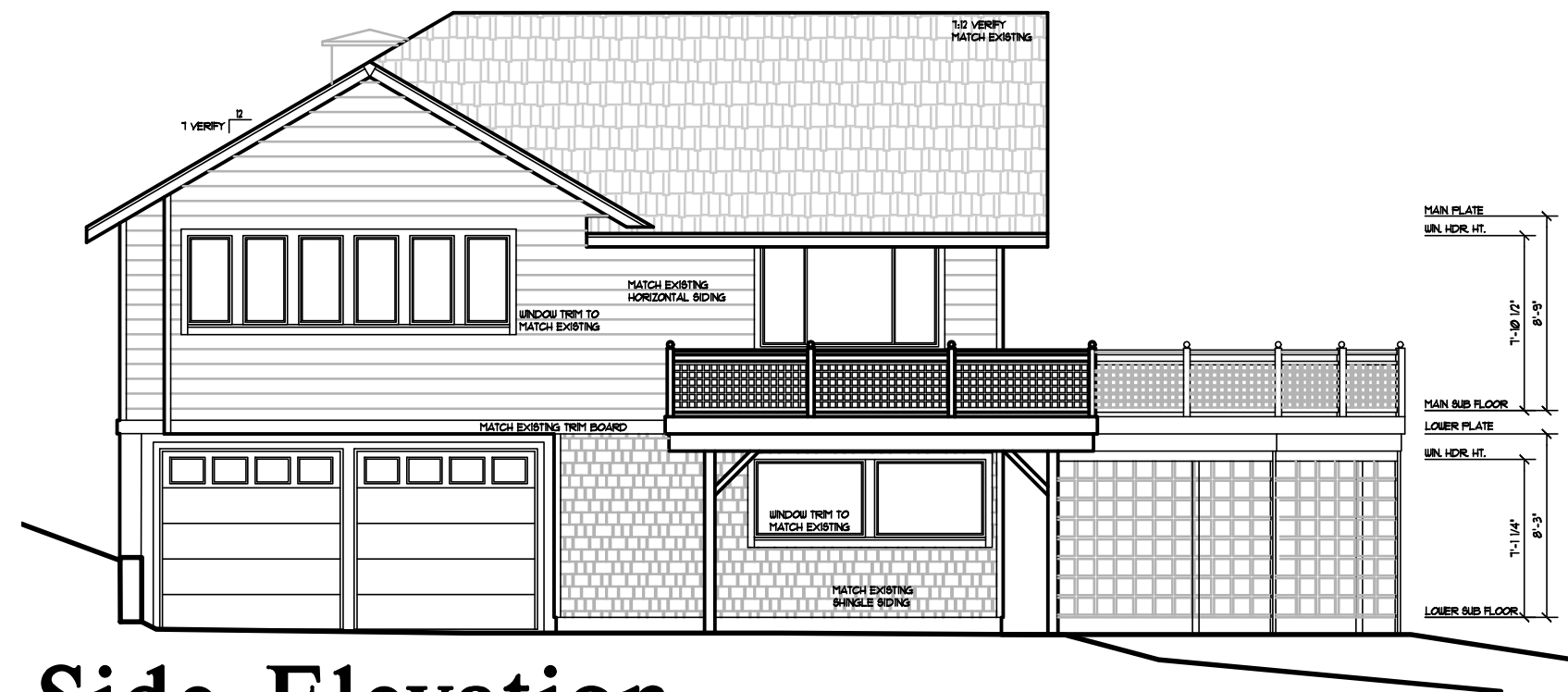
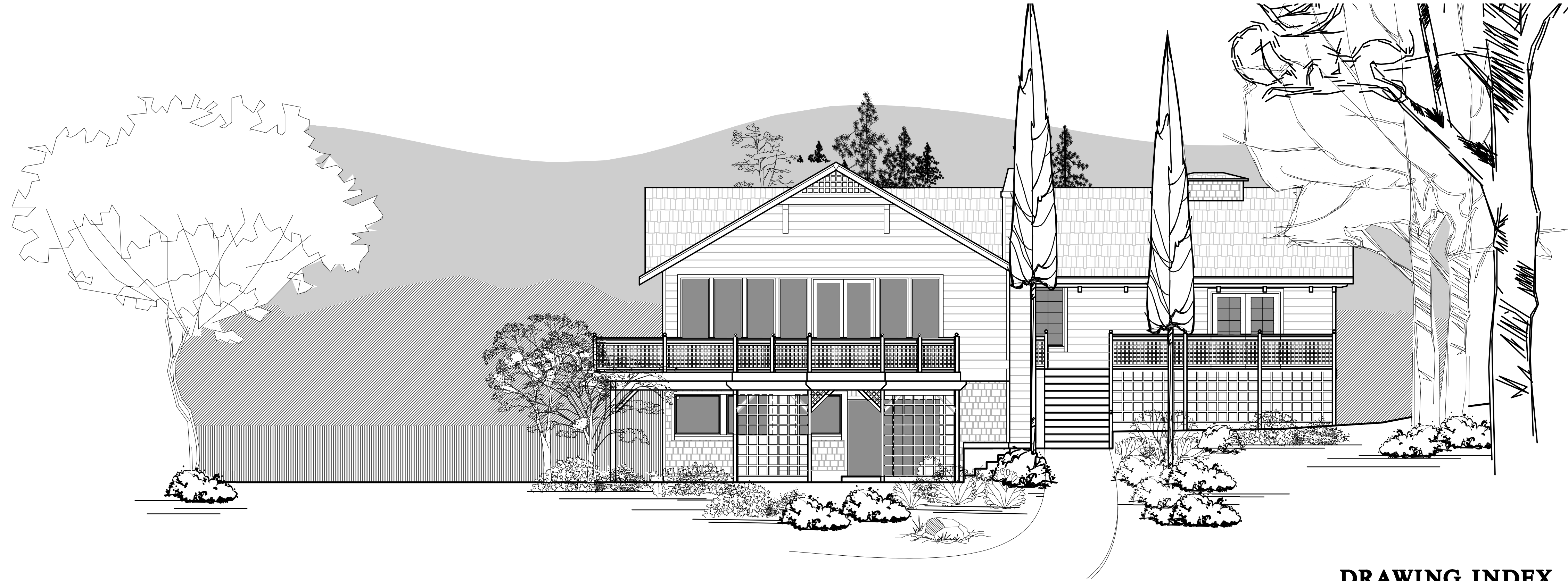




Existing Site Photo



Side Elevation

# Engi & Nabil Attia Attia Remodel

8555 85th Ave SE

Mercer Island WA

### DRAWING INDEX

- A1. CODE NOTES
- A1.1. SITE PLAN SURVEY
- A2.0. FOUNDATION PLAN
- A2.1. LOWER FLOOR PLAN
- A2.2. EXISTING LOWER FLOOR
- A2.3. MAIN FLOOR FRAMING PLAN
- A3. MAIN FLOOR PLAN
- A3.1. EXISTING MAIN FLOOR
- A4. ROOF PLAN
- A5. ELEVATIONS
- A6. BUILDING SECTIONS
- DI. STANDARD DETAILS
- E. WSEC COMPLIANCE
- S0.0. STRUCTURAL NOTES & SCHEDULES
- SD.1. STRUCTURAL DETAILS

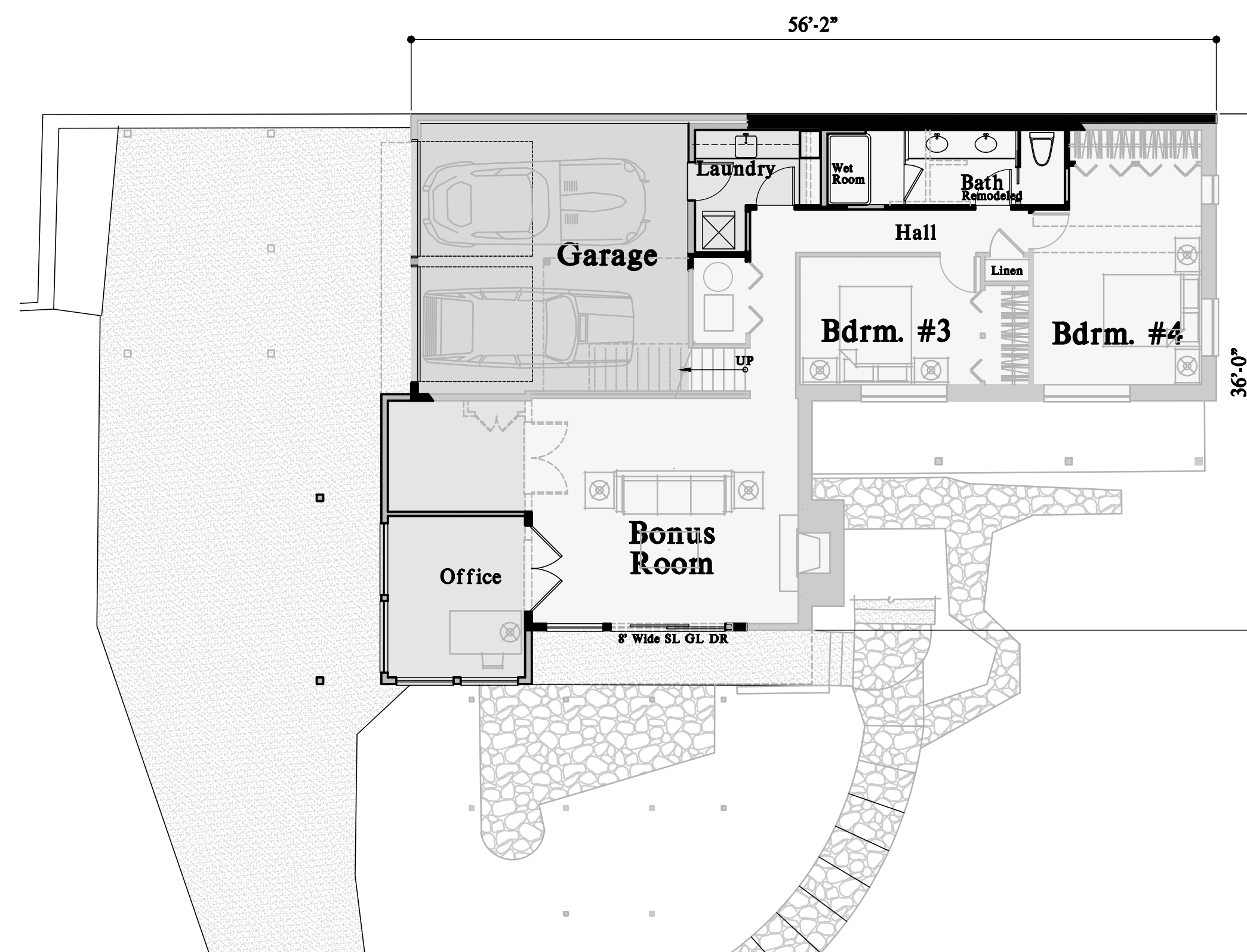
A NFPA 72- Chapter 29 Monitored Fire Alarm System in compliance with NFPA 72 and CoMI standards shall be installed throughout the residence. A separate FIRE permit is required.

### SCOPE OF WORK

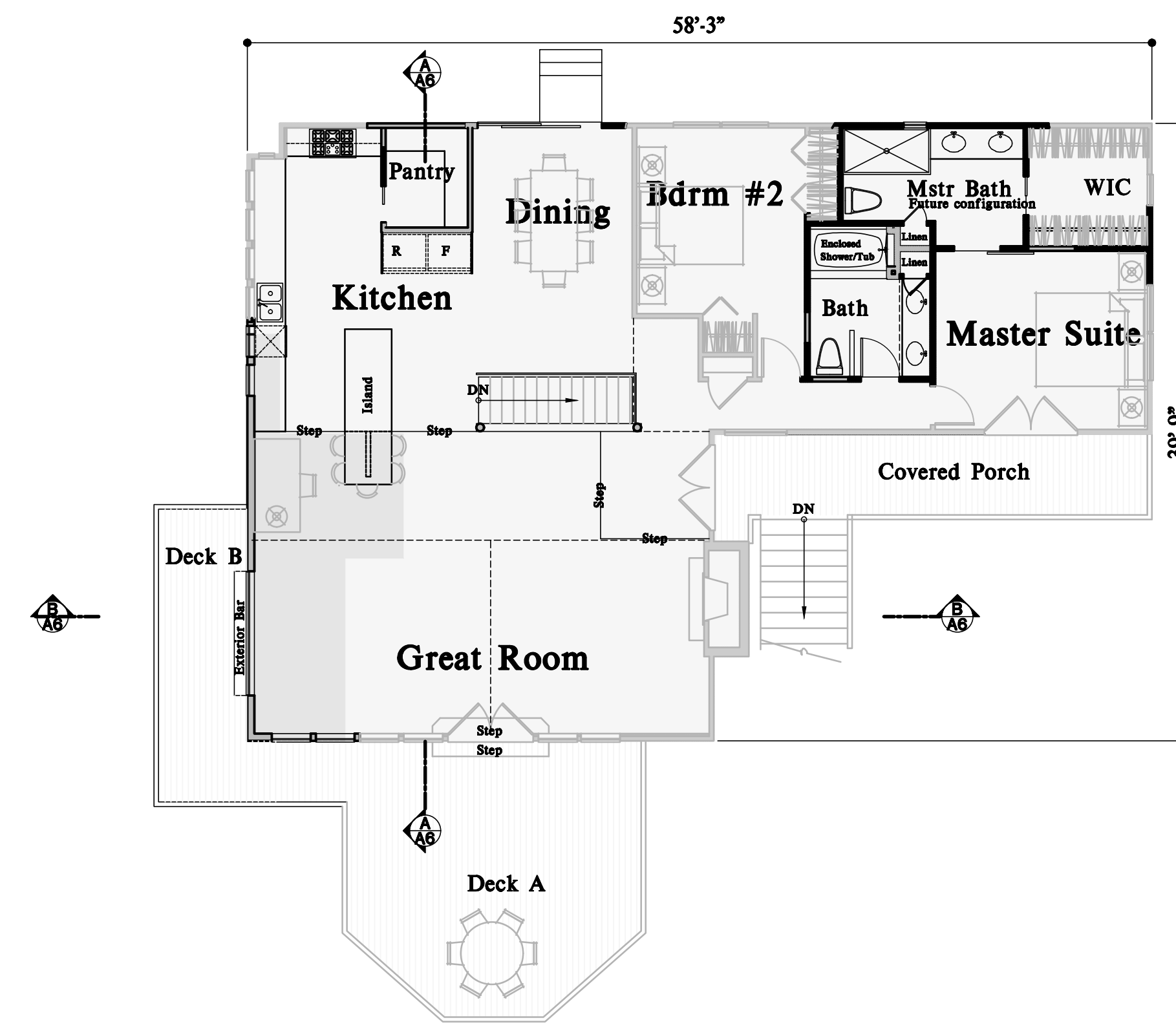
- 1) EXPANSION OF EXISTING GREAT ROOM ON THE MAIN FLOOR ALONG WITH SUPPORTING STRUCTURE LOCATED ON THE LOWER FLOOR.
- 2) RELOCATION OF THE UTILITY ROOM INTO A SEGMENTED PORTION OF THE GARAGE.
- 3) INTERIOR REMODEL OF THE KITCHEN, DINING ROOM, MASTER BATH, HALL BATH AND LOWER FLOOR BATH.
- 4) REMOVAL OF TRELIS AT GARAGE.
- 5) REPAIR/EXPAND PORTION OF DECK B.

### SQUARE FOOTAGE

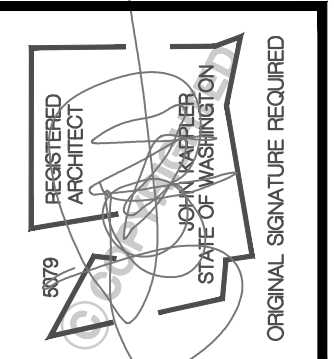
	N/A SF	N/A
UPPER FLR	N/A SF	N/A
MAIN FLR	1,603 SF (+167)	1,770
LOWER FLR	924 SF (+261)	1,185
TOTAL	2,527 SF	2,955
UNFINISHED	N/A SF	N/A
GARAGE	445 SF	379
CVRD PORCH	158 SF	158
DECKS	581 SF	459



Lower Floor Plan



Main Floor Plan



Date	By	Description
5/30/25	ECP	PERMIT SET
8/22/25	ECP	JURISDICTIONAL COMMENTS

Engi & Nabil Attia  
**Attia Remodel**  
Mercer Island WA  
8555 85th Ave SE  
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TITLE
JOB NO.: 24009.03
STARTING NO.: 24009.22

SHEET  
**COVER SHEET**

Division I  
GENERAL REQUIREMENTS

01000 GENERAL

1. This cover sheet has been prepared in a generic outline form following the standards set by the Construction Standards Institute (CSI). It is for the convenience of the Contractor/Owner. This outline is intended to work with a material selection list following the CSI format. Not all items are necessarily required to complete this specific project. Coordinate with Contractor/Owner for complete listing of specifications. Within this cover sheet it will state, Coordinate with material finish selection schedule.

2. These drawings are copyrighted. ARCHITECTURAL INNOVATIONS P.S. retains all rights, ownership and copyright of the design under the federal copyright act. Reproductions of illustrations or working drawings in any form is by authorization of ARCHITECTURAL INNOVATIONS P.S. only.

3. Authorized reproductions must bear the name of ARCHITECTURAL INNOVATIONS P.S.

4. Construction/working drawings by their very nature are diagrammatic and do not purport to show all details or conditions of construction. Questions generally arise to the architectural/design intent and to construction technical detailing within these drawings. As clarifications, interpretations and revisions are all part of the construction process. ARCHITECTURAL INNOVATIONS P.S. therefore shall not be liable for any direct, indirect, or consequential damages as a result of not participating in the construction process.

5. Do not vary or modify the work shown, except with written instruction from ARCHITECTURAL INNOVATIONS P.S. Report discrepancies and/or omissions to the architect immediately.

6. Due to the nature of construction and the building process there will be bidder design and Contractor/Owner selection of the building products, components, and assemblies. This set of working drawings is intended to be a "bidder set" and does not include specifications or building materials list. Therefore it is the Contractor/Owners responsibility to provide and coordinate specifications, including product selection and installation or assembly. ARCHITECTURAL INNOVATIONS P.S. assumes no liability or responsibility for discrepancies or conflicts which occur through Contractor/Owner specified materials and their respective installation. ARCHITECTURAL INNOVATIONS P.S. assumes no liability or responsibility for any items which may be called out or referred to by manufacturer as brand name. Items called out are done so for convenience only.

7. Do not scale these drawings for critical dimensions. Verify all dimensions and datum before commencing work and be responsible for their accuracy. Report discrepancies and/or omissions to the architect immediately.

8. The Contractor/Owner is responsible for coordinating work with all trades to ensure proper and adequate interface of all trade works. The contractor shall be responsible for all required safety precautions and procedures required to do this work.

9. Except as specifically defined otherwise, interpretation for all definitions, abbreviations, and supplemental definitions shall follow accepted referenced standards.

10. All work within this contract shall represent that of industry standards for the respective trades in the location in which the project is built.  
All references to IRC, IBC, and W.S.E.C. are references to the 2021 code updates & WA state Amendments.

01000 MISCELLANEOUS ASSEMBLY REQUIREMENTS

1. Provide crawl space access, minimum 18" x 24" unobstructed access through the floor, 16" x 24" under perimeter walls and below grade access, per IRC section R408.4. Insulate and weather-strip per W.S.E.C. R402.1.4. Allow 1/8" minimum space under wood joists and 1/2" minimum space under wood girders.
2. Provide attic access, minimum 22" x 30" with 30" minimum headroom, at unobstructed readily accessible opening per IRC section R307.1. Insulate and weather-strip per W.S.E.C. R402.1.4. requirements.
3. Provide ventilation per IRC, as follows:
  - A) Crawl space ventilation: Minimum net area shall be not less than 1 sq. ft. per 300 sq. ft. under floor area. Required openings shall be evenly placed to provide cross ventilation of the space except one side of the building shall be permitted to have no ventilation openings per section R402.1.
  - B) Attic ventilation: Minimum net area shall be not less than 1 sq. ft. per 50 sq. ft. of attic area or 1 sq. ft. per 300 sq. ft. of attic area if at least 40 percent, and not more than 50 percent, of the required ventilating area is provided by ventilators located in the upper portion of the space to be ventilated and is no more than 3 feet below the ridge or highest point of the space. The balance of required ventilation to be provided by eave or cornice vents per IRC section R906.2 and W.S.E.C. requirements.
4. Slope all decks, walks, driveways, exterior door landings, and patios away from building. Minimum 1/4" per foot.
5. Provide approved numbers or addresses in such a position as to be plainly visible and legible from the street or road fronting the property per IRC section R301.1.
6. Garage-house separation:
  - A) Garage ceilings separating attic spaces shall be protected with 1/2" Gypsum. When garages are beneath habitable rooms, the ceilings shall be covered with 5/8" type V Gypsum on the garage side. Where the separation is a floor/ceiling assembly, the structure shall be protected with 1/2" Gypsum per IRC Table R307.6.
  - B) Door between garage and house shall be a self-closing solid wood core honeycomb core steel, or 20-minute fire-rated door having a minimum thickness of 1-3/8" per IRC section R307.5.
  - C) Ducts in the garage and ducts penetrating the walls or ceilings separating the dwelling from the garage shall be constructed of a minimum No. 16 gauge sheet steel or other approved material and shall have no openings into the garage per IRC R307.5.2.
  - D) Garage floor shall slope to facilitate the movement of liquids to a drain or toward the main vehicle entry doorway.
7. Stair assembly:
  - A) Minimum headroom height 6'-8" per IRC section R301.2.
  - B) Minimum stair tread depth 10" with a 3/4" minimum width measured above handrail height. Maximum riser height 7-1/4" per IRC sections R301.4 & R301.6.
  - C) Top of handrail shall be 34" minimum and 38" maximum above tread nosing and not less than 1-1/2" from the wall. Return rail ends to wall per IRC section R301.8.
  - D) Install fire blocking between stringers at the top and bottom of each run per IRC section R307.1.
8. Laundry Chutes & Downspout Shafts - provide 5/8" type X Gypsum or 26 gauge sheet metal with lock per IRC section R307.6. Shaft openings shall be self-closing solid core door 1-3/8".
9. Fireblocking shall be provided in wood-frame construction in the following locations:
  - A) In concealed spaces of stud walls and partitions, including furled spaces and parallel rows of studs or staggered studs, as follows:
    1. Vertically at the ceiling and floor levels.
    2. Horizontally at intervals not exceeding 10 feet.
  - B) At all intersections between concealed vertical and horizontal spaces such as occur at soffits, drop ceilings and cover ceilings.
  - C) In concealed spaces between stair stringers at the top and bottom of the run. Enclosed spaces under stairs shall comply with Section R307.1.
  - D) At openings around vents, pipes, ducts, cables and wires at ceiling and floor level, with and approved material to resist the free passage of flame and products of combustion.
  - E) For the fireblocking of chimneys and fireplaces, see Section R1003.0.
  - F) Fireblocking of corridors of a two-family dwelling is required at the line of dwelling unit separation.
10. Fireblocking shall consist of the following materials per IRC R307.3.1.
  1. 2" nominal lumber.
  2. Two thickness of 1" nominal lumber with broken lap joints.
  3. One thickness of 3/4" wood structural panels with joints backed by 3/4" wood structural panels.
  4. One thickness of 3/4" particleboard with joints backed by 3/4" particleboard.
  5. One 1/2" gypsum board.
  6. One 1/2" cementitious board.
  7. Batt or blankets of mineral wool or glass fiber or other approved materials installed in such a manner as to be securely retained in place.
  8. Structural design criteria. These notes are provided for convenience only and do not imply that complete structural analysis has been done on this structure.
    - A) Truss Loading: (UNO) 25pcf
    - Top chord live load: 1pcf
    - Top chord dead load: 1pcf
    - Bottom chord live load: 10pcf without storage
    - 20pcf if limited storage
    - 30pcf if sleeping room

02000 PAVING AND SURFACING

1. Rough grading: 4" below finish grading unless otherwise specified.
  2. Finish grading: Landscaping division 027000.
  3. Excavation, backfilling, and compacting for structure as needed.
  4. Excavation, backfilling, and compacting for pavement as needed.
  5. Hauling and disposal of excavated material as needed.
  6. Importing of material as needed.
  7. Rock removal as needed.
- 02100 SEWAGE AND DRAINAGE
1. Subdrainage systems:
    - A. Foundation drainage 4" SDR 35 or sched. 40 rigid PVC perforated pipe embedded in pea gravel or clean crushed rock and wrapped in filter fabric.
  2. Storm sewage systems:
    - A. Eave and rainwater, gutters, and frames.
      1. Coordinate with materials finish selection schedule.
    - B. Culverts.
      1. Coordinate with materials finish selection schedule.
    - C. Drain pipe: 4" ADS non-perforated light line.
  3. Sanitary sewage systems:
    - A. Sewage collection lines 8" PVC unless cast iron is noted.
  4. Septic system: Per drawings of bidders designer.
- Part 3 - Execution
1. Subdrainage system:
    - A. Slope to drain and around in wall draining material per details.
  2. Surface drainage per IRC section R403.3.

02100 SITE IMPROVEMENTS

1. Irrigation system: Bidder design.
    1. Coordinate with materials finish selection schedule.
  2. Fences and gates:
    1. Coordinate with materials finish selection schedule.
- 02300 LANDSCAPING
1. Planting and care:
    - 1. Coordinate with materials finish selection schedule.

03000 CONCRETE FORMWORK

1. Formwork and bracing for structural cast-in-place concrete shall be by subcontractor and shall conform to the design specification for metal plate connected wood trusses'. Design drawings and details to be available upon request.
2. Roof design: legal loading and bracing shall be by manufacturer.
3. Field alterations of truss must be designed by manufacturer.
4. Fasteners and adhesives: All nails shall be common wire nails for intended purpose per IRC Table R602.3.11. Attach timber joists to flush headers and beams with Simpson 1/2" hanger straps or equal to suit intended purpose. Simpson connectors at other locations as outlined per drawings. Bolt heads, nuts, and cut washers per Division B, Connectors and Fasteners in contact with masonry shall be triple zinc 2MA4 (GBS per ASTM A653) hot dipped galv. steel (ASTM B3 for fasteners), stainless steel, silicone bronze, or copper as required per design.
5. Post to nail footing connection. Provide pressure treated post and positive connection per IRC section R403.6.
6. All exposed glue laminated wood, if not protected by a roof or eave, must be preservative-treated.

03100 CONCRETE REINFORCING

1. Reinforcing steel: Deformed bar sizes and locations per plans and details. Grade 60, Fy = 60ksi per IRC section R404.3.3.1.1. Unless otherwise noted per Engineer.
2. Unadorned fabric: at locations per plans and details: 6x6, W4x14, 40UF.
3. Trusses:
  - A. Prefabricated connector plate wood roof trusses shall be designed and stamped by the manufacturer in accordance with the design specification for metal plate connected wood trusses'. Design drawings and details to be available upon request.
  - B. See "Roof Framing Notes" on drawings.
  - C. Roof design: legal loading and bracing shall be by manufacturer.
  - D. Field alterations of truss must be designed by manufacturer.
4. Fasteners and adhesives: All nails shall be common wire nails for intended purpose per IRC Table R602.3.11. Attach timber joists to flush headers and beams with Simpson 1/2" hanger straps or equal to suit intended purpose. Simpson connectors at other locations as outlined per drawings. Bolt heads, nuts, and cut washers per Division B, Connectors and Fasteners in contact with masonry shall be triple zinc 2MA4 (GBS per ASTM A653) hot dipped galv. steel (ASTM B3 for fasteners), stainless steel, silicone bronze, or copper as required per design.
5. Post to nail footing connection. Provide pressure treated post and positive connection per IRC section R403.6.
6. All exposed glue laminated wood, if not protected by a roof or eave, must be preservative-treated.

03200 CAST-IN-PLACE CONCRETE

1. Structural concrete: Design Fc = 2500 psi min 5-1/2" sacks of cement per cubic yard of concrete and a maximum of 6.0 gallons of water per 94lb sack of cement at 28 days. "Max slump is 4". Segregation of materials to be prevented. Use Fc = 3000 psi concrete at 28 days with air entrainment only for concrete exposed to weather. In accordance with IRC Table R402.2. Special inspection not required unless otherwise per Engineer.
  2. Architectural concrete: for exposed aggregate finish (sawed). Fc = 3000 psi at 28 days, with 3/8" round aggregate.
- 03300 CAST-IN-PLACE CONCRETE (cont.)
1. Admixtures:
    - A. All concrete shall have water reducing admixtures except for footings.
    - B. Air entrainment shall be 5-7% in all concrete exposed to weather. IRC Table R402.2
    - C. Coloring agent:
      1. Coordinate with materials finish selection schedule.
  2. Footings:
    - 1. Footings to be located below the frost line depth 18" (UNO)

04000 MORTAR

1. Prefabricated Fireplaces and Solid Fuel Burning Appliances per IMC and IRC Chapter 101:
  - A) Solid fuel burning appliances include dirt-tight stoves, fireplace stoves, room heaters/fireplace stoves, factory built fireplaces, and fireplace inserts, and all shall comply with the provisions of IMC.
  - B) Metal Chimneys shall be enclosed above the story in which the appliance served is located, in walls having one hour fire resistance rating, and with a space on all sides between chimney and enclosing walls sufficient for expansion and repair for entire chimney. Walls shall be without openings per IMC.
  - C) Provide fireblocking at chimney per IRC section R307.1.
  - D) Install metal fireplace with hearth and surround per manufacturers specifications.
2. Prefabricated fireplaces, chimneys, and related components to bear UL or ICSO seal of approval and be installed per manufacturers requirements.
3. Fireblocking per IRC sections R307.1.

04100 MASONRY ACCESSORIES

1. Corrosion-resistant metal ties per IRC section R103.8.4.
2. Joint reinforcement: Standard strand no. 9 U.S. gauge wire per IRC section R103.8.
3. Execution:
  - 1. Per IRC Chapter 1.

04200 INSULATION

1. Fiberglass:
  - A. Exterior locations: name/qty:
    1. Coordinate with materials finish selection schedule (by others).
  - B. Interior locations: name/qty:
    1. Coordinate with materials finish selection schedule (by others).
  - C. Pavers/plinters: name/qty:
    1. Coordinate with materials finish selection schedule (by others).
2. Concrete masonry units: grade N1 CMU, unless otherwise indicated sizes per drawings.
3. Special units:
  - A. Brick veneer shall be supported on footings, foundation or other non-combustible supports. It shall have 1/2" felt backing and No. 9 gages, non-corrosive ties at 1 per each 2 ft. of veneer. Provide 7" minimum air space between veneer and backing. Provide approved flashing at base of veneer with 3/8" min. round weepholes at 30" o.c. max, located immediately above the flashing, extending from the air space to the exterior. Veneer shall support no load other than its own weight and the vertical dead load of veneer above. Provide angle iron supports at door/lifts, and other openings per R606.10.
4. Exterior locations: name/qty:
  - 1. Coordinate with materials finish selection schedule (by others).
5. Interior locations: name/qty:
  - 1. Coordinate with materials finish selection schedule (by others).

04300 STONE

1. As shown on drawings.
  - A. Exterior locations: name/qty:
    1. Coordinate with materials finish selection schedule (by others).
  - B. Interior locations: name/qty:
    1. Coordinate with materials finish selection schedule (by others).

04400 STONE

1. As shown on drawings.
  - A. Exterior locations: name/qty:
    1. Coordinate with materials finish selection schedule (by others).
  - B. Interior locations: name/qty:
    1. Coordinate with materials finish selection schedule (by others).

04500 METAL FASTENINGS

1. Bolts: Use sizes and shapes per specs, or as needed for intended purposes. Bolts, nuts and cut washers in contact with treated wood to be triple zinc 2MA4 (GBS per ASTM A653) hot-dipped galvanized steel (ASTM B3 for Anchors).

04600 METAL FABRICATION

1. Handrails and guardrails: Provide in sizes and locations as shown per design.

04700 SKYLIGHTS

1. Skylights to conform with IRC section R308.6.
2. Manufacturer: A. Coordinate with materials finish selection schedule (by others).

04800 ROUGH CARPENTRY

1. Framing Lumber: Framing lumber shall be marked in conformance with the United States Dept. of Commerce, Standard Reference No. PS 20 (DOC PS 20) standards. All Kiln dried minimum 15% moisture and naturally: 2x6 and larger: Hem-Fir #1 or better.
  - B. Beams and stringers: (4x and larger): Doug-Fir #1 or better.
  - C. Roof and timbers: Doug-Fir #1.
  - D. Studs, plates, and joist framing: Hem-Fir #1 or better.
  - E. 1" Joists and engineered beams: Per manufacturer.
2. Glue laminated timber:
  - 1. Single span: 24" x 14" DFANJUN
  - 2. Continuous or cantilevered: 24" x 8" DFDFP
3. All other lumber: Hem-Fir Standard or better.
  - A. Plywood: oriented strand board (OSB): APA graded.
  - 1. Wall sheathing: see "TYPICAL BUILDING MATERIALS" list on the draws.
  - 2. Floor sheathing: see "TYPICAL BUILDING MATERIALS" list on the draw.
  - 3. Sill and rafter/stone door: A. Coordinate with materials finish selection schedule (by others).
  - 4. Patio door: A. Coordinate with materials finish selection schedule (by others).
  - 5. Other: A. Coordinate with materials finish selection schedule (by others).

04900 WOOD DOORS (Lower Level, Main Level, Upper Level)

1. Panel wood doors: A. Coordinate with materials finish selection schedule (by others).
2. Flush wood doors: A. Coordinate with materials finish selection schedule (by others).
3. Sillie and rafter/stone door: A. Coordinate with materials finish selection schedule (by others).
4. Patio door: A. Coordinate with materials finish selection schedule (by others).
5. Other: A. Coordinate with materials finish selection schedule (by others).

05000 WOOD/VINYL WINDOWS

1. Note: Egress -
  - A. Every sleeping room shall have at least one operable window with a net clear opening of 5.7 sq. ft. The net clear opening height shall be a minimum of 24", with a minimum net clear width of 20", and a finished sill height of not more than 44" above the floor, per IRC section R308.
  - B. Safety glaze per IRC section R308.
  - C. See plans for egress and operation.
2. Manufactured by:
  - A. Color: 1. Coordinate with materials finish selection schedule (by others).
  - B. Style: 1. Coordinate with materials finish selection schedule (by others).

05100 MARBLE/STONE

1. Type A. Coordinate with materials finish selection schedule (by others).
2. Material and design:
  - 1. Coordinate with materials finish selection schedule (by others).
3. Thresholds: A. Coordinate with materials finish selection schedule (by others).

05200 GLAZING

1. Glass thickness to be determined by size and wind loading per IRC section R308.
2. Safety glaze per IRC section R308.
3. Mirrors to be silvered 1/4" float plate glass.

Division 4  
THERMAL AND MOISTURE PROTECTION

05300 WATER PROOFING & DAMP PROOFING

1. Per IRC section R406.
2. Execution:
  - 1. Per IRC section R406.2

05400 VAPOR AND AIR RETARDER

1. Ground cover: 6 mil polyethylene, black with 1/2" minimum lap.
2. Building wrap: see the "TYPICAL BUILDING MATERIALS" list on the drawings.

05500 INSULATION

1. Fiberglass (or mineral) wool batts, blown mineral wool, and extruded polystyrene:
  - A. Walls: 1. See the "TYPICAL BUILDING MATERIALS" list on the draws.
  - B. Ceiling: 1. See the "TYPICAL BUILDING MATERIALS" list on the draws.
  - C. Floor: 1. See the "TYPICAL BUILDING MATERIALS" list on the draws.
  - D. Sill on grade: R-9 (per W.S.E.C. Table R402.1).
2. Insulating foam: A. Standard sealant foam.

05600 ROOFING MATERIAL

1. Shingles and roofing tiles:
  - A. See the "TYPICAL BUILDING MATERIALS" list on the drawings
  - 2. Membrane roofing: A. 3-ply hot mopped.

05700 SIDING MATERIAL

1. Siding: A. See the "TYPICAL BUILDING MATERIALS" list on the drawings.
2. Trim: A. See the "TYPICAL BUILDING MATERIALS" list on the drawings.
3. Soffits: A. See the "TYPICAL BUILDING MATERIALS" list on the drawings.
4. Other: A. See the "TYPICAL BUILDING MATERIALS" list on the drawings.

05800 FLASHING AND SHEET METAL

1. Flashing against a vertical sidewall shall be by the step-flashing method. The flashing shall be a minimum of 4" high and 4" wide. At the end of the vertical sidewall the step flashing shall be turned out in a manner that directs water away from the wall and onto the roof and/or gutter. Per IRC R903.2.1.

05900 IDENTIFYING DEVICES

1. Building numbers:
  - A. Coordinate with materials finish selection schedule (by others).
2. Gutters:
  - A. Continuous aluminum, precast:
    1. Style: K profile
    2. Color: Match fascia
  - B. Downspouts:
    - A. 2x3 rectangular aluminum precast:
      1. Color: Match fascia & trim
    - B. Tie to 1" drain system.

06000 IDENTIFYING DEVICES

1. Building numbers:
  - A. Coordinate with materials finish selection schedule (by others).
2. Gutters:
  - A. Continuous aluminum, precast:
    1. Style: K profile
    2. Color: Match fascia
  - B. Downspouts:
    - A. 2x3 rectangular aluminum precast:
      1. Color: Match fascia & trim
    - B. Tie to 1" drain system.

06100 IDENTIFYING DEVICES

1. Building numbers:
  - A. Coordinate with materials finish selection schedule (by others).
2. Gutters:
  - A. Continuous aluminum, precast:
    1. Style: K profile
    2. Color: Match fascia
  - B. Downspouts:
    - A. 2x3 rectangular aluminum precast:
      1. Color: Match fascia & trim
    - B. Tie to 1" drain system.

06200 IDENTIFYING DEVICES

1. Building numbers:
  - A. Coordinate with materials finish selection schedule (by others).
2. Gutters:
  - A. Continuous aluminum, precast:
    1. Style: K profile
    2. Color: Match fascia
  - B. Downspouts:
    - A. 2x3 rectangular aluminum precast:
      1. Color: Match fascia & trim
    - B. Tie to 1" drain system.

06300 IDENTIFYING DEVICES

1. Building numbers:
  - A. Coordinate with materials finish selection schedule (by others).
2. Gutters:
  - A. Continuous aluminum, precast:
    1. Style: K profile
    2. Color: Match fascia
  - B. Downspouts:
    - A. 2x3 rectangular aluminum precast:
      1. Color: Match fascia & trim
    - B. Tie to 1" drain system.

06400 IDENTIFYING DEVICES

1. Building numbers:
  - A. Coordinate with materials finish selection schedule (by others).
2. Gutters:
  - A. Continuous aluminum, precast:
    1. Style: K profile
    2. Color: Match fascia
  - B. Downspouts:
    - A. 2x3 rectangular aluminum precast:
      1. Color: Match fascia & trim
    - B. Tie to 1" drain system.

06500 IDENTIFYING DEVICES

1. Building numbers:
  - A. Coordinate with materials finish selection schedule (by others).
2. Gutters:
  - A. Continuous aluminum, precast:
    1. Style: K profile
    2. Color: Match fascia
  - B. Downspouts:
    - A. 2x3 rectangular aluminum precast:
      1. Color: Match fascia & trim
    - B. Tie to 1" drain system.

Division 5  
MECHANICAL

06600 GENERAL

1. Mechanical system to be bidder design.
2. Regulatory requirements:
  - A. Refer to Division I General Requirements.
  - B. See plans for total maximum flow.
3. Heating and cooling equipment shall be sized based on building loads calculated in accordance with ACCA manual J or other approved heating and cooling calculation methodologies. Per M404.3
4. Contractor work out planning and HVAC diagram layout.
  - A. Coordinate with other trades.

06700 PLUMBING

1. Pipes and fittings:
  - A. Provide 1/2" connection in main line in garage by main shut-off valve with separate shut-off and drain valve.
2. Flushing equipment:
  - A. Hot water heater: (Dual in tandem)
  - B. Hot water heater: (Dual in tandem)
  - C. Hose bibb from roof: type "Handshield" units
  - D. Plumbing fixtures: 1. Coordinate with owners material selection (by others).
  - E. Irrigation (bidder design)
  - F. Provide 1/2" connection in main line in garage by main shut-off valve with separate shut-off and drain valve.
  - G. Automatic Sprinkler System: (bidder design)

06800 CARPETING

1. Carpet and Pad:
  - A. Coordinate with materials finish selection schedule (by others).

06900 PAINTING

1. Painting over prepared surface per manufacturer's recommendations
  - A. Coordinate with materials finish selection schedule (by others).

07000 WALL COVERINGS

1. Type A. Coordinate with materials finish selection schedule (by others).

07100 FLOORING

1. Hardwax finish:
  - A. Coordinate with materials finish selection schedule (by others).
2. Carpet:
  - A. Coordinate with materials finish selection schedule (by others).
3. Vinyl:
  - A. Coordinate with materials finish selection schedule (by others).
4. Other:
  - A. Coordinate with materials finish selection schedule (by others).

07200 TOILET AND BATH ACCESSORIES

1. Toilet and bath accessories:
  - A. Coordinate with materials finish selection schedule (by others).

07300 WARDROBE AND CLOSET SPECIALTIES

1. Wardrobe and closet specialties:
  - A. Coordinate with materials finish selection schedule (by others).

07400 IDENTIFYING DEVICES

1. Building numbers:
  - A. Coordinate with materials finish selection schedule (by others).
2. Gutters:
  - A. Continuous aluminum, precast:
    1. Style: K profile
    2. Color: Match fascia
  - B. Downspouts:
    - A. 2x3 rectangular aluminum precast:
      1. Color: Match fascia & trim
    - B. Tie to 1" drain system.

07500 IDENTIFYING DEVICES

1. Building numbers:
  - A. Coordinate with materials finish selection schedule (by others).
2. Gutters:
  - A. Continuous aluminum, precast:
    1. Style: K profile
    2. Color: Match fascia
  - B. Downspouts:
    - A. 2x3 rectangular aluminum precast:
      1. Color: Match fascia & trim
    - B. Tie to 1" drain system.

07600 IDENTIFYING DEVICES

1. Building numbers:
  - A. Coordinate with materials finish selection schedule (by others).
2. Gutters:
  - A. Continuous aluminum, precast:
    1. Style: K profile
    2. Color: Match fascia
  - B. Downspouts:
    - A. 2x3 rectangular aluminum precast:
      1. Color: Match fascia & trim
    - B. Tie to 1" drain system.

07700 IDENTIFYING DEVICES

1. Building numbers:
  - A. Coordinate with materials finish selection schedule (by others).
2. Gutters:
  - A. Continuous aluminum, precast:
    1. Style: K profile
    2. Color: Match fascia
  - B. Downspouts:
    - A. 2x3 rectangular aluminum precast:
      1. Color: Match fascia & trim
    - B. Tie to 1" drain system.

07800 IDENTIFYING DEVICES

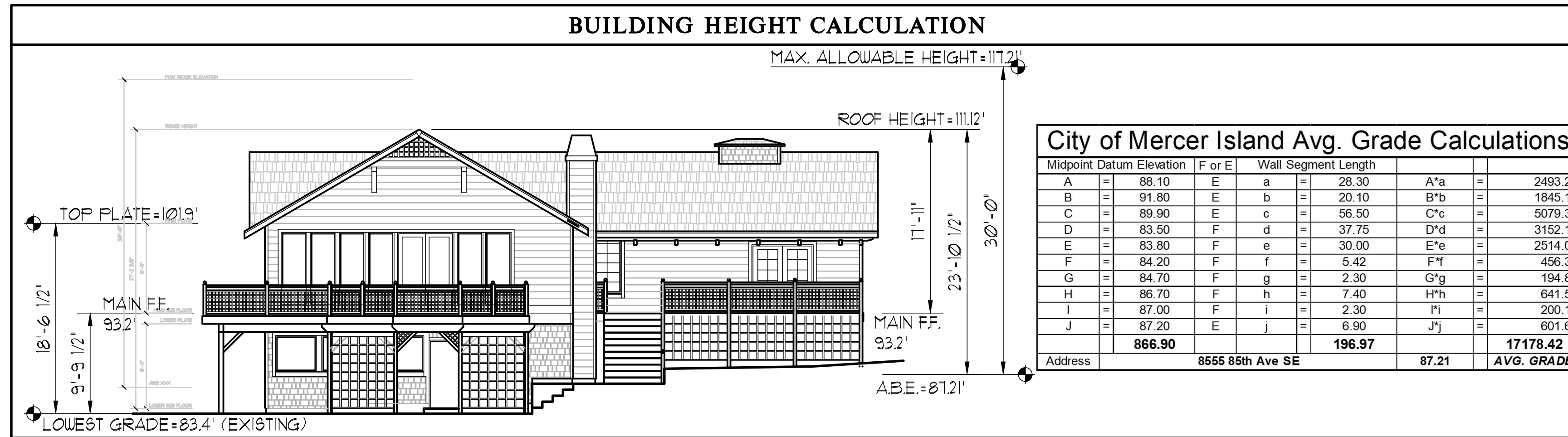
1. Building numbers:
  - A. Coordinate with materials finish selection schedule (by others).
2. Gutters:
  - A. Continuous aluminum, precast:
    1. Style: K profile
    2. Color: Match fascia
  - B. Downspouts:
    - A. 2x3 rectangular aluminum precast:
      1. Color: Match fascia & trim
    - B. Tie to 1" drain system.

Division 6  
ELECTRICAL

08000 GENERAL

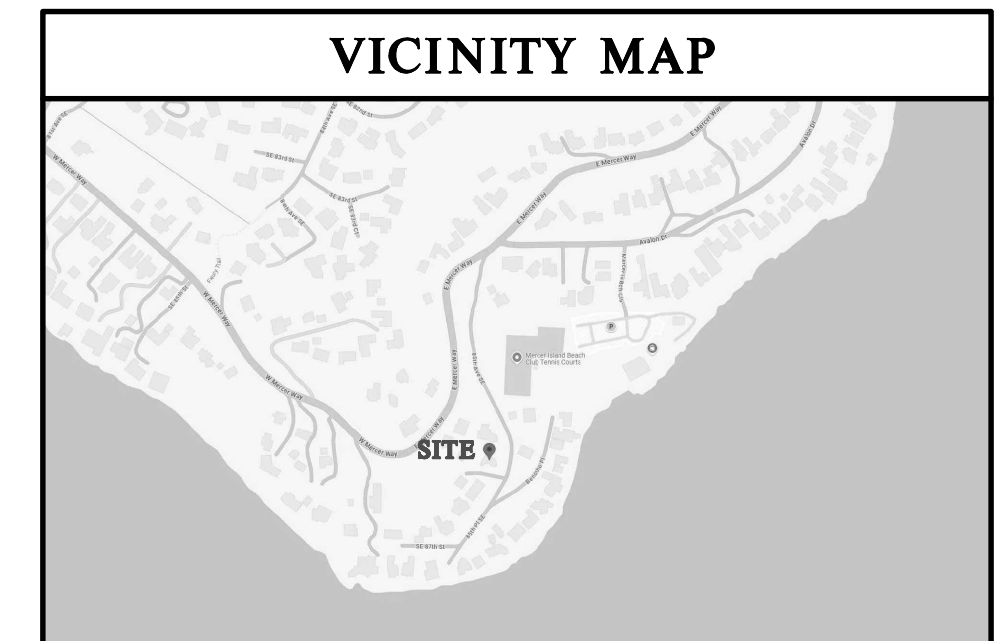
1. Electrical systems to be bidder designed.
2. Regulatory requirements: refer to Division I - General Requirements.
3. Contractor to provide electrical diagramming layouts, design circuitry, follow lighting plan if provided.
  - A. Coordinate with other trades.

081



### City of Mercer Island GFA Calculations

Lower Level Area Calculation				Lot Size =	9,467 SF x 40% =	3,786 SF
Wall	Length	Percentage	Finish or Bracing	Result		
A	28.3	55.0%	E	15.6	Main Floor	1770
b	20.1	75.0%	E	15.1	Garage	379
c	56.5	80.0%	F	45.2	Upper Floor	0
d	37.75	100.0%	E	37.8	Lower Floor	224 (1185-961) EXCLUDED
e	30	100.0%	E	30.0		
F	5.42	95.0%	E	5.1		
G	2.3	70.0%	E	1.6		
H	7.4	60.0%	E	4.4		
I	2.3	56.0%	E	1.3		
J	6.9	55.0%	E	3.8		
				<b>158.8</b>		
Total Average Result				<b>0.8</b>		
Flr				<b>Sq Ft</b>	<b>Result</b>	<b>Excluded Area</b>
				<b>1185</b>	<b>0.8116566</b>	<b>961.813068</b>



### SITE INFO

**STREET ADDRESSES:**  
8555 85th Ave SE

**PARCEL NUMBER:**  
073610-0041

**LEGAL DESCRIPTION:**  
LOT A OF CITY OF MERCER ISLAND SHORT PLAT NUMBER M1-78-4-013. RECORDED UNDER RECORDING NUMBER 7808300689 IN KING COUNTY, WASHINGTON

### ZONING

**ZONING:** R-84  
**SINGLE FAMILY RESIDENTIAL SETBACKS PER 1902.020**  
FRONT YARD - 20.0'  
REAR YARD - 25.0'  
SIDE YARD - 16.62' COMBINED / 5.58' MINIMUM (LOT LENGTH 97.75' x 178' = 16.62' x 33% = 5.58')

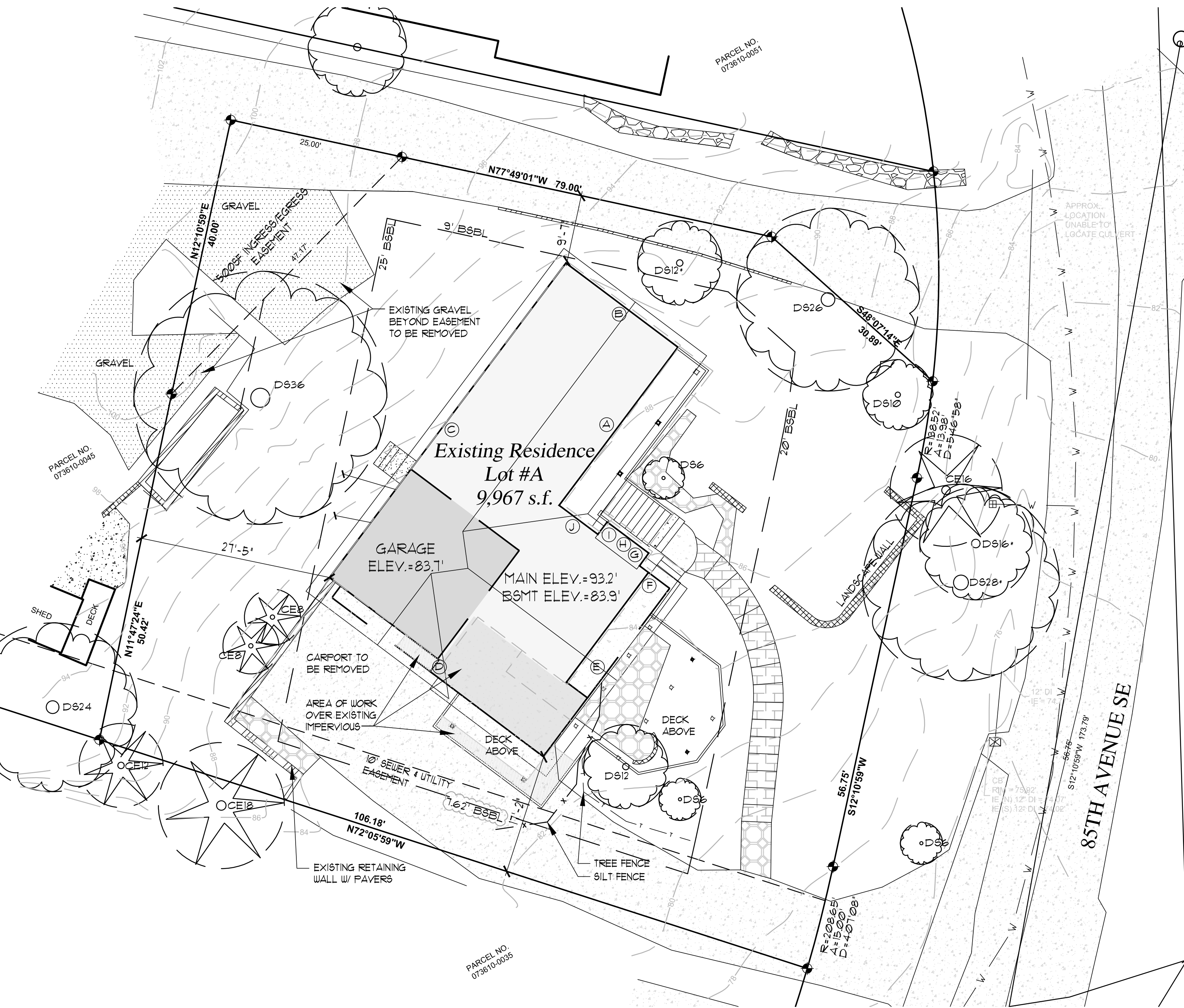
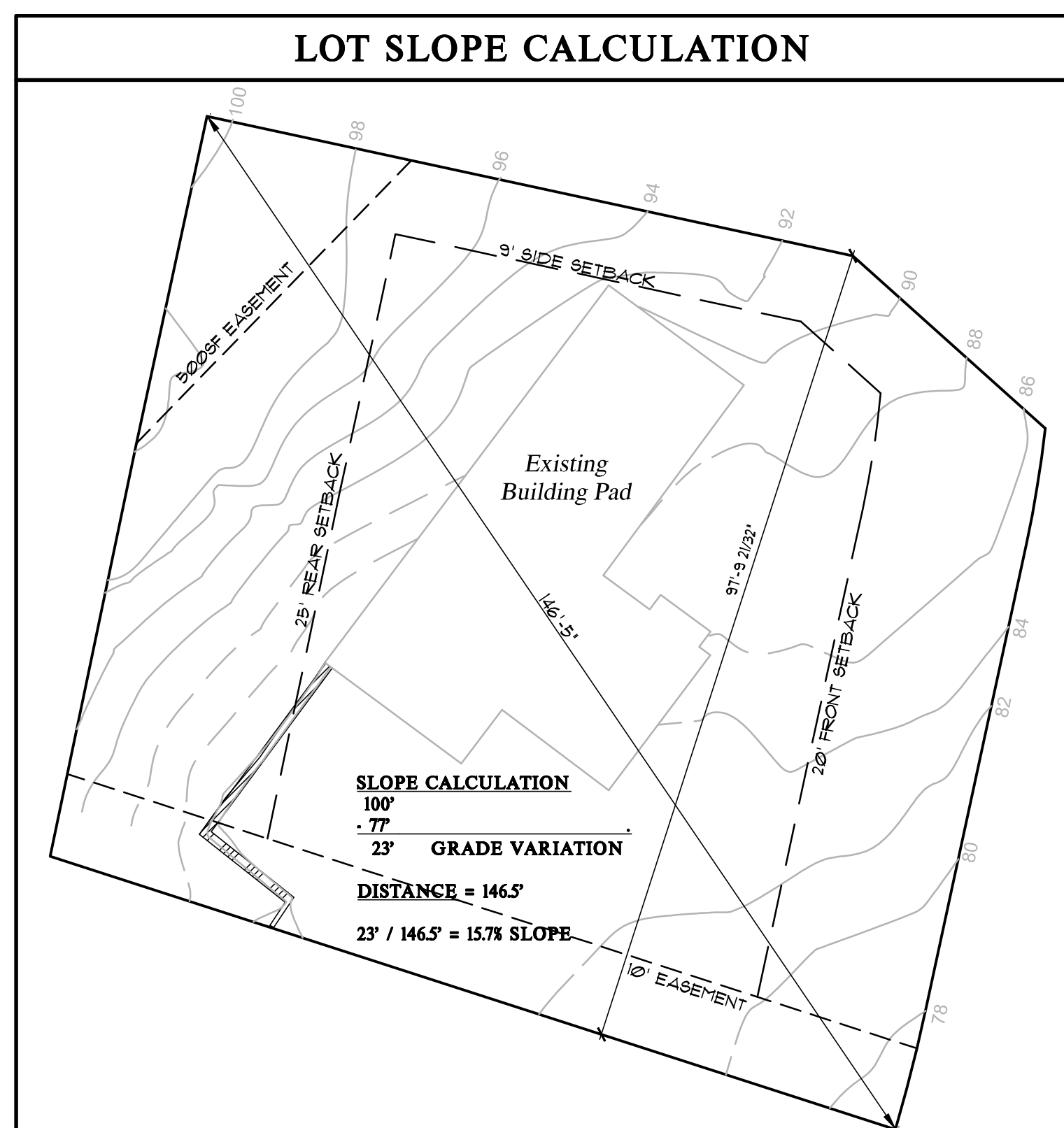
**LOT COVERAGE**  
35% - LOT SLOPE IS GREATER THAN 15%

**REQUIRED LANDSCAPE AREA**  
65% - LOT SLOPE IS GREATER THAN 15%

**HARDSCAPE COVERAGE**  
9%

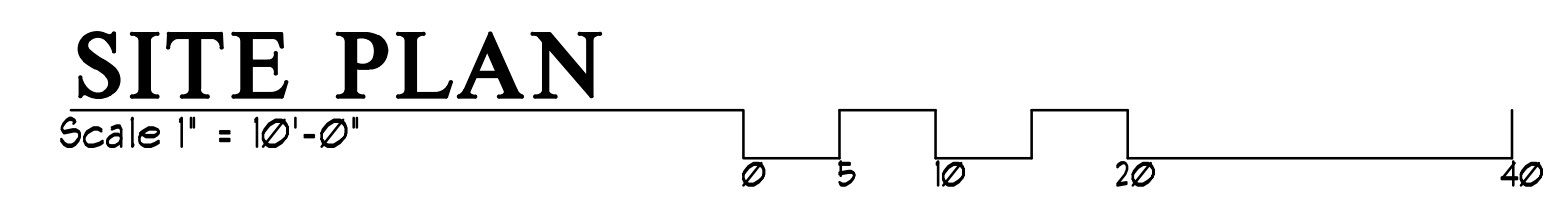
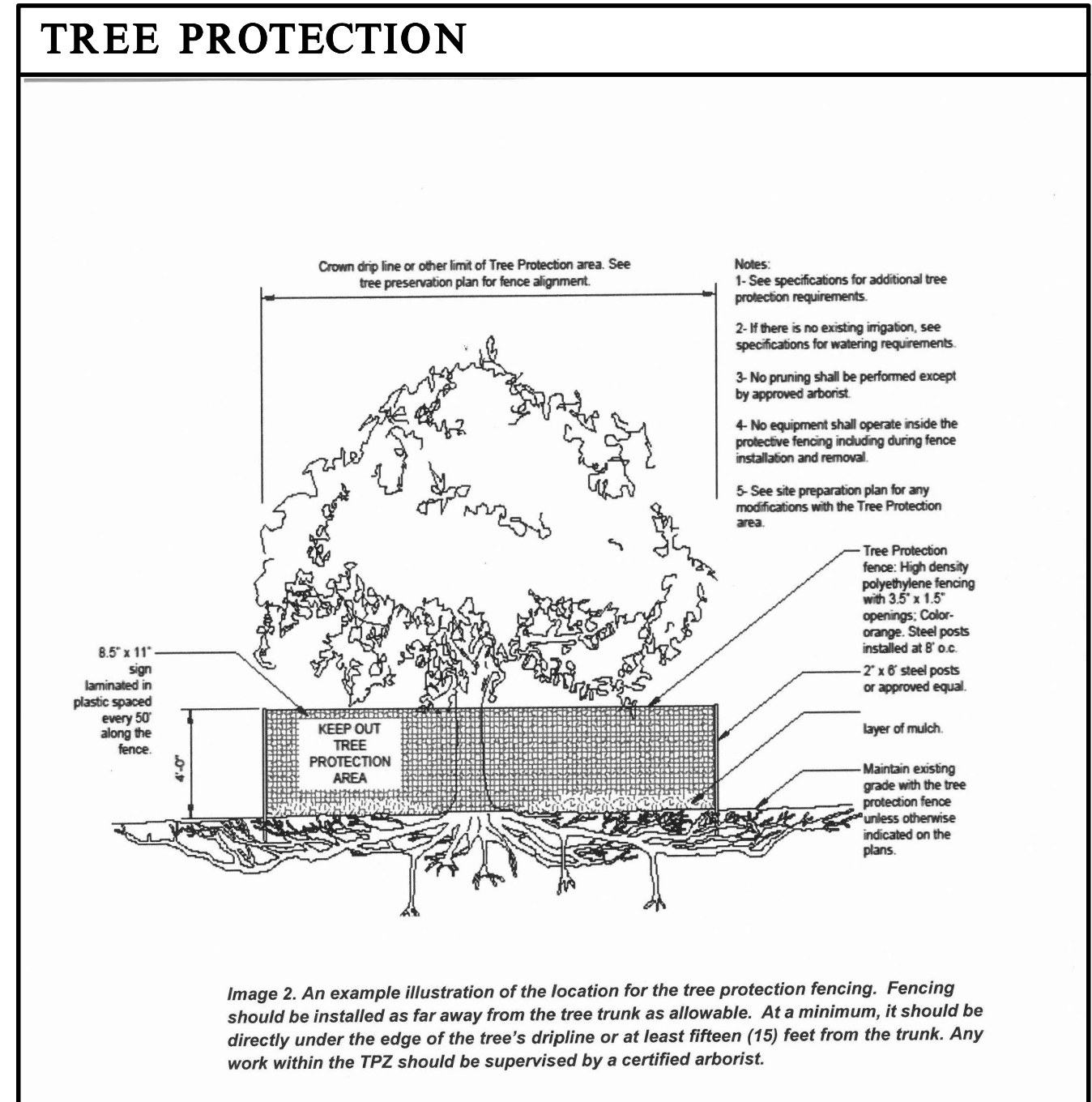
**ALLOWED GFA**  
40%

**ALLOWABLE BUILDING HEIGHT**  
30' ABOVE AVERAGE BUILDING ELEVATION TO TOP OF STRUCTURE  
30' ABOVE LOWEST GRADE TO TOP OF WALL



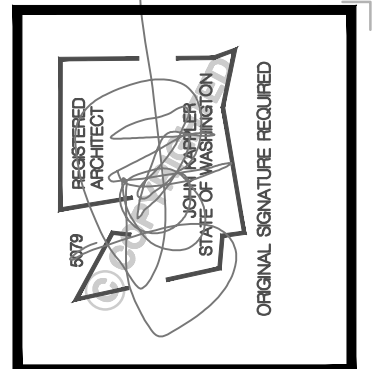
### SITE CALCULATIONS

9,967 SF	GROSS LOT AREA
9,967 SF	GROSS LOT AREA
500 SF	INGRESS/EGRESS EASEMENT
9,467 SF	NET LOT AREA
9,467 SF	NET LOT AREA
3,786.8 SF	ALLOWABLE IMPERVIOUS COVERAGE
2,251.3 SF	HOUSE ROOF/DECK/PORCH (includes gutters)
1,025.8 SF	DRIVEWAY (access easement)
287.5 SF	DRIVEWAY (excludes area under eaves)
3,564.6 SF / 37.6%	TOTAL LOT COVERAGE
9,467 SF	NET LOT AREA
9%	ALLOWABLE HARDSCAPE COVERAGE
852.03 SF	ALLOWABLE HARDSCAPE COVERAGE
370.9 SF	WALKWAY (excludes portion u/ eaves)
294 SF	DECK / PATIO UNDER (excludes portion u/ eaves)
84 SF	RETAINING WALL & PAVERS
378 SF	LANDSCAPE WALL
11 SF	NEW REAR STEPS (excludes portion u/ eaves)
797.7 SF/8.4%	TOTAL HARDSCAPE COVERAGE
1354 SF	GRAVEL DRIVE (beyond 500ft easement)
24.8 SF	GRAVEL DRIVE (beyond 500ft easement)
160.2 SF	NEIGHBOR HARDSCAPE TO BE REMOVED



### LEGEND

— w — w	DESIGNATES WATER
— s — s	DESIGNATES SEWER
— SD — SD	DESIGNATES STORM
---	DESIGNATES EXISTING GRADE
---	DESIGNATES FINISHED GRADE
---	DESIGNATES TREE DRIPLINE
---	DESIGNATES TREE FENCING
---	DESIGNATES EXISTING WOOD FENCE
---	EXISTING FENCE TO BE REMOVED



Date	By	Description
2/20/25	ECP	PERMIT SET
2/19/25	ECP	JURISDICTIONAL COMMENTS

**Engi & Nabil Attia**  
**Attia Remodel**  
Mercer Island WA  
8555 85th Ave SE  
P: 206-888-4517  
www.attiar remodel.com

**ARCHITECTURAL INNOVATIONS, P.S.**  
Forward Thinking Design Solutions For Your Environment  
14311 SE 94th St.  
Bellevue, WA 98007  
P: 800-888-4517  
www.attiar remodel.com

TITLE

JOB NO.: 2400914  
STARTING NO.: 2104814

SHEET

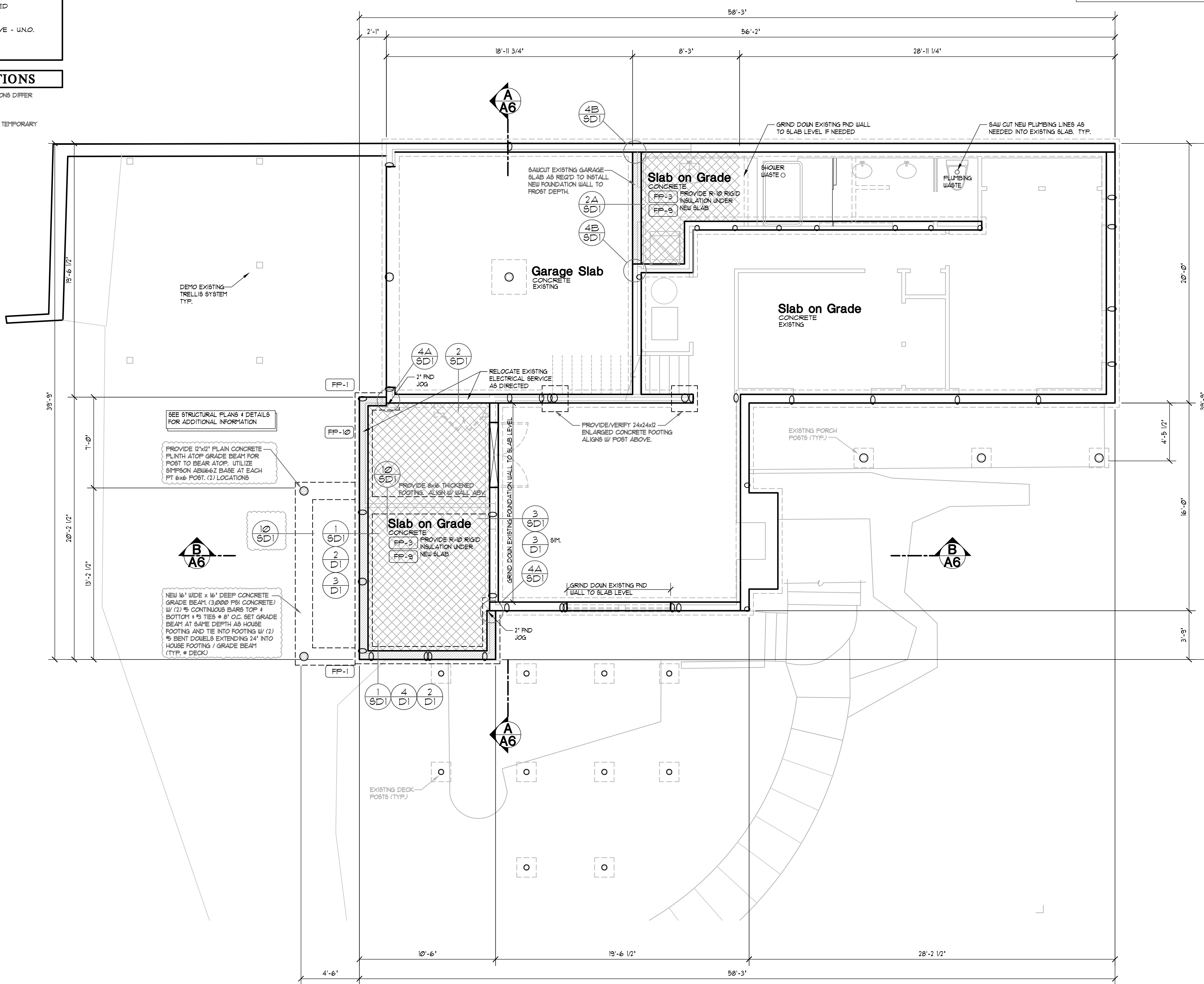
# A1.1



WALL LEGEND	
	EXISTING WALLS
	EXISTING WALLS TO BE REMOVED
	NEW WALLS
	EXISTING AND NEW WALLS ABOVE - U.O.
	EXISTING FOUND. WALLS
	NEW FOUND. WALLS

- STRUCTURAL NOTATIONS**
- CONTACT MILHEIN KULP IF EXISTING CONDITIONS DIFFER FROM WHAT IS SHOWN/ASSUMED.
  - BUILDER/CONTRACTOR IS RESPONSIBLE FOR WEATHERPROOFING ALL ENGINEERED LUMBER.
  - BUILDING/CONTRACTOR RESPONSIBLE FOR ALL TEMPORARY SHORING.

ALL EXISTING DIMENSIONS AND FRAMING MUST BE FIELD VERIFIED PRIOR TO CONSTRUCTION.



- GENERAL FRAMING NOTES**
- SEE TYPICAL MATERIALS LIST ON SECTION SHEET
  - SEE SHEET A-1 FOR ALL GENERAL NOTES AND FOR ALL REQUIREMENTS CONCERNING MECHANICAL, PLUMBING, AND ELECTRICAL.
  - TRUSS DESIGN BY MFG. TRUSS PLAN SHOWS IS FOR GENERAL LAYOUT ONLY. SEE DIV. 6/200 SHEET A-1
    - TRUSS LOADING: SEE DIV. 6/200 SHEET A-1
    - TRUSS SPAN PER FLOOR PLANS
    - TRUSS TYPE PER ROOF FRAMING PLAN
  - ROOF FRAMING SPACING: 24" o.c. U.O.
  - ROOF PITCH: EXTERIOR PER ELEVATION INTERIOR PER SECTION.
  - RAFTER TAIL: 2x4. VERIFY.
  - ROOF TAIL AND RAKE OVERHANG PER ROOF PLAN.
  - ALL HEADERS ARE 4x10 DF #2 U.O. PROVIDE (1) TRIMMER STUD UP TO 4'-0" SPAN AND (2) TRIMMER STUDS OVER 4'-0" U.O. SEE DIV. 6/200 SHEET A-1. HEADERS TO BE INSULATED W/ MIN. R-10 INSULATION
  - STUD NOTCHING AND BORING PER I.R.C. SECT. R602.6
    - BEARING OR EXTERIOR WALL: MAXIMUM NOTCH 25% BORING 40%
    - 60% MAXIMUM BORING IF DOUBLED WITH NOT MORE THAN (2) SUCCESSIVE STUDS BORED.
    - NON-BEARING MAXIMUM NOTCH 40% BORING 60%
    - HOLES NO CLOSER THAN 5/8" TO FACE OF STUD.

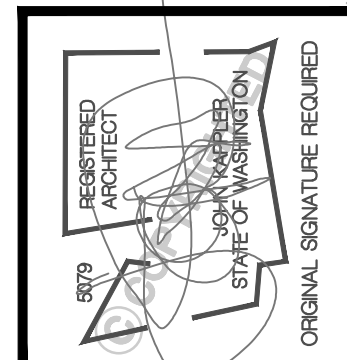
- FOUNDATION KEYNOTES**
- FF-1 CONCRETE STEM WALL, 8" WIDE WITH MIN. 15"x1' FOOTING. SEE DETAILS FOR ADDITIONAL INFORMATION. SEE DIV. 3 SHEET A-1
  - FF-2 CONCRETE STEM WALL, 6" WIDE WITH MIN. 12"x6" FOOTING. SEE DETAILS FOR ADDITIONAL INFORMATION. SEE DIV. 3 SHEET A-1
  - FF-3 CONCRETE SLAB ON GRADE SHALL BE 4" THICK STEEL TROUBLED FINISH, W/ 6"x6 Wx4x12 WUF ON 4" GRANULAR FILL. SLOPE 2" TO DOOR. PROVIDE THICKENED EDGE AT DOOR. SEE DIV. 3 SHEET A-1
  - FF-4 6"x6 POST ON CB66, 1" ABOVE SLAB ON 36"x36"x8" MAT FOOTING ON SOLID SUBSTRATE W/ (4) #4 BAR EACH WAY. SEE DIV. 3 SHEET A-1
  - FF-5 CRAWL SPACE VENT. SEE CALCULATION. SEE DIV. 1 SHEET A-1
  - FF-6 ALL CRIPPLE WALLS ARE 2x6 OR 3x4 @ 16" o.c. U.O. 14" MIN STUD LENGTH PER IRC. SEE DIV. 6 SHEET A-1
  - FF-7 4x10 BEAM LINE, U.O. MIN. 1' CLEARANCE FROM CONCRETE AT END OF BEAMS. SEE DIV. 6 SHEET A-1
  - FF-8 4x4 PRESSURE TREATED POST (SCAB POST AND BEAM) WITH 2x4 ON 20" FELT ON MAT FOOTING U.O. PROVIDE 4x6 POST @ BEAM SPLICE + POSITIVE CONNECTION FROM POST TO FOOTING. SEE DIV. 6 SHEET A-1
  - FF-9 10 MIL BLACK POLYETHYLENE GROUND COVER ON GRADE UNDER HABITABLE SPACE. SEE DIV. 1 SHEET A-1
  - FF-10 ELECTRICAL SERVICE: PROVIDE (1) 2 1/2" SCHEDULE 80 PVC CONDUIT FOR ELECTRICAL SERVICE AND (1) 5/8"x20" LONG GALVANIZED ROD FOR ELECTRICAL GROUNDING. SEE DIV. 16 AND VERIFY W/ SITE CONDITIONS
  - FF-11 BLOCK OUT IN STEM WALL FOR DOORS, HVAC, ETC. AS REQUIRED
  - FF-12 10"x24" CRAWL SPACE ACCESS, INSULATE AND WEATHER STRIP. SEE DIV. 6/200 SHEET A-1
  - FF-13 PRESSURE BLOCKING OF SAME SIZE AS ADJACENT JOIST.
  - FF-14 24"x24"x1' MAT FOOTING ON SOLID SUBSTRATE W/ (2) #4 BAR EACH WAY OR 12"x1' STRIP FOOTING PER DETAIL 16/D
  - FF-15 30"x30"x1' MAT FOOTING ON SOLID SUBSTRATE W/ (2) #4 BAR EACH WAY OR 15"x1' STRIP FOOTING
  - FF-16 36"x36"x12" MAT FOOTING ON SOLID SUBSTRATE W/ (2) #4 BAR EACH WAY
  - FF-17 STUB STEEL 12" INTO SLAB @ 12" o.c.
  - FF-18 FLOOR JOIST SEE DIV. 6 SHEET A-1
  - FF-19 4x8 BEAM LINE, SOLID BLOCKING BETWEEN JOIST OVER SUPPORT. SEE DIVISION 6/200 SHEET A-1
  - FF-20 PROVIDE SOLID BLOCKING THRU JOIST SYSTEM TO PROVIDE SAME AREA OF BEAM SUPPORT AS ABOVE AND BELOW. SEE DIV. 6 SHEET A-1
  - FF-21 MIN. 1' CLEARANCE FROM CONCRETE AT END OF BEAMS
  - FF-22 EXTEND PIER MIN 18" BELOW SURROUNDING GRADE
  - FF-23 3" DIAMETER STEEL POST
  - FF-24 EDGE OF CONCRETE

**SYMBOLS & LEGEND**

	POINT LOADS FROM ABOVE
	POINT LOADS FROM ABOVE W/ LOADING
	POINT LOAD TRANSFERING DOWN
	POINT LOAD TRANSFERING DOWN W/ LOADING
	HANGER
	POINT LOAD TRANSFERRED BY KICKER
	HOLD DOWN WITH SIZE DESIGNATION
	VERTICAL STRAP WITH SIZE DESIGNATION TO BE USED ON FLOOR BELOW
	HORIZONTAL STRAP WITH SIZE DESIGNATION
	INDICATES BEAM CALCULATION WITH INDEXED NUMBER
	WALL ABOVE
	WALL BELOW

NOTE: UNLESS OTHERWISE NOTED, ENGINEERING AND CALCULATIONS ARE NOT PROVIDED IN THESE DRAWINGS.

**FOUNDATION PLAN**  
Scale 1/4"=1'-0"



Date	By	Description
5/20/25	ECP	PERMIT SET
8/22/25	ECP	JURISDICTIONAL COMMENTS
3/26/26	ECP	JURISDICTIONAL COMMENTS

**Engi & Nabil Attia**  
**Attia Remodel**  
Mercer Island WA  
8555 85th Ave SE  
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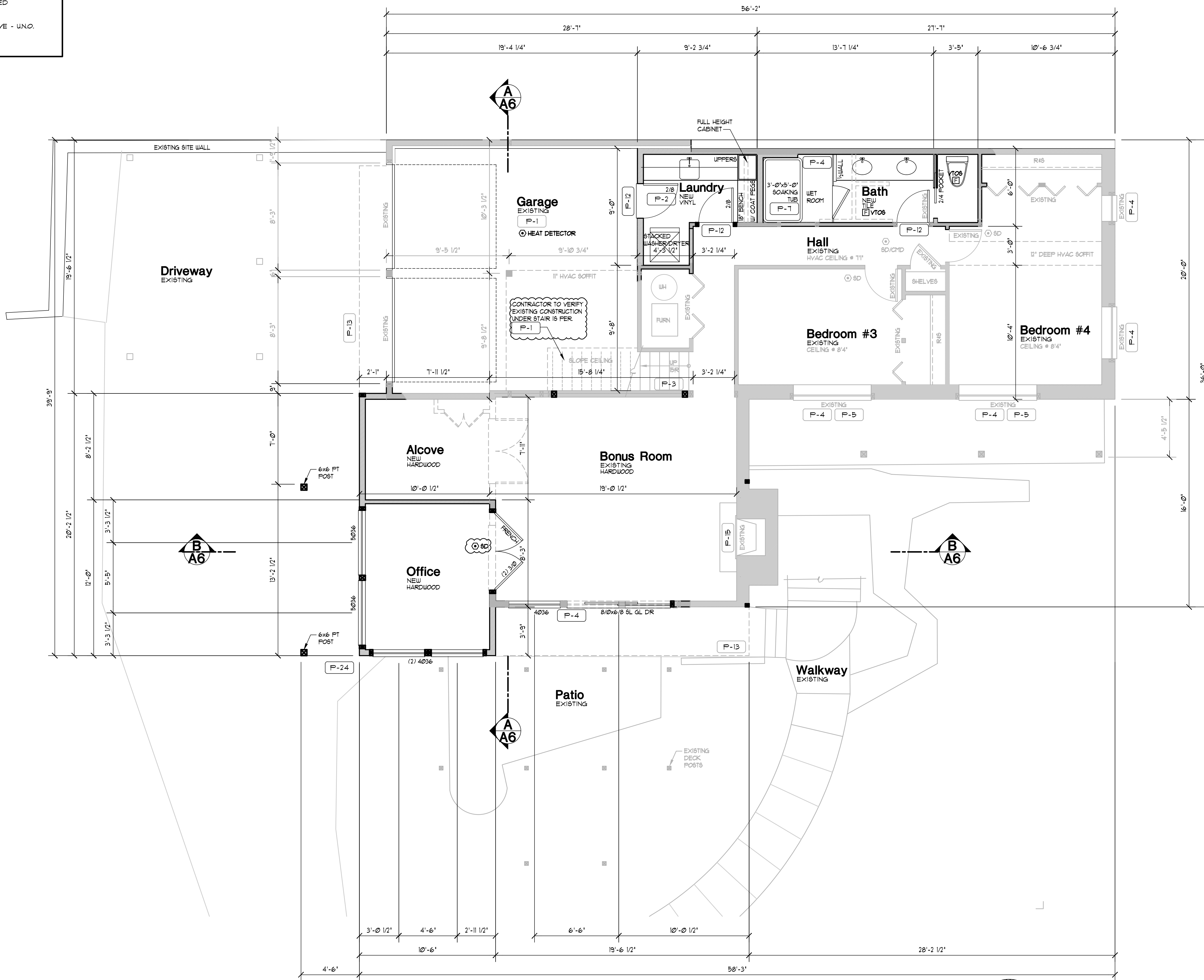
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www.kapilchandrane.com

TITLE
JOB NO.: 2400903
STARTING NO.: 2400922

SHEET  
**A2.0**

WALL LEGEND	
	EXISTING WALLS
	EXISTING WALLS TO BE REMOVED
	NEW WALLS
	EXISTING AND NEW WALLS ABOVE - U.N.O.
	EXISTING FOUND WALLS
	NEW FOUND WALLS

ALL EXISTING DIMENSIONS AND FRAMING MUST BE FIELD VERIFIED PRIOR TO CONSTRUCTION.



**GENERAL PLAN NOTES**

- SEE SHEET A-1 FOR ALL GENERAL NOTES AND REQUIREMENTS.
- ENERGY AND AIR QUALITY INFORMATION SEE DIV. 11 SHEET A-1
- SEE BUILDING ELEVATION FOR WINDOW OPERATION SEE DIV. 8 SHEET A-1
- SEE TYP. MATERIALS LIST ON SECTION SHEET
- SEE SHEET A-1 FOR ALL NOTES AND REQUIREMENTS CONCERNING MECHANICAL, PLUMBING AND ELECTRICAL.

**FLOOR PLAN KEY NOTES**

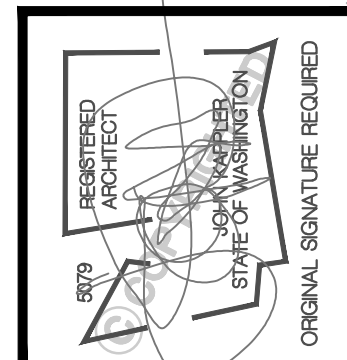
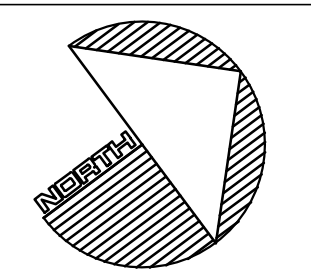
- P-1 OCCUPANCY SEPARATION: APPLY (1) LAYER OF 1/2" G.I.B. TO GARAGE SIDE OF RESIDENCE, ATTIC SPACES, AND TO ALL BEAMS AND POSTS SUPPORTING A FLOOR-CEILING ASSEMBLY. APPLY (1) LAYER OF 3/4" TYPE 'X' G.I.B. TO GARAGE CEILING WHEN UNDER HABITABLE ROOMS. DUCTS THROUGH WALL OR CEILING COMMON TO HOUSE SHALL HAVE MINIMUM 26 GAUGE STEEL. SEE DIV. 01022.6.A. SHEET A-1.
- P-2 1 1/4" MIN. SELF CLOSING SOLID WOOD CORE HONEY-COMB CORE STEEL, OR 20-MINUTE FIRE RATED DOOR. SEE DIV. 01022.6.B. SHEET A-1
- P-3 STAIR ASSEMBLY NOTES: PER I.R.C. SECTION R311.1 A. HEADROOM MIN. 6'-8". WIDTH MIN. 3'-0". B. TREADS 10" MIN. DEPTH AND MIN. WIDTH OF 36" ABOVE HANDRAIL HEIGHT. RISERS 7 1/4" MAX. HT. TREAD NOSING TO BE MINIMUM 3/4" AND A MAXIMUM OF 1 1/4" ON STAIRS WITH SOLID RISERS. C. HANDRAIL MIN. 34" TO MAX 38" ABOVE TREAD NOSING. HANDRAIL TYPE 1 CIRCULAR TO HAVE 1 1/4" MIN. TO 2" MAX. CROSS SECTION DIMENSION AND 1 1/2" MIN. CLEAR FROM WALL, RETURN RAIL ENDS. HANDRAILS SHALL BE STRONG ENOUGH TO RESIST A 200 POUND POINT LOAD IN ANY DIRECTION PER I.R.C. TABLE R301.5 D. INSTALL FIRE BLOCKING BETWEEN STRINGERS AT THE TOP AND BOTTOM OF EACH RUN PER I.R.C. SECTION R302.11. E. COVER USABLE SPACE UNDER STAIR W/ 1/2" G.I.B. PER I.R.C. SECTION R302.1. F. INTERMEDIATE BALUSTERS SHALL BE SPACED W/ LESS THAN 4" BETWEEN BALUSTERS. G. PROVIDE STAIRWAY ILLUMINATION PER I.R.C. SECTION R302.1. SEE DIV. 01022.1 SHEET A-1.
- P-4 SAFETY GLAZING PER I.R.C. SECTION R308 A. WINDOWS WITHIN 18" OF FLOOR B. WINDOWS WITHIN A 24" ARC OF DOORS C. WINDOWS AT TUBS AND SHOWERS D. GLAZING IN DOORS E. LESS THAN 60" HORIZ. FROM THE BOT. STAIR TREAD NOSING, 4 BOT. EDGE OF GLAZING IS LESS THAN 36" ABV. LANDING/WALKING SURFACE SEE DIV. 08020 SHEET A-1
- P-5 EGRESS WINDOW PER I.R.C. SECTION R310 SEE DIV. 08020 SHEET A-1
- P-6 IGNITERS FOR GAS FIRED APPLIANCES IN GARAGE TO BE 18" MIN. ABOVE TOP OF SLAB. SEE DIV. 15 SHEET A-1
- P-7 COVER WALLS ADJACENT TO TUBS AND SHOWERS WITH NON-ABSORBENT MATERIAL TO 12" ABOVE DRAIN NUTS. PER I.R.C. SECTION 507.2. SEE DIV. 09250 SHEET A-1
- P-8 (2) LAYERS OF FLOOR SHEATHING OVER FRAMING.
- P-9 1 3/4" MAX. RISER WITH 10" MIN. RUN, IF MORE THAN (3) RISERS, HANDRAIL REQUIRED PER I.R.C. SECTION R311.8. SEE DIV. 01022.1 SHEET A-1
- P-10 18"x24" CRAWL SPACE ACCESS. INSULATE AND WEATHER STRIP. SEE DIV. 01022.1 SHEET A-1
- P-11 22"x32" ATTIC SPACE ACCESS W/ 30" HEAD CLEARANCE. INSULATE AND WEATHER STRIP. SEE DIV. 01022.2 SHEET A-1
- P-12 FLOOR MATERIAL BREAK LINE
- P-13 WALL LINE ABOVE
- P-14 WALL LINE BELOW
- P-15 FIREPLACE ASSEMBLY NOTES: A. DIRECT VENT GAS FIREPLACES, MUST BE LISTED, LABELED & INSTALLED PER MFG. SPECIFICATIONS, SHALL CONFORM TO I.R.C. REQUIREMENTS. SEE DIV. 01022.12 SHEET A-1 B. ZERO CLEARANCE FIREPLACES SHALL CONFORM TO I.R.C. REQUIREMENTS. SEE DIV. 01022.12 SHEET A-1 C. HEARTH SHALL CONFORM TO I.R.C. REQUIREMENT SEE DIV. 01022.12 SHEET A-1 D. FIREBLOCK OPENINGS AROUND PENETRATIONS \* EACH FLOOR PER I.R.C. SECTION R1023.19. E. FIREPLACE MUST COMPLY WITH UL 127 TESTING SEE SITE PLAN FOR EXTENT OF WALKS & DRIVEWAYS
- P-16 3" DIAMETER STEEL POST
- P-17 36" GUARDRAIL PER I.R.C. SECTION R312 & TABLE R301.5 CONTRACTOR TO VERIFY TO INSPECTOR THAT ALL GUARDS & RAILINGS ARE CAPABLE OF RESISTING 200LB LOAD ON TOP RAIL ACTING IN ANY DIRECTION.
- P-18 18" VENT FOR MECHANICAL, 1" CLEARANCE ALL SIDES PER I.R.C. SECTION R302.11. SEE DIV. 15 SHEET A-1
- P-19 PLANT SHELF
- P-20 UPPER AND LOWER LINEN CABINETS
- P-21 SOFFIT AREA
- P-22 INTEGRATED MAKE UP AIR
- P-24 2x6 STUDS W/ INSULATION MIN. PER USEC

**SYMBOLS AND LEGEND**

- F FAN - DIRECT VENT TO OUTSIDE - BATHROOMS/LAUNDRY 50 CFM MIN. - KITCHEN EXHAUST HOOD TO BE MIN. OF 160CFM. IF EXHAUST HOOD EXCEEDS 160CFM MAKE UP AIR MUST BE PROVIDED PER SECTION M1503.6.
  - WHOLE-HOUSE FAN TO RUN CONTINUOUS & CONFORM TO I.R.C. M1503.4. FAN SIZE PER PLAN, FAN RATE TO BE ADJUSTED BY A FACTOR OF 15 FOR A NON-BALANCED NON-DISTRIBUTED SYSTEM. FRESH AIR TO BE PROVIDED BY THE FORCED AIR SYSTEM DUCTS PER SECTION M1503.4.1. FAN TO HAVE A SONE RATING OF 10 OR LESS MEASURED AT 0.1 INCHES WATER GAUGE
  - T THERMOSTAT @ 50" ABOVE FLOOR
  - SA SMOKE ALARM PER I.R.C. R314 WITH BATTERY BACKUP INTERCONNECTED USE A COMBINATION SMOKE/CARBON MONOXIDE ALARM OR HEAT DETECTOR WHERE NOTED AND PER I.R.C. R314.2.3
  - HA HEAT DETECTOR OR HEAT ALARM RATED FOR THE AMBIENT OUTDOOR TEMPERATURES & HUMIDITY PER I.R.C. R314
- MECHANICAL, PLUMBING, AND ELECTRICAL SYSTEM FOR UNITS: PER DIV. 15/16 SEE SHEET A1
- |             |           |    |
|-------------|-----------|----|
| AIR HANDLER | HEAT PUMP | UH |
|-------------|-----------|----|
- PROVIDE 6" DIAMETER FRESH AIR INTAKE FROM OUTSIDE TO RETURN PLENUM AT FURNACE WITH MOTORIZED FLOW DAMPERS.
  - PROVIDE THERMAL EXPANSION TANK AT WATER HEATER.
  - STRAP WATER HEATER TO FRAMING TOP AND BOTTOM.
  - PROVIDE PRESSURE RELIEF LINE PLUMBED TO OUTSIDE.

**LOWER FLOOR PLAN**

Scale 1/4"=1'-0"



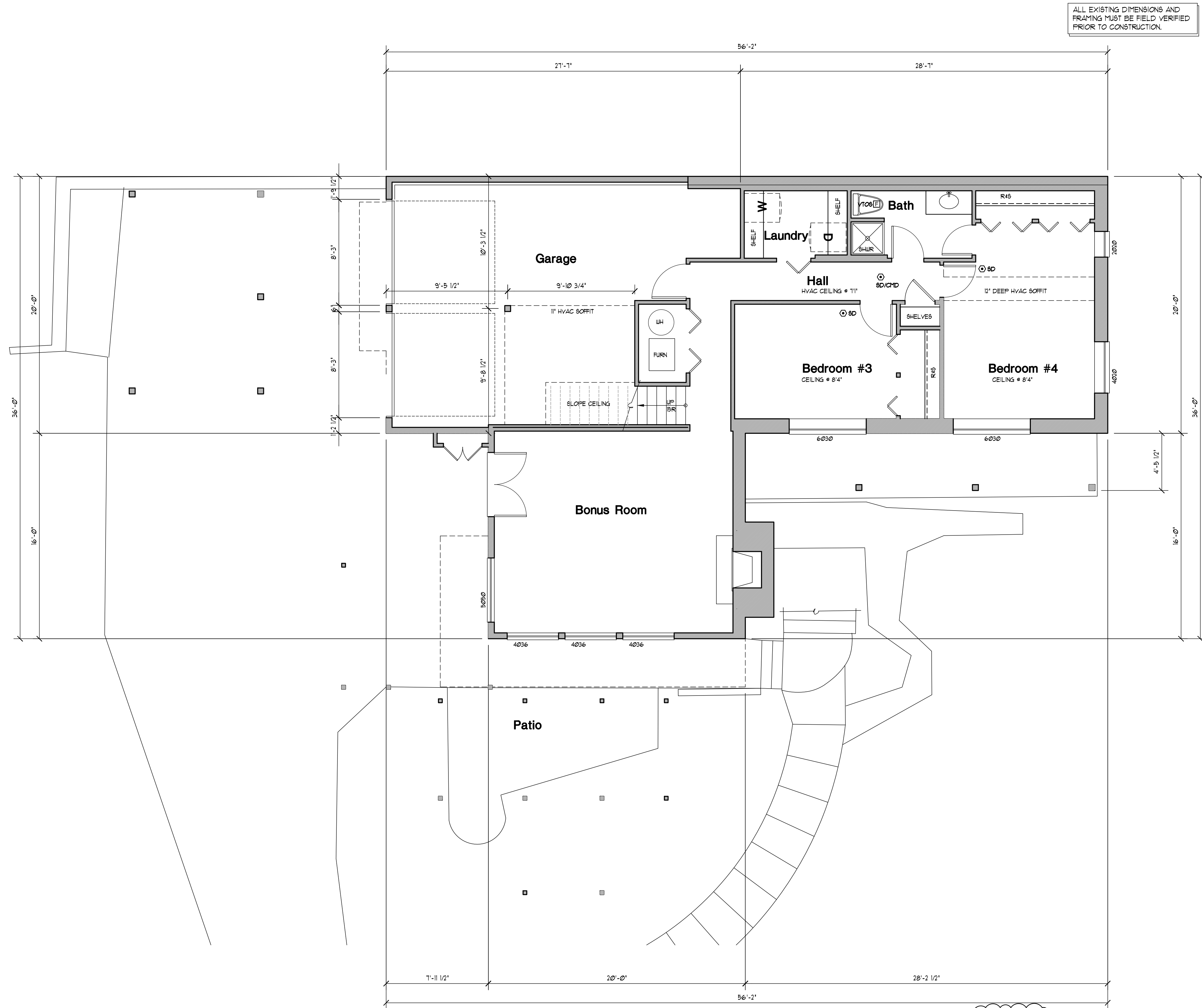
Date	By	Description
5/20/25	ECP	PERMIT SET
8/22/25	ECP	JURISDICTIONAL COMMENTS
3/26/26	ECP	JURISDICTIONAL COMMENTS

**Engi & Nabil Attia**  
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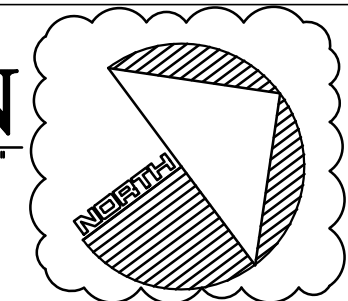
TITLE
JOB NO.: 2400903
STARTING NO.: 2400922

SHEET  
**A2.1**

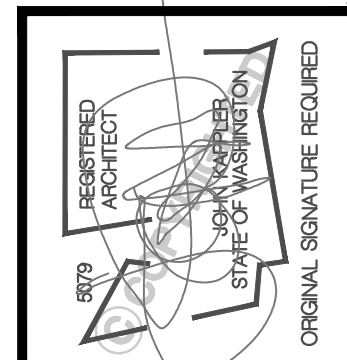


**EXISTING LOWER FLOOR PLAN**

Scale 1/4"=1'-0"



ALL EXISTING DIMENSIONS AND FRAMING MUST BE FIELD VERIFIED PRIOR TO CONSTRUCTION.



Date	By	Description
5/30/25	ECP	PERMIT SET
8/22/25	ECP	JURISDICTIONAL COMMENTS

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TITLE	
JOB NO. :	2400903
STARTING NO. :	2400922

SHEET  
**A2.2**

WALL LEGEND	
	EXISTING WALLS
	EXISTING WALLS TO BE REMOVED
	NEW WALLS
	EXISTING AND NEW WALLS ABOVE - U.O.
	EXISTING FOUND WALLS
	NEW FOUND WALLS

**STRUCTURAL NOTATIONS**

- EXISTING ROOF FRAMING TO REMAIN. INSTALL NEW 3/4"x3/4" #14 ROOF RAFTERS @ 24" O.C. MAX SPACING, SISTERED TO EACH EXISTING ROOF MEMBER W/ (3) 3/8"x3" NAILS @ 12" O.C. PROVIDE NEW 2x10 HP, COLLAR TIES FASTENED TO EACH NEW RAFTER W/ (4) 1/2" THRU-BOLTS @ 6" SPACING W/ EXISTING ROOF MEMBER AS REQ'D W/ (3) 3/8"x3" NAILS @ 12" O.C. UNDER FRAME CEILING AS REQ'D BASED ON ARCH PLANS.
- PROVIDE / VERIFY (2) 2x6 JACKS (MIN) BETWEEN OPENINGS AND (2) 2x6 CRIPPLE POST ABOVE HEADER TIGHT TO UNDERSIDE OF ROOF FRAMING. FASTEN (1) SIMPSON C36 STRAP @ INTERIOR & EXTERIOR FACE OF WALL AT EACH JACK CENTERED ON THE HDR ABOVE & FASTENED TO STUD ABOVE W/ 1/4" MIN END LENGTH ON EACH STUD.
- EXISTING BEARING WALL TO BE REMOVED. BUILDER/CONTRACTOR RESPONSIBLE FOR MEANS AND METHODS AND TEMPORARY SHORING. BUILDER/CONTRACTOR TO PROVIDE ADEQUATE TEMPORARY SHORING TO UNDERSIDE OF EXISTING ROOF FRAMING PRIOR TO DEMO OF EXISTING BEARING WALLS/POSTS.
- CUT BACK EXISTING ROOF MEMBER AS REQ'D TO INSTALL NEW FLUSH BEAMS & FASTEN EXISTING ROOF MEMBERS TO NEW FLUSH BEAMS PER DETAIL 95D-1.
- CUT BACK EXISTING ROOF MEMBER AS REQ'D TO BEAR NEW CONTINUOUS BOTTOM FLUSH BEAM ON POST LOCATIONS SHOWN. SEE DTL 95D-1 FOR CONNECTIONS (TYP).
- AT NEW EXTERIOR WALL, FASTEN NEW END STUD TO EXISTING END STUD W/ 3/8"x3" NAILS @ 12" O.C. VERTICALLY.
- INFILL EXISTING OPENINGS AS REQ'D W/ 2x4 @ 16" O.C.
- CONTACT MULHERN & KULP IF EXISTING CONDITIONS DIFFER FROM WHAT IS SHOWN/ASSUMED.
- BUILDER/CONTRACTOR IS RESPONSIBLE FOR WEATHERPROOFING ALL ENGINEERED LUMBER.
- BUILDER/CONTRACTOR RESPONSIBLE FOR ALL TEMPORARY SHORING.
- IF STEEL POSTS, PROVIDE 4x8x1/4" CAP & BASE PLATE FASTENED FRAMING ABOVE/BELOW W/ (4) 1/2"x1/2" SIMPSON SD6 SCREWS.
- IF WOOD POSTS, PROVIDE (2) SIMPSON A35 CLIPS @ TOP & BOTTOM OF POST.

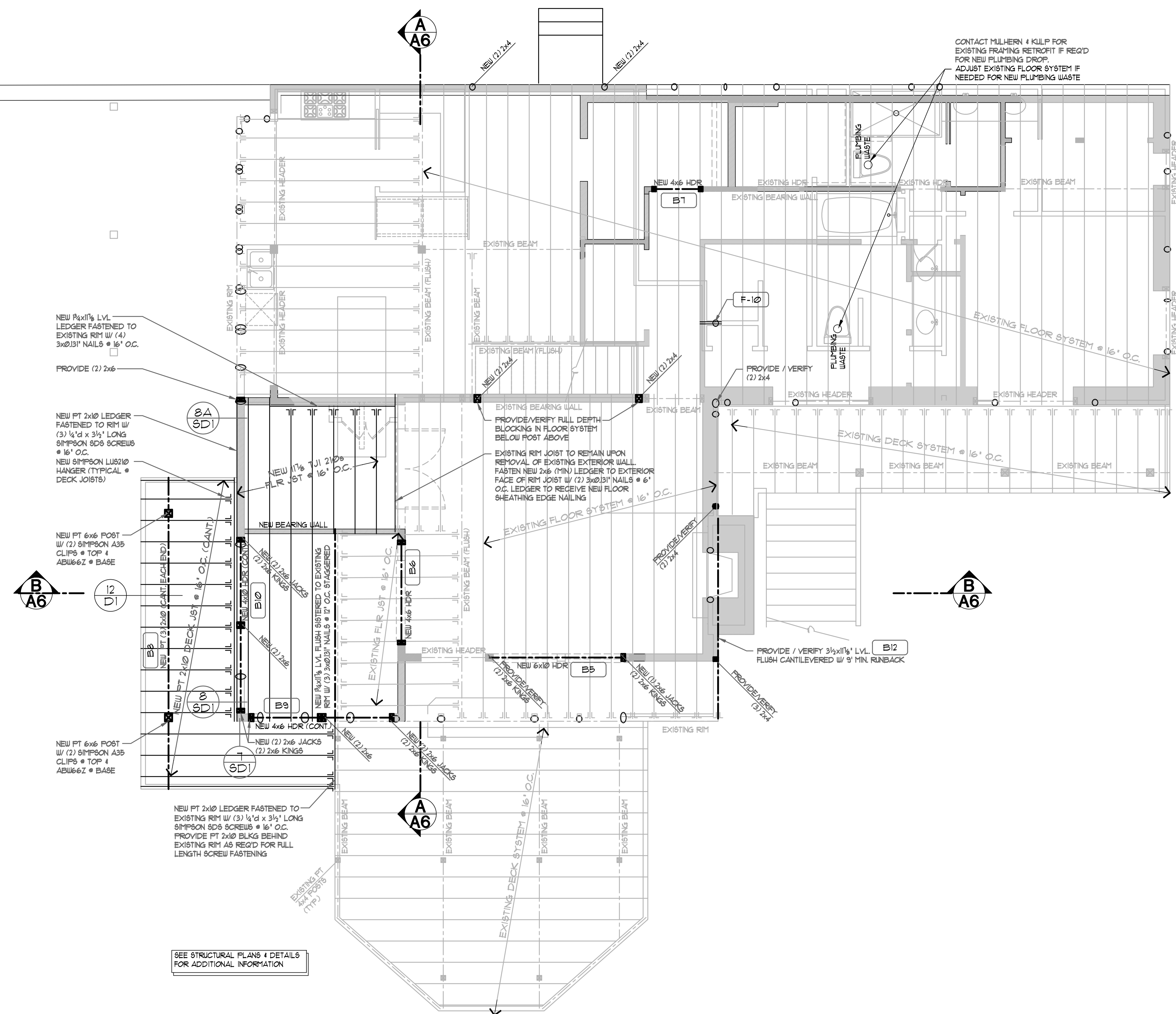
ALL EXISTING DIMENSIONS AND FRAMING MUST BE FIELD VERIFIED PRIOR TO CONSTRUCTION.

**GENERAL FRAMING NOTES**

- SEE TYPICAL MATERIALS LIST ON SECTION SHEET
- SEE SHEET A-1 FOR ALL GENERAL NOTES AND FOR ALL REQUIREMENTS CONCERNING MECHANICAL, PLUMBING, AND ELECTRICAL.
- TRUSS DESIGN BY MFG. TRUSS PLAN SHOWN IS FOR GENERAL LAYOUT ONLY. SEE DIV. 6100 SHEET A-1
  - TRUSS LOADING, SEE DIV. 0100 SHEET A-1
  - TRUSS SPAN PER FLOOR PLANS
  - TRUSS TYPE PER ROOF FRAMING PLAN
- ROOF FRAMING SPACING, 24" O.C. U.O.
- ROOF PITCH- EXTERIOR PER ELEVATION INTERIOR PER SECTION.
- RAFTER TAIL 2x4. VERIFY.
- ROOF TAIL AND RAKE OVERHANG PER ROOF PLAN.
- ALL HEADERS ARE 4x10 DF #2 U.O. PROVIDE (1) TRIMMER STUD UP TO 4'-0" SPAN AND (2) TRIMMER STUDS OVER 4'-0" U.O. SEE DIV. 06100 SHEET A-1
- HEADERS TO BE INSULATED W/ MIN. R-10 INSULATION
- STUD NOTCHING AND BORING PER I.R.C. SECT. R602.6
  - BORING 40%
  - 60% MAXIMUM BORING IF DOUBLED WITH NOT MORE THAN (2) SUCCESSIVE STUDS BORED.
  - NON-BEARING MAXIMUM NOTCH 40% BORING 60%.
  - HOLES NO CLOSER THAN 5/8" TO FACE OF STUD.

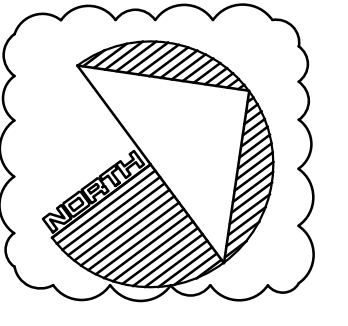
**FRAMING PLAN KEYNOTES**

- F-1 BACK FRAMING AND SOFFIT AREA AS REQUIRED TO ALLOW FOR HVAC DUCTING. SEE DIV.15 SHEET A-1
- F-2 RAKED PONY WALL ON TOP OF LOWER ROOF FRAMING MEMBERS SUPPORTING UPPER ROOF FRAMING MEMBERS.
- F-3 ALIGN EDGE OF JOIST WITH FACE OF WALL
- F-4 ALIGN INSIDE FACE OF BEAM WITH OUTSIDE FACE OF WALL
- F-5 UPSET - BOTTOM OF BEAM EVEN W/ BOTTOM OF JOIST AND TOP OF BEAM EXTENDS UP ABOVE JOISTS
- F-6 TOP OF BEAM IS FLUSH WITH BOTTOM OF JOIST WITH NO TOP PLATE. CUT ADJACENT FRAMING MEMBERS INTO BEAM FOR ADEQUATE SUPPORT.
- F-7 ATTIC SPACE VENT SEE CALCULATION SEE DIV. 0100.3 SHEET A-1
- F-8 FLOOR JOIST - SEE SCHEDULE DWG. SEE DIV. 06100 SHEET A-1
- F-9 SEE ELEVATIONS AND SECTIONS FOR PLATE HEIGHT
- F-10 FULL DEPTH PRESSURE BLOCKING SEE DIV. 06100 SHEET A-1
- F-11 FLUSH - BOTTOM OF BEAM EVEN W/ BOTTOM OF JOISTS
- F-12 TOP OF BEAM FLUSH W/ TOP OF JOIST AND BEAM EXTENDS DOWN BELOW JOISTS
- F-13 TOP OF BEAM 3" BELOW TOP OF FLOOR TRUSS. FLOOR TRUSSES TO BE TOP CHORD BEARING. 2x OVERFRAMING @ 24" O.C. PROVIDE 2x6 STRONGBACK FURLING AND 2x KICKERS AT 6'-0" OC TO TRUSSES BELOW.
- F-15 2x6 CEILING JOISTS @ 24" OC



SEE STRUCTURAL PLANS & DETAILS FOR ADDITIONAL INFORMATION

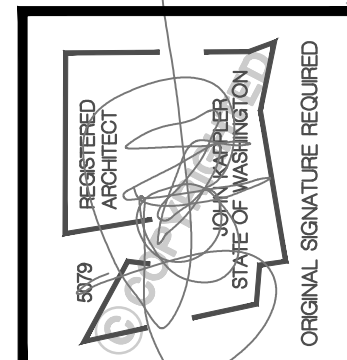
**MAIN FLOOR FRAMING PLAN**  
Scale 1/4"=1'-0"



**SYMBOLS & LEGEND**

	POINT LOADS FROM ABOVE
	POINT LOADS FROM ABOVE W/ LOADING
	POINT LOAD TRANSFERRING DOWN
	POINT LOAD TRANSFERRING DOWN W/ LOADING
	HANGER
	POINT LOAD TRANSFERRED BY KICKER
	HOLD DOWN WITH SIZE DESIGNATION
	VERTICAL STRAP WITH SIZE DESIGNATION TO BE USED ON FLOOR BELOW
	HORIZONTAL STRAP WITH SIZE DESIGNATION
	INDICATES BEAM CALCULATION WITH INDEXED NUMBER
	WALL ABOVE
	WALL BELOW

NOTE: UNLESS OTHERWISE NOTED, ENGINEERING AND CALCULATIONS ARE NOT PROVIDED IN THESE DRAWINGS.



Date	By	Description
5/20/25	ECP	PERMIT SET
8/22/25	ECP	JURISDICTIONAL COMMENTS

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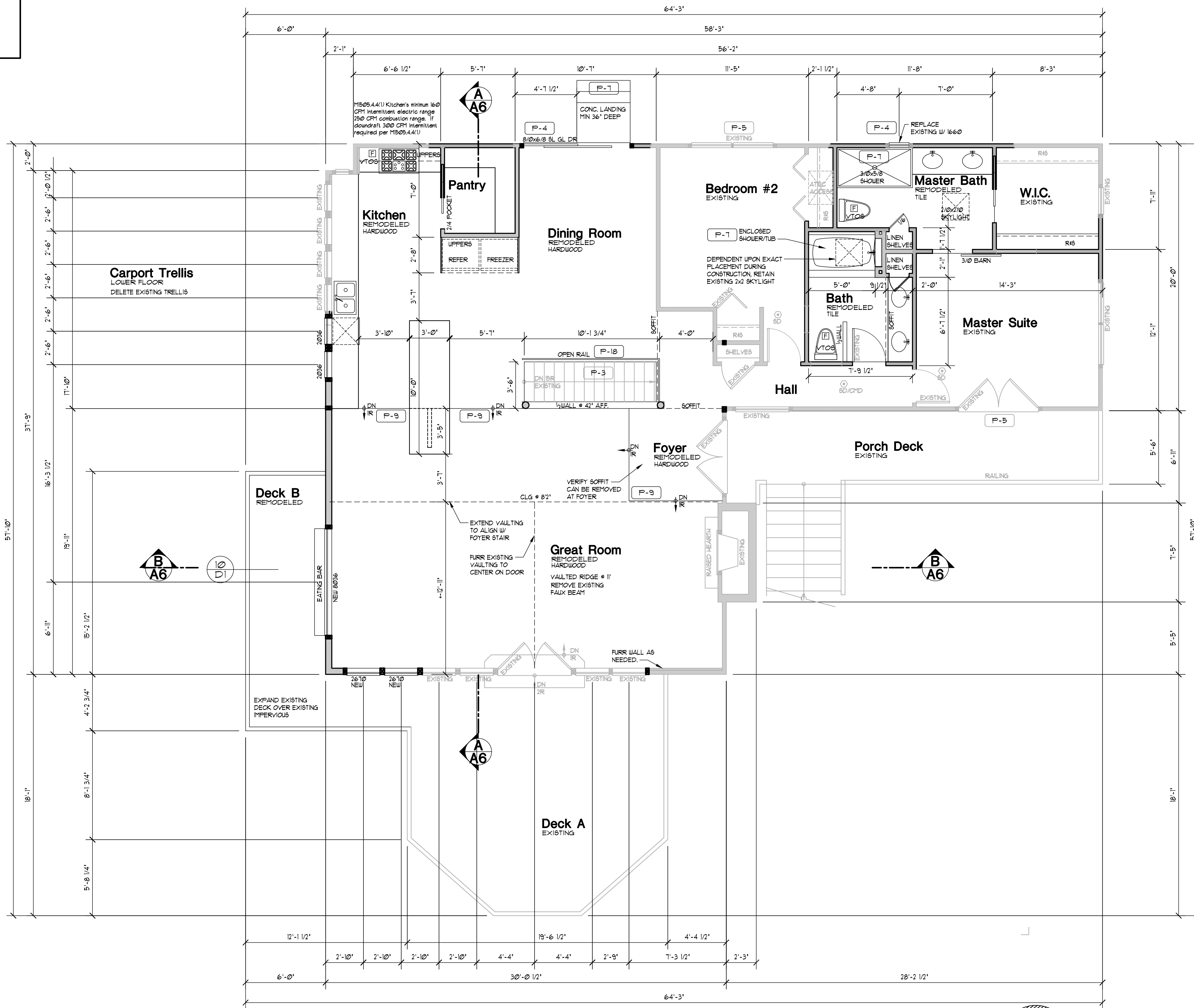
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TITLE
JOB NO.: 2400903
STARTING NO.: 2400922

SHEET  
**A2.3**

WALL LEGEND	
	EXISTING WALLS
	EXISTING WALLS TO BE REMOVED
	NEW WALLS
	EXISTING AND NEW WALLS ABOVE - UNO
	EXISTING FOUND WALLS
	NEW FOUND WALLS

ALL EXISTING DIMENSIONS AND FRAMING MUST BE FIELD VERIFIED PRIOR TO CONSTRUCTION.



SYMBOLS AND LEGEND	
	FAN - DIRECT VENT TO OUTSIDE - BATHROOMS/LAUNDRY 50 CFM MIN. - KITCHEN EXHAUST HOOD TO BE MIN. OF 160CFM. IF EXHAUST HOOD EXCEEDS 160CFM MAKE UP AIR MUST BE PROVIDED PER SECTION M1503.6.
	WHOLE-HOUSE FAN TO RUN CONTINUOUS & CONFORM TO IRC M1503.4. FAN SIZE PER PLAN. FAN RATE TO BE ADJUSTED BY A FACTOR OF 15 FOR A NON-BALANCED NON-DISTRIBUTED SYSTEM. FRESH AIR TO BE PROVIDED BY THE FORCED AIR SYSTEM DUCTS PER SECTION M1503.4.1. FAN TO HAVE A SONE RATING OF 10 OR LESS MEASURED AT 0.1 INCHES WATER GAUGE.
	THERMOSTAT @ 5'-0" ABOVE FLOOR
	110V SMOKE ALARM PER IRC M1503.4 WITH BATTERY BACKUP INTERCONNECTED USE A COMBINATION SMOKE/CARBON MONOXIDE ALARM OR HEAT DETECTOR WHERE NOTED AND PER IRC R314.2.3
	HEAT DETECTOR OR HEAT ALARM RATED FOR THE AMBIENT OUTDOOR TEMPERATURES & HUMIDITY PER IRC R314
MECHANICAL, PLUMBING, AND ELECTRICAL SYSTEM FOR UNITS: PER DIV. 15/16 SEE SHEET A1	
	AIR HANDLER
	HEAT PUMP
	WH
A. PROVIDE 6" DIAMETER FRESH AIR INTAKE FROM OUTSIDE TO RETURN PLENUM AT FURNACE WITH MOTORIZED FLOW DAMPERS.	
B. PROVIDE THERMAL EXPANSION TANK AT WATER HEATER.	
C. STRAP WATER HEATER TO FRAMING TOP AND BOTTOM.	
D. PROVIDE PRESSURE RELIEF LINE PLUMBED TO OUTSIDE.	

**GENERAL PLAN NOTES**

- SEE SHEET A-1 FOR ALL GENERAL NOTES AND REQUIREMENTS.
- ENERGY AND AIR QUALITY INFORMATION SEE DIV. IT SHEET A-1
- SEE BUILDING ELEVATION FOR WINDOW OPERATION SEE DIV. 8 SHEET A-1
- SEE TYP. MATERIALS LIST ON SECTION SHEET
- SEE SHEET A-1 FOR ALL NOTES AND REQUIREMENTS CONCERNING MECHANICAL, PLUMBING AND ELECTRICAL.

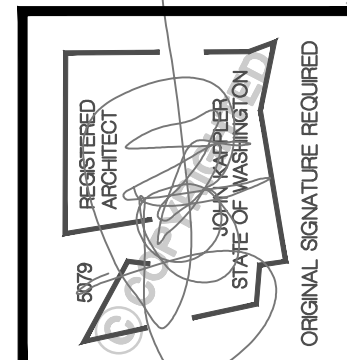
**FLOOR PLAN KEY NOTES**

- P-1 OCCUPANCY SEPARATION: APPLY (1) LAYER OF 1/2" G.I.B. TO GARAGE SIDE OF RESIDENCE, ATTIC SPACES, AND TO ALL BEAMS AND POSTS SUPPORTING A FLOOR-CEILING ASSEMBLY. APPLY (1) LAYER OF 3/4" TYPE 'X' G.I.B. TO GARAGE CEILING WHEN UNDER HABITABLE ROOMS. DUCTS THROUGH WALL OR CEILING COMMON TO HOUSE SHALL HAVE MINIMUM 26 GAUGE STEEL. SEE DIV. 01022.6.A SHEET A-1.
- P-2 1/4" MIN. SELF-CLOSING SOLID WOOD CORE HONEY-COMB CORE STEEL OR 20-MINUTE FIRE RATED DOOR. SEE DIV. 01022.6.B SHEET A-1
- P-3 STAIR ASSEMBLY NOTES: PER IRC SECTION R311.1 A. HEADROOM MIN. 6'-8" WIDTH MIN. 3'-0". B. TREADS 10" MIN. DEPTH AND MIN. WIDTH OF 36" ABOVE HANDRAIL HEIGHT. RISERS 1 3/4" MAX. HT. TREAD NOSING TO BE MINIMUM 3/4" AND A MAXIMUM OF 1 1/4" ON STAIRS WITH SOLID RISERS. C. HANDRAIL MIN. 34" TO MAX 38" ABOVE TREAD NOSING. HANDRAIL TYPE I CIRCULAR TO HAVE 1 1/4" MIN. TO 2" MAX. CROSS SECTION DIMENSION AND 1 1/2" MIN. CLEAR FROM WALL. RETURN RAIL ENDS. HANDRAILS SHALL BE STRONG ENOUGH TO RESIST A 200 POUND POINT LOAD IN ANY DIRECTION PER IRC TABLE R301.5 D. INSTALL FIRE BLOCKING BETWEEN STRINGERS AT THE TOP AND BOTTOM OF EACH RUN PER IRC SECTION R302.11. E. COVER USABLE SPACE UNDER STAIR W/ 1/2" G.I.B. PER IRC SECTION R302.1. F. INTERMEDIATE BALUSTERS SHALL BE SPACED W/ LESS THAN 4" BETWEEN BALUSTERS. G. PROVIDE STAIRWAY ILLUMINATION PER IRC SECTION R302.1. SEE DIV. 01022.1 SHEET A-1.
- P-4 SAFETY GLAZING PER IRC SECTION R308 A. WINDOWS WITHIN 18" OF FLOOR B. WINDOWS WITHIN A 24" ARC OF DOORS C. WINDOWS AT TUBS AND SHOWERS D. GLAZING IN DOORS E. LESS THAN 60" HORIZ. FROM THE BOT. STAIR TREAD NOSING, 4 BOT. EDGE OF GLAZING IS LESS THAN 36" ABV. LANDING/WALKING SURFACE SEE DIV. 02020 SHEET A-1
- P-5 EGRESS WINDOW PER IRC SECTION R310 SEE DIV. 02020 SHEET A-1
- P-6 IGNITERS FOR GAS FIRED APPLIANCES IN GARAGE TO BE 18" MIN. ABOVE TOP OF SLAB. SEE DIV. 15 SHEET A-1
- P-7 COVER WALLS ADJACENT TO TUBS AND SHOWERS WITH NON-ABSORBENT MATERIAL TO 12" ABOVE DRAIN NETS. PER IRC SECTION 507.2. SEE DIV. 02020 SHEET A-1
- P-8 (2) LAYERS OF FLOOR SHEATHING OVER FRAMING.
- P-9 1 3/4" MAX. RISER WITH 10" MIN. RUN, IF MORE THAN (3) RISERS. HANDRAIL REQUIRED PER IRC SECTION R311.8. SEE DIV. 01022.1 SHEET A-1
- P-10 18"x24" CRAWL SPACE ACCESS. INSULATE AND WEATHER STRIP. SEE DIV. 01022.1 SHEET A-1
- P-11 22"x32" ATTIC SPACE ACCESS W/ 30" HEAD CLEARANCE. INSULATE AND WEATHER STRIP. SEE DIV. 01022.2 SHEET A-1
- P-12 FLOOR MATERIAL BREAK LINE
- P-13 WALL LINE ABOVE
- P-14 WALL LINE BELOW
- P-15 FIREPLACE ASSEMBLY NOTES: A. DIRECT VENT GAS FIREPLACES MUST BE LISTED, LABELED & INSTALLED PER MFG. SPECIFICATIONS, SHALL CONFORM TO IRC REQUIREMENTS. SEE DIV. 01022.12 SHEET A-1 B. ZERO CLEARANCE FIREPLACES SHALL CONFORM TO IRC REQUIREMENTS. SEE DIV. 01022.12 SHEET A-1 C. HEARTH SHALL CONFORM TO IRC REQUIREMENT SEE DIV. 01022.12 D. FIREBLOCK OPENINGS AROUND PENETRATIONS @ EACH FLOOR PER IRC SECTION R1003.19. E. FIREPLACE MUST COMPLY WITH UL 127 TESTING SEE SITE PLAN FOR EXTENT OF WALKS & DRIVEWAYS
- P-16 3" DIAMETER STEEL POST
- P-17 36" GUARDRAIL PER IRC SECTION R312 & TABLE R301.5 CONTRACTOR TO VERIFY TO INSPECTOR THAT ALL GUARDS & RAILINGS ARE CAPABLE OF RESISTING 200LB LOAD ON TOP RAIL ACTING IN ANY DIRECTION.
- P-18 1" VENT FOR MECHANICAL. 1" CLEARANCE ALL SIDES PER IRC SECTION R302.11. SEE DIV. 15 SHEET A-1
- P-19 PLANT SHELF
- P-20 UPPER AND LOWER LINEN CABINETS
- P-21 SOFFIT AREA
- P-22 INTEGRATED MAKE UP AIR
- P-24 2x6 STUDS W/ INSULATION MIN. PER USEC

**SQUARE FOOTAGE**

	EXISTING	PROPOSED
UPPER FLR	N/A SF	N/A SF
MAIN FLR	1,603 SF (+167)	1,770 SF
LOWER FLR	924 SF (+261)	1,185 SF
<b>TOTAL</b>	<b>2,527 SF</b>	<b>2,955 SF</b>
UNFINISHED	N/A SF	N/A SF
GARAGE	445 SF	379 SF
CVRD PORCH	158 SF	158 SF
DECKS	581 SF	459 SF

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



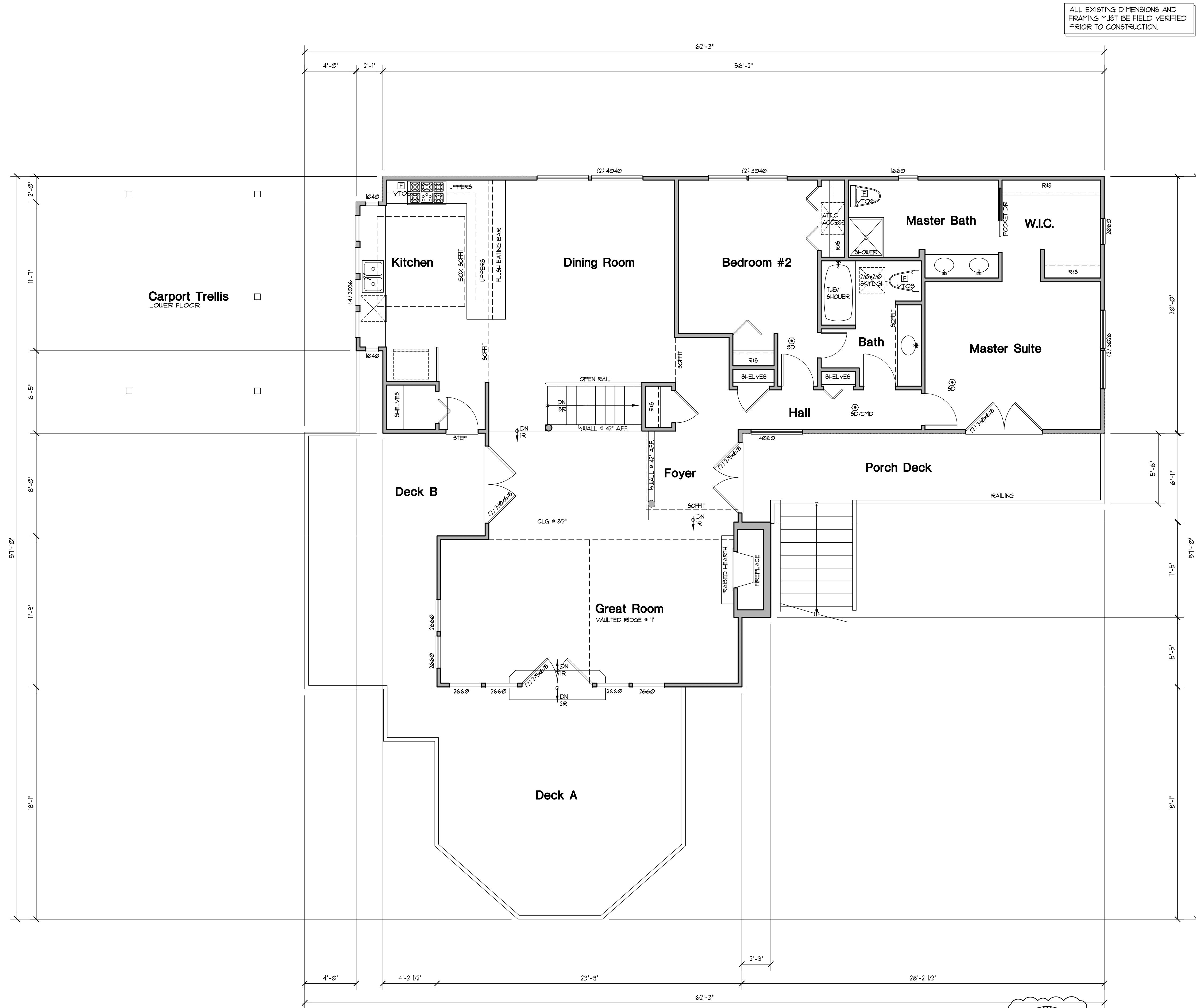
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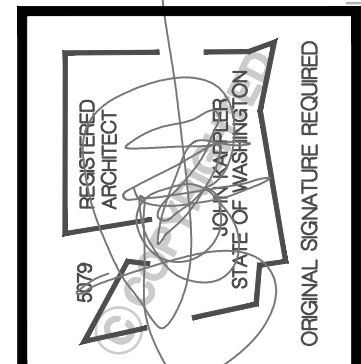
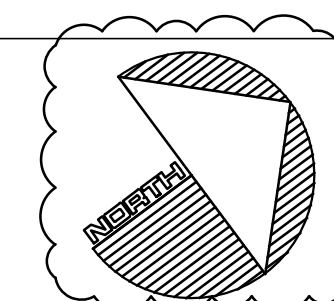
TITLE
JOB NO.: 24009.03
STARTING NO.: 24009.22

SHEET  
**A3**



# EXISTING MAIN FLOOR PLAN

Scale 1/4"=1'-0"



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TITLE
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STARTING NO. : 24009.22

SHEET  
**A3.1**

WALL LEGEND	
	EXISTING WALLS
	EXISTING WALLS TO BE REMOVED
	NEW WALLS
	EXISTING AND NEW WALLS ABOVE - U.O.
	EXISTING FOUND. WALLS
	NEW FOUND. WALLS

### STRUCTURAL NOTATIONS

- EXISTING ROOF FRAMING TO REMAIN. INSTALL NEW 1/4"x3/4" #14 ROOF RAFTERS @ 24" O.C. MAX SPACING, DISTERED TO EACH EXISTING ROOF MEMBER W/ (3) 3/8"x3" NAILS @ 12" O.C. PROVIDE NEW 2x6 HP, COLLAR TIES FASTENED TO EACH NEW RAFTER W/ (4) 1/2" THRU-BOLTS & DISTERED W/ EXISTING ROOF MEMBER AS REQ'D W/ (3) 3/8"x3" NAILS @ 12" O.C. UNDER FRAME CEILING AS REQ'D BASED ON ARCH PLANS.
- PROVIDE / VERIFY (2) 2x6 JACKS (MIN) BETWEEN OPENINGS AND (2) 2x6 CRIPPLE POST ABOVE HEADER TIGHT TO UNDERSIDE OF ROOF FRAMING. FASTEN (1) SIMPSON C36 STRAP @ INTERIOR & EXTERIOR FACE OF WALL AT EACH JACK, CENTERED ON THE HDR ABOVE & FASTENED TO STUD ABOVE W/ 1/4" MIN END LENGTH ON EACH STUD.
- EXISTING BEARING WALL TO BE REMOVED. BUILDER/CONTRACTOR RESPONSIBLE FOR MEANS AND METHODS AND TEMPORARY SHORING. BUILDER/CONTRACTOR TO PROVIDE ADEQUATE TEMPORARY SHORING TO UNDERSIDE OF EXISTING ROOF FRAMING PRIOR TO DEMO OF EXISTING BEARING WALLS/POSTS.
- CUT BACK EXISTING ROOF MEMBER AS REQ'D TO INSTALL NEW FLUSH BEAMS & FASTEN EXISTING ROOF MEMBERS TO NEW FLUSH BEAMS PER DETAIL 9-5D-1.
- AT NEW EXTERIOR WALL, FASTEN NEW END STUD TO EXISTING END STUD W/ 3/8"x3" NAILS @ 12" O.C. VERTICALLY.
- INFILL EXISTING OPENINGS AS REQ'D W/ 2x4 #2 STUDS @ 16" O.C. CONTACT MULHERRN & KULP IS EXISTING CONDITIONS DIFFER FROM WHAT IS SHOWN/ASSUMED.
- BUILDER/CONTRACTOR IS RESPONSIBLE FOR WEATHERPROOFING ALL ENGINEERED LUMBER.
- BUILDER/CONTRACTOR RESPONSIBLE FOR ALL TEMPORARY SHORING.
- IF STEEL POSTS, PROVIDE 4x8x1/4" CAP & BASE PLATE FASTENED FRAMING ABOVE/BELOW W/ (4) 1/2"x1/4" SIMPSON SD6 SCREWS.
- IF WOOD POSTS, PROVIDE (2) SIMPSON A35 CLIPS @ TOP & BOTTOM OF POST.

ALL EXISTING DIMENSIONS AND FRAMING MUST BE FIELD VERIFIED PRIOR TO CONSTRUCTION.

### GENERAL FRAMING NOTES

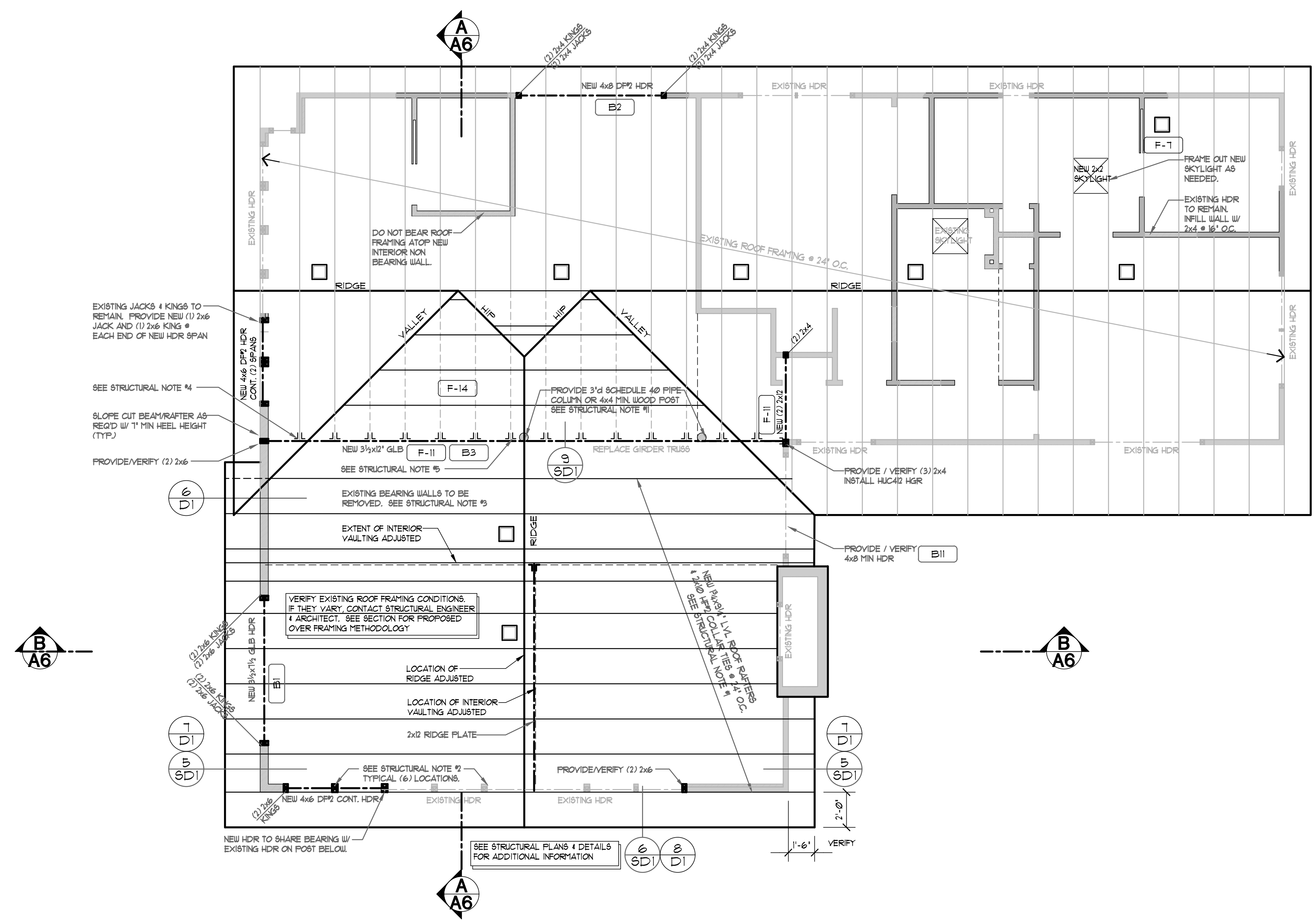
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  - TRUSS LOADING, SEE DIV. 0100 SHEET A-1
  - TRUSS SPAN PER FLOOR PLANS
  - TRUSS TYPE PER ROOF FRAMING PLAN
- ROOF FRAMING SPACING, 24" O.C. U.O.
- ROOF PITCH- EXTERIOR PER ELEVATION INTERIOR PER SECTION.
- RAFTER TAIL, 2x4. VERIFY.
- ROOF TAIL AND RAKE OVERHANG PER ROOF PLAN.
- ALL HEADERS ARE 4x8 DF #2 U.O. PROVIDE (1) TRIMMER STUD UP TO 4'-0" SPAN AND (2) TRIMMER STUDS OVER 4'-0" U.O. SEE DIV. 06100 SHEET A-1. HEADERS TO BE INSULATED W/ MIN. R-10 INSULATION
- STUD NOTCHING AND BORING PER I.R.C. SECT. R602.6
  - BEARING OR EXTERIOR WALL MAXIMUM NOTCH 25% BORING 40%.
  - 60% MAXIMUM BORING IF DOUBLED WITH NOT MORE THAN (2) SUCCESSIVE STUDS BORED.
  - NON-BEARING MAXIMUM 40% BORING 60%.
  - HOLES NO CLOSER THAN 5/8" TO FACE OF STUD.

### FRAMING PLAN KEYNOTES

- F-1 BACK FRAMING AND SOFFIT AREA AS REQUIRED TO ALLOW FOR HVAC DUCTING. SEE DIV.18 SHEET A-1
- F-2 RAKED PONY WALL ON TOP OF LOWER ROOF FRAMING MEMBERS SUPPORTING UPPER ROOF FRAMING MEMBERS.
- F-3 ALIGN EDGE OF JOIST WITH FACE OF WALL
- F-4 ALIGN INSIDE FACE OF BEAM WITH OUTSIDE FACE OF WALL
- F-5 UPSET - BOTTOM OF BEAM EVEN W/ BOTTOM OF JOIST AND TOP OF BEAM EXTENDS UP ABOVE JOISTS
- F-6 TOP OF BEAM IS FLUSH WITH BOTTOM OF JOIST WITH NO TOP PLATE. CUT ADJACENT FRAMING MEMBERS INTO BEAM FOR ADEQUATE SUPPORT.
- F-7 ATTIC SPACE VENT SEE CALCULATION SEE DIV. 0100.3B SHEET A-1
- F-8 FLOOR JOIST - SEE SCHEDULE DWG. SEE DIV. 06100 SHEET A-1
- F-9 SEE ELEVATIONS AND SECTIONS FOR PLATE HEIGHT
- F-10 FULL DEPTH PRESSURE BLOCKING SEE DIV. 06100 SHEET A-1
- F-11 FLUSH - BOTTOM OF BEAM EVEN W/ BOTTOM OF JOISTS
- F-12 TOP OF BEAM FLUSH W/ TOP OF JOIST AND BEAM EXTENDS DOWN BELOW JOISTS
- F-13 TOP OF BEAM 3" BELOW TOP OF FLOOR TRUSS. FLOOR TRUSSES TO BE TOP CHORD BEARING. 2x OVERFRAMING @ 24" O.C. PROVIDE 2x6 STRONGBACK PURLINS AND 2x KICKERS AT 6'-0" O.C. TO TRUSSES BELOW.
- F-15 2x6 CEILING JOISTS @ 24" O.C.

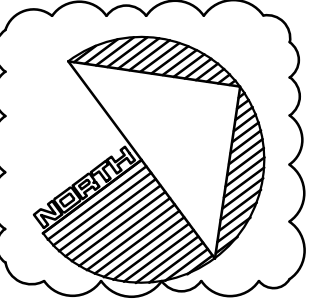
ROOF VENT CALCULATION	
TOTAL ROOF AREA	803 SF/900 = .534 SF OF VENT AREA REQ
40% MIN. AT 36" MAX BELOW RIDGE	= 214 SF MIN.
50% MAX. AT 36" MAX BELOW RIDGE	= 267 SF MAX.
8 ROOF JACKS AT 50 SQ. IN. EACH (36" MAX. BELOW RIDGE)	= 400 SQ. IN. = 278 SF
114 L.F. OF EAVE VENTS AT 3.3-SQ. IN./L.F. = 3762 SQ. IN. = 261 SF	
TOTAL SF OF VENTILATION PROVIDED	= 539 SF

VERIFY EXISTING VENTILATION MEETS REQUIREMENTS



## ROOF FRAMING PLAN

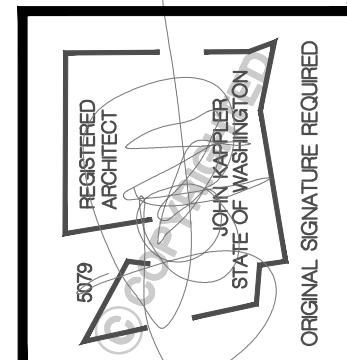
Scale 1/4"=1'-0"



### SYMBOLS & LEGEND

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NOTE: UNLESS OTHERWISE NOTED, ENGINEERING AND CALCULATIONS ARE NOT PROVIDED IN THESE DRAWINGS.



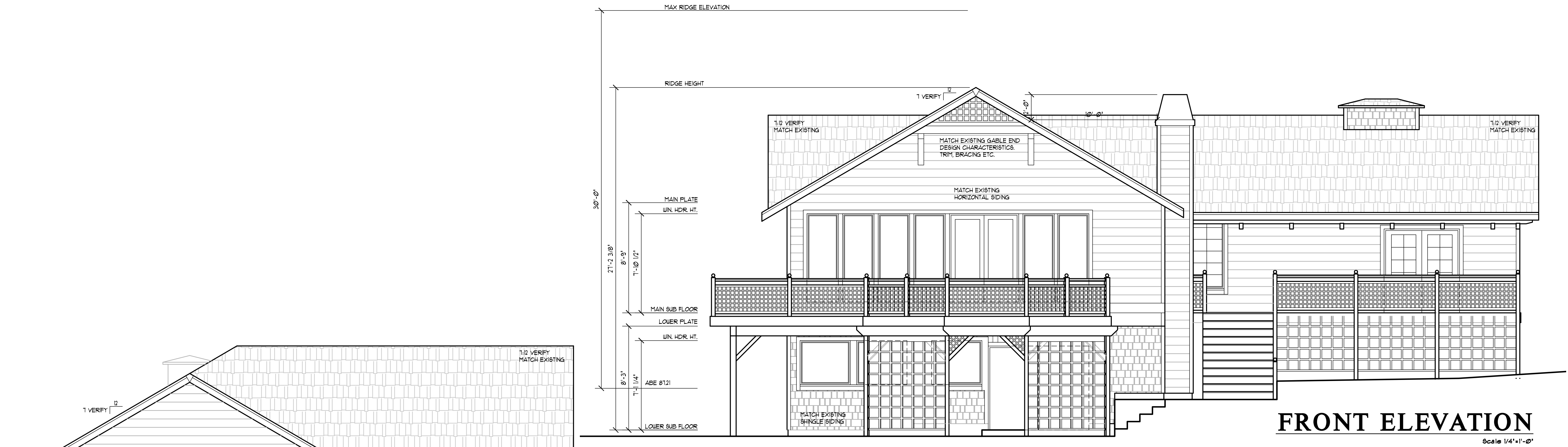
Date	By	Description
5/20/25	ECP	PERMIT SET
8/22/25	ECP	JURISDICTIONAL COMMENTS

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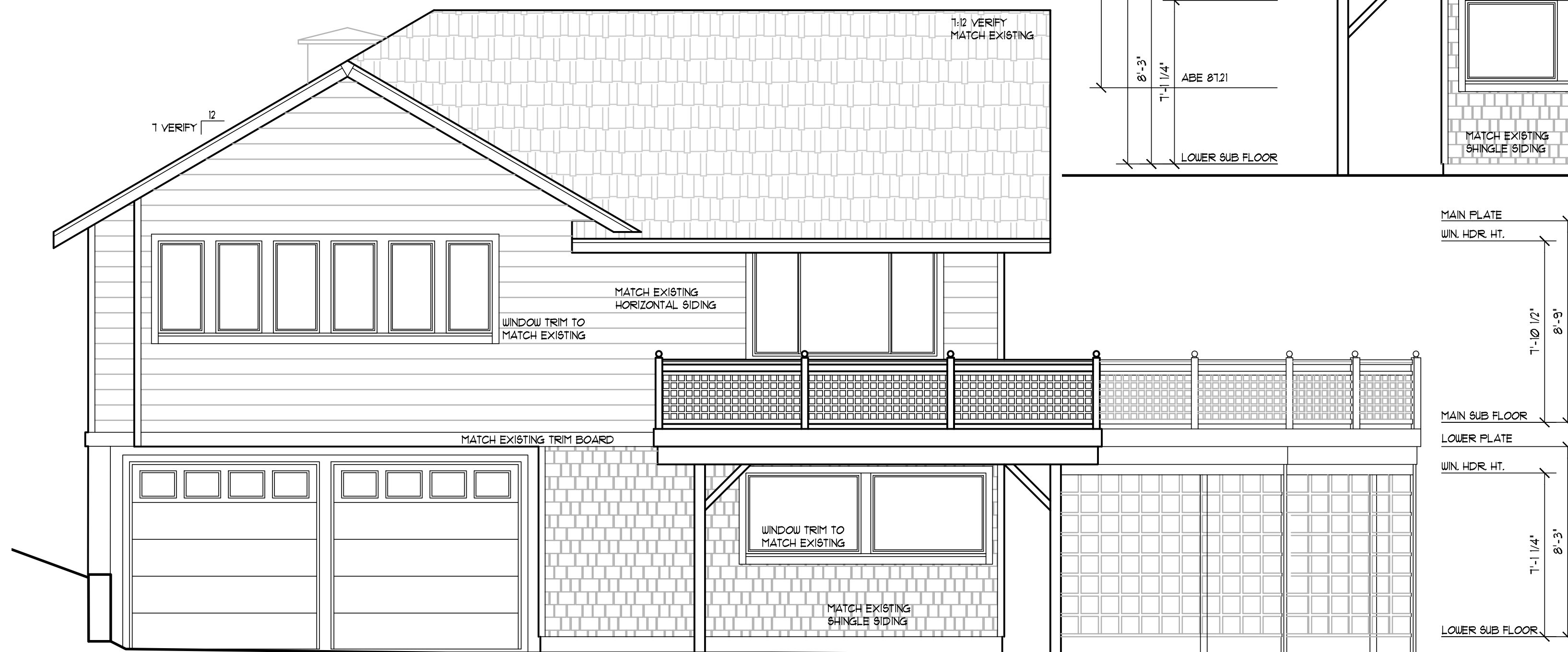
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 Bellevue, WA 98007  
 1-800-888-4517  
 www.kennethjohansen.com

TITLE
JOB NO.: 240903
STARTING NO.: 240922

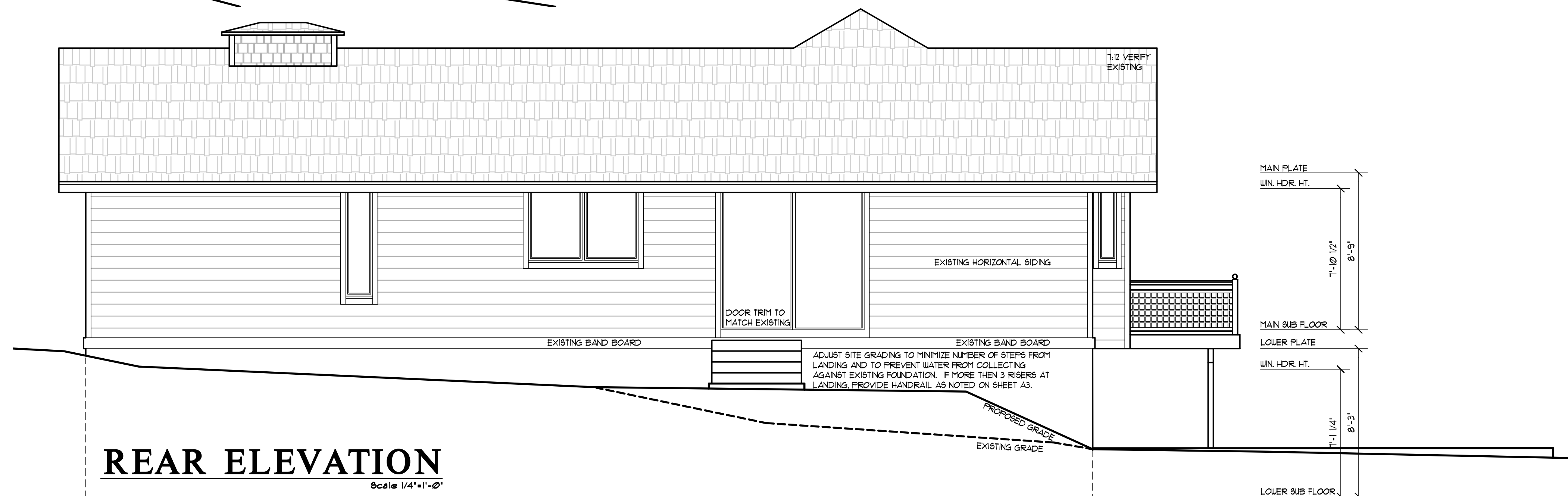
SHEET  
**A4**



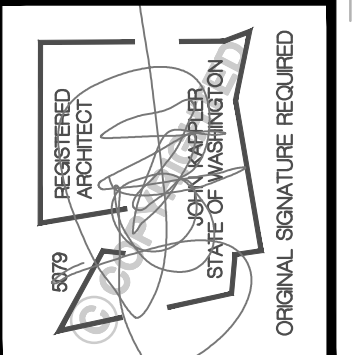
**FRONT ELEVATION**  
Scale 1/4"=1'-0"



**SIDE ELEVATION**  
Scale 1/4"=1'-0"



**REAR ELEVATION**  
Scale 1/4"=1'-0"



Date	By	Description
5/30/25	ECP	PERMIT SET

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TITLE
JOB NO.: 2400903 STARTING NO.: 2400922

SHEET
<b>A5</b>

**TYPICAL BUILDING MATERIALS**

**ROOF CONSTRUCTION**

ROOFING: (DIV. 7) SHINGLES (DIV. 010005)  
 BUILDING PAPER: (DIV. 7) 30# BUILDING PAPER  
 SHEATHING: (DIV. 6) 7/16" O.S.B. OR EQUAL  
 FRAMING: (DIV. 6) PER PLAN  
 INSULATION: (DIV. 7) PER WSEC  
 SOFFIT: (DIV. 7) PER SPEC.  
 GWB: (DIV. 9) 5/8" GWB

**EXTERIOR WALL CONSTRUCTION**

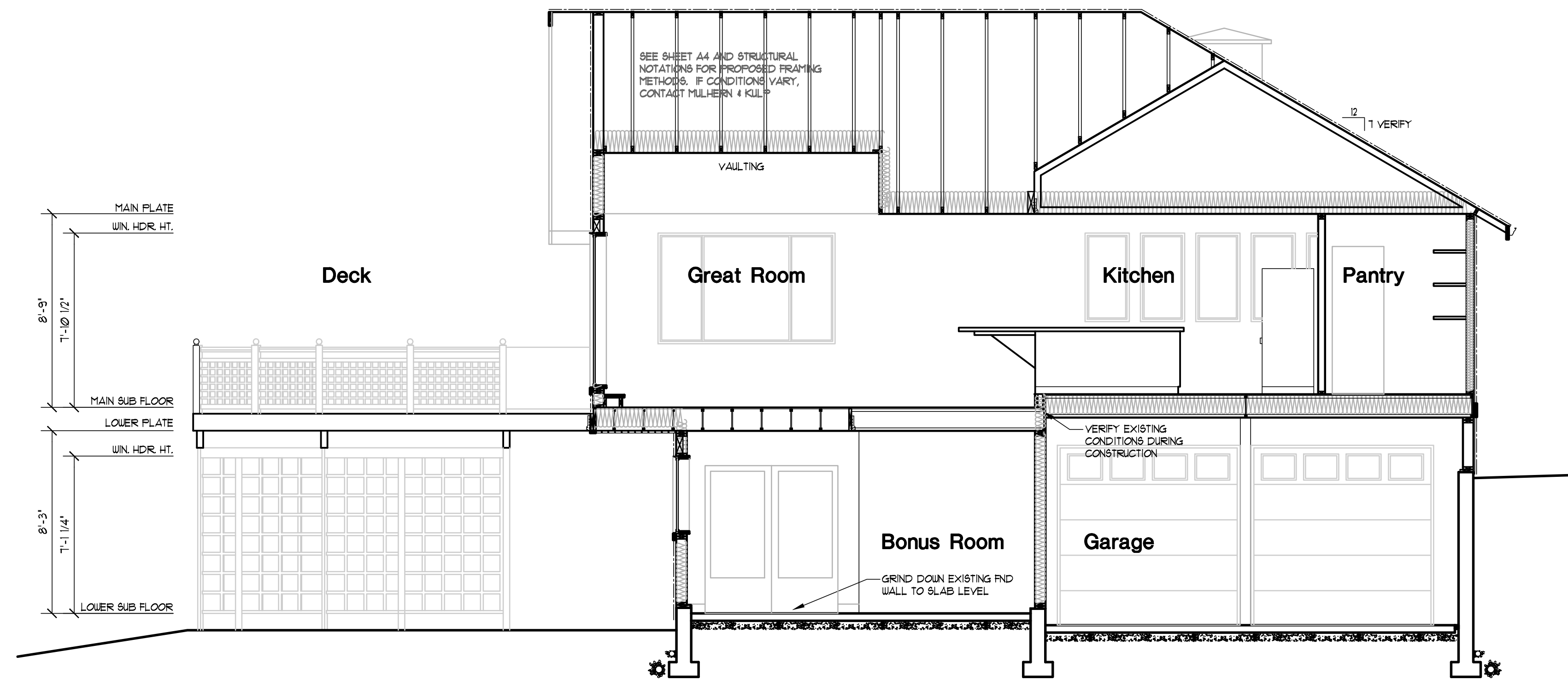
SIDING MATERIAL: (DIV. 7) WOOD SIDING (DIV. 01005)  
 BUILDING WRAP: (DIV. 7) 15# BUILDING PAPER  
 SHEATHING: (DIV. 6) 1/2" CDX PLYWOOD OR EQUAL  
 FRAMING: (DIV. 6) 2 X 6 STUDS AT 16" OC  
 INSULATION: (DIV. 7) PER WSEC  
 PROVIDE CLASS II VAPOR RETARDER  
 IN MARINE ZONE 4  
 GWB: (DIV. 9) 1/2" GWB

**FLOOR CONSTRUCTION**

FLOORING: (DIV. 9) FINISH PER PLANS (DIV. 01005)  
 SUBFLOOR: (DIV. 6) 3/4" T&G (PLYWD, COMPLY, OR BQ)  
 FRAMING: (DIV. 6) PER PLANS  
 INSULATION: (DIV. 7) PER WSEC  
 SOFFIT: (DIV. 7) PER SPEC.

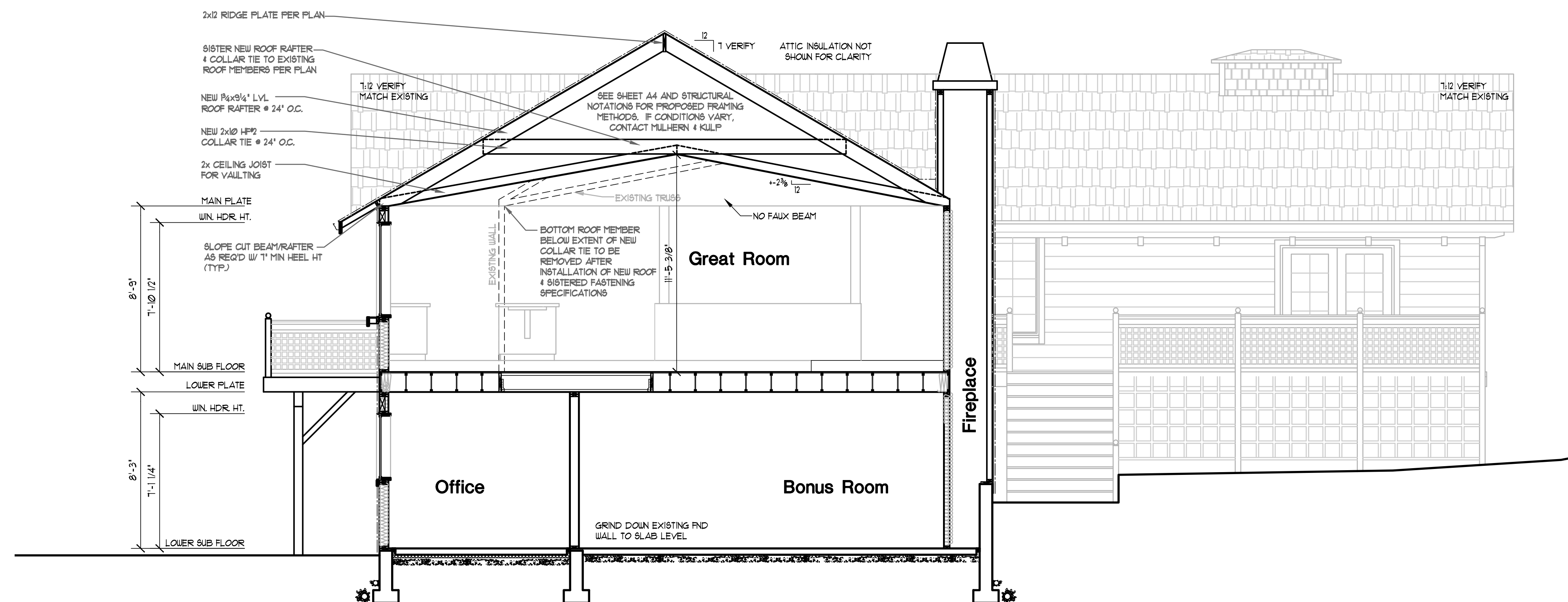
**TRIM:(DIV. 6)**

WINDOW: HEAD: MATCH EXISTING  
 (WITH NO BRICK MOLD) JAMB: MATCH EXISTING  
 CORNER BOARDS: SILL: MATCH EXISTING  
 FASCIA: INSIDE: 2x2  
 OUTSIDE: MATCH EXISTING  
 2x8 UNO



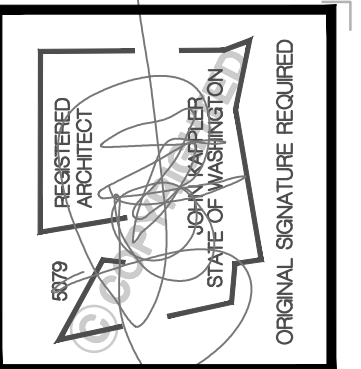
**BUILDING SECTION A-A**

Scale 1/4"=1'-0"



**BUILDING SECTION B-B**

Scale 1/4"=1'-0"



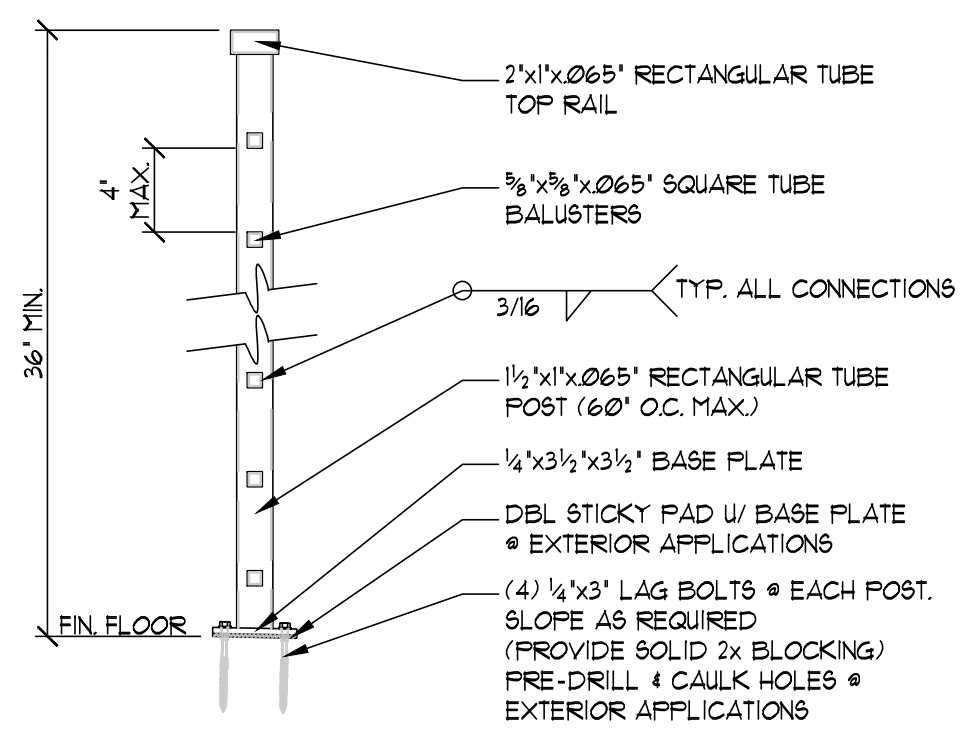
Date	By	Description
5/30/25	ECB	PERMIT SET

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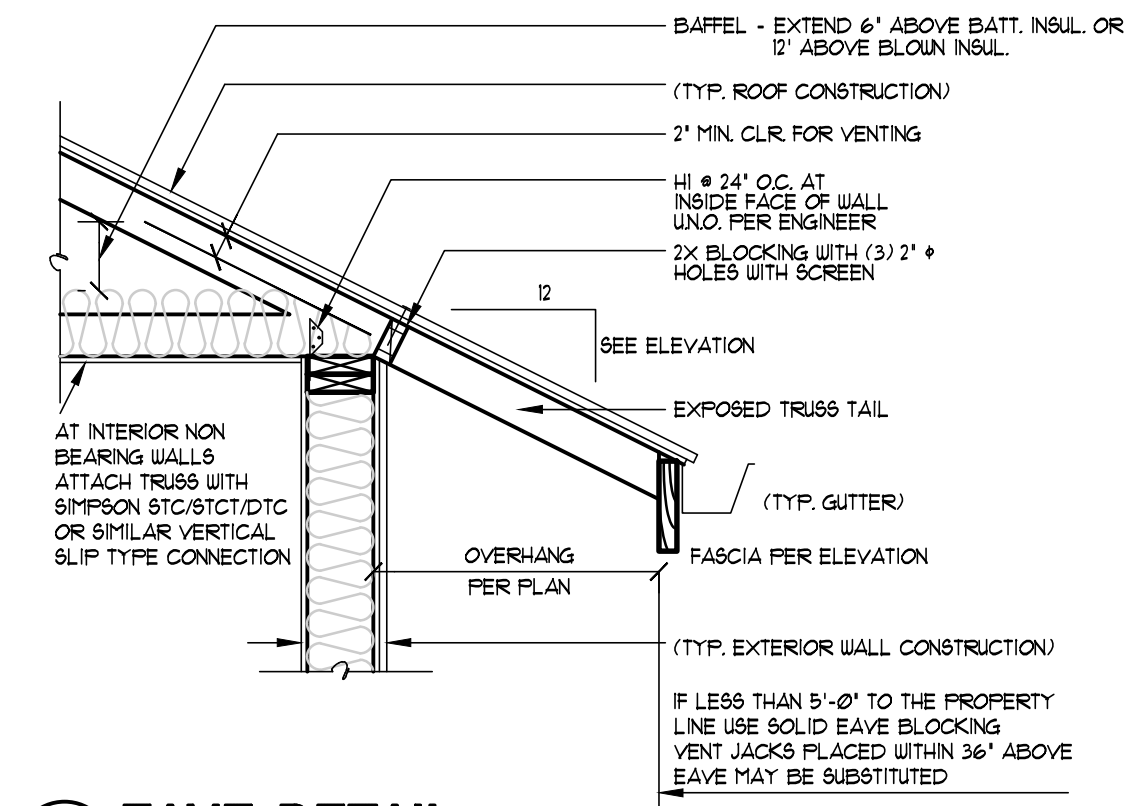
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TITLE
JOB NO.: 24009.03
STARTING NO.: 24009.22

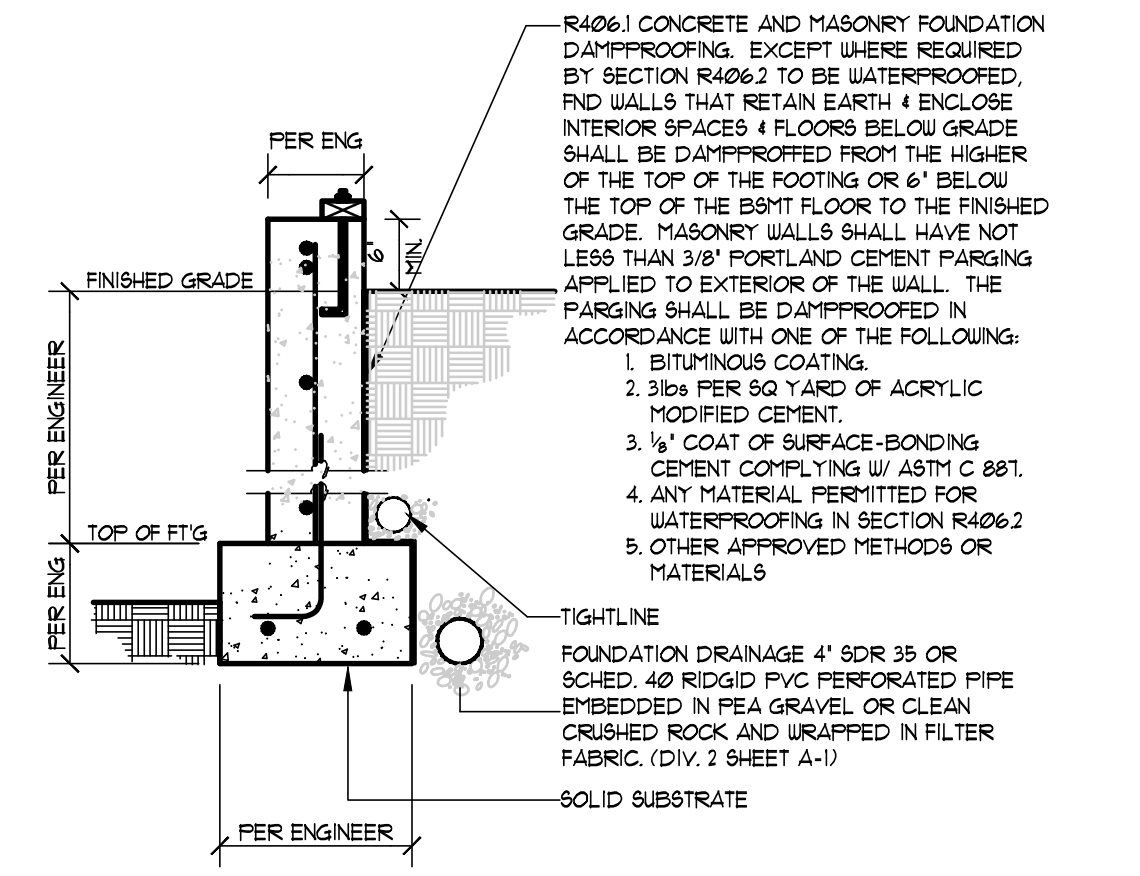
SHEET  
**A6**



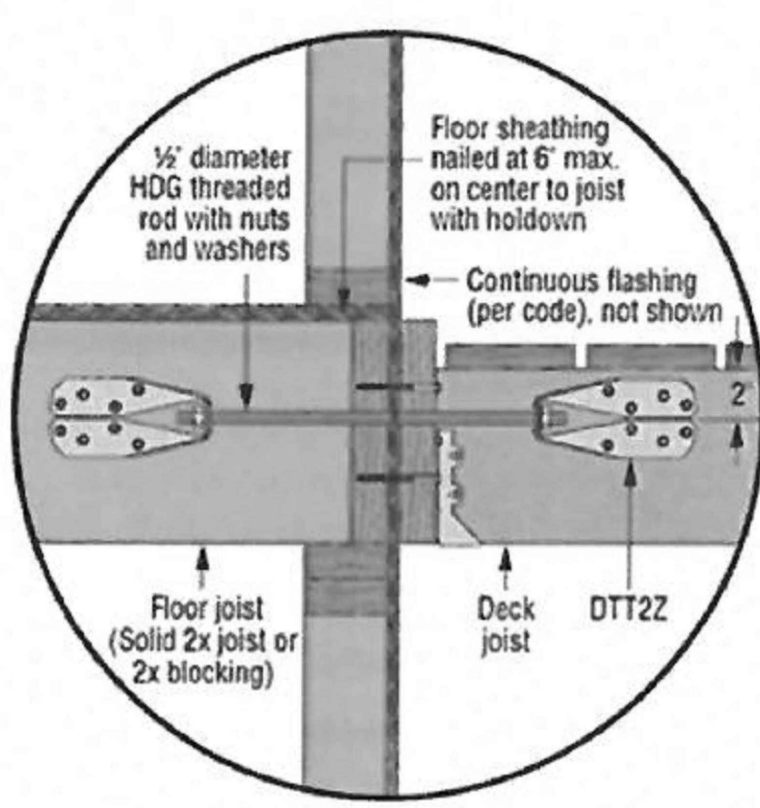
**10 STANDARD RAIL DETAIL**  
1 1/2"=1'-0"



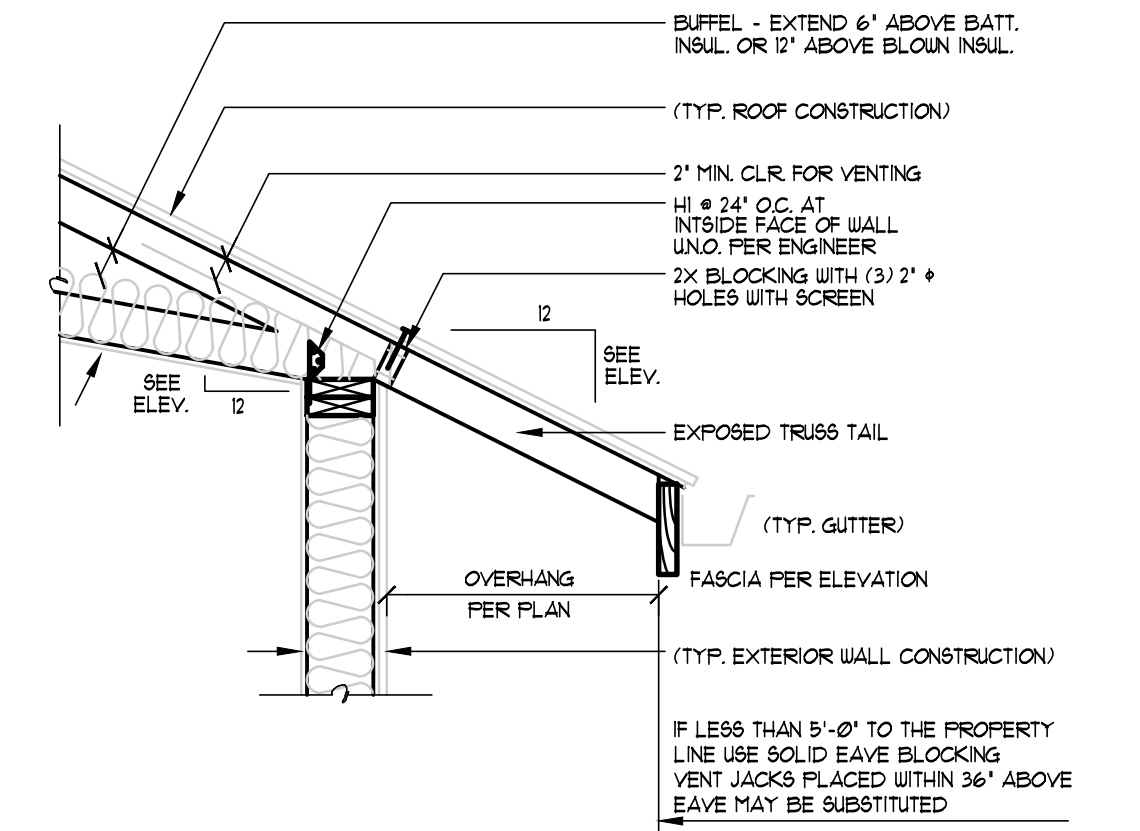
**6 EAVE DETAIL**  
3/4"=1'-0"



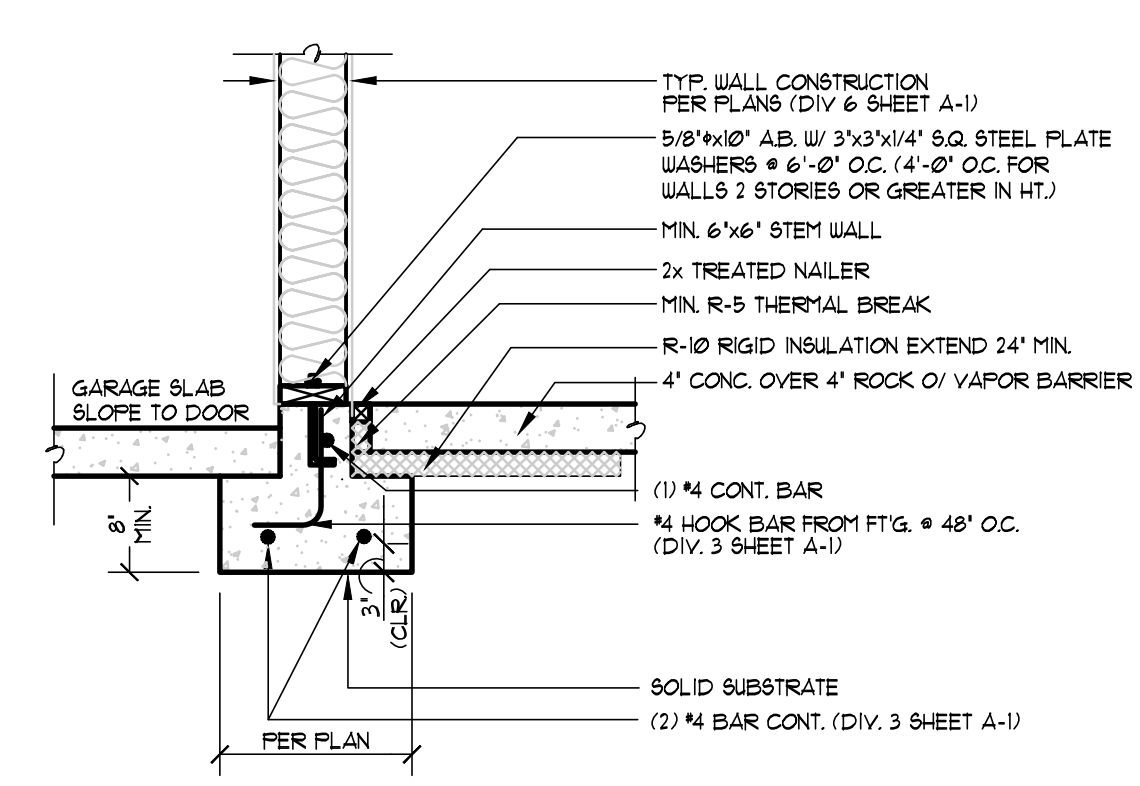
**2 DAMP PROOFING DETAIL**  
3/4"=1'-0"



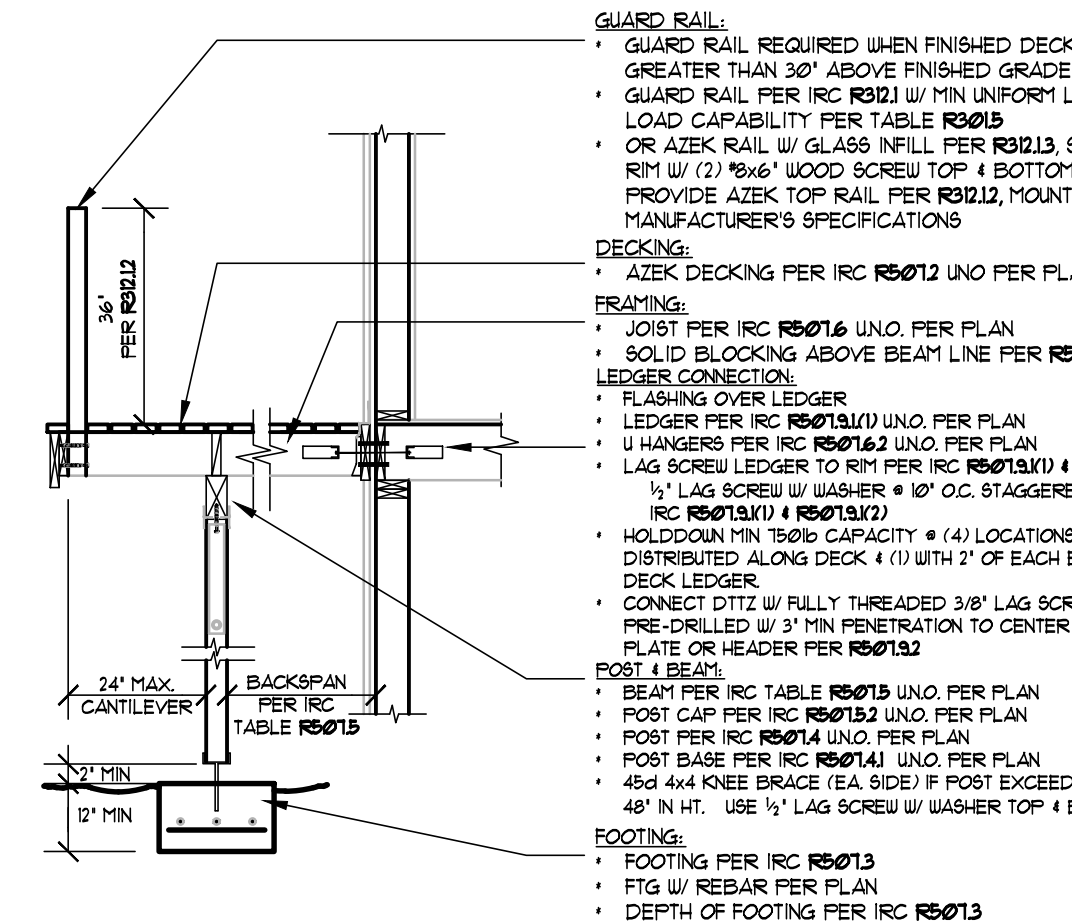
**11 TYP. DECK DETAIL (DTT22)**  
3/4"=1'-0"



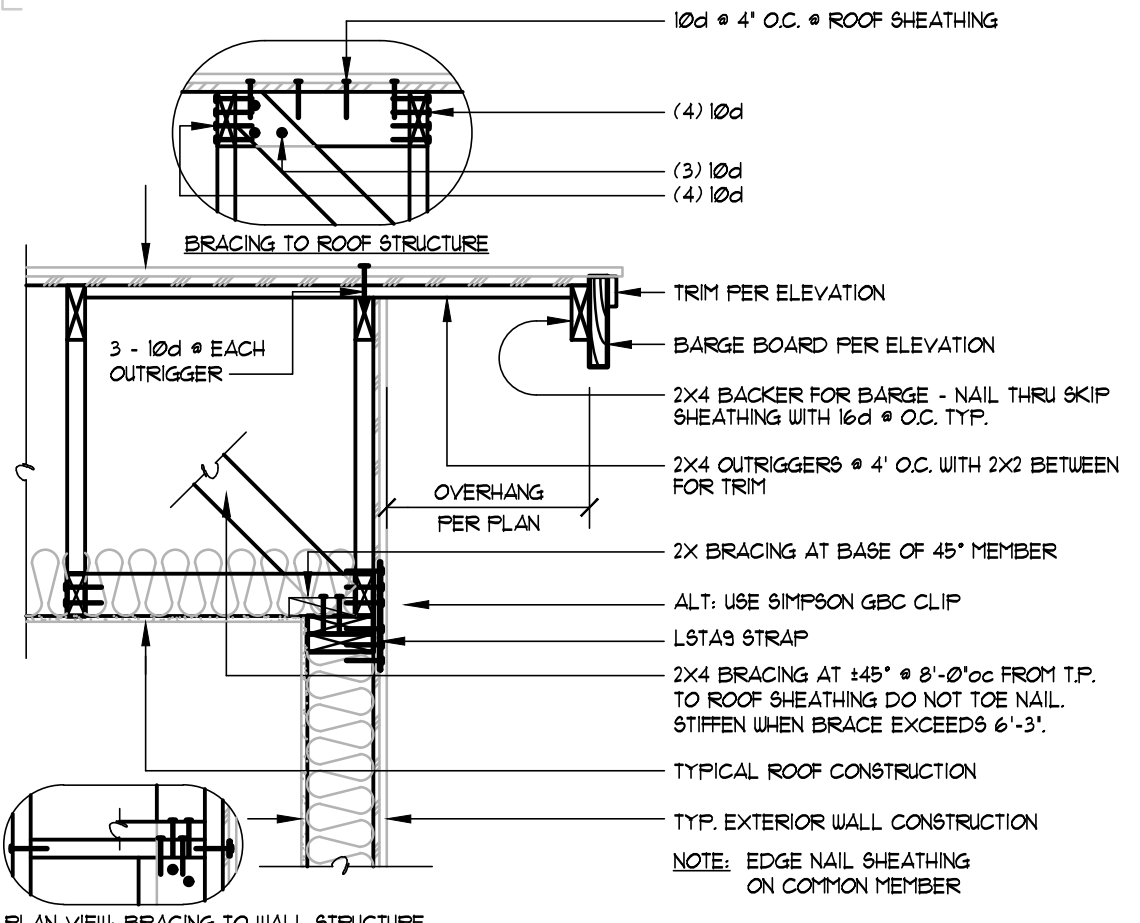
**7 EAVE DETAIL**  
3/4"=1'-0"



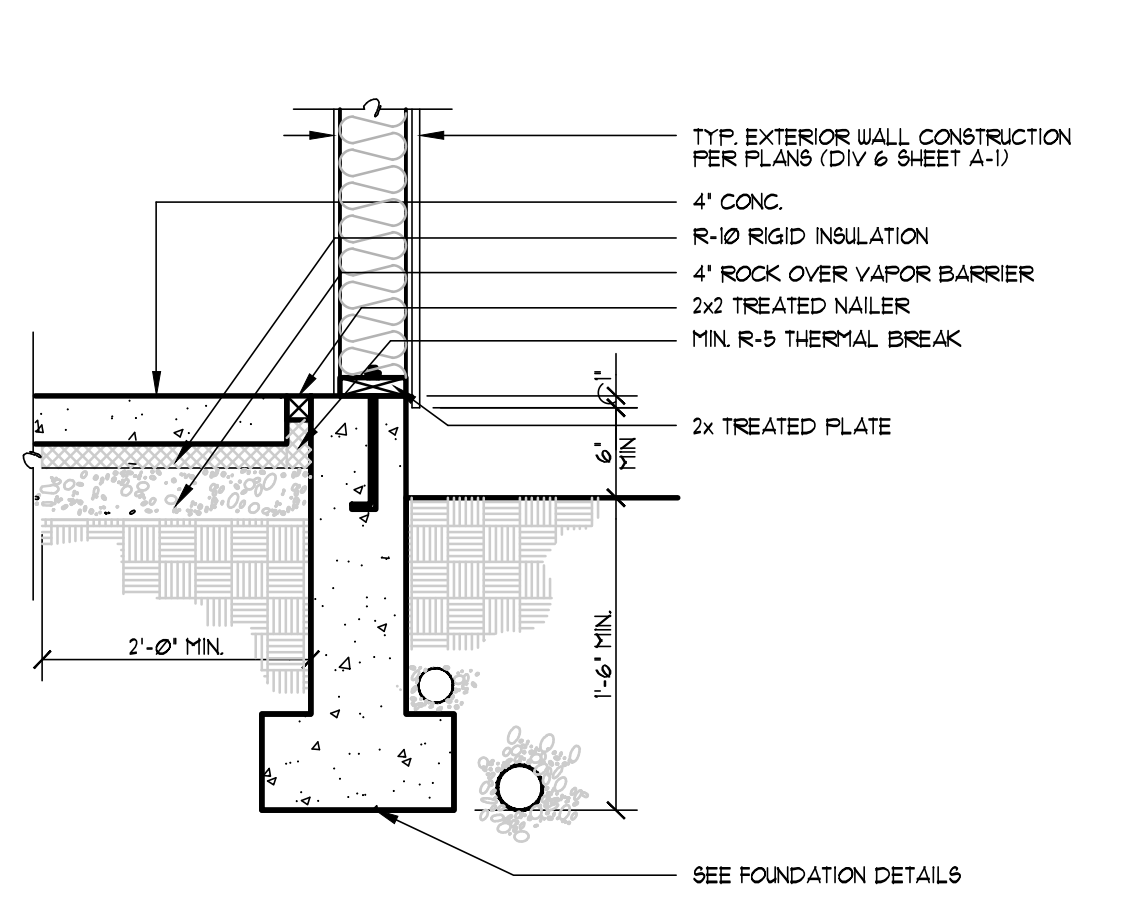
**3 FOUNDATION DETAIL**  
3/4"=1'-0"



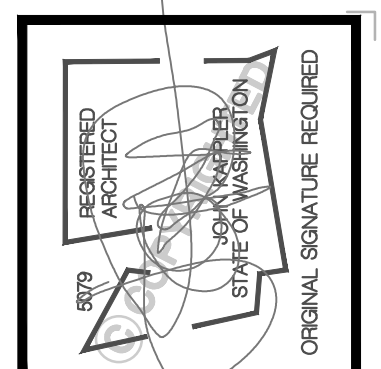
**12 TYP. DECK DETAIL (per IRC 507)**  
3/4"=1'-0"



**8 GABLE END DETAIL**  
3/4"=1'-0"



**4 FOUNDATION DETAIL**  
3/4"=1'-0"



Date	By	Description
5/20/25	ECF	PERMIT SET

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TITLE
JOB NO.: 24009.03
STARTING NO.: 24009.02

SHEET  
**D1**

**Project Information**  
 8555 85TH AVE SE, MERCER ISLAND, WA  
 ENGI & NABIL ATTIA

**AB24009.05**

**Contact Information**  
 Architectural Innovations, P.S.  
 14311 SE 16th St, Bellevue, WA 98007  
 425-841-5320

**Messages / Comments \*** **RESULTS PASS**

UA Reduction = 1.45, Proposed UA is better than baseline by 0.7%

Vertical glazing area of proposed design exceeds 15% of floor area. Baseline window area set to 15% of floor area

\* Results assume your inputs are complete and correct. Results do not constitute an approval. Analysis should be reviewed by your A/E.

**ANALYSIS SET UP**

What code compliance pathway are you using? **Total UA Alternative, Whole Building Trade Off Analysis**

Project Building Type? **Addition**

Occupancy Type? **R3 Single family dwellings and townhouses**

Code Version? **WSEC 2021**

Classification: **Addition 150 sf to 500 sf, ft.**

Baseline Description: **Code Baseline - Maximum baseline window area is 15% of floor area.**

About Your Selection: **No exempt window or door areas**

**RESULTS - Comparison of Baseline and Proposed Design \*\***

Component Performance, R occupancies			Baseline Design			Proposed Design			
U	Area	UA	U	Area	UA	U	Area	UA	
Doors U =	0.300	18	0.300	18	5.4	0.160	18	2.88	
Overhead Glazing U =	0.500	0	0.00	0	0.00	0.025	167	4.22	
Vertical Glazing U =	0.300	64	19.3	0.056	676	37.9	0.025	226	5.7
Flat/Vaulted Ceilings U =	0.024	167	4.0	0.025	226	5.7	0.025	226	5.7
Wall (above grade) U =	0.029	752	21.9	0.029	226	6.6	0.029	226	6.6
Floors over Crawlspace U =	0.029	226	6.6	0.029	226	6.6	0.029	226	6.6
Slab on Grade F =	0.540	263	142.0	0.540	263	142.0	0.540	263	142.0
Below Grade Wall U =	N/A	0	0.0	N/A	0	0.0	N/A	0	0.0
Below Grade Slab F =	N/A	0	0.0	N/A	0	0.0	N/A	0	0.0
<b>Baseline UA Total</b>			<b>Proposed UA Total</b>			<b>Proposed UA Total</b>			
218.7			212.2			212.2			
<b>Required Credits</b>			<b>Proposed Credits</b>			<b>Proposed Credits</b>			
2.0			3.5			3.5			

\*\*Values from Table R402.1.2 (Oct 2020)

from Tables 406.2 and 406.3

UA Percent Reduction 1%

UA Reduction 1.4

**Table R406.2 Energy Equalization Credits**

System No.	Full Description	Select System Type	Fuel Normalization Credits (406.2)	Energy Credits (406.3)	Total Credits (406.2 & 406.3)
5	For heating system based on electric resistance with (1) inverter driven ductless mini-split heat pump system installed in the target zone in the dwelling OR (2) With 2kW or less total installed heating capacity per dwelling	Electric Resistance with Ductless Heat Pump OR electric resistance with max 2 kW installed capacity	2.0	1.5	3.5

**Table R406.3 Energy Credits**

Option No.	Category	Select Options	Energy Credits	Brief Description of Selected Options*
1	Efficient Building Envelope	Not Selected	0.0	
2	Air Leakage Control and Efficient Ventilation	Not Selected	0.0	0.00
3.1-3.10	High Efficiency HVAC	Option 3.5	1.5	Ductless Mini Split Heat Pump W/ Zonal Control, Min HSPF of 9 (HSPF of 10) installed in largest zone of the home and primary heat is Zonal Elec Reset Heat
3.11	High Efficiency HVAC: Smart Thermostat	Not Selected	0.0	
4	High Efficiency HVAC Distribution System	Not Selected	NA	- Not applicable to ductless system selected in Option 3
5.1	Efficient Water Heating: Drain Heat Recovery	Not Selected	0.0	
5.2	Efficient Water Heating: Compact Hot Water Distribution	Not Selected	0.0	
5.3-5.8	Efficient Water Heating	Not Selected	0.0	
6	Renewable Electric Energy	3,000 kWh	Not Selected	0.0
7	Appliance Package	Not Selected	0.0	
<b>Energy Credits</b>			<b>1.5</b>	

\*Refer to WSEC 2021 Table R406.3 for complete option descriptions and requirements

https://ibcc.wa.gov/state-codes-regulations-guidelines/state-building-code/energy-code

**THERMAL ENVELOPE DETAILS - Proposed Design**

Conditioned Floor Area of Addition, Proposed Design: **428 sq. ft**

Classification: **Addition 150 sf to 500 sf**

Notes:

**Exterior Doors**

Plan ID	Component Description	Ref.	Door U	Qt.	Width	Height	Area	UA
	Insulated Steel, Wood Edge (SSteelWE)	10-8C	0.16	1	2	6	12	1.92
<b>Sum of Area and UA</b>								<b>12</b>
<b>Exterior Doors Area Weighted U</b>								<b>0.160</b>

**Overhead Glazing**

Plan ID	Component Description	Ref.	Glazing U	Qt.	Width	Height	Area	UA
<b>Sum of Area and UA</b>								<b>0.0</b>
<b>Overhead Glazing Area Weighted U</b>								<b>0.0</b>

**Vertical Glazing Schedule**

Plan ID	Component Description	Ref.	Glazing U	Qt.	Width	Height	Area	UA
1	OFFICE U=0.18 (2021 1.3, 1.4; 2018 1.8)	Table 406.2	0.18	2	5	3	30.0	5.4
2	OFFICE U=0.18 (2021 1.3, 1.4; 2018 1.8)	Table 406.2	0.18	2	4	3	28.0	5.04
3	KITCHEN U=0.18 (2021 1.3, 1.4; 2018 1.8)	Table 406.2	0.18	2	2	3	14.0	2.52
4	GREAT RM U=0.18 (2021 1.3, 1.4; 2018 1.8)	Table 406.2	0.18	1	8	3	24.0	4.32
5	GREAT RM U=0.18 (2021 1.3, 1.4; 2018 1.8)	Table 406.2	0.18	2	4	3	28.0	5.04
<b>Sum of Area and UA</b>								<b>144.0</b>
<b>Vertical Glazing Area Weighted U</b>								<b>0.180</b>

**Flat/Vaulted Ceilings**

Plan ID	Component Description	Ref.	Attic U	Area	UA
	R80 blown Attic STD baffled	10-7	0.025	167	4.2
<b>Sum of Area and UA</b>					<b>167</b>
<b>Area Weighted U-Value</b>					<b>0.025</b>

**Walls (Above Grade)**

Plan ID	Component Description	Ref.	Wall U	Net Area	UA
	R-21 cavity+R8 foam INT 2X6W T111 (Code Baseline)	10-5	0.056	676	38
<b>Sum of Net Area and UA</b>					<b>676</b>
<b>Gross Wall Area</b>					<b>834</b>
<b>Area Weighted U-Value</b>					<b>0.056</b>

**C402.1.3 Insulation component R-value method.** Building thermal envelope opaque assemblies shall comply with the requirements of Section C402.2 based on the climate zone specified in Chapter 3. For opaque portions of the building thermal envelope intended to comply on an insulation component R-value basis, the R-values for cavity insulation and continuous insulation shall not be less than that specified in Table C402.1.3. Where cavity insulation is installed in multiple layers, the cavity insulation R-values shall be summed to determine compliance with the cavity insulation R-value requirements. Where continuous insulation is installed in multiple layers, the continuous insulation R-values shall be summed to determine compliance with the continuous insulation R-value requirements. Cavity insulation R-values shall not be used to determine compliance with the continuous insulation R-value requirements in Table C402.1.3. Commercial buildings or portions of commercial buildings enclosing Group R occupancies shall use the R-values from the "Group R" column of Table C402.1.3. Commercial buildings or portions of commercial buildings enclosing occupancies other than Group R shall use the R-values from the "All other" column of Table C402.1.3.

**TABLE C402.1.3 OPAQUE THERMAL ENVELOPE INSULATION COMPONENT MINIMUM REQUIREMENTS, R-VALUE METHOD<sup>1</sup>**

CLIMATE ZONE	5 AND MARINE 4	
	All Other	Group R
<b>Roofs</b>		
Insulation entirely above deck	R-38ci	R-38ci
Metal buildings <sup>2</sup>	R-25 + R-22 LS	R-25 + R-22 LS
Attic and other	R-49	R-49
<b>Walls, Above Grade</b>		
Mass <sup>3</sup>	R-9.5' ci	R-13.3ci
Mass transfer deck slab edge <sup>4</sup>	See Table C402.1.4	See Table C402.1.4
Metal building	R-13 + R-14ci	R-13 + R-14ci
Steel framed	R-13 + R-10ci	R-19 + R-8.5ci
Wood framed and other	R-13 + R-7.5ci std or R-20+R-3.8ci std	R-13 + R-7.5ci std or R-20 + R-3.8ci std or R-25 std
<b>Walls, Below Grade</b>		
Below-grade wall <sup>5</sup>	Same as above grade	Same as above grade
<b>Floors</b>		
Mass <sup>6</sup>	R-30ci	R-30ci
Joist/framing	R-30'	R-30'
<b>Slab-on-Grade Floors</b>		
Unheated slabs	R-10 for 24" below	R-10 for 24" below
Heated slabs <sup>7</sup>	R-10 perimeter & under entire slab	R-10 perimeter & under entire slab

**Floor (over crawl or exterior)**

Plan ID	Component Description	Ref.	Floor U	Area	UA
	R38 vented Jant (2021 1.3, 1.3; 2018 1.3-1.5)	10-3	0.025	205	5
<b>Sum of Area and UA</b>					<b>205</b>
<b>Area Weighted U-Value</b>					<b>0.025</b>

**Slab on Grade (less than 2 feet below grade)**

Plan ID	Component Description	Ref.	Slab F	Slab Perim	Slab UA
	R10 2" horizontal w/IB (Code Baseline)	WSU	0.540	263	142
<b>Sum of Perimeter and FP</b>					<b>263</b>
<b>Area Weighted U-Value</b>					<b>0.540</b>

**Below Grade Walls and Slabs**

Plan ID	Component Description	Slab Depth	Ref.	Wall U	Wall Area	Wall UA	Slab F	Slab Perim	Slab UA
<b>Sum of Area, Length and UA Weighted U- and F-values</b>									

**Links to Download Forms, Checklists and Other Resources**

Compliance Certificate [Insulation Certificate](#) [Insulation Certificate](#)

Duct Testing Affidavits [Affidavit Existing](#) [Affidavit New](#)

Prescriptive Checklist for 2018 WSEC Alterations (Remodel) Worksheet [Prescriptive Checklist Worksheet](#)

EER SEER2 COP HSPF2 Converter <https://www.aecoolinginsulation.com/eer-seer2-cop-hspf2-hwfm-converter>

**Ventilation Requirements**

Conditioned Floor Area: **428 sq. ft.**

Number of Bedrooms: **2**

Run-Time Percent in Each 4-Hour Segment: **75%**

Is the system Balanced? **Unbalanced**

Is the system Distributed? **Not Distributed**

Ventilation Code Section: **IRC, Chapter 15**

Whole House Mechanical Ventilation Airflow Rate: **CFM**

**HVAC Thermal Distribution System**

Is this a hydronic heating system? **No**

Location of ducts: **Unducted**

Location of Air Handler: **Unducted**

For Existing Construction: Are Any of These Exceptions True?

Are ducts systems documented to have been previously sealed as confirmed through field verification and diagnostic testing per RS-33? **No**

Is there less than 40 linear feet in unconditioned spaces? (not excepted under WSEC 2021) **No**

Are existing duct systems constructed, insulated or sealed with asbestos? **No**

Is the project an Addition less than 750 sf of conditioned floor area? **No**

Is Duct Testing Required? **No**

**Heating System Sizing - Proposed Design**

Nearest Weather Station: **Mercer Island**

Indoor Design Temperature: **70 F**

Outdoor Design Temperature: **25 F**

Design Temperature Difference (ΔT): **45 F**

Conditioned Floor Area of Addition, Proposed Design: **428 ft<sup>2</sup>**

Conditioned Volume: **3,638 ft<sup>3</sup>** Average ceiling height = 8.5 ft. Volume = 3638 ft<sup>3</sup>

Average ceiling height: **8.5 ft**

HVAC System Type: **Heat Pumps**

Location of HVAC Distribution System: **Unducted**

Sum of UA: **217**

Envelope Heat Load (Sum of UA x ΔT): **5,775 Btu / Hour**

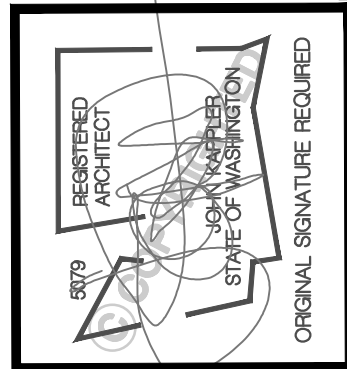
Air Leakage Heat Load (Ducts X 0.16 X 173 X 916): **1,788 Btu / Hour**

Building Design Heat Load (Air Leakage + Envelope Heat Load): **11,543 Btu / Hour**

Building and Duct Heat Load (For ducts located in unconditioned space: Sum of Building Heat Loss X 1.1): **11,543 Btu / Hour**

Maximum Heat Equipment Output (Building and Duct Heat Loss X 1.25 for heat pumps): **16,169 Btu / Hour**

Building and Duct Heat Loss X 1.42 for all other systems: **4.7 kW**



Date	By	Description
6/30/25	ECP	PERMIT SET
6/22/25	ECP	JURISDICTIONAL COMMENTS
3/26/26	ECP	JURISDICTIONAL COMMENTS

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TITLE

JOB NO.: **24009.03**

STARTING NO.: **24009.22**

SHEET

**E**

**SLAB ON GRADE**  
 4" CONC. SLAB ON 10 MIL VAPOR BARRIER ON 4" MIN. GRANULAR FILL ON 95% COMPACTED FILL/VIRGIN SOIL

**PORCH SLAB**  
 4" CONC. SLAB ON 4" MIN. GRANULAR FILL ON 95% COMPACTED FILL/VIRGIN SOIL

GENERAL STRUCTURAL NOTES	
FOUNDATION	
<ul style="list-style-type: none"> <li>DESIGN IS BASED ON 2021 INTERNATIONAL RESIDENTIAL CODE w/VA STATE AMENDMENTS.</li> <li>DESIGN LOADS:               <ul style="list-style-type: none"> <li>SOIL: 2,000 PSF ALLOWABLE BEARING PRESSURE GEOTECH REPORT BY PANGELO INC. - 02/24/2026</li> </ul> </li> <li>CONCRETE SHALL ATTAIN THE FOLLOWING MINIMUM COMPRESSIVE STRENGTHS IN 28 DAYS, UNO.               <ul style="list-style-type: none"> <li>FC = 2500 psl --- FOUNDATION WALLS*</li> <li>2500 psl --- FOOTINGS*</li> <li>2500 psl --- INTERIOR SLABS ON GRADE</li> <li>3500 psl --- EXT. SLABS ON GRADE</li> <li>fy = 60,000 psl</li> </ul> </li> <li>* UTILIZE 5# SACK 2500 PSI CONCRETE MIXES THAT ARE EQUIVALENT TO 3,000 PSI CONCRETE FOR WEATHERING POTENTIAL</li> <li>ALL CONCRETE EXPOSED TO THE WEATHER SHALL NOT HAVE LESS THAN 5% OR MORE THAN 7% AIR ENTRAINMENT.</li> <li>TYPICAL REINFORCEMENT DETAILS: LAP ALL REBAR 24" MIN, BEND BARS AND LAP AT CORNERS, PROVIDE 6" HOOK INTO SUPPORTING FOOTINGS WHEN FOOTINGS INTERSECT, PROVIDE 3" MINIMUM COVER AT THE BOTTOM BARS AND 1 1/2" COVER AT THE SIDES.</li> <li>FOUNDATION WALLS SHALL BE BRACED, PRIOR TO BACKFILLING, BY EITHER ADEQUATE TEMPORARY BRACING OR INSTALLATION OF FIRST FLOOR DECK.</li> <li>ALL FOOTINGS SHALL BEAR BELOW FROST LINE. CONSULT SOILS REPORT/LOCAL MUNICIPALITY FOR MINIMUM DEPTH BELOW GRADE.</li> <li>FOOTINGS AND SLABS ON GRADE SHALL BEAR ON VIRGIN SOIL OR 95% COMPACTED FILL.</li> <li>PROVIDE CONTROL JOINTS AT ALL INSIDE CORNERS OF SLAB EDGES, AND OTHER LOCATIONS WHERE SLAB CRACKS ARE LIKELY TO DEVELOP. (15'-0" O.C.)</li> <li>FASTEN SILL PLATES TO FOUNDATION WALLS WITH 3/8" DIA. ANCHOR BOLTS w/ MIN. 3"x3"x 1/2" PLATE WASHERS (EDGE OF WASHER TO BE LOCATED WITHIN 1/2" OF EXTERIOR EDGE OF SILL PLATE) &amp; NUTS @ 6'-0" O.C. @ 2-STORY &amp; 4'-0" O.C. @ 3-STORY CONDITIONS w/ 1" MIN. EMBEDMENT INTO CONC. PROVIDE A MINIMUM OF 2 ANCHORS PER PLATE, 12" MAXIMUM FROM PLATE ENDS, UNO. (SEE FND. DETAILS).</li> <li>ALL LUMBER EXPOSED TO WEATHER OR IN CONTACT w/ CONCRETE OR MASONRY FOUNDATION SHALL BE PRESERVATIVE-TREATED HEM FIR #2.</li> <li>BUILDER TO VERIFY CORROSION-RESISTANCE COMPATIBILITY OF HARDWARE &amp; FASTENERS IN CONTACT w/ PRESERVATIVE-TREATED WOOD. CONTACT LUMBER &amp; HARDWARE SUPPLIERS TO COORDINATE.</li> <li>ARCH/BUILDER TO VERIFY ALL DIMENSIONS</li> </ul>	

**DEMOLITION/RENOVATION NOTES**

- FRAMING AND FOUNDATION PLANS HAVE BEEN DESIGNED TO BE STRUCTURALLY SOUND UPON COMPLETION OF THE WORK. THE MEANS AND METHODS OF CONSTRUCTION ARE THE RESPONSIBILITY OF THE BUILDER/CONTRACTOR (UNLESS SPECIFICALLY NOTED ON PLANS).
- DURING DEMOLITION AND CONSTRUCTION, IT IS THE BUILDER/CONTRACTOR'S RESPONSIBILITY TO PROVIDE ADEQUATE TEMPORARY SHORING/BRACING OF EXISTING ELEMENTS INTENDED TO REMAIN.
- THE STRUCTURAL PLANS HAVE BEEN PREPARED WITH EXISTING FRAMING/FOUNDATION ASSUMPTIONS AS NOTED ON THE PLANS. IT IS THE BUILDER/CONTRACTOR'S RESPONSIBILITY TO CONTACT M&K STRUCTURAL ENGINEERING IF ACTUAL SITE CONDITIONS VARY FROM WHAT IS DEPICTED ON THE CONSTRUCTION DOCUMENTS.

LOADING AND DESIGN PARAMETERS	
GRAVITY DESIGN LOADS:	
DEAD LOAD (PSF):	
ROOF RAFTERS:	10
CEILING JOISTS:	10
FLOOR (1-JOIST):	10
LIVE LOAD (PSF):	
ROOF:	20
RESIDENTIAL LIVING AREAS:	40
RESIDENTIAL SLEEPING AREAS:	30
RESIDENTIAL GARAGE:	50
RESIDENTIAL DECK AREAS:	60
SNOW LOAD:	
GROUND SNOW LOAD (Ps) (PSF):	25
FLAT ROOF SNOW LOAD (Ps) (PSF):	25
SNOW EXPOSURE FACTOR (Ce):	0.8
SNOW LOAD IMPORTANCE FACTOR (I):	1.0
THERMAL FACTOR (Ct):	1.2
LATERAL DESIGN LOADS:	
WIND LOAD: (IBC 1609)	
SPEED (Vw) (MPH):	100
WIND RISK CATEGORY:	II
IMPORTANCE FACTOR (Iw):	1.0
EXPOSURE CATEGORY:	C
INTERNAL PRESSURE COEFF. (GCi):	0.18
TOPOGRAPHIC FACTOR (Kzt):	1.0
SEISMIC LOAD: (IBC 1613)	
SEISMIC RISK CATEGORY:	II
SEISMIC IMPORTANCE FACTOR (Iw):	1.0
MAPPED SPECTRAL RESPONSE:	
Ss: 1.465	Ss: 0.504
SITE CLASS:	D
SPECTRAL RESPONSE COEFF.:	
Sms: 1.12	Sms: 0.603
SEISMIC DESIGN CATEGORY:	D
BASIC SEISMIC-FORCE-RESISTING SYS:	
LIGHT FRAMED WALLS	
W/WOOD STRUCTURAL PANELS	
ULTIMATE BASE SHEAR (ADDITION):	
TRANS: 12 k	LONG: 12 k
SEISMIC RESPONSE COEFF. (Cw) (ADDITION):	
TRANS: 0.180	LONG: 0.180
RESPONSE MODIFICATION FACTOR (R):	
TRANS: 6.5	LONG: 6.5
ANALYSIS PROCEDURE USED:	
EQUIVALENT LATERAL FORCE	

**MEANS & METHODS NOTES**

THE STRUCTURE IS DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER THE BUILDING IS FINISHED AND ALL PLAN, DETAIL, AND NOTE SPECIFICATIONS HAVE BEEN COMPLETED. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE THE ERECTION PROCEDURES AND SEQUENCE TO INSURE THE SAFETY OF THE BUILDING AND ITS COMPONENTS DURING CONSTRUCTION. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF NECESSARY SHORING, SHEETING, TEMPORARY BRACINGS, GUTS, AND TIE-DOWNS. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SHORING AND BRACING REQUIRED TO STABILIZE AND PROTECT EXISTING AND ADJACENT STRUCTURES AND SYSTEMS DURING COURSE OF DEMOLITION AND CONSTRUCTION OF THE PROJECT.

STRUCTURAL DESIGN AND SPECIFICATIONS ASSUME THAT ALL SUPPORTING AND NON-SUPPORTING ELEMENTS IN CONTACT WITH FLOOR FRAMING ARE LEVEL, INCLUDING, BUT NOT LIMITED TO, FOUNDATIONS, SLABS ON GRADE, BEAMS, WALLS, AND NON-BEARING ELEMENTS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LEVELNESS AND MAKE ADJUSTMENTS AS NECESSARY, INCLUDING CONSIDERATION OF THOSE AREAS THAT MAY BE WITHIN CONTRACTUAL, INDUSTRY, OR WARRANTY TOLERANCES.

**ADDITIONAL NOTES FOR I-JOIST MANUFACTURER**

ENGINEERED JOISTS SHALL BE DESIGNED TO MEET THE DIFFERENTIAL DEFLECTION CRITERIA BELOW UNLESS NOTED OTHERWISE ON PLAN. MULHERN & KULP CANNOT BE HELD RESPONSIBLE FOR ANY STRUCTURAL ISSUES RELATED TO ANY BUILDING COMPONENT IF COMPONENT SHOP DRAWINGS ARE NOT SUBMITTED TO M&K FOR REVIEW PRIOR TO FABRICATION, DELIVERY, OR INSTALLATION.

JOISTS SHALL BE DESIGNED SO THAT DIFFERENTIAL DEFLECTION BETWEEN ADJACENT PARALLEL TRUSSES OR GIRDER TRUSSES DOES NOT EXCEED THE FOLLOWING:

A. I-JOISTS:  
 1/8" DEAD LOAD

**LATERAL BRACING NOTES**

THIS REMODEL HAS BEEN ENGINEERED TO RESIST LATERAL FORCES RESULTING FROM: 100 MPH WIND SPEED, EXP. C (ASCE 7-16 WIND MAP, PER IRC R301.2.1.1) RISK CAT. 2 & SEISMIC CAT. D2.

**100 MPH WIND IN 2021 IRC MAP**  
 ENGINEERED DESIGN WAS COMPLETED PER 2021 IBC (SECTION 1609 & 1613) & ASCE 7-16, AS PERMITTED BY R301.3 OF THE 2021 IRC. ACCORDINGLY, THIS REMODEL, AS DOCUMENTED AND DETAILED HEREWITHIN, IS ADEQUATE TO RESIST THE CODE REQUIRED LATERAL FORCES, AND DOES NOT NEED TO CONFORM TO THE PRESCRIPTIVE PROVISIONS OF R602.10.

**STANDARD EXTERIOR WALL SHEATHING SPECIFICATIONS**

- 3/16" OSB OR 1/2" PLYWOOD:

 FASTEN SHEATHING w/ 2 1/2"x0.131" NAILS @ 6" O.C. AT ALL SUPPORTED PANEL EDGES AND 12" O.C. IN THE PANEL FIELD. ALL SHEATHING SHEET PANEL EDGES SHALL OCCUR OVER WALL FRAMING MEMBERS OR 2x HORIZONTAL BLOCKING SHALL BE PROVIDED TO SUPPORT PANEL EDGE. ALL NEW EXTERIOR WALLS SHALL BE CONSTRUCTED PER THIS SPECIFICATION UNO. ON PLANS.

**NOTES:**

- LATERAL ANALYSIS ASSUMES STUD SPACING @ 16" O.C.
- ALL SHEAR WALLS SHALL HAVE DOUBLE TOP PLATES FASTENED TOGETHER w/ 3"x0.131" NAILS @ 8" O.C. USE (12x3"x0.131" NAILS AT EACH LAP SPlice, (6) EACH SIDE OF JOINT (TYP. UNO).
- ALL EXTERIOR WALLS ARE CONTINUOUSLY SHEATHED.
- ALL INTERIOR SHEAR WALLS AND EXTERIOR WALLS ARE SHEATHED ABOVE AND BELOW OPENINGS.
- WHERE OSB/PLYWOOD SHEATHING IS APPLIED TO BOTH FACES OF A SHEAR WALL, PANEL JOINT SHALL BE OFFSET TO FALL ON DIFFERENT FRAMING MEMBERS

**LEGEND**

- INTERIOR BEARING WALL
- BEARING WALL ABOVE (B.W.A.) OR SHEAR WALL ABOVE (S.W.A.)
- BEAM / HEADER
- AREA OF OVERFRAMING
- JL METAL INDICATES AREA OF ROOF OVERFRAMING
- INDICATES POST ABOVE. PROVIDE SOLID BLOCKING UNDER POST OR JAMB ABOVE.

**GENERAL STRUCTURAL NOTES**

**DESIGN PARAMETERS**

- DESIGN IS BASED ON 2021 INTERNATIONAL RESIDENTIAL CODE w/VA STATE AMENDMENTS.
- WOOD FRAME ENGINEERING IS BASED ON NDS, NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION - LATEST EDITION.

**GENERAL FRAMING**

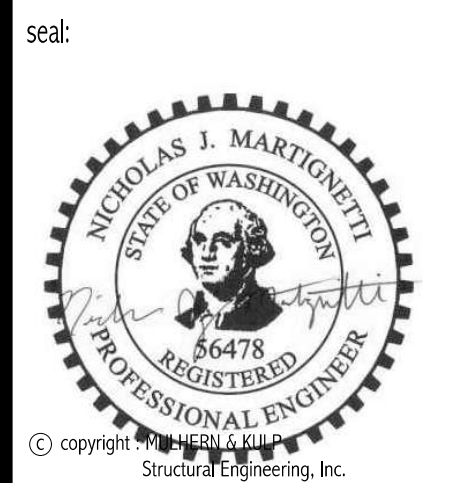
- EXTERIOR BEARING WALLS SHALL BE 2x4 OR 2x6 (AS SHOWN ON PLANS) @ 16" O.C. (w/ DOUBLE TOP PLATE) HEM FIR (#F) #2UD GRADE LUMBER, OR BETTER, UNO.
- INTERIOR BEARING WALLS SHALL BE 2x4 OR 2x6 (AS SHOWN ON PLANS) @ 16" O.C. (w/ DOUBLE TOP PLATE) HEM FIR (#F) #2UD GRADE LUMBER, OR BETTER, UNO.
- ALL NON-BEARING INTERIOR STUD WALLS SHALL BE CONSTRUCTED WITH 2x #2UD GRADE MEMBERS SPACED @ 24" O.C. (MAX.)
- ALL WALLS TALLER THEN TYP. PLATE HEIGHT SHALL BE CONSIDERED BALLOON FRAMED & SHALL BE CONSTRUCTED FROM FLOOR TO UNDERSIDE OF FRAMING AT NEXT LEVEL. B.F. WALLS SHALL BE 2x4 OR 2x6 (AS SHOWN ON PLANS) HEM FIR (#F) #2 GRADE LUMBER, OR BETTER, UNO.
- ALL HEADERS SHALL BE SUPPORTED BY (1)2x JACK STUD & (1)2x KING STUD, MINIMUM.
  - THE NUMBER OF STUDS SPECIFIED AT A SUPPORT INDICATES THE NUMBER OF JACK STUDS REQUIRED, UNO.
- ALL 2x6 AND LARGER SOLID SAWN BEAMS/HEADERS SHALL BE HEM FIR #2 (#F #2) OR BETTER. ALL 4x6 AND LARGER SOLID SAWN LUMBER SHALL BE DOUG FIR #2 (DF #2) OR BETTER.
- ALL FRAMING LUMBER SHALL BE KILN DRIED TO 15% MC (KD-15).
- ALL TYP. NAIL FASTENER REQUIREMENTS ARE NOTED IN GENERAL NOTES, IN DETAILS OR ON PLANS. ALL NAILS REQUIRED ARE MIN. DIAMETER AND LENGTH REQUIRED FOR CONNECTION. ALL HANGER NAILS SHALL BE INSTALLED PER MANUFACTURER'S REQUIREMENTS FOR MAX. CHARTED CAPACITY. NOTE: HANGERS USE COMMON NAIL DIAMETERS NOT TYPICAL FRAMING GUN NAILS.
- FASTEN ALL BEAMS TO COLLARS w/ (4) 3"x0.131" TOENAILS (MIN), TYP. UNO.
- PROVIDE SOLID BLOCKING IN FLOOR SYSTEM UNDER ALL POSTS & HOLD-DOWNS CONTINUOUS TO FOUNDATION/BEARING. BLOCKING TO MATCH POST ABOVE.
- ENGINEERED LUMBER TO MEET OR EXCEED THE FOLLOWING:
  - L5L MEMBERS - Fb=2325 PSI, Fv=910 PSI, E=155x10<sup>6</sup> PSI
  - LVL MEMBERS - Fb=2600 PSI, Fv=285 PSI, E=2.0x10<sup>6</sup> PSI
  - GLB MEMBERS - Fb=2400 PSI, Fv=1850 PSI, Fv=265 PSI, E=1.8x10<sup>6</sup> PSI, DF/DF 24F-V4 (MIN)
- FACE NAIL MULTI-PLY 2x BEAMS & HEADERS w/ 3-ROPS OF 3"x0.131" NAILS (MIN) @ 12" O.C. STAGGERED. APPLY NAILING FROM BOTH FACES @ 3-PLY OR MORE CONDITIONS. UTILIZE 2 ROPS OF NAILS FOR 2x6 & 2x8 MEMBERS.
- ALL MEMBERS SPECIFIED AS MULTI-PLY (B) SHALL BE FASTENED TOGETHER PER MANUFACTURER. EQUIVALENT WIDTH SOLID MATERIAL MAY BE USED AS EQUAL.
- REFER TO IRC FASTENING SCHEDULE TABLE R602.3(1) FOR ALL CONNECTIONS, TYP. UNO.

**FLOOR FRAMING**

- JOISTS HAVE BEEN DESIGNED BY MULHERN & KULP TO MEET OR EXCEED L/480 LIVE LOAD DEFLECTION CRITERIA. I-JOISTS SHALL RUN CONTINUOUS OVER SUPPORTS WHEREVER SHOWN.
- ALL METAL HANGERS SHALL BE SPECIFIED BY I-JOIST MANUFACTURER, UNLESS OTHERWISE NOTED.
- I-JOIST SHOP DRAWINGS SHALL BE SUBMITTED TO ARCHITECT AND ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION OR DELIVERY.
- FLOOR SHEATHING SHALL BE 23/32" A.P.A. RATED 5/16"-1-FLOOR 24" O.C. EXPOSURE 1 (OR APPROVED EQUAL) WITH TONGUE AND GROOVE EDGES. FASTEN TO FRAMING MEMBERS w/ GLUE AND 2 1/2"x0.131" NAILS @ 6" O.C. @ PANEL EDGES & @ 12" O.C. FIELD. 2 1/2"x0.120" NAILS @ 4" O.C. @ PANEL EDGES & @ 8" O.C. FIELD. 2 1/2"x0.131" NAILS @ 3" O.C. @ PANEL EDGES & @ 8" O.C. FIELD.
- PANEL EDGE NAILING TO 1/2" OSB RIM BOARDS SHALL BE AT 6" O.C.
- ALL FLUSH CONNECTIONS SHALL BE CONNECTED WITH HANGER APPROPRIATE FOR MEMBER SIZE, UNO.
- FASTEN HANGERS TO SINGLE PLY FLUSH BEAMS w/ 1/2" LONG NAILS.

**ROOF FRAMING**

- ROOF SHEATHING SHALL BE 7/16" A.P.A. RATED SHEATHING 24/16 EXPOSURE 1 (OR APPROVED EQUAL). FASTEN TO FRAMING MEMBERS w/ 2 1/2" x 0.131" NAILS @ 6" O.C. AT PANEL EDGES & @ 8" O.C. AT INTERMEDIATE SUPPORTS. ROOF SHEATHING SHALL EXTEND BELOW ALL INSTANCES OF OVERFRAMING. BLOCKING SHALL BE INSTALLED AS REQUIRED TO LIMIT ROOF SHEATHING SPANS TO 24" MAX.
- WITHIN 48" OF ALL ROOF EDGES, RIDGES, & HIPPS FASTEN ROOF SHEATHING FIELDS PER EDGE NAILING SPEC.
- FASTEN EACH ROOF RAFTER TO TOP PLATE WITH (1) SIMPSON H25T CLIP. PROVIDE (2) SIMPSON H25T CLIPS AT FLUSH BEAMS IN THE ROOF & AT ALL BEARING POINTS.



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M&K project number:  
**203-25006**

project mgr: **NJD**  
 drawn by: **MCH**  
 issue date: **05-12-25**

**REVISIONS:**

date:	initial:
03/26/2026	AVR

PLAN REVIEW COMMENTS

**ARCHITECTURAL INNOVATIONS**

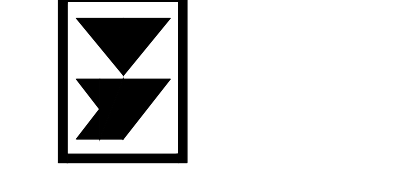
**STRUCTURAL NOTES**

**ATTIA REMODEL**  
**8555 85TH AVE SE**  
**MERCER ISLAND, WA**

sheet:  
**S-0.0**



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ARCHITECTURAL  
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STRUCTURAL DETAILS  
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sheet:  
**SD-1**

