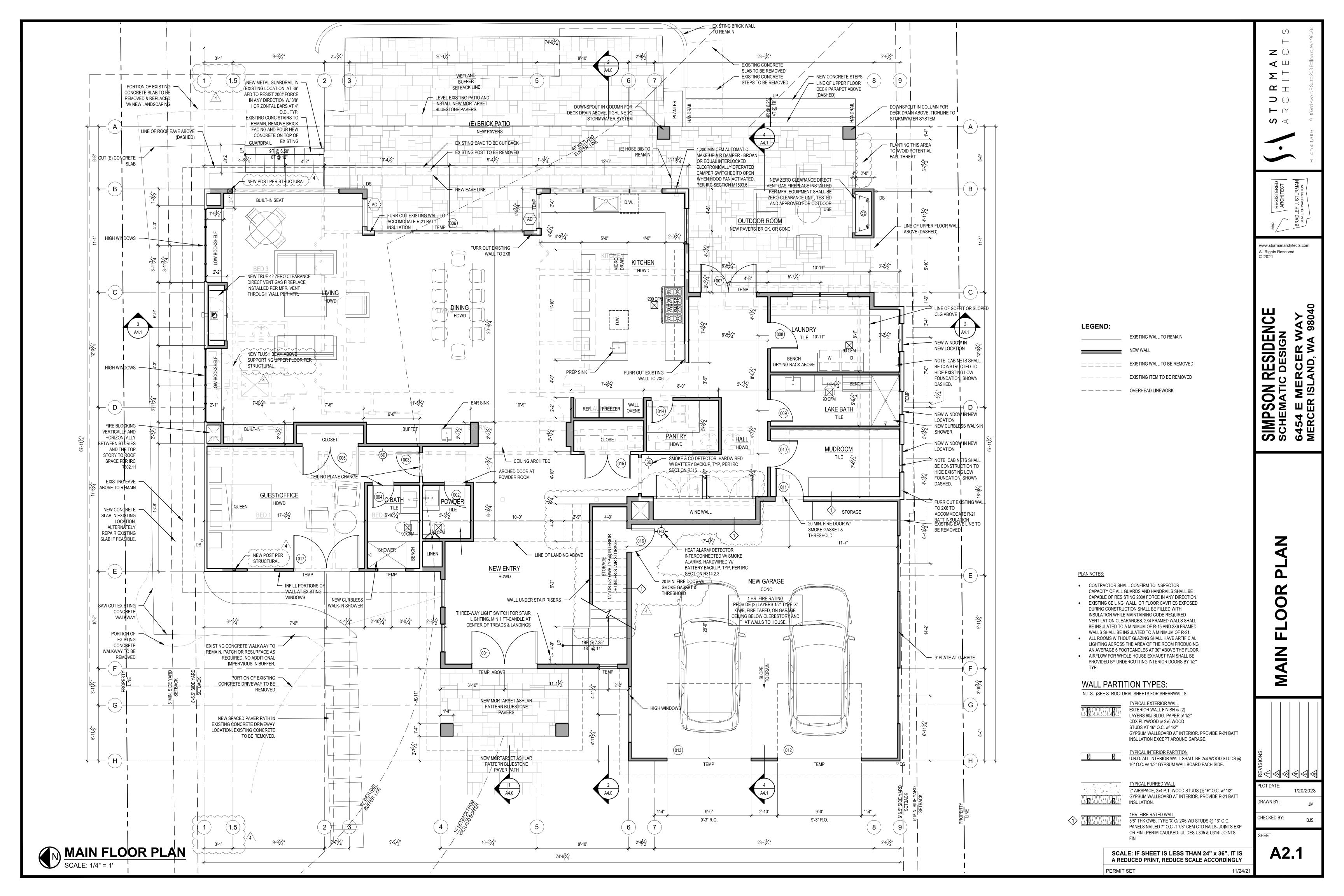
PLANT INSTALLATION SPECIFICATIONS AND MITIGATION NOTES

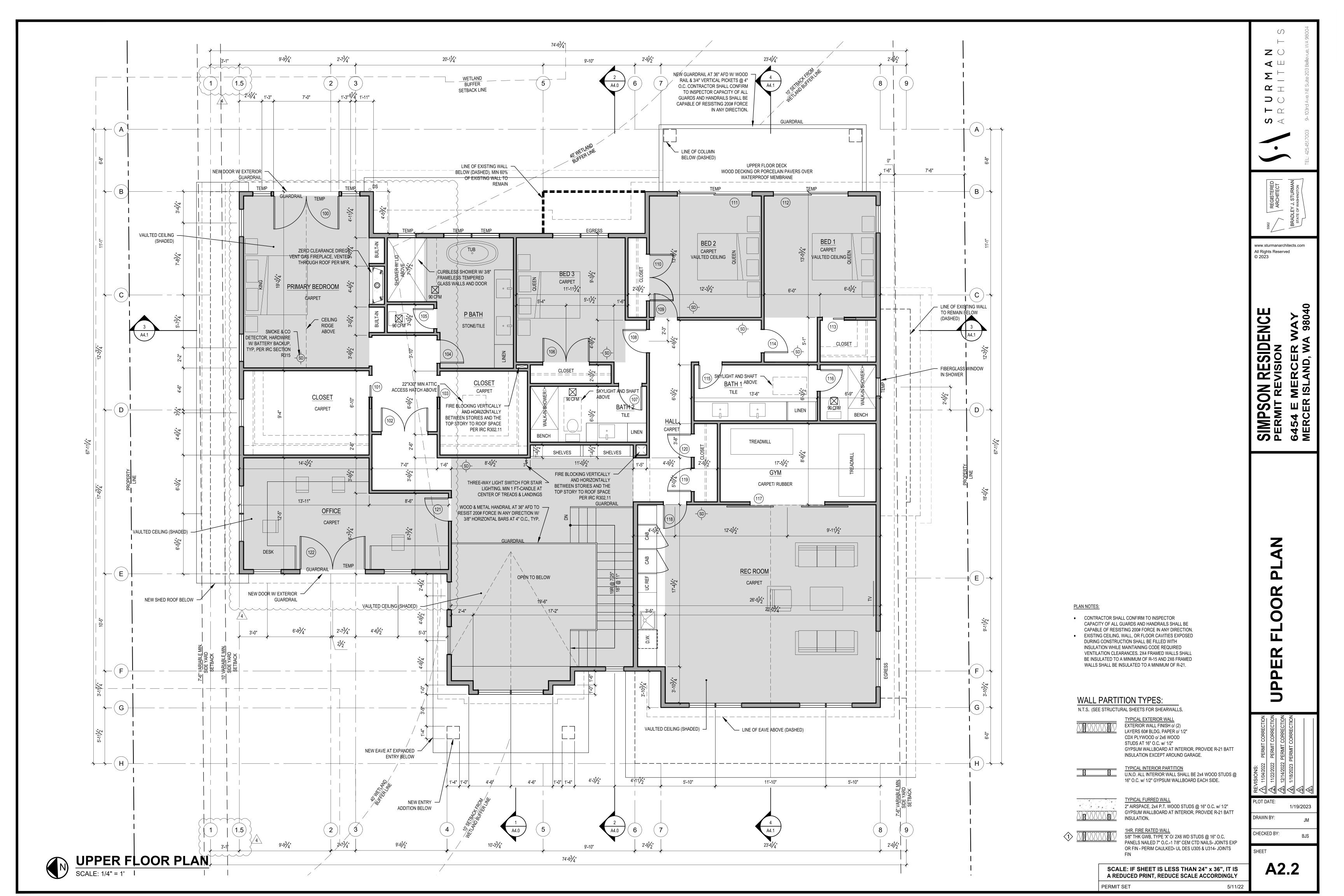
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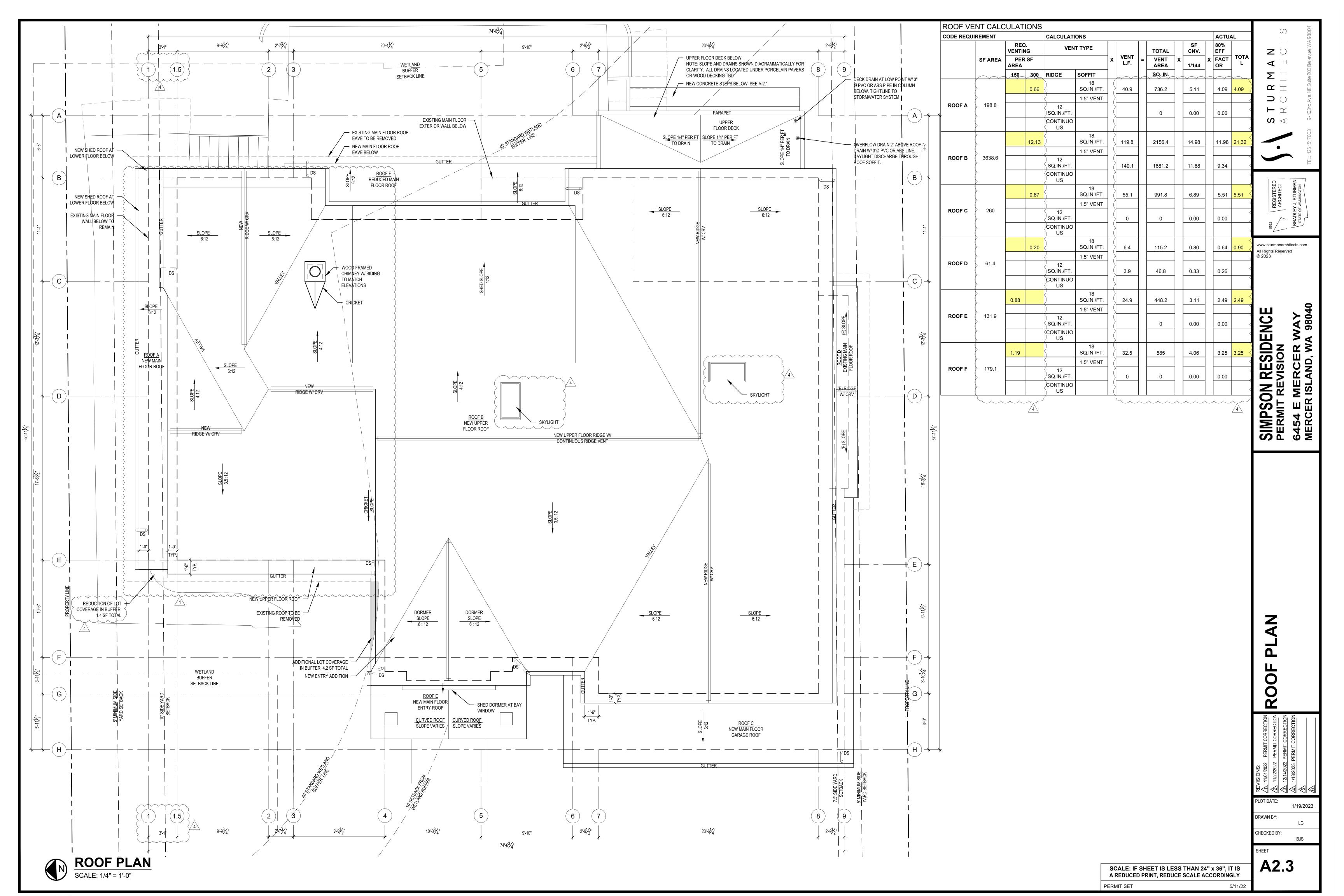
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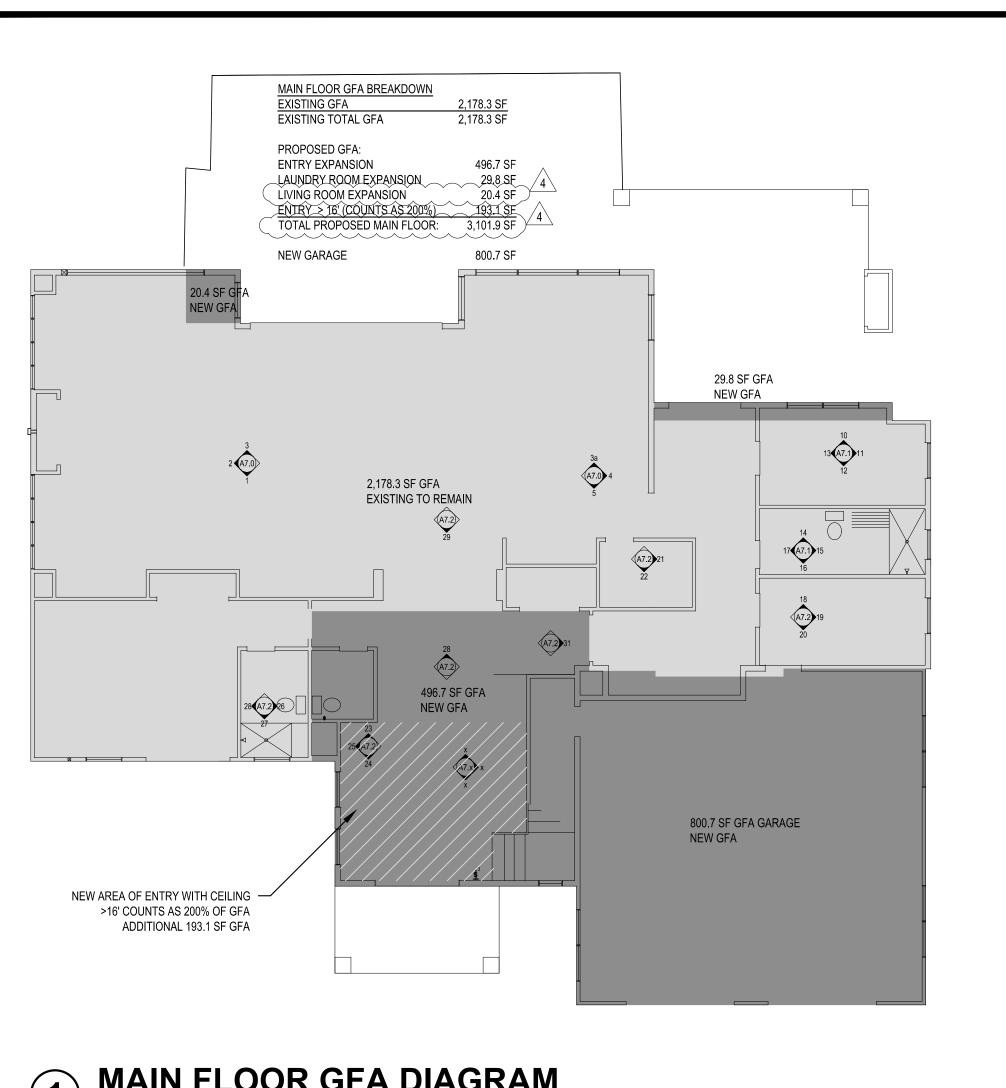
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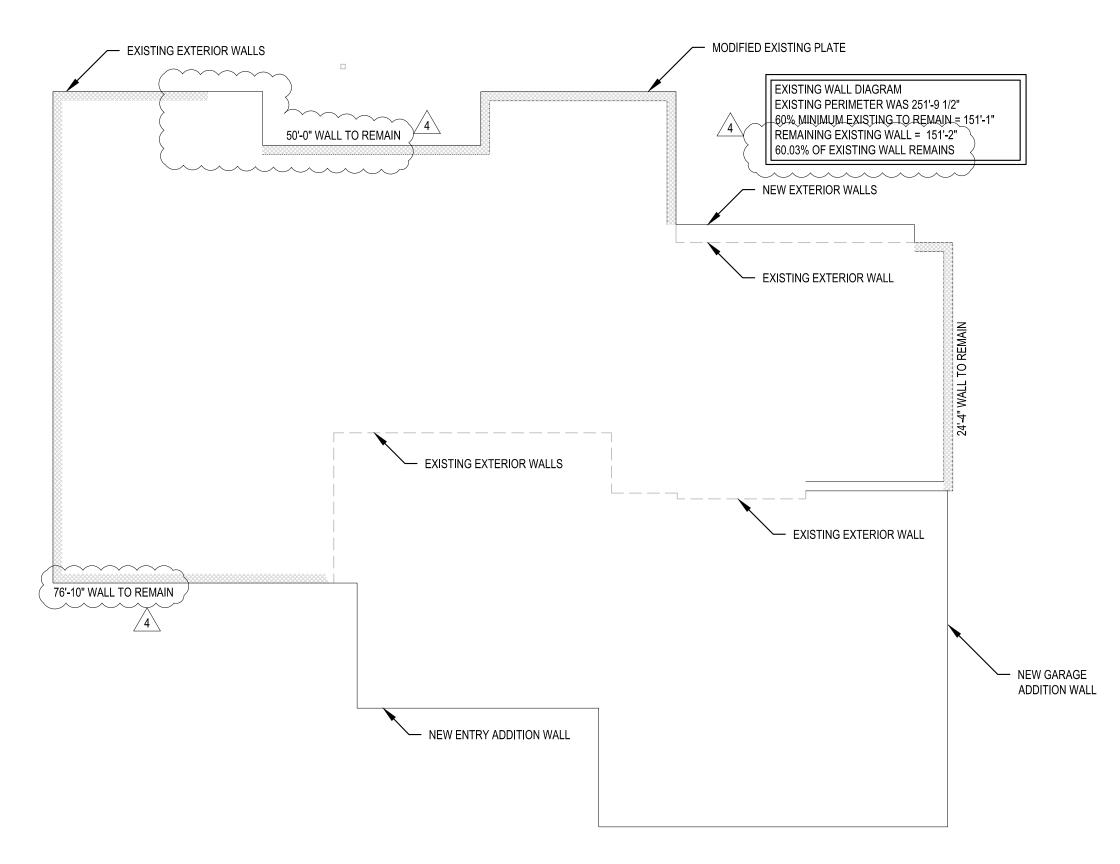


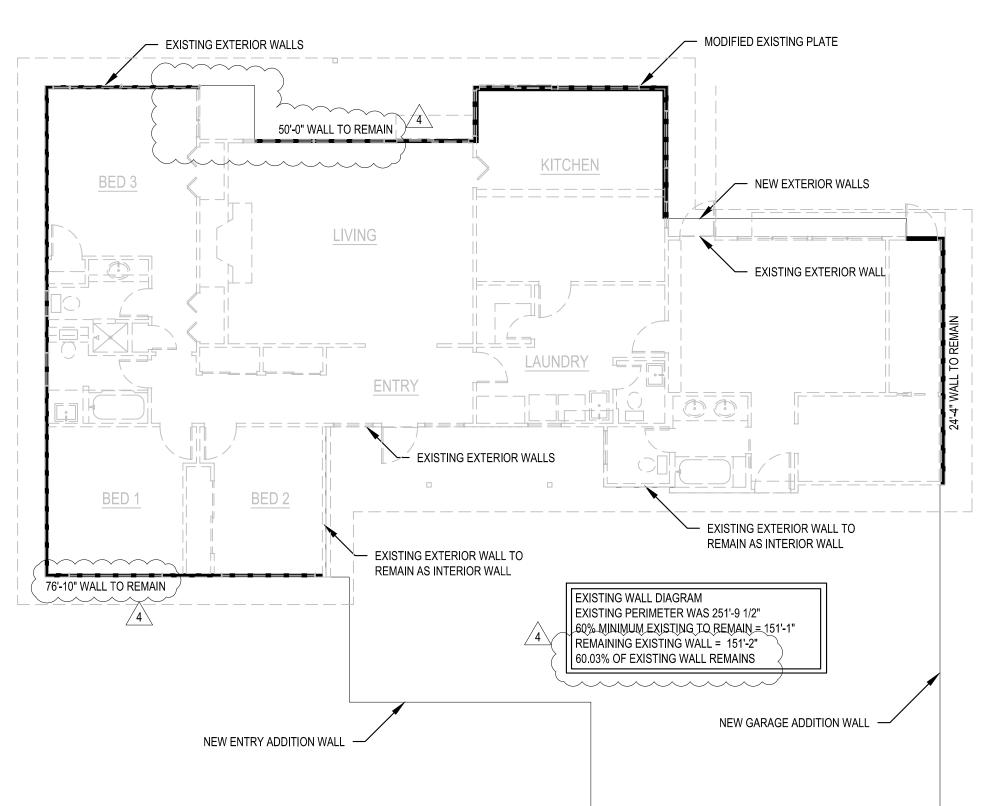






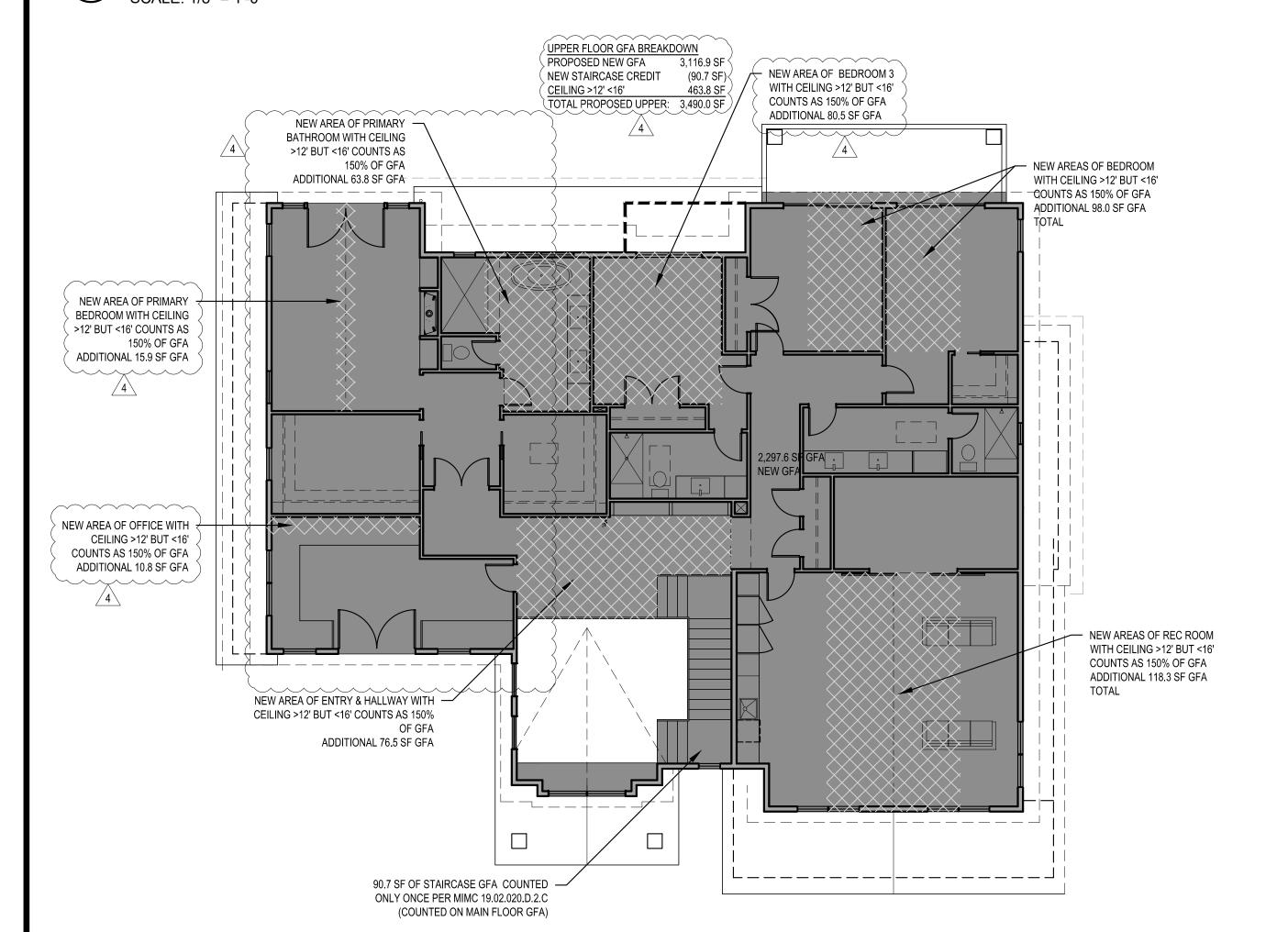


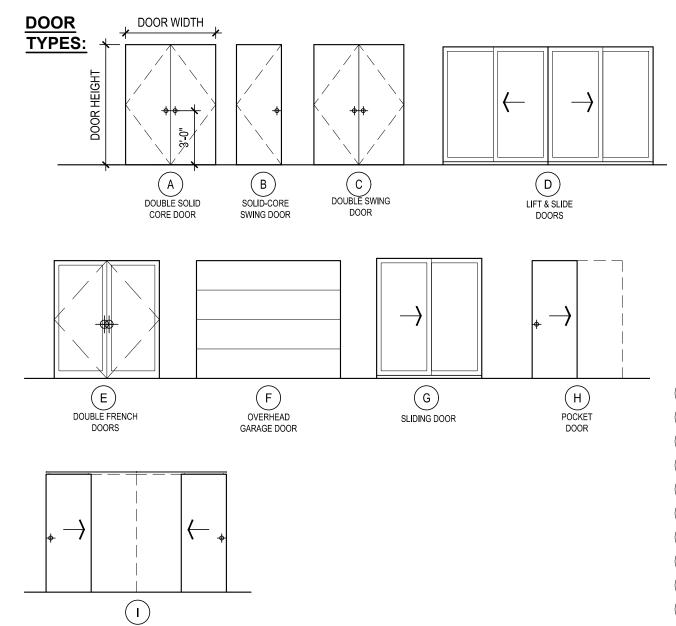




# MAIN FLOOR GFA DIAGRAM

40% WALL ALTERATION DIAGRAM
SCALE: 1/8" = 1'-0"





# **GFA LEGEND:**

DOUBLE BARN

**EXISTING GROSS FLOOR AREA TO** NEW GROSS FLOOR AREA AREA OF GFA WITH CEILING >12' BUT <16' COUNTED AS 150% OF GFA AREA OF GFA WITH CEILING >16' COUNTED AS 200% OF GFA

# WALL ALTERATION & ASBUILT PLAN

# DOOR SCHEDULE

| DOOR | LOCATION             | SIZE     | SIZE           | DOOR | TEMP. | DOOR | DOOR   | U-VAL. | OPENING | REMARKS                                |
|------|----------------------|----------|----------------|------|-------|------|--------|--------|---------|--|
| NO.  |                      | WIDTH    | HEIGHT         | TYPE | GLASS | FIN. | THK.   | (MIN.) |         |  |
| MAI  | N FLOOR              |          |                |      |       |      |        |        |         |  |
| 001  | ENTRY                | PR 3'-6" | 9'-0"          | Α    | -     | -    | 1-3/4" | .28    | NEW     | ENTRY DOOR, ALIGN W/ TRANSOM ABOVE     |
| 002  | POWDER               | 2'-4"    | 8'-0"          | В    | -     | -    | 1-3/4" | -      | NEW     |  |
| 003  | GUEST/ OFFICE        | 2'-6"    | 8'-0"          | В    | -     | -    | 1-3/4" | _      | NEW     |  |
| 004  | GUEST/ OFFICE BATH   | 2'-4"    | 8'-0"          | В    | -     | -    | 1-3/4" | -      | NEW     |  |
| 005  | GUEST/ OFFICE CLOSET | PR 3'-0" | 8'-0"          | С    | -     | -    | 1-3/4" | -      | NEW     |  |
| 006  | DINING               | 16'-0"   | 9'-0"          | D    | Υ     | -    | 1-3/4" | .28    | NEW     | LIFT & SLIDE DOOR TBD                  |
| 007  | OUTDOOR ROOM         | PR 3'-0" | 8'-0"          | Е    | Υ     | -    | 1-3/4" | .28    | NEW     |  |
| 800  | LAUNDRY              | 2-10"    | 8'-0"          | В    | -     | -    | 1-3/4" | -      | NEW     |  |
| 009  | LAKE BATH            | 2'-4"    | 8'-0"          | В    | -     | -    | 1-3/4" | -      | NEW     |  |
| 010  | MUDROOM              | 2'-10"   | 8'-0"          | В    | -     | -    | 1-3/4" | -      | NEW     |  |
| 011  | GARAGE               | 3'-0"    | 8'-0"          | В    | -     | -    | 1-3/4" | .28    | NEW     | 20 MIN DOOR W/ SMOKE GASKETS AND CLOSE |
| 012  | GARAGE OVERHEAD      | 9'-0"    | 8'-0"          | F    | -     | -    | 1-3/4" | -      | NEW     | OVERHEAD DOOR                          |
| 013  | GARAGE OVERHEAD      | 9'-0"    | 8'-0"          | F    | -     | -    | 1-3/4" | _      | NEW     | OVERHEAD DOOR                          |
| 014  | PANTRY               | 2'-4"    | 8'-0"          | В    | -     | -    | 1-3/4" | _      | NEW     |  |
| 015  | COAT CLOSET          | PR 2'-6" | 8'-0"          | С    | -     | -    | 1-3/4" | _      | NEW     |  |
| 016  | GARAGE               | 2'-6"    | 8' <u>-</u> 0" | B    |       |      | 1-3/4" | .28    | NEW     | 20 MIN DOOR WUSMOKE GASKETS AND CLOSE  |
| 017  | GUEST/ OFFICE        | PR 3'-6" | 8'-0"          | Е    | Υ     |      | 1-3/4" | .28    | NEW     |  |

| 00 | P. BEDROOM BALCONY | PR 3'-6" | 7'-0" | Е | Υ | - | 1-3/4" | .28 | NEW | TRANSOM ABOVE |
|----|--------------------|----------|-------|---|---|---|--------|-----|-----|---------------|
| 01 | PRIMARY CLOSET     | 2'-4"    | 8'-0" | Н | - | - | 1-3/4" | -   | NEW |               |
| )2 | PRIMARY BEDROOM    | PR 2'-6" | 8'-0" | С | - | - | 1-3/4" | -   | NEW |               |
| )3 | PRIMARY CLOSET     | 2'-4"    | 8'-0" | Н | - | - | 1-3/4" | -   | NEW |               |
| )4 | PRIMARY BATH       | 2'-6"    | 8'-0" | В |   | - | 1-3/4" | -   | NEW |               |
| )5 | PRIMARY BATH WC    | 2'-2"    | 8'-0" | В | - | - | 1-3/4" | -   | NEW |               |
| 16 | BEDROOM 3 CLOSET   | PR 2-6"  | 8'-0" | С | - | - | 1-3/4" | -   | NEW |               |
| )7 | BATH 2             | 2'-6"    | 8'-0" | В | - | - | 1-3/4" | -   | NEW |               |
| 8  | BEDROOM 3          | 2-6"     | 8'-0" | В | - | - | 1-3/4" | -   | NEW |               |
| 9  | BEDROOM 2          | 2-6"     | 8'-0" | В | - | - | 1-3/4" | -   | NEW |               |
| 0  | BEDROOM CLOSET     | PR 2-6"  | 8'-0" | С |   | - | 1-3/4" | -   | NEW |               |
| 1  | BEDROOM 2 DECK     | 8'-0"    | 7'-0" | G | Υ | - | 1-3/4" | .28 | NEW | TRANSOM ABOVE |
| 2  | BEDROOM 1 DECK     | 8'-0"    | 7'-0" | G | Υ | - | 1-3/4" | .28 | NEW | TRANSOM ABOVE |
| 3  | BEDROOM 1 CLOSET   | 2'-4"    | 8'-0" | Н | - |   | 1-3/4" | -   | NEW |               |
| 4  | BEDROOM 1          | 2-6"     | 8'-0" | В | - |   | 1-3/4" | -   | NEW |               |
| 5  | BATH 1             | 2-6"     | 8'-0" | В | - | - | 1-3/4" | -   | NEW |               |
| 6  | BATH 1             | 2'-6"    | 8'-0" | В | - | - | 1-3/4" | -   | NEW |               |
| 7  | GYM                | PR 4'-0" | 8'-0" | I | - | - | 1-3/4" | -   | NEW |               |
| 8  | REC ROOM           | 2'-6"    | 8'-0" | В | - | - | 1-3/4" | -   | NEW |               |
| 9  | HALL CLOSET        | 2-6"     | 8'-0" | В | - | - | 1-3/4" | -   | NEW |               |
| 20 | HALL CLOSET        | 2-6"     | 8'-0" | В | ı | - | 1-3/4" | -   | NEW |               |
| 21 | OFFICE             | 2-6"     | 8'-0" | В | - | - | 1-3/4" | -   | NEW |               |
| 22 | OFFICE BALCONY     | PR 3-6"  | 8'-0" | В | Υ | - | 1-3/4" | .28 | NEW |               |

±3'-1" ±4'-7" J - - 1-3/4" - EXISTING VERIFY EXISTING FRAMING AND JAMB CONDITION

# SCHEDULE NOTES:

1.) CONTRACTOR TO VERIFY ALL GLAZING SIZING, AND DOOR DIMENSIONS IN FIELD PRIOR TO ROUGH FRAMING & ORDERING OF GLAZING/WINDOW/DOOR MATERIALS. REVIEW SIZES AND ANY DISCREPANCIES W/ ARCHITECT.

## 2.) ALL GLAZING TO BE "LOW E", INSULATED GLASS UNLESS NOTED OTHERWISE.

3.) GLAZING INDOORS AND/OR WITHIN 24" OF A DOOR TO BE TEMPERED. SEE EXTERIOR ELEVATION FOR TEMP. GLASS LOCATIONS.

5.) 2015 WSEC & VIAQ RESIDENTIAL PRESCRIPTIVE OPTION 3 ADOPTED. GLAZING AREA INDICATED UNLIMITED. SEE ENERGY NOTE AT A1.0 SHEET FOR DETAILS.

# SCALE: IF SHEET IS LESS THAN 24" x 36", IT IS A REDUCED PRINT, REDUCE SCALE ACCORDINGLY

SOLID CORE WOOD

**ABBREVIATIONS:** 

ALUMINUM

PAINTED

WOOD

METAL CLAD

PRE-FINISHED

ALUM

PRE-FIN

MC

PNT

SCW

 $\mathbf{Z}$ 

 $oldsymbol{\alpha}$ 

**い** <

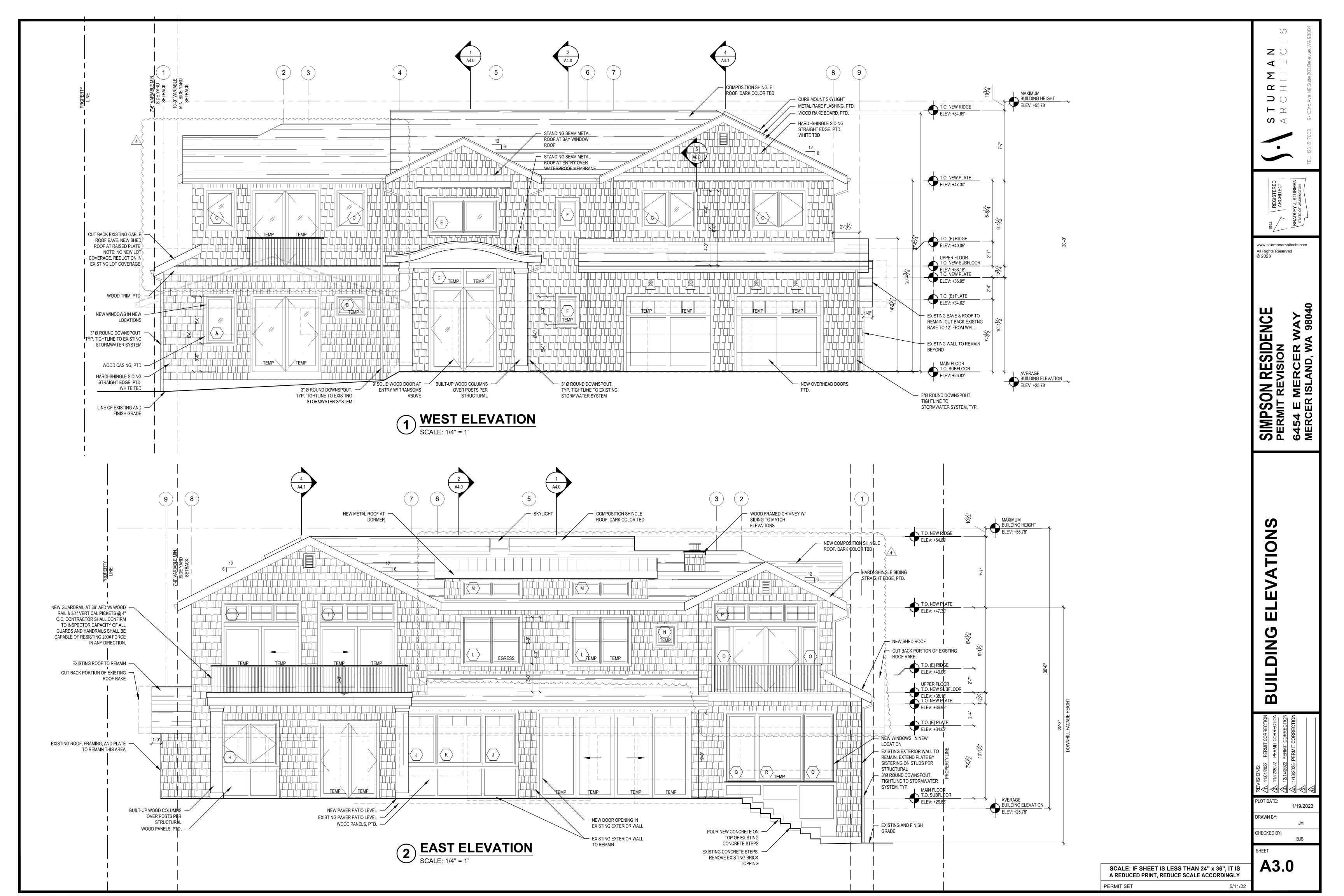
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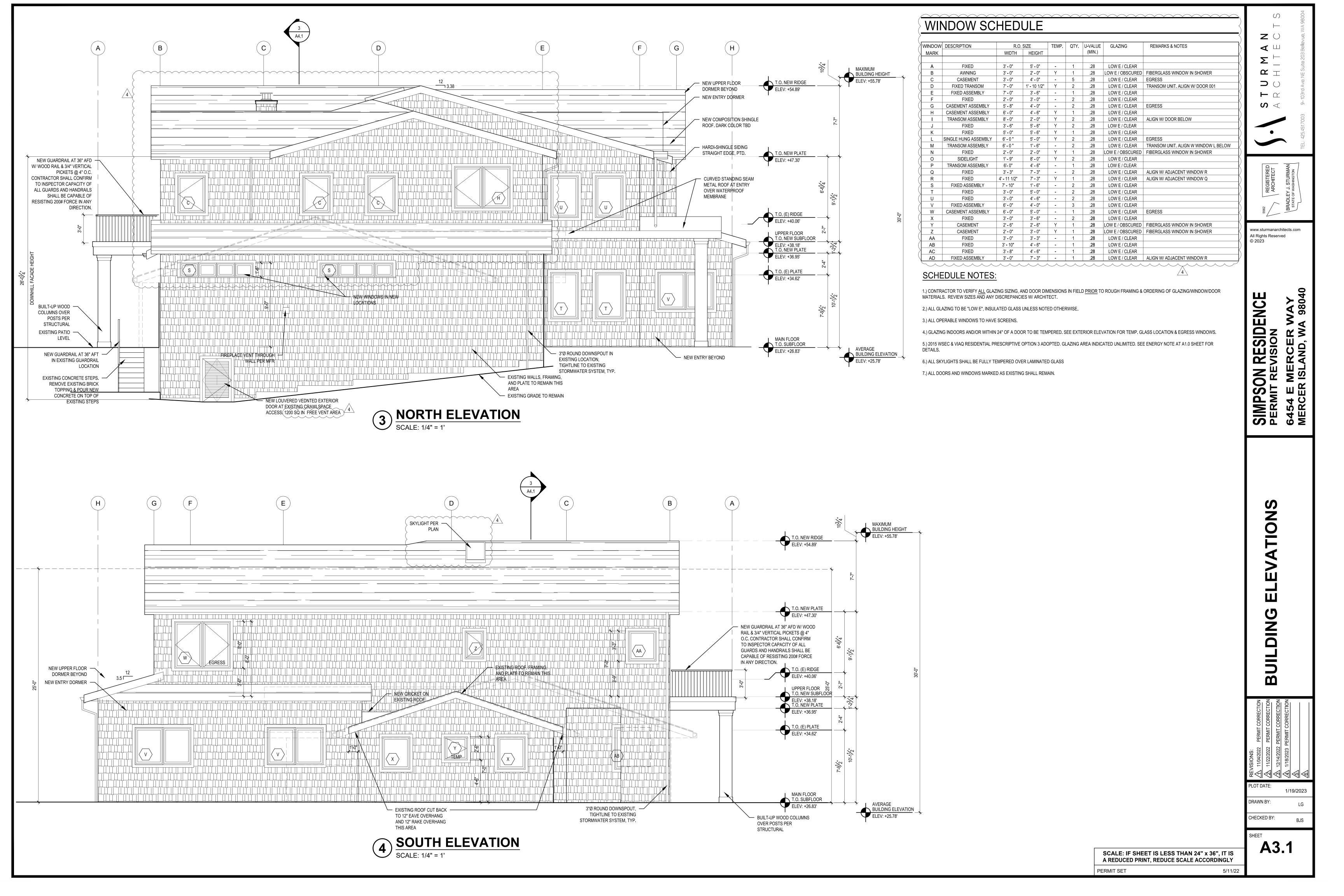
SIMPSON RESIDENCE PERMIT REVISION

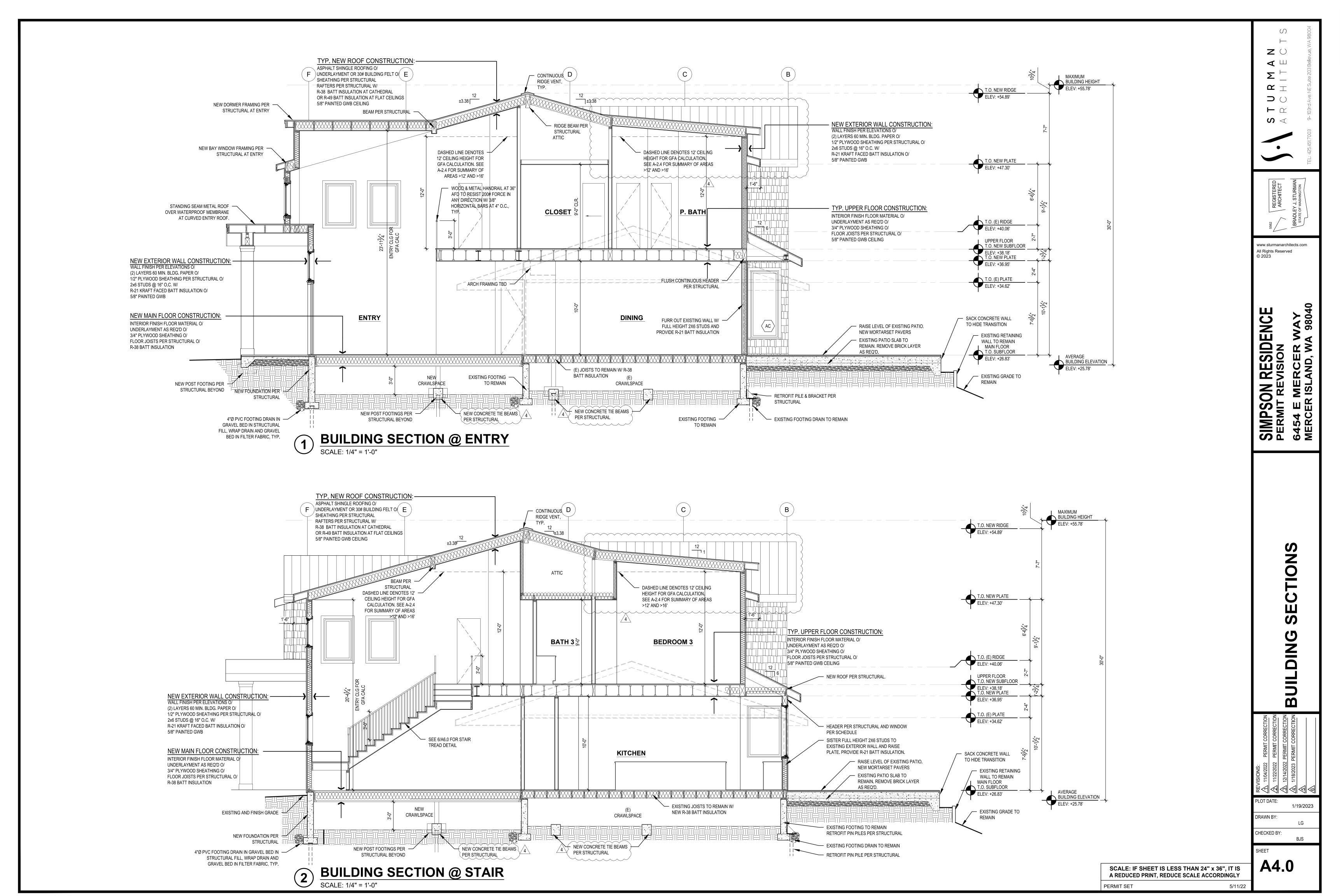
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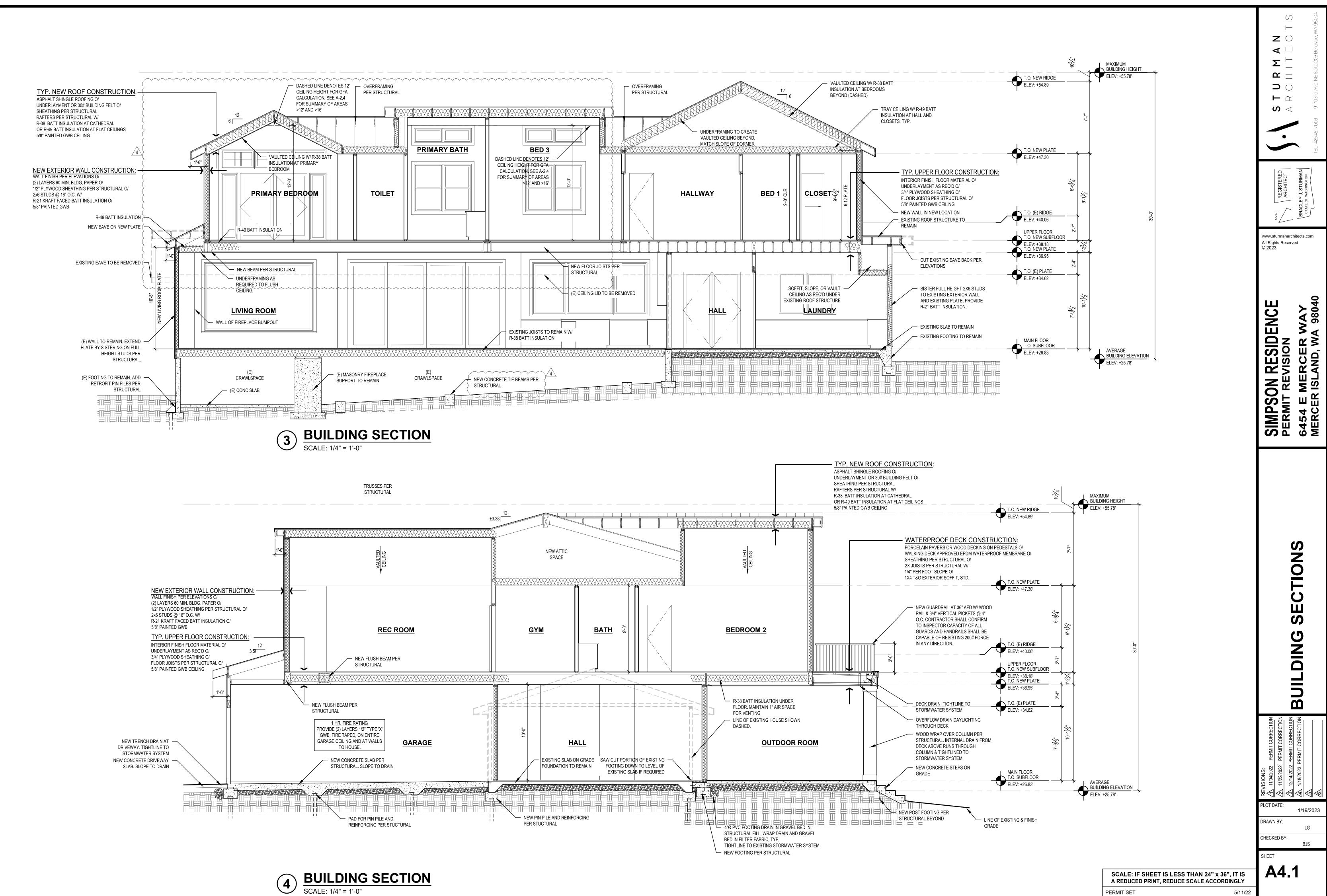
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2 UPPER FLOOR GFA DIAGRAM SCALE: 1/8" = 1'-0"

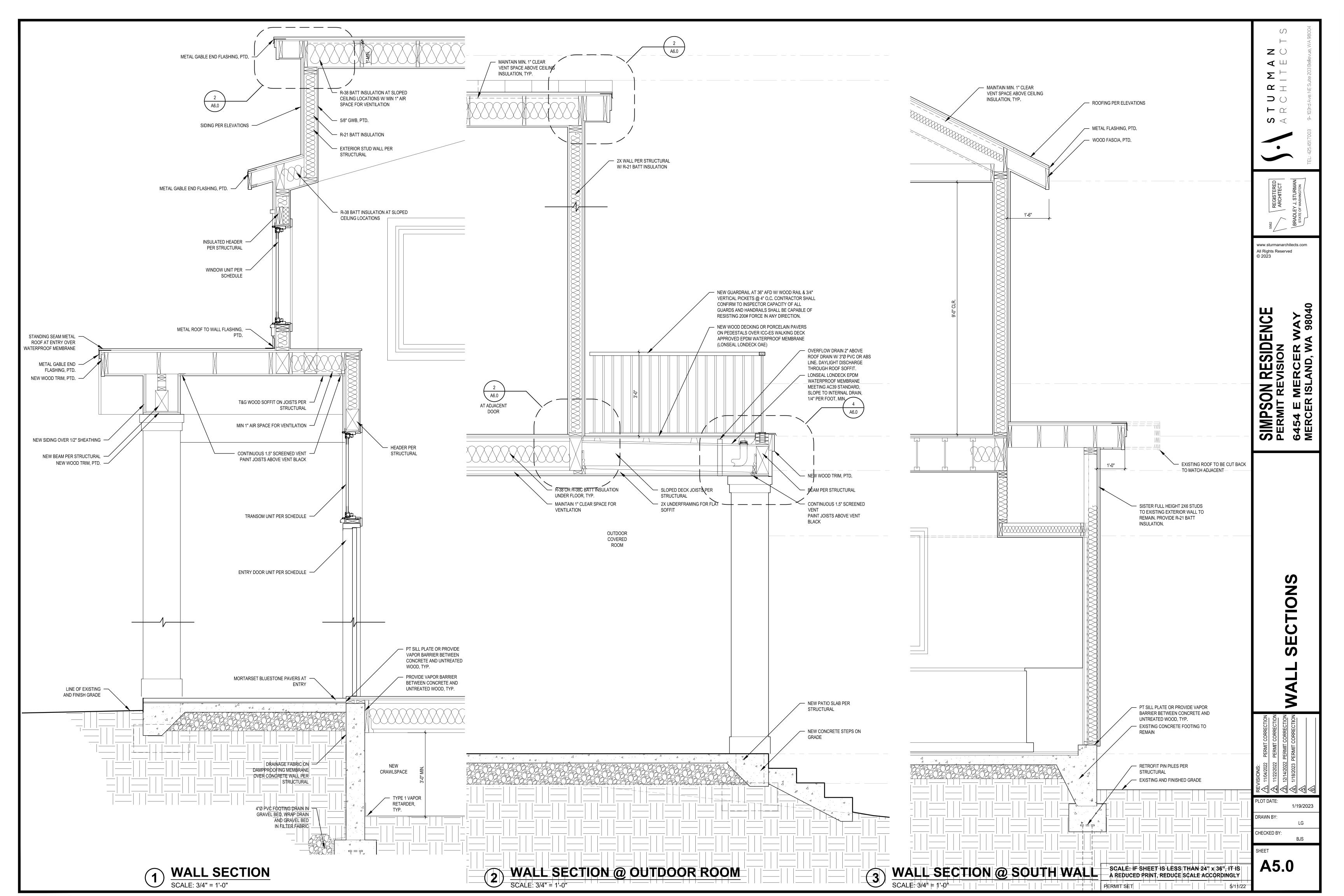


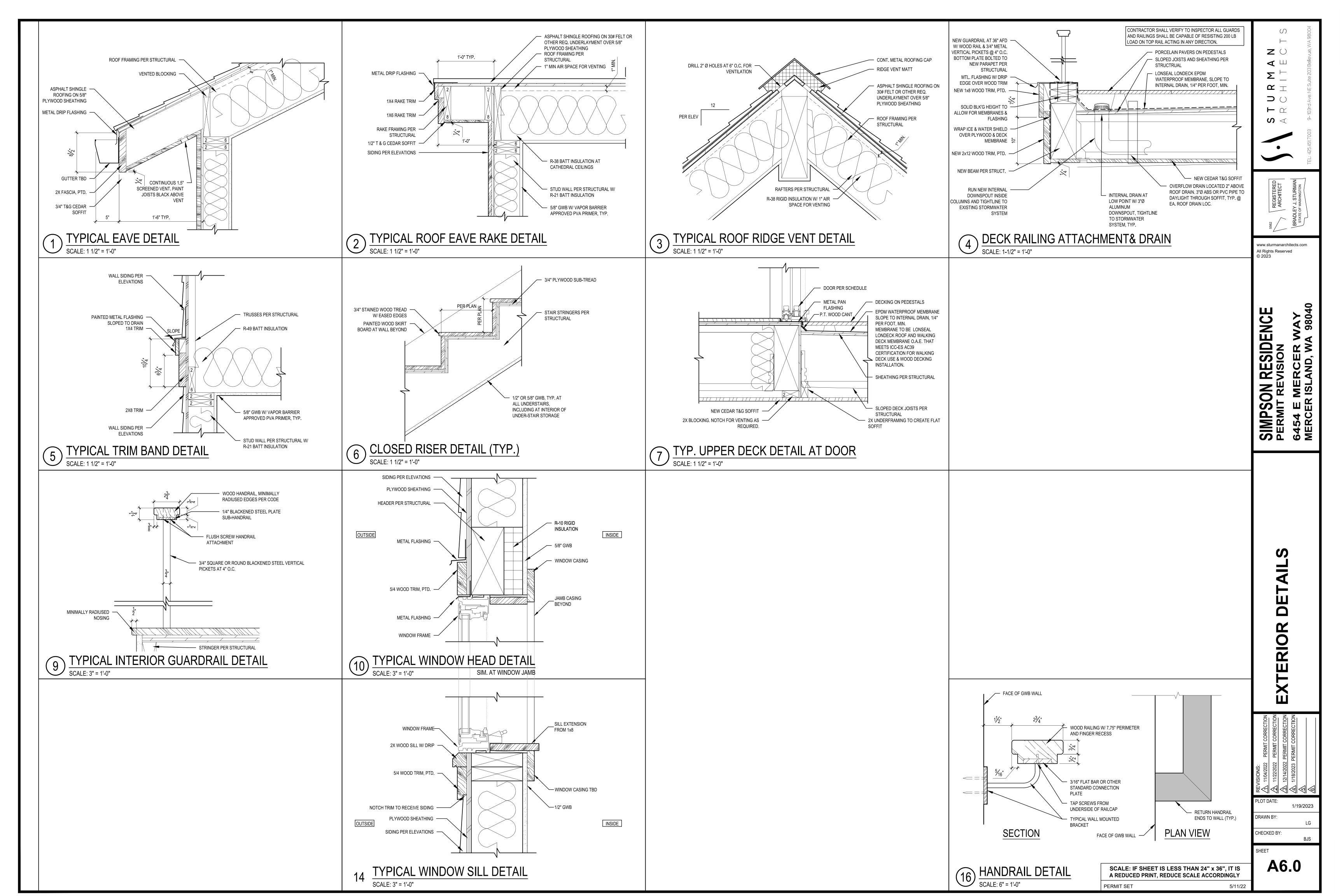


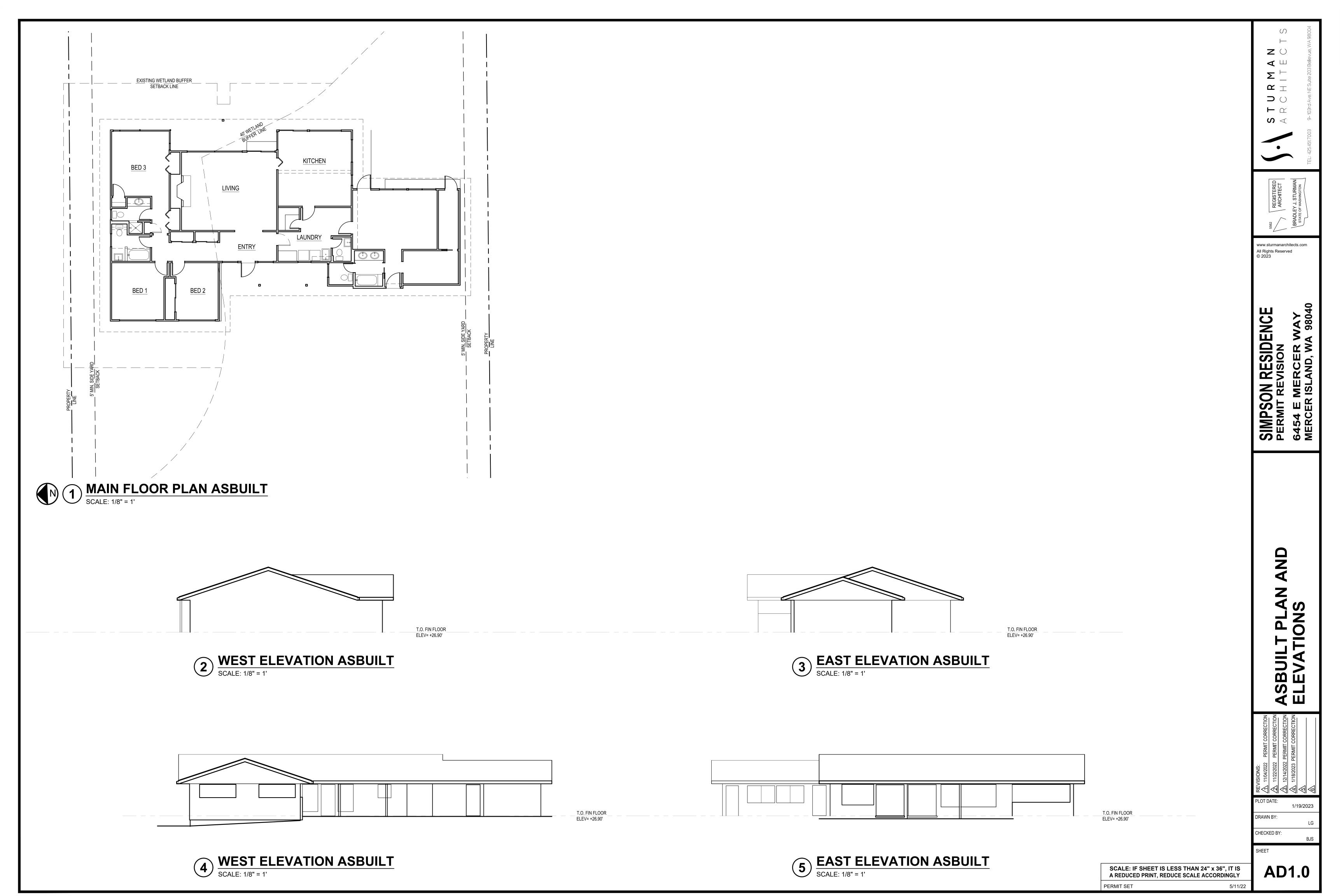




PERMIT SET







### General Structural Notes

#### THE FOLLOWING APPLY UNLESS SHOWN OTHERWISE ON THE DRAWINGS

# DRAWINGS, SPECIFICATIONS, AND THE 2018 INTERNATIONAL BUILDING CODE.

2. DESIGN LOADING CRITERIA: RESIDENTIAL - ONE AND TWO-FAMILY DWELLINGS 40 PSF FLOOR LIVE LOAD R00F 15 PSF ROOF DEAD LOAD 25 PSF ROOF LIVE LOAD DECK LIVE LOAD 60 PSF DEFLECTION CRITERIA L/360 LIVE LOAD DEFLECTION TOTAL LOAD DEFLECTION L/240 ENVIRONMENTAL LOADS

**CRITERIA** 

25 PSF WIND Kzt= 1.0, GCpi=0.18, 98 MPH, RISK CATEGORY II, EXPOSURE "C" EARTHQUAKE ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE PROCEDURE LATERAL SYSTEM: LIGHT FRAMED SHEAR WALLS

SITE CLASS=D, Ss=1.45 Sds=1.0, S1=.5, SD1=.57, Cs=0.154 SDC D, Ie=1.0, R=6.5

- 3. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS FOR BIDDING AND CONSTRUCTION. ARCHITECTURAL DRAWINGS ARE THE PRIME CONTRACT DRAWINGS. ANY DISCREPANCIES FOUND AMONG THE DRAWINGS. THESE GENERAL NOTES AND THE SITE CONDITIONS SHALL BE REPORTED TO THE ARCHITECT, WHO SHALL CORRECT SUCH DISCREPANCY IN WRITING. ANY WORK DONE BY THE GENERAL CONTRACTOR AFTER DISCOVERY OF SUCH DISCREPANCY SHALL BE DONE AT THE GENERAL CONTRACTOR'S RISK.
- 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 SECTION, AND PLANS. DETAILING AND SHOP DRAWING PRODUCTION FOR STRUCTURAL ELEMENTS WILL REQUIRE DIMENSIONAL INFORMATION CONTAINED IN BOTH ARCHITECTURAL AND STRUCTURAL DRAWINGS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES REQUIRED TO PERFORM THE CONTRACTORS 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.
- 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".
- CONTRACTOR-INITIATED CHANGES SHALL BE SUBMITTED IN WRITING TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.
- 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. ALL TYPICAL NOTES AND DETAILS SHOWN ON DRAWINGS SHALL APPLY, UNLESS NOTED OTHERWISE. WHERE NO TYPICAL DETAIL IS NOTED, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REQUEST ADDITIONAL INFORMATION. THE CONTRACTOR SHALL SUBMIT ALL PROPOSED ALTERNATE TYPICAL DETAILS TO THOSE PROVIDED TO THE ENGINEER AND ARCHITECT FOR APPROVAL PRIOR TO CONSTRUCTION.
- 9. ALL STRUCTURAL SYSTEMS, WHICH ARE TO BE COMPOSED OF COMPONENTS TO BE FIELD ERECTED. SHALL BE SUPERVISED BY THE SUPPLIER DURING MANUFACTURING. 16. DEMOLITION: CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS BEFORE DELIVERY. HANDLING, STORAGE AND ERECTION IN ACCORDANCE WITH INSTRUCTIONS PREPARED BY THE SUPPLIER.
- 10. SHOP DRAWINGS FOR THE FOLLOWING ITEMS SHALL BE SUBMITTED TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR REVIEW PRIOR TO FABRICATION OF THESE ITEMS.

CONNECTOR PLATE WOOD ROOF TRUSSES STRUCTURAL STEEL

11. SHOP DRAWING REVIEW: DIMENSIONS AND QUANTITIES ARE NOT REVIEWED BY THE ENGINEER OF RECORD, THEREFORE MUST BE VERIFIED BY THE CONTRACTOR. CONTRACTOR SHALL REVIEW AND STAMP DRAWINGS PRIOR TO REVIEW BY ENGINEER OF RECORD. CONTRACTOR SHALL REVIEW DRAWINGS FOR CONFORMANCE WITH THE MEANS, METHODS, TECHNIQUES, SEQUENCES AND OPERATIONS OF CONSTRUCTION, AND ALL 18. WHERE NEW REINFORCING TERMINATES AT EXISTING CONCRETE, DRILL AND EPOXY SAFETY PRECAUTIONS AND PROGRAMS INCIDENTAL THERETO. SUBMITTALS SHALL INCLUDE A REPRODUCIBLE AND ONE COPY; REPRODUCIBLE WILL BE MARKED AND RETURNED WITHIN TWO WEEKS OF RECEIPT WITH A NOTATION INDICATING THAT THE SUBMITTAL HAS BEEN FOUND TO BE IN GENERAL CONFORMANCE WITH THE DESIGN OF THE BUILDING. THE SUBMITTED ITEMS SHALL NOT BE INSTALLED UNTIL THEY HAVE BEEN APPROVED BY THE BUILDING OFFICIAL.

SHOP DRAWING SUBMITTALS PROCESSED BY THE ENGINEER ARE NOT CHANGE ORDERS. THE PURPOSE OF SHOP DRAWING SUBMITTALS BY THE CONTRACTOR IS TO DEMONSTRATE TO THE ENGINEER THAT THE CONTRACTOR UNDERSTANDS THE DESIGN CONCEPT, BY INDICATING WHICH MATERIAL IS INTENDED TO BE FURNISHED AND INSTALLED AND BY DETAILING THE INTENDED FABRICATION AND INSTALLATION METHODS. DEVIATIONS, DISCREPANCIES, OR CONFLICTS BETWEEN SHOP DRAWING SUBMITTALS AND THE CONTRACT DOCUMENTS ARE DISCOVERED EITHER PRIOR TO OR AFTER SHOP DRAWING SUBMITTALS ARE PROCESSED BY THE ENGINEER, THE DESIGN DRAWINGS AND SPECIFICATIONS SHALL CONTROL AND SHALL BE FOLLOWED.

### **QUALITY ASSURANCE**

12. SPECIAL INSPECTION SHALL BE PROVIDED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND SECTIONS 110 AND 1705 OF THE INTERNATIONAL BUILDING CODE BY A QUALIFIED TESTING AGENCY DESIGNATED BY THE ARCHITECT, AND 22. CONCRETE PROTECTION (COVER) FOR REINFORCING STEEL SHALL BE AS FOLLOWS: 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 IS REQUIRED UNLESS NOTED OTHERWISE.

| POST INSTALLED BOLTS AND RODS IN EXISTING CONCRETE | PER10DIC |
|--|----------|
| PLYWOOD SHEARWALL CONSTRUCTION INCLUDING HOLDOWNS  | PERIODIC |
| STRUCTURAL STEEL ERECTION                          | PERIODIC |
| PIN PILE INSTALLATION AND TESTING                  | PERIODIC |
|  |          |

PERIODIC INSPECTION: INSPECTION SHALL BE PERFORMED AT INTERVALS NECESSARY TO CONFIRM THAT WORK REQUIRING SPECIAL INSPECTION IS IN COMPLIANCE WITH REQUIREMENTS.

- 1. ALL MATERIALS, WORKMANSHIP, DESIGN, AND CONSTRUCTION SHALL CONFORM TO THE 13. UNLESS OTHERWISE NOTED, THE FOLLOWING ELEMENTS COMPRISE THE 24. CAST-IN-PLACE CONCRETE: SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS AND 38. MANUFACTURED LUMBER, PSL, LVL, AND LSL SHOWN ON PLAN ARE BASED PRODUCTS 46. WOOD FASTENERS SEISMIC-FORCE-RESISTING SYSTEM AND ARE SUBJECT TO SPECIAL SEISMIC RESISTANCE IN ACCORDANCE WITH IBC SECTION 1705. 12
  - A. STRUCTURAL WOOD SHEAR WALL SYSTEMS REQUIRE PERIODIC INSPECTION FOR FIELD GLUEING, NAILING, BOLTING, ANCHORING AND OTHER FASTENING OF COMPONENTS WITHIN THE SEISMIC FORCE, RESISTING SYSTEM.

### GEOTECHNICAL

14. FOUNDATION NOTES: SUBGRADE PREPARATION INCLUDING DRAINAGE, EXCAVATION, COMPACTION, AND FILLING REQUIREMENTS, SHALL CONFORM STRICTLY WITH RECOMMENDATIONS GIVEN IN THE SOILS REPORT OR AS DIRECTED BY THE SOILS ENGINEER. FOOTINGS SHALL BEAR ON SOLID UNDISTURBED EARTH OR COMPACTED STRUCTURAL FILL 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.

LATERAL EARTH PRESSURE (RESTRAINED/UNRESTRAINED) 50 PCF/35 PCF ALLOWABLE PASSIVE EARTH PRESSURE (FS INCLUDED) SEISMIC SURCHARGE PRESSURE (UNIFORM LOAD) PILE CAPACITY (REFER SECTION ON DRIVEN PIPE PILES)

SOILS REPORT REFERENCE: #2019038E001 BY AESI, DATED 11-12-19

& JN 22309 BY GEOTECH CONSULTANTS, DATED 9-1-22

15. PIPE PILES SHOWN ON PLAN SHALL BE DRIVEN WITH HYRAULIC HAMMERS TO THE FINAL PENETRATION RATES MEASURED IN SECONDS PER INCH WITH THE ASSIGNED FOLLOWING COMPRESSIVE CAPACITIES.

(HYDRAULIC HAMMERS) 90LB JACKHAMMER DIAM CAPACITY (OR 140LB RHINO) 400LB 650LB 850LB 1100LB 2000LB 2IN SCH 80 60 3IN SCH 40 4IN SCH 40 10T 16 10 4

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 VIBTRATORY HAMMER OR A HAMMER THAT IS HARD MOUNTED TO THE INSTALLATION MACHINE, NUMEROUS LOAD TESTS TO 200 PERCENT OF THE DEISGN 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, LOAD TESTS SHALL BE REQUIRED ON AT LEAST 3 PERCENT OF ALL PILES INSTALLED AT THE SITE, WITH A MINIMUM OF ONE TEST AND A MAXIMUM OF FIVE TESTS. ALL TESTS MUST CONFORM TO THE QUICK LOAD TEST METHOD ACCORDING TO AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM) D-1143. CONTINUOUS GEOTECHNICAL SPECIAL INSPECTION IS REQUIRED FOR ALL TESTING AND INSTALLATION.

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 WITH PIPE SLEEVES CONTAINING MATCHING PIPE COUPLING RINGS.

RENOVATION

- COMMENCING ANY 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 40 PSF.
- 17. 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 35. ALL WELDING SHALL BE IN CONFORMANCE WITH AISC AND AWS STANDARDS AND SHALL MUST BE VERIFIED. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND STRUCTURAL ENGINEER IF EXISTING CONDITIONS DETERMINED DURING WORK VARY FROM THE EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS.
- DOWELS MATCHING THE NEW REINFORCING INTO THE EXISTING CONCRETE WITH 5" EMBED, UNLESS OTHERWISE NOTED ON PLANS SHALL BE SAVED WHERE AND AS NOTED ON THE PLANS.

### CONCRETE

- 19. CONCRETE SHALL BE MIXED, PROPORTIONED, CONVEYED AND PLACED IN ACCORDANCE WITH ACI 301, INCLUDING TESTING PROCEDURES. CONCRETE SHALL ATTAIN A 28-DAY STRENGTH OF f'c = 3,000 PSI AND MIX SHALL CONTAIN NOT LESS THAN 5-1/2 SACKS OF CEMENT PER CUBIC YARD AND SHALL BE PROPORTIONED TO PRODUCE A SLUMP OF 5" OR LESS. REQUIRED CONCRETE STRENGTH IS BASED ON THE DURABILITY REQUIREMENTS OF SECTION 1904 OF THE IBC. DESIGN STRENGTH f'c = 2,500 PSI.
- 20. REINFORCING STEEL SHALL CONFORM TO ASTM A615 GRADE 60, FY=60,000 PSI.
- 21. DETAILING OF REINFORCING STEEL (INCLUDING HOOKS AND BENDS) SHALL BE IN ACCORDANCE WITH ACI 315-99 AND 318-11. LAP ALL CONTINUOUS REINFORCEMENT #5 AND SMALLER 48 BAR DIAMETERS OR 2'-0" MINIMUM. PROVIDE CORNER BARS AT ALL WALL AND FOOTING INTERSECTIONS. LAP CORNER BARS 2'-0" MINIMUM.

UNFORMED SURFACES CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: FORMED SURFACES EXPOSED TO EARTH OR WEATHER (#5 BARS OR SMALLER): 1-1/2" SLABS AND WALLS (INT. FACE): GREATER OF BAR DIAMETER PLUS 1/8" OR 3/4"

23. CONCRETE WALL REINFORCING—PROVIDE THE FOLLOWING UNLESS DETAILED OTHERWISE:

6" WALLS #4 @ 16 HORIZ. #4 @ 16 VERTICAL 1 CURTAIN 8" WALLS #4 @ 12 HORIZ. #4 @ 12 VERTICAL 1 CURTAIN #4 @ 16 VERTICAL 2 CURTAINS 10" WALLS #4 @ 16 HORIZ. 12" WALLS #4 @ 16 VERTICAL 2 CURTAINS #4 @ 16 HORIZ.

- DIMENSIONS OF DOOR AND WINDOW OPENINGS IN ALL CONCRETE WALLS. MECHANICAL DRAWINGS FOR SIZE AND LOCATION OF MISCELLANEOUS MECHANICAL OPENINGS THROUGH CONCRETE WALLS. SEE ARCHITECTURAL DRAWINGS FOR ALI GROOVES, NOTCHES, CHAMFERS, FEATURE STRIPS, COLOR, TEXTURE, AND OTHER FINISH DETAILS AT ALL EXPOSED CONCRETE SURFACES.
- 25. NON-SHRINK GROUT SHALL BE FURNISHED BY AN APPROVED MANUFACTURER AND SHAL BE MIXED AND PLACED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S PUBLISHED RECOMMENDATIONS. GROUT STRENGTH SHALL BE AT LEAST EQUAL TO THE MATERIAL ON WHICH IT IS PLACED (3000 PSI MINIMUM).

### **ANCHORAGE**

- 26. EXPANSION BOLTS INTO CONCRETE SHALL BE "STRONG-BOLT 2" WEDGE ANCHORS AS MANUFACTURED BY THE SIMPSON STRONG TIE COMPANY AND INSTALLED IN STRICT CONFORMANCE TO ICC-ES REPORT NUMBER ESR-3037. PERIODIC SPECIAL INSPECTION IS REQUIRED TO VERIFY ANCHOR TYPE, DIMENSIONS, LOCATION, TIGHTENING TORQUE, HOLE DIMENSIONS, EMBEDMENT, AND ADHERENCE TO THE INSTALLATION INSTRUCTIONS.
- 27. EPOXY-GROUTED ITEMS (THREADED RODS OR REINFORCING BAR) SPECIFIED ON THE DRAWINGS SHALL BE INSTALLED USING "SET-3G" HIGH STRENGTH EPOXY AS MANUFACTURED BY THE SIMPSON STRONG-TIE COMPANY. INSTALL IN STRICT ACCORDANCE WITH ICC-ES REPORT NO. ESR-4057. MINIMUM BASE MATERIAL TEMPERATURE IS 50 DEGREES, F. RODS SHALL BE ASTM A-36 UNLESS OTHERWISE NOTED. PERIODIC SPECIAL INSPECTION OF INSTALLATION IS REQUIRED TO VERIFY ANCHOR OR EMBEDED BAR TYPE AND DIMENSIONS, LOCATION, ADHESIVE IDENTIFICATION AND EXPIRATION, HOLE DIMENSIONS, CLEANING PROCEDURE, ANCHOR EMBEDMENT, AND ADHERENCE TO THE INSTALLATION INSTRUCTIONS. CONTINUOUS SPECIAL INSPECTION IS REQUIRED FOR OVERHEAD INSTALLATIONS.
- 28. CONCRETE SCREW ANCHORS INTO CONCRETE SHALL BE "TITEN HD" HEAVY DUTY SCREW ANCHOR AS MANUFACTURED BY THE SIMPSON STRONG-TIE COMPANY, INSTALLED IN STRICT ACCORDANCE WITH ICC-ES REPORT NO. ESR-2713. PERIODIC SPECIAL INSPECTION IS REQUIRED TO VERIFY ANCHOR TYPE, DIMENSIONS, LOCATION, TIGHTENING TORQUE, HOLE DIMENSIONS, ANCHOR EMBEDMENT, AND ADHERENCE TO THE INSTALLATION INSTRUCTIONS.
- 29. DRIVE PINS AND OTHER POWDER-ACTUATED FASTENERS SHALL BE LOW VELOCITY TYPE (SERIES X-U, 0.157" DIAMETER (STEEL), UNLESS OTHERWISE NOTED) AS MANUFACTURED BY THE HILTI CORP. OR AN APPROVED EQUIVALENT IN STRENGTH AND EMBEDMENT. INSTALL IN STRICT ACCORDANCE WITH ICC-ES REPORT NO. ESR-1663. MINIMUM EMBEDMENT IN CONCRETE SHALL BE 1" UNLESS OTHERWISE NOTED. MAINTAIN AT LEAST 3" TO NEAREST CONCRETE EDGE. MINIMUM EMBEDMENT INTO STEEL SHALL BE 3/8" UNLESS OTHERWISE NOTED

- 30. WIDE FLANGE SHAPES SHALL CONFORM TO ASTM A992, FY = 50 KSI. OTHER ROLLED SHAPES INCLUDING PLATES, SHALL CONFORM TO ASTM A36, FY = 36 KSI. STEEL PIPE SHALL CONFORM TO ASTM A-53, TYPE E OR S, GRADE A, Fy = 33 KSI. STRUCTURAL TUBING SHALL CONFORM TO ASTM A500, GRADE B, FY = 46 KSI (SQUARE AND RECTANGULAR). CONNECTION BOLTS SHALL CONFORM TO ASTM A307.
- 31. ARCHITECTURALLY EXPOSED STRUCTURAL STEEL SHALL CONFORM TO SECTION 10 OF THE AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES.
- 32. ALL STEEL EXPOSED TO THE WEATHER OR IN CONTACT WITH GROUND SHALL BE CORROSION PROTECTED BY GALVANIZATION OR PROVIDED WITH EXTERIOR PAINT SYSTEM. UNLESS OTHERWISE NOTED.
- 33. ALL A-325N CONNECTION BOLTS NEED ONLY BE TIGHTENED TO A SNUG TIGHT CONDITION, DEFINED AS THE TIGHTNESS THAT EXISTS WHEN ALL PLIES IN A JOINT ARE IN FIRM CONTACT. THIS MAY BE ATTAINED BY A FEW IMPACTS OF AN IMPACT WRENCH OR THE FULL EFFORT OF AN IRONWORKER USING AN ORDINARY SPUD WRENCH.
- 34. ALL ANCHORS EMBEDDED IN MASONRY OR CONCRETE SHALL BE A307 HEADED BOLTS OR A36 THREADED ROD WITH AN ASTM 563 HEAVY HEX NUT TACK WELDED ON THE EMBEDDED END.
- BE PERFORMED BY WABO CERTIFIED WELDERS USING E70XX ELECTRODES. ONLY PREQUALIFIED WELDS (AS DEFINED BY AWS) SHALL BE USED.

### WOOD

36. FRAMING LUMBER SHALL BE S-DRY, KD, OR MC-19, AND GRADED AND MARKED IN CONFORMANCE WITH WCLIB STANDARD, GRADING RULES FOR WEST COAST LUMBER NO. 17, OR WWPA STANDARD, WESTERN LUMBER GRADING RULES 2011. FURNISH TO THE FOLLOWING MINIMUM STANDARDS:

| JSTs-BMS | (2X & 3X MEMBERS)     | HEM-FIR NO. 2   |
|----------|-----------------------|---|
|          | (4X MEMBERS)          | MINIMUM BASE VALUE, Fb =850 PSI<br>DOUGLAS FIR-LARCH NO. 1  |
| DEAMO    | (INCL OV AND LADOED)  | MINIMUM BASE VALUE, Fb = 1000 PS                            |
| BEAMS    | (INCL. 6X AND LARGER) | DOUGLAS FIR-LARCH NO. 1<br>MINIMUM BASE VALUE, Fb = 1350 PS |
| POSTS    | (4X MEMBERS)          | DOUGLAS FIR-LARCH NO. 2                                     |
|          | (6X AND LARGER)       | MINIMUM BASE VALUE, Fc = 1350 PS<br>DOUGLAS FIR-LARCH NO. 1 |
|          |                       | MINIMUM BASE VALUE, Fc = 1000 PS                            |

STUDS, PLATES & MISC. FRAMING: DOUGLAS-FIR-LARCH OR HEM-FIR NO. 2 37. 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 BEAMS SHALL BE DOUGLAS FIR COMBINATION 24F-V4, Fb = 2,400 PSI, Fv = 265 PSI.

MANUFACTURED BY THE WEYERHAEUSER CORPORATION IN ACCORDANCE WITH ICC-ES REPORT ESR-1387. MEMBERS SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES:

Fb = 2900 PSI, E = 2000 KSI, Fv = 290 PSILVL (2.0E) Fb = 2600 PSI, E = 2000 KSI, Fv = 285 PSI Fb = 2325 PSI, E = 1550 KSI, Fv = 310 PSI LSL (1.55E)

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.

- 39. PREFABRICATED PLYWOOD WEB JOIST DESIGN SHOWN ON PLANS IS BASED ON JOISTS MANUFACTURED BY THE WEYERHAEUSER CORPORATION.
- 40. PREFABRICATED CONNECTOR PLATE WOOD ROOF TRUSSES SHALL BE DESIGNED BY THE MANUFACTURER IN ACCORDANCE WITH THE "NATIONAL DESIGN STANDARD FOR METAL PLATE-CONNECTED WOOD TRUSS CONSTRUCTION, ANSI/TPI 1" BY THE TRUSS PLATE INSTITUTE FOR THE SPANS AND CONDITIONS SHOWN ON THE PLANS. LOADING SHALL BE AS FOLLOWS:

TOP CHORD LIVE LOAD 25 PSF 10 PSF TOP CHORD DEAD LOAD BOTTOM CHORD DEAD LOAD 5 PSF TOTAL LOAD 10 PSF WIND UPLIFT (TOP CHORD) BOTTOM CHORD LIVE LOAD 10 PSF (BOTTOM CHORD LIVE LOAD DOES NOT ACT CONCURRENTLY WITH THE ROOF LIVE LOAD)

WOOD TRUSSES SHALL UTILIZE APPROVED CONNECTOR PLATES (GANGNAIL OR EQUAL) SUBMIT SHOP DRAWINGS AND DESIGN CALCULATIONS TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR REVIEW PRIOR TO FABRICATION. SUBMITTED DOCUMENTS SHALL BE SIGNED AND STAMPED BY A STRUCTURAL ENGINEER REGISTERED IN THE STATE OF WASHINGTON. PROVIDE FOR SHAPES, BEARING POINTS, INTERSECTIONS, HIPS, VALLEYS, ETC., SHOWN ON THE DRAWINGS. EXACT COMPOSITION OF SPECIAL HIP, VALLEY, AND INTERSECTION AREAS (USE OF GIRDER TRUSSES, JACK TRUSSES, STEP-DOWN TRUSSES, ETC.) SHALL BE DETERMINED BY THE MANUFACTURER UNLESS SPECIFICALLY INDICATED ON THE PLANS. PROVIDE ALL TRUSS TO TRUSS AND TRUSS TO GIRDER TRUSS CONNECTION DETAILS AND REQUIRED CONNECTION MATERIALS. PROVIDE FOR ALL TEMPORARY AND PERMANENT TRUSS BRACING AND BRIDGING.

41. PLYWOOD SHEATHING SHALL BE GRADE C-D, EXTERIOR GLUE OR STRUCTURAL EXTERIOR GLUE IN CONFORMANCE WITH DOC PS 1 OR PS 2. ORIENTED STRAND BOARD OF EQUIVALENT THICKNESS, EXPOSURE RATING AND PANEL INDEX MAY BE USED IN LIEU OF PLYWOOD.

ROOF SHEATHING SHALL BE 1/2" (NOMINAL) WITH SPAN RATING 32/16. FLOOR SHEATHING SHALL BE 3/4" (NOMINAL) WITH SPAN RATING 48/24. ACCESSIBLE ROOF SHEATHING SHALL BE 3/4" (NOMINAL) WITH SPAN RATING 48/24. WALL SHEATHING SHALL BE 1/2" (NOMINAL) WITH SPAN RATING 24/0.

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.

REFER TO WOOD FRAMING NOTES BELOW FOR TYPICAL NAILING REQUIREMENTS.

- 42. ALL WOOD IN DIRECT CONTACT WITH CONCRETE SHALL BE PRESSURE-TREATED WITH AN APPROVED PRESERVATIVE OR (2) LAYERS OF ASPHALT IMPREGNATED BUILDING PAPER SHALL BE PROVIDED BETWEEN UNTREATED WOOD AND CONCRETE.
- 43. PRESERVATIVE TREATED WOOD SHALL BE TREATED PER AWPA STANDARD U1 TO THE USE CATEGORY EQUAL TO OR HIGHER THAN THE INTENDED APPLICATION. TREATED WOOD FOR ABOVE GROUND USE SHALL BE TREATED TO AWPA UC3B. WOOD IN CONTINUOUS CONTACT WITH FRESH WATER OR SOIL SHALL BE TREATED TO AWPA UC4A. WOOD FOR USE IN PERMANENT FOUNDATIONS SHALL BE TREATED TO AWPA UC4B.
- 44. FASTENERS AND TIMBER CONNECTORS USED WITH TREATED WOOD SHALL HAVE CORROSION RESISTANCE AS INDICATED IN THE FOLLOWING TABLE. UNLESS OTHERWISE

| WOOD TREATMENT<br>HAS NO AMMONIA CARRIER<br>CONTAINS AMMONIA CARRIER | CONDITION<br>INTERIOR DRY<br>INTERIOR DRY | PROTECTION G90 GALVANIZED G185 OR A185 HOT DIPPED OR CONTINUOUS HOT-GALVANIZED PER ASTM A653 |
|--|---|--|
| CONTAINS AMMONIA CARRIER   | INTERIOR WET                              | TYPE 304 OR 316 STAINLESS  |
| CONTAINS AMMONIA CARRIER   | EXTERIOR                                  | TYPE 304 OR 316 STAINLESS  |
| AZCA   | ANY                                       | TYPE 304 OR 316 STAINLESS  |

INTERIOR DRY CONDITIONS SHALL HAVE WOOD MOISTURE CONTENT LESS THAN 19%. WOOD MOISTURE CONTENT IN OTHER CONDITIONS (INTERIOR WET, EXTERIOR WET, AND EXTERIOR DRY) IS EXPECTED TO EXCEED 19%. CONNECTORS AND THEIR FASTENERS SHALL BE THE SAME MATERIAL. COMPLY WITH THE TREATMENT MANUFACTURERS RECOMMENDATIONS FOR PROTECTION OF METAL.

45. TIMBER CONNECTORS CALLED OUT BY LETTERS AND NUMBERS SHALL BE "STRONG-TIE" BY SIMPSON COMPANY, AS SPECIFIED IN THEIR CATALOG NUMBER C-C-2021 AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

ALL 2X JOISTS SHALL BE CONNECTED TO FLUSH BEAMS WITH "LUS" SERIES JOIST HANGERS, UNO. ALL BEAMS SHALL BE CONNECTED TO FLUSH BEAMS WITH "HU/HUCQ" SERIES JOIST HANGERS, UNO. ALL TJI JOISTS SHALL BE CONNECTED TO FLUSH BEAMS WITH "ITS" SERIES JOIST HANGERS. ALL DOUBLE-JOIST BEAMS SHALL BE CONNECTED TO FLUSH BEAMS WITH "MIT" SERIES JOIST HANGERS.

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

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

| LENGTH | DIAMET  |
|--------|---------|
| 2-1/2" | 0. 131" |
| 3-1/4" | 0. 131" |
|        | 2-1/2"  |

NAILS - PLYWOOD (APA RATED SHEATHING) FASTENERS TO FRAMING SHALL BE DRIVEN FLUSH TO FACE OF SHEATHING WITH NO COUNTERSINKING PERMITTED. TOE-NAILS SHALL BE DRIVEN AT AN ANGLE OF 30 DIGRESS WITH THE MEMBER AND STARTED 1/3 THE LENGTH OF THE NAIL FROM THE MEMBER END.

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 BOLTS SHALL CONFORM TO THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION WITH A LEAD BORE HOLE OF 60 TO 70 PERCENT OF THE SHANK DIAMETER. LEAD HOLES ARE NOT REQUIRED FOR 3/8" AND SMALLER LAG SCREWS.

#### 47. NOTCHES AND HOLES IN WOOD FRAMING:

- A. NOTCHES ON THE ENDS OF SOLID SAWN JOISTS AND RAFTERS SHALL NOT EXCEED ONE-FOURTH THE JOIST DEPTH. NOTCHES IN THE TOP OR BOTTOM OF SOLID SAWN JOISTS SHALL NOT EXCEED ONE-SIXTH THE DEPTH AND SHALL NOT BE LOCATED IN THE MIDDLE THIRD OF THE SPAN. HOLES BORED IN SOLID SAWN JOISTS AND RAFTERS SHALL NOT BE WITHIN 2 INCHES OF THE TOP OR BOTTOM OF THE JOIST AND THE DIAMETER OF ANY SUCH HOLE SHALL NOT EXCEED ONE-THIRD THE DEPTH OF THE JOIST.
- B. IN EXTERIOR WALLS AND BEARING PARTITIONS, ANY WOOD STUD IS PERMITTED TO BE CUT OR NOTCHED TO A DEPTH NOT EXCEEDING 25 PERCENT OF ITS WIDTH. A HOLE NOT GREATER IN DIAMETER THAN 40 PERCENT OF THE STUD WIDTH IS PERMITTED TO BE BORED IN ANY WOOD STUD. IN NO CASE SHALL THE EDGE OF THE BORED HOLE BE NEARER THAN 5/8 INCH TO THE EDGE OF THE STUD. BORED HOLES SHALL NOT BE LOCATED AT THE SAME SECTION OF STUD AS A CUT OR
- C. NOTCHES AND HOLES IN MANUFACTURED LUMBER AND PREFABRICATED PLYWOOD WEB JOISTS SHALL BE PER THE MANUFACTURERS RECOMMENDATIONS UNLESS OTHERWISE NOTED.

48. WOOD FRAMING NOTES--THE FOLLOWING APPLY UNLESS OTHERWISE SHOWN ON THE

- A. ALL WOOD FRAMING DETAILS NOT SHOWN OTHERWISE SHALL BE CONSTRUCTED TO THE MINIMUM STANDARDS OF THE INTERNATIONAL BUILDING CODE, THE AITC "TIMBER CONSTRUCTION MANUAL" AND THE AF&PA "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION". MINIMUM NAILING. UNLESS OTHERWISE NOTED, SHALL CONFORM TO IBC TABLE 2304.10.1. COORDINATE THE SIZE AND LOCATION OF ALL OPENINGS WITH MECHANICAL AND ARCHITECTURAL DRAWINGS.
- B. WALL FRAMING: REFER ARCHITECTURAL DRAWINGS FOR THE SIZE OF ALL WALLS. ALL STUDS SHALL BE SPACED AT 16" O.C. UNO. TWO 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. TWO 2x8 HEADERS SHALL BE PROVIDED OVER ALL OPENINGS NOT OTHERWISE NOTED. SOLID BLOCKING FOR WOOD COLUMNS SHALL BE PROVIDED THROUGH FLOORS TO SUPPORTS BELOW.

ALL WALLS SHALL HAVE A SINGLE BOTTOM PLATE AND A DOUBLE TOP PLATE. END NAIL TOP PLATE TO EACH STUD WITH TWO 16d NAILS, AND TOENAIL OR END NAIL EACH STUD TO BOTTOM PLATE WITH TWO 16d NAILS. FACE NAIL DOUBLE TOP PLATE WITH 16d @ 12" O.C. AND LAP MINIMUM 4'-0" AT JOINTS AND PROVIDE EIGHT 16d NAILS @ 4" O.C. EACH SIDE JOINT.

ALL STUD WALLS SHALL HAVE THEIR LOWER WOOD PLATES ATTACHED TO WOOD FRAMING BELOW WITH TWO ROWS OF 16d NAILS @ 12" ON-CENTER. OR ATTACHED TO CONCRETE BELOW WITH 5/8" DIAMETER ANCHOR BOLTS @ 4'-0" ON-CENTER EMBEDDED 7" MINIMUM, UNLESS INDICATED OTHERWISE. INDIVIDUAL MEMBERS OF BUILT-UP POSTS SHALL BE NAILED TO EACH OTHER WITH TWO ROWS OF 16d @12" ON-CENTER. UNLESS INDICATED OTHERWISE. 1/2" (NOMINAL) APA RATED SHEATHING SHALL BE NAILED TO ALL EXTERIOR SURFACES WITH 8d NAILS @ 6" ON-CENTER AT PANEL EDGES AND TOP AND BOTTOM PLATES (BLOCK UN-SUPPORTED EDGES) AND TO ALL INTERMEDIATE STUDS AND BLOCKING WITH 8d NAILS @ 12" ON-CENTER 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 UNLESS OTHERWISE NOTED. PROVIDE SOLID BLOCKING AT ALL BEARING POINTS. TOE-NAIL JOISTS TO SUPPORTS WITH TWO 16d NAILS. ATTACH TIMBER JOISTS TO FLUSH HEADERS OR BEAMS WITH SIMPSON METAL JOIST HANGERS IN ACCORDANCE WITH NOTES ABOVE. NAIL ALL MULTI JOIST BEAMS TOGETHER WITH TWO ROWS 16d @ 12" ON-CENTER.

UNLESS OTHERWISE NOTED ON THE PLANS, PLYWOOD ROOF AND FLOOR SHEATHING SHALL BE LAID UP WITH GRAIN PERPENDICULAR TO SUPPORTS AND NAILED AT 6" ON-CENTER WITH 8d NAILS TO FRAMED PANEL EDGES, STRUTS AND OVER STUD WALLS AS SHOWN ON PLANS AND @ 12" ON-CENTER 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 16d @ 12" ON-CENTER UNO.

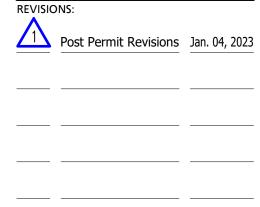
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| DRAWN:    | SJB |
|-----------|-----|
| DESIGN:   | ABB |
| CHECKED:  | ABB |
| APPROVED: | ABB |



Simpson Residence 6454 E Mercer Way Mercer Island, WA 98040

ARCHITECT: Sturman Architects 9- 103rd Ave. NE Suite 203 Bellevue, WA 98004 425.451.7003

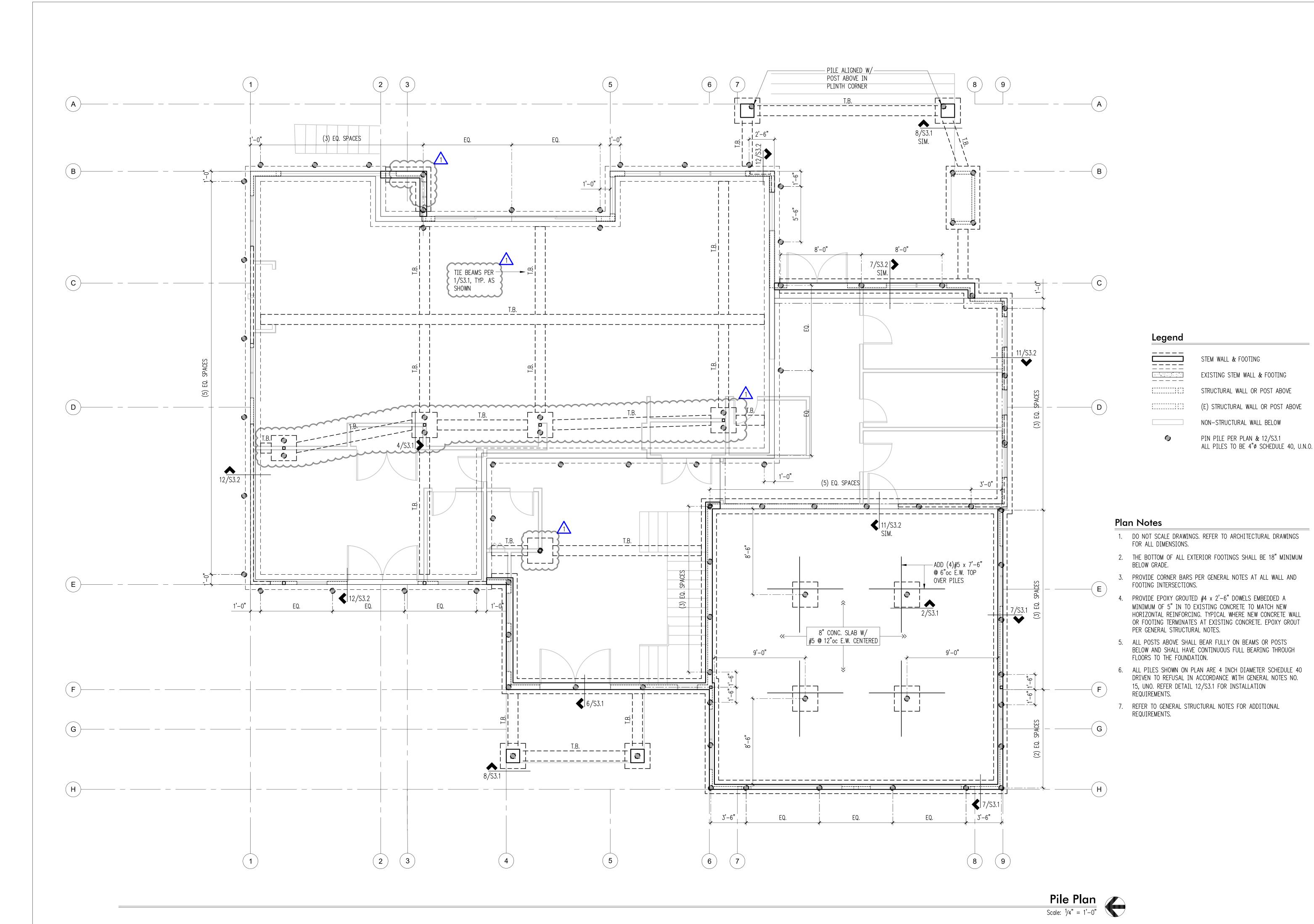
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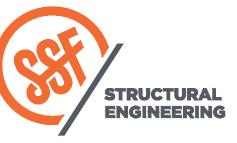
SHEET TITLE: General Structural

Notes

DATE: March 21, 2022 PROJECT NO:

10315-2022-01





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DJECT TITLE:

# Simpson Residence

6454 E Mercer Way Mercer Island, WA 98040

CUITECT:

Sturman Architects
9- 103rd Ave. NE Suite 203
Bellevue, WA 98004
425.451.7003

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Permit

HEET TITLE:

Pile Plan

SCALE:

1/4" = 1'-0"

DATE:

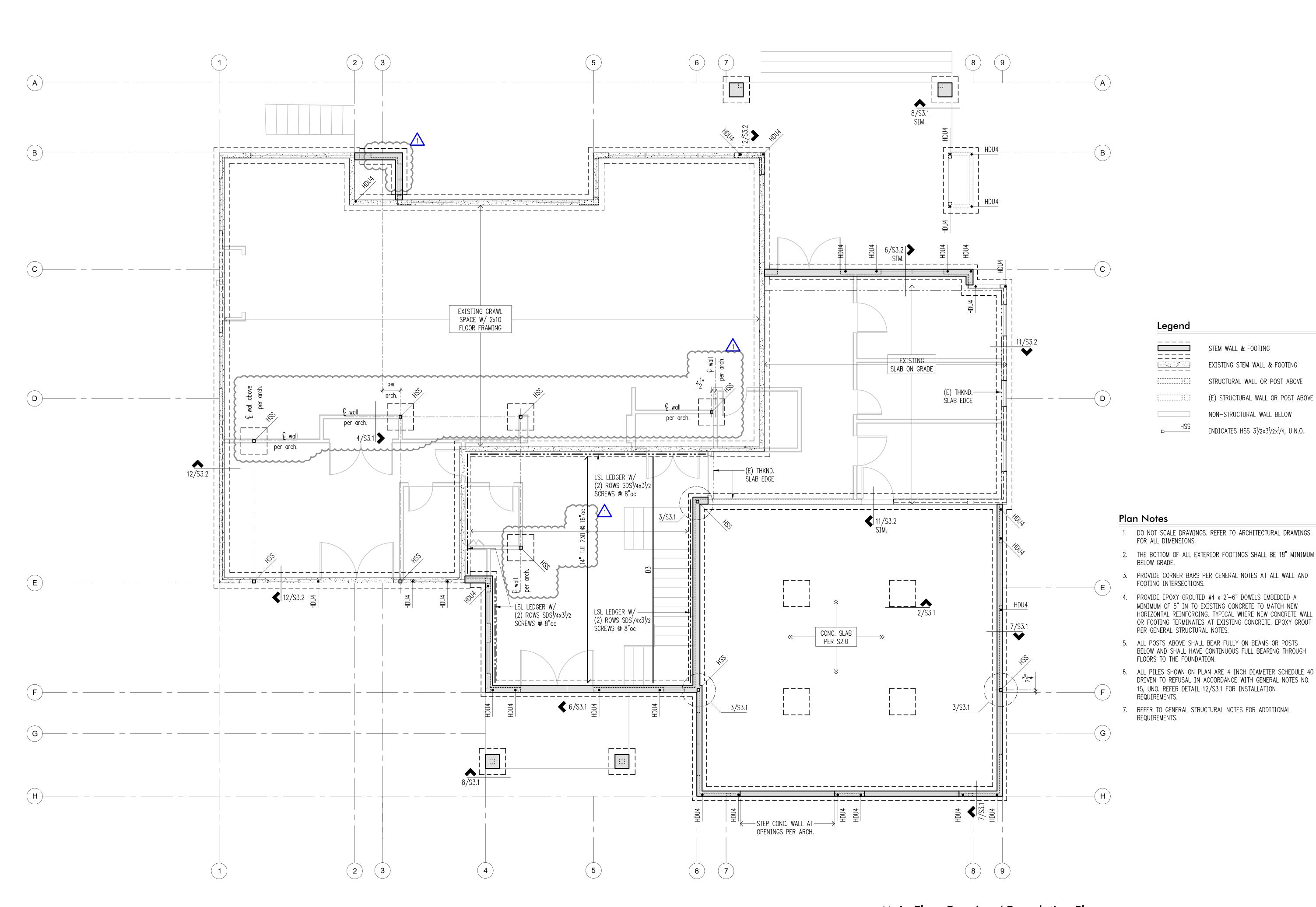
March 21, 2022

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Post Permit Revisions Jan. 04, 2023 JURISDICTIONAL APPROVAL STAMP:

STEM WALL & FOOTING

EXISTING STEM WALL & FOOTING

STRUCTURAL WALL OR POST ABOVE

NON-STRUCTURAL WALL BELOW

INDICATES HSS 31/2x31/2x1/4, U.N.O.

(E) STRUCTURAL WALL OR POST ABOVE

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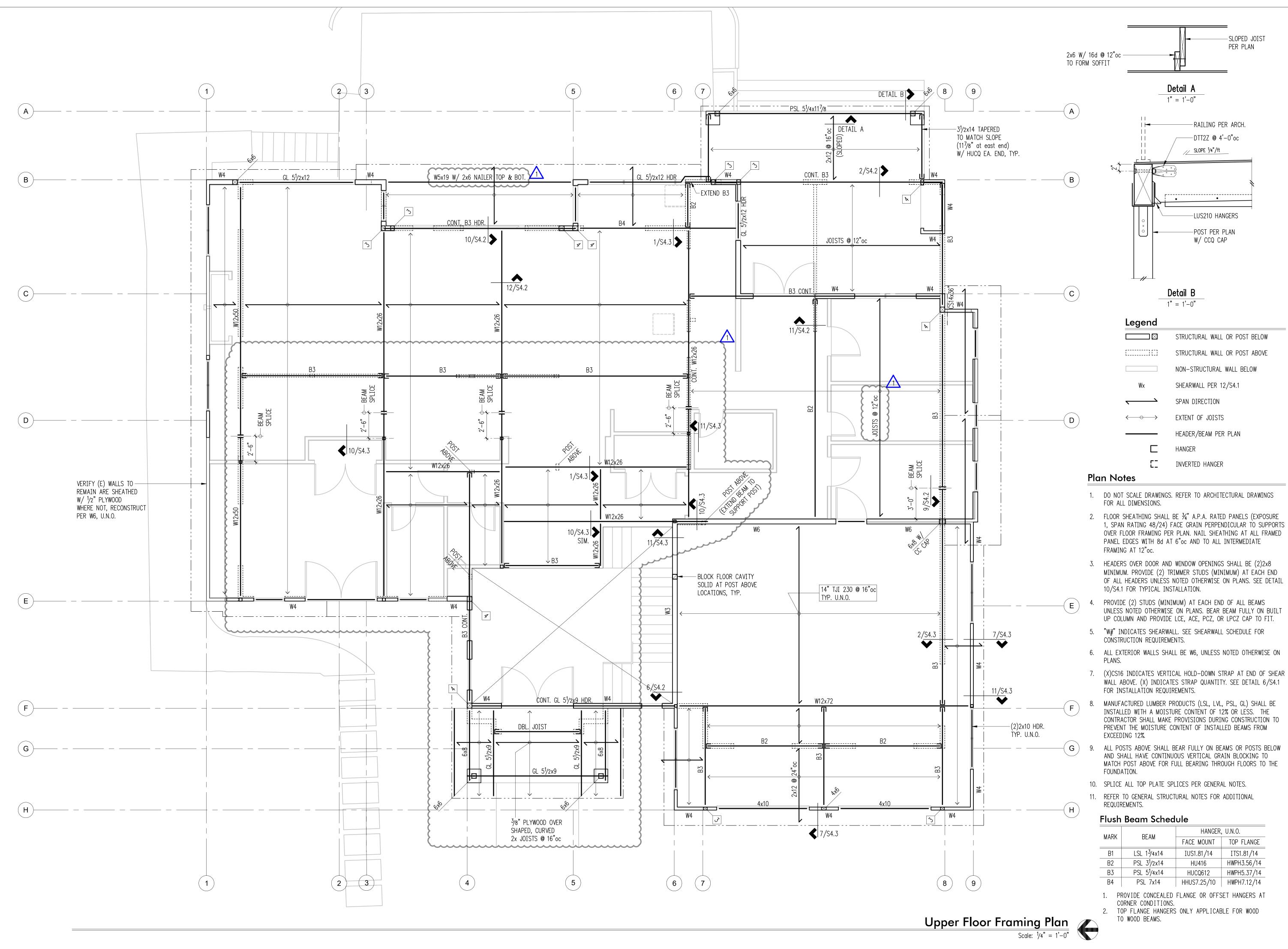
# Permit

Main Floor Framing / Foundation Plan

1/4" = 1'-0" March 21, 2022 PROJECT NO: 10315-2022-01

Main Floor Framing / Foundation Plan

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



**STRUCTURAL ENGINEERING** 

-SLOPED JOIST PER PLAN

- RAILING PER ARCH.

—DTT2Z **@** 4'-0"oc

-LUS210 HANGERS

-POST PER PLAN

W/ CCQ CAP

// SLOPE 1/4"/ft

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Simpson Residence 6454 E Mercer Way

Mercer Island, WA 98040

6. ALL EXTERIOR WALLS SHALL BE W6, UNLESS NOTED OTHERWISE ON

WALL ABOVE. (X) INDICATES STRAP QUANTITY. SEE DETAIL 6/S4.1 FOR INSTALLATION REQUIREMENTS.

MANUFACTURED LUMBER PRODUCTS (LSL, LVL, PSL, GL) 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

- ALL POSTS ABOVE SHALL BEAR FULLY ON BEAMS OR POSTS BELOW AND SHALL HAVE CONTINUOUS VERTICAL GRAIN BLOCKING TO MATCH POST ABOVE FOR FULL BEARING THROUGH FLOORS TO THE
- 10. SPLICE ALL TOP PLATE SPLICES PER GENERAL NOTES.
- 11. REFER TO GENERAL STRUCTURAL NOTES FOR ADDITIONAL

### Flush Beam Schedule

| MARK | BEAM                     | HANGER      | , U.N.O.    |
|------|--------------------------|-------------|-------------|
| WANN | DEAM                     | FACE MOUNT  | TOP FLANGE  |
| B1   | LSL 1 <sup>3</sup> /4x14 | IUS1.81/14  | ITS1.81/14  |
| B2   | PSL 3 <sup>1</sup> /2x14 | HU416       | HWPH3.56/14 |
| В3   | PSL 5 <sup>1</sup> /4x14 | HUCQ612     | HWPH5.37/14 |
| B4   | PSL 7x14                 | HHUS7.25/10 | HWPH7.12/14 |

- 1. PROVIDE CONCEALED FLANGE OR OFFSET HANGERS AT
- 2. TOP FLANGE HANGERS ONLY APPLICABLE FOR WOOD

ARCHITECT:

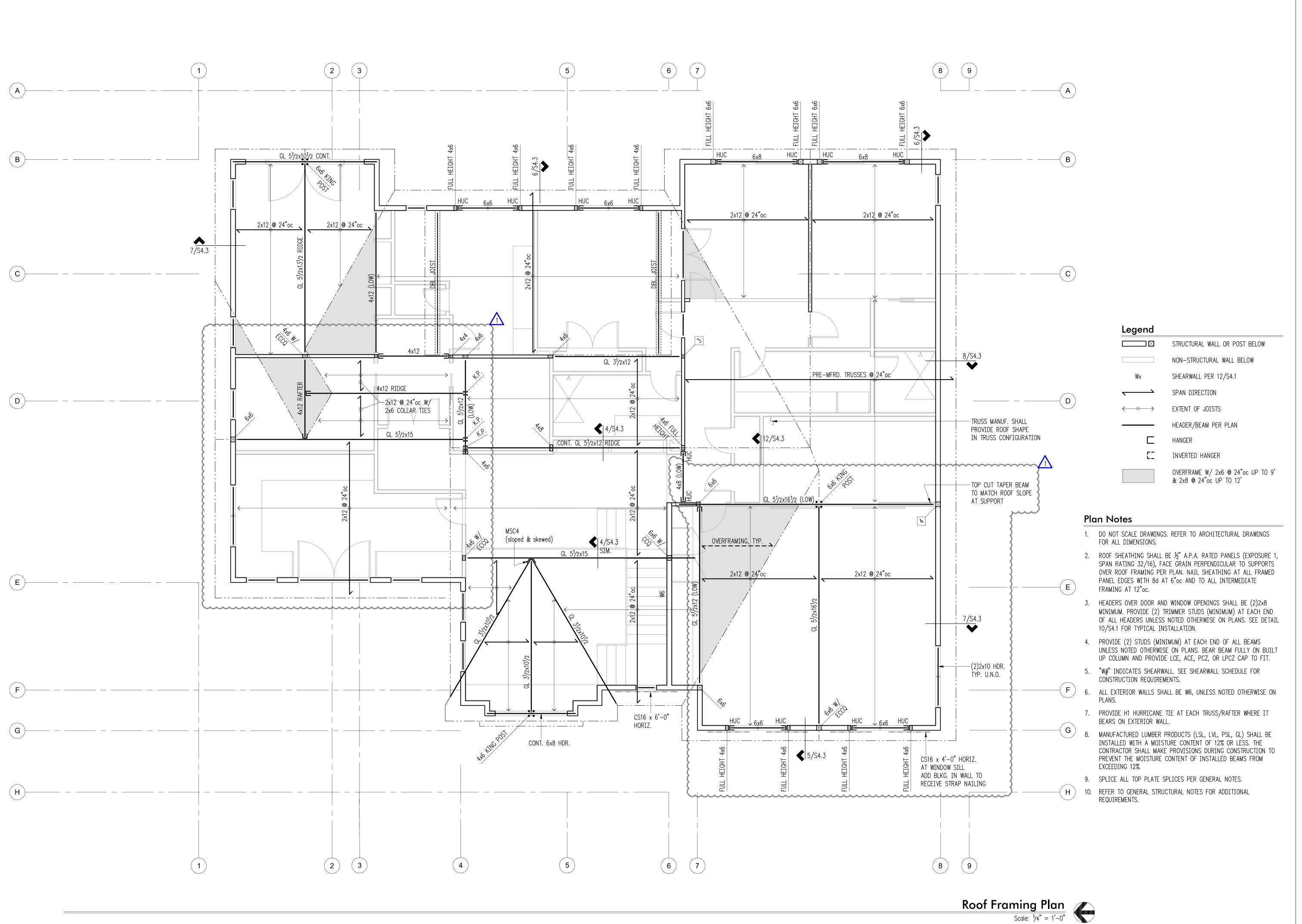
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Permit

**Upper Floor** Framing

Plan 1/4" = 1'-0" March 21, 2022 PROJECT NO:

10315-2022-01 SHEET NO:



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PROJECT TITLE:

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> ■ ITECT:

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SHEET TITLE:

Roof Framing Plan

March 21, 2022

PROJECT NO:

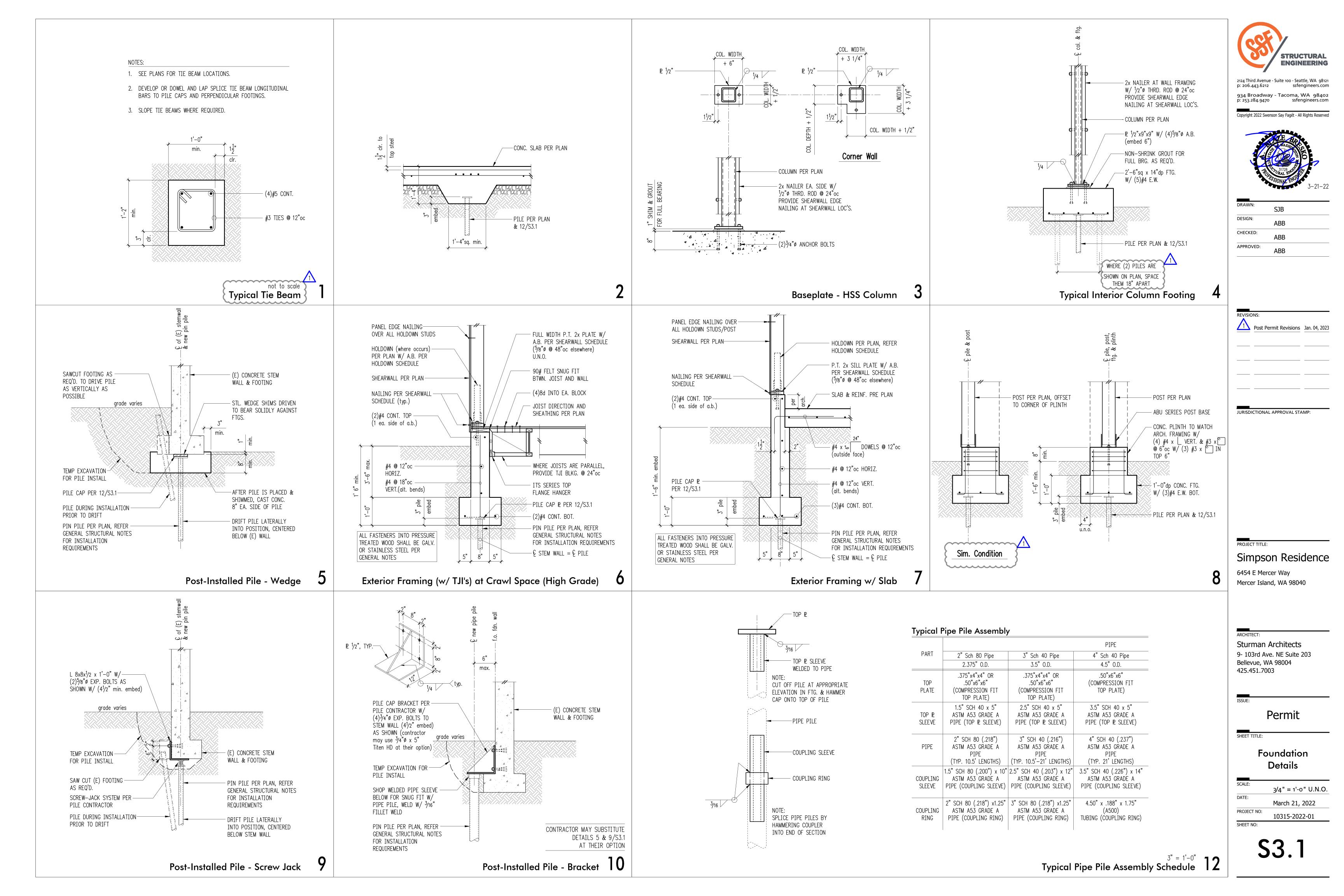
1/4" = 1'-0"

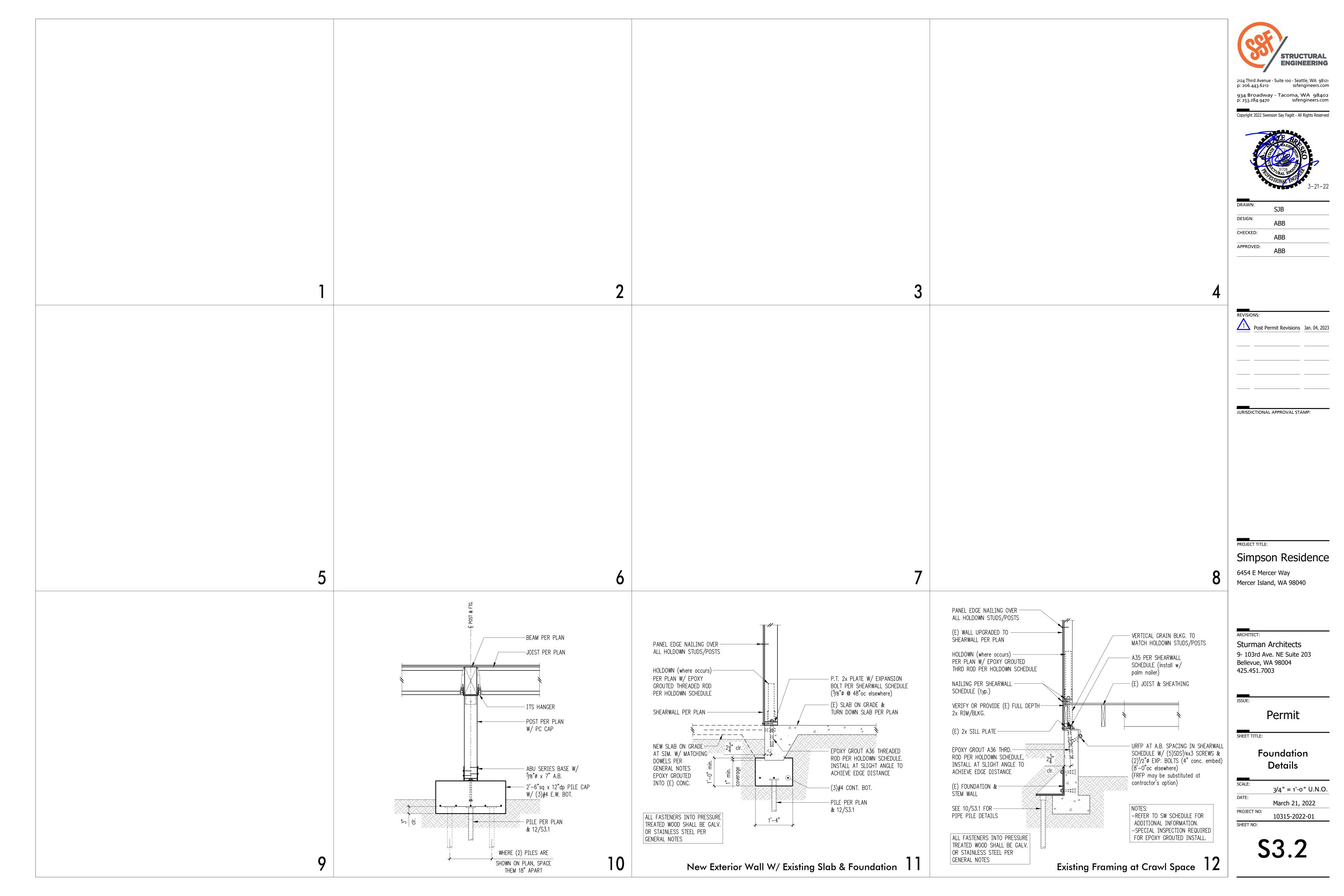
March 21, 2022

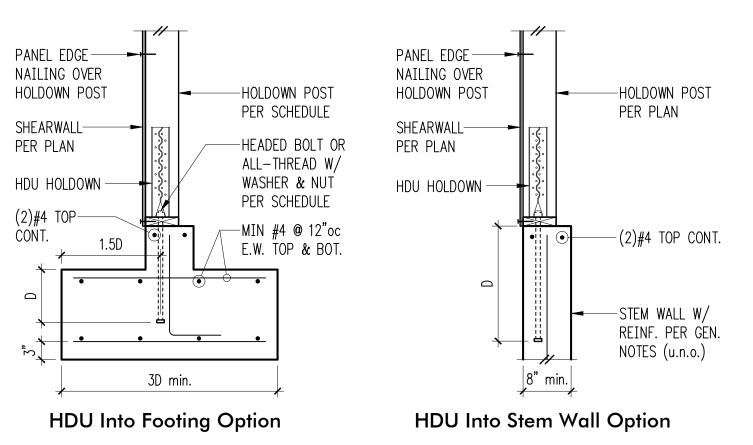
10315-2022-01

SHEET NO:

S2.3



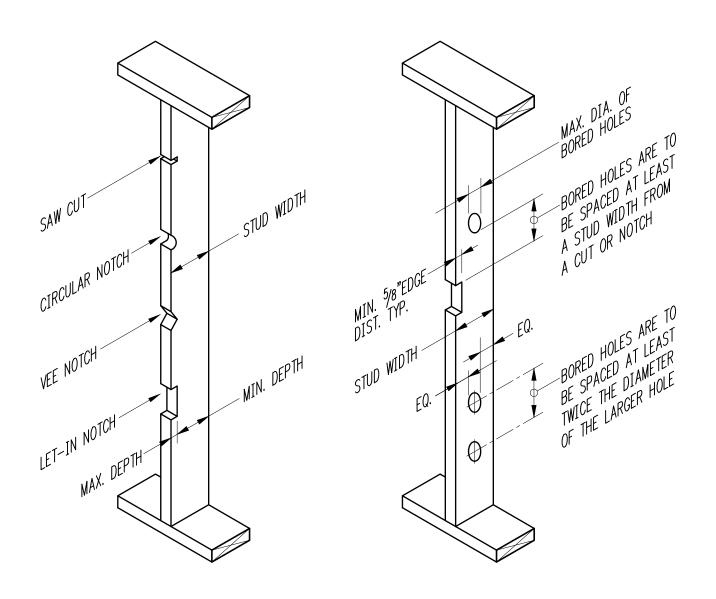




## Holdown Schedule

| Plan Screws  |   | Anchor            | Min. A.B.             | Embed (D) | Holdown Post ① |         |
|--------------|---|-------------------|-----------------------|-----------|----------------|---------|
| Mark         | Screws                                      | Bolt              | Stem Wall             | Footing   | if 2x4         | if 2x6  |
| HDU2-SDS2.5  | (6)SDS <sup>1</sup> /4"x2 <sup>1</sup> /2"  | <sup>5</sup> /8"ø | 12"                   | 4"        | (2) 2x4        | (2) 2x6 |
| HDU4-SDS2.5  | (10)SDS <sup>1</sup> /4"x2 <sup>1</sup> /2" | <sup>5</sup> /8"ø | 18"                   | 6"        | 4x4            | 4x6     |
| HDU5-SDS2.5  | (14)SDS <sup>1</sup> /4"x2 <sup>1</sup> /2" | <sup>5</sup> /8"ø | SB <sup>5</sup> /8x24 | 7"        | 4x4            | 4x6     |
| HDU8-SDS2.5  | (20)SDS <sup>1</sup> /4"x2 <sup>1</sup> /2" | <sup>7</sup> /8"ø | SSTB28                | 8"        | 4x6            | 6x6     |
| HDU11-SDS2.5 | (30)SDS <sup>1</sup> /4"x2 <sup>1</sup> /2" | 1"ø               | SB1x30                | 10"       | 4x8            | 6x6     |
| HDU14-SDS2.5 | (36)SDS <sup>1</sup> /4"x2 <sup>1</sup> /2" | 1"ø               | N/A                   | 12"       | 4x8            | 6x6     |

MINIMUM SIZE OF POST AT END OF WALL UNLESS OTHERWISE NOTED ON FRAMING PLANS.



#### **BEARING WALL STUDS** BEARING WALL STUDS

|                                | 0.000                                     |              |                               | 0.000                                   |
|--------------------------------|---|--------------|-------------------------------|---|
| MAX DEPTH OF<br>E CUT OR NOTCH | MIN DEPTH REMAINING<br>AFTER CUT OR NOTCH | STUD<br>SIZE | MAX DIAMETER<br>OF BORED HOLE | MIN DEPTH REMAINING<br>AFTER BORED HOLE |
| <sup>7</sup> /8"               | 2 <sup>5</sup> /8"                        | 2x4          | 1 <sup>3</sup> /8"            | 5/8" EA SIDE OF HOLE                    |
| 1 <sup>3</sup> /8"             | 4 <sup>1</sup> /8"                        | 2x6          | 2 <sup>3</sup> /16"           | 5/8" EA SIDE OF HOLE                    |
| 13/4"                          | 5 <sup>1</sup> /2"                        | 2x8          | 27/8"                         | 5/8" EA SIDE OF HOLE                    |
|                                |   |              |                               |   |

NOTE: STUDS MAY NOT BE BORED IN EXCESS OF 40% OF THE STUD, IF STUDS ARE DOUBLED, BORINGS MAY BE INCREASED TO 60% OF STUD WIDTH PROVIDED NOT MORE THAN (2) SUCCESSIVE STUDS ARE BORED BORINGS SHALL NOT BE MADE AT THE SAME SECTION WHERE CUT OR NOTCH HAS BEEN MADE.

|            | NON-BEARING V       | VALL STUDS                                |
|------------|---------------------|---|
| JD<br>ZE   |                     | MIN DEPTH REMAINING<br>AFTER CUT OR NOTCH |
| :4         | 1 <sup>3</sup> /8"  | 21/8"                                     |
| 6          | 2 <sup>3</sup> /16" | 3 <sup>3</sup> /8"                        |
| <i>,</i> ی | 27/0"               | 43/g"                                     |

**NON-BEARING WALL STUDS** MIN DEPTH REMAINING AFTER BORED HOLE OF BORED HOLE

5/8" EA SIDE OF HOLE 5/8" EA SIDE OF HOLE 5/8" EA SIDE OF HOLE

STUDS MAY NOT BE BORED IN EXCESS OF 60% OF THE STUD. BORINGS SHALL NOT BE MADE AT THE SAME SECTION WHERE CUT OR NOTCH HAS BEEN MADE.

### **CUTTING AND NOTCHING WOOD STUDS**

DO NOT NOTCH MORE THAN THREE ADJACENT STUDS WITHOUT REVIEW BY ENGINEER.

# BORED HOLES IN WOOD STUDS

BORED HOLE NOT PERMITTED IN MORE THAN THREE ADJACENT STUDS WITHOUT REVIEW BY ENGINEER.

# Typical Holes and Notches in Wood Studs

DESIGN:

CHECKED:

APPROVED:

Post Permit Revisions Jan. 04, 2023

ABB

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JURISDICTIONAL APPROVAL STAMP:

PER SCHEDULE

## Holdown Schedule

HOLDOWN POST

PER SCHEDULE

HDU HOLDOWN

SHEARWALL PER PLAN-

| Plan        | C   | Anchor            | A.B.  | Holdow  | n Post ① |
|-------------|---|-------------------|-------|---------|----------|
| Mark        | Screws                                      | Bolt              | Embed | if 2x4  | if 2x6   |
| HDU2-SDS2.5 | (6)SDS <sup>1</sup> /4"x2 <sup>1</sup> /2"  | <sup>5</sup> /8"ø | 12"   | (2) 2x4 | (2) 2x6  |
| HDU4-SDS2.5 | (10)SDS <sup>1</sup> /4"x2 <sup>1</sup> /2" | <sup>5</sup> /8"ø | 12"   | 4x4     | 4x6      |

MINIMUM SIZE OF POST AT END OF WALL UNLESS OTHERWISE NOTED ON FRAMING PLANS.

-HEADER PER

A35 (at exterior walls only)

OMIT @ HEADERS < 6'-0"

(6)16d –

TYP. STUDS -

PLAN

-LSTA24

Typical HDU Holdown

EDGE NAIL PER

SW SCHEDULE

FRAMING CONT.

WHERE OCCURS

EPOXY EMBED ALL-THREAD

# Holdown Strap Schedule

| Plan                       | End        | #Nails Ea.            | Holdown S   | Studs/Post  |
|----------------------------|------------|-----------------------|---|---|
| Mark                       | Length     | End Length            | if 2x4  | if 2x6  |
| CS16                       | 1'-2"      | (13) 8d               | (1) 2x4   | (1) 2x6   |
| CMST14                     | 2'-6"      | (33) 10d              | 4x6   | 4x6   |
| CMST12                     | 3'-3"      | (43) 10d              | 4x8   | 6x6   |
| ARWALL—PLAN  ENTATION—PLAN | End Length | Schedule Per Schedule | ALL HOL  HOLDOW REFER T  HOLDOW PER SCH  PLYWOOI PER PLA  FULL WI GRAIN E | D SHEATHING<br>AN<br>DTH VERTICAL<br>BLOCKING<br>CH HOLDOWN<br>POST |

Typical Holdown Schedule

TYP. DOUBLE TOP PLATE

BEAM OR HEADER

- PROVIDE (2) BEARING

PER PLAN

STUDS U.O.N.

Typical HDU Holdown

#### -PANEL EDGE NAILING OF SHEARWALL BELOW PROVIDE 4x JOIST OR BLKG.-@ SHEARWALLS ABOVE W/ EDGE (4)8d INTO BLOCKING -NAILING CLOSER THAN 4"oc EA. BLOCK BTWN. JOISTS -JOISTS PER PLAN--(1) JOIST BAY OF TOP PLATE CONNECTION 2x BLKG. @ 48"oc W/ A35'S (2)16d TOE NAILS --(2)16d TOE NAILS -PANEL EDGE NAILING EA. JOIST ÈÁ. BLOCK SHEATHING PANEL JOINT W/ PANEL EDGE NAILING 2x BLOCKING--2x BLOCKING BTWN. STUDS BTWN. STUDS BOTTOM PLATE CONNECTION - PANEL EDGE NAILING Bearing Wall Non-Bearing Wall NOTE: SEE SHEARWALL SCHEDULE FOR ALL NAILING AND CONNECTIONS, NOT OTHERWISE NOTED

Typical Shearwall Construction

at Wood <sup>(1)</sup>

16d **@** 6"oc

(2)rows 16d @ 6"oc

(2)rows 16d @ 6"oc

**Base Plate Connection** 

(2)rows 16d @ 4"oc 1 5/8"ø A.B. @ 16"oc

at Concrete

<sup>5</sup>/8"ø A.B. @ 48"oc

<sup>5</sup>/8"ø A.B. @ 32"oc

<sup>5</sup>/8"ø A.B. @ 24"oc

Simpson Residence

PROJECT TITLE:

6454 E Mercer Way Mercer Island, WA 98040

ARCHITECT: Sturman Architects 9- 103rd Ave. NE Suite 203 Bellevue, WA 98004 425.451.7003

Permit

SHEET TITLE:

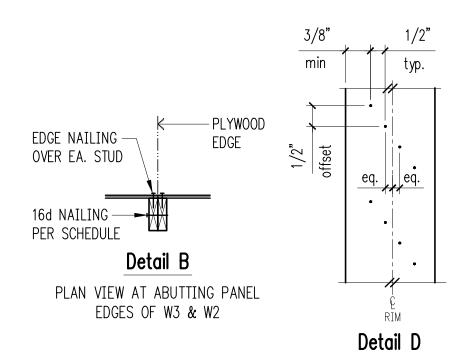
**Typical** Wood **Details** 

3/4" = 1'-0" U.N.O.

March 21, 2022 PROJECT NO: 10315-2022-01

SHEET NO:

#### -16d NAILING SAWN OR MFR. — PER SCHEDULE LUMBER. 2x MIN. SEE NOTES FOR 2x NAILER ADDITIONAL REQUIREMENTS 1/2" MAX. TO EDGE OF 16d NAILING WASHER PER SCHEDULE Detail C Detail A



② 8d NAILS SHALL BE 0.131"ø x 2 1/2" (common) – 16d NAILS SHALL BE 0.135"ø x 3 1/2" (box) ③ EMBED ANCHOR BOLTS AT LEAST 7". DRILLED AND EPOXIED THREADED ROD MAY BE SUBSTITUTED FOR ANCHOR BOLTS WITH 6" EMBEDMENT. ④ 3x STUDS OR DOUBLE STUDS NAILED TOGETHER W/ BASE PLATE NAILING ARE REQUIRED AT ABUTTING PANEL EDGES OF W3 AND W2. ⑤ TWO STUDS MINIMUM ARE REQUIRED AT EACH END OF ALL SHEARWALLS AND ALL END STUDS SHALL RECEIVE PANEL EDGE NAILING. ⑥ ALL EXTERIOR WALLS SHALL BE W6, UNLESS NOTED OTHERWISE.

 $\bigcirc$  7/16" O.S.B. MAY BE SUBSTITUTED FOR 15/32" CDX.

SEE PLANS AND HOLDOWN SCHEDULE FOR ALTERNATE REQUIREMENTS.

- ® LTP4's (HORIZONTAL ORIENTATION) W/8d COMMON MAY BE SUBSTITUTED FOR A35's AT CONTRACTORS OPTION.
- ① A 2x NAILER ATTACHED W/ BASE PLATE NAILING PER DETAIL A MAY BE SUBSTITUTED FOR A35's AT CONTRACTORS OPTION. ① AT MULTI-ROW NAILING, MINIMUM OFFSET BETWEEN ROWS AND ROW SPACING 1/2", SEE DETAIL D.

SEE DETAIL B. WHERE 3x STUDS ARE USED FOR W2, STAGGER NAILS AT ADJOINING PANEL EDGES.

11) PROVIDE (3) ROWS 16d @ 6"oc AT LVL RIMS.

Shearwall Schedule 123567

Sheathing

15/32" CDX PLYWOOD

15/32" CDX PLYWOOD

15/32" CDX PLYWOOD

15/32" CDX PLYWOOD

Mark

W4

W3 (4

Panel Edge

Nailing

8d @ 6"oc

8d @ 4"oc

8d @ 3"oc

**Top Plate Connection** 

if Wood

A35 @ 24"oc

A35 @ 16"oc

A35 @ 12"oc

A35 @ 9"oc

if TJI

16d @ 6"oc

16d **@** 4"oc

(2)rows 16d @ 4"oc

(2)rows 16d @ 4"oc

TITEN HD SCREW ANCHORS MAY BE SUBSTITUTED FOR ANCHOR BOLTS W/4" EMBEDMENT. ALL BOLTS SHALL HAVE 3" x 3" x 1/4" MIN. PLATE

WASHERS. PLATE WASHERS SHALL EXTEND TO WITHIN 1/2" OF THE EDGE OF THE BOTTOM PLATE ON THE SIDE WITH SHEATHING. SEE DETAIL C.

① BLOCK PANEL EDGES WITH 2x MIN. LAID FLAT AND NAIL PANELS TO INTERMEDIATE SUPPORTS WITH 8d @ 12"o.c.

Portal Frame

Shearwall Schedule - (Sheathed One Side) 12

LSTA24 OPPOSITE SHEATHING -(2)ROWS 16d @ 3"oc **→** DOUBLE STUDS 1/2" CDX MIN. -(2)ROWS 8d @ 3"oc SINGLE PORTAL FRAME END -DOUBLE END STUDS CONNECTION STHD14 PER PLAN  $(2)^{5}/8$ " ø A.B. W/ 3"x3"x $^{1}/4$ " PLATE WASHER. USE (1) A.B. -STHD8 @ 16" WALL (3)2x P.T. SILL PLATE NAILED w/(2)ROWS 16d @ 4<sup>1</sup>/2"oc<sup>1</sup>/2" EDGE DISTANCE

FASTEN SHEATHING TO HDR. w/ 8d IN 3" GRID

CONTINUOUS HEADER OVER

SHEARWALL (3"x11<sup>1</sup>/4" net min.)

AS SHOWN

3"CONC. FOUNDATIO WALL PER PLAN

Typical Header Support w/2 Bearing Studs 10

**S4**.1

