

Bid Issue, March 13th, 2015

ADDITIONS & RENOVATIONS TO MOREN RESIDENCE

4910 BRANDYWINE STREET, NW WASHINGTON, DC 20016

GENERAL NOTES

- 1) THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF THE WORK OF ALL SUBCONTRACTORS AS REQUIRED TO COMPLETE THE WORK, AND SHALL VERIFY THAT ALL WORK IS DONE TO THE HIGHEST DEGREE OF CRAFTSMANSHIP BY JOURNEYMAN OF THE RESPECTIVE TRADES.
- 2) THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, AND SHALL WORK TO CRITICAL ALIGNMENTS AS INDICATED ON THE DRAWINGS, AND SHALL NOT SCALE THE DRAWINGS FOR MEASUREMENTS.
- 3) IF ANY DISCREPANCIES IN DIMENSIONS OR CONDITIONS ARE FOUND, THE CONTRACTOR SHALL CONTACT THE ARCHITECT FOR CLARIFICATION PRIOR TO PROCEEDING WITH THAT PORTION OF THE WORK.
- 4) THE CONTRACTOR SHALL MAINTAIN THE SITE CLEAN AND FREE OF DEBRIS. THE CONTRACTOR SHALL MAINTAIN THE SITE AND JOB CONDITIONS IN SUCH A MANNER AS TO PROTECT FROM INJURY ALL PERSONS AND PROPERTY.
- 5) PROVIDE FOR THE DEMOLITION OF ALL EXISTING ITEMS WHICH WILL INTERFERE WITH THE WORK. PROVIDE MECHANICAL, ELECTRICAL AND PLUMBING DEMOLITION AS MAY BE REQUIRED.
- 6) PROVIDE BRACING AND SHORING AS REQUIRED TO PROTECT EXISTING CONSTRUCTION TO REMAIN FROM DAMAGE, AS WELL AS TO PROTECT PERSONS AND PROPERTY. VERIFY ALL BEARING CONDITIONS PRIOR TO BEGINNING DEMOLITION.

CODE SUMMARY

GENERAL
ALL WORK SHALL BE DONE IN STRICT COMPLIANCE WITH THE DISTRICT OF COLUMBIA BUILDING CODE, INCLUDING THE 2012 EDITION OF THE IRC, AS WELL AS ANY AND ALL OTHER APPLICABLE CODES, REGULATIONS AND ORDINANCES

CONSTRUCTION SHALL CONFORM TO ALL OTHER APPLICABLE LOCAL, STATE AND NATIONAL CODES, STANDARDS AND ORDINANCES.

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ZONING SUMMARY

SUBJECT PROPERTY:
4910 BRANDYWINE STREET, NW
WASHINGTON, DC 20016

LOT: 0082 SQUARE: 1486 ZONE: R-1-B

EXISTING USE: SINGLE FAMILY RESIDENTIAL
PROPOSED USE: SINGLE FAMILY RESIDENTIAL

EXISTING LOT AREA: 5,477.5 SQ. FT.

ACCESSORY BUILDING

LOT OCCUPANCY:
MAX. ALLOWABLE COVERAGE: 40%
EXISTING LOT COVERAGE: 32%
PROPOSED LOT COVERAGE: 36%

SETBACKS:

MIN. REQUIRED SETBACK FROM ALLEY: 12'-0" FROM CENTER
EXISTING REAR YARD: 14'-1" FROM CENTER
PROPOSED REAR YARD: UNCHANGED

MAX. HT. OF ACC. BUILDING: 15'-0"/1 STORY
PROPOSED HEIGHT: 14'-9"/1 STORY

ENCLOSE EXISTING SCREEN PORCH @ MAIN RESIDENCE & NEW 8 FOOT EXTENSION AT SIDE & 4 FOOT EXTENSION AT REAR OF EXISTING ACCESSORY GARAGE

PROPOSED SCOPE OF WORK

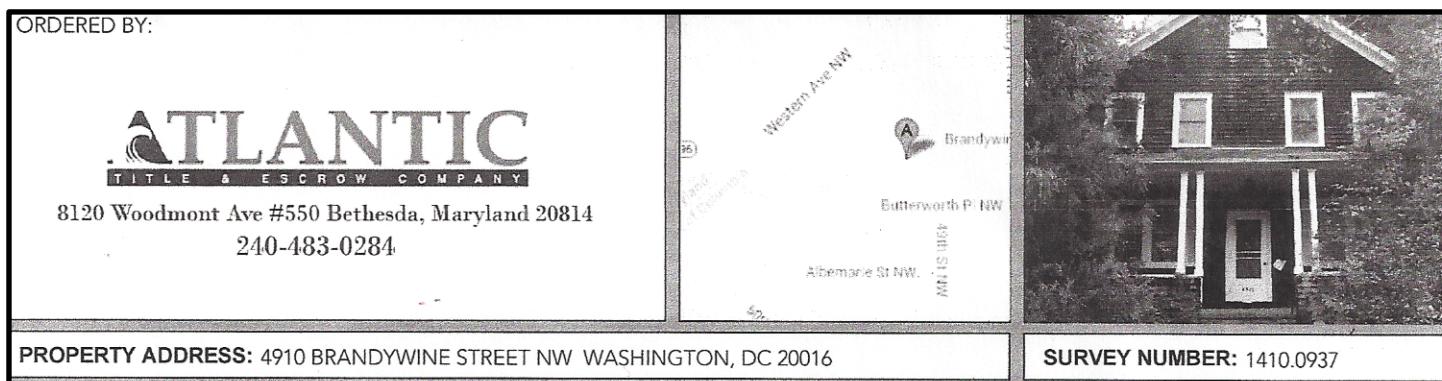
CLOSE IN EXISTING SCREEN PORCH TO CREATE SUNROOM.
RENOVATE EXISTING KITCHEN, BATHS, AND LAYOUT AS
INDICATED IN THE DRAWINGS. REPAIR & RENOVATE EXTERIOR
FAÇADE, REPLACE WINDOWS, AND PROVIDE NEW FRONT
FLAGSTONE STAIR, AND WOOD STAIR AT THE BACK. EXTEND
EXISTING GARAGE WITH 8 FOOT ADDITION AT SIDE AND 4 FOOT
EXTENSION AT BACK.

OUTLINE OF INTERIOR WORK

- DEMOLITION AS REQUIRED FOR NEW WORK
- NEW BEAMS & POSTS AS REQ PER REMOVAL OF BEARING WALLS
- NEW BATHROOM AT 2ND FLOOR
- NEW KITCHEN CABINETS AND COUNTERS PER NEW PLAN
- RELOCATE LAUNDRY ROOM FROM BSMT TO 2ND FL CLOSET
- REPAIN ALL RENOVATED AND EXISTING AREAS
- REPLACE EXISTING HEATING & COOLING SYSTEM WITH NEW 2-ZONE FORCED AIR SYSTEM
- REPLACE PLUMBING LINES AS REQUIRED
- UPGRADE ALL ELECTRICAL OUTLETS AS REQUIRED TO MEET CODE AND ACCOMODATE NEW PLAN LAYOUT

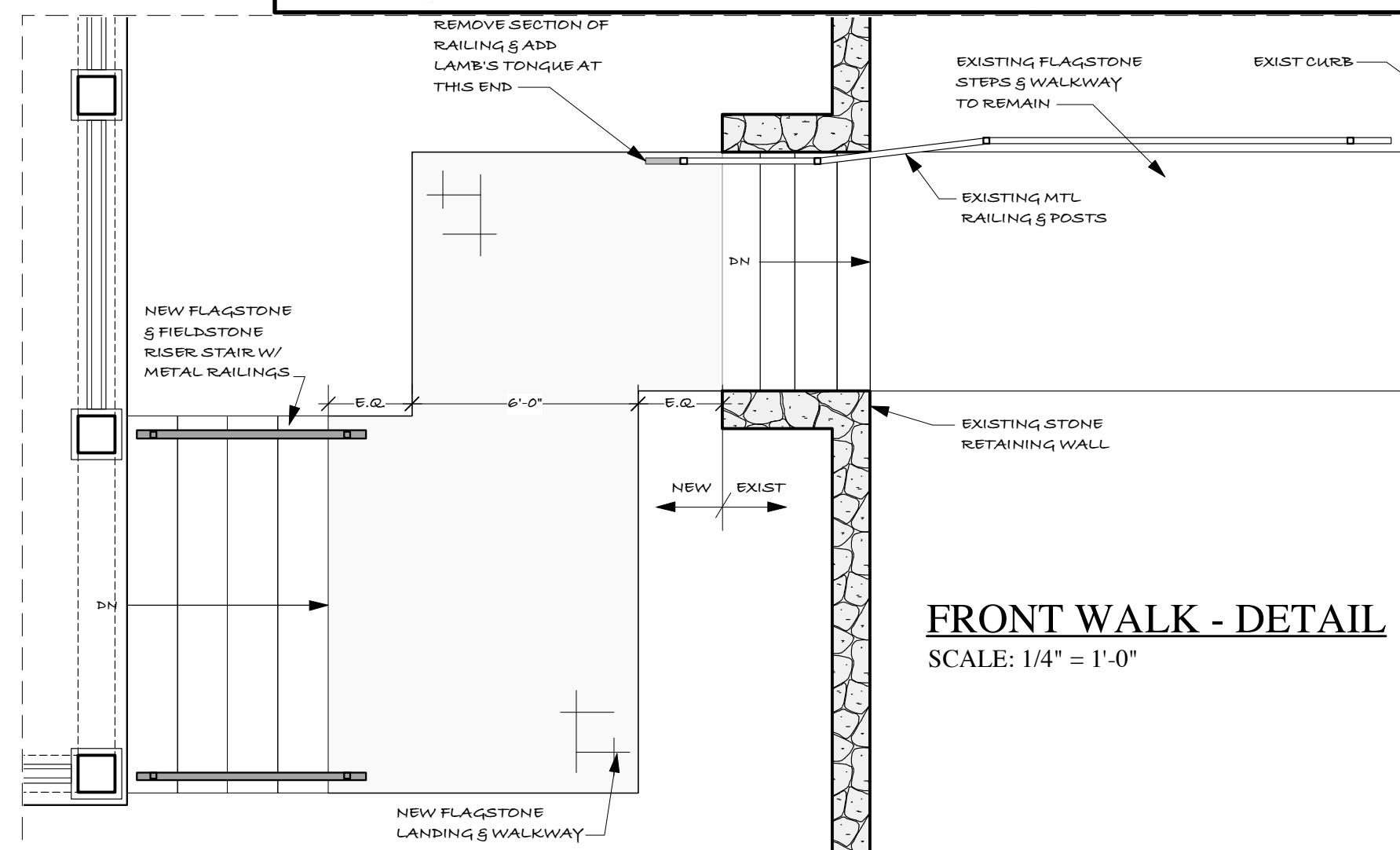
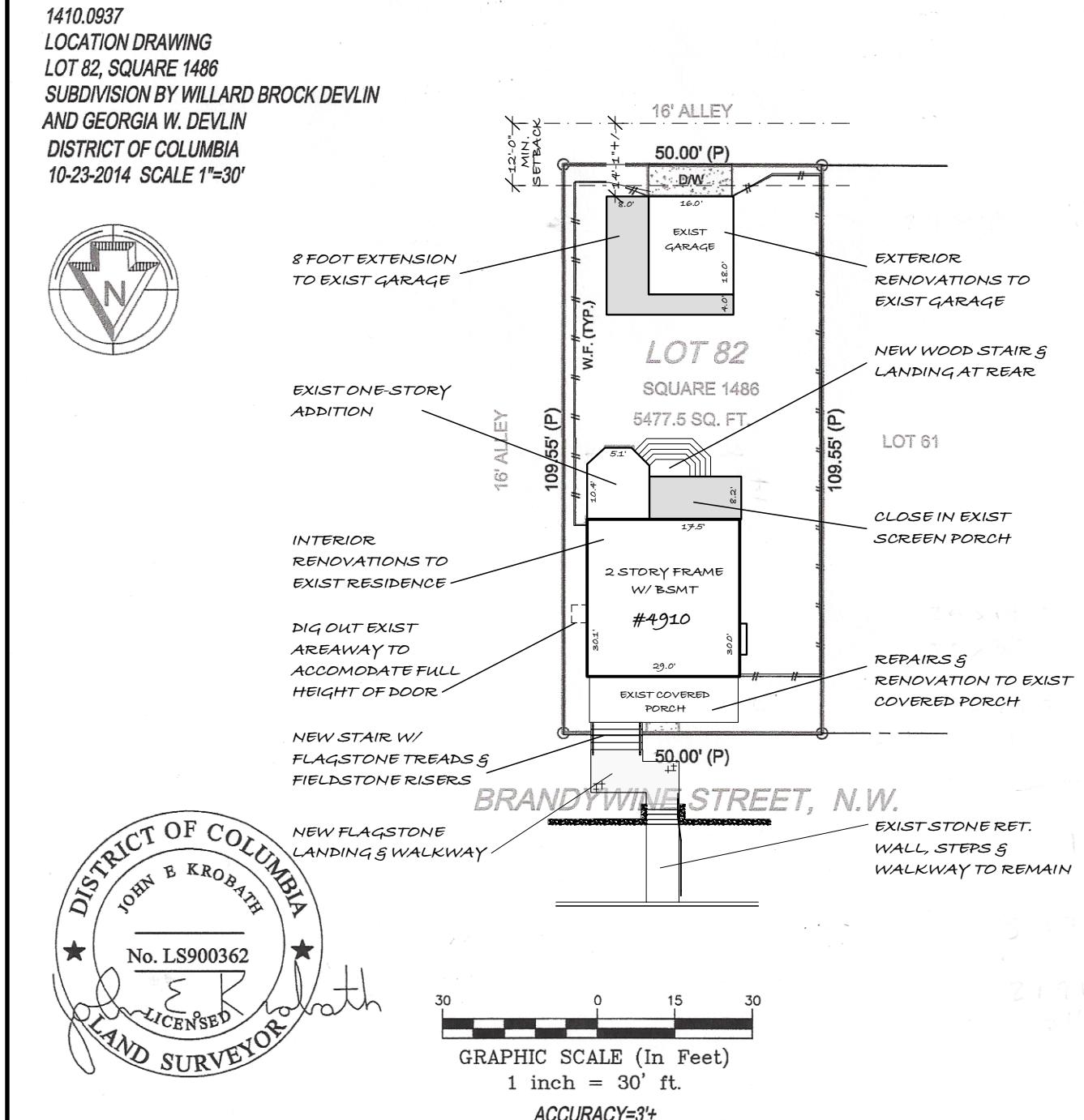
OUTLINE OF EXTERIOR REPAIRS

- REPLACE EXISTING WOOD STAIR AT REAR ENTRY WITH NEW WOOD STAIR
- REPLACE EXISTING CONCRETE FRONT STAIRS WITH NEW FLAGSTONE STAIRS
- RENOVATION OF FRONT PORCH
- NEW CEMENT BD SIDING
- NEW PVC TRIM BD AS REQUIRED AT EXTERIOR
- NEW GUTTERS AND DOWNSPOUTS
- REPLACE ALL WINDOWS & EXTERIOR DOORS AND RELATED TRIM
- NEW FLOOD LIGHTS AND LIGHT FIXTURES AT DOORS



SITE DIAGRAM

FROM HOUSE LOCATION SURVEY BY: JOHN E KROBATH, LAND SURVEYOR, 10/23/14
WITH SUPPLEMENTAL INFORMATION BY: AHMANN LLC ARCHITECTURAL SERVICES



FRONT WALK - DETAIL
SCALE: 1/4" = 1'-0"

MOREN RESIDENCE ADDITIONS & RENOVATIONS

4910 BRANDYWINE STREET, NW
WASHINGTON DC 20016

COVER SHEET PROJECT NOTES

SCALE: NONE

AHMANN LLC
ARCHITECTURAL SERVICES
4408 BECHWOOD ROAD UNIVERSITY PARK, MARYLAND 20782
PHONE 301 864 1334
FAX 301 864 6818

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MEASURED PLANS

**MOREN RESIDENCE
ADDITIONS & RENOVATIONS**

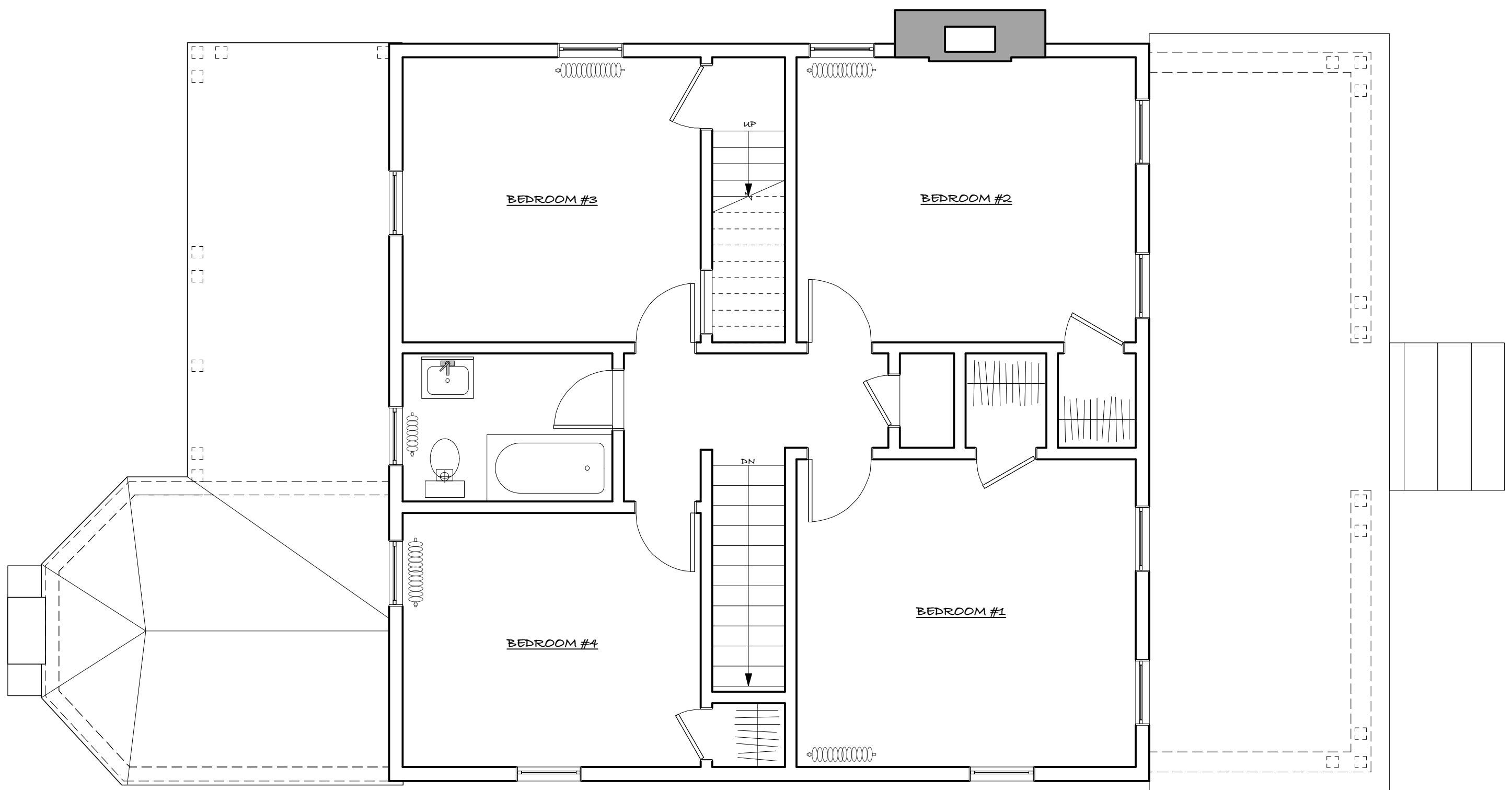
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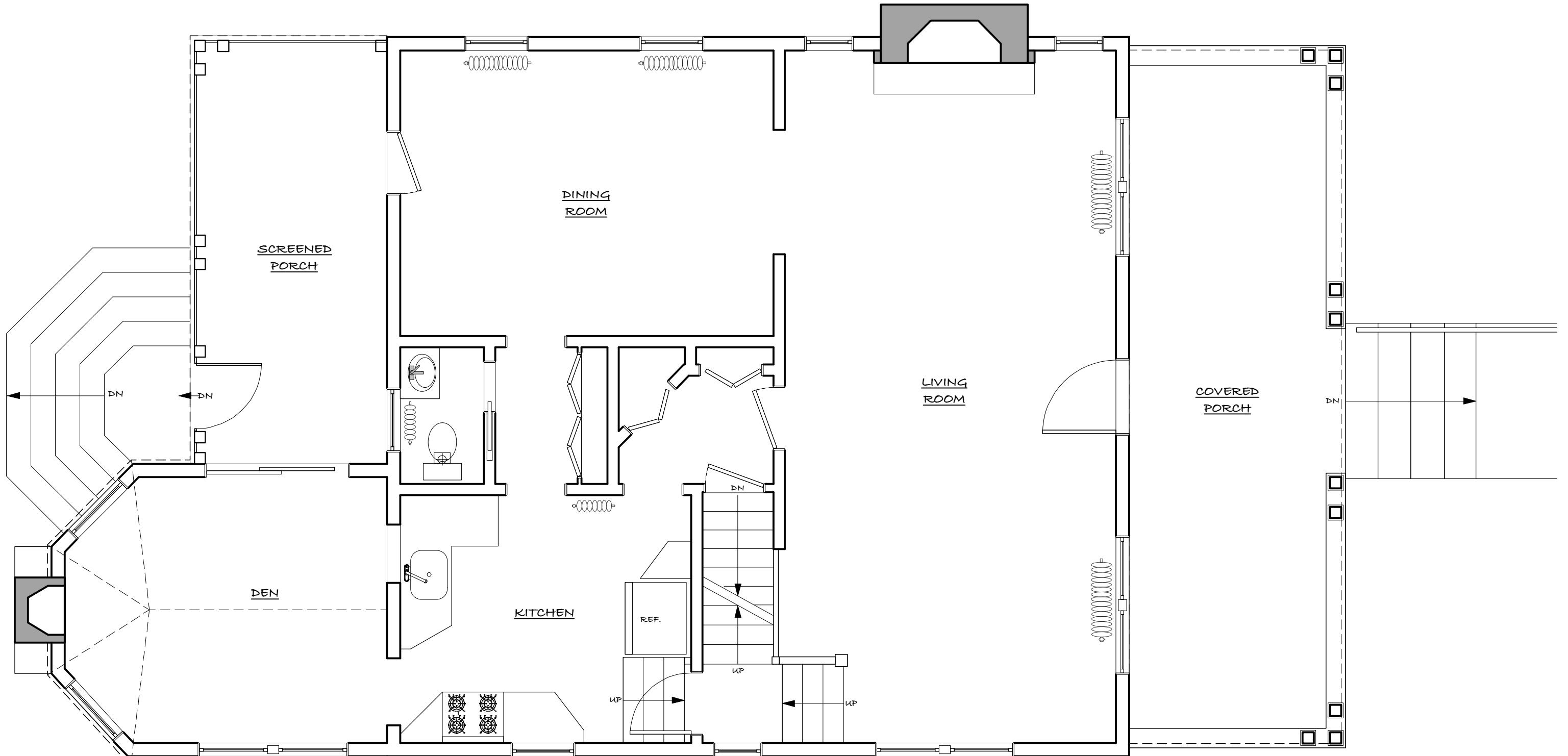
MD1

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2 MEASURED SECOND FLOOR PLAN

SCALE: 1/4" = 1'0"



1 MEASURED FIRST FLOOR PLAN

SCALE: 1/4" = 1'0"

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

**MEASURED
FRONT & WEST SIDE
ELEVATIONS**

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

**MOREN RESIDENCE
ADDITIONS & RENOVATIONS**

490 BRANDYWINE STREET, NW
WASHINGTON DC 20016

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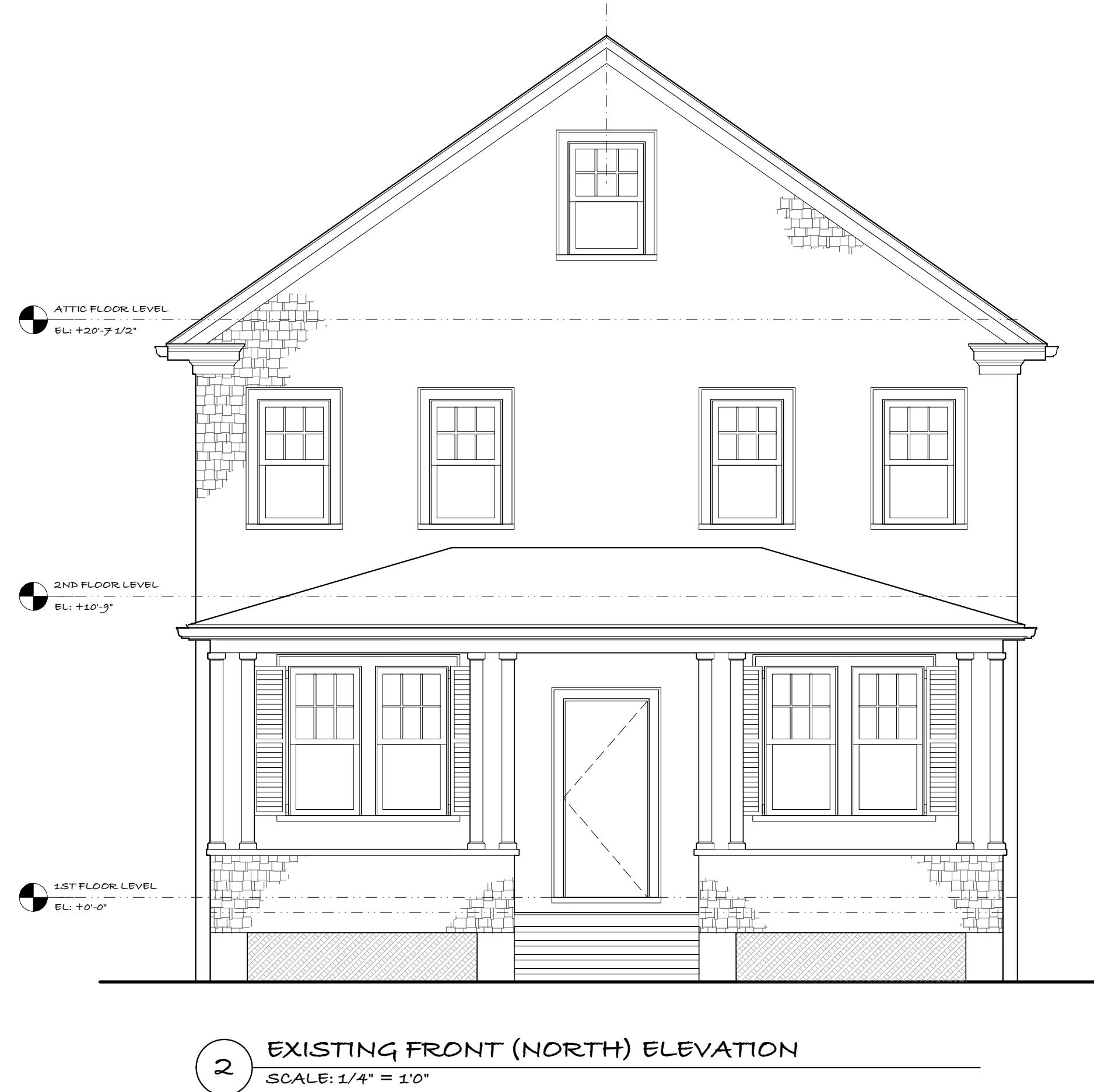
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MD2

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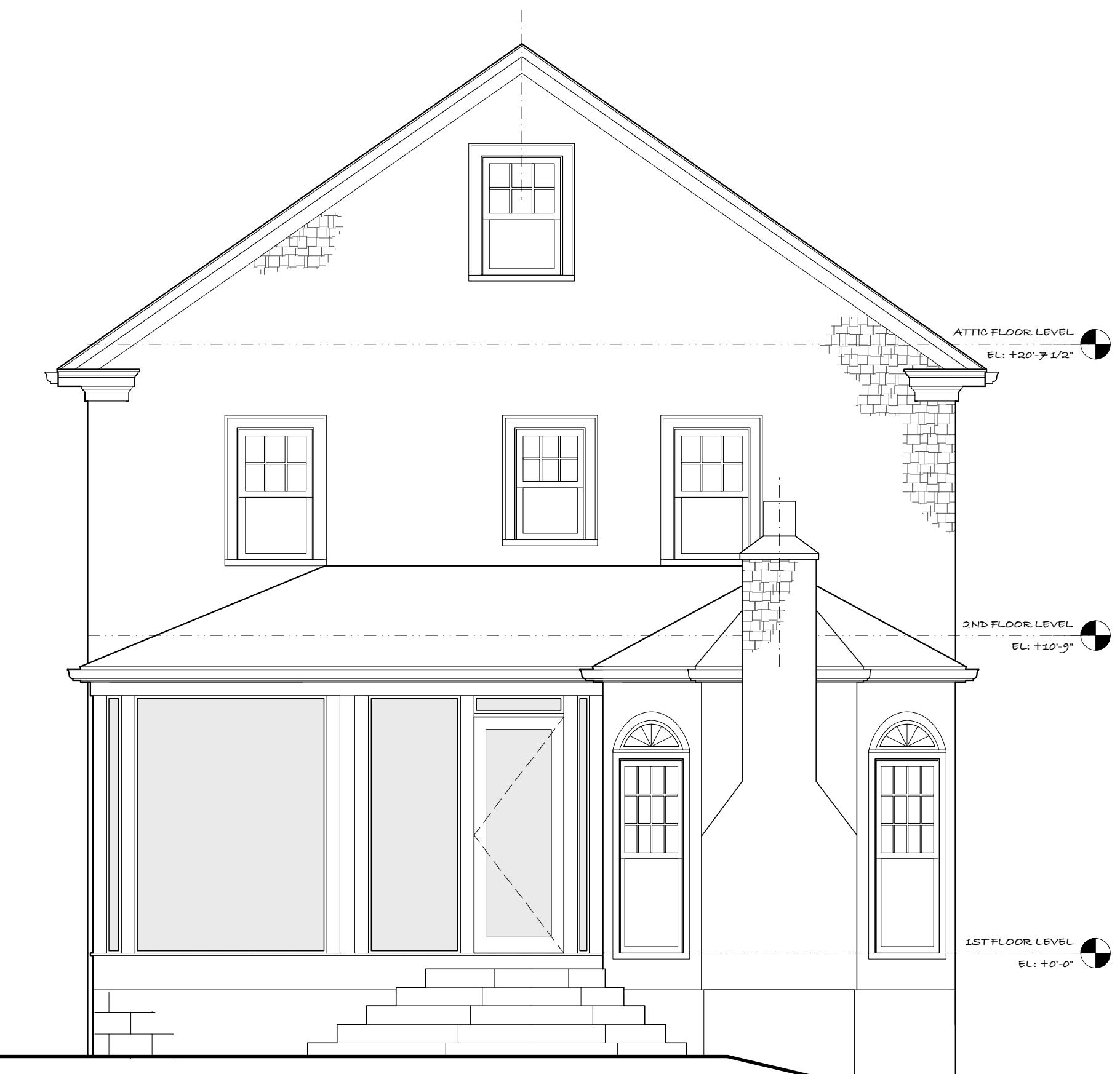
1 EXISTING RIGHT (WEST) SIDE ELEVATION
SCALE: 1/4" = 1'0"



2 EXISTING FRONT (NORTH) ELEVATION
SCALE: 1/4" = 1'0"

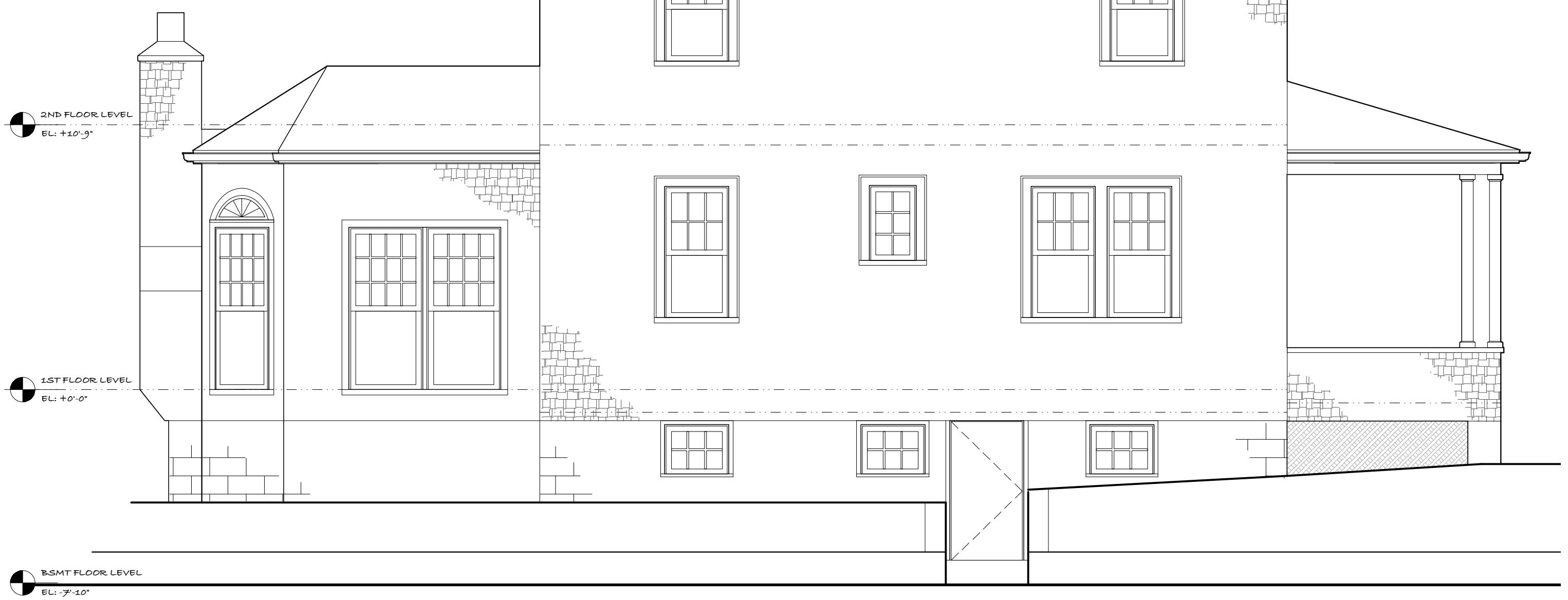
**MEASURED
REAR & EAST SIDE
ELEVATIONS**

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



2 EXISTING REAR (SOUTH) ELEVATION

SCALE: 1/4" = 1'0"



1 EXISTING LEFT (EAST) SIDE ELEVATION

**MOREN RESIDENCE
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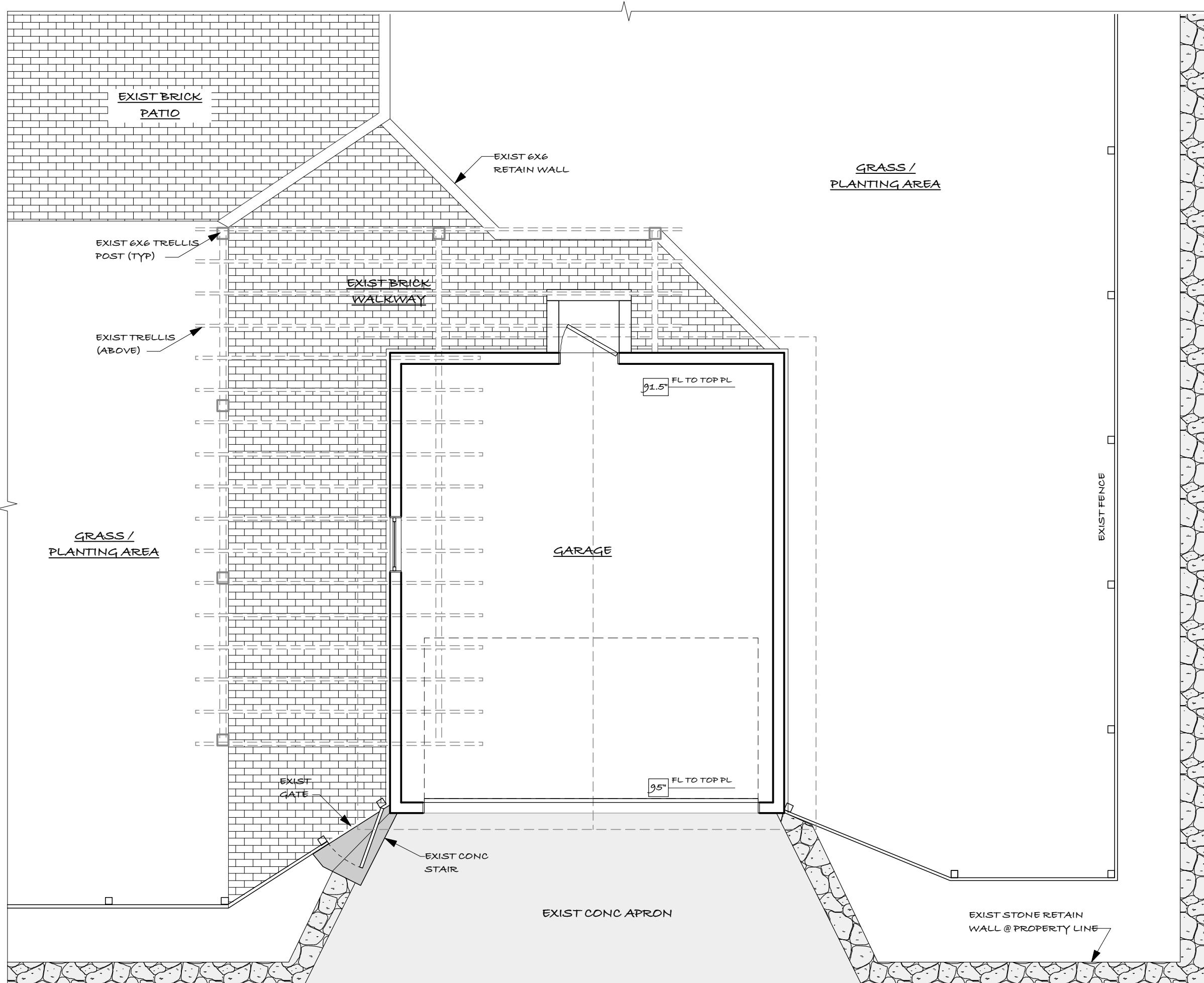
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MD3

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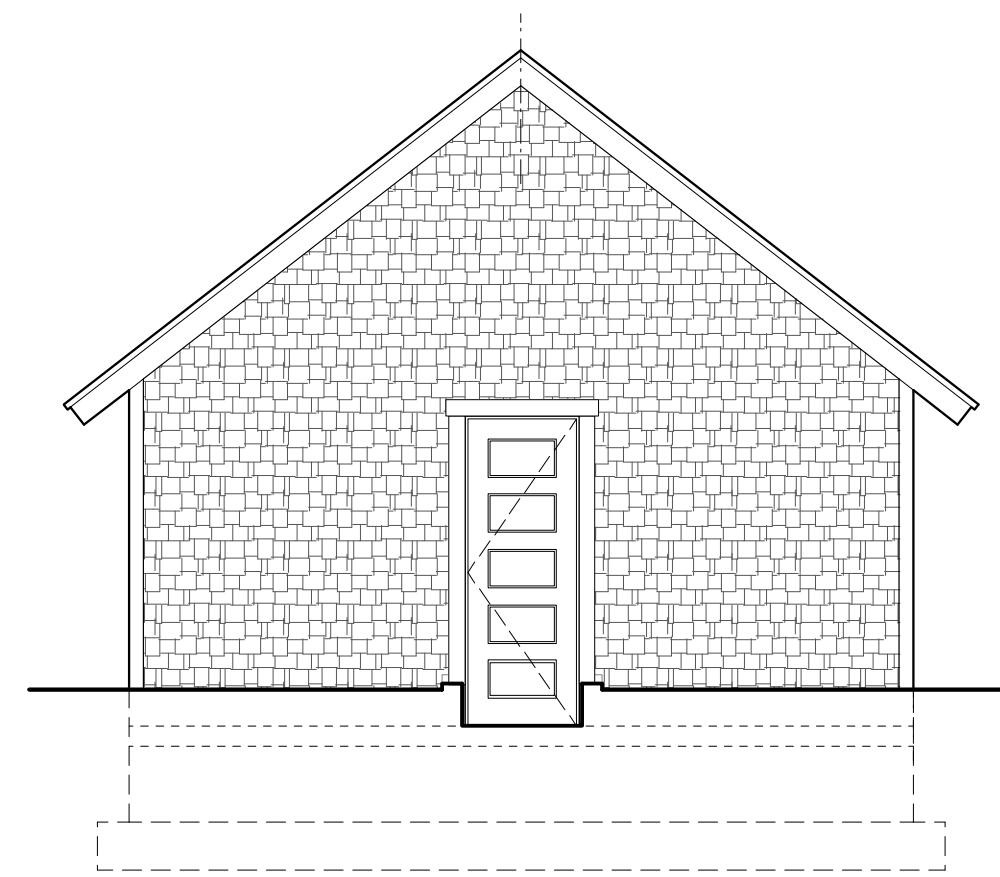
**GARAGE
MEASURED PLAN &
ELEVATIONS**

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



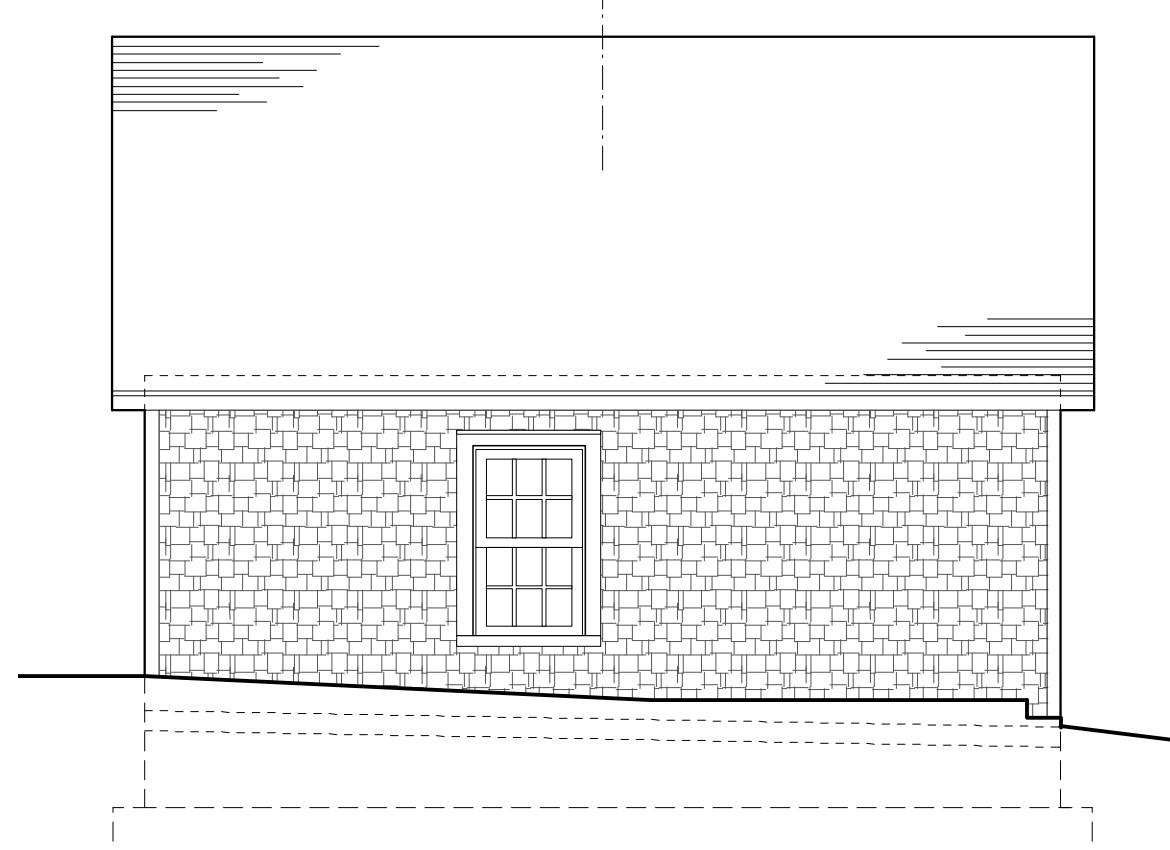
1 MEASURED GARAGE PLAN

SCALE: 1/4" = 1'0"



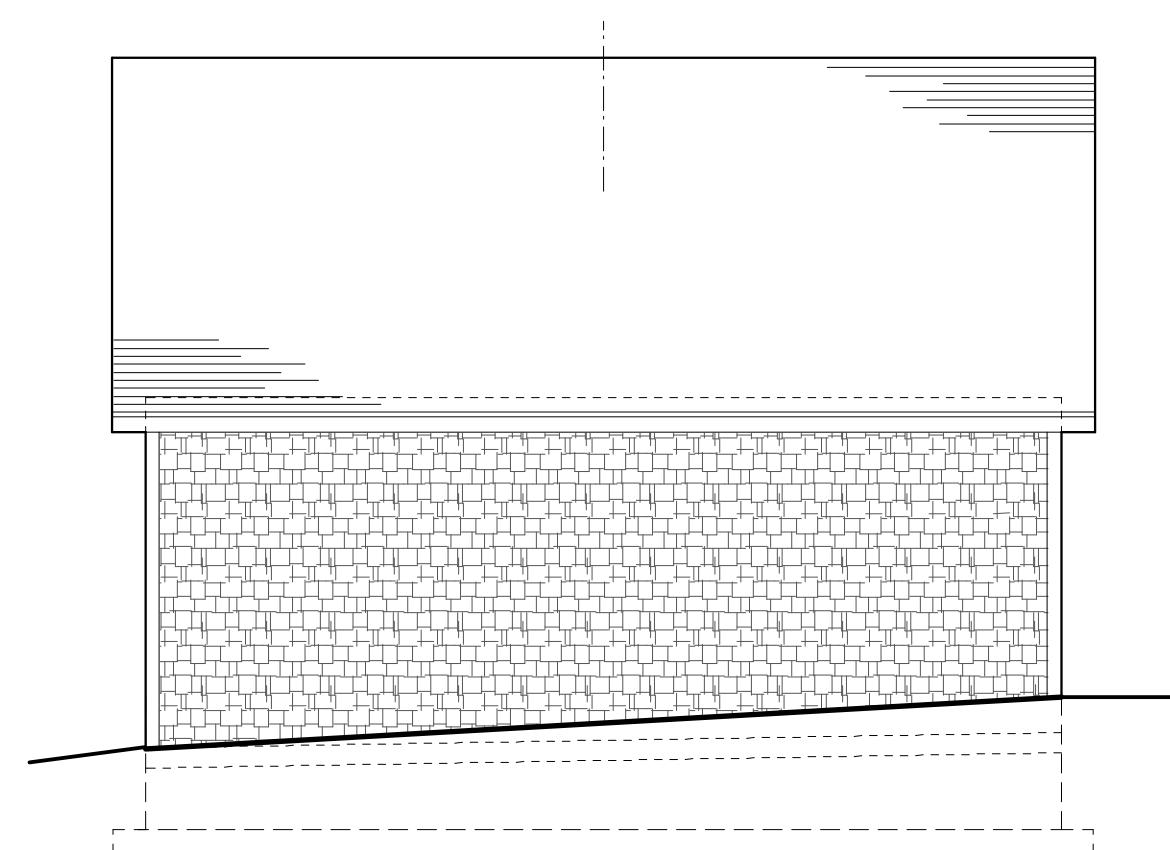
2 MEASURED GARAGE REAR ELEVATION

SCALE: 1/4" = 1'0"



3 MEASURED SIDE (WEST) ELEVATION

SCALE: 1/4" = 1'0"



4 MEASURED SIDE (EAST) ELEVATION

SCALE: 1/4" = 1'0"

**MOREN RESIDENCE
ADDITIONS & RENOVATIONS**

490 BRANDYWINE STREET, NW
WASHINGTON DC 20016

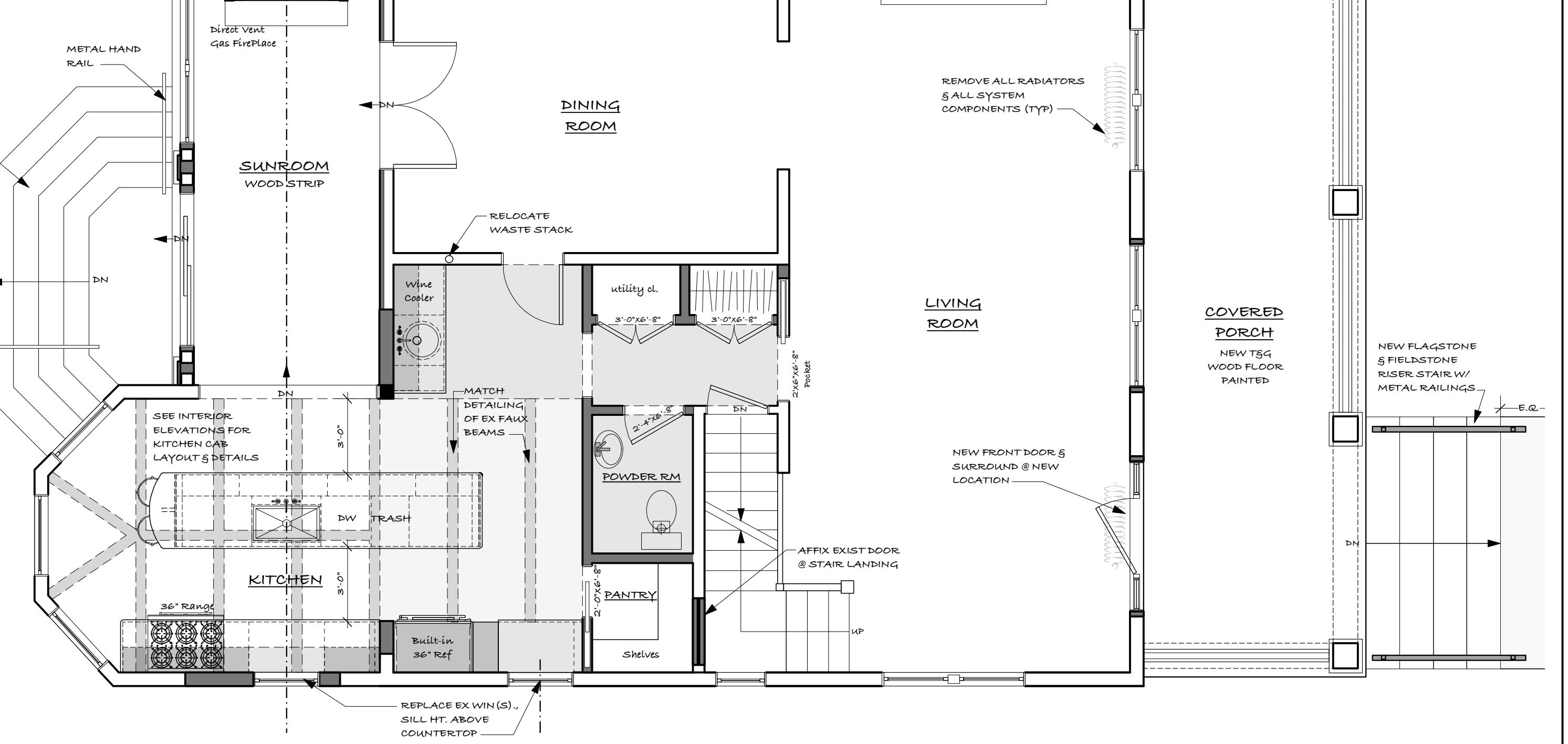
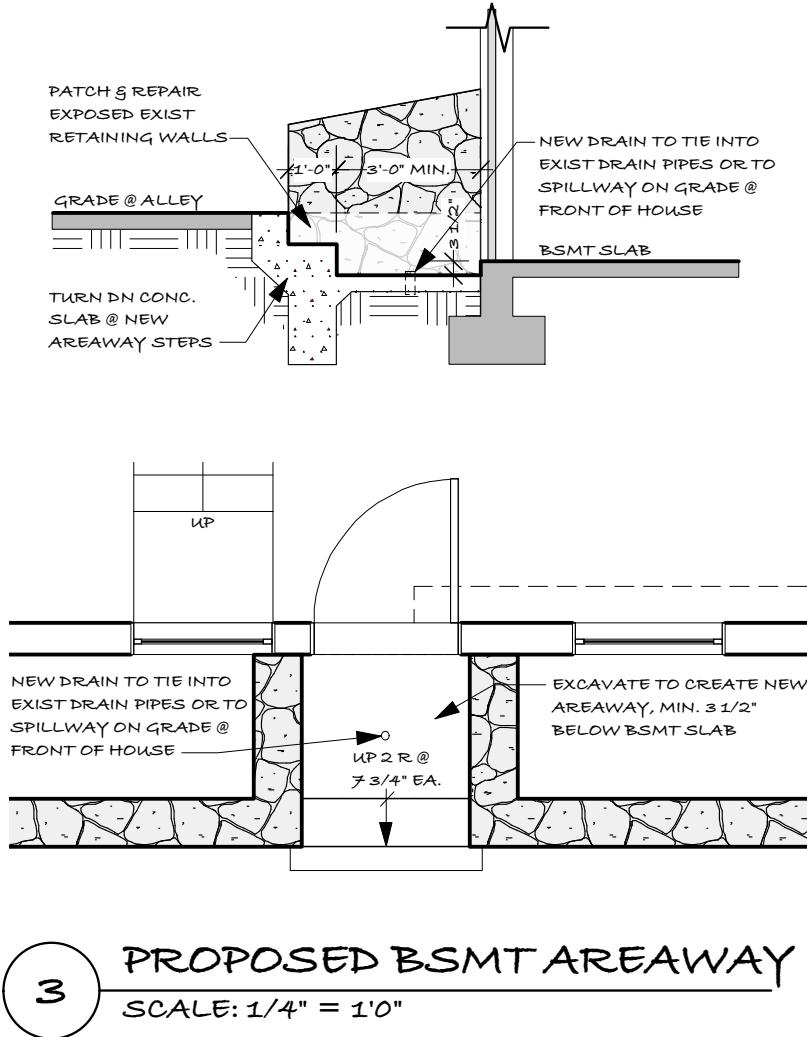
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MD4

PROPOSED FIRST & SECOND FLOOR PLANS

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



1 PROPOSED FIRST FL PLAN
SCALE: 1/4" = 1'0"

MOREN RESIDENCE ADDITIONS & RENOVATIONS

490 BRANDYWINE STREET, NW
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A-1

2 PROPOSED SECOND FL PLAN
SCALE: 1/4" = 1'0"

UP 2 R @ 7 3/4" EA.

EXCAVATE TO CREATE NEW AREAWAY, MIN. 3 1/2" BELOW BSMT SLAB

NEW DRAIN TO TIE INTO EXIST DRAIN PIPES OR TO SPILLWAY ON GRADE @ FRONT OF HOUSE

BSMT SLAB

TURN DN CONC. SLAB @ NEW AREAWAY STEPS

GRADE @ ALLEY

PATCH & REPAIR EXPOSED EXIST RETAINING WALLS

NEW DRAIN TO TIE INTO EXIST DRAIN PIPES OR TO SPILLWAY ON GRADE @ FRONT OF HOUSE

BSMT SLAB

UP

NEW DRAIN TO TIE INTO EXIST DRAIN PIPES OR TO SPILLWAY ON GRADE @ FRONT OF HOUSE

BSMT SLAB

UP

NEW DRAIN TO TIE INTO EXIST DRAIN PIPES OR TO SPILLWAY ON GRADE @ FRONT OF HOUSE

BSMT SLAB

UP

NEW DRAIN TO TIE INTO EXIST DRAIN PIPES OR TO SPILLWAY ON GRADE @ FRONT OF HOUSE

BSMT SLAB

UP

NEW DRAIN TO TIE INTO EXIST DRAIN PIPES OR TO SPILLWAY ON GRADE @ FRONT OF HOUSE

BSMT SLAB

UP

**PROPOSED
FRONT & WEST SIDE
ELEVATIONS**

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WINDOW & EXTERIOR DOOR SCHEDULE

Provide and install new windows and exterior doors as indicated in the drawings. The windows and doors shall be Jeld Wen Stileline Ex Clad Wood Units, or approved equal. Windows and exterior doors shall be provided with insulated low-e, argon filled glazing with 7/8" Simulated Divided Lights with spacer bars in patterns as indicated in the drawings. Provide historic 2" sub-sill at all windows in clad or azek. All operable units shall be provided with screens. Clad color, jamb liner color, screen frame color, and hardware color/options shall be selected by the Owner. All operable windows greater than one-story above grade shall be provided with a sash limiter meeting the requirements of the 2012 International Residential Code. Window and French door exteriors and interiors shall be factory primed and field painted in accordance with Division 9 of these Specifications. Install windows and doors according to the manufacturer's specifications, requirements and recommendations as required for a complete weather-tight installation. The Contractor shall field verify all masonry opening, rough opening and jamb dimensions prior to ordering units.

WINDOWS

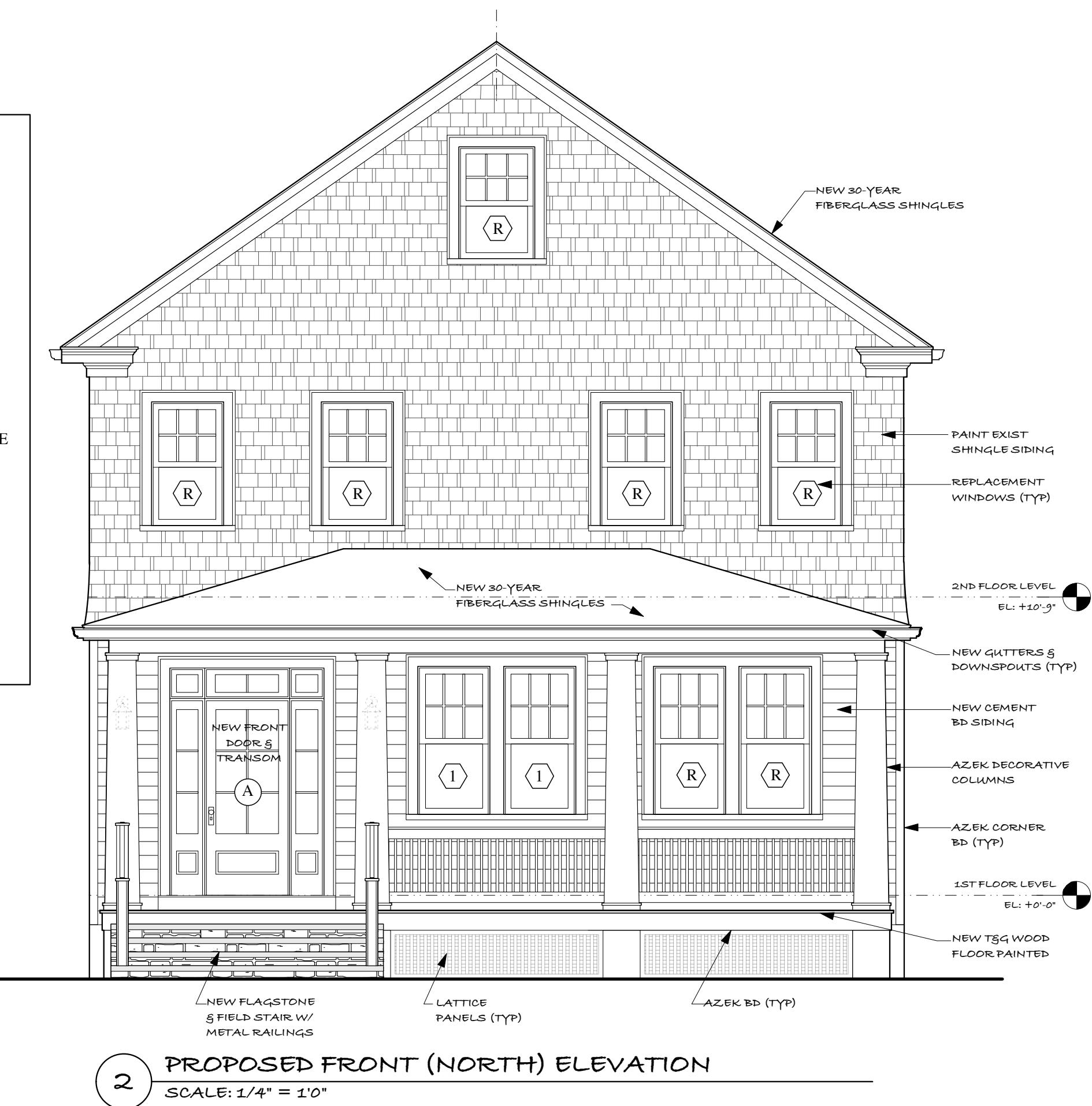
ITEM	DESCRIPTION	MODEL NO.
(R)	REPLACEMENT WINDOW	MATCH EXISTING WINDOW SIZE & CONFIGURATION*,**
(1)	DOUBLE HUNG WINDOW	MATCH EXISTING ADJOINING (2) DBL HUNG WINDOW SIZE & CONFIGURATION
(2)	DOUBLE HUNG WINDOW	MATCH EXISTING WIDTH & MATCH SILL HT OF DIN. RM. WINDOW
(3)	CASEMENT WINDOW	ECC 3678 MULL TO ECC 3618 TRANSOM ABOVE

* VERIFY EGRESS SIZE AT BEDROOM

** PROVIDE AND INSTALL WINDOW SASH LIMITERS, TO ALL WINDOWS GREATER THAN ONE-STORY ABOVE GRADE.

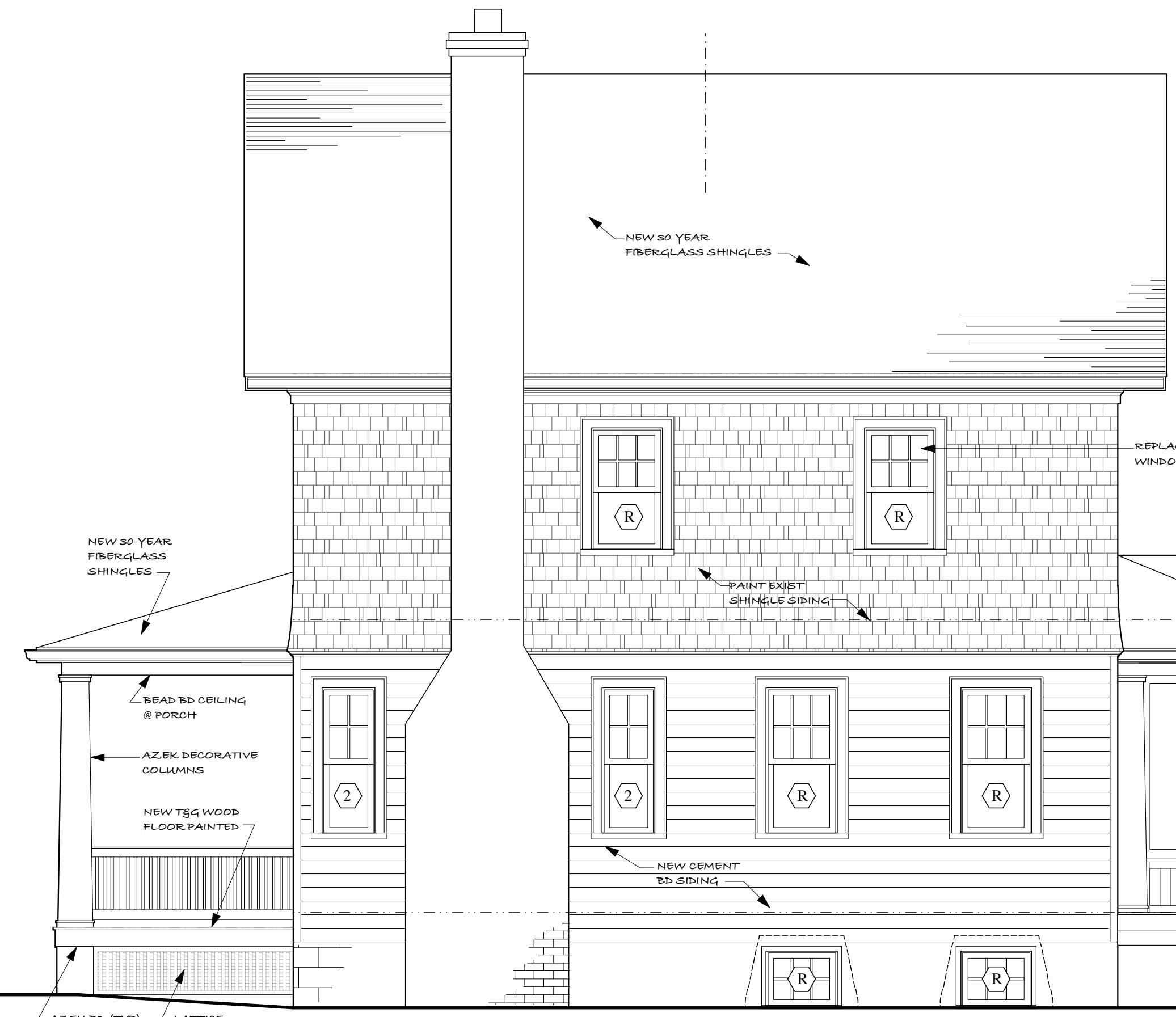
ITEM	DESCRIPTION	MODEL NO.
(4)	DOUBLE HUNG WINDOW	ECD 3160
(5)	CASEMENT WINDOW	(2) ECC3678 MULL TO (2) ECC 3618 TRANSOM ABOVE
(6)	DOUBLE HUNG WINDOW	ECD 2548

DOORS	ITEM	DESCRIPTION	MODEL NO.
	(A)	SIMPSON TRADITIONAL SASH STYLE W/ SIDELIGHTS EA. SIDE & CUSTOM TRANSOM ABOVE	506-3'-0"X7'-0" FRENCH DOOR W/ PANEL, 1803-70" HIGH SIDELIGHT EA. SIDE, W/CUSTOM TRANSOM ABOVE
	(B)	SLIDING PATIO DOOR	SCS3 6068 MULL TO (2) ECC3618 TRANSOM ABOVE
	(C)	AURORA CUSTOM FIBERGLASS EXT. DOOR	A5944 3'-0"X6'-8"
	(D)	GARAGE DOOR	(2) 8'-0" X 7'-0", VIF MANUFACTURER & DESIGN



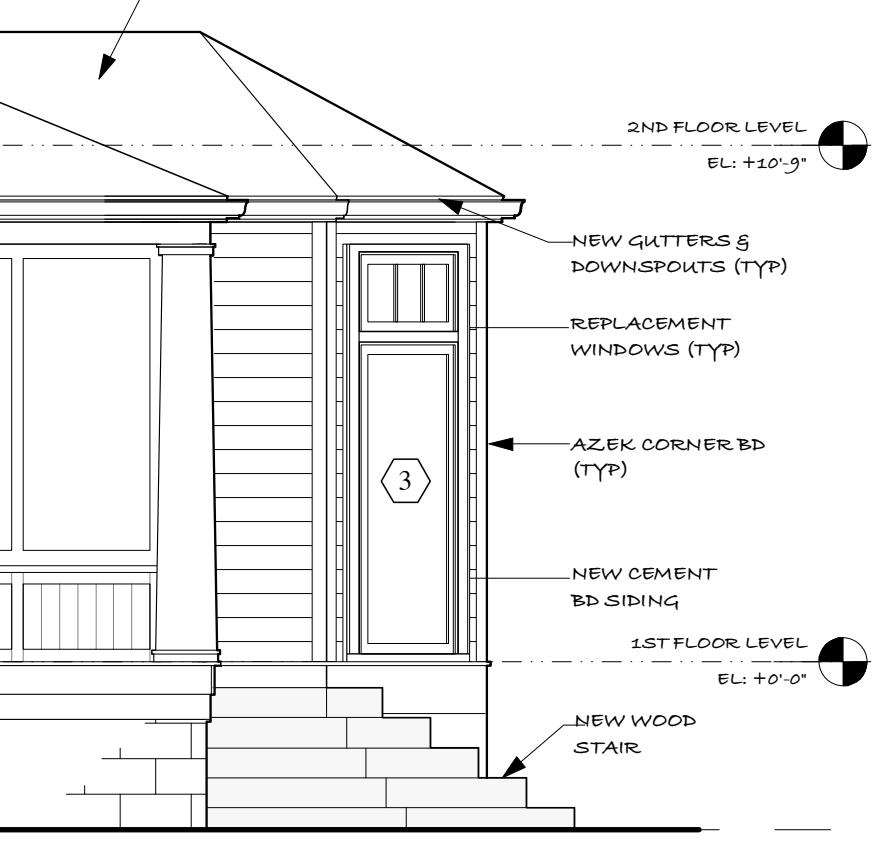
2 PROPOSED FRONT (NORTH) ELEVATION

SCALE: 1/4" = 1'0"



1 PROPOSED RIGHT (WEST) SIDE ELEVATION

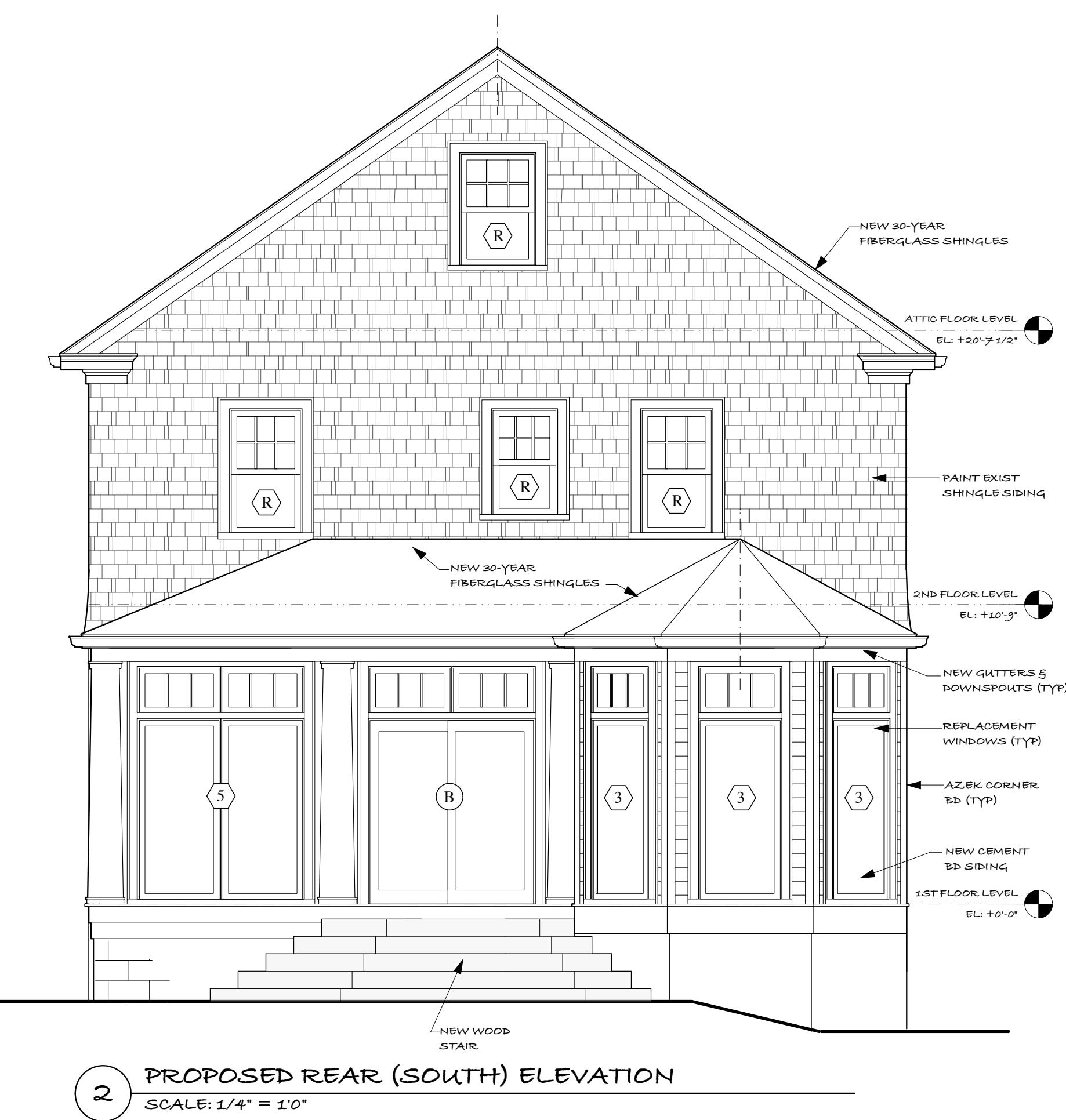
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**MOREN RESIDENCE
ADDITIONS & RENOVATIONS**

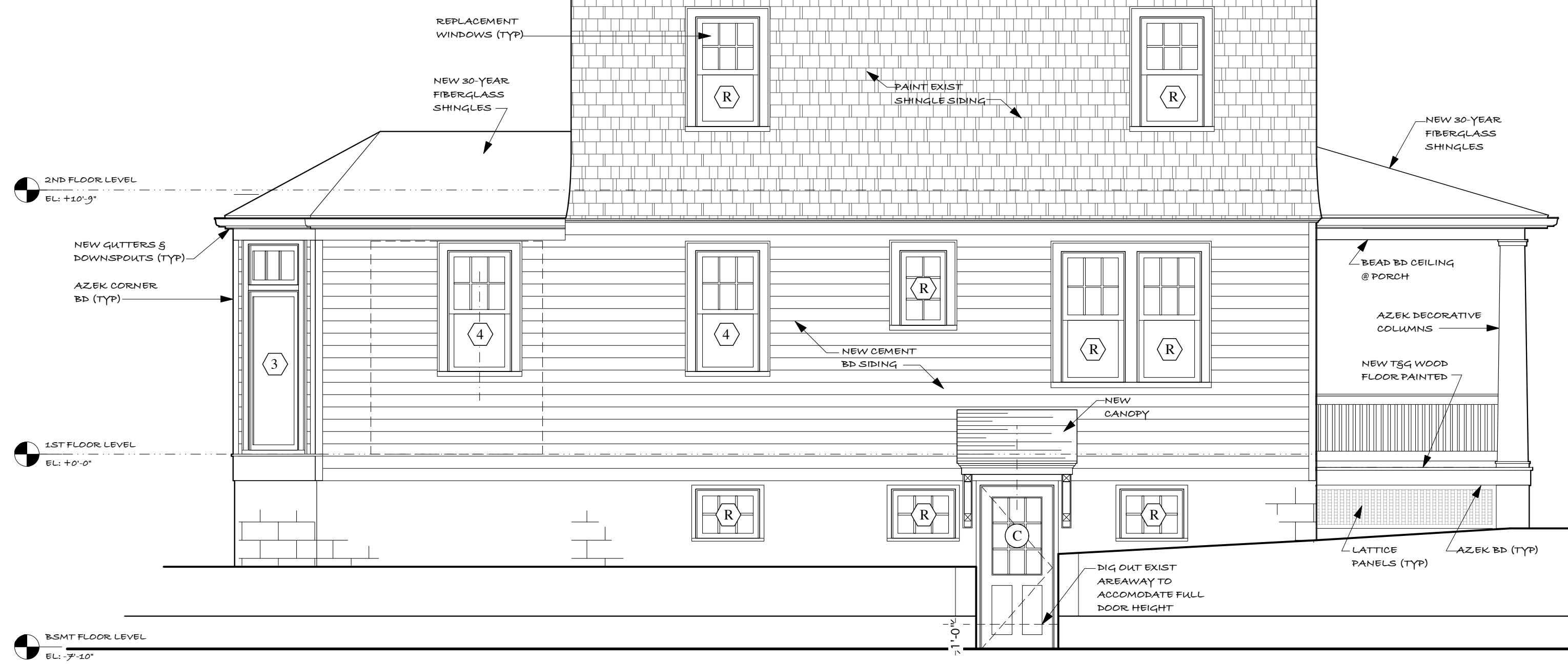
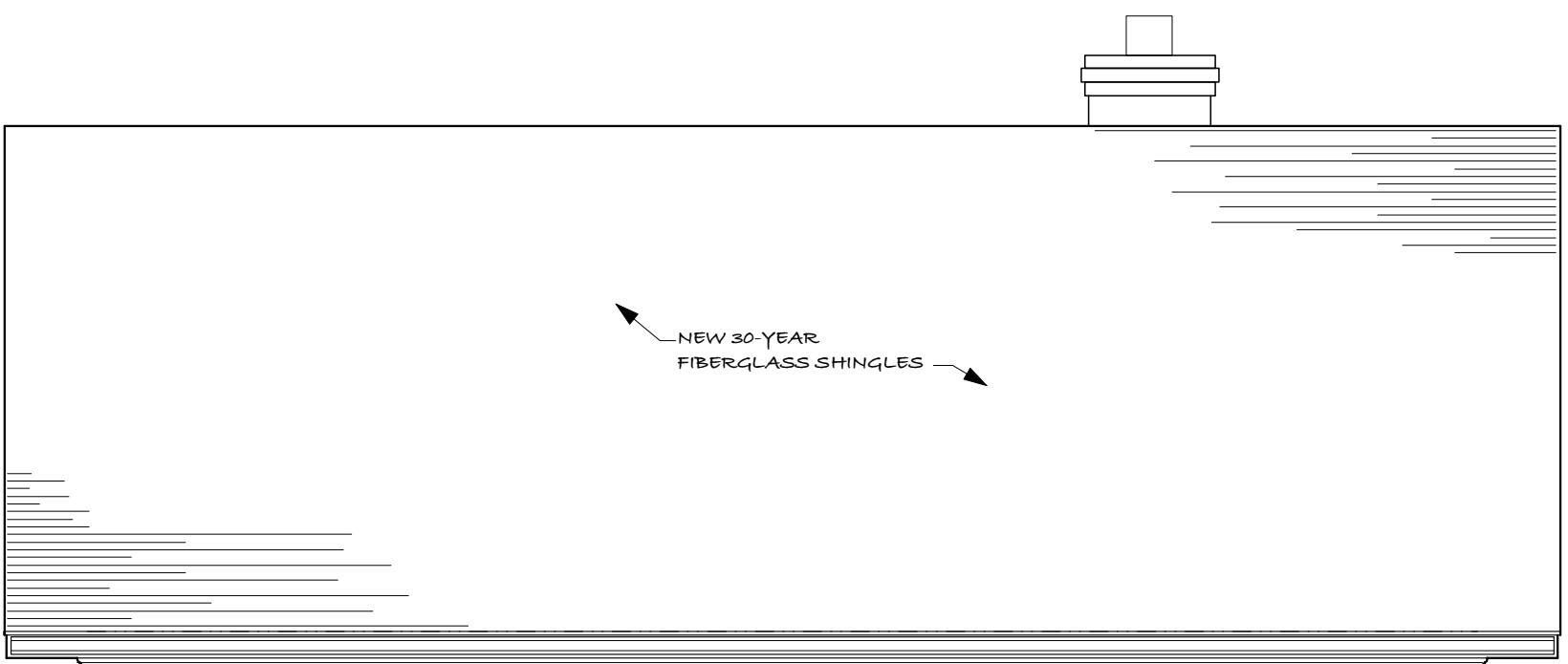
**PROPOSED
REAR & EAST SIDE
ELEVATIONS**

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



2 PROPOSED REAR (SOUTH) ELEVATION

SCALE: 1/4" = 1'0"



1 PROPOSED LEFT (EAST) SIDE ELEVATION

SCALE: 1/4" = 1'0"

**MOREN RESIDENCE
ADDITIONS & RENOVATIONS**

490 BRANDYWINE STREET, NW
WASHINGTON DC 20016

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GARAGE PROPOSED PLAN & ELEVATIONS

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

MOREN RESIDENCE ADDITIONS & RENOVATIONS

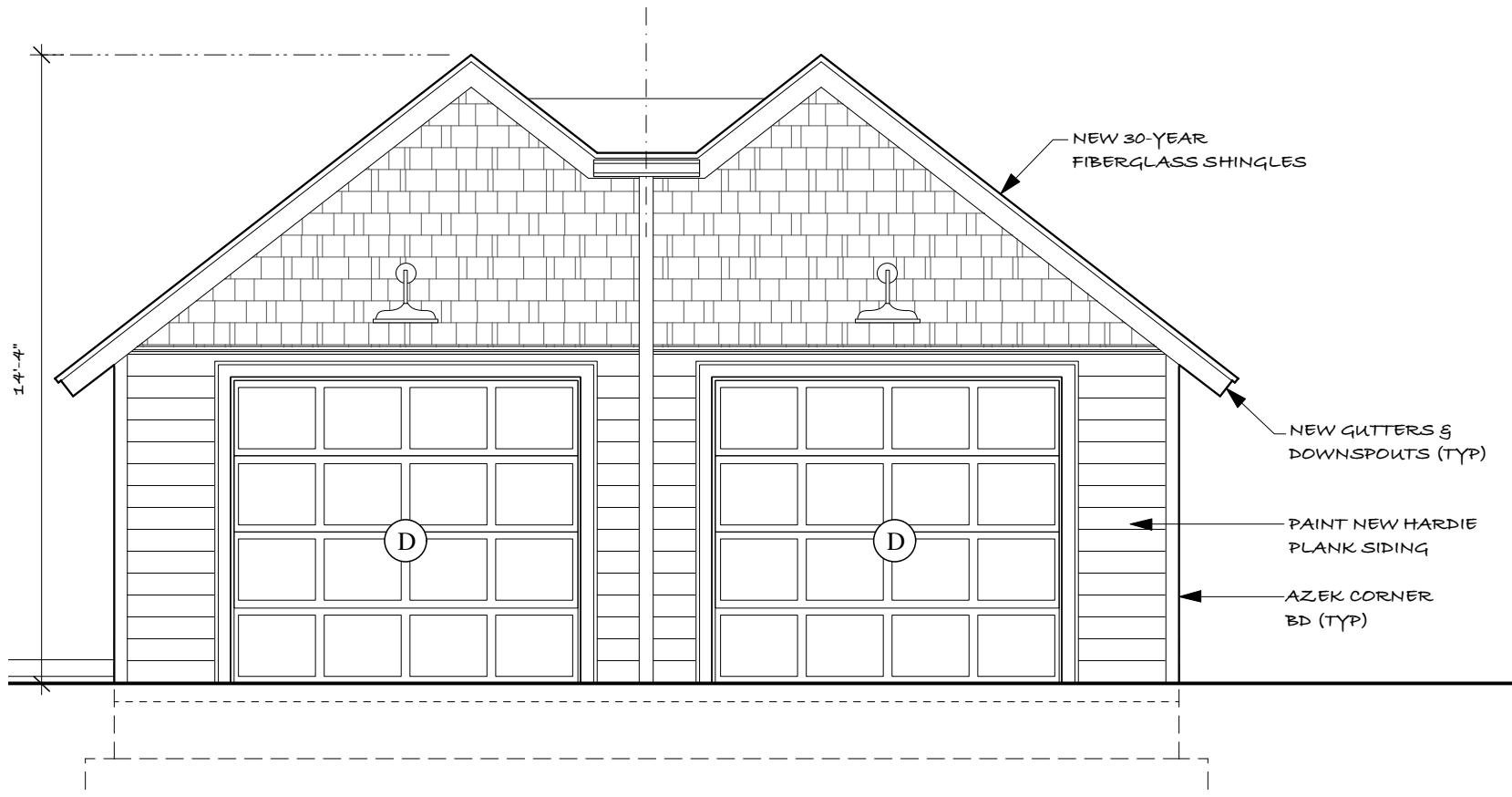
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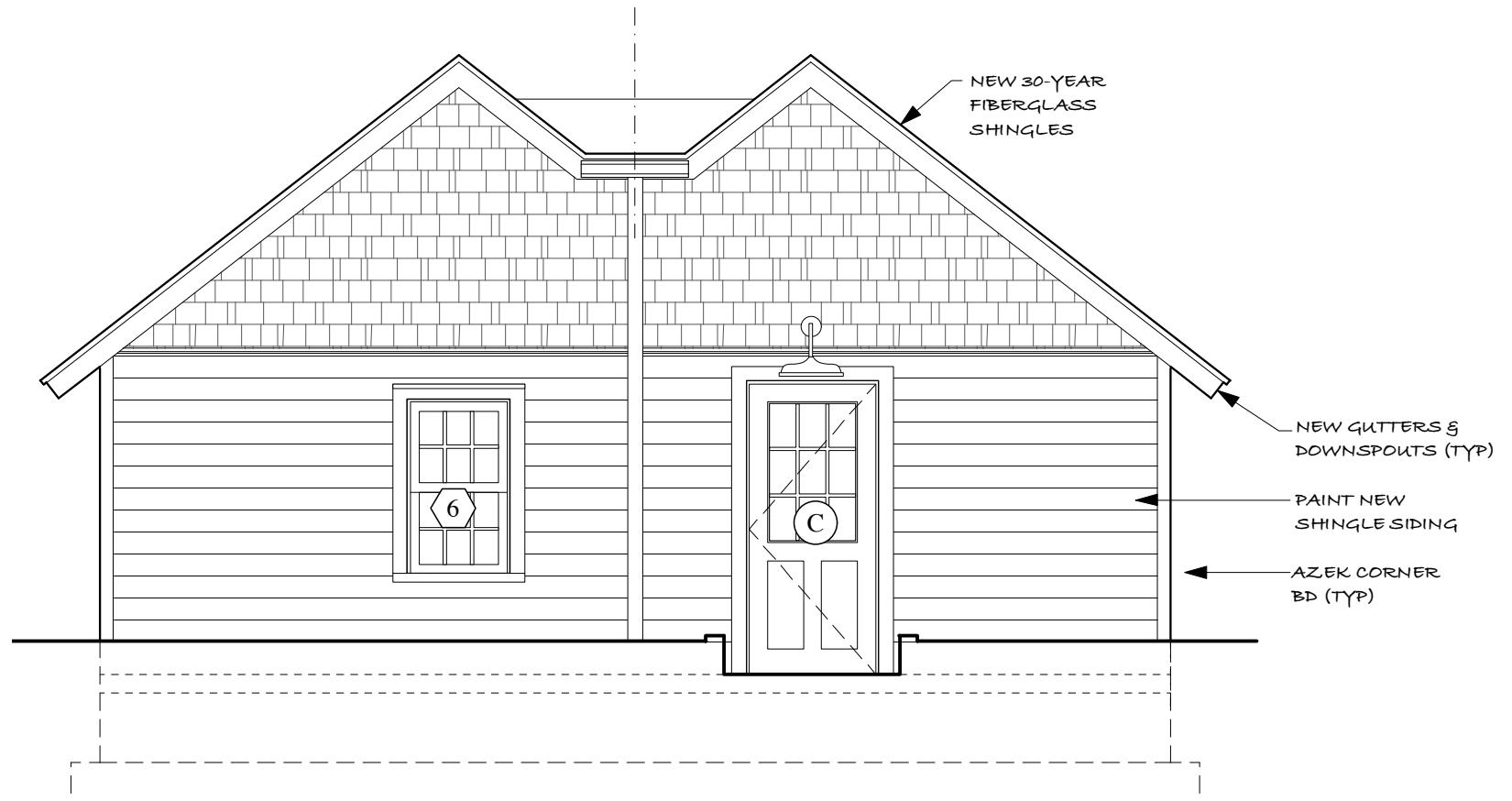
A-4

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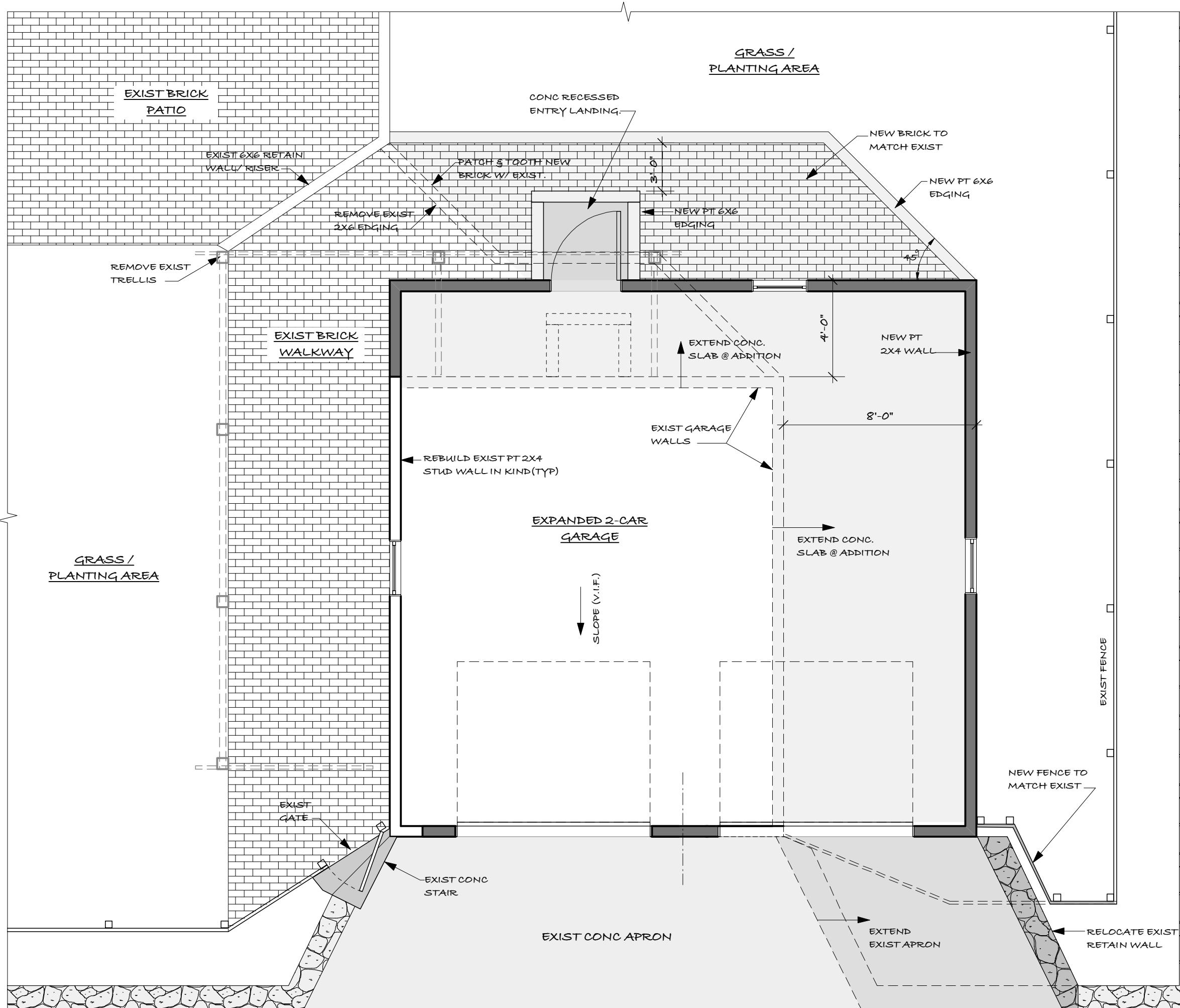
2 GARAGE FRONT ELEVATION

SCALE: 1/4" = 1'0"



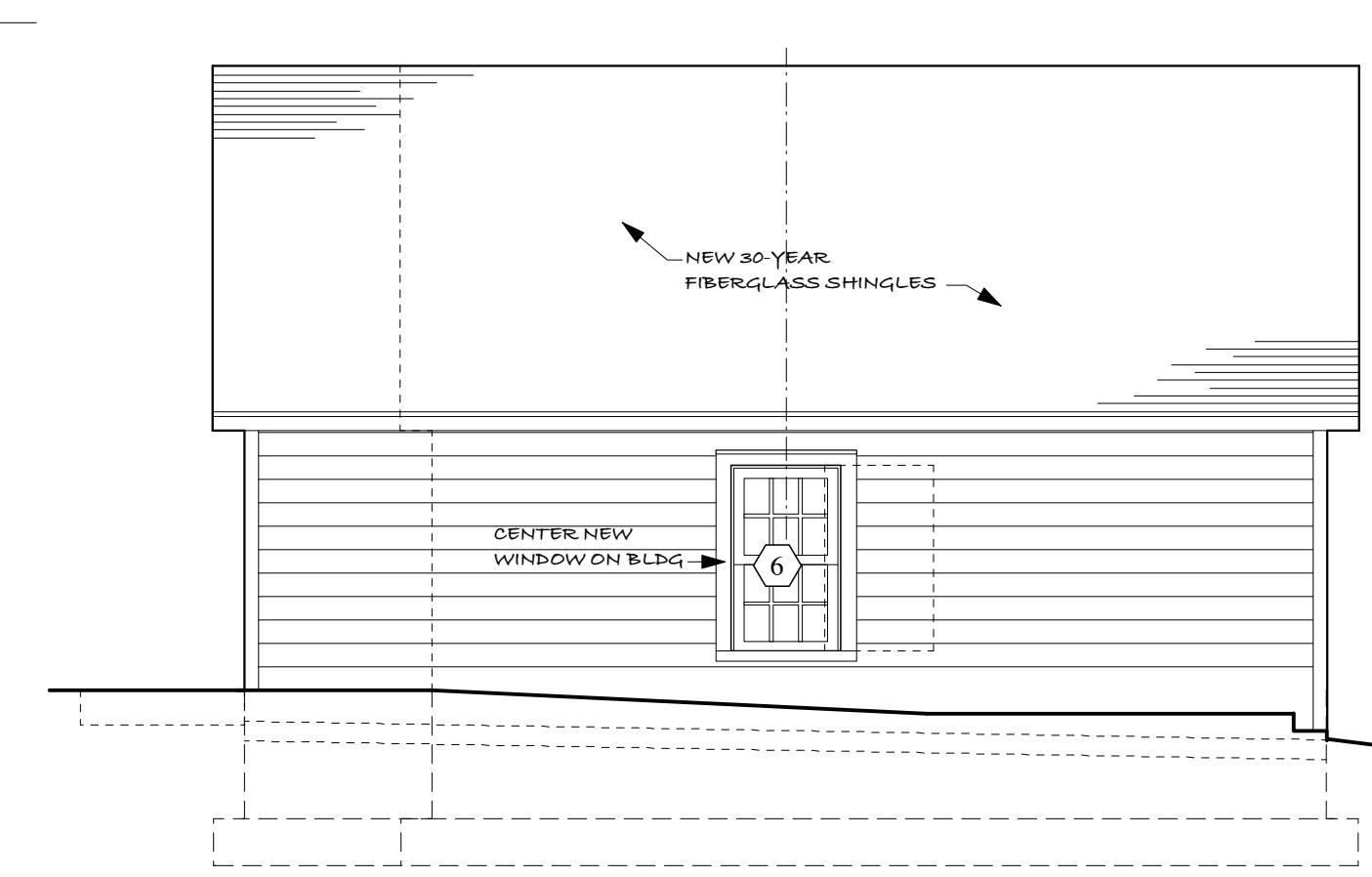
3 GARAGE REAR ELEVATION

SCALE: 1/4" = 1'0"



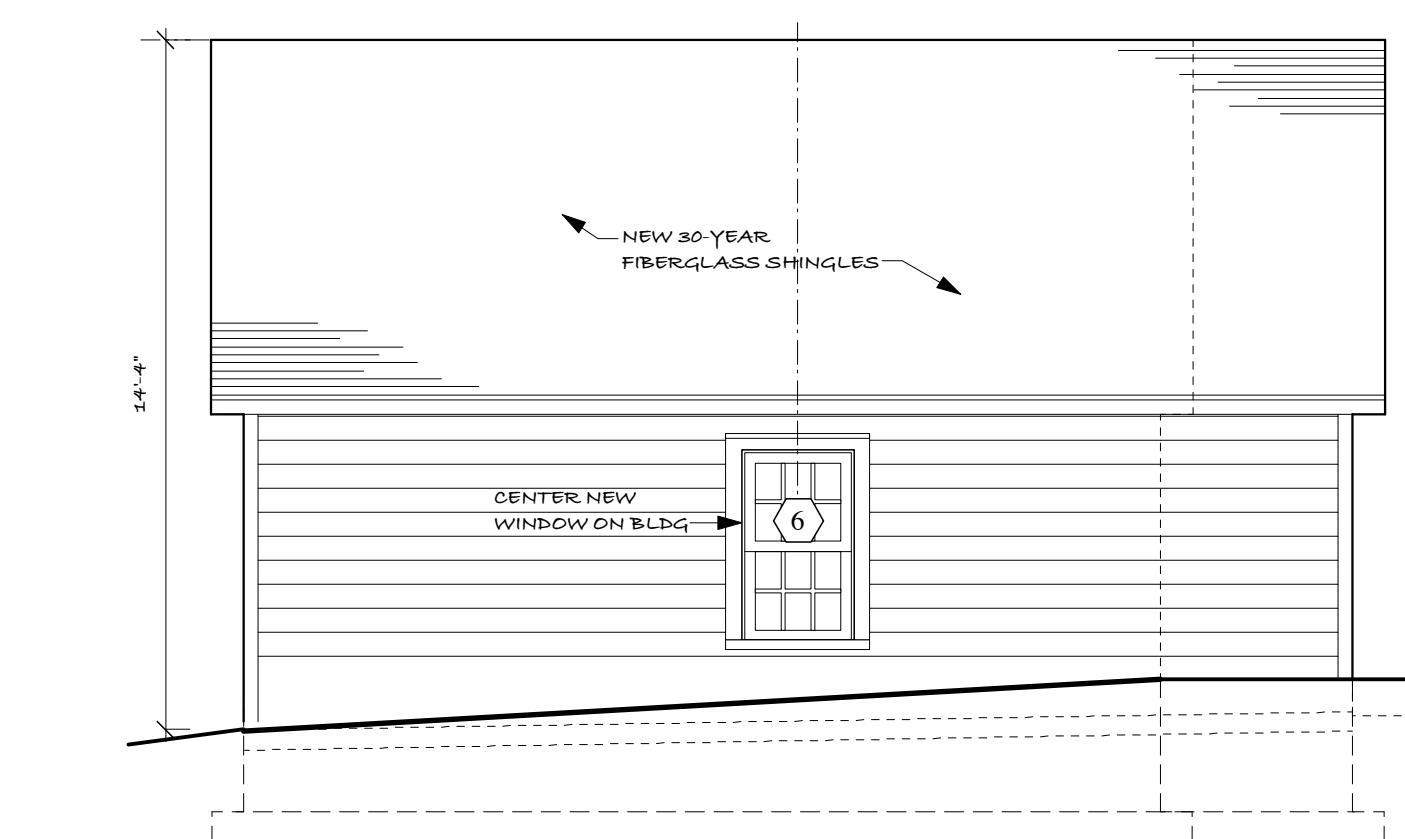
1 MEASURED GARAGE PLAN

SCALE: 1/4" = 1'0"



4 SIDE (WEST) ELEVATION

SCALE: 1/4" = 1'0"



5 SIDE (EAST) ELEVATION

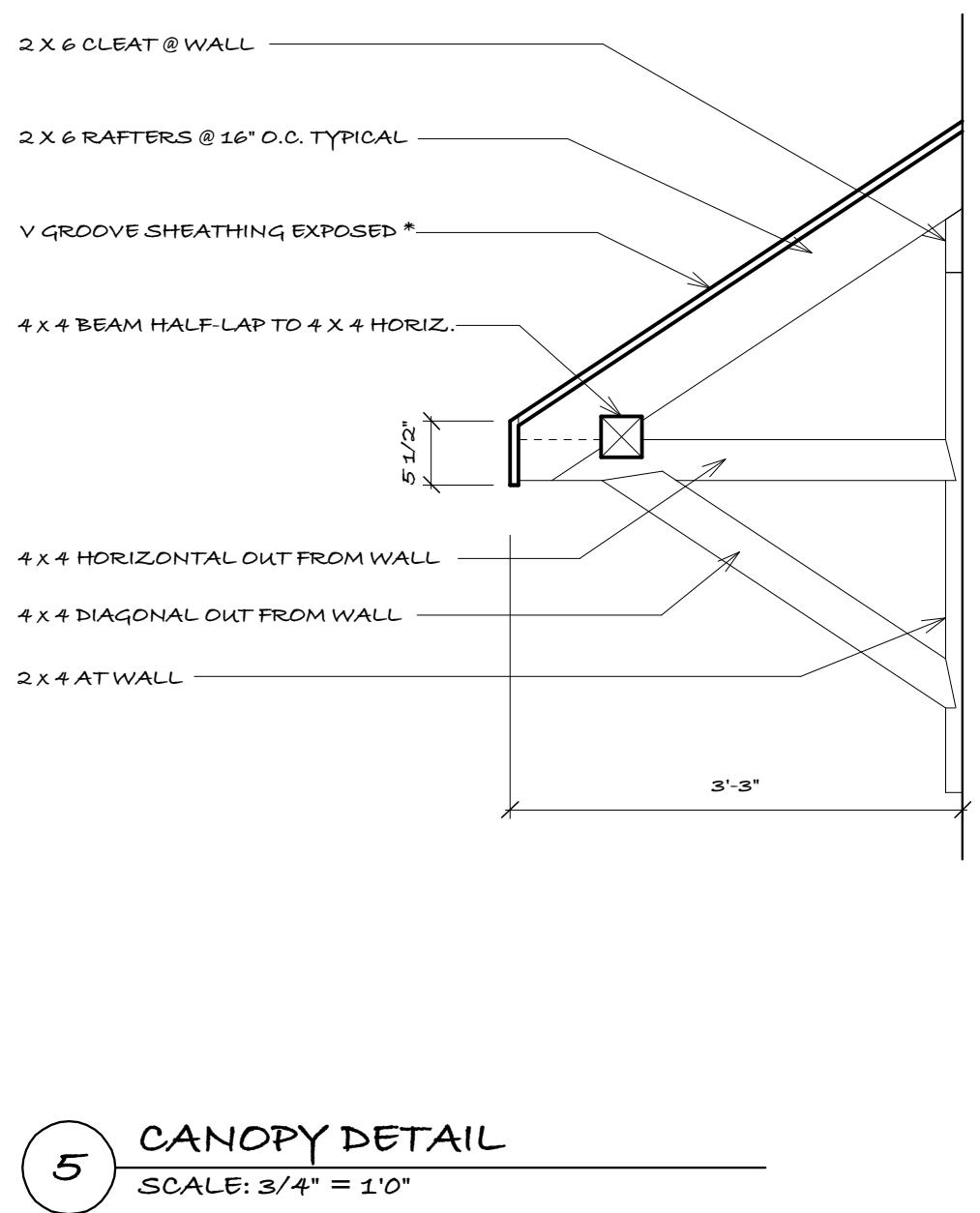
SCALE: 1/4" = 1'0"

PROPOSED DETAILS

MOREN RESIDENCE ADDITIONS & RENOVATIONS

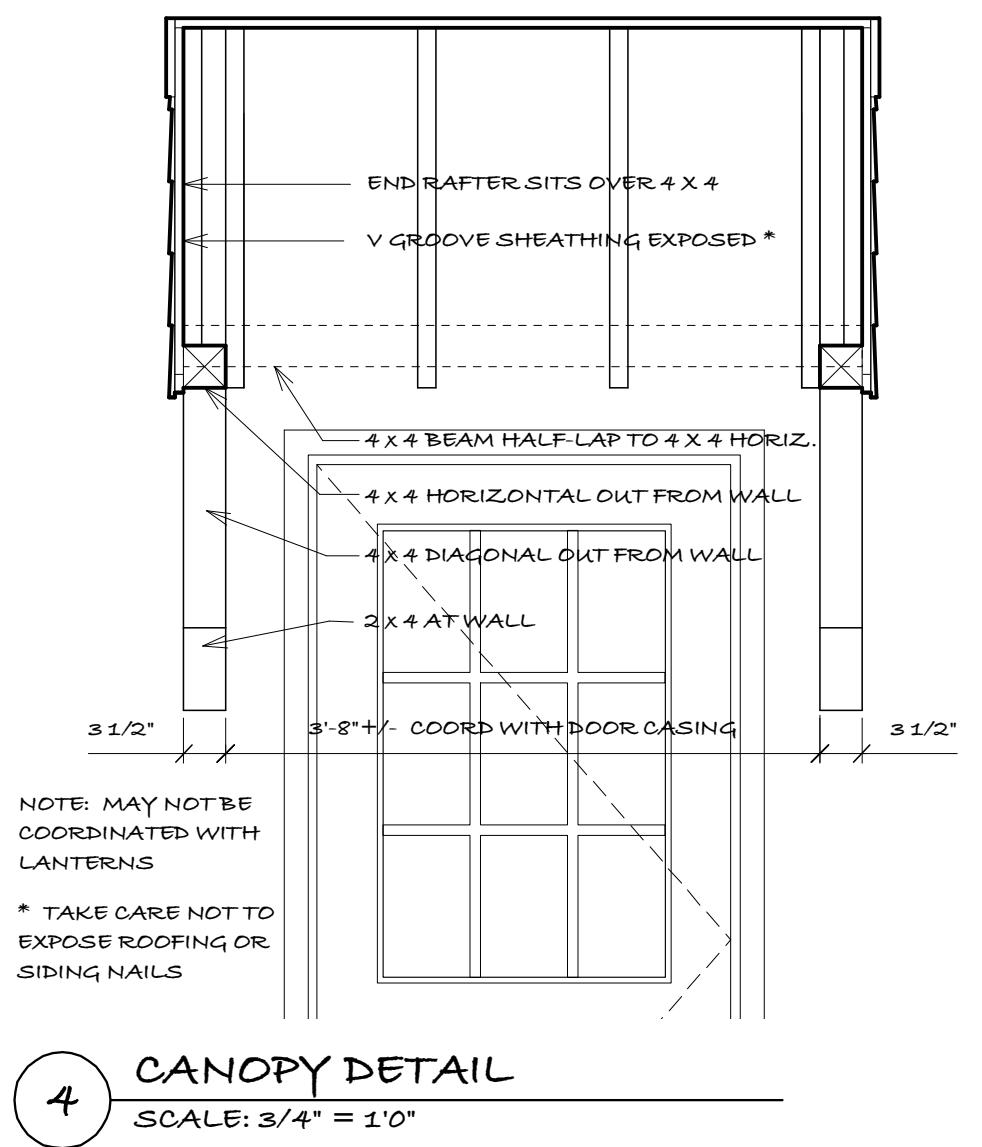
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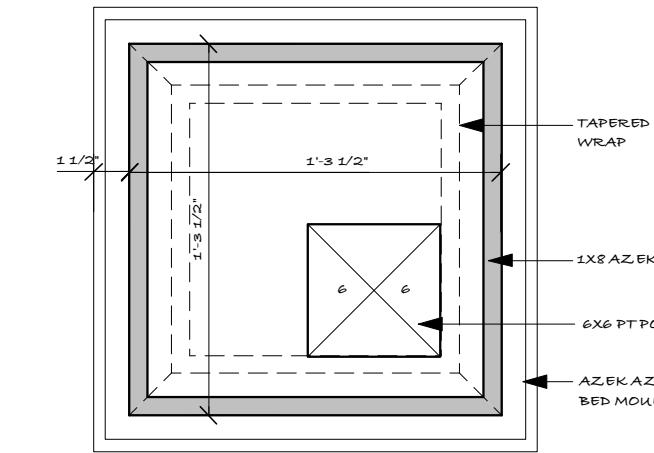
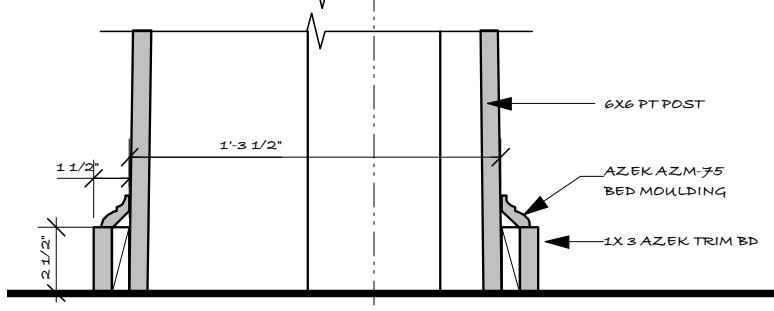
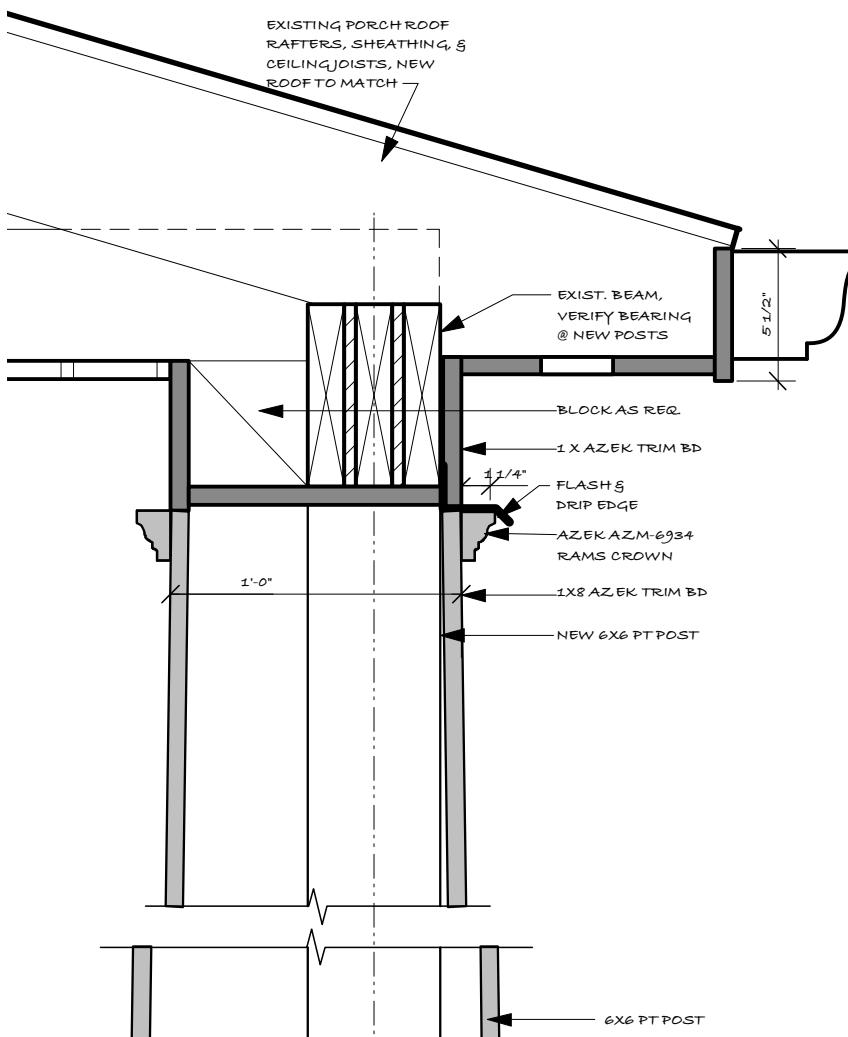
CANOPY DETAIL

SCALE: $3/4"$ = $1'0"$



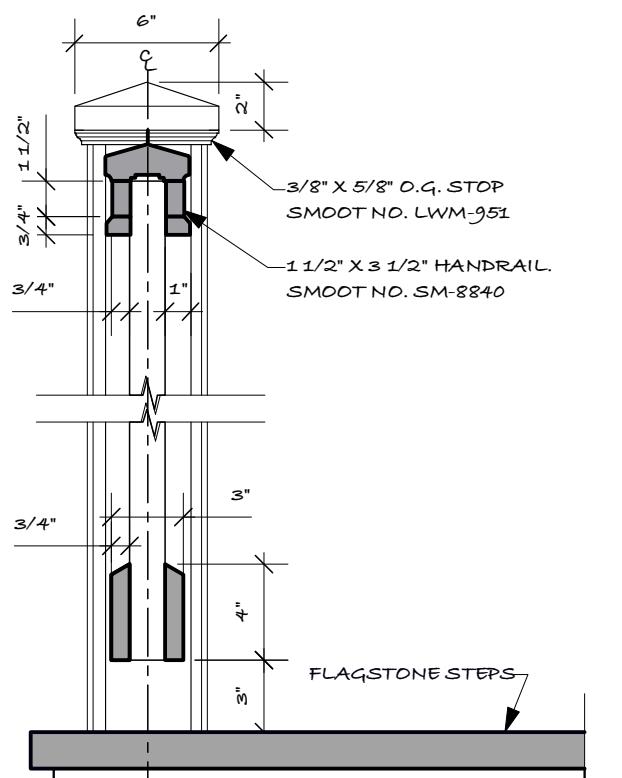
4 CANOPY DETAIL

SCALE: $\frac{3}{4}$ " = 1'0"



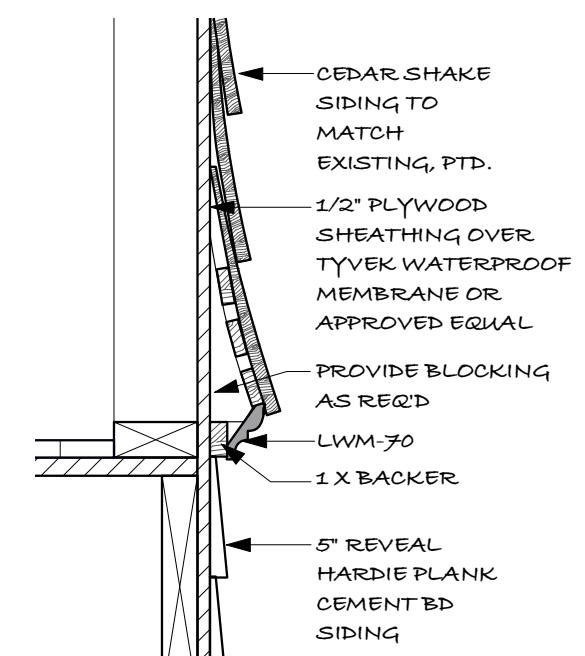
3 PORCH COLUMN DETAIL
SCALE: 1-1/2" = 1'0"

SCALE: 1-1/2" = 1'0"



2 STAIR RAILING
SCALE: 1-1/2" = 1'0"

(2) SCALE: 1-1/2" = 1'0"



1 CEDAR SHAKE DETAIL
SCALE: 1-1/2" = 1'0"

1) SCALE: 1-1/2" = 1'0"

PROJECT SPECIFICATIONS

MOREN RESIDENCE

ADDITIONS & RENOVATIONS

MOREN RESIDENCE
ADDITIONS & RENOVATIONS

PROJECT SPECIFICATIONS

MOREN RESIDENCE

4910 BRANDYWINE STREET, NW
WASHINGTON, DC 20016

DIVISION 1: GENERAL REQUIREMENTS

01.01 PROJECT DESCRIPTION: In conjunction with Architectural, Structural, Mechanical, Plumbing and Electrical Drawings issued by AHMANN LLC, these Specifications describe the scope of Architectural, Structural, Mechanical, Electrical, Plumbing and other requirements for a Renovation Project at the house of Scott Moren at 4910 Brandywine Street, NW, in Washington, DC. In submitting a fixed price bid for the work, the Contractor and Subcontractors confirm that they have reviewed the Documents and have inspected the house and site relative to the intended work and that the bid shall incorporate all labor, products, materials, supplies, services, equipment, and other items which will be required to complete the Work described.

01.02 CONTRACT FOR CONSTRUCTION: The Contract between the Owner and the Contractor shall be AIA Document A107, "Standard Form of Agreement Between Owner and Contractor for a Project of Limited Scope," 2007 edition. All discrepancies and ambiguities in the Contract Documents shall be interpreted as that which results in the most complete performance. All architectural, structural, mechanical, electrical, plumbing and other requirements necessary for the Work to comply with local, state and federal regulations shall be supplied without additional cost to the Owner.

01.03 CODES, PERMITS & INSPECTIONS: All work shall be done in strict compliance with the District of Columbia Building Code, including the currently adopted IRC edition, as well as any, and all, other applicable codes, regulations and ordinances. The Owner shall provide the building permit and the Contractor and Subcontractors shall provide all other permits and obtain all inspections required for the Work. Should a "Wall Check" survey is required by the District of Columbia in conjunction with this Project, the Contractor shall make all arrangements and the Owner pay all fees for the Wall Check.

01.04 INSURANCE REQUIREMENTS: Provide to the Owner documentation of all insurance policies required by Article 16 of AIA Form A107.

01.05 COORDINATION: The Contractor shall be responsible for the coordination of the work of all Subcontractors as required to complete the work, as well as with Subcontractors hired by the Owner, and shall verify that all work is done to the highest degree of craftsmanship by journeymen of the respective trades. The Contractor shall verify all dimensions, and shall work to critical alignments as indicated on the drawings, and shall not scale the drawings for measurements. If any discrepancies in dimensions or conditions are found, the Contractor shall contact the Architect and/or Owner for clarification prior to proceeding with that portion of the work.

01.06 PROTECTIONS: The Contractor shall maintain the site clean and free of debris. The Contractor shall maintain the site and job conditions in such a manner as to protect from injury all persons and property. Prior to the start of the Work, discuss job site security measures with Owner.

01.07 EPA RRP CERTIFICATION: Federal law enforced by the EPA under the Renovation, Repair and Painting Rule, requires contractors that disturb lead-based paint in homes built prior to 1978 to be certified, to follow specific work practices to prevent lead contamination, and to use certified renovators who are trained by EPA-approved training providers to follow lead-safe work practices. Contractors must use lead-safe work practices and follow these three simple procedures: 1) Contain the work area; 2) Minimize dust; 3) Clean up thoroughly. These procedures are to be followed per the EPA standards.

01.08 TEMPORARY FACILITIES: The Contractor shall provide temporary facilities as required by job conditions or local regulations. Temporary facilities include but are not limited to: telephone service; sanitary facilities; drinking water; first aid station. Owner shall provide electricity and water for use during construction.

01.09 WASTE MANAGEMENT: The Contractor shall manage the waste materials of demolition and construction in such a fashion as to maintain job site safety, and shall maintain a dumpster, or other trash storage devise on site into which all waste materials of the project shall be deposited on a daily basis.

01.10 CUTTING AND PATCHING GENERAL: Where required to cut into existing construction to provide for the installation or performance of other work and subsequent fitting and patching, all work shall restore surfaces to their original condition or to the adjoining new surface. Except as otherwise indicated, or as directed by Architect and/or Owner, use materials for cutting and patching that are identical to existing materials. If identical materials are not available, or cannot be used, use materials that match existing adjacent surfaces to the fullest extent possible with regard to visual effect. Use materials for cutting and patching that will result in equal-or-better performance characteristics. Patch with seams which are durable and as invisible as possible. Comply with specified tolerances for the work. Restore exposed finishes of patched areas and where necessary extend restoration into retained adjoining work in a manner which will eliminate evidence of patching and refinishing.

CUTTING AND PATCHING SYSTEMS: Patch existing systems which are altered or obstructed by the work. Patch in a manner to maintain proper system operation and performance. Systems include, but are not limited to: structural systems, mechanical systems, electrical systems, plumbing systems, security systems, audio/visual systems, foundation drainage systems, waterproofing systems, rain leader systems, etc.

CUTTING AND PATCHING PRECAUTIONS: Do not cut and patch structural work in a manner that would result in a reduction of load-carrying capacity or of load-deflection ratio. Do not cut and patch operational or safety related components in a manner that would result in a reduction of their capacity to perform in the manner intended. Do not cut or patch work exposed on the buildings exterior or in its occupied spaces, in a manner that would, in the Architect and/or Owner's opinion, result in lessening the building's aesthetic qualities. Do not cut and patch work in a manner that would result in substantial visual evidence of cut and patch work. Remove and replace work judged by the Architect and/or Owner to have been cut and patched in a visually unsatisfactory ALLOWANCES:

Provide line item material allowances for the following items (installation shall be included in base bid):

Kitchen Cabinetry, Bath Vanities and Related Items: Material Allowance: \$20,000.

Allowance Item A2: Counter top Slabs. For countertops and related items at For Kitchen, First Floor Powder Room and 2nd Floor Hall and Master Bathroom. Material Allowance: \$4,500.00.

Allowance Item A3: Master Bedroom WIC Fit-out. Material Allowance: \$4,000.00.

Allowance Item A4: Stone and Ceramic Tile. For flooring at For Kitchen, First Floor Powder Room and 2nd Floor Hall and Master Bathroom floor, base, and shower / tub walls. Material Allowance: \$7,500.00 per square foot.

Allowance Item A5: Garage Doors & Openers. Material Allowance: \$6,000.00.

Allowance Item A6: Residential Appliances. Material Allowance: \$13,500.00.

Allowance Item A7: Shower Door/Enclosure. Material Allowance: \$1,500.00.

Allowance Item A8: Plumbing Fixtures and Bath Accessories. For Kitchen, First Floor Powder Room and 2nd Floor Hall and Master Bathroom fixtures and fittings. Material Allowance: \$12,500.00.

Allowance Item A9: Misc. Lighting / Elec. Fixtures. Refer to the Electrical Drawings for specific allowance requirements.

DIVISION 2: DEMOLITION & SITEWORK

02.01 GENERAL: The Contract for Construction shall include all demolition and sitework required to complete the Work indicated and described in the Construction Documents. Provide all facilities, labor, materials, equipment, and services required. The General Contractor shall provide for the coordination of the work of this division with the work of any and all other divisions as required.

02.02 UTILITIES: All existing underground utilities shall be physically located by the Contractor prior to the beginning of any construction in the vicinity of these utilities. The Construction Documents do not represent that all existing utilities are shown or that those shown are correctly located. It is the Contractor's responsibility to contact each utility company, dig test pits, and take all and whatever steps are necessary to accurately locate and protect all existing utilities. No construction shall be accomplished until the accurate locations of utilities have been made and it has been determined by the Contractor that construction can be accomplished in accordance with these plans without utility conflicts.

02.03 DEMOLITION: Provide for the demolition of all existing items which will interfere with the Work indicated in the Construction Documents. Except as otherwise indicated, all demolished items shall be hauled from the site and shall be properly disposed of. Provide mechanical, electrical and plumbing demolition as may be required to complete the Work. Note that the Drawings do not account for all items related to these trades

which may require demolition, each subcontractor shall make a field visit prior to submitting their bid so as to account for the demolition required to complete the Work indicated in the Construction Documents.

02.04 BRACING AND SHORING: Provide bracing and shoring as required to protect existing construction to remain from damage, as well as to protect persons and property. Verify all bearing conditions prior to beginning demolition.

02.05 PROTECTIONS: Protect existing trees and vegetation which are to remain from physical damage. Do not store materials or equipment within the drip line. Protect structures, utilities, sidewalks, pavements, and other items in areas of work. Provide necessary protection to prevent damage to persons or property. Restore any damaged property to the condition existing prior to the start of the work unless otherwise noted.

02.06 ROUGH GRADING: Re-grade site where indicated in the Drawings and as otherwise required to direct water away from house. Drawings are approximate and the Contractor shall be responsible for working grading as required for proper site drainage.

02.07 EROSION CONTROL: Follow all applicable regulations and requirements for erosion control during construction. Provide straw bale dikes, silt fences, etc. as deemed necessary or as required by Montgomery County officials. Erosion control barriers shall be placed as required to collect any debris caught in runoff from the construction area.

02.08 STORM WATER MANAGEMENT: Follow all applicable regulations and requirements for storm water management as indicated in the Construction Documents and as may be required by District of Columbia officials during construction.

02.09 LANDSCAPING: Remove vegetation or other obstructions which interfere with the Work and coordinate with Owner for the Owner's relocation of existing plant which are to be salvaged. Protect vegetation to remain from damage during demolition and construction. Provide grass seeding with protective straw as required to reestablish all portions of lawn damaged during demolition and construction.

02.10 TERMITE CONTROL: Provide soil treatment for termite control at the areas of new construction as recommended by a qualified, registered pest control professional.

02.11 NEW AREAWAY AT BSMT SIDE DOOR: Provide and install new areaway, drain and steps as required to allow full height of exterior basement door, as indicated in the Drawings. The areaway elevation shall be set a minimum of 3 1/2 inches below the basement slab to allow for proper water drainage. The areaway drain shall tie into the existing exterior foundation drainage system or provide a new spillway to grade at the front of the house. Provide patching and repair to existing stone retaining walls as required for this work.

02.12 ADDITIONAL REQUIREMENTS: Refer to Structural Specifications on the Drawings.

DIVISION 3: CONCRETE

03.01 GENERAL: The Contract for Construction shall include all concrete work required to complete the Work indicated and described in the Construction Documents. Provide all facilities, labor, materials, equipment, and services required. The General Contractor shall provide for the coordination of the work of this division with the work of any and all other divisions as required.

03.02 CODES & STANDARDS: Concrete work shall conform to all applicable local, state and national codes and standards, as well as those established by the American Concrete Institute as described in its current publications. The products and materials used shall be approved by the American Society for Testing Materials as the most applicable to the work described and the conditions encountered.

03.03 CONCRETE MATERIALS: All concrete to have minimum compressive strength (FC) = 3000 psi in 28 days. All concrete to be poured in accordance with ACI 301-83 specification. Concrete exposed to weather to be air-entrained. All reinforcing steel to meet ASTM A-615 Grade 60. Furnish support bars and all required accessories in accordance with C.R.S.I. Standards.

03.04 CONCRETE FOOTINGS: Provide concrete footings, grade and edge beams as required for the work indicated. Footings shall have a minimum depth of 2'-6" below grade (to bottom). Provide step down footings as required to meet the level of the existing foundation at abutting conditions. Refer to the Drawings for other specific conditions.

03.05 CONCRETE SLABS: Unless otherwise indicated, concrete slabs on grade shall be a minimum of 4" thick and shall be reinforced with welded wire fabric and poured on a 6 mils thick polyethylene moisture barrier over 4 inches minimum of compacted gravel set on undisturbed earth or structural fill. Provide construction, isolation, expansion and control joints as required to maintain strength and appearance, to avoid cracking, and to stabilize differential settlement. Provide trowel finish to interior monolithic slab surfaces that are exposed to view.

03.06 EXISTING FOUNDATION: Note that existing foundation conditions are unknown and any reference in the drawings and specifications, and addenda to specific conditions are based on assumptions which are subject to field verification.

03.07 ADDITIONAL REQUIREMENTS: Refer to Structural Specifications on the Drawings.

DIVISION 4: MASONRY

04.01 GENERAL: The Contract for Construction shall include all masonry and stone work required to complete the Work indicated and described in the Construction Documents. Provide all facilities, labor, materials, equipment, and services required. The General Contractor shall provide for the coordination of the work of this division with the work of any and all other divisions as required.

04.02 CODES & STANDARDS: Masonry and stone work shall conform to all applicable local, state and national codes and standards, as well as those established by the Brick Institute of America, Concrete Masonry Association, and the Building Stone Institute as described in their current publications. The products and materials used shall be approved by the American Society for Testing Materials as the most applicable to the work described and the conditions encountered.

04.03 CONCRETE MASONRY: Construct new CMU foundation walls as indicated in the Drawings. Concrete masonry units shall meet the requirements of ASTM C90, grade N-1 (moisture cured), lightweight, hollow, with minimum compressive strength of 1500 psi. Masonry mortar shall meet the requirements of ASTM C270, type M. Installation of Concrete Masonry Units shall be per the published specifications and recommendations of the National Concrete Masonry Association, and the product manufacturer(s), as applicable to the work described and the conditions encountered. Provide horizontal joint reinforcement at 16 inches on center vertically, typically.

04.04 FLAGSTONE WALKWAY & FIELDSTONE/FLAGSTONE STAIRWAY: Provide and install flagstone walkway and fieldstone/flagstone stairway at the front of the house as indicated in the Drawings. Flagstone paving for the walkway shall be set in a random orthogonal pattern on a setting bed over a concrete slab. The stairway shall have fieldstone risers and cheek walls with flagstone treads, and shall be constructed on CMU back-up. Provide fieldstone and flagstone samples for review and selection. Provide thermal edges for all exposed flagstone edges.

04.05 ADDITIONAL REQUIREMENTS: Refer to Structural Specifications on the Drawings.

DIVISION 5: METALS

05.01 GENERAL: The Contract for Construction shall include all metals work required to complete the Work indicated and described in the Construction Documents. Provide all facilities, labor, materials, equipment, and services required. The General Contractor shall provide for the coordination of the work of this division with the work of any and all other divisions as required.

05.02 CODES & STANDARDS: Metal work shall conform to all applicable local, state and national codes and standards as well as those established by the National Association of Architectural Metal Manufacturer and the American Institute of Steel Construction as described in their current publications. The products and materials used shall be approved by the American Society for Testing Materials as the most applicable to the work described and the conditions encountered.

05.03 MISC. METAL: Provide Miscellaneous metal as required, including loose lintels for masonry walls, bolts, plates, anchors, hangers, and other required items for framing and supporting woodwork.

05.04 METAL RAILINGS: Provide "cast iron" look steel handrail/guards at the front fieldstone/flagstone stairway, as indicated in the Drawings. Modify the existing railings at the existing stairway at the front of the yard, as noted. Railing components and details shall be selected by the Owner from stock components of the stair and rail fabricator. The Railng Fabricator shall provide engineering design as required to insure that the railing design, construction and installation shall meet all applicable requirements of the currently adopted IRC Code. The metal railings shall be shop primed and painted, and field touched-up to the greatest extent possible.

05.05 ADDITIONAL REQUIREMENTS: Refer to Structural Specifications on the Drawings.

DIVISION 6: WOOD / CARPENTRY

06.01 GENERAL: The Contract for Construction shall include all woodwork required to complete the Work indicated and described in the Construction Documents. Provide all facilities, labor, materials, equipment, and services required. The General Contractor shall provide for the coordination of the work of this division with the work of any and all other divisions as required.

06.02 CODES & STANDARDS: Woodwork and carpentry shall conform to all applicable local, state and national codes and standards as well as those established by the National Forest Products Association, the American Plywood Association, and the Architectural Woodwork Institute as described in their current publications. The products and materials used shall be approved by the American Society for Testing Materials as the most applicable to the work described and the conditions encountered.

06.03 FRAMING MATERIALS: Provide and install all framing lumber as required to complete the Work. Refer to Structural Specifications on the Drawings for specific material and installation requirements. Unless otherwise indicated or required, all new exterior stud walls shall be framed with 2 x 6 lumber. All framing material in direct contact with concrete, masonry, or within 8 inches of grade shall be preservative treated.

06.04 SHEATHING / SUBFLOORING: Exterior wall sheathing shall be standard grade plywood, exterior glue, 1/2 inch thick. Roof sheathing shall be interior plywood with exterior glue, 5/8 inch thick. Floor sheathing (subflooring) shall be 3/4 inch tongue and groove. Plywood shall be installed per APA specifications, requirements and recommendations.

06.05 EXTERIOR CEMENT BOARD SIDING: Provide and install factory primed Cement Board Siding, James Hardie or approved equal where so indicated in the Drawings at the House and Garage. Siding shall Cement board siding shall replace the existing shingle siding at these locations. Installation shall be per the product manufacturer's written specifications, requirements and recommendations for the installation indicated and the conditions encountered. Cement Board Siding shall be factory primed and field painted in accordance with the requirements of these Specifications. Coordinate Cement Board Siding with Trim installation with flashing requirements as required for a complete and weather tight installation.

06.06 EXTERIOR PVC TRIM & PANELING: Provide and install PVC Trim Board and Panel Board material, Azek or approved equal, in sizes and shapes as indicated, or Required, for band boards, window casing, rakes, soffits, pilasters, panels, and other trim at the exterior of the Addition. Installation shall be per the product manufacturer's written specifications, requirements and recommendations for the installation indicated and the conditions encountered. PVC Trim Boards and Panel Boards shall be primed and painted in accordance with the requirements of these Specifications. Coordinate Trim Boards and Panel Boards installation with flashing requirements, and stucco installation as required for a complete and weather tight installation. Note the use of Azek bead board paneling at ceiling of screened porch and as decorative panels.

06.07 RESTORATION OF EXISTING SHINGLE SIDING: Evaluate, restore and repair existing shingle siding as required on portions of the House and Garage where such siding is scheduled to remain. Patch areas where siding has been worn or cupped beyond salvaging with matching material. Properly prepare all existing shingle siding surfaced as required prior to priming and painting. Existing shingle siding shall be painted in accordance with the requirements of Division 9 of these Specifications.

06.08 NEW SHINGLE SIDING: Provide and install cedar shingle siding to match the existing siding as indicated in the Drawings or as required for patching of the siding on the House and Garage. Verify that the shingle siding matches the siding of the existing house as close as practical in graining, thickness and exposure. Installation shall be per the product manufacturer's written specifications, requirements and recommendations for the installation indicated and the conditions encountered. New shingle siding shall be painted in accordance with the requirements of Division 9 of these Specifications. Coordinate new shingle siding installation with flashing requirements as required for a complete and weather tight installation.

06.09 INTERIOR WOOD TRIM: Provide and install standing and running trim in the shapes and sizes to match the existing house trim profiles, or as otherwise indicated in the Drawings. Trim shapes shall be as milled by Smoot Lumber Company, Alexandria, Virginia, or approved equal. The material

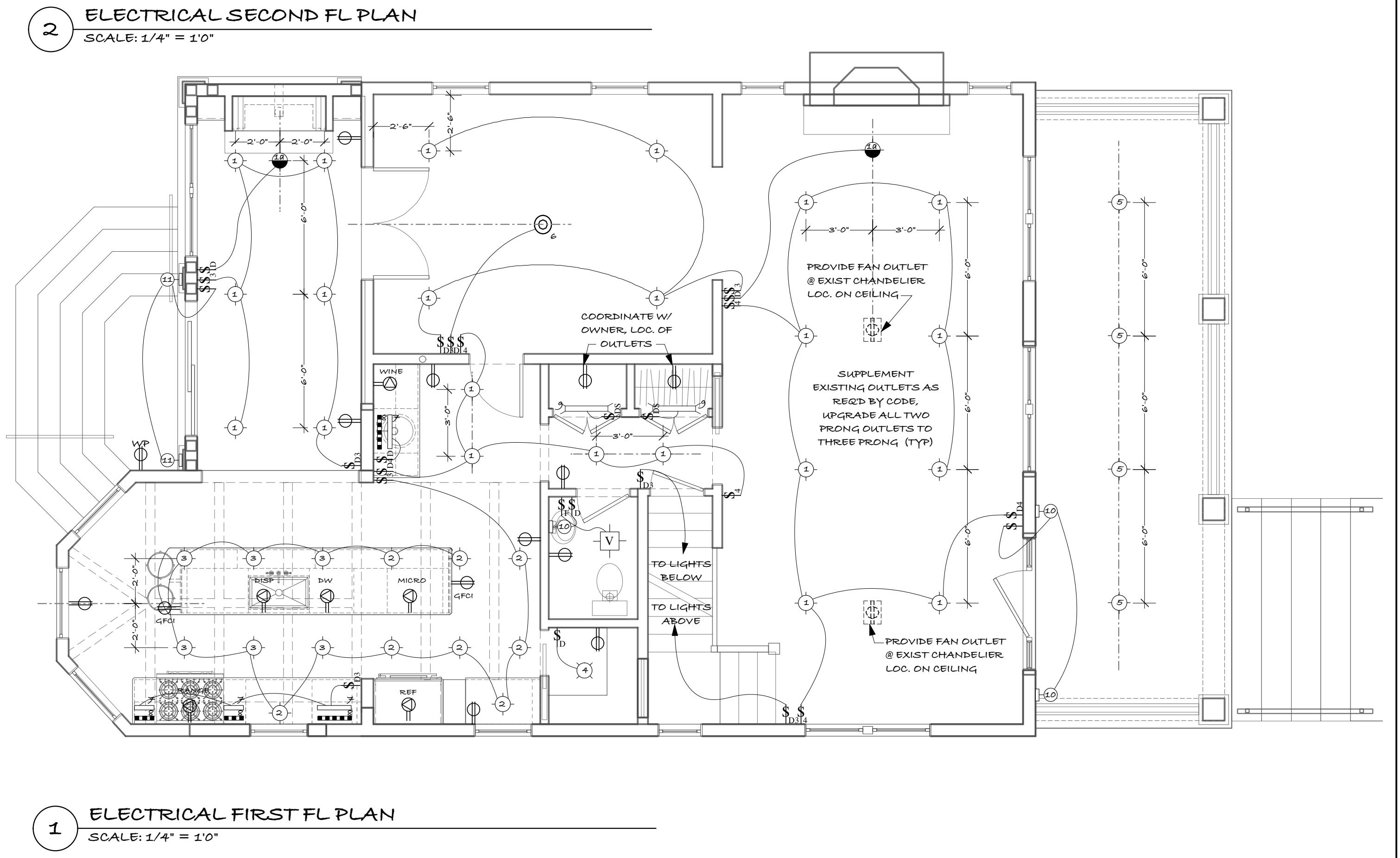
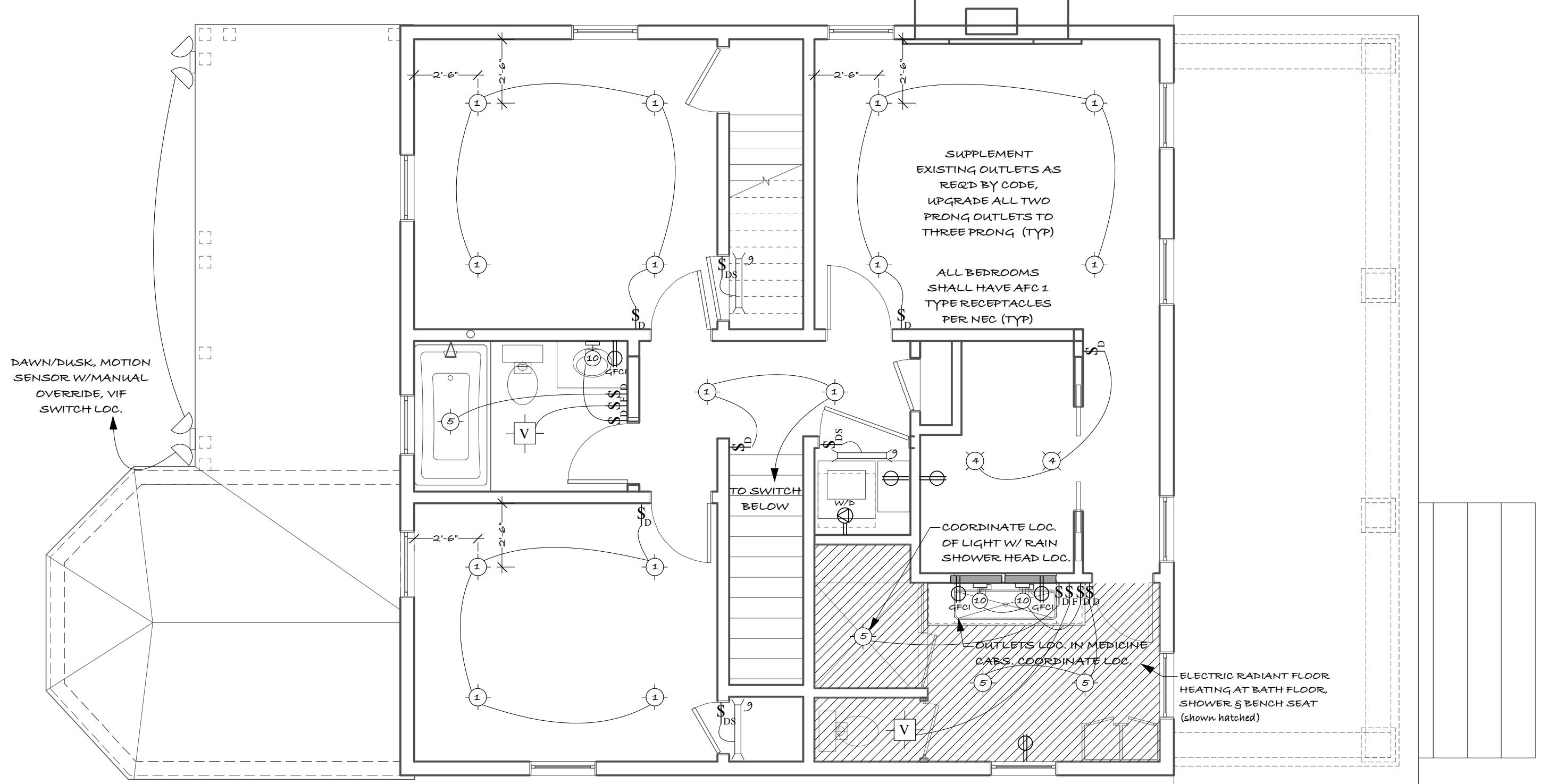
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- A-0a.** Provide and install foamed-in-place urethane insulation as required to fill small gaps between joints and around penetrations in exterior wall framing where the installation of batt insulation is impractical. Provide sound attenuation batt insulation at all new bathroom or powder room walls, ceilings and floors, or those opened during construction. Comply with the insulation manufacturer's printed instructions and recommendations for the installation of all insulation. Vapor barrier shall face conditioned space typically.
- 07.04.** **VAPOR BARRIER:** Provide 6-mil polyethylene film vapor barrier under all slabs on grade. Provide properly placed and installed moisture / vapor barriers in new construction as required to prevent condensation in walls, ceilings and floors adjacent to the exterior, or where otherwise required. Note: at floor of crawl space provide vapor barrier and gravel with perimeter insulation.
- 07.05.** **INFILTRATION WRAP:** Provide infiltration barrier, Tyvek Housewrap or equal, on all exterior wall sheathing installed or exposed during construction. The house wrap product(s) shall be installed in strict conformance with the product manufacturer's requirements, specifications and recommendations, including procedures for proper wrapping at window and door openings and coordination with related flashing system(s).
- 07.06.** **WINDOW AND DOOR FLASHING SYSTEM:** Provide and install Tyvek Flashing System, or approved equal, at windows and doors. The Flashing system shall be coordinated with installation of housewrap as well as the window and door installation conditions. Flashing components and their installation shall meet the specifications, requirements, and recommendations of the product manufacturer.
- 07.07.** **VERIFICATION OF EXISTING ROOFING CONDITIONS:** The General Contractor shall provide for a field verification of existing roofing conditions by the roofing Subcontractor. The roofing sub-contractor shall investigate the condition of the existing house roofing, and shall inform the Architect and/or Owner of any conditions which require repair or replacement. Such repairs/replacement shall be then be incorporated into the Project by a Change Order.
- 07.08.** **FIBERGLASS SHINGLE ROOFING @ GARAGE:** Provide and fiberglass roofing shingles for roofing at the expanded Garage. Fiberglass shingles shall match existing House roofing shingles as close as practical in color, texture, size and exposure. Install fiberglass shingle roofing over two layers of 15# roofing felt. Coordinate the installation and flashing of the new roofing with all surrounding and abutting conditions as required for a complete, neat appearing, weather-tight installation. Shingle material shall match the existing roofing as close as a practical.
- 07.09.** **GUTTERS & DOWNSPOUTS:** Provide baked aluminum gutters and downspouts at all drip lines of the existing House, to replace the existing, and at the expanded Garage. Coordinate all drainage work with roofing, flashing, trim, and construction of eaves, walls, or other adjoining work to provide a leak proof, secure, and non-corrosive installation. Gutter color shall be selected by the Owner.
- 07.10.** **MISC. FLASHING:** Provide flashing where indicated or required in roof and exterior wall construction. Flashing material shall be pre finished aluminum in baked white at wall construction, and color to match roofing color at roof areas. Coordinate and sequence the flashing work with the work of other trades as required for a complete, neat appearing, weather-tight installation. Coordinate flashing material with surrounding materials or existing colors as applicable. Flash at all wall projections and at all roof penetrations, roof abutments and changes in roof pitch.
- 07.11.** **SEALANTS:** Provide sealants as required at windows, doors, and in conjunction with all trim work as required for a complete weather-tight construction.
- 07.12.** **ADDITIONAL REQUIREMENTS:** Refer to Structural Specifications on the Drawings.
- DIVISION 8: DOORS AND WINDOWS**
- 08.01.** **GENERAL:** The Contract for Construction shall include all doors and windows work required to complete the Work indicated and described in the Construction Documents. Provide all facilities, labor, materials, equipment, and services required. The General Contractor shall provide for the coordination of the work of this division with the work of any and all other divisions as required.
- 08.02.** **CODES & STANDARDS:** Doors and windows work shall conform to all applicable local, state and national codes and standards, as well as those established by the Door and Hardware Institute, the American Woodwork Institute, and the National Woodwork Manufacturer's Association as described in their current publications. The products and materials used shall be approved by the American Society for Testing Materials as the most applicable to the work described and the conditions encountered.
- 08.03.** **WINDOWS AND FRENCH DOORS:** Provide and install new windows and exterior doors as indicated in the drawings. The windows and doors shall be Jeld Wen Sitrine Ex Clad Wood Units, or approved equal. Windows and exterior doors shall be provided with insulated low-e, argon filled glazing with 7/8" Simulated Divided Lights with spacer bars in patterns as indicated in the drawings. Provide historic 2" sub-sill at all windows in clad or azek. All operable units shall be provided with screens. Clad color, jamb liner color, screen frame color, and hardware color/options shall be selected by the Owner. All operable windows shall comply with the requirements of the 2012 International Residential Code, and shall be provided with sash limiters as required. Window and French door exteriors and interiors shall be factory primed and field painted in accordance with Division 9 of these Specifications. Install windows and doors according to the manufacturer's specifications, requirements and recommendations as required for a complete weather-tight installation. The Contractor shall field verify all masonry opening, rough opening and jamb dimensions prior to ordering units.
- 08.04.** **GLAZING:** Window and door fabricator shall supply glazing meeting or exceeding the test requirements of CSCPC 16-CFR, part 1201 for glazing in "Hazardous Locations" as specified in the applicable IRC Code.
- 08.05.** **INTERIOR DOORS:** Provide and install new doors and frames as indicated in the Drawings. All new interior doors shall match existing interior doors as close as practical. Doors at new locations shall be pre-hung with three hinges per leaf in color and finish to be selected by the Owner. Doors and frames shall be primed and painted in accordance with Division 9 of these Specifications. The Contractor shall field verify all jamb requirements - conditions may vary.
- 08.06.** **EXISTING DOOR AT STAIR LANDING:** The existing door at the stair landing between the First and Second Floor shall be affixed within its frame, and the back side (Pantry) covered over with furring and gypsum wallboard as required.
- 08.07.** **FINISH HARDWARE:** Provide allowance for finish hardware at all new interior doors. Hardware shall match existing interior door hardware as close as practical. The Contractor shall verify all cutout requirements, and shall supply all necessary accessories and trim for complete hardware sets, including items not listed but required for proper operation and installation of sets specified. The Contractor shall coordinate quantities and locations of all door hardware as well as handing of doors.
- 08.08.** **GARAGE DOORS AND OPENERS:** **Allowance Item.** Provide and install Owner selected garage doors and electrically operated openers. Installation of the doors and opener's shall be per the written specifications, requirements and recommendations of the product manufacturer(s).
- DIVISION 9: FINISHES & ACCESSORIES**
- 09.01.** **GENERAL:** The Contract for Construction shall include all finishes work required to complete the Work indicated and described in the Construction Documents. Provide all facilities, labor, materials, equipment, and services required. The General Contractor shall provide for the coordination of the work of this division with the work of any and all other divisions as required.
- 09.02.** **CODES & STANDARDS:** Finishes work shall conform to all applicable local, state and national codes and standards, as well as those established by the Gypsum Association, and the Tile Council of America as described in their current publications. The products and materials used shall be approved by the American Society for Testing Materials as the most applicable to the work described and the conditions encountered.
- 09.03.** **GYPSUM WALLBOARD:** Gypsum wall board shall be glued and screwed into place on wood framing. Unless otherwise noted, all wallboard shall be of 1/2 inch thickness. Finish gypsum wallboard surfaces as required for a smooth and even appearance. Provide Durock board under all tile and moisture resistant "green board" at all other surfaces in the Kitchen and Bathrooms. Note: all existing plaster shall be removed, all masonry walls shall be furred out in the approximate dimensions as indicated in the Drawings, and all ceilings shall be leveled by furring or sistering of joists as required. Gypsum wallboard products shall be U.S. Gypsum. National Gypsum, Georgia Pacific, or approved equal.
- 09.04.** **WOOD FLOOR FINISHING:** Wood flooring shall be installed as specified in Division 6 of the Specifications. Sand, stain and finish the new wood flooring, as well as all wood flooring and wood stair treads and risers of the existing house, with three coats of water based polyurethane.
- 09.05.** **EXTERIOR PAINTING:** Exterior paint shall be Benjamin Moore Aura premium grade low-luster latex for shingle and siding applications, and semi-gloss latex for trim, bead board, and related items, applied in a minimum of two finish coats over one coat of primer/undercoat. The scope of exterior painting shall include all previously painted exterior surfaces of the House and Garage, as well as all new siding, shingle, trim exterior ceilings and porch flooring. Porch flooring shall be painted with porch floor enamel. To the greatest extent possible, exterior metal work shall be shop primed and painted, then touched-up in the field after installation. Colors shall match the existing colors, or shall as be selected by the Owner. The Contract for Construction shall include provisions for providing field color samples for final approval prior to the final painting application. Paint shall be applied per the product manufacturer's specifications, requirements and recommendations.

- 09.06.** **INTERIOR PAINTING:** Interior paint shall be low VOC Benjamin Moore premium grade low luster latex on wood surfaces and matte latex on gypsum wallboard surface, applied in a minimum of two finish coats over one coat of primer/undercoat. Interior painting scope includes all gypsum wall board surfaces, trim, window and door surfaces of the first and Second Floors of the House, as well as other portions of the existing house impacted by the Work, and the interior of the Garage. Colors shall be as selected by the Owner. Paint shall be applied per the product manufacturer's specifications, requirements and recommendations.
- 09.07.** **PAINT PREPARATION:** Interior and exterior priming, painting and required preparation shall be per the specifications, requirements and recommendations of the paint/finish manufacturer for the installation indicated and the conditions encountered. Provide scraping and sanding as necessary to remove loose paint, and to even surfaces. Provide taping, spackle, and puttying where required to address cracks and divots on gypsum wallboard and plaster surfaces. Provide putty and sanding as required to address surface blemishes on the wood surfaces.
- 09.08.** **CERAMIC / STONE TILE:** **Allowance Item.** Provide and install stone and ceramic tile where indicated in the Drawings. At tiled areas include tile at floor, base, shower/tub enclosure, etc., as applicable. Final tile material shall be selected by the Owner. Tile work shall conform to the written specifications, requirements and recommendations of the Tile Council of America, AIA Masterspec, and the product manufacturer(s), as applicable to the work described and the conditions encountered. Provide all trim units as required for a complete and proper installation. Meet with Architect to plan tile layout at site prior to purchasing tile material. Coordinate with installation of electric radiant floor heating as specified in Division 16.
- 09.09.** **BATH ACCESSORIES:** **Allowance Item.** Provide and install Owner selected bath accessories and medicine cabinets at Master Bathroom and Hall Bathroom. Bath accessory finish shall match the Owner selected finish of bath fittings. Bath accessories include, but are not limited to: toilet paper holder; towel bars; robe hooks; soap dishes; and toothbrush holders. Provide all required blocking for a secure and proper installation. Provide two frameless mirrored medicine cabinets installed flush with custom mirror surround in Master Bathroom, as indicated in the Drawings.
- 09.10.** **MIRRORS:** Provide and install mirrors at bathroom in size(s) as indicated in the drawings. Where sizes are not indicated, assume that mirror width shall match the vanity width and the height will be 4 feet 4 inches.
- 09.11.** **SHOWER DOOR SYSTEM:** **Allowance Item.** Provide and install custom frameless shower enclosure/door systems at the Master Bathroom. Shower enclosure/door systems shall be 3/8" thick clear tempered glass, custom sized. Accessories and hardware shall be selected by the Owner. Provide Shop Drawings and cut sheets for review. Provide a watertight installation per manufacturers specifications, requirements and recommendations. Hardware finish shall match the Owner selected finish of bath fittings at each location.
- DIVISION 10: SPECIALTIES**
- 10.01.** **GENERAL:** The Contract for Construction shall include all specialties work required to complete the Work indicated in the Construction Documents. Provide all facilities, labor, materials, equipment and services required. The General Contractor shall provide for the coordination of the work of this division with the work of any and all other divisions as required.
- 10.02.** **CODES & STANDARDS:** Specialties work shall conform to all applicable local, state and national codes and standards. The specialties materials and accessories used shall be approved by the American Society for Testing Materials as the most applicable to the work described and the conditions encountered.
- 10.03.** **DIRECT VENT GAS FIREPLACE & VENT SYSTEM:** **Allowance Item.** Provide and install a high efficiency gas fired direct vent Unit Fireplace and Vent System, as selected by the Owner, where indicated in the Drawings. The Fireplace shall be vented through the exterior wall. Installation shall be per the manufacturers specifications, requirements and recommendations for the installation indicated and the conditions encountered, as well as per all applicable codes and regulations. Include all parts and accessories required for a complete system installation.
- 10.04.** **STEAM UNIT AT MASTER BATH SHOWER:** Provide and install a steam unit located at the Master Bathroom shower. Provide operable glass panel above shower door for venting, as required. Installation shall be per the manufacturers specifications, requirements and recommendations for the installation indicated and the conditions encountered, as well as per all applicable codes and regulations. Include all parts and accessories required for a complete system installation.
- DIVISION 11: EQUIPMENT**
- 11.01.** **GENERAL:** Include all equipment work required to complete the Work indicated in the Construction Documents. Provide all facilities, labor, materials, equipment and services required. The General Contractor shall provide for the coordination of the work of this division with the work of any and all other divisions as required.
- 11.02.** **CODES & STANDARDS:** Equipment work shall conform to all applicable local, state and national codes and standards. The equipment materials and accessories used shall be approved by the American Society for Testing Materials and the Underwriters Laboratories as the most applicable to the work described and the conditions encountered.
- 11.03.** **RESIDENTIAL APPLIANCES:** **Allowance Item.** Provide and install owner selected kitchen and laundry appliances as specified below at locations indicated in the Drawings. Appliances shall be installed to meet the specifications, requirements and recommendations of the manufacturer. Provide all gas, electrical and plumbing hookups and all vent ducting required for a complete installation.
- APPLIANCE SCHEDULE:**
- 36 Inch Wide Built-in Refrigerator with Ice Maker and Drinking Water Supply
 - 36 Inch Wide Gas and Electric Range
 - 36 Inch Wide High CFM Range Hood
 - 24 Inch Wide Under Counter Wine Cooler
 - Microwave
 - 2 Disposals
 - Gas and Electric Stacked Washer/Dryer
- DIVISIONS 12-14: NOT INCLUDED**
- DIVISION 15: PLUMBING & MECHANICAL**
- 15.01.** **GENERAL:** The Contract for Construction shall include all plumbing and mechanical work required to complete the Work indicated and described in the Construction Documents. Provide all facilities, labor, materials, equipment, and services required. The General Contractor shall provide for the coordination of the work of this division with the work of any and all other divisions as required.
- 15.02.** **CODES & STANDARDS:** Plumbing and mechanical work shall conform to all applicable local, state and national codes and standards, as well as those established by the American Society of Heating, Refrigeration and Air Conditioning Engineers and the Sheet Metal and Air Conditioning Manufacturer's Association in their current publications. The products and materials used shall be approved by the American Society for Testing Materials as the most applicable to the work described and the conditions encountered.
- 15.03.** **GAS FITTING:** Provide gas fitting as required for the gas appliances and equipment specified or as otherwise required to complete the Work. All gas fitting work shall be per the requirements of the International Mechanical Code as well as the any and all other applicable codes, ordinances and standards.
- 15.04.** **RELOCATE GAS METER:** Relocate existing gas meter as required for new front flagstone steps and entry. Coordinate with gas company as required. New location to be verified with Owner/Architect.
- PLUMBING SYSTEM:** Design, provide and install a complete plumbing system, including all necessary equipment, devices, material, labor, permits and inspections, for the supply of hot and cold water and for the sanitary disposal of waste water as required to complete the work. All work shall conform to Washington Suburban Sanitary Commission Plumbing Code, the IRC Plumbing Code, and all other applicable codes regulations, and requirements. Advise the Architect of modifications to, or deviations from, Construction Documents as required to comply with codes and regulations and to provide a complete and proper installation. Hot and cold supply piping shall be copper with wrought copper sweat fittings. Hot water supply piping shall be insulated. Sanitary lines shall be CPVC, insulated for temperature and vent pipes shall be PVC, insulated for sound. **Note: The Contract for Construction shall anticipate that the shower for the Hall Bath shall have separate temperature and volume controls, as well as a diverter to handle a shower head as well as a hand-held shower arm and spout. Anticipate as well, that the Master Bathroom shower shall have separate temperature and volume controls, as well as a diverter, or diverters, to handle a shower head, rain head, and a hand-held shower arm. Final shower system layouts are subject to Owner selections. Assume 3/4" hot and cold supply to each shower.**
- 15.05.** **WATER HEATER:** Verify that the existing water heater is adequate for the proposed work, as well as for reasonable future expansion. Provide water heater upgrade if required. New water heater shall be an Energy Star rated, high efficiency gas fired unit.
- 15.07.** **PLUMBING FIXTURES & FITTINGS:** **Allowance Item.** Provide and install plumbing fixtures and fittings for the Kitchen, First Floor Powder Room, Second Floor Hall Bathroom and Master Bathroom, as indicated in the Drawings. Final fixtures, fittings, colors and finishes shall be selected by the Owner.
- 15.08.** **MISC. PLUMBING HOOKUPS:** Provide plumbing hookups as required for residential appliances.
- 15.09.** **WASHING MACHINE OVERFLOW:** Provide washing machine pan with drain and alarm at second floor laundry closet. Coordinate with Owner selected stacked washer/dryer unit.
- 15.10.** **HOSE BIBS:** Provide and install two frost free hose bibs at locations to be determined by the Owner.
- 15.11.** **REMOVAL OF RADIATOR HEATING SYSTEM:** The Contract for Construction shall include the removal of all radiators and associated piping currently supplying heat to the House. Remove also the system boiler and all associated equipment and accessories.
- 15.12.** **HEATING & AIR CONDITIONING SYSTEMS:** Design, provide and install a two zone gas fired forced air heating and air conditioning system to provide heating and cooling to the House. Zone One shall service the First Floor and Basement. Zone Two shall service the Second Floor and Attic.
- 15.13.** **MECHANICAL EQUIPMENT AND DUCTING:** All new mechanical equipment shall Carrier Performance Series or approved equal, Energy Star certified, installed to meet the specifications, requirements and recommendations of the manufacturer for the installation required. All HVAC equipment and duct sizing shall follow ACCA Manuals D, J and S. Provide the following, as applicable: high efficiency air handler; 20 SEER or better condensing unit and evaporator coil; electronic air cleaner microelectronic programmable thermostat. All trunk lines and main run-outs shall be hard ducted, flex ducting shall be limited to final runs not to exceed six feet in length. All miscellaneous materials and anchoring devices shall be provided and all equipment shall be installed in accordance with the manufacturer's specifications, recommendations and requirements for a complete installation. Coordinate with plumbing and electrical sub-contractors as required for equipment hookups. Isolate all equipment as required to properly reduce noise transmission.
- 15.14.** **MECHANICAL DESIGN CRITERIA & BID SUBMITTAL:** Mechanical design shall meet or exceed all requirements of the 2012 International Energy Conservation Code as applicable to a residential installation. Provide provisions for make-up air, coordinating with high CFM range hood exhaust system. Cooling: 20 degree cooling differential; 70 degrees indoor DBF, 50% relative humidity/outdoor 90 degrees DBF and 78 degrees WB/F, with 24 hour automatic operation. Assume shades to direct light; a clean filter; normal occupancy; normal cooking; doors to remain closed during cooling season. Heating: 70 degrees indoor/17 degrees outdoor. In conjunction with bid submittal, provide a written description of the proposed mechanical system(s) including cut sheets for all proposed equipment including registers and grilles. Prior to project demolition, submit two complete sets of proposed duct layout drawings (Shop Drawings) for review by the Owner and Architect. The drawings shall include proposed locations for all trunk and branch ducts (supply and return), all registers and grilles, all mechanical equipment and controls.
- 15.15.** **MISC. MECH. HOOKUPS:** Provide and install ducting and wall/roof caps as required for all exhaust fans.
- DIVISION 16: ELECTRICAL**
- 16.01.** **GENERAL:** The Contract for Construction shall include all electrical work required to complete the Work indicated and described in the Construction Documents. Provide all facilities, labor, materials, equipment, and services required. The General Contractor shall provide for the coordination of the work of this division with the work of any and all other divisions as required.
- 16.02.** **CODES & STANDARDS:** Electrical work shall conform to all applicable local, state and national codes and standards, as well as those established by the National Fire Protection Association as described in its current publications. The products and materials used shall be approved by the American Society for Testing Materials as the most applicable to the work described and the conditions encountered, and shall be UL (Underwriters Laboratory) approved.
- 16.03.** **PANEL/LOAD CENTER:** Verify the capacity of the existing electrical service as related to the existing loading the new loading proposed, as well as reasonable future expansion. Provide Electrical Service Upgrade if deemed required. Provide new main panel and/or sub-panels(s), as required. All circuit breakers shall be full module size. Provide Ground Fault Circuit Interrupter breakers as required for all outlets requiring GFCI safety cutoff where indicated and where otherwise required. The Electrical Contractor shall circuit all devices, fixtures, and equipment as required for a complete service. All loads shall be connected for the best possible phase balance.
- 16.04.** **PRE WIRING WALK-THRU:** Include provisions for a pre wiring walk-thru by the Contractor or Project Manager, Owner and the Architect. This walk-thru shall take place after all rough-in kits, j-boxes, switch and outlet boxes have been installed, and prior to the installation of all wiring. At this walk-thru, the Owner and the Architect maintain the right to make minor adjustments in fixture and device locations as required for aesthetic effect. All labor and material costs for such minor adjustments shall be included.
- 16.05.** **WIRING:** Provide all wiring required to complete the Work indicated. All wiring shall be with copper conductors full rated for the loads served. Circuits shall be connected with loads not to exceed 60% of the breaker trip rating. All electrical wiring shall be run by experienced electricians accurately and in accordance with the requirements of the drawings. All misc. materials and anchoring devices shall be provided and all wiring shall be installed in accordance with the manufacturers specifications, recommendations and requirements for a complete installation. All wiring shall be routed correctly.
- 16.06.** **LIGHTING & ELECTRICAL FIXTURES:** Provide and install all lighting and electrical fixtures as indicated in the Drawings. Field verify required clearances prior to procuring fixtures - coordinate with structural items and mechanical ducting as applicable. All electrical fixtures shall be installed by experienced electricians accurately and in accordance with the requirements of the drawings. The exact location of all fixtures shall be determined by the Architect. All misc. materials and anchoring devices shall be provided and all fixtures shall be installed in accordance with the manufacturers specifications, recommendations and requirements for a complete installation.
- 16.07.** **SWITCHES AND OUTLETS:** Provide and install all switches and outlets scheduled in the drawings or as otherwise required. Unless otherwise indicated, all switches and outlets shall be as manufactured by Lutron, or approved equal. Device colors shall be white. The exact location of all switches and outlets shall be determined by the Architect. Dimmer switches shall be Lutron Ariadni preset dimmers (verify with Owner). The electrical contractor shall properly size dimmers for the lighting loads indicated.
- 16.08.** **EQUIPMENT HOOKUPS:** Provide all electrical hookups as required for all equipment scheduled in the drawings or otherwise required to complete the Work, including but not limited to Mechanical Equipment and Residential Appliances. All electrical hookups shall be made by experienced electricians accurately and in accordance with the requirements of the drawings. The exact location of all equipment shall be determined by the Architect. All misc. materials and anchoring devices shall be provided and all equipment shall be installed in accordance with the manufacturer's specifications, recommendations and requirements for a complete installation.
- 16.09.** **SECURITY SYSTEM, TELEPHONE OUTLETS, CABLE TV & SOUND SYSTEM:** Coordinate with the Owner for installation of Owner provided security system, telephone system, and for installation of Owner provided Cable TV and sound system.
- 16.10.** **RADIANT HEATING AT MASTER BATH FLOOR:** Provide and install electric radiant floor heating at Master Bathroom floor, shower floor, and shower bench as indicated in the Drawings. Electric radiant heating shall be compatible with wet location. Coordinate with tile installation.

ELECTRICAL FIRST & SECOND FLOOR PLANS

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



MOREN RESIDENCE ADDITIONS & RENOVATIONS

490 BRANDYWINE STREET, NW
WASHINGTON DC 20016

ELECTRICAL NOTES

490 BRANDYWINE STREET, NW
WASHINGTON DC 20016

SCALE: NTS

ELECTRICAL FIXTURE SCHEDULE

- 1 RECESSED BASIC 5" INSULATED: LIGHTOLIER LYTECASTER 5", IC, WITH FRAME-IN KIT #1000IC. WHITE MATTE TRIM #1076WH. PROVIDE LED BULB W/ MAX ALL. LAMPS, 40W A19 (TYP)
- 1A RECESSED ADJUSTABLE 5" INSULATED: LIGHTOLIER LYTECASTER 5", IC, WITH FRAME-IN KIT #1000IC. WHITE MATTE TRIM #1076WH. PROVIDE LED BULB W/ MAX ALL. LAMPS, 40W A19 (TYP)
- 2 RECESSED BASIC 6-3/4" INSULATED: LIGHTOLIER LYTECASTER 6-3/4", IC, WITH FRAME-IN KIT #1100IC. WHITE MATTE TRIM #1105WH. PROVIDE LED BULB W/ MAX ALL. LAMPS, 100W PAR38 (TYP)
- 3 RECESSED SHALLOW SLOPED CEILING (LOW SLOPE) 6-3/4" INSULATED: LIGHTOLIER LYTECASTER 6-3/4", IC, WITH FRAME-IN KIT #1101IC. WHITE MATTE TRIM #1131WH. PROVIDE LED BULB W/ MAX ALL. LAMPS, 75W PAR30 (TYP)
- 4 CEILING MOUNT: LIGHTING FIXTURE TO BE PROVIDED BY OWNER & INSTALLED BY CONTRACTOR
- 5 LENSITE: LIGHTING FIXTURE FOR SHOWERS & WET LOCATIONS, LIGHTOLIER LYTECASTER 5", IC, WITH FRAME-IN KIT #1001C. ETCH WHITE TRIM #1090. PROVIDE LED BULB W/ MAX. ALL. LAMPS, 50W PAR30.
- 6 CHANDELIER LIGHT: TO BE PROVIDED BY OWNER & INSTALLED BY CONTRACTOR
- 7 UNDER CABINET LIGHTING: MAC LED SNAP PRO SERIES #SNAP-FLAT-LO ENERGY STAR LIGHTING FIXTURE TO BE PROVIDED AND INSTALLED BY CONTRACTOR
- 8 APS ANGLED POWER STRIP: COORDINATE SIZE & QUANTITY AS REQ'D FOR UNDER WALL CABINETS. FINISH TO BE SELECTED BY OWNER.
- 9 CLOSET LENSED LIGHT: ALKCO LITTLE INCH 24" LENGTH MOUNTED AT HEAD OF DOORS INSIDE CLOSET
- 10 INTERIOR SCONCE: TO BE PROVIDED BY OWNER & INSTALLED BY CONTRACTOR
- 11 EXTERIOR SCONCE: TO BE PROVIDED BY OWNER & INSTALLED BY CONTRACTOR
- V1 VENT: PANASONIC WHISPER CEILING MOUNTED BATHROOM FAN FV-11VQ5
- DUAL HEAD & SINGLE HEAD ADJUSTABLE LIGHT WITH MOTION SENSOR: PROGRESS P5203-30 WITH TWO 100 WATT PAR38 LAMPS

ELECTRICAL SYMBOL LEGEND

\$	SWITCH
\$ ₃	3 WAY SWITCH
\$ _D	DIMMER SWITCH
\$ _J	JAMB SWITCH
□	DUPLEX WALL OUTLET
□ _{GFCI}	DUPLEX OUTLET WITH GROUND FAULT CIRCUIT PROTECTION
□ _{WP}	WATER PROOF DUPLEX OUTLET
□ _A	APPLIANCE OUTLET OR HOOK-UP (COORDINATE W/ APPLIANCE REQ.)
△	DUAL TEL/ETHERNET JACK. (4-WIRE JACK ABOVE W/ ETHERNET BELOW)
SD	HARD WIRED SMOKE DETECTOR. ALL UNITS TO SOUND IN UNISON
CO	CARBON DIOXIDE DETECTOR
□ _{ET}	OUTLET FOR CABLE TV & ETHERNET HOOK-UP
C	CABLE CONNECTION

GENERAL: The Contract for Construction shall include all electrical work required to complete the Work indicated and described in the Construction Documents. Provide all facilities, labor, materials, equipment, and services required. The General Contractor shall provide for the coordination of the work of this division with the work of any and all other divisions as required.

CODES & STANDARDS: Electrical work shall conform to all applicable local, state and national codes and standards, as well as those established by the National Fire Protection Association as described in its current publications. The products and materials used shall be approved by the American Society for Testing Materials as the most applicable to the work described and the conditions encountered, and shall be UL (Underwriters Laboratory) approved.

PANEL/LOAD CENTER: Verify the capacity of the existing electrical service as related to the existing loading the new loading proposed, as well as reasonable future expansion. Provide Electrical Service Upgrade if deemed required. Provide new main panel and/or sub-panel(s), as required. All circuit breakers shall be full module size. Provide Ground Fault Circuit Interrupt breakers as required for all outlets requiring GFCI safety cutoff where indicated and where otherwise required. The Electrical Contractor shall circuit all devices, fixtures, and equipment as required for a complete service. All loads shall be connected for the best possible phase balance.

PRE WIRING WALK-THRU: Include provisions for a pre wiring walk-thru by the Contractor or Project Manager, Owner and the Architect. This walk-thru shall take place after all rough-in kits, j-boxes, switch and outlet boxes have been installed, and prior to the installation of all wiring. At this walk-thru, the Owner and the Architect maintain the right to make minor adjustments in fixture and device locations as required for aesthetic effect. All labor and material costs for such minor adjustments shall be included.

WIRING: Provide all wiring required to complete the Work indicated. All wiring shall be with copper conductors full rated for the loads served. Circuits shall be connected with loads not to exceed 60% of the breaker trip rating. All electrical wiring shall be run by experienced electricians accurately and in accordance with the requirements of the drawings. All misc. materials and anchoring devices shall be provided and all wiring shall be installed in accordance with the manufacturers specifications, recommendations and requirements for a complete installation. All wiring shall be routed concealed.

LIGHTING & ELECTRICAL FIXTURES: Provide and install all lighting and electrical fixtures as indicated in the Drawings. Field verify required clearances prior to procuring fixtures - coordinate with structural items and mechanical ducting as applicable. All electrical fixtures shall be installed by experienced electricians accurately and in accordance with the requirements of the drawings. The exact location of all fixtures shall be determined by the Architect. All misc. materials and anchoring devices shall be provided and all fixtures shall be installed in accordance with the manufacturers specifications, recommendations and requirements.

SWITCHES AND OUTLETS: Provide and install all switches and outlets scheduled in the drawings or as otherwise required. Unless otherwise indicated, all switches and outlets shall be as manufactured by Lutron, or approved equal. Device colors shall be white. The exact location of all switches and outlets shall be determined by the Architect. Dimmer switches shall be Lutron Ariadni preset dimmers (verify with Owner). The electrical contractor shall properly size dimmers for the lighting loads indicated.

EQUIPMENT HOOKUPS: Provide all electrical hookups as required for all equipment scheduled in the drawings or otherwise required to complete the Work, including but not limited to Mechanical Equipment and Residential Appliances. All electrical hookups shall be made by experienced electricians accurately and in accordance with the requirements of the drawings. The exact location of all equipment shall be determined by the Architect. All misc. materials and anchoring devices shall be provided and all equipment shall be installed in accordance with the manufacturer's specifications, recommendations and requirements for a complete installation.

SECURITY SYSTEM, TELEPHONE OUTLETS, CABLE TV & SOUND SYSTEM: Coordinate with the Owner for installation of Owner provided security system, telephone system, and for installation of Owner provided Cable TV and sound system.

RADIANT HEATING AT MASTER BATH FLOOR: Provide and install electric radiant floor heating at Master Bathroom floor, shower floor, and shower bench as indicated in the Drawings. Electric radiant heating shall be compatible with wet location. Coordinate with tile installation.

MECHANICAL & PLUMBING NOTES

GENERAL:
The Contract for Construction shall include all plumbing and mechanical work required to complete the Work indicated and described in the Construction Documents. Provide all facilities, labor, materials, equipment, and services required. The General Contractor shall provide for the coordination of the work of this division with the work of any and all other divisions as required.

CODES & STANDARDS:

Plumbing and mechanical work shall conform to all applicable local, state and national codes and standards, as well as those established by the American Society of Heating, Refrigeration and Air Conditioning Engineers and the Sheet Metal and Air Conditioning Manufacturer's Association in their current publications. The products and materials used shall be approved by the American Society for Testing Materials as the most applicable to the work described and the conditions encountered.

GAS FITTING:

Provide gas fitting as required for the gas appliances and equipment specified or as otherwise required to complete the Work. All gas fitting work shall be per the requirements of the International Mechanical Code as well as the any and all other applicable codes, ordinances and standards.

RELOCATE GAS METER:

Relocate existing gas meter as required for new front flagstone steps and entry. Coordinate with gas company as required. New location to be verified with Owner/Architect.

PLUMBING SYSTEM:

Design, provide and install a complete plumbing system, including all necessary equipment, devices, material, labor, permits and inspections, for the supply of hot and cold water and for the sanitary disposal of waste water as required to complete the work. All work shall conform to Washington Suburban Sanitary Commission Plumbing Code, the IRC Plumbing Code, and all other applicable codes regulations, and requirements. Advise the Architect of modifications to, or deviations from, Construction Documents as required to comply with codes and regulations and to provide a complete and proper installation. Hot and cold supply piping shall be copper with wrought copper sweat fittings. Hot water supply piping shall be insulated. Sanitary lines shall be CPVC, insulated for temperature and vent pipes shall be PVC, insulated for sound. Note: The Contract for Construction shall anticipate that the shower for the Hall Bath shall have separate temperature and volume controls, as well as a diverter to handle a shower head as well as a hand-held shower arm and spout. Anticipate as well, that the Master Bathroom shower shall have separate temperature and volume controls, as well as a diverter, or diverters, to handle a shower head, rain head, and a hand-held shower arm. Final shower system layouts are subject to Owner selections. Assume 3/4" hot and cold supply to each shower.

WATER HEATER:

Verify that the existing water heater is adequate for the proposed work, as well as for reasonable future expansion. Provide water heater upgrade if required. New water heater shall be an Energy Star rated, high efficiency gas fired unit.

PLUMBING FIXTURES & FITTINGS:

Allowance Item: Provide and install plumbing fixtures and fittings for the Kitchen, First Floor Powder Room, Second Floor Hall Bathroom and Master Bathroom, as indicated in the Drawings. Final fixtures, fittings, colors and finishes shall be selected by the Owner.

MISC. PLUMBING HOOKUPS:

Provide plumbing hookups as required for residential appliances.

WASHING MACHINE OVERFLOW:

Provide washing machine pan with drain and alarm at second floor laundry closet. Coordinate with Owner selected stacked washer/dryer unit.

HOSE BIBS:

Provide and install two frost free hose bibs at locations to be determined by the Owner.

REMOVAL OF RADIATOR HEATING SYSTEM:

The Contract for Construction shall include the removal of all radiators and associated piping currently supplying heat to the House. Remove also the system boiler and all associated equipment and accessories.

HEATING & AIR CONDITIONING SYSTEMS:

Design, provide and install a two zone gas fired forced air heating and air conditioning system to provide heating and cooling to the House. Zone One shall service the First Floor and Basement. Zone Two shall service the Second Floor and Attic.

MECHANICAL EQUIPMENT AND DUCTING:

All new mechanical equipment shall Carrier Performance Series or approved equal, Energy Star certified, installed to meet the specifications, requirements and recommendations of the manufacturer for the installation required. All HVAC equipment and duct sizing shall follow ACCA Manuals D, J and S. Provide the following, as applicable: high efficiency air handler; 20 SEER or better condensing unit and evaporator coil; electronic air cleaner; microelectronic programmable thermostat. All trunk lines and main run-outs shall be hard ducted, flex ducting shall be limited to final runs not to exceed six feet in length. All miscellaneous materials and anchoring devices shall be provided and all equipment shall be installed in accordance with the manufacturer's specifications, recommendations and requirements for a complete installation. Coordinate with plumbing and electrical sub-contractors as required for equipment hookups. Isolate all equipment as required to properly reduce noise transmission.

MECHANICAL DESIGN CRITERIA & BID SUBMITTAL:

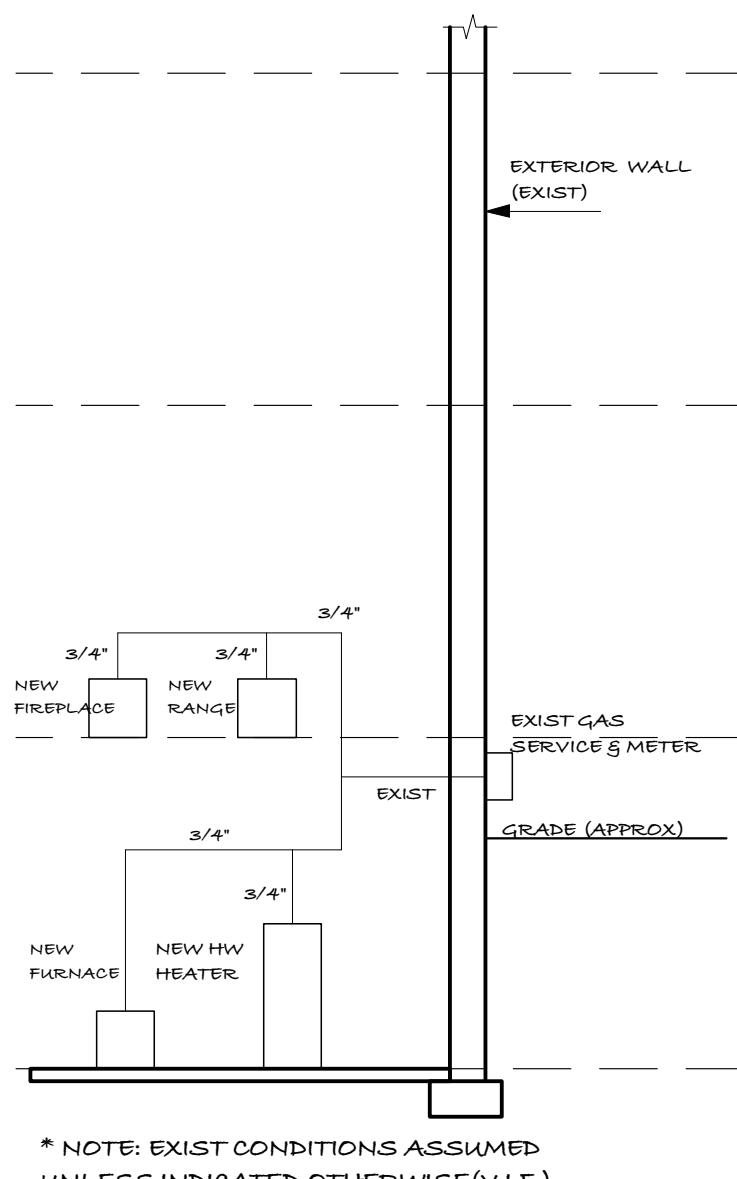
Mechanical design shall meet or exceed all requirements of the 2012 International Energy Conservation Code as applicable to a residential installation. Provide provisions for make-up air, coordinating with high CFM range hood exhaust system. Cooling: 20 degree cooling differential; 70 degrees indoor DBF, 50% relative humidity/outdoor 90 degrees DBF and 78 degrees WBF, with 24 hour automatic operation. Assume shades to direct light; a clean filter; normal occupancy; normal cooking; doors to remain closed during cooling season. Heating: 70 degrees indoor/17 degrees outdoor. In conjunction with bid submittal, provide a written description of the proposed mechanical system(s) including cut sheets for all proposed equipment including registers and grills. Prior to project demolition, submit two complete sets of proposed duct layout drawings (Shop Drawings) for review by the Owner and Architect. The drawings shall include proposed locations for all trunk and branch ducts (supply and return), all registers and grilles, all mechanical equipment and controls.

MISC. MECH. HOOKUPS:

Provide and install ducting and wall/roof caps as required for all exhaust fans.

GAS RISER DIAGRAM*

(SUBJECT TO FINAL ENGINEERING BY MECH & PLUMBING SUBCONTRACTOR)



MECHANICAL EQUIPMENT LEGEND

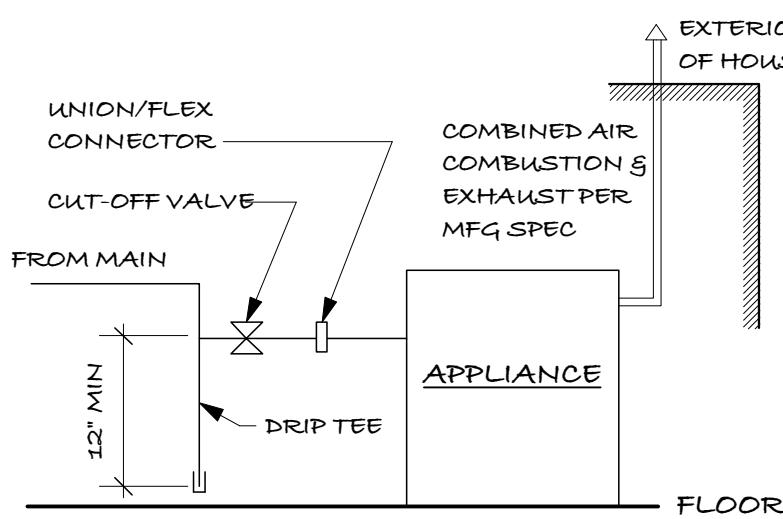
CEILING FAN W/4" DIA FLEX PIPE TO EXTERIOR	SUPPLY DUCT
RANGE FAN W/6" DIA FLEX PIPE TO EXTERIOR	RETURN DUCT
WATER HEATER WHERE INDICATED	FLOOR REGISTER
FURNACE WHERE INDICATED	CEILING REGISTER
	WALL REGISTER

PLUMBING FIXTURE SCHEDULE

- 1 KITCHEN SINK - STAINLESS STEEL UNDERMOUNT IN GRANITE COUNTER. SINK & COUNTER TO BE SELECTED BY OWNER AND INSTALLED BY CONTRACTOR.
- 2 LAVATORY SINK - UNDERMOUNT IN VANITY COUNTER. SINK & VANITY TO BE SELECTED BY OWNER & INSTALLED BY CONTRACTOR.
- 3 WET BAR SINK - SINK TO BE SELECTED BY OWNER & INSTALLED BY CONTRACTOR.
- 4 SHOWER - CUSTOM TILED SHOWER WITH RAINHEAD & HANDHELD SHOWERS W/ BODY SPRAYS
- 5 TUB - CUSTOM TILED TUB WITH RAINHEAD & HANDHELD SHOWERS W/ BODY SPRAYS
- 6 TOILET - WATER SAVER TOILET TO BE SELECTED BY OWNER AND INSTALLED BY CONTRACTOR

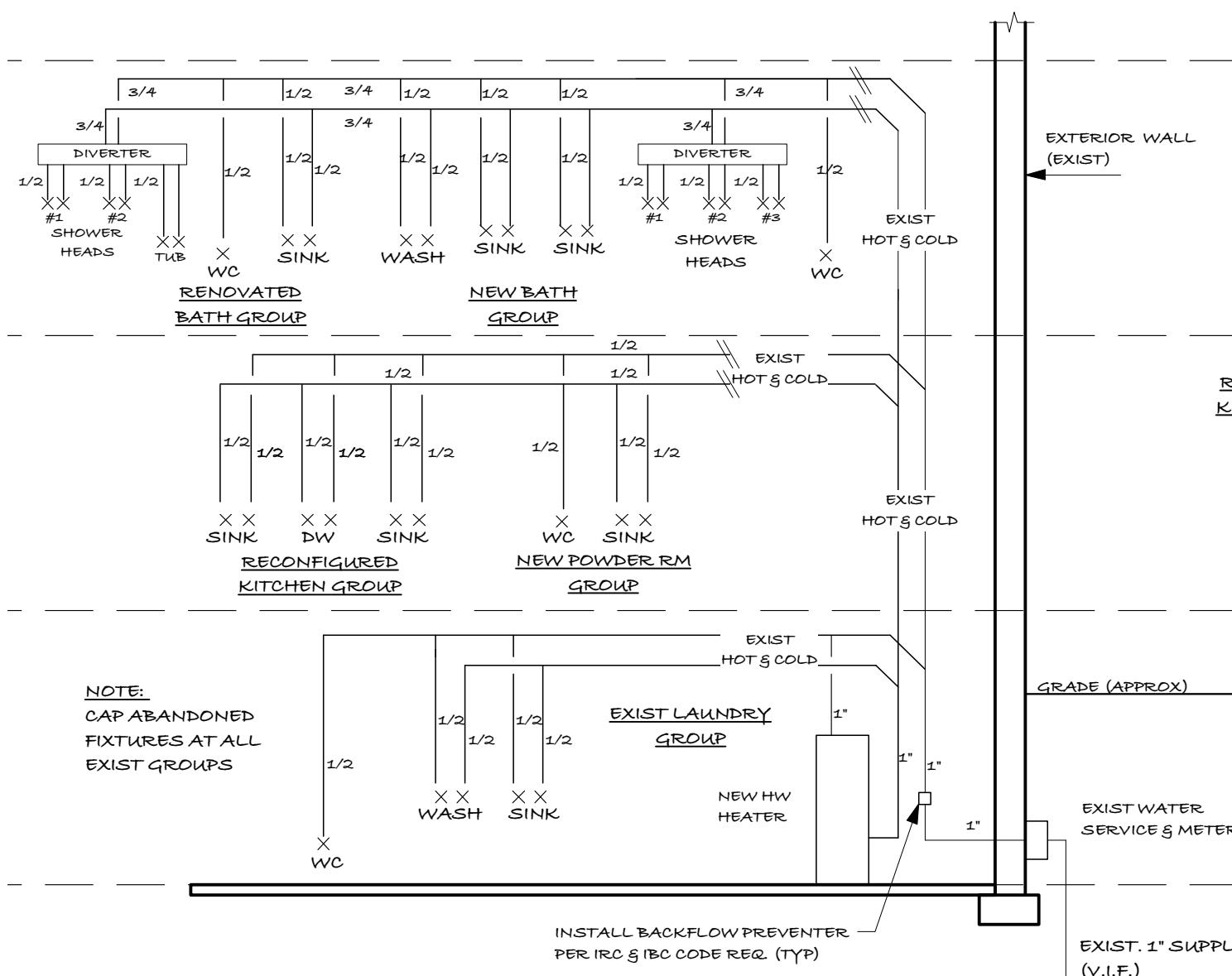
APPLIANCE CONNECTION

VENTING DIAGRAM



WATER SUPPLY RISER DIAGRAM*

(SUBJECT TO FINAL ENGINEERING BY MECH & PLUMBING SUBCONTRACTOR)



UNIT 1 (ZONE 1) - MECHANICAL EQUIPMENT SCHEDULE

(SUBJECT TO FINAL ENGINEERING BY MECH & PLUMBING SUBCONTRACTOR)

HEATING/COOLING REQUIREMENTS

BASEMENT (796 SF) 1ST FLOOR (1,120 SF)

HEATING TOTAL: 74,920 BTU/HR 56,000 BTU/HR

15,920 BTU/HR 56,000 BTU/HR

COOLING TOTAL: 38,320 BTU (3.19 TONS)

1.33 TONS, 531 CFM 1.86 TONS, 747 CFM

FURNACE

GAS FURNACE AT BASEMENT: TRANE XR95 SINGLE STAGE MODEL NO. TUHIB080A9421A. AFUE 95.0%

INPUT: 80,000 BTU/HR OUTPUT: 76,000 BTU/HR

TONS: 3.0

AIR HANDLER

AIR HANDLER AT BASEMENT: TRANE VARIABLE SPEED. MODEL NO. 2/4TEESF40.

NOMINAL CAPACITY: 40,000 BTU/HR

TONS: 3.0

A/C

AIR CONDITIONER AT ROOF: TRANE 3.0 TON XL151 SUPER EFFICIENCY. MODEL NO. 4TTX5036A

UNIT 2 (ZONE 2) - MECHANICAL EQUIPMENT SCHEDULE

(SUBJECT TO FINAL ENGINEERING BY MECH & PLUMBING SUBCONTRACTOR)

HEATING/COOLING REQUIREMENTS

2ND FLOOR (826 SF) ATTIC (826 SF)

HEATING TOTAL: 66,080 BTU/HR 33,040 BTU/HR

33,040 BTU/HR 33,040 BTU/HR

COOLING TOTAL: 32,040 BTU (2.75 TONS)

1.38 TONS, 548 CFM 1.38 TONS, 548 CFM

FURNACE

GAS FURNACE AT ATTIC: TRANE XR95 SINGLE STAGE MODEL NO. TUHIB080A9421A. AFUE 95.0%

INPUT: 80,000 BTU/HR OUTPUT: 76,000 BTU/HR

TONS: 3.0

AIR HANDLER

AIR HANDLER AT ATTIC: TRANE VARIABLE SPEED. MODEL NO. 2/4TEESF40.

NOMINAL CAPACITY: 40,000 BTU/HR

TONS: 3.0

A/C

AIR CONDITIONER AT REAR YARD: TRANE 3.0 TON XL151 SUPER EFFICIENCY. MODEL NO.

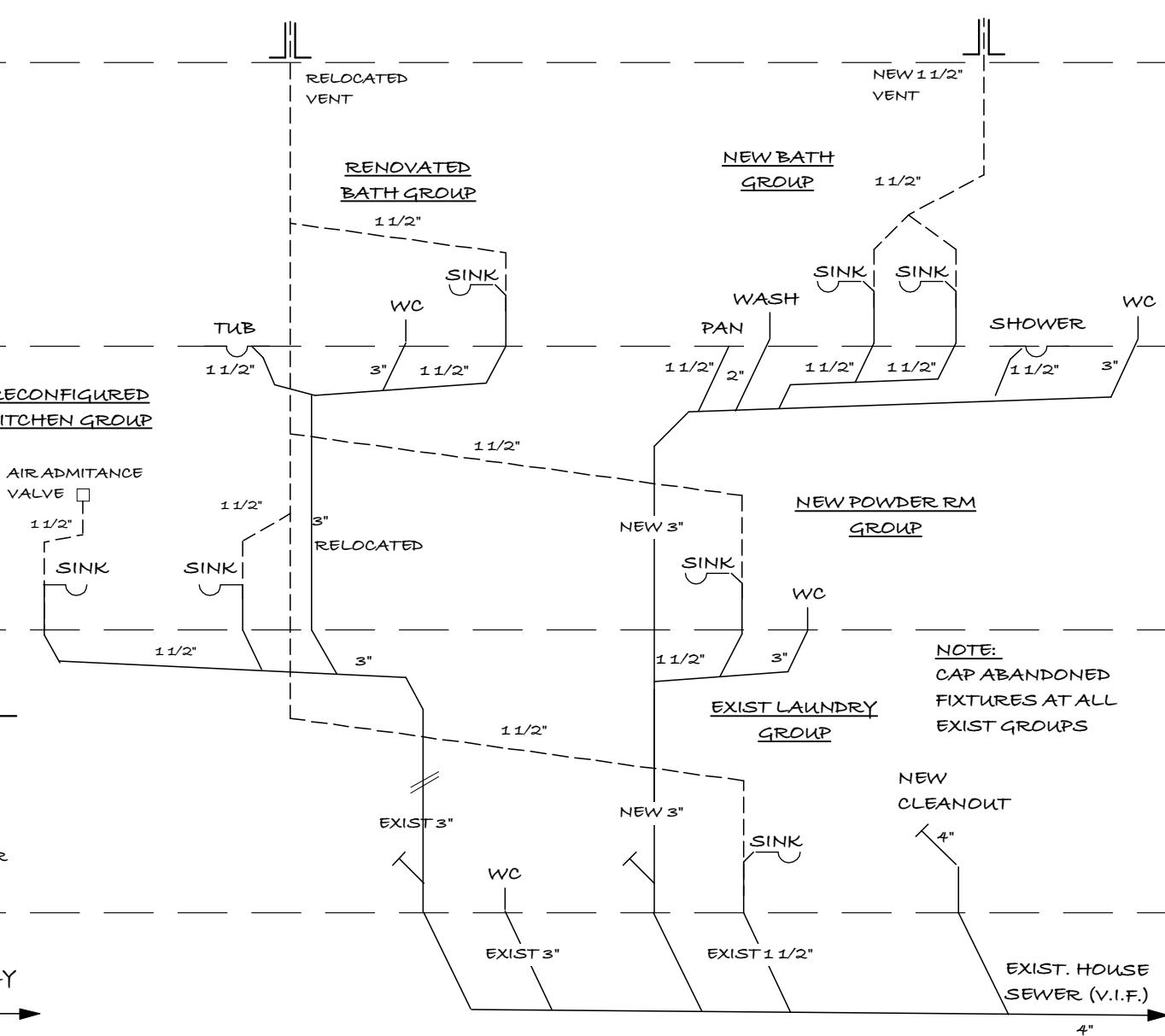
4TTX5036A

NOTE: FOR PERMIT ONLY.

(SUBJECT TO FINAL ENGINEERING BY PLUMBING SUBCONTRACTOR)

WASTE/VENT RISER DIAGRAM*

(SUBJECT TO FINAL ENGINEERING BY MECH & PLUMBING SUBCONTRACTOR)



MOREN RESIDENCE ADDITIONS & RENOVATIONS

BID ISSUE
13 MARCH 2015
MP2
Ahmann LLC
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AHMANN LLC
ARCHITECTURAL SERVICES
4408 BEECHWOOD ROAD UNIVERSITY PARK, MARYLAND 20782
PHONE 301 864 1334
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MOREN RESIDENCE ADDITIONS & RENOVATIONS

4910 BRANDYWINE STREET NW
WASHINGTON DC 20016

ED ISSUE
MARCH 2015

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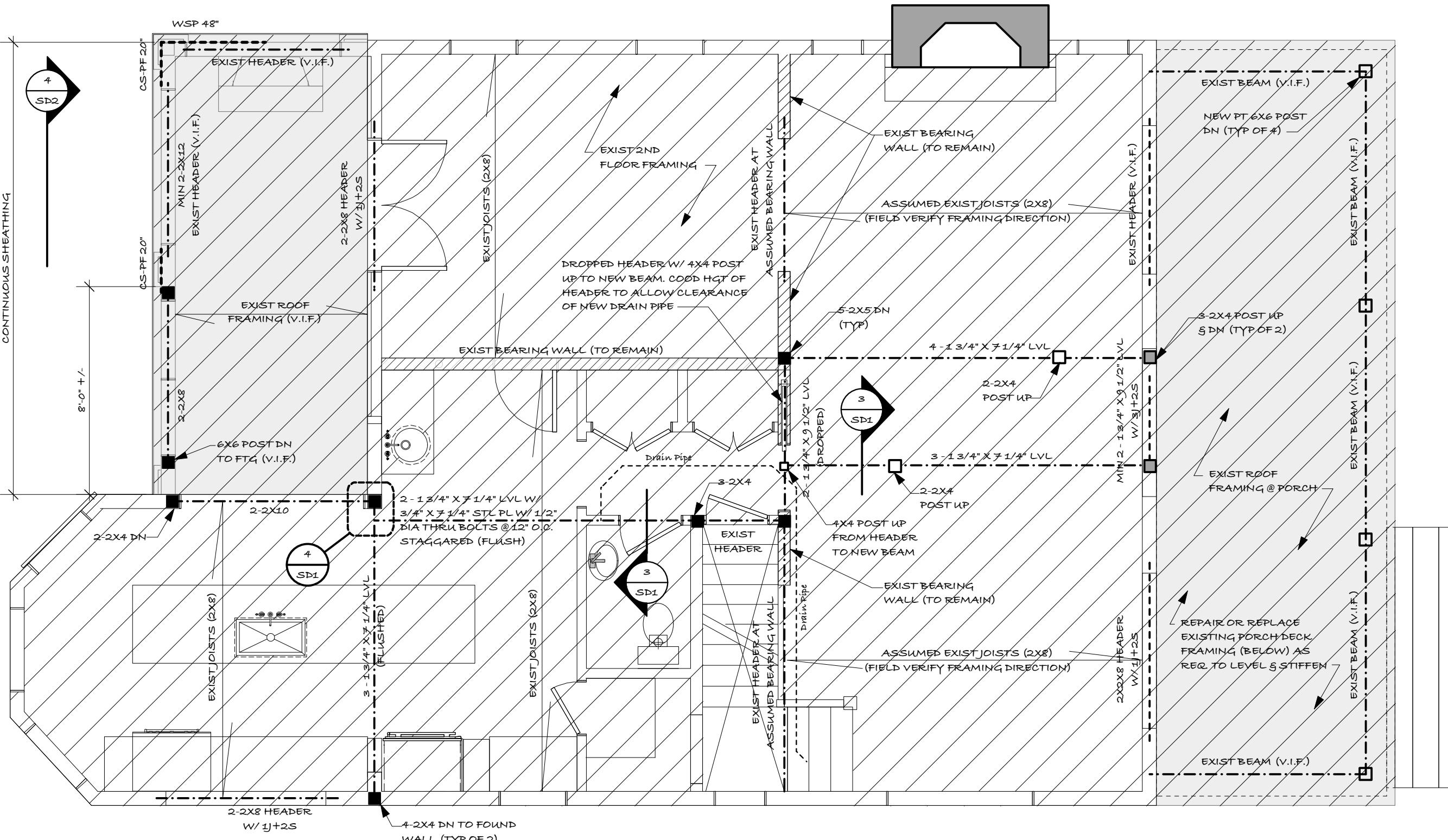
STRUCTURAL 1ST & 2ND FLOOR FRAMING DIAGRAMS

PHONE 301 864 1334
FAX 301 864 6818

PHONE 301 864 1334
FAX 301 864 6818

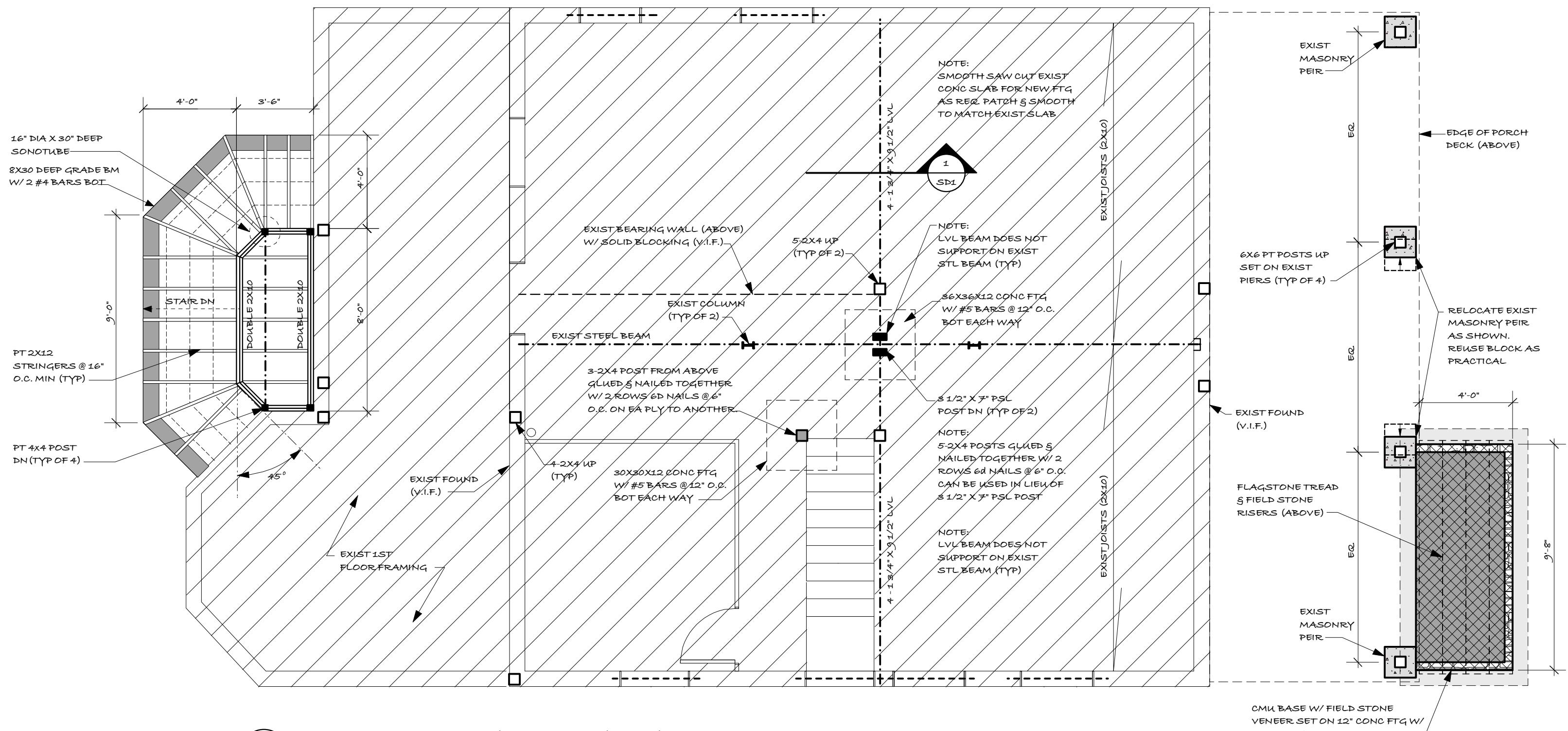
SCALE: 1/4" = 1'-0"

E
2015



2 SECOND FLOOR FRAMING DIAGRAM
SCALE: 1/4" = 1'-0"

SCALE: 1/4" = 1'0"



1 FIRST FLOOR FRAMING DIAGRAM
SCALE: $1/4"$ = $1'0"$

SCALE: 1/4" = 1'0"

STRUCTURAL ADDITIONS & RENOVATIONS ATTIC FRAMING DIAGRAM & SECTION AT PORCH

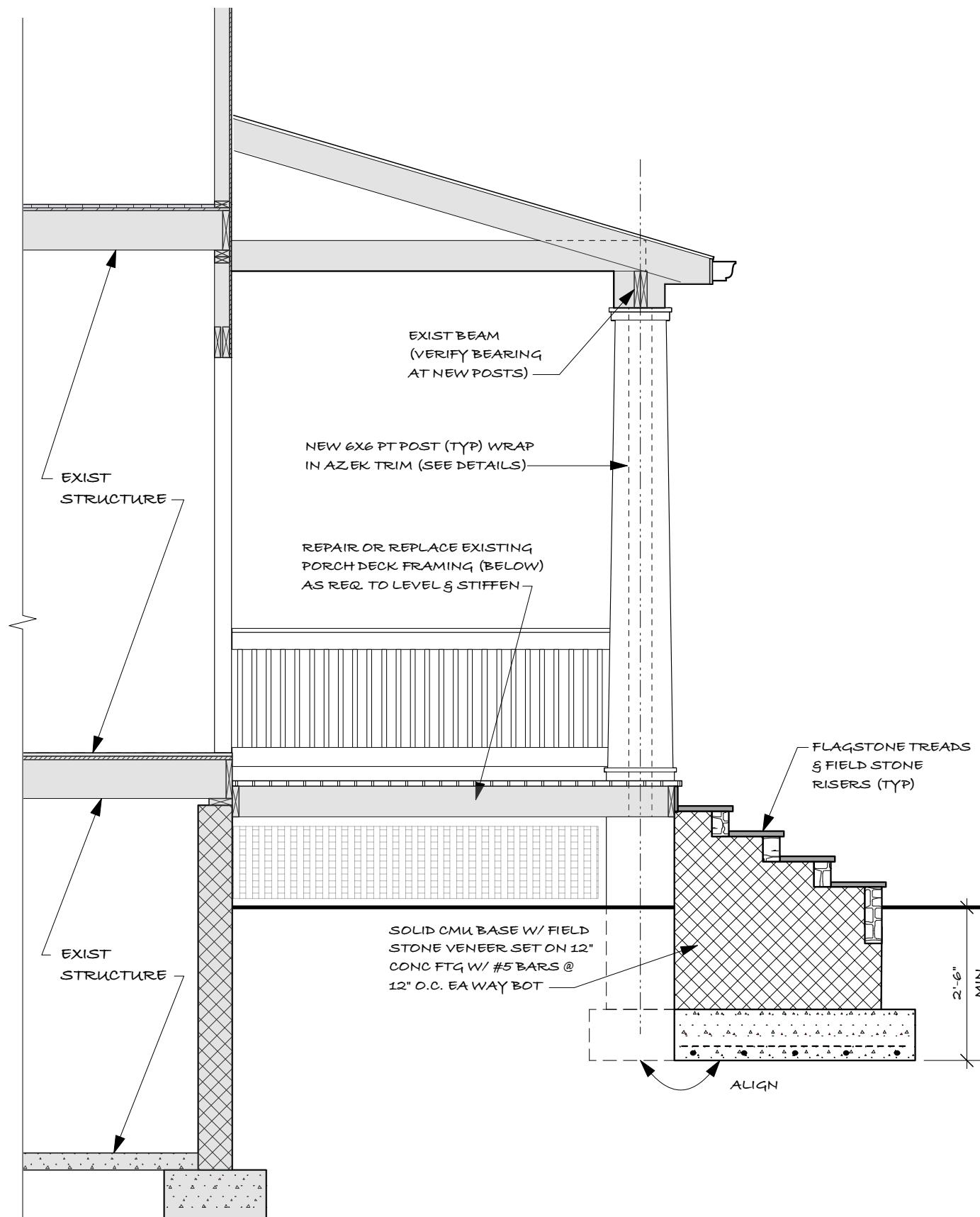
MOREN RESIDENCE
ADDITIONS & RENOVATIONS
490 BRANDYWINE STREET, NW
WASHINGTON DC 20016

BID ISSUE

13 MARCH 2015

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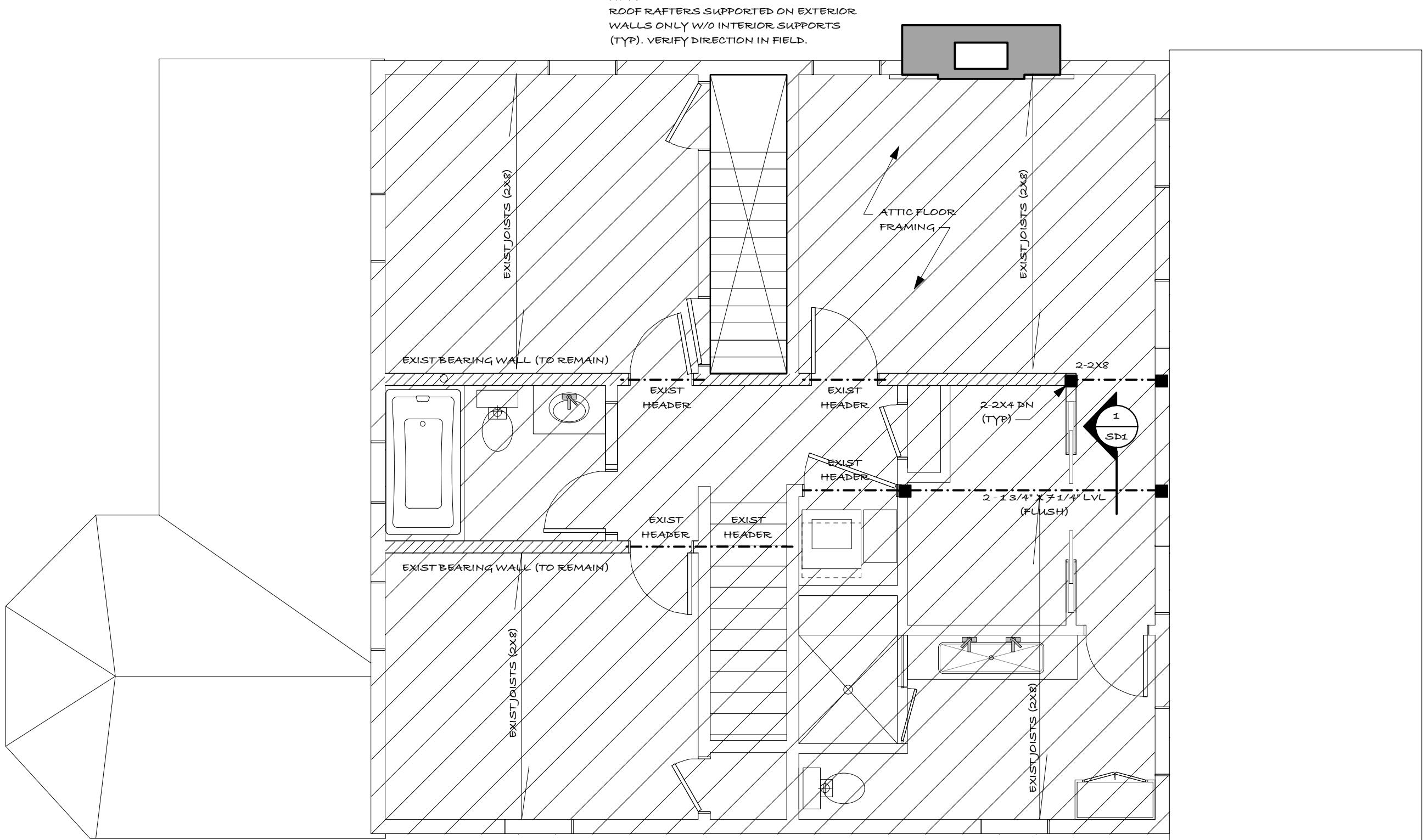
Ahmann LLC
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2 SECTION AT PORCH

SCALE: 3/8" = 1'0"

NOTE:
ALL EXISTING CONDITION TO BE FIELD
VERIFIED. INFORM ARCHITECT OR
ENGINEER IF EXISTING CONDITIONS VARY
FROM THAT SHOWN OR ASSUMED.



1 ATTIC FRAMING DIAGRAM

SCALE: 1/4" = 1'0"

**STRUCTURAL
GARAGE SECTION &
FRAMING**

SCALE: AS SHOWN

**MOREN RESIDENCE
ADDITIONS & RENOVATIONS**

490 BRANDYWINE STREET, NW
WASHINGTON DC 20016

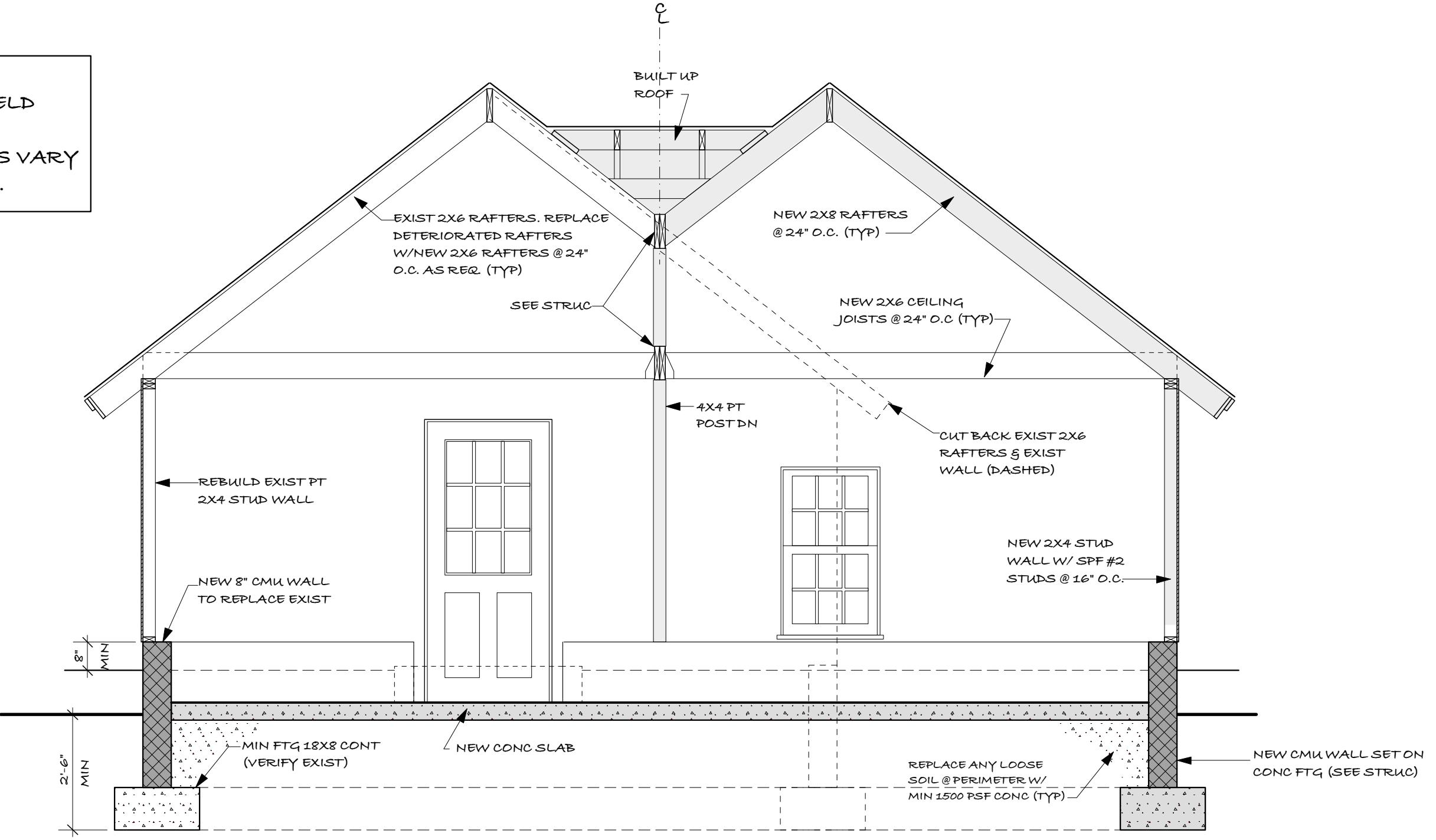
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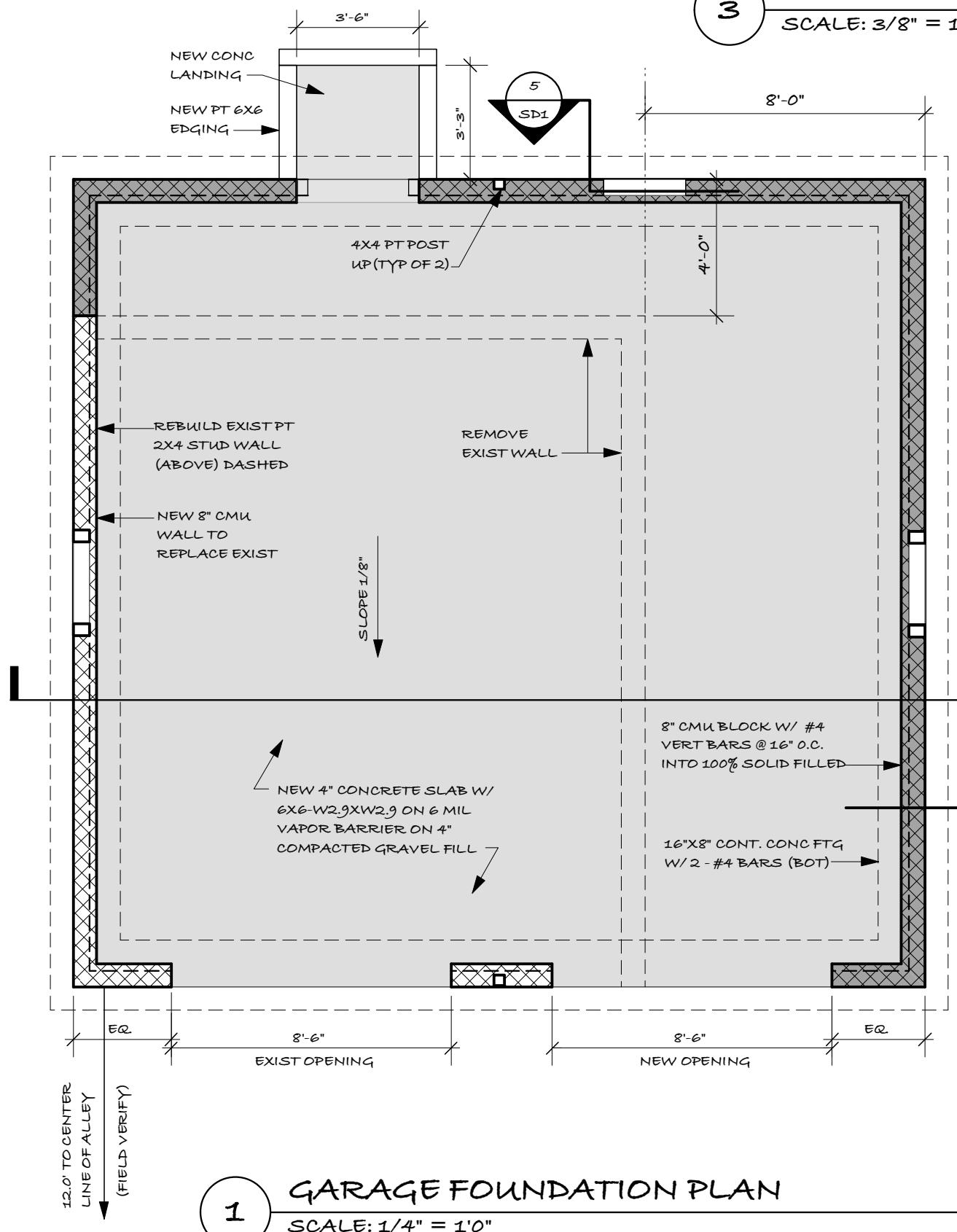
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NOTE:
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ENGINEER IF EXISTING CONDITIONS VARY
FROM THAT SHOWN OR ASSUMED.



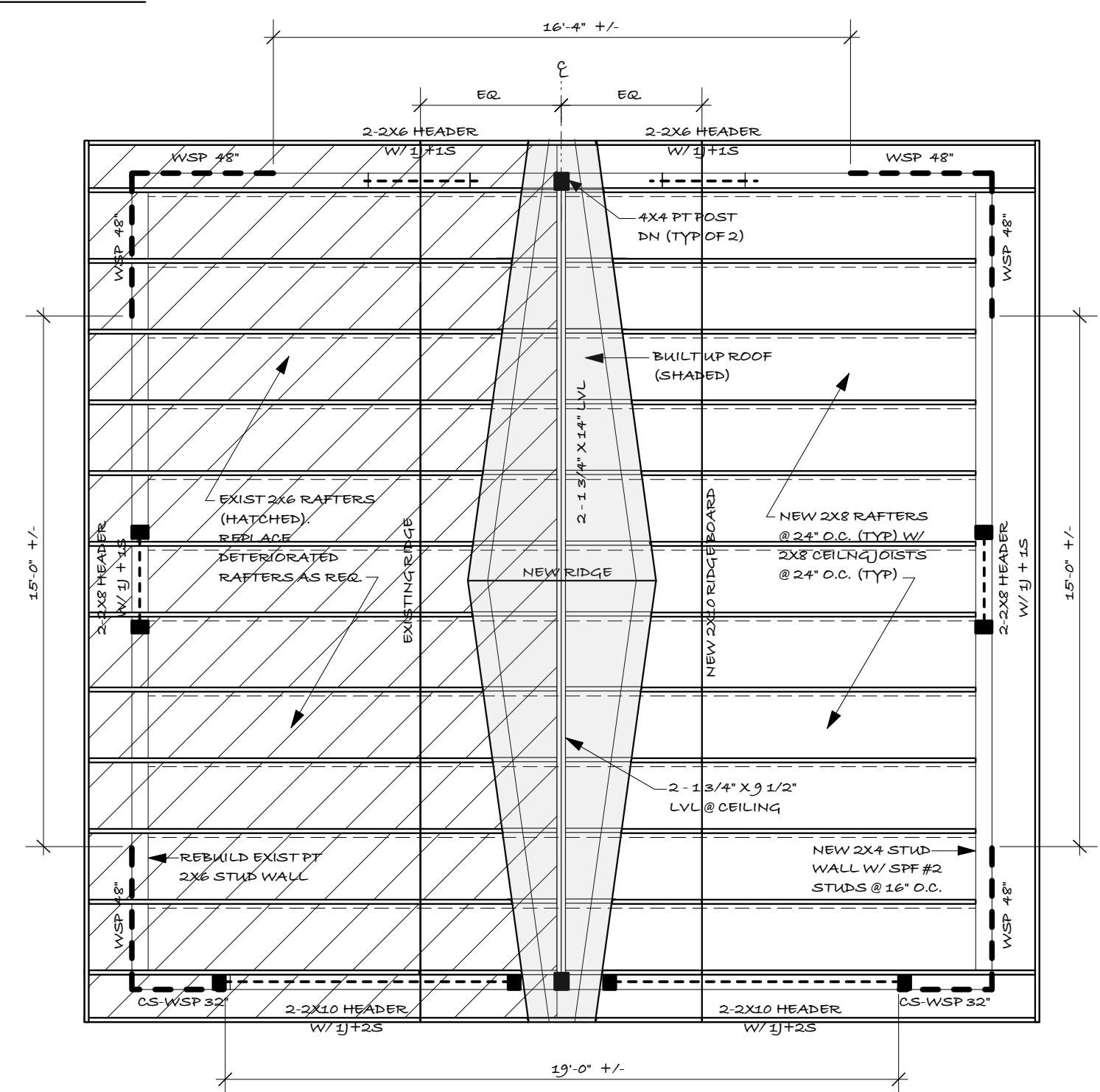
SECTION AT GARAGE

SCALE: 3/8" = 1'0"



GARAGE FOUNDATION PLAN

SCALE: 1/4" = 1'0"



GARAGE ROOF FRAMING DIAGRAM

SCALE: 1/4" = 1'0"

STRUCTURAL SPECIFICATIONS

1. GENERAL

A. The following Loading was utilized in the design based on IRC 2012:

Live Load:

Roof Snow Load = 30 psf; Floors = 40 psf; Stairs = 40 psf; Decks = 40 psf; Exterior Balconies = 60 psf.

Dead Load:

A minimum of 10 psf Dead Load was added in the design.

Wind Load:

Basic wind speed (3-second gust) = 90 mph; Importance Factor IW = 1.0; Wind exposure = b; Internal Pressure Coefficients = 0.18 or -0.18; Design wind pressure for components and cladding: Pnet 30 = 10 psf or -17 psf; Basic

Wind-Force-Resisting System = Bearing Wall Systems with Wood Structural Panel Sheathing (IRC Method 3) unless otherwise noted.

Snow Load:

Gound Snow Load Pg = 30 psf; Flat Roof Snow Load Pf = 21 psf; Snow Exposure Factor CE = 0.9; Snow Importance Factor IS = 1.0; Thermal Factor CT = 1.0

B. The Foundation and Framing Plans are schematic and are intended only to define the general requirements and concepts of the work. They do not show all details and requirements of the work and are not necessarily coordinated with the architectural, electrical, mechanical and plumbing requirements of the work. The General Contractor or Construction Manager is responsible for assuring that all items required for a complete structural system in accordance with the concepts indicated are provided and installed. The General Contractor or Construction Manager is responsible for coordination of the structural work with other trades, and for arranging offsets, securing additional material, etc. as may be required by such coordination.

C. The General Contractor or Construction Manager shall coordinate the placement of all foundation, slab and framing elements as required for exact placement of mechanical, electrical, plumbing and any other elements as indicated in the drawings, including but not limited to: lighting fixtures, mechanical registers and grilles, plumbing fixtures.

D. Any material or equipment not shown on the structural drawings and having a weight in excess of 400 pounds shall be brought to the attention of the Architect or the Structural Engineer prior to installation.

E. The basic stability of the structure is dependent upon the diaphragm action of the floors, walls, and roof acting together. The General Contractor or Construction Manager shall arrange for all guys, braces, struts, etc. as required to accommodate all live, dead, and wind loads until all final connections between these elements are made.

2. EARTHWORK

A. Soil bearing value at the bottom of all footings is assumed to be 1500 psf. This value is to be verified in the field prior to pouring.

B. Bottom of all exterior footings shall be a minimum of 2'-6" below finished exterior grade. Where required, step footings in ratio of 2 horizontal to 1 vertical. Footing depths are shown schematically and are subject to field verification of existing conditions and review of soil conditions by a registered engineer experienced in soils engineering.

C. Compacted backfill Below Building Slabs & Footings: All soil fill material must be approved by soils engineer prior to placement. Material to be free from organic material, trash, muck, concrete, asphalt, or other deleterious substances. Prior to placing fill, the existing surface shall be cleared of all refuse or organic materials. Fill material shall be placed in layers not to exceed 8" and compacted to minimum 95% of the dry maximum density as determined by ASTM D-1557.

D. Footing depths are shown schematically and are subject to field verification of existing soil conditions by a geotechnical engineer prior to proceeding with the footing work.

3. CONCRETE

Footings, by a registered engineer experienced in soils engineering.

A. All concrete to have minimum compressive strength (FC) = 3000 psi in 28 days. All concrete to be poured in accordance with ACI 301-83 specification. Concrete exposed to weather to be air-entrained.

B. All reinforcing steel shall meet ASTM-A-615 Grade 60. Placing plans and shop fabrication details shall be in accordance with "The Manual of Standard Practice for Detailing Reinforced Concrete Structures."

C. Provide clear distance to outermost reinforcing as follows:

3 1/4"	In slabs and walls at faces not exposed to weather
1 1/2"	In beams at bottom and sides; in columns
1 1/2"	In slabs at bottom poured over vapor barrier
2"	In all members exposed to weather or backfill
3"	In concrete poured against earth

4. MASONRY

A. All concrete masonry units to conform to ASTM specification C-90 for load bearing masonry. All masonry to be reinforced at 16" o.c. horizontally. Mortar to be ASTM C-270, type S at exterior walls, type N at interior walls.

B. Unless otherwise noted, lintels for masonry walls shall be as follows (Provide 1 angle for each 4" of wall thickness):

Openings to 3'-0": 3 1/2" x 3 1/2" x 1 1/4" - 3 1/2" horizontal
3 1/2" to 5'-0": 4" x 3 1/2" x 5/16" - 3 1/2" horizontal
5 1/2" to 6'-6": 5" x 3 1/2" x 5/16" - 3 1/2" horizontal

C. Masonry wall ties: provide galvanized horizontal continuous wall reinforcement at 16" o.c. vertical. Provide prefabricated ties and ell's at intersections and corners of masonry walls.

D. Provide 100% solid masonry below all joists and slab bearing lines, and below all lintels and minor wall bearing beams.

E. Provide concrete masonry lintels where indicated in the Drawings. Masonry lintels shall be installed per manufacturer's load/span tables unless otherwise indicated. Provide 8" bearing at each side of masonry lintels typically.

F. Fill all cells with mortar grout at all reinforcing bars, anchor plates, expansion bolts, and bond beams. The grout shall consist of one part cement and three parts sand with minimum possible water.

5. STEEL

A. All structural steel shall conform to ASTM A-36. Pipe to be A500 or A501. Detailing to be in accordance with AISC Structural Steel Detailing Manual. Connections shall be capable of supporting allowable uniform load stress of 24 ksi. Bolted field connection shall be 3/4" diameter high strength bolts meeting ASTM specification A 325. Bolted joints to be bearing type using the turn-of-the-nut method of tightening, except add hardened washer under turned element. All electrodes shall be AWS E70XX.

B. All connections required but not indicated or specified in the Construction Documents shall be engineered/designed by the steel fabricator.

C. All welders shall be certified with the American Welding Society. All welding electrodes, machines, etc., shall be compatible with the type of steel being welded.

D. Provide Miscellaneous metal as required, including loose lintels for masonry walls, bolts, plates, anchors, hangers, framing clips, and other required items for framing and supporting woodwork.

6. WOOD

A. Comply with the "Manual of House Framing" by the National Forest Products Association, including nailing, fastening, anchorage, framing, and bracing. Double joists at all openings (header and trimmer) and under all partitions parallel to the joists. Provide headers for all openings for mechanical ductwork as required. Provide preservative treated wood where in direct contact with concrete or masonry (including but not limited to sill plates and ledger boards) or where within 8 inches of earth, as well as cans, nailers, blocking, furring, stripping, and similar items in connection with roofing, vapor barrier, and waterproofing membranes.

B. All framing lumber shall be hem fir, grade #2 or better, having the following minimum properties:

Bending Stress "Fb" = 850 psi for single member

Bending Stress "Fb" = 977.5 psi for repetitive member

Tension parallel to Grain "Ft" = 525psi

Horizontal Shear "Fv" = 150 psi

Compression Perp. to Grain "Fc" = 405 psi

Compression parallel to Grain "Fc" = 1300 psi

Modulus of Elasticity "E" = 1,300,000 psi

C. All structural posts having the following minimum properties:

Bending Stress "Fb" = 1200 psi for single member

Bending Stress "Fb" = 1400 psi for repetitive member

Horizontal Shear "Fv" = 90 psi

Compression Perp. to Grain "Fc" = 565 psi

Compression parallel to Grain "Fc" = 1000 psi

Modulus of Elasticity "E" = 1,600,000 psi

D. All stud walls shall be framed with studs at 16" o.c. maximum. All wall studs shall be SPF stud grade or better, having the following minimum properties:

Compression Parallel to Grain "Fc" = 425 psi

Modulus of Elasticity "E" = 1,200,000 psi

E. All stud bearing walls shall be provided with 2 continuous top plates and continuous preservative treated bottom plate with a minimum of one row of horizontal bridging at mid height of wall unless otherwise noted. Splices of top plate shall occur over stud. Splices shall be staggered a minimum of four feet.

H. All lintels over all framed openings to be as shown below unless noted otherwise:

2 - 2x8 for openings up to 4'-6"

2 - 2x10 for openings up to 5'-6"

2 - 2x12 for openings up to 7'-0"

I. All wood blocking, nailers, etc. shall be attached to concrete with power actuated fasteners or 3/8" diameter bolts unless otherwise indicated or required. Fasteners shall be spaced at 24 inches maximum o.c. and shall be staggered. Fasteners shall have a minimum capacity of 100 lbs in shear and pull-out unless otherwise indicated or required.

GARAGE WALL BRACING SCHEDULE						
BRACED WALL LINE	BRACE WALL LINE	TYPE	METHOD	BRACED WALL LENGTH		NOTES:
				REQUIRED	PROVIDED	
I-1	24'-0"	WSP	INTERMITTENT	3.40'	8.00'	1. DESIGN CODE: IRC 2012
2-2	24'-0"	WSP	INTERMITTENT	3.40'	8.00'	2. WIND SPEED: 90 MPH / 3 SEC GUST.
A-A	19'-0"	WSP	INTERMITTENT	2.80'	4.00'	3. WIND EXPOSURE CATEGORY: "B"
B-B	19'-0"	CS-WSP	CONT. SHEATHING	2.47'	2.60'	4. SEISMIC DESIGN CATEGORY: "B"

NOTES:

1. DESIGN CODE: IRC 2012
2. WIND SPEED: 90 MPH / 3 SEC GUST.
3. WIND EXPOSURE CATEGORY: "B"
4. SEISMIC DESIGN CATEGORY: "B"
5. ADJUSTMENT FACTOR FOR ROOF EAVE TO RIDGE HEIGHT FOR MAIN BUILDING: 0.7
6. ADJUSTMENT FACTOR FOR 2 BRACED WALL LINES: 1.00
7. ADJUSTMENT FACTOR 8'-0" HIGH STUD WALLS: 1.00
8. CS-PF: CONTINUOUSLY SHEATHED PORTAL FRAME.
9. WSP: WOOD STRUCTURAL PANEL.
10. WALL PANEL LEGEND:

WSP-XX
WSP ----- EXTERIOR FACE: WOOD STRUCTURAL PANEL W/ 7/16" OSB WALL SHEATHING W/ 6d COMMON (2" X 0.113") NAILS AT 6" O.C. (PANEL EDGES) AND AT 12" O.C. (INTERMEDIATE SUPPORTS)
INTERIOR FACE: 1/2" GYPSUM SHEATHING W/ 1 1/8" GALVANIZED ROOFING NAILS: STAPLES GALVANIZED, 1 1/2" LONG, 1 1/8" SCREWS, TYPE W OR S, AT 7" AT PANEL EDGES AND INTERMEDIATE SUPPORTS.
XX ----- LENGTH OF WALL PANEL IN INCHES.

CS-WSP-XX
CS-WSP ----- CONT. SHEATHED WOOD STRUCTURAL PANEL W / 7/16" 0.5-B WALL SHEATHING
W/6d COMMON (2"X0.113") NAILS AT 6" O.C. AT PANEL EDGES & 12" O.C. IN FIELD OR 16 GAGE X 1 3/4" STAPLES AT 3" O.C. (PANEL EDGES) AND AT 6" O.C. (INTERMEDIATE SUPPORTS). SHEATHING SHALL BE EXTENDED CONTINUOUSLY 12" ABOVE AND BELOW THE FLOOR SYSTEM.
XX ----- LENGTH OF WALL PANEL: IN INCHES.

II. BRACED WALL OVER CONCRETE DECK:
PROVIDE 1/2" # 8 ANCHOR BOLTS AT 4'-0" O.C. W/ MIN 2"X2"X3/16" PLATE MIN. 2 ANCHOR BOLTS PER FABRICATED WALL PANEL.
12. OPTION TO 1/2" # ANCHOR BOLTS EMBEDDED IN WET CONCRETE:
I) USE 1/2" # ADHESIVE BOLTS W/ MIN 7" EMBEDMENT, USE HILTI HVA ADHESIVE OR APPROVED EQ.
II) USE 5/8" # ADHESIVE BOLT W/ MIN. 7" EMBEDMENT, USE SIMPSON SET EPOXY-TIE ADHESIVE OR APPR. EQ.

11. WALL PANEL LEGEND:

WSP-XX
WSP ----- EXTERIOR FACE: WOOD STRUCTURAL PANEL W/ 7/16" OSB WALL SHEATHING W/ 6d COMMON (2" X 0.113") NAILS AT 6" O.C. (PANEL EDGES) AND AT 12" O.C. (INTERMEDIATE SUPPORTS)
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XX ----- LENGTH OF WALL PANEL: IN INCHES.

CS-WSP-XX
CS-WSP ----- CONT. SHEATHED WOOD STRUCTURAL PANEL W / 7/16" 0.5-B WALL SHEATHING
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CS-WSP-XX
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INTERIOR FACE: 1/2" GYPSUM SHEATHING W/ 1 1/8" GALVANIZED ROOFING NAILS: STAPLES GALVANIZED,
1 1/2" LONG, 1 1/8" SCREWS, TYPE W OR S, AT 7" AT PANEL EDGES AND INTERMEDIATE SUPPORTS.
XX ----- LENGTH OF WALL PANEL: IN INCHES.

CS-WSP-XX
CS-WSP ----- CONT. SHEATHED WOOD STRUCTURAL PANEL W / 7/16" 0.5-B WALL

STRUCTURAL NOTES & DETAILS 2

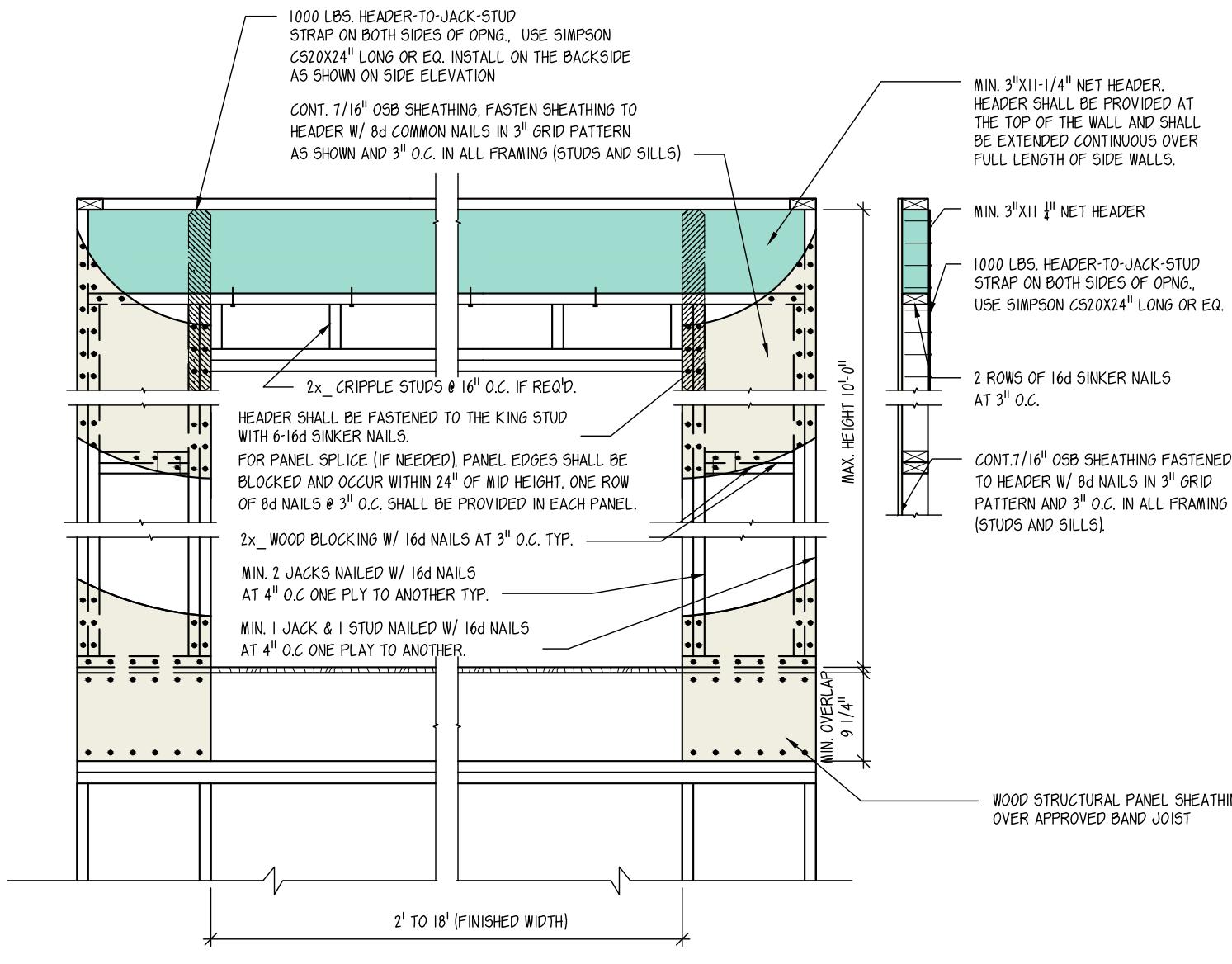
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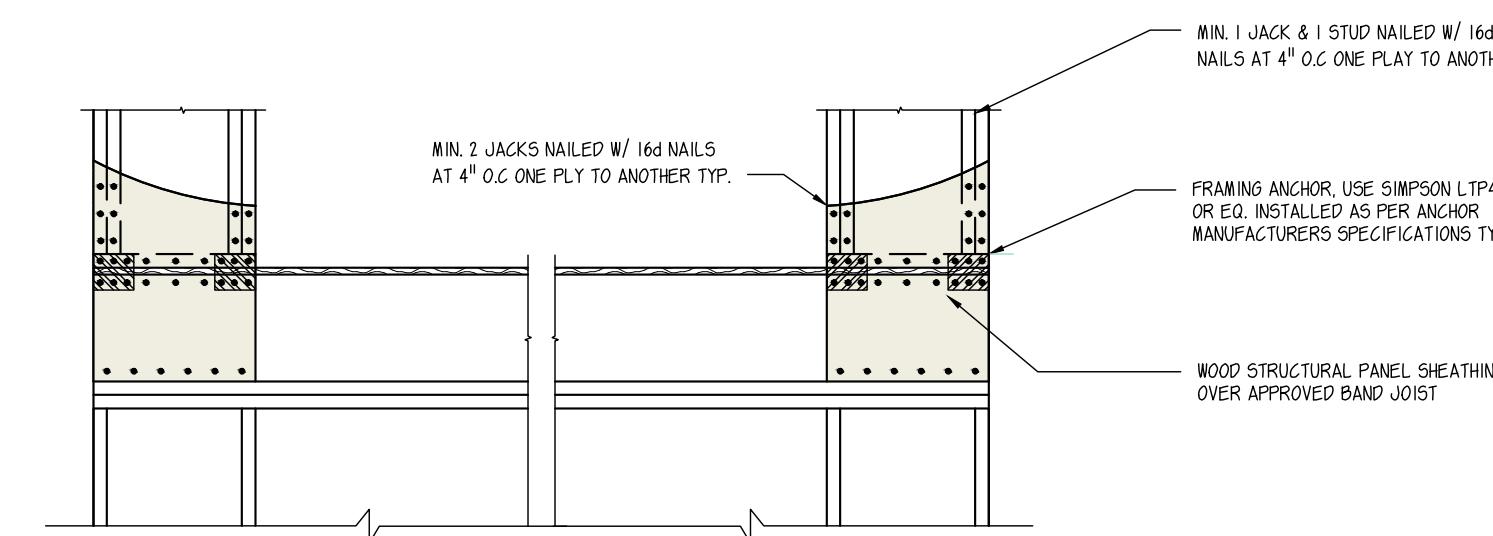
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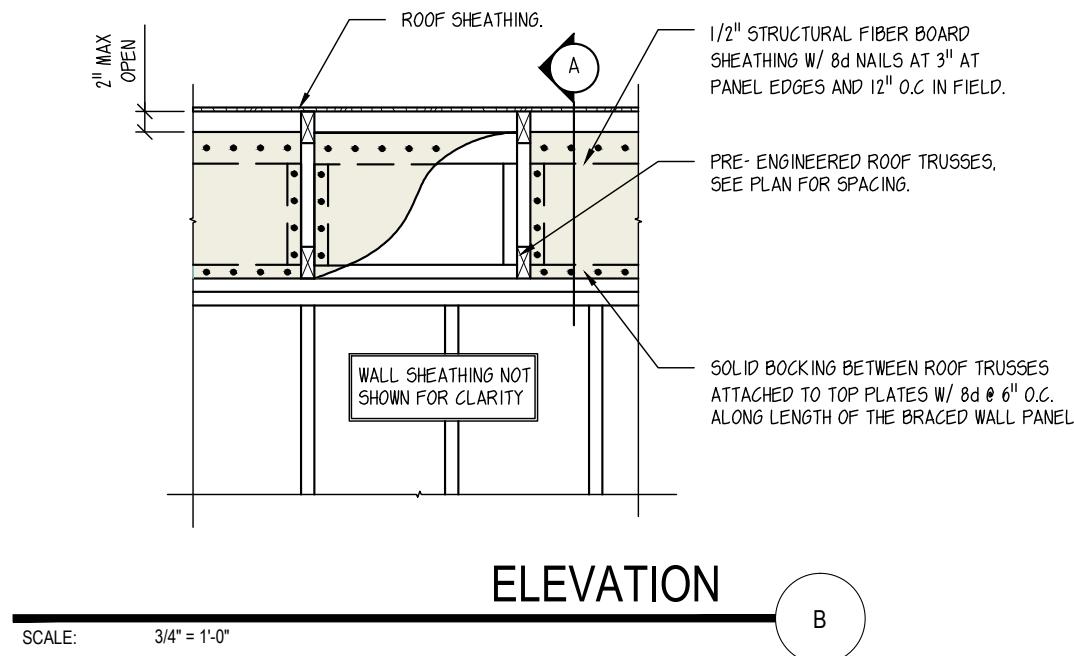
SHEATHING OVERLAP OPTION W/
SHEATHING SPLICE AT BOT. OF FLOOR SYSTEM

SCALE: 3/4" = 1'-0"



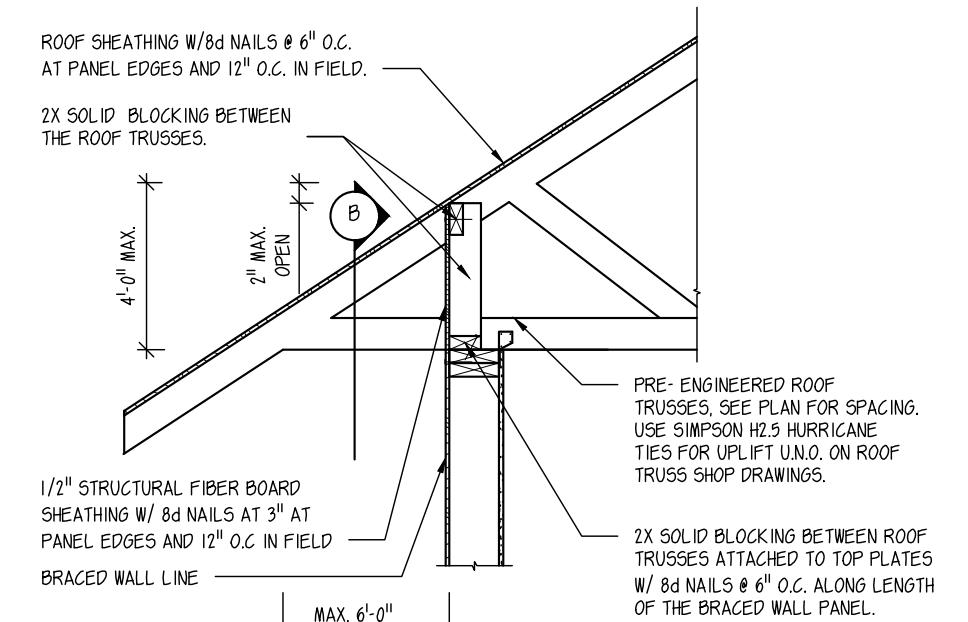
FRAMING ANCHOR OPTION W/
SHEATHING SPLICE AT TOP OF FLOOR SYSTEM

SCALE: 3/4" = 1'-0"



ELEVATION

SCALE: 3/4" = 1'-0"

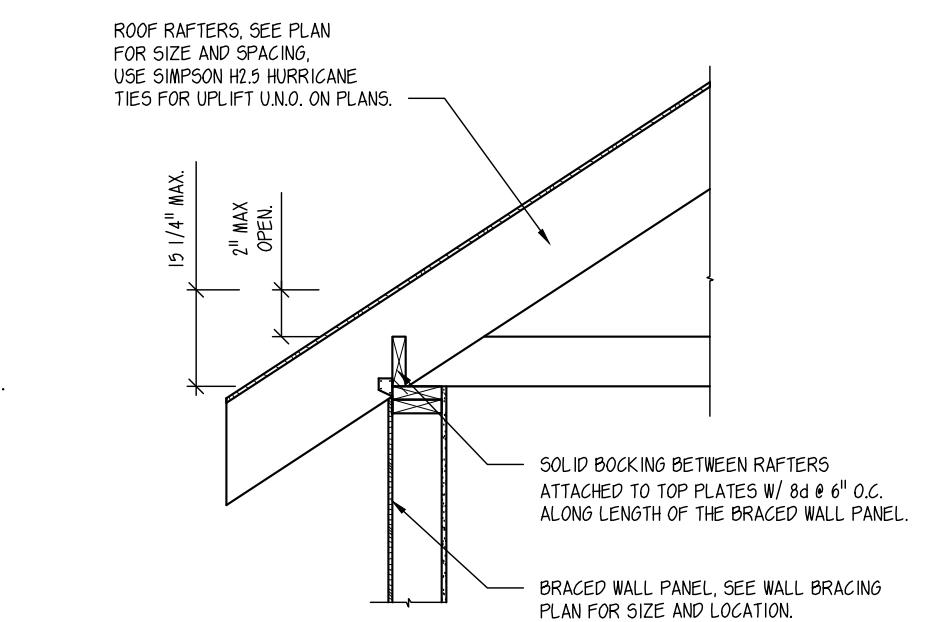


SECTION

SCALE: 3/4" = 1'-0"

TYP. BRACED WALL PANEL CONNECT.

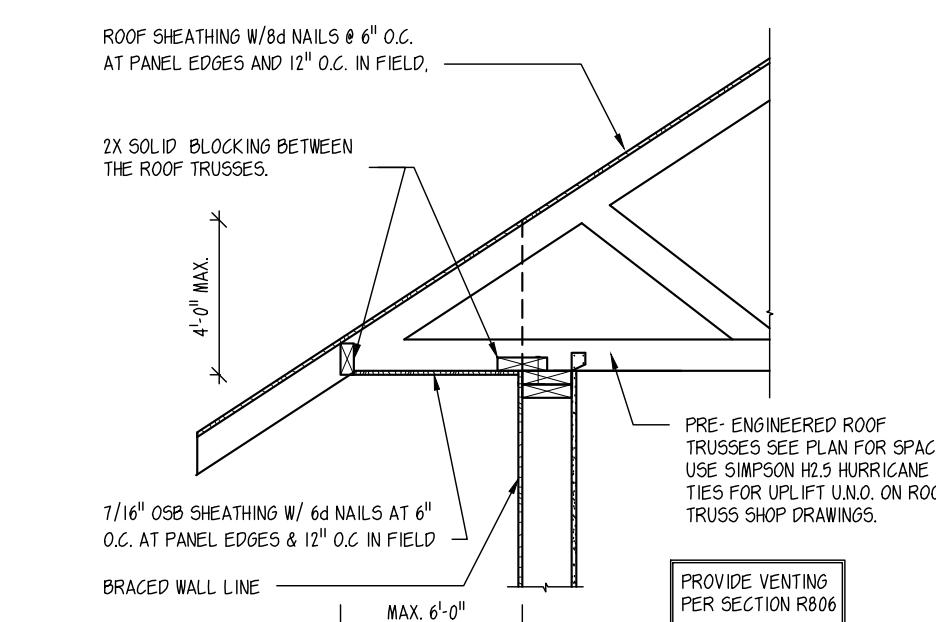
OPTION TO PERPENDICULAR RAFTERS OR ROOF TRUSSES



TYP. BRACED WALL PANEL CONNECT.

TO PERPENDICULAR RAFTERS

SCALE: 3/4" = 1'-0"



TYP. BRACED WALL PANEL CONNECT.

OPTION TO PERPENDICULAR RAFTERS OR ROOF TRUSSES

SCALE: 3/4" = 1'-0"

SCALE: NONE

INTERIOR ELEV. KITCHEN & WET BAR

MOREN RESIDENCE ADDITIONS & RENOVATIONS

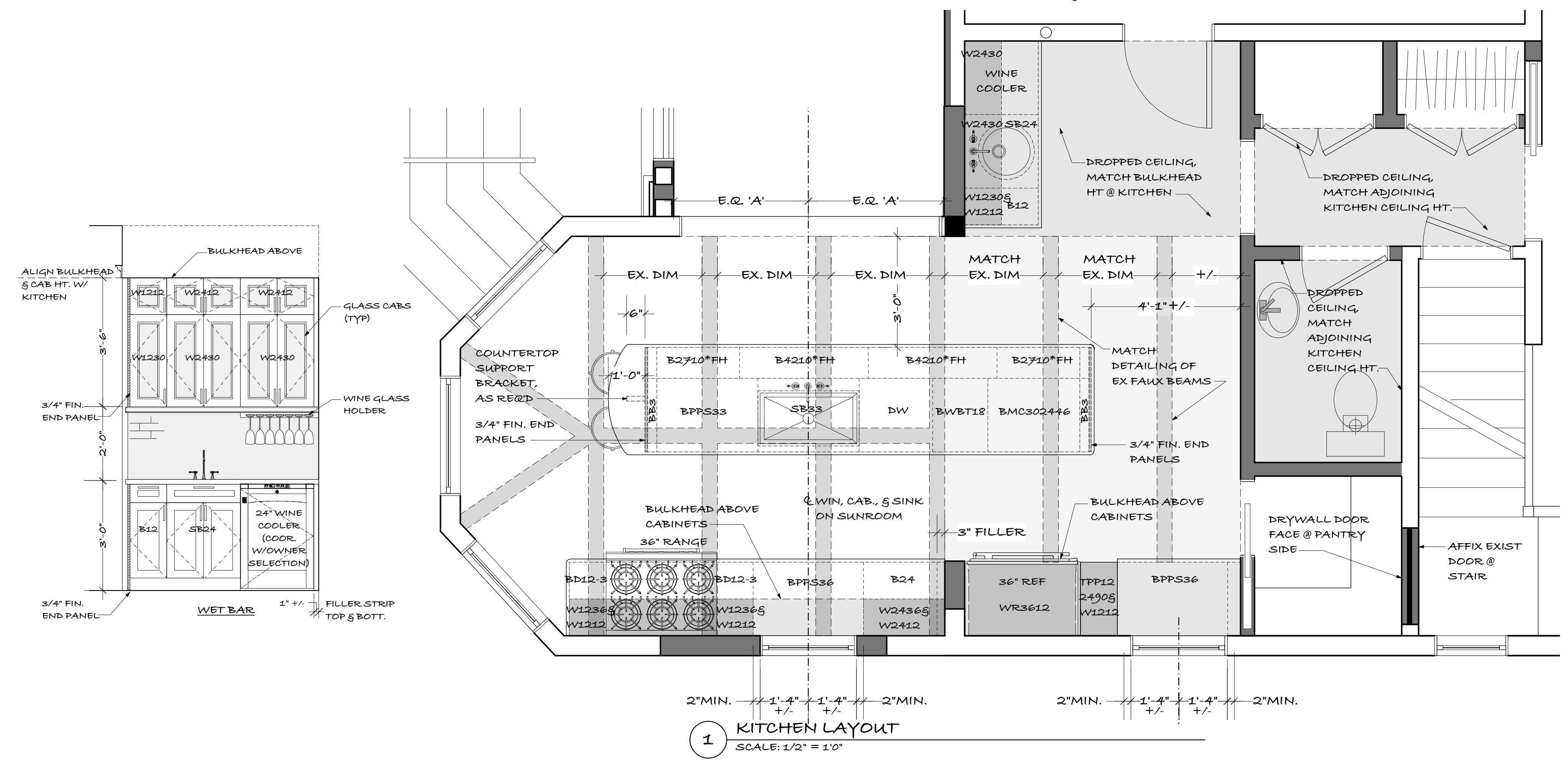
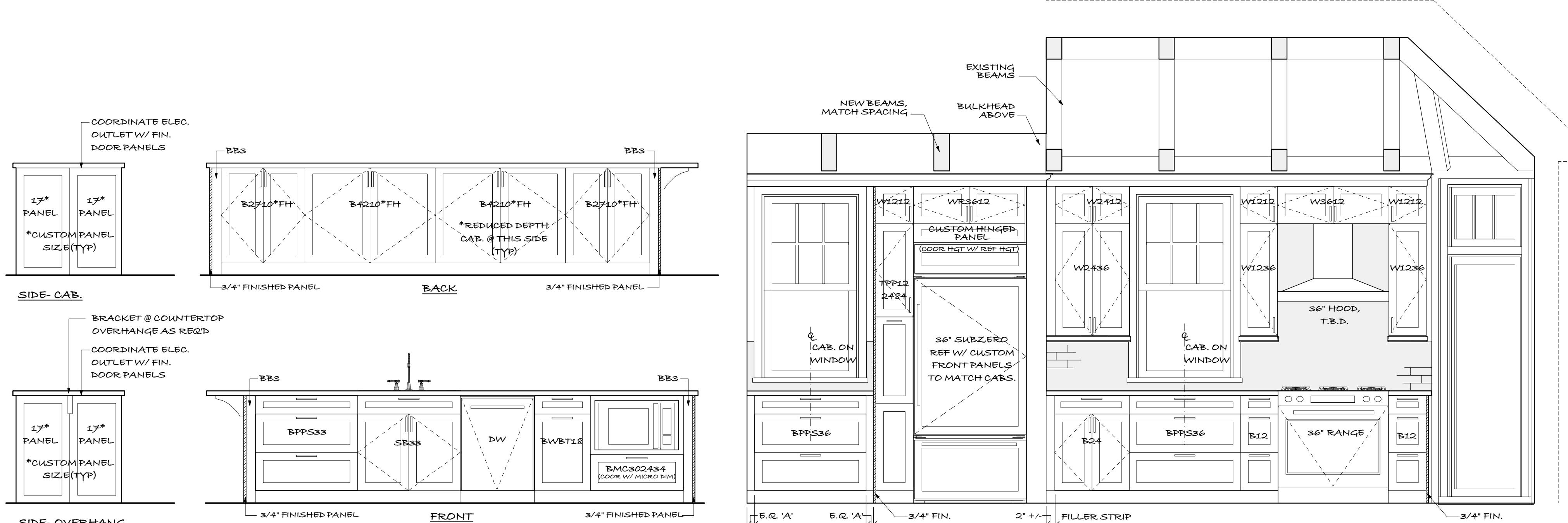
4910 BRANDYWINE STREET, NW
WASHINGTON DC 20016

SCAI E: 1/2" = 1' 0"

PHONE 301 864 1334

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**INTERIOR ELEV.
KITCHEN & WET BAR**

SCALE: 1/2" = 1'-0"

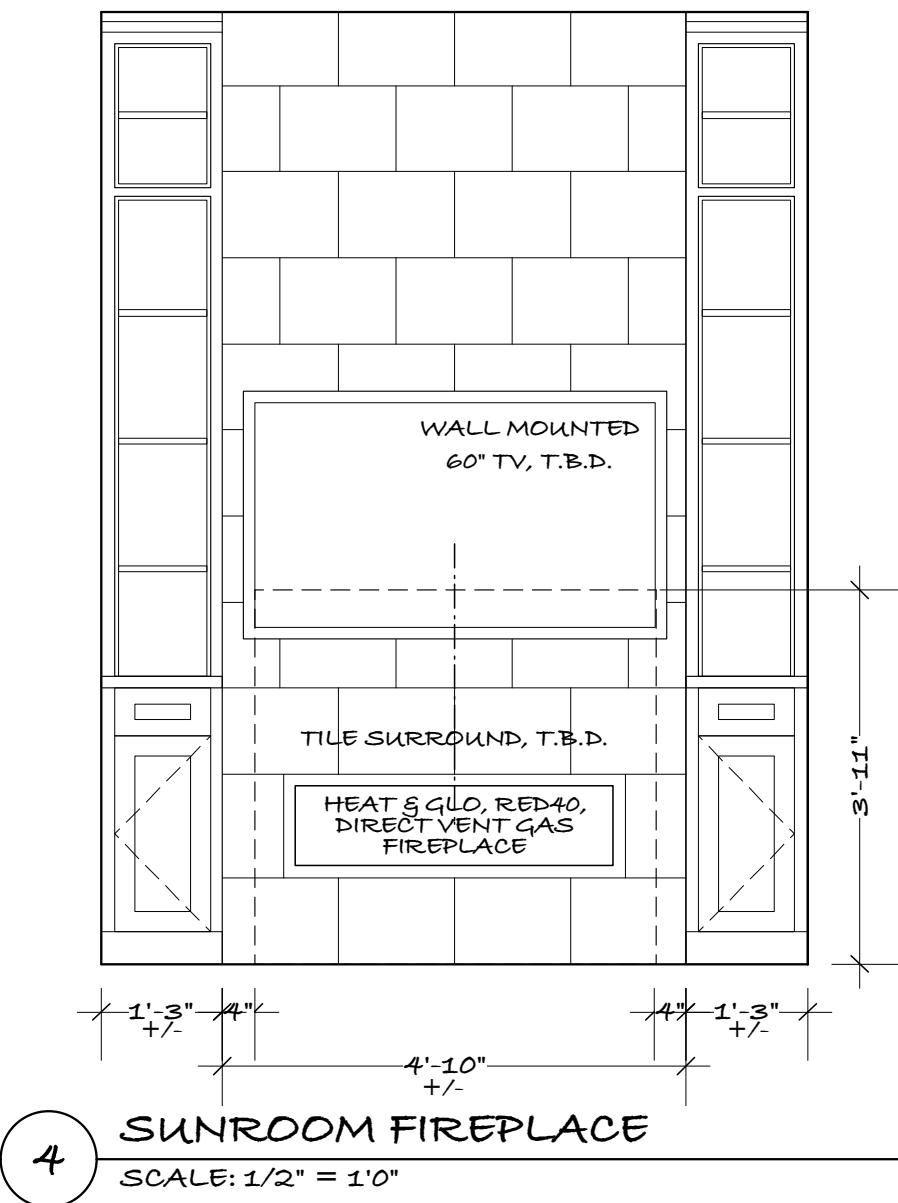
**MOREN RESIDENCE
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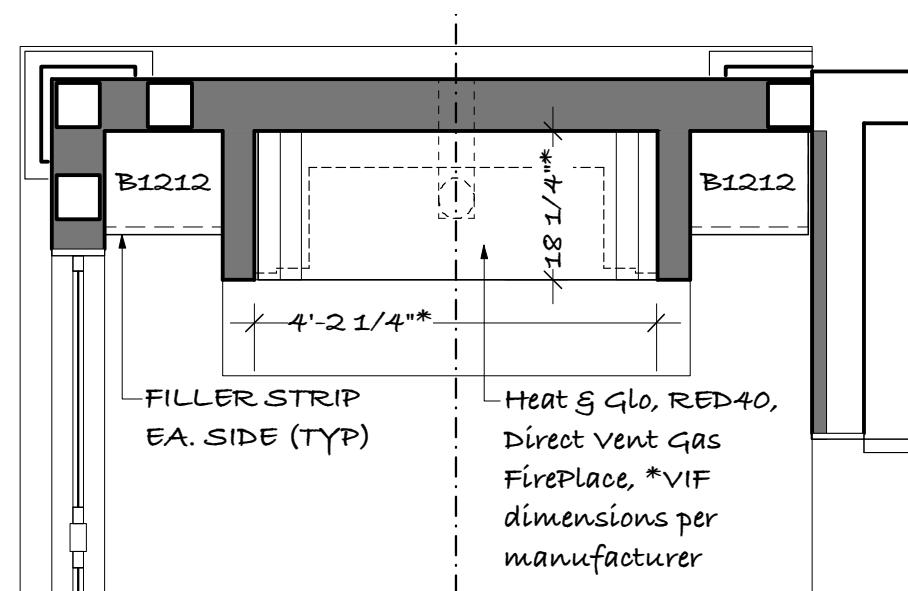
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4 SUNROOM FIREPLACE

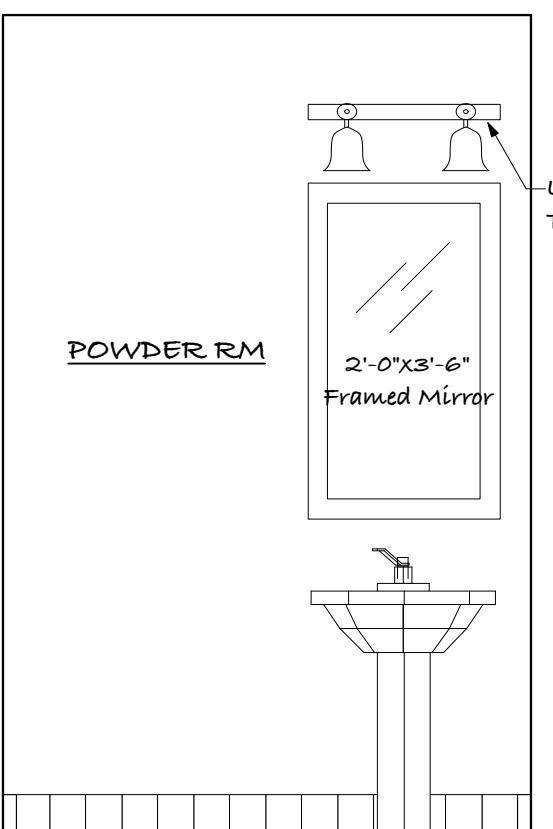
SCALE: 1/2" = 1'0"



**FILLER STRIP
EA. SIDE (TYP)**



POWDER RM



POWDER RM

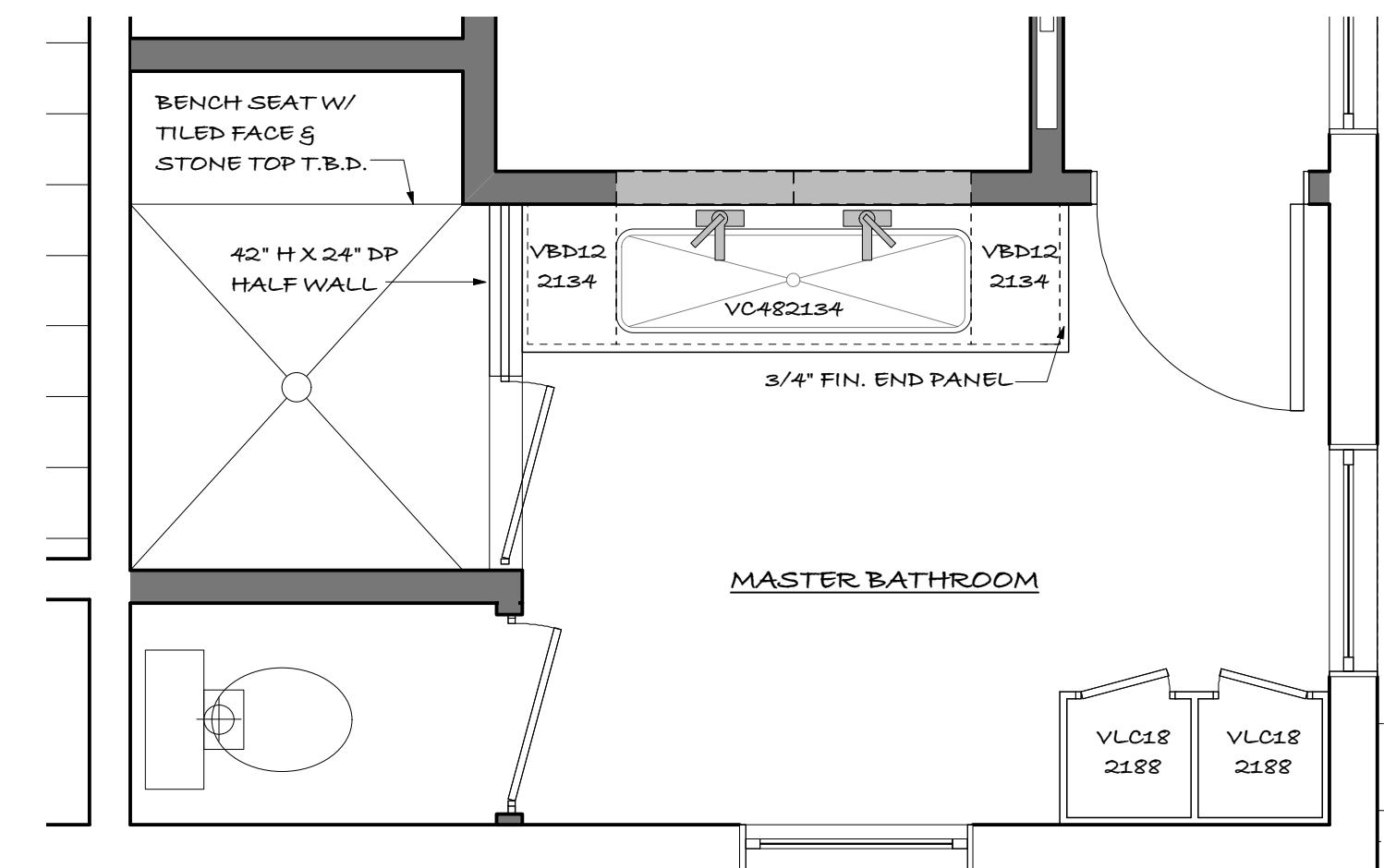
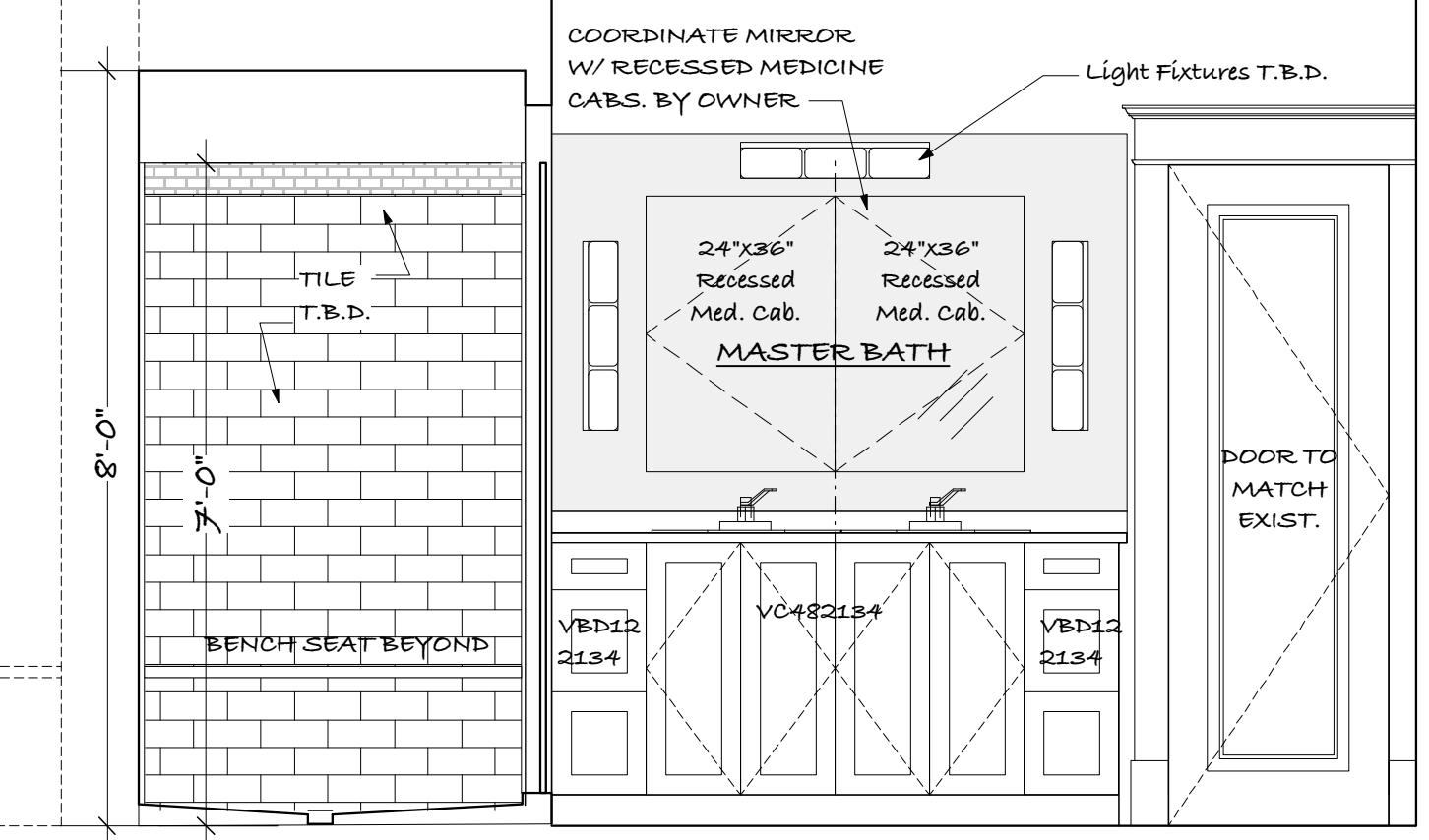
Light Fixture T.B.D.

2'-0"X3'-6"
Framed Mirror

3 POWDER ROOM LAYOUT

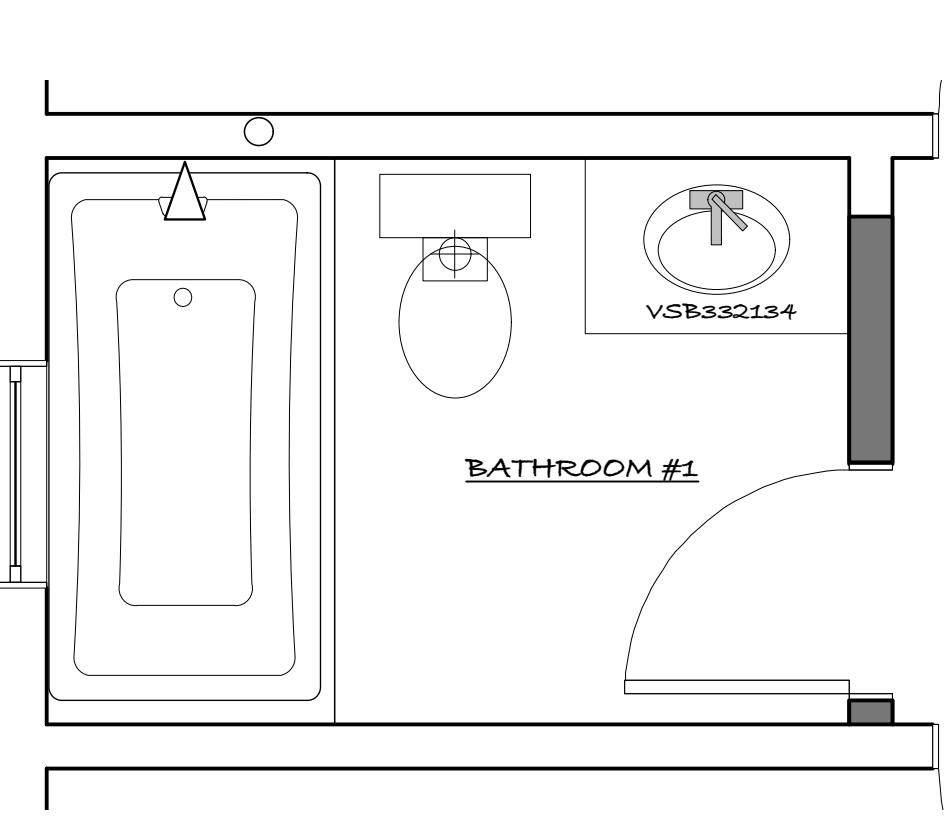
SCALE: 1/2" = 1'0"

DROPPED CEILING @ SHOWER INT.



1 MASTER BATH LAYOUT

SCALE: 1/2" = 1'0"

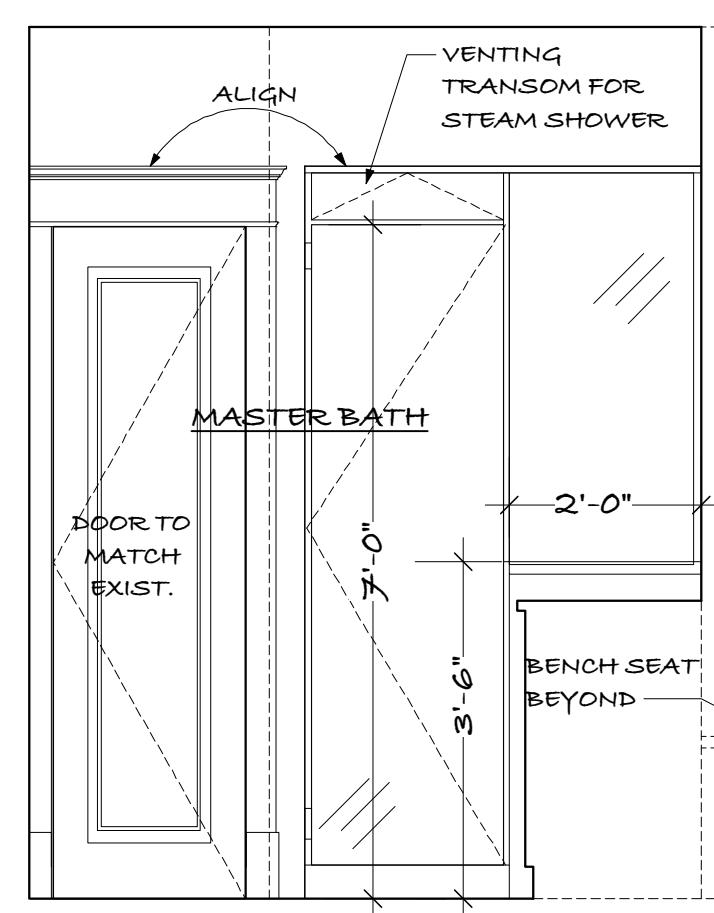


2 BATH #1 LAYOUT

SCALE: 1/2" = 1'0"



MASTER BATH



VENTING
TRANSOM FOR
STEAM SHOWER

MASTER BATH

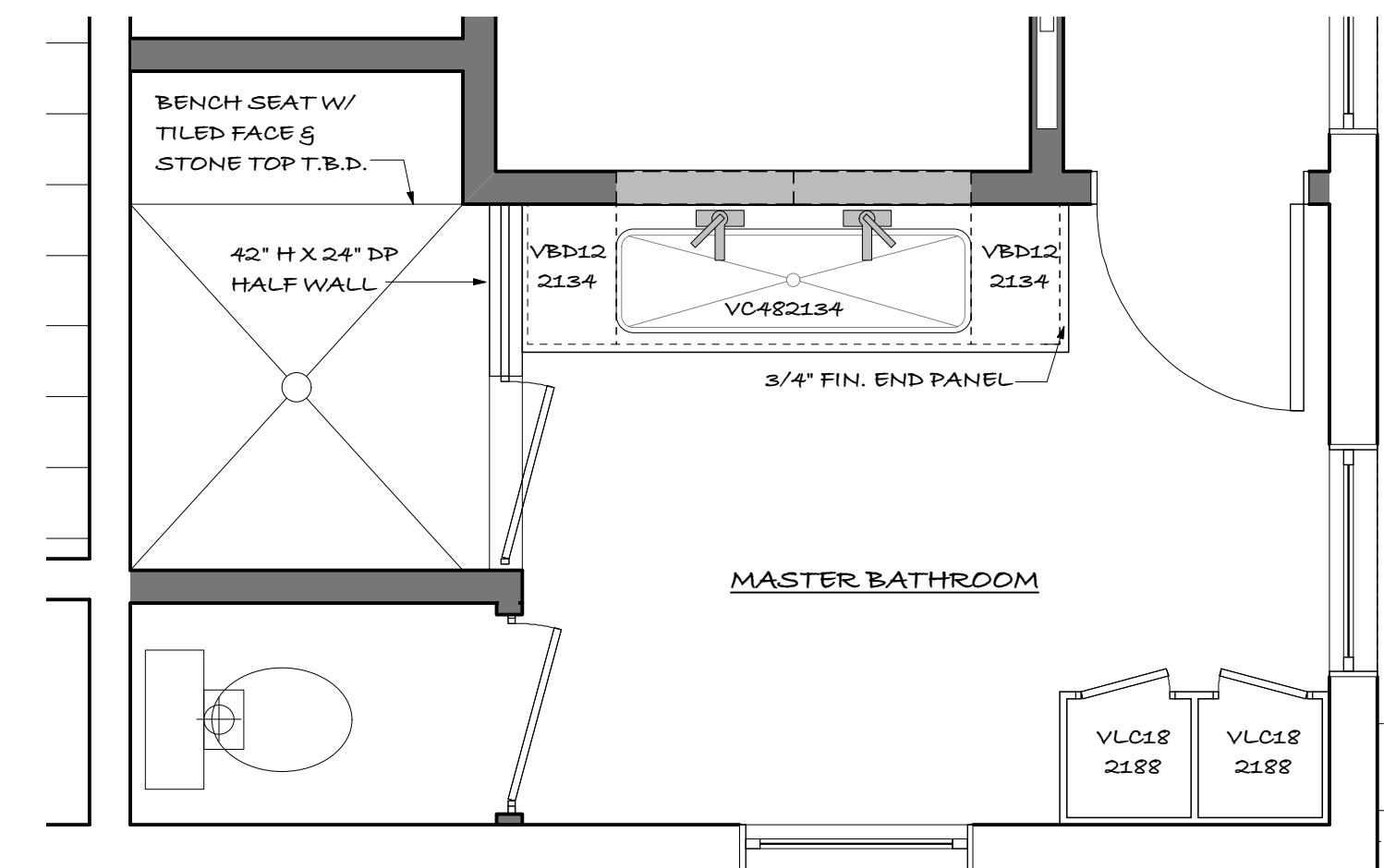
DOOR TO
MATCH EXIST.

3'-0"

2'-0"

3'-6"

BENCH SEAT
BEYOND



MASTER BATHROOM

VBD12 2134

VC482134

VBD12 2134

3/4" FIN. END PANEL

VBD12 2134

VC482134

VBD12 2134

VLC18 2188

VLC18 2188