





**Application No. 18936** of Brandon and Emily Gallas, pursuant to 11 DCMR § 3104.1, for a special exception under § 223, not meeting the lot occupancy requirements (§ 403.2), and the rear yard requirements (§ 401.1) to allow the construction of a two-story rear addition to an existing single-family dwelling in the R-3 District at premises 4430 9th Street, N.W. (Square 3020, Lot 33).

**HEARING DATE:** Applicant waived right to a public hearing  
**DECISION DATE:** January 27, 2015 (Expedited Review Calendar).

#### SUMMARY ORDER

##### **SELF-CERTIFIED**

The zoning relief requested in this case was self-certified, pursuant to 11 DCMR § 3113.2. (Exhibit 4.)

Pursuant to 11 DCMR § 3118, this application was tentatively placed on the Board of Zoning Adjustment ("Board") expedited review calendar for decision without hearing as a result of the applicant's waiver of its right to a hearing.

The Board of Zoning Adjustment (the "Board") provided proper and timely notice of the public hearing on this application by publication in the *D.C. Register* and by mail to Advisory Neighborhood Commission ("ANC") 4C, and to owners of property within 200 feet of the site. The site of this application is located within the jurisdiction of ANC 4C, which is automatically a party to this application. ANC 4C did not file a formal report; however, the Applicant and the Office of Planning ("OP"), in their reports, stated that the ANC at a regularly scheduled and properly noticed meeting on October 8, 2014, at which a quorum was in attendance, voted to support the application. (Exhibits 30 and 31.) The OP submitted a timely report and testified at the hearing in support of the application. (Exhibit 31.) The District Department of Transportation ("DDOT") submitted a report expressing no objection to the application. (Exhibit 32.) Thirteen letters were submitted in support of the application. (Exhibit 30.)

No objections to expedited calendar consideration were made by any person or entity entitled to do by §§ 2118.6 and 2118.7. The matter was therefore called on the Board's expedited calendar for the date referenced above and the Board voted to grant the application.

As directed by 11 DCMR § 3119.2, the Board has required the Applicant to satisfy the burden of proving the elements that are necessary to establish the case pursuant to § 3104.1, for a special exception under §§ 223, 403.2, and 404.1. No parties appeared at the public meeting in

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Telephone: (202) 727-6311 E-Mail Address: [dcxz@dc.gov](mailto:dcxz@dc.gov) Web Site: [www.dczx.dc.gov](http://www.dczx.dc.gov)

#### **BZA APPLICATION NO. 18936** PAGE NO. 2

opposition to this application. Accordingly, a decision by the Board to grant this application would not be adverse to any party.

Based upon the record before the Board and having given great weight to the OP report, the Board concludes that the Applicant has met the burden of proof, pursuant to 11 DCMR §§ 3104.1, 223, 403.2, and 404.1, that the requested relief can be granted as being in harmony with the general purpose and intent of the Zoning Regulations and Map. The Board further concludes that granting the requested relief will not tend to affect adversely the use of neighboring property in accordance with the Zoning Regulations and Map.

Pursuant to 11 DCMR § 3100.5, the Board has determined to waive the requirement of 11 DCMR § 3125.3, that the order of the Board be accompanied by findings of fact and conclusions of law. The waiver will not prejudice the rights of any party and is appropriate in this case. It is therefore **ORDERED** that this application is hereby **GRANTED, SUBJECT TO THE APPROVED PLANS IN THE RECORD AT EXHIBITS 8, 9, AND 30.**

**VOTE:** 4-0-1 (Lloyd J. Jordan, Marnique Y. Heath, Jeffrey L. Hinkle, and Peter G. May to APPROVE; S. Kathryn Allen, not present, not voting).

**BY ORDER OF THE D.C. BOARD OF ZONING ADJUSTMENT**  
A majority of the Board members approved the issuance of this order.

ATTESTED BY:   
SARAH A. BARDIN  
Director, Office of Zoning

**FINAL DATE OF ORDER:** January 30, 2015

PURSUANT TO 11 DCMR § 3125.9, NO ORDER OF THE BOARD SHALL TAKE EFFECT UNTIL TEN (10) DAYS AFTER IT BECOMES FINAL PURSUANT TO § 3125.6.

PURSUANT TO 11 DCMR § 3130, THIS ORDER SHALL NOT BE VALID FOR MORE THAN TWO YEARS AFTER IT BECOMES EFFECTIVE UNLESS, WITHIN SUCH TWO-YEAR PERIOD, THE APPLICANT FILES PLANS FOR THE PROPOSED STRUCTURE WITH THE DEPARTMENT OF CONSUMER AND REGULATORY AFFAIRS FOR THE PURPOSE OF SECURING A BUILDING PERMIT, OR THE APPLICANT FILES A REQUEST FOR A TIME EXTENSION PURSUANT TO § 3130.6 AT LEAST 30 DAYS PRIOR TO THE EXPIRATION OF THE TWO-YEAR PERIOD AND THAT SUCH REQUEST IS GRANTED. NO OTHER ACTION, INCLUDING THE FILING OR GRANTING OF AN APPLICATION FOR A MODIFICATION PURSUANT TO §§ 3129.2 OR 3129.7, SHALL EXTEND THE TIME PERIOD.

PURSUANT TO 11 DCMR § 3125, APPROVAL OF AN APPLICATION SHALL INCLUDE APPROVAL OF THE PLANS SUBMITTED WITH THE APPLICATION FOR THE

#### **BZA APPLICATION NO. 18936** PAGE NO. 3

CONSTRUCTION OF A BUILDING OR STRUCTURE (OR ADDITION THERETO) OR THE RENOVATION OR ALTERATION OF AN EXISTING BUILDING OR STRUCTURE. AN APPLICANT SHALL CARRY OUT THE CONSTRUCTION, RENOVATION, OR ALTERATION ONLY IN ACCORDANCE WITH THE PLANS APPROVED BY THE BOARD AS THE SAME MAY BE AMENDED AND/OR MODIFIED FROM TIME TO TIME BY THE BOARD OF ZONING ADJUSTMENT.

IN ACCORDANCE WITH THE D.C. HUMAN RIGHTS ACT OF 1977, AS AMENDED, D.C. OFFICIAL CODE § 2-1401.01 *ET SEQ.* (ACT), THE DISTRICT OF COLUMBIA DOES NOT DISCRIMINATE ON THE BASIS OF ACTUAL OR PERCEIVED RACE, COLOR, RELIGION, NATIONAL ORIGIN, SEX, AGE, MARITAL STATUS, PERSONAL APPEARANCE, SEXUAL ORIENTATION, GENDER IDENTITY OR EXPRESSION, FAMILIAL STATUS, FAMILY RESPONSIBILITIES, MATRICULATION, POLITICAL AFFILIATION, GENETIC INFORMATION, DISABILITY, SOURCE OF INCOME, OR PLACE OF RESIDENCE OR BUSINESS. SEXUAL HARASSMENT IS A FORM OF SEX DISCRIMINATION WHICH IS PROHIBITED BY THE ACT. IN ADDITION, HARASSMENT BASED ON ANY OF THE ABOVE PROTECTED CATEGORIES IS PROHIBITED BY THE ACT. DISCRIMINATION IN VIOLATION OF THE ACT WILL NOT BE TOLERATED. VIOLATORS WILL BE SUBJECT TO DISCIPLINARY ACTION.



#### **BZA APPLICATION NO. 18936**

As Director of the Office of Zoning, I hereby certify and attest that on **January 30, 2015**, a copy of the order entered on that date in this matter was mailed first class, postage prepaid or delivered via inter-agency mail, or delivered by electronic mail in the case of those ANCs and SMDs that have opted to receive notices thusly, to each party and public agency who appeared and participated in the public hearing concerning the matter, and who is listed below:

Brandon and Emily Gallas  
4430 9th Street, N.W.  
Washington, D.C. 20009

Thomas Ahmann, Architect  
4408 Beechwood Road  
University Park, MD 20782

Chairperson  
Advisory Neighborhood Commission 4C  
P.O. Box 60847  
Washington, D.C. 20039-0847

Single Member District Commissioner 4C07  
Advisory Neighborhood Commission 4C  
4215 8th Street, N.W. #2  
Washington, D.C. 20011

Ward 4 Councilmember  
(Vacant)  
c/o Phil Mendelson, Chairman  
Council of the District of Columbia  
1350 Pennsylvania Avenue, N.W., Suite 504  
Washington, D.C. 20004

441 4<sup>th</sup> Street, N.W., Suite 200/210-S, Washington, D.C. 20001  
Telephone: (202) 727-6311 Facsimile: (202) 727-6072 E-Mail: [dcxz@dc.gov](mailto:dcxz@dc.gov) Web Site: [www.dczx.dc.gov](http://www.dczx.dc.gov)

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Maximilian Tondro, Esq.  
Acting General Counsel  
Department of Consumer and Regulatory Affairs  
1100 4th Street, S.W., 5th Floor  
Washington, D.C. 20024

ATTESTED BY:   
SARAH A. BARDIN  
Director, Office of Zoning

## BZA EXCEPTION LETTER

SCALE: N/A

## GALLAS RESIDENCE ADDITION & RENOVATION

4430 9TH STREET, NW  
WASHINGTON, DC 20011

REVIEW ISSUE  
22 MAY 2015

A-0a





**WALL ASSEMBLY TYPE - 1**  
(NEW MASONRY WALL)

4-HOUR PROVIDED  
DESIGN U901  
(ANSI/UL 263)

**BXUV - Fire Resistance Ratings - ANSI/UL 263**

**BXUV7 - Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada**

[See General Information for Fire-resistance Ratings - ANSI/UL 263](#)

[See General Information for Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada](#)

**Design No. U901**

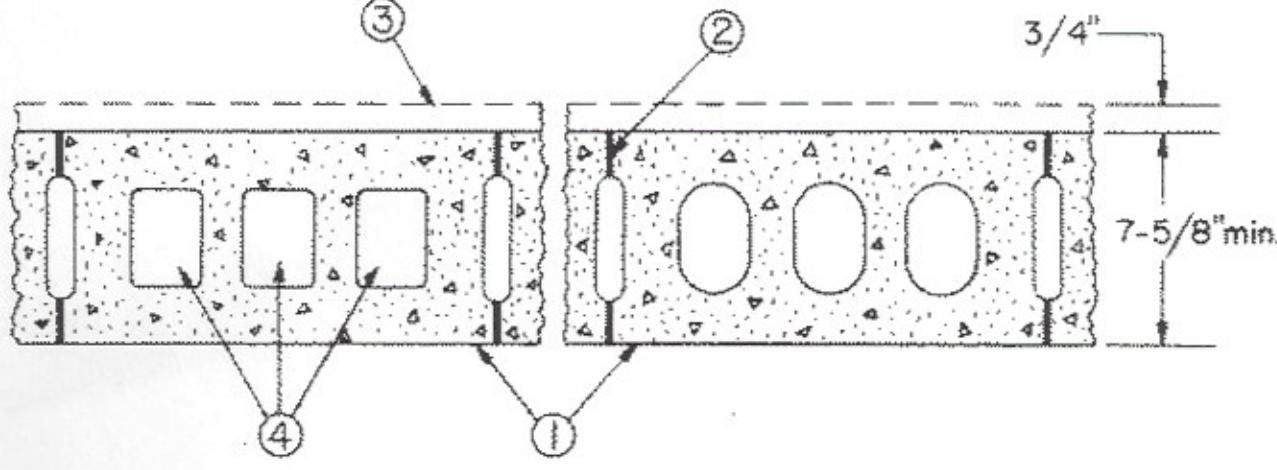
October 26, 1998

Bearing Wall Rating — 4 HR.

Nonbearing Wall Rating — 4 HR.

This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress Design Method). For jurisdictions employing the Limit States Design Method, such as Canada, a load restriction factor shall be used — See Guide [BXUV](#) or [BXUV7](#)

\* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.



1. Concrete Blocks\* — Various designs. Classification B-4 (4 hr).

See Concrete Blocks category for lists of eligible manufacturers.

2. Mortar — Blocks laid in full bed of mortar, nom. 3/8 in. thick, of not less than 2-1/4 and not more than 3-1/2 parts of clean sharp sand to 1 part Portland cement (proportioned by volume) and not more than 50 percent hydrated lime (by cement volume). Vertical joints staggered.

3. Portland Cement Stucco or Gypsum Plaster — If used, add 1/2 hr. to Classification.

4. Loose Masonry Fill — If all core spaces are filled with loose dry expanded slag, burned clay or shale (rotary kiln process), water repellent vermiculite masonry fill insulation, or silicone treated perlite loose fill insulation, Class D-2 (2 hr) or C-3 (3 hr) concrete blocks will provide a 4 hr fire resistance rating.

\* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

**WALL ASSEMBLY TYPE - 2**  
(NEW BRICK & CMU WALL)

4-HOUR PROVIDED  
DESIGN U902  
(ANSI/UL 263)

**BXUV - Fire Resistance Ratings - ANSI/UL 263**

**BXUV7 - Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada**

[See General Information for Fire-resistance Ratings - ANSI/UL 263](#)

[See General Information for Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada](#)

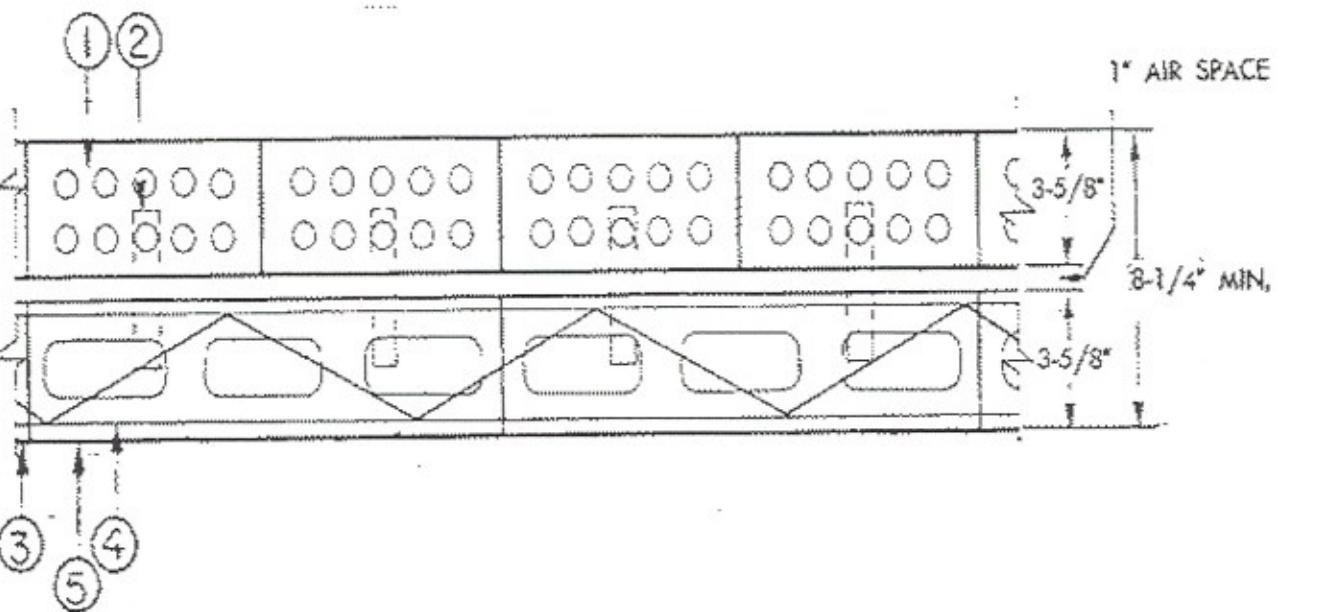
**Design No. U902**

April 20, 2015

Bearing Wall Rating — 4 HR.

This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress Design Method). For jurisdictions employing the Limit States Design Method, such as Canada, a load restriction factor shall be used — See Guide [BXUV](#) or [BXUV7](#)

\* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.



1. Clay Face Brick — 3-5/8 in. wide by 2-1/4 in. high by 8 in. long.

1A. Concrete Blocks\* — Various designs, Classification D-2 (2 h).

See Concrete Blocks category for list of eligible manufacturers.

2. Brick Ties — 3/4 in. wide, 7 in. long corrugated 26 MSG galv steel. Spaced one to each brick in every second course of blocks.

3. Mortar — Bricks and blocks laid in full bed of mortar nom. 3/8 in. thick of not less than 2-1/4 and not more than 3-1/2 parts clean sharp sand to 1 part Portland cement (proportioned by vol) and not more than 50 percent hydrated lime (by cement vol). Vertical joints staggered.

4. Reinforcement — Parallel and diagonal rods, 0.150 in. min diam with welded joints a max 16 in. OC. Placed the width of concrete block wall in every second course of blocks alternately with brick ties.

4A. Masonry Reinforcement — Prefabricated steel reinforcement, truss or ladder type, used for embedment in every second horizontal mortar joint. Placed the full width of wall assembly. Side and cross rods No. 9 (0.150 in.) min diam with welded joints a max 16 in. OC.

5. Concrete Blocks\* — Various designs Classification D-2 (2 h). See Concrete Blocks category for list of eligible manufacturers.

**WALL BREAK ASSEMBLY TYPE - 3**  
(JOIST & WALL INTERSECTION)

1-HOUR PROVIDED  
DESIGN UL OSU T-129-MLAT / IBC-6-1.1

Fire Rated Assemblies / Wall and Partitions System  
Fire Assembly Detail - UL Design OSU T-129-MLAT / IBC-6-1.1  
Interior Partitions / Steel Stud (Non-loadbearing)

Fire Assembly Detail - UL Design OSU T-129-MLAT / IBC-6-1.1

Related Fire Assemblies - Wall Selectors (wall-selector.asp)

[View More Info on UL.com \(\)](#)

FIRE RATING	STC / SOUND TEST	SYSTEM THICKNESS	LIMITING HEIGHT
1 hr	N/A	2-3/4"	

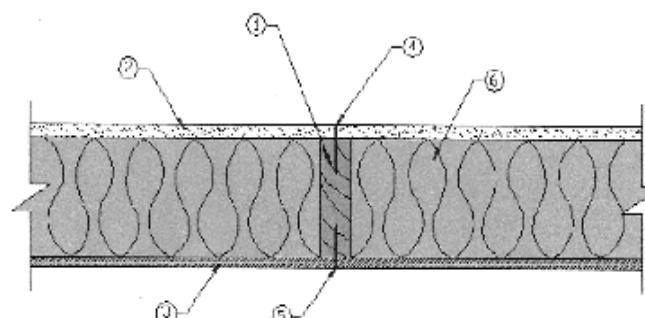


Plaster	2 in. solid sanded gypsum basecoat
Metal Lath	2.5 lb. metal lath wire-tied to channel
Cold-Rolled Channels	Inner Layer: 3/4 in. wide cold-rolled steel channel spaced @ max 16 in. OC

**WALL ASSEMBLY TYPE - 4**  
(2X6 WOOD FRAME WALL)

1-HOUR PROVIDED  
DESIGN WS 6-1.3  
(AMERICAN WOOD COUNCIL)

**WS6-1.3 One-Hour Fire-Resistive Wood-Frame Wall Assembly**  
2x6 Wood Stud Wall - 100% Design Load - ASTM E 119 / NFPA 251



1. Framing — Nominal 2x6 wood studs, spaced 16 in. o.c., double top plates, single bottom plate
2. Interior Sheathing — 5/8 in. Type X gypsum wallboard, 4 ft. wide, applied horizontally. Horizontal joints are unblocked. Horizontal application of wallboard represents the direction of least fire resistance as opposed to vertical application, of least fire resistance as opposed to vertical application.
3. Exterior Sheathing — 7/16 in. wood structural panels (oriented strand board), applied vertically, horizontal joints blocked
4. Gypsum Fasteners — 2-1/4 in. #6 Type S drywall screws, spaced 12 in. o.c.
5. Panel Fasteners — 6d common nails (bright) - 12 in. o.c. in the field, 6 in. o.c. panel edges
6. Insulation — 5-1/2 in. thick mineral wool insulation (2.5 psf nominal)
7. Joints and Fastener Heads — Wallboard joints covered with paper tape and joint compound, fastener heads covered with joint compound

Tests conducted at the Fire Test Laboratory of National Gypsum Research's Center  
Test No. WP-1744 (Tim Enclosure & Hose Stream) February 25, 2000

Third Party Witness: Intertek Testing Services  
Report J99 27259.2

This assembly was tested at 100% design load, calculated in accordance with the 2005 National Design Specification® for Wood Construction. The authority having jurisdiction should be consulted to assure acceptance of this report.

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ANIGRAN FOREST & PAPER ASSOCIATION, INC. January 2008

**GALLAS RESIDENCE ADDITION & RENOVATION**

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22 MAY 2015

**A-0d**

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**MEASURED PLANS**  
**CELLAR & FIRST**

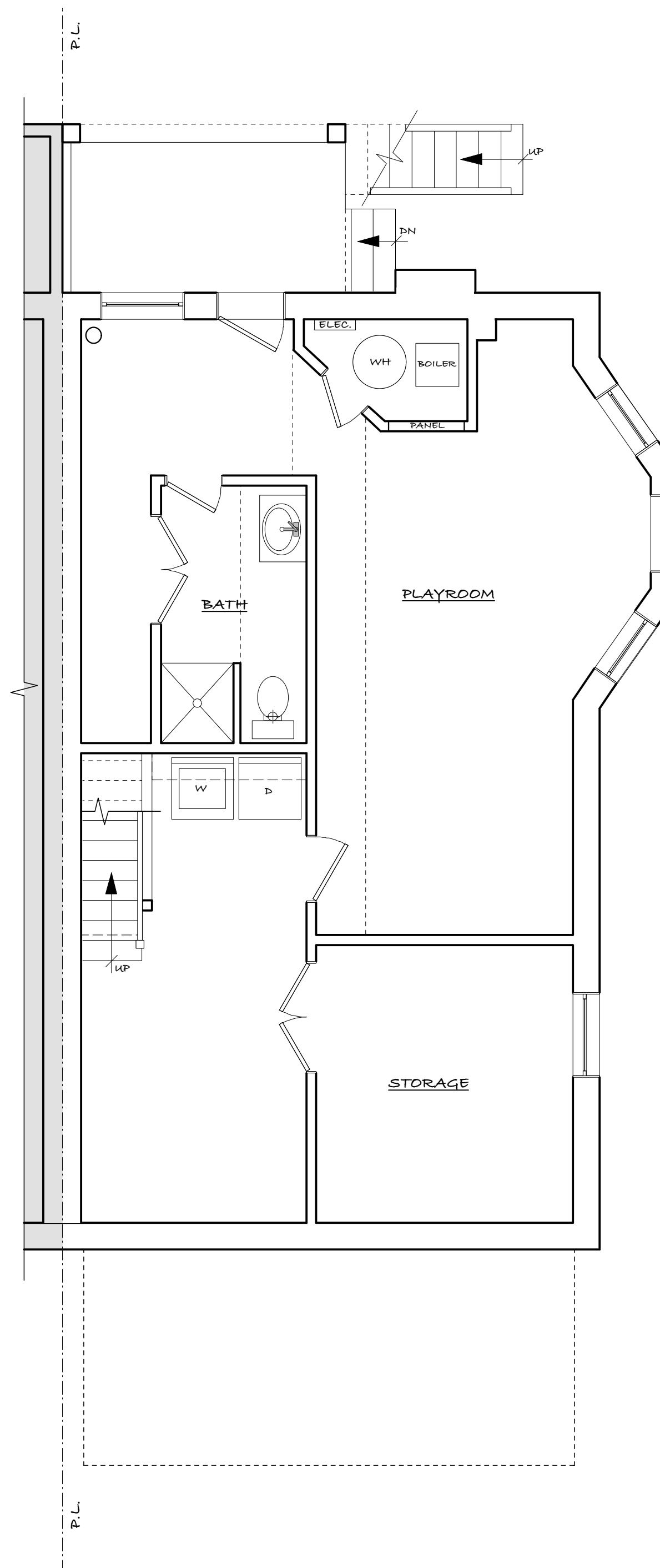
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**GALLAS RESIDENCE**  
**ADDITION & RENOVATION**

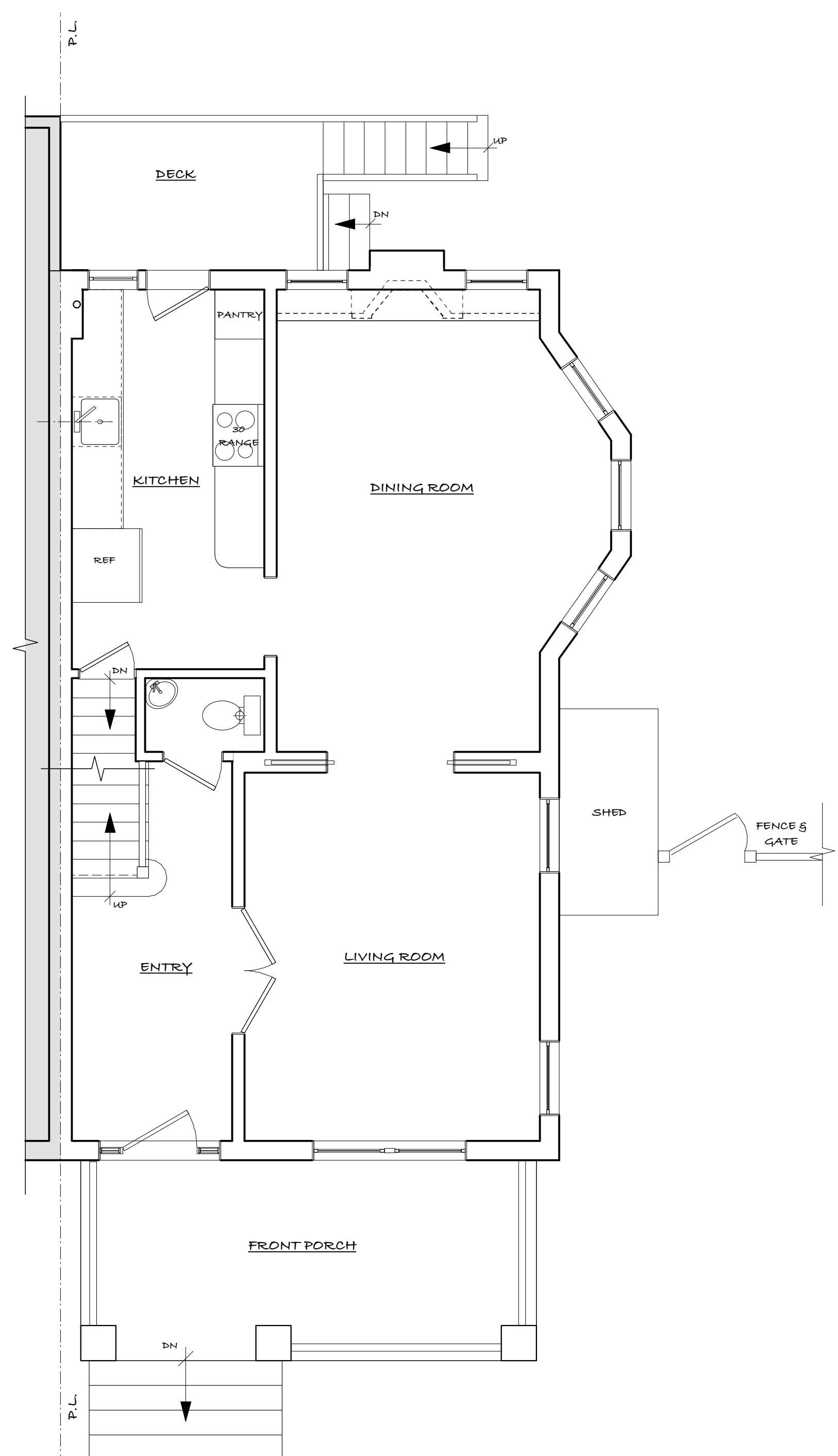
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**MD-1**

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1 CELLAR FL PLAN  
Scale: 1/4" = 1'-0"



2 FIRST FL PLAN  
Scale: 1/4" = 1'-0"

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

**MEASURED PLANS**  
**SECOND FL & ATTIC**

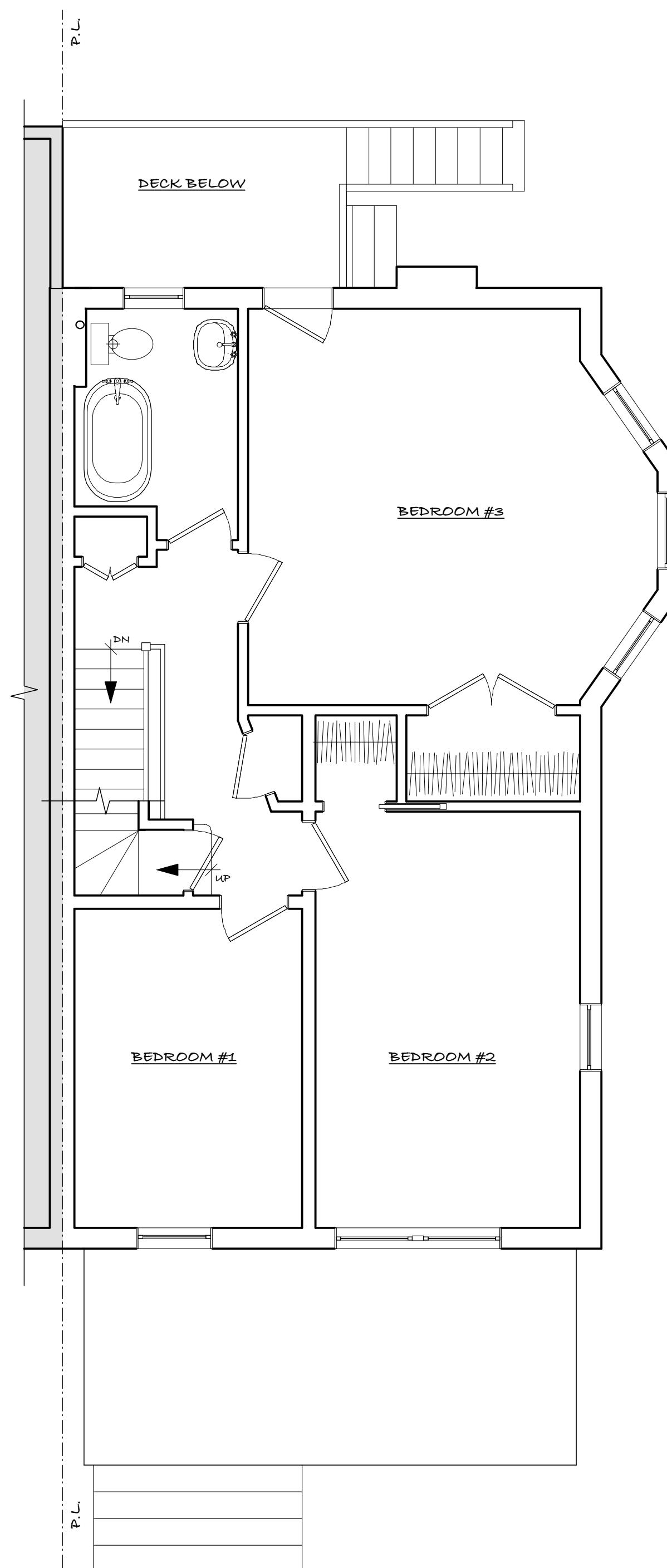
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**GALLAS RESIDENCE**  
**ADDITION & RENOVATION**

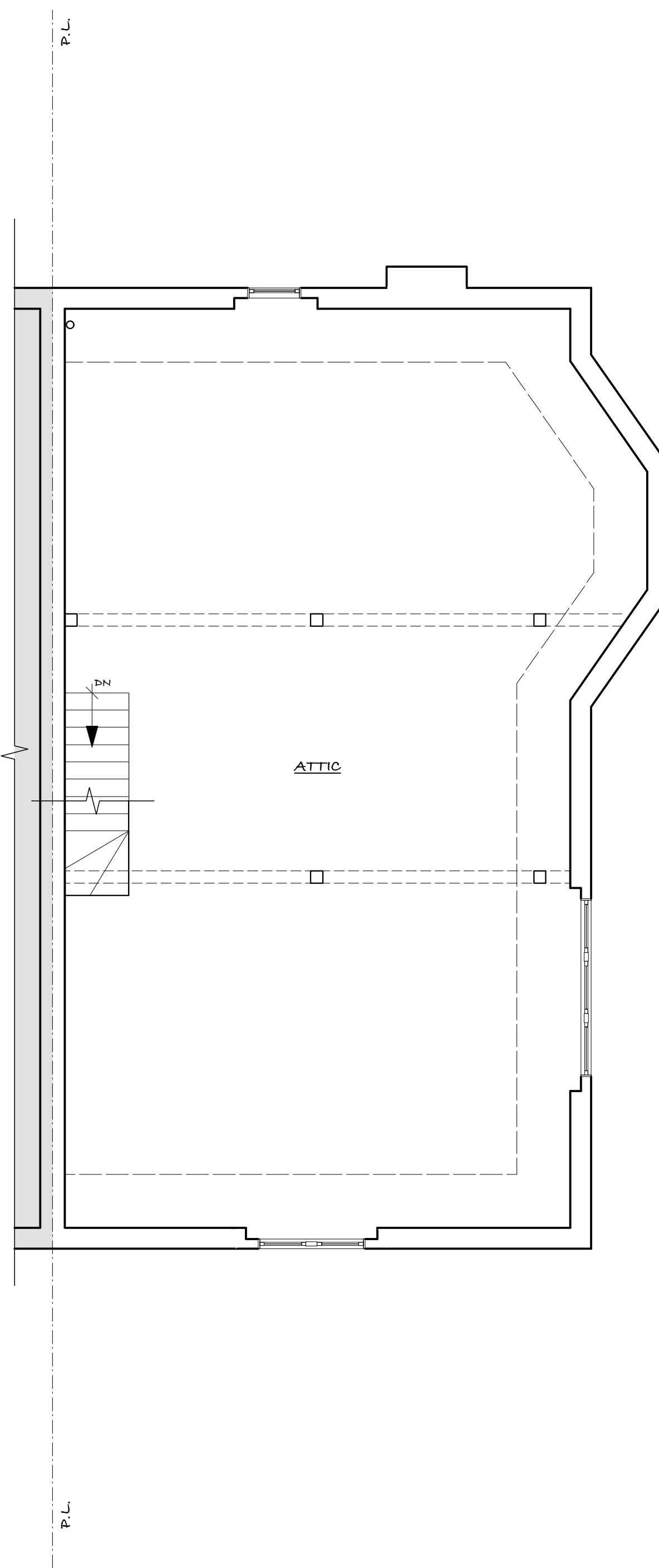
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**MD-2**



**1** SECOND FL PLAN  
Scale: 1/4" = 1'-0"



**2** ATTIC FL PLAN  
Scale: 1/4" = 1'-0"

**MEASURED ELEVATIONS**  
**FRONT & REAR**

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

4430 9TH STREET, NW  
WASHINGTON, DC 20011

**GALLAS RESIDENCE**  
**ADDITION & RENOVATION**



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**MD-3**

**MEASURED ELEVATIONS**  
**RIGHT SIDE**

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

**GALLAS RESIDENCE**  
**ADDITION & RENOVATION**

4430 9TH STREET, NW  
WASHINGTON, DC 20011



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**MD-4**

**PROPOSED PLANS  
CELLAR & FIRST**

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

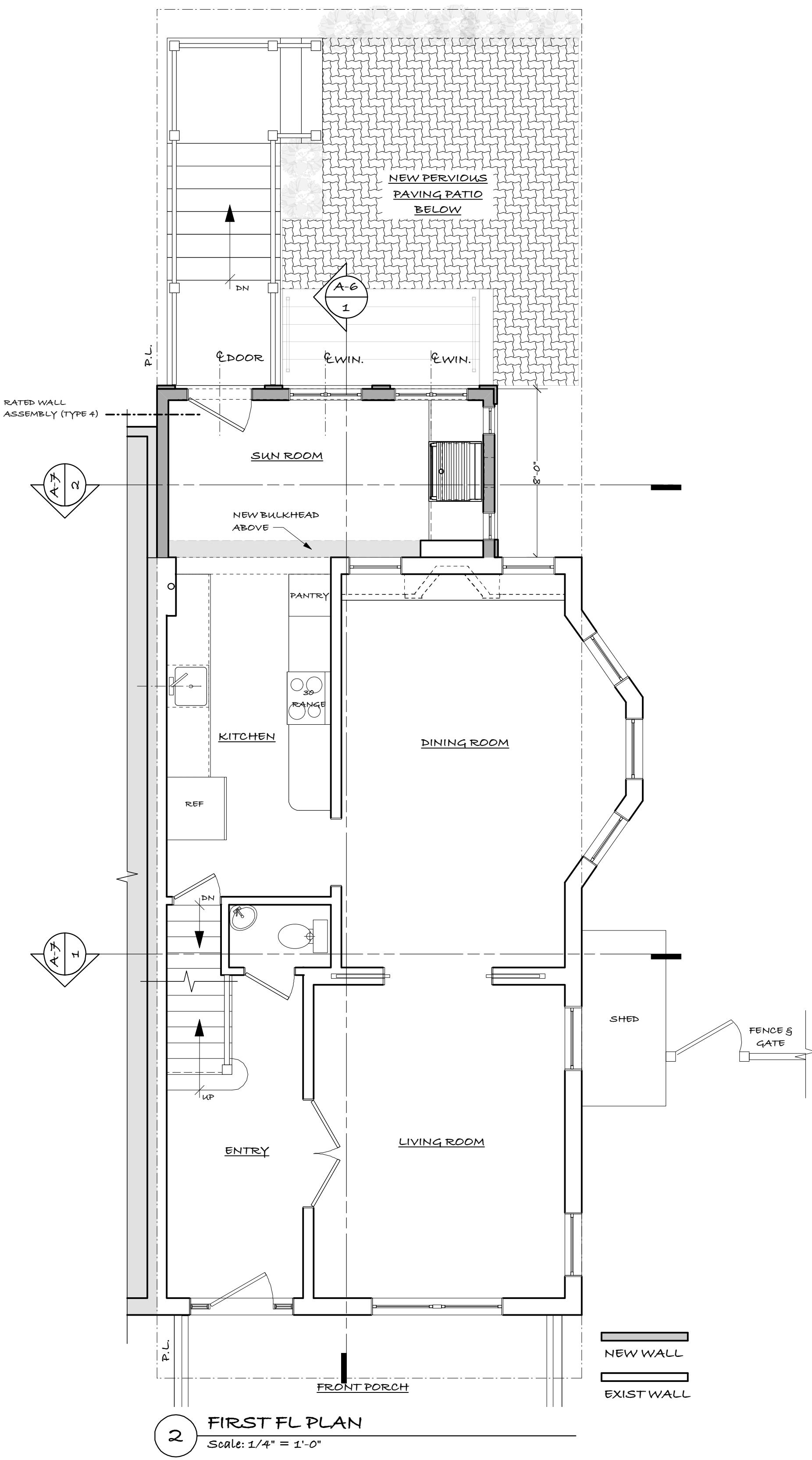
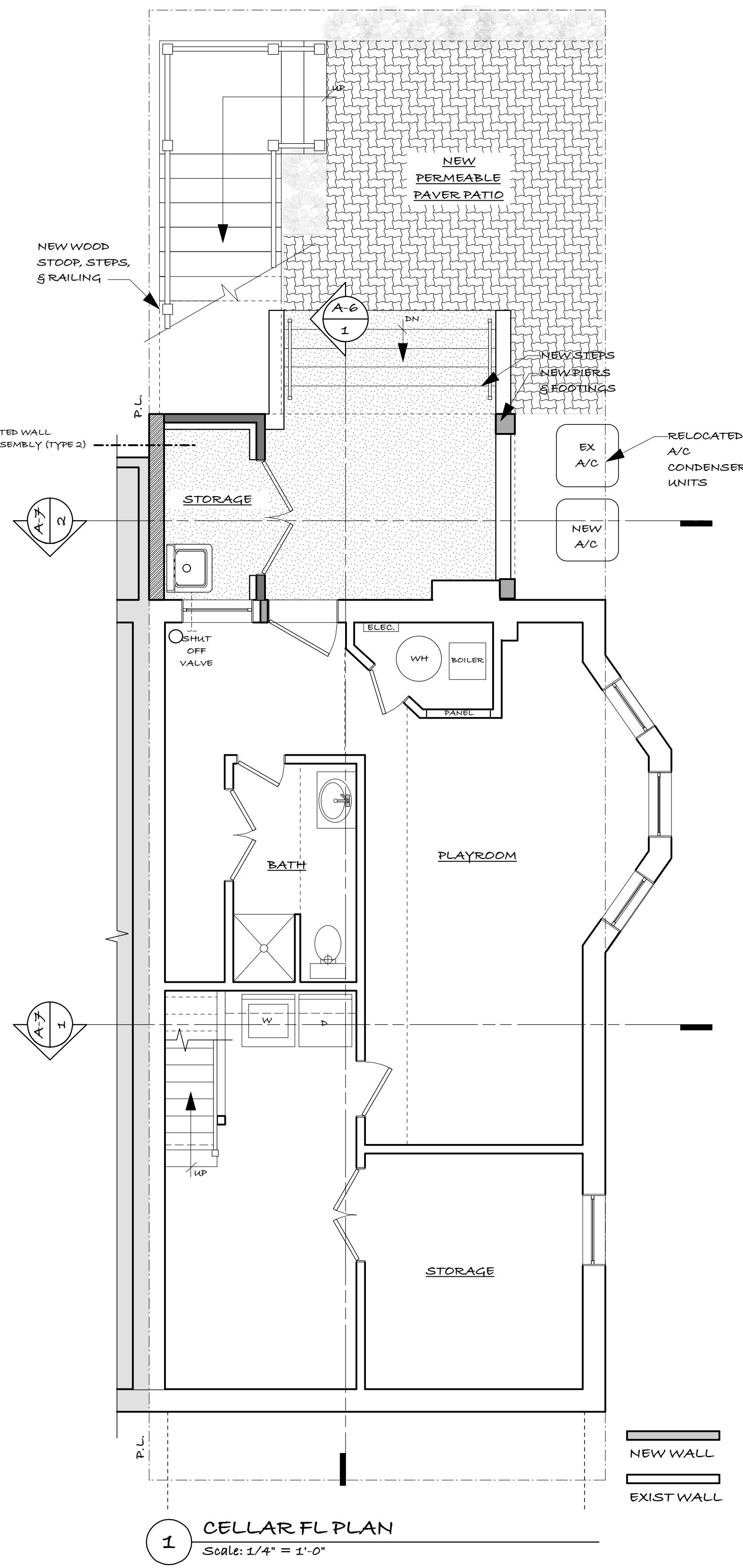
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ADDITION & RENOVATION

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**A-1**

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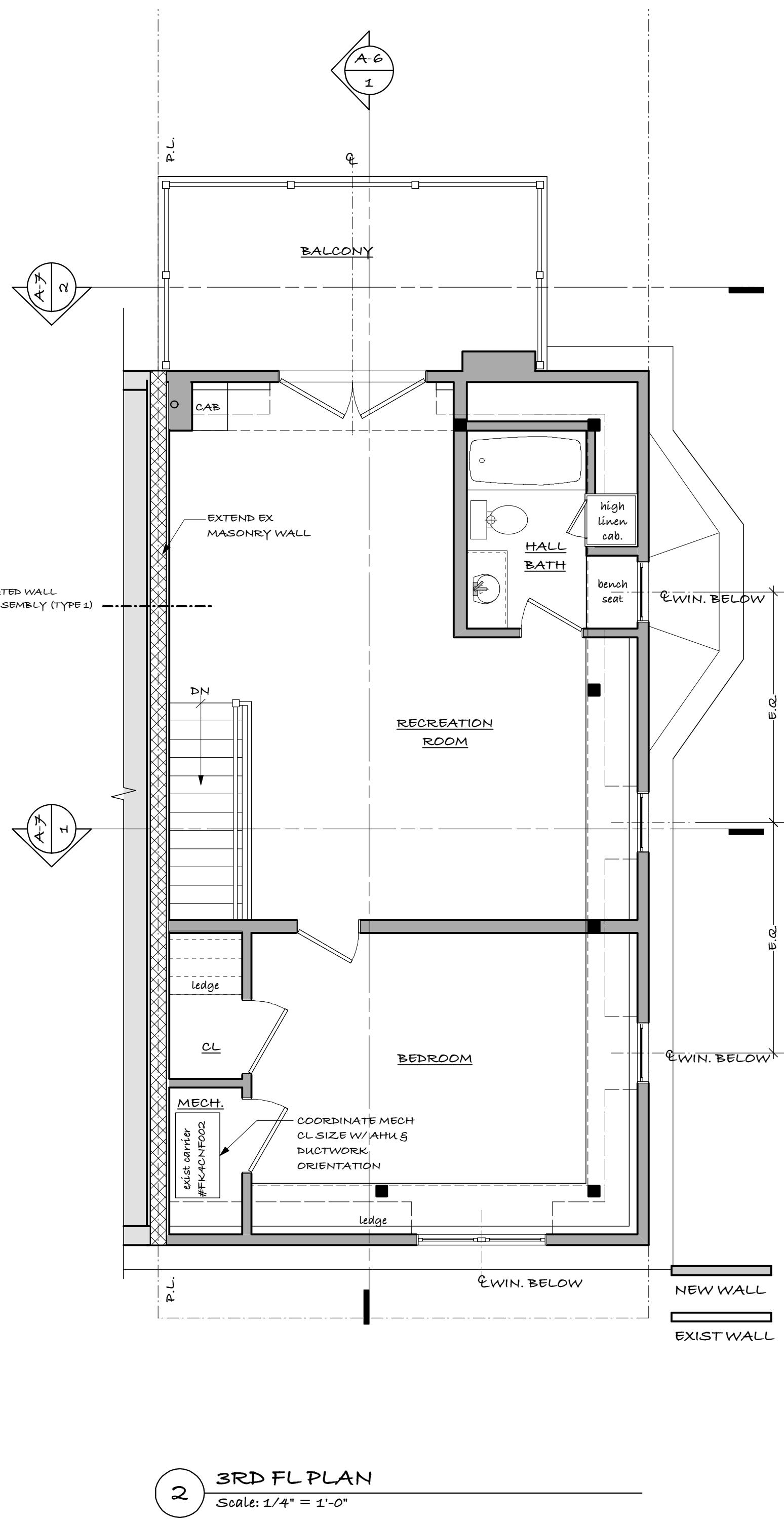
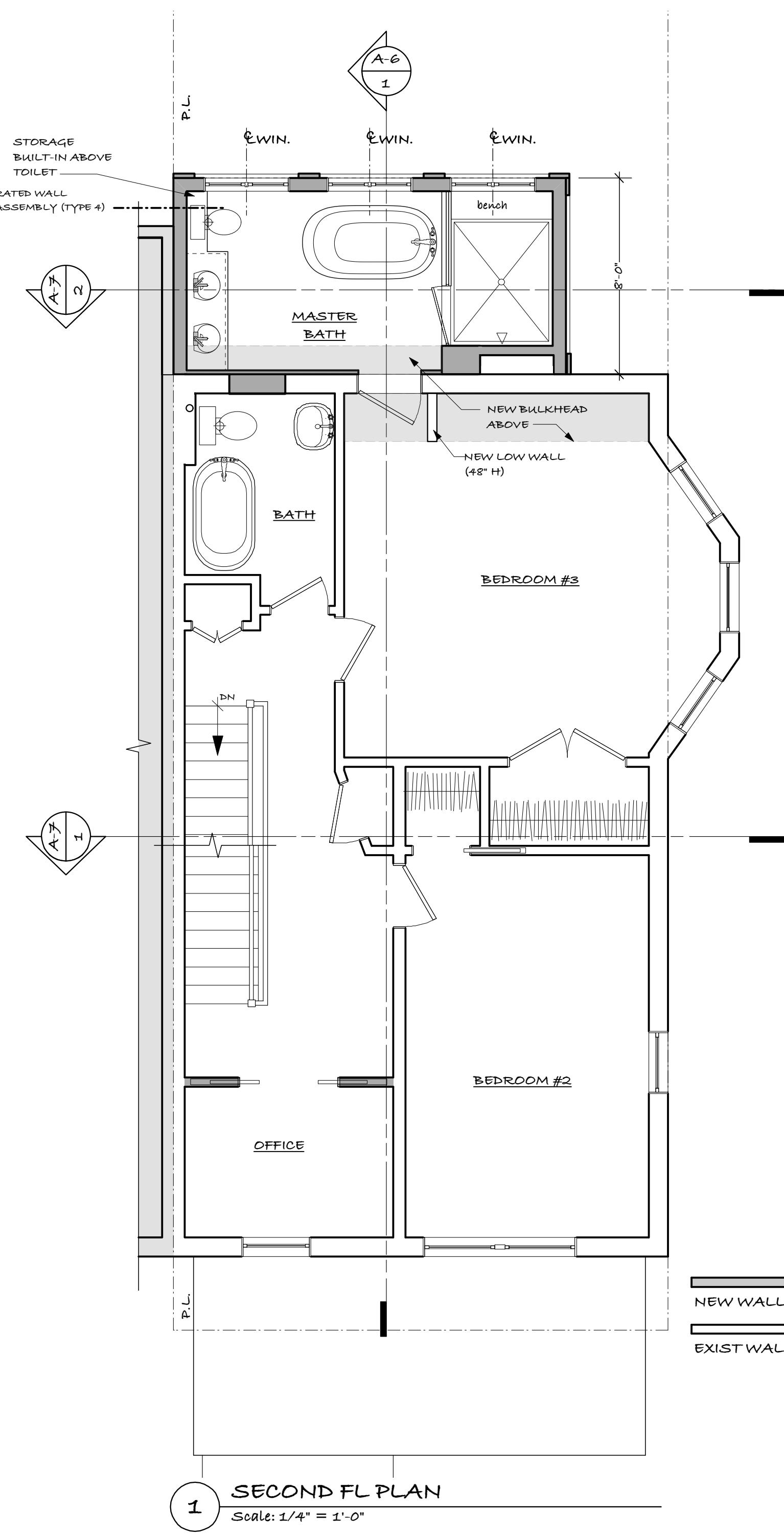
# PROPOSED PLANS SECOND & THIRD

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# GALLAS RESIDENCE ADDITION & RENOVATION

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**PROPOSED PLANS**

**ROOF**

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

**GALLAS RESIDENCE**  
**ADDITION & RENOVATION**

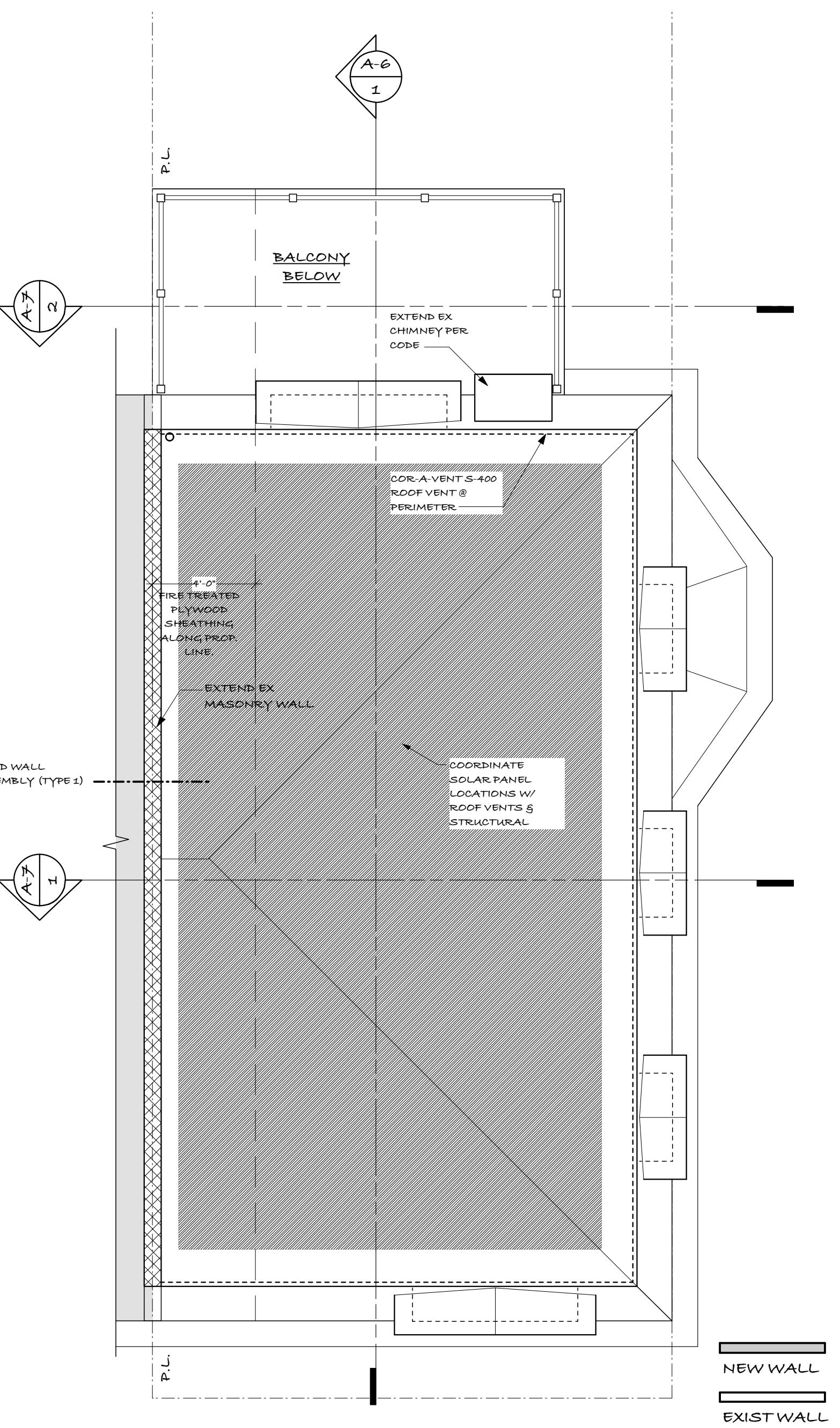
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**A-3**

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**1** ROOF PLAN  
Scale: 1/4" = 1'-0"

**PROPOSED ELEVATIONS  
FRONT & REAR**

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

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**GALLAS RESIDENCE  
ADDITION & RENOVATION**



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PROPOSED ELEVATIONS  
RIGHT SIDE

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## PROPOSED SECTION

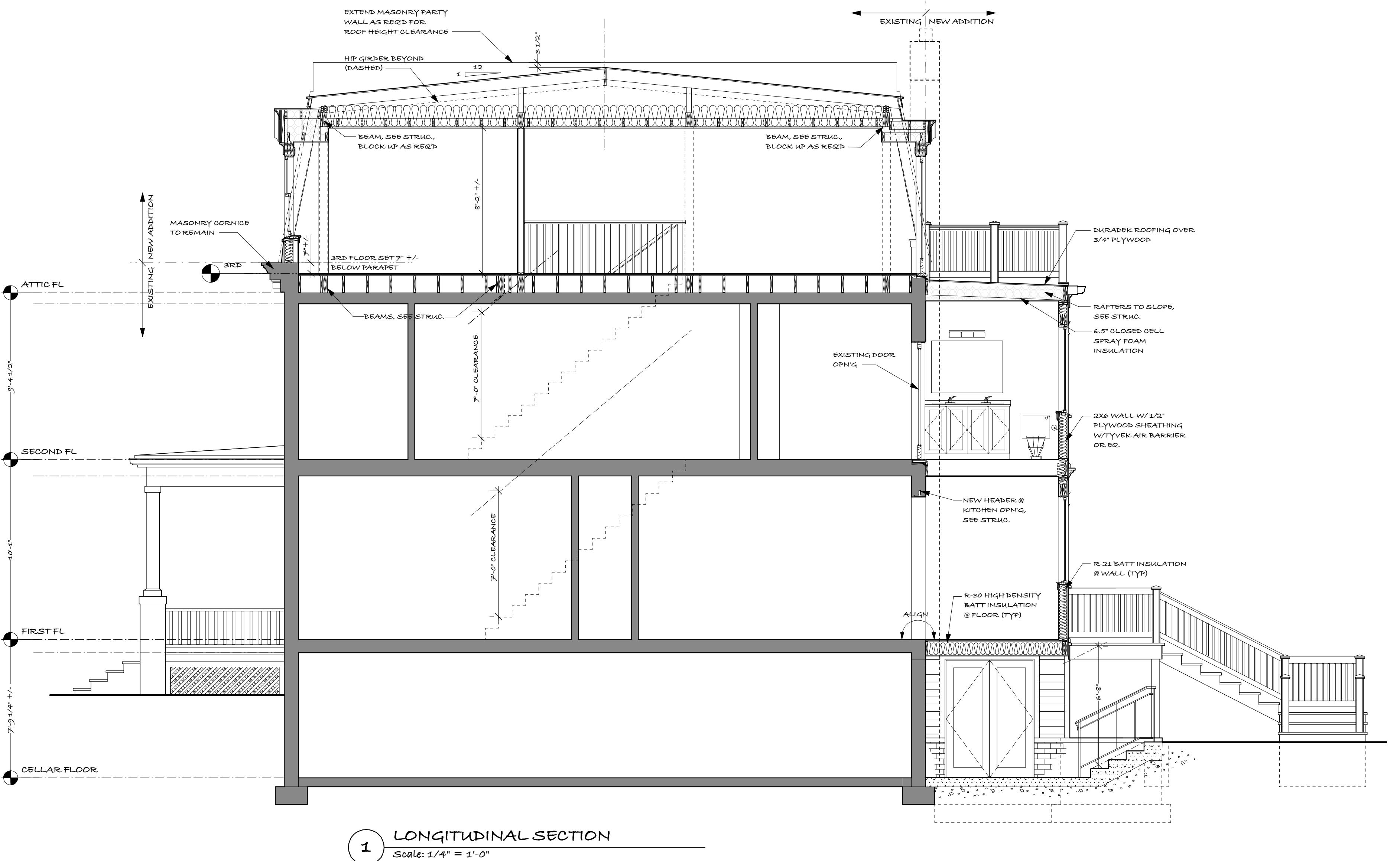
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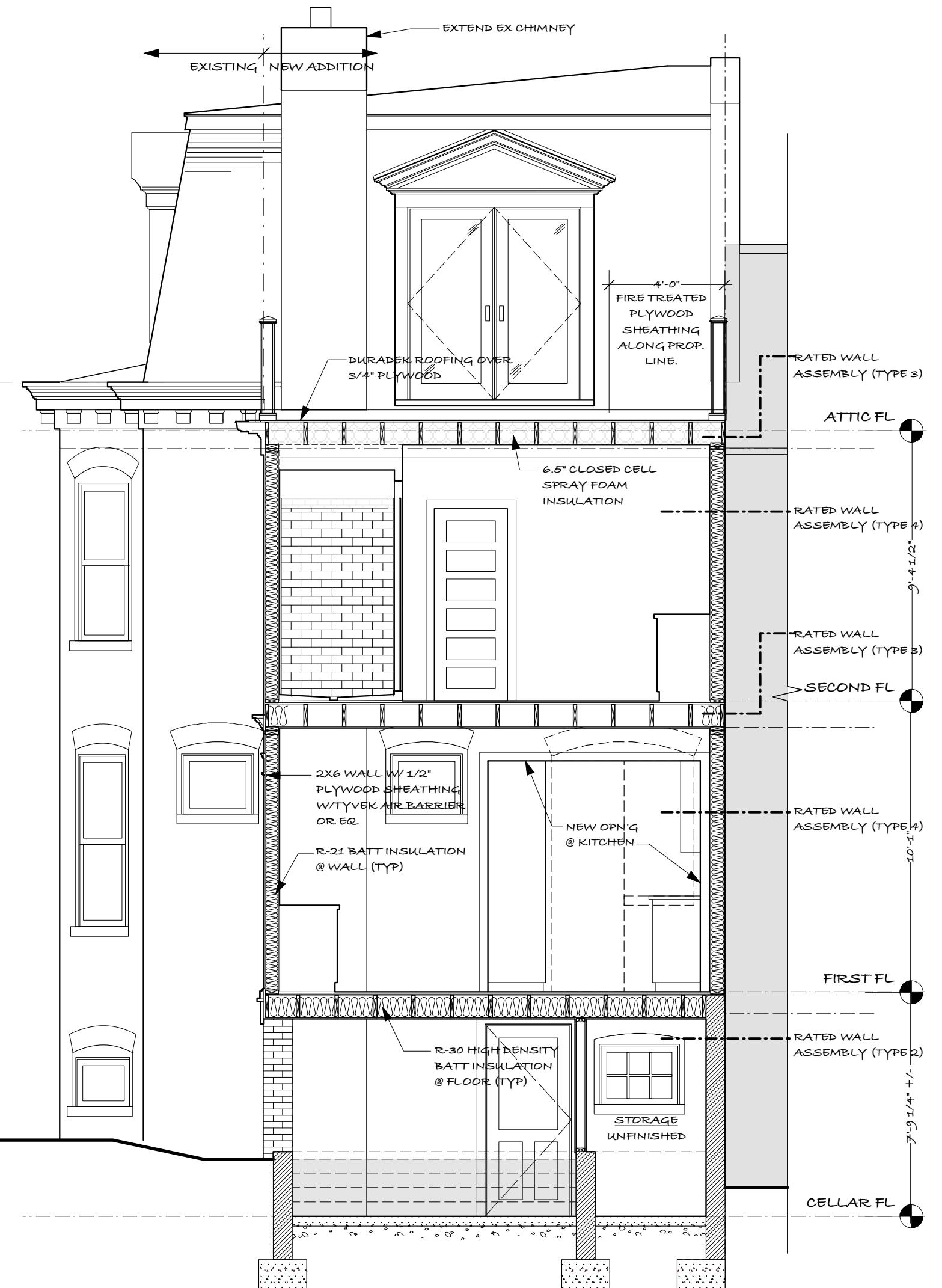
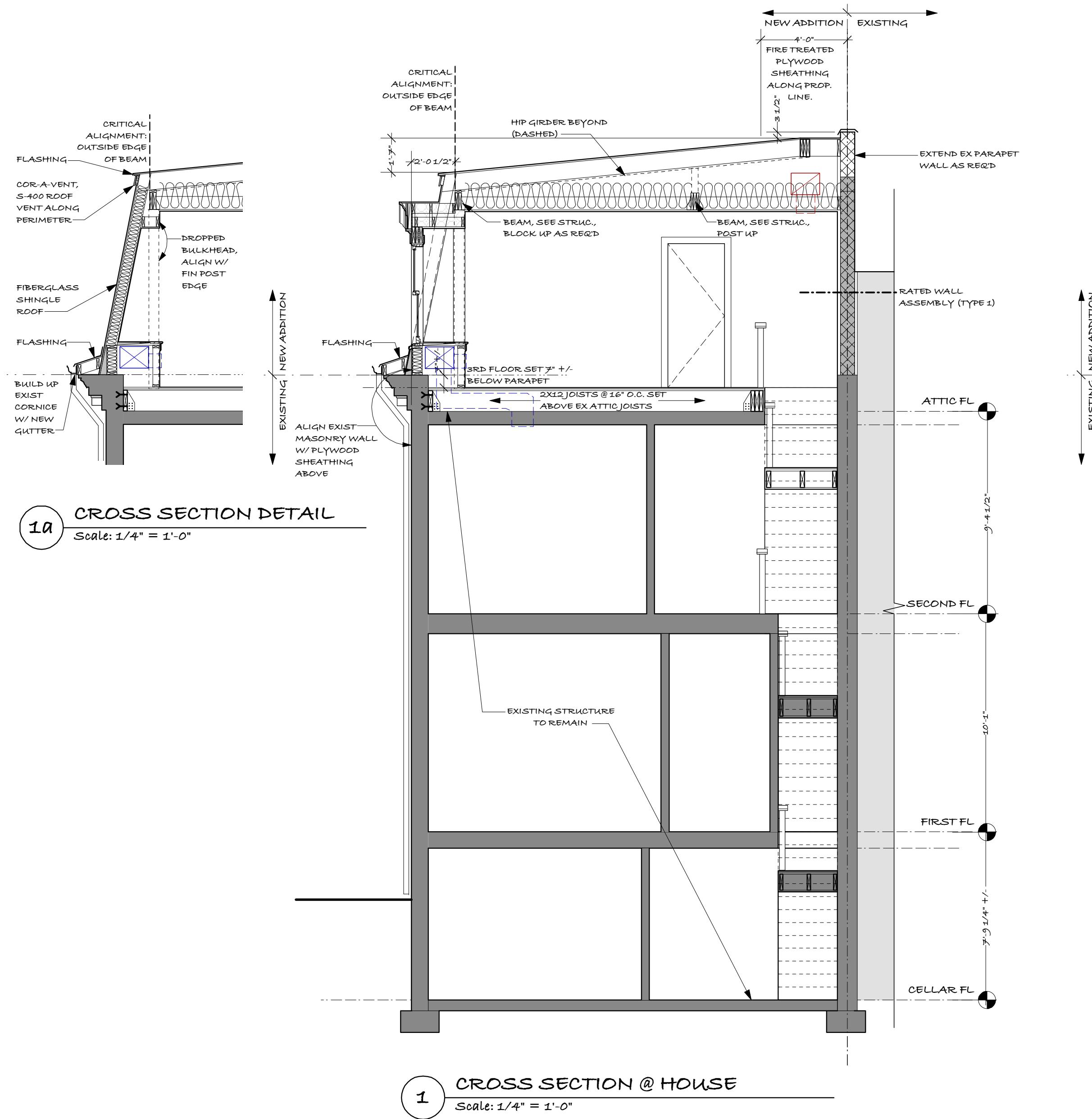
22 MAY 2015

**A-6**



**PROPOSED SECTION**

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


**CROSS SECTION @ ADDITION**  
 Scale: 1/4" = 1'-0"

**CROSS SECTION @ HOUSE**  
 Scale: 1/4" = 1'-0"

**GALLAS RESIDENCE  
ADDITION & RENOVATION**
4430 9TH STREET, NW  
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# PROJECT SPECIFICATIONS

## GALLAS RESIDENCE ADDITION & RENOVATION

### DIVISION 1: GENERAL REQUIREMENTS

**01.01 PROJECT DESCRIPTION:** In conjunction with Architectural, Structural, Mechanical, Electrical and Plumbing Drawings issued by AHMANN LLC, these Specifications describe the scope of Architectural, Structural, Mechanical, Electrical, Plumbing and other requirements for an Addition and Renovation Project at the house of Brandon and Emily Gallas at 4430 9th Street, N.W. in Washington, DC.

**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, plumbing, electrical 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 District of Columbia building permit, and the Contractor and Subcontractors shall provide all other permits and obtain all inspections required for the Work. Should a "Wall Check" be required by the District of Columbia in conjunction with this Project, the Contractor shall make all arrangements and the Owner shall pay all fees for the Wall Check.

**01.04 INSURANCE REQUIREMENTS:** The General Contractor shall provide to 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, 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 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 TREE AND PLANT PROTECTIONS:** The Contractor shall take care to protect the existing trees and plants to remain. Provide protection fencing and avoid storage and operation of equipment inside the tree drip line, except as specifically required to complete the work.

**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: electrical service; sanitary facilities; drinking water; first aid station.

**01.09 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; Minimize dust; Clean up thoroughly. These procedures are to be followed per the EPA standards.

**01.10 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. As noted above, the dumpster permit is the responsibility of the Contractor.

**01.11 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, use materials for cutting and patching that are identical to existing materials. If identical materials are not available, or cannot be used, 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.

**01.12 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.

**01.13 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'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 to have been cut and patched in a visually unsatisfactory manner.

**01.14 ALLOWANCES:** Provide line item material allowances for the following items (installation shall be included in base bid, unless otherwise noted):

**Allowance Item A1: Ceramic Tile.** Flooring and tub/shower surround at Master Bathroom.  
Material Allowance: \$7.50 per square foot.

**Allowance Item A2: Bath Vanities.** For Powder Room and Master Bath.  
Material Allowance: \$1500.00.

**Allowance Item A3: Countertop Slabs.** For countertops and related items at Master Bathroom and Third Floor Hall Bathroom. Material Allowance: \$65.00 per square foot.

**Allowance Item A4: Plumbing Fixtures and Bath Accessories.** Master Bathroom and Third Floor Bathroom fixtures and fittings. Material Allowance: \$5,000.00.

**Allowance Item A5: 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 officials during construction. Tie new rain leaders and new foundation drain lines into storm sewer system at the rear of the property. Note: run rain leaders separately from foundation drain to point of tie-in with sewer.

**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 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. Consolidate concrete surfaces by finish troweling, free of trowel marks, uniform in texture and appearance.

**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 brick work shall conform to all applicable local, state and national codes and standards, as well as those established by the Brick Industry Association, 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:** Extend the existing parapet party wall at the third floor and roof area abutting the neighboring property to the South as may be required. 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 BRICK PIERS:** Provide and install brick piers where indicated or required. Brick texture, size, bond pattern, grouting, and joint tooling shall match the existing brickwork of the house. Coursing shall align, and joint dimensions match, where new brick is set adjacent to existing brickwork. Mortar texture shall match the existing mortar as close as practical. Provide horizontal joint reinforcement at 16 inches on center vertically, typically, and vertical reinforcement as indicated in the Drawings. Installation of brick and brick/CMU walls shall be per the published specifications and recommendations of the Brick Industry Association, the National Concrete Masonry Association, and the product manufacturer, as applicable to the work described and the conditions encountered. Brick shall be primed and painted on the exterior, per the requirements of Specification Division 9. Provide

samples for brick selection and sample panel with proposed brick and mortar, painted, for field review by Owner prior to the purchase and installation of balance of the brick material.

**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 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 at the exterior of the Rear Addition. 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 Division 9 these Specifications. Coordinate Trim Boards and Panel Boards installation with flashing requirements, and stucco installation as required for a complete and weather tight installation.

**06.07 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, its fabrication, and its installation shall conform to the Custom Grade Specifications and Requirements of Section 300 of the Architectural Woodwork Institute's Architectural Woodwork Quality Standards, Guide Specifications and Quality Certification Program manual, most current edition, as applicable to the work indicated and the conditions encountered. Unless otherwise noted, all wood used for interior standing and running trim shall be paint grade pine, and shall be painted in accordance with Division 9 of the Specifications.

**06.08 BATH VANITY CABINETS:** **Allowance Item:** Provide and install Bath vanity cabinets and related items as indicated in the Drawings, and as selected by the Owner. Provide coordination as required in placing cabinet order, verifying all field conditions and requirements with final cabinet dimensions. Installation of cabinets shall be coordinated with plumbing fixtures and fittings as required, and with all surrounding and abutting materials, surfaces and conditions. Installation shall be per the specifications, requirements and recommendations of the cabinet manufacturer. Provide blocking in walls for securing cabinets. Installation shall be per the specifications, requirements and recommendations of the cabinet manufacturer.

**06.09 SOLID SURFACE COUNTERTOPS TOPS:** **Allowance Item:** Provide and install solid surface countertops with 3 inch back and side splashes at Master Bathroom and Third Floor Bathroom, as selected by the Owner, with edge detail selected by the Owner.

**06.10 WOOD STRIP FLOORING:** Provide and install new wood strip flooring at the Third Floor Addition, except for the Bathroom. Provide patching of existing wood flooring in other portions of the house as required by the Work. New wood strip flooring shall match adjacent flooring in type, size, graining, grade and appearance. Comply with flooring manufacturer's general instructions and recommendations for the preparation of substrates to receive wood flooring, including the application of primers, vapor barriers, and adhesives. Do not proceed with wood flooring work until the addition is enclosed and humidity has stabilized at approximately the level anticipated for occupancy. Deliver flooring in advance of installation as recommended by manufacturer, but not less than 7 days before installation, in order to permit natural adjustment to moisture content.

**06.11 WOOD STAIRWAY & BALUSTRADE:** Provide and install new wood stairway from the Second Floor to the Third Floor as indicated in the Drawings. The material, its fabrication and its installation shall conform to the Custom Grade specifications and requirements of the Architectural Woodwork Institute's Architectural Woodwork Quality Standards, Guide Specifications and Quality Certification Program manual, most current edition, as applicable to the work indicated and the conditions encountered. The construction of the stair and shall meet or exceed all code requirements and regulations as set forth in the currently adopted International Residential Code. Stair treads and risers shall match the flooring as close as practical, and shall be stained and finished to match the flooring finish. Handrail shall be selected by the Owner from Stair Fabricators standard stock components.

**06.12 CLOSET RODS & SHELVING:** Provide and install wood clothes rods and supports in all clothes closets. Provide braces as required for proper support, with wood blocking properly placed in stud walls for the attachment of rods and braces. Provide and install painted wood shelving above each rod. Provide five adjustable shelves at all linen closets. Shelving shall be birch veneer plywood with a 3/4" edge band. Provide support standards and clips as required.

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**06.13 BALCONY RAILING SYSTEM:** Provide and install Durarail welded picket railing system as indicated in the Drawings. Railing system shall be field fabricated from components supplied by the Duradek roofing system manufacturer. Installation of the railing system shall be per the specifications, requirements, and recommendations of the railing system and roof product manufacturer(s), as required for a complete, code compliant, and weather-tight installation.

**06.14 REAR LANDING, STAIR & RAILING SYSTEM:** Provide and install wood deck, stair and railing system as indicated in the Drawings. Stair and landing framing shall be of pressure treated lumber. Decking boards shall be pressure treated 2x6's stained in accordance with Division 9 of these Specifications. Railing system shall be field fabricated with pressure treated lumber per the details included in the Drawings, and shall stained in accordance with Division 9 of these Specifications.

## DIVISION 7: THERMAL AND MOISTURE PROTECTION

**07.01 GENERAL:** The Contract for Construction shall include all thermal and moisture protection 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.

**07.02 CODES & STANDARDS:** Thermal and moisture protection work shall conform to all applicable local, state and national codes and standards as well as those established by the National Roofing Manufacturer's Association and the Sheet Metal and Air Conditioning Manufacturer's Association. 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.

**07.03 INSULATION:** Provide and install high density mineral fiber batt insulation, and/or closed cell foam insulation at all new exterior stud wall areas, at existing exterior stud walls open during construction, at new ceiling/roof areas and at floors over unconditioned areas or open space. The insulation value to be provide shall be as indicated in the Energy Conservation/Building Envelope Chart in the Drawings. 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 SILL SEALER:** Provide and install "Sill Sealer" air infiltration barrier between the sill plate and foundation wall typically. "Sill Sealer" shall be as manufactured by Certainteed, or approved equal. Provide in six inch width typically, using 3 5/8 inch width only in areas of limited dimension. The material and its installation shall conform to the manufacturers specifications, requirements, and recommendations as required for the installation indicated and the conditions encountered.

**07.05 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.

**07.06 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 manufactures requirements, specifications and recommendations, including procedures for proper wrapping at window and door openings and coordination with related flashing system(s).

**07.07 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.

**07.08 FIBERGLASS SHINGLE ROOFING:** Provide and install 40 year of better, architectural grade dimensional fiberglass roofing shingles for roofing of the Mansard at the 3rd Floor Addition. Follow specific installation instructions for steep sloping/mansard conditions. 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 practical.

**07.09 EPDM ROOFING:** Provide and install an EPDM roofing membrane, Firestone or equal, for the low pitch roof area above the mansard roof areas. Installation shall be per the published details, written specifications, requirements and recommendations of the product manufacturer(s), as applicable to the work described and the conditions encountered. Parapet, edge and gutter details shall be as required by the manufacturer. Provide all flashings, accessories, adhesives and sealants as required for a complete weather tight installation. Provide a min. 10 year manufacturer's warranty for roofing system. Contractor shall coordinate and interface with the mansard roof as required for a complete and weathertight installation.

**07.10 WALKABLE MEMBRANE ROOFING:** Provide and install a walkable roofing membrane, Duradek Ultra or equal, for the floor of the Balcony as indicated in the Drawings. Installation shall be per the published details, written specifications, requirements and recommendations of the product manufacturer(s), as applicable to the work described and the conditions encountered. Wall abutment and other details shall be as required by the manufacturer. Provide all flashings, accessories, adhesives and sealants as required for a complete weather tight installation. Provide a minimum 10 year manufacturer's warranty for roofing system. Contractor shall coordinate and interface with all adjacent conditions as required for a complete and weathertight installation.

**07.11 ROOF VENTS:** Provide and install continuous Coravent S-400 polypropylene eave vent at trim detail above mansard roof as intake vent. Provide two 24 inch x 24 inch "mushroom" exhaust vents at flat portion of roof. Provide baffling of insulation as required to maintain 1 inch minimum vent space at all rafter bays.

**07.12 GUTTERS & DOWNSPOUTS:** Provide white baked aluminum gutters and downspouts at all drip lines of the addition. 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.

**07.13 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.

**07.14 SEALANTS:** Provide sealants as required at windows, doors, and in conjunction with all trim work as required for a complete weather-tight construction.

**07.15 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 Tradition Plus Clad Wood Units, or approved equal. Windows and exterior doors shall be provided with insulated low-e, argon filled full view glazing. 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 six feet or greater above grade or surface below shall be provided with a sash limiter meeting the requirements of the 2012 International Residential Code when the sill of the window is within two feet of the floor.

Window and French door 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 CSCP 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 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.

## 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. 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 & STAINING / ADDITION:** Exterior paint shall be low VOC Benjamin Moore premium grade semi-gloss latex applied in a minimum of two finish coats over one coat of primer/undercoat. The scope of exterior painting shall include all siding and trim work, as well new brickwork. Colors shall match the existing colors, or shall be as selected by the Owner. Paint and stain shall be applied per the product manufacturer's specifications, requirements and recommendations. Stain for the rear stair, landing and railings shall be Cabot's Semi-Solid Decking stain in two coats. Paint and stain 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 additions, as well as portions of the existing house impacted by the Work. 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 manufacturer for the installation indicated and the conditions encountered.

**09.08 TILE: Allowance Item.** Provide and install ceramic, stone or porcelain tile for the Master Bathroom and the Third Floor Hall Bathroom as indicated in the Drawings. Include tile for floor, base shower floor and walls and tub surround, as applicable. Tile material shall be selected by the Owner. Tile work shall conform to the written specifications, requirements and recommendations the Tile Council of America, AIA Masterspec, and the product manufacturer, as applicable to the work described and the conditions encountered.

**09.09 BATH ACCESSORIES: Allowance Item.** Provide and install Owner selected bath accessories and medicine cabinets at Master Bathroom and 2nd and 3rd Floor Hall Bathrooms. 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.

**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:** Provide and install custom frameless shower doors at Master Bathroom shower. Shower door shall be 3/8" thick clear tempered glass, custom sized . 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.

## DIVISION 10-14: 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 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 District of Columbia Water and Sewer Authority 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 for temperature. Sanitary lines shall be PVC, insulated for sound.

**15.05 PLUMBING FIXTURES & FITTINGS: Allowance Item.** Provide and install plumbing fixtures and fittings for the Master Bathroom and Third Floor Hall Bathroom as indicated in the Drawings. Final fixtures, fittings, colors and finishes shall be selected by the Owner.

**15.06 MISC. PLUMBING HOOKUPS:** Provide plumbing hookups as required for residential appliances.

**15.07 HOSE BIBS:** Provide and install two frost free hose bibs at locations to be determined by the Owner.

**15.08 HYDRONIC BASEBOARD RADIATORS:** Design, provide and install hydronic baseboard radiators to service the modified areas of the Second and Third Floors of the Expanded House. Extend the existing hydronic system and advise if existing boiler is adequate for additional radiators. Include all necessary equipment, devices, material, labor, permits, and inspections as required to complete the work.

**15.09 AIR CONDITIONING SYSTEM:** Design, provide and install a conventionally ducted air conditioning system to service the Sunroom on the First Floor, existing and new Second Floor and entire Third Floor of the Expanded House. The air handler shall be located on the Third Floor as indicated in the Drawings. Include all necessary equipment, devices, material, labor, permits, and inspections, for the supply of cooled air, for the cleaning of the air, for proper air exchange, and for return air as required to complete the work. The condensing unit shall be located on the roof, and the Contractor shall coordinate the location with the solar panel locations.

**15.10 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.

**15.11 MECHANICAL DESIGN CRITERIA & BID SUBMITTAL:** Mechanical (heating and cooling) 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.

**15.12 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 addition proposed. 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.

**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 concealed.

**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.

**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

## ELECTRICAL FIRST FL

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

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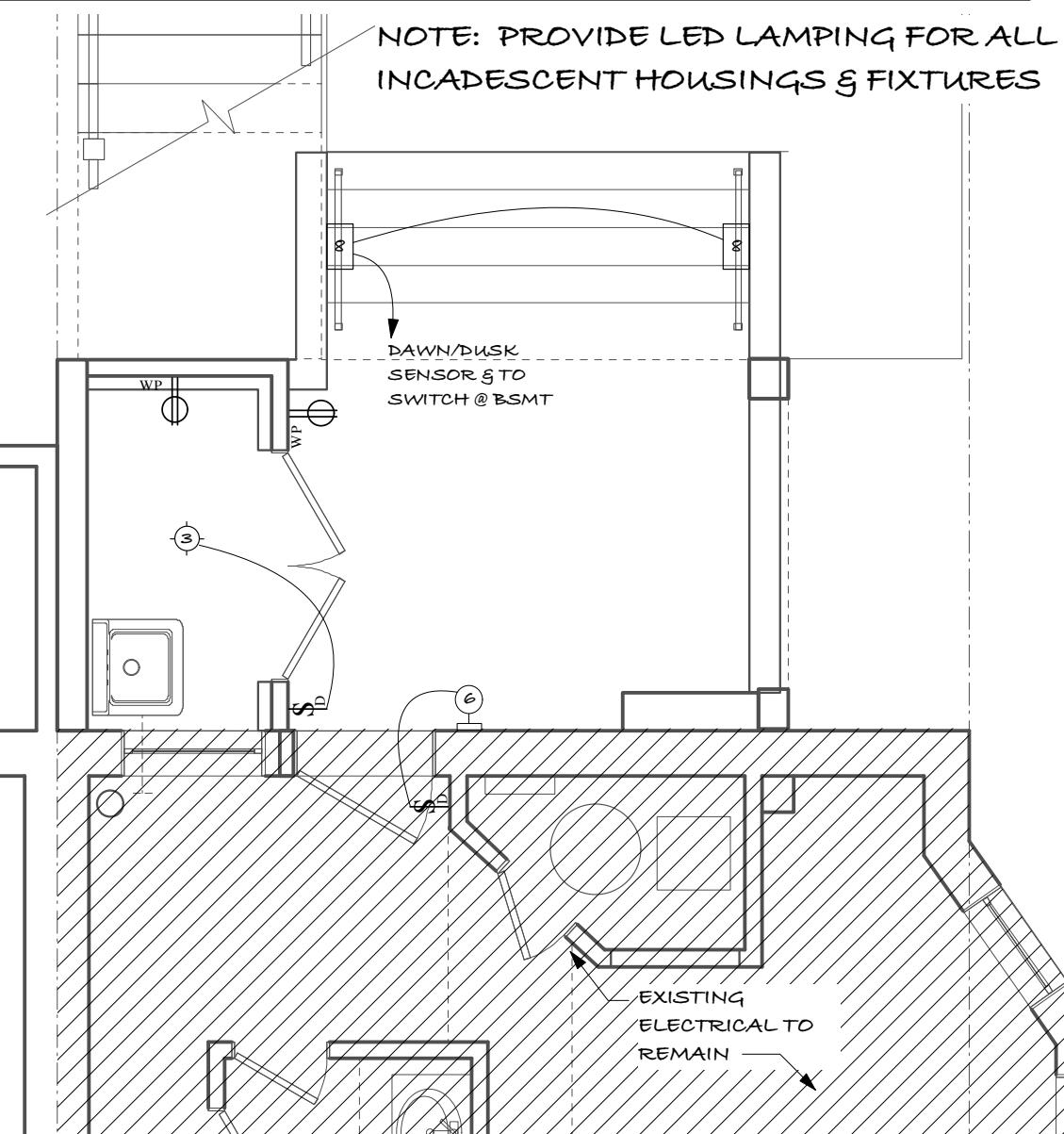
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### ELECTRICAL FIXTURE SCHEDULE

- 1 RECESSED 5" DOWNLIGHT, BASIC: PHILIPS LIGHTOLIER LYTECASTER 5" APERTURE STEP BAFFLE, #1005WH MATTE WHITE STEP BAFFLE REFLECTOR, #1002P1 75W A19 NON-IC OR #1000IC 75W PAR30 IC, PROVIDE MAX. ALL. LAMPS (TYP)
- 2 RECESSED 5" DOWNLIGHT, WET LOCATION: PHILIPS LIGHTOLIER LYTECASTER 5" APERTURE RECESSED DOWNLIGHT FLUSH GLASS WET LOCATION TRIM, #1090 REFLECTOR, #1002P1 75W PAR30L NON-IC OR #1000IC 60W PAR30S IC, PROVIDE MAX. ALL. LAMPS (TYP)
- 3 SURFACE MOUNT FIXTURE: LIGHTING FIXTURE TO BE PROVIDED BY OWNER & INSTALLED BY CONTRACTOR
- 4 CLOSET LENSED LIGHT: PHILIPS ARIS LED, LOW PROFILE TASK LIGHT, 21"
- 5 INTERIOR SCONCE: TO BE PROVIDED BY OWNER & INSTALLED BY CONTRACTOR
- 6 EXTERIOR SCONCE: TO BE PROVIDED BY OWNER & INSTALLED BY CONTRACTOR
- 7 BROAN HEAT LAMP: BROAN #162 ONE BULB HEATER/FAN, 250W BR40 INFRARED BULB, 70 CFM, IC RATED
- 8 EXTERIOR RECESSED ACCENT LIGHTING: PHILIPS LIGHTOLIER GARDCO 111 MINI SCONCE LED, 111L-DIM, TYPE II FINISH TO BE SELECTED BY OWNER FROM STANDARD FINISHES AVAILABLE
- V1 VENT: PANASONIC WHISPER CEILING MOUNTED BATHROOM FAN #FV-11VQ5
- 9 DUAL HEAD & SINGLE HEAD ADJUSTABLE LIGHT WITH MOTION SENSOR: PROGRESS #P5203-30 WITH TWO 100 WATT PAR38 LAMPS
- X CEILING FAN & LAMP: TO BE SELECTED BY DEVELOPER AND INSTALLED BY CONTRACTOR (PROVIDE ALLOWANCE)

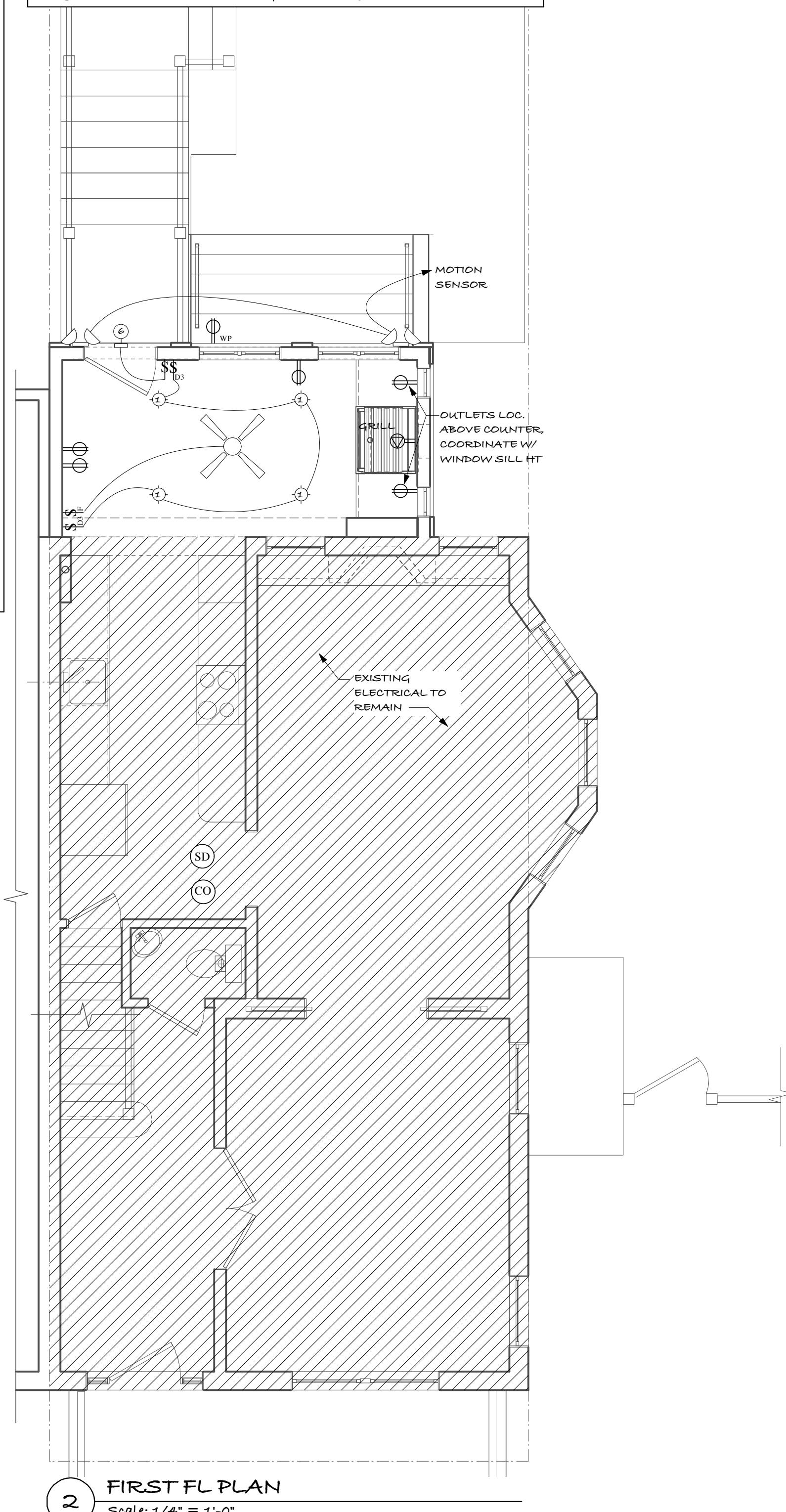


### ELECTRICAL SYMBOL LEGEND

\$	SWITCH
\$ <sub>3</sub>	3 WAY SWITCH
\$ <sub>D</sub>	DIMMER SWITCH
\$ <sub>J</sub>	JAMB SWITCH
	DUPLEX WALL OUTLET
GFCI	DUPLEX OUTLET WITH GROUND FAULT CIRCUIT PROTECTION
WP	WATER PROOF DUPLEX OUTLET
	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
(C)	OUTLET FOR CABLE TV & ETHERNET HOOK-UP
(C)	CABLE CONNECTION

### NOTE: FOR PERMIT ONLY.

(SUBJECT TO FINAL ENGINEERING BY PLUMBING & MECH. SUBCONTRACTOR)



ELECTRICAL  
SECOND & THIRD FL

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

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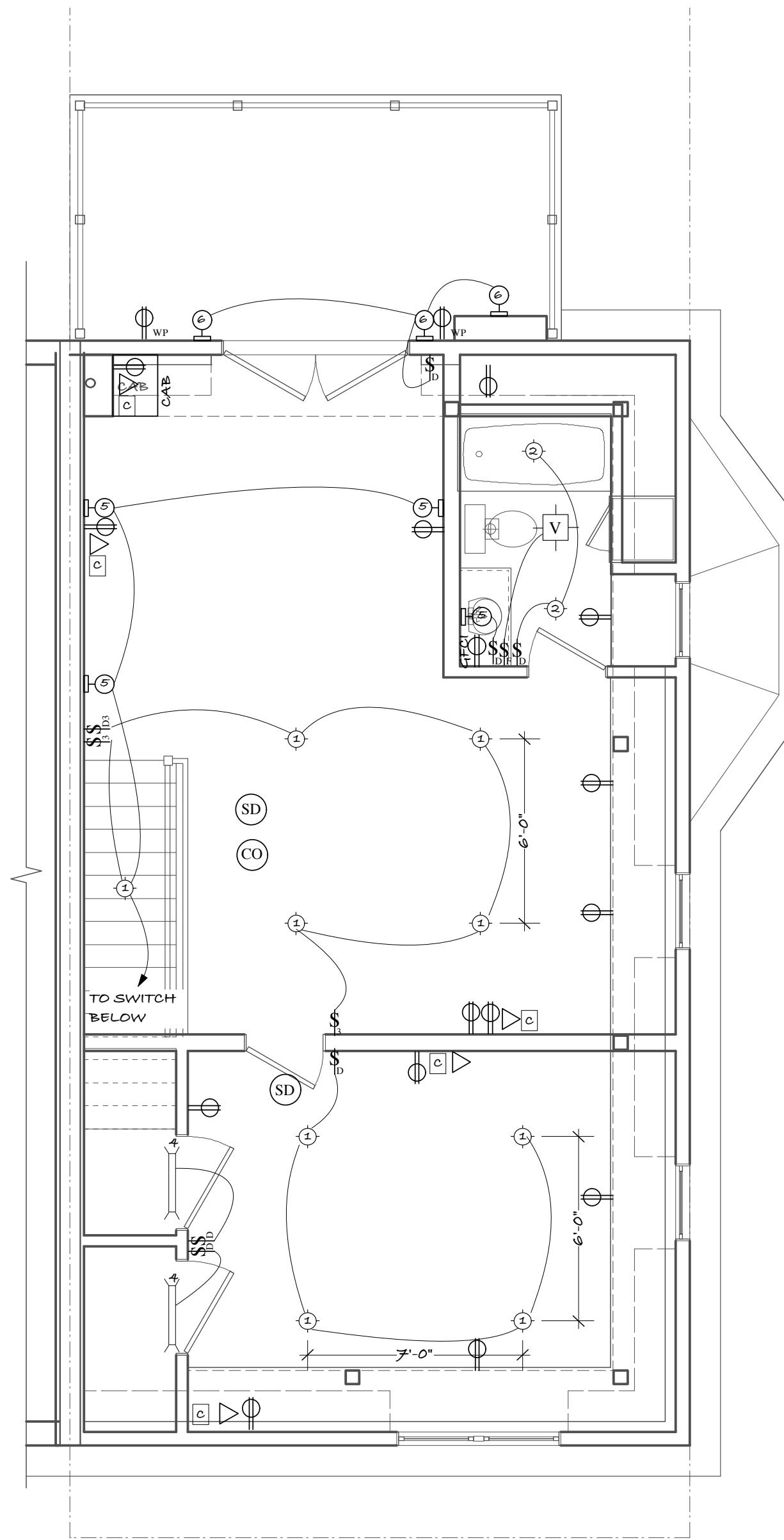
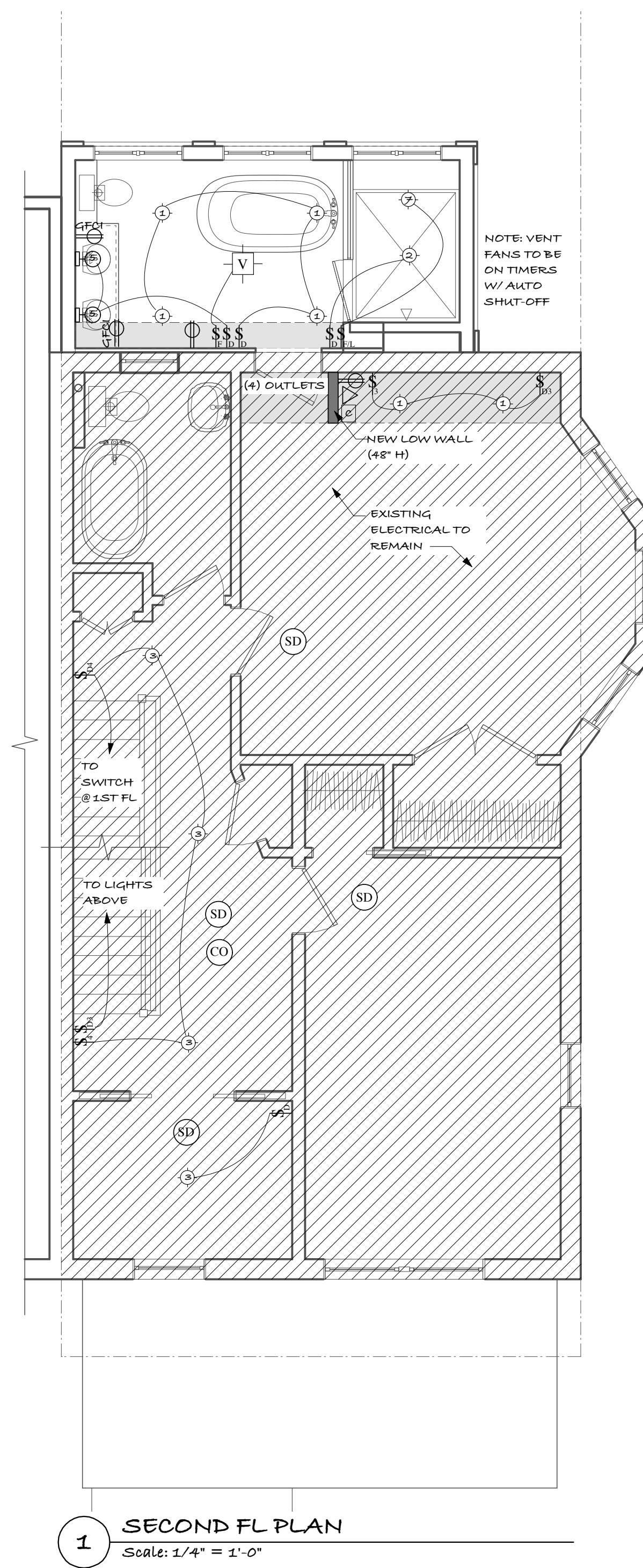
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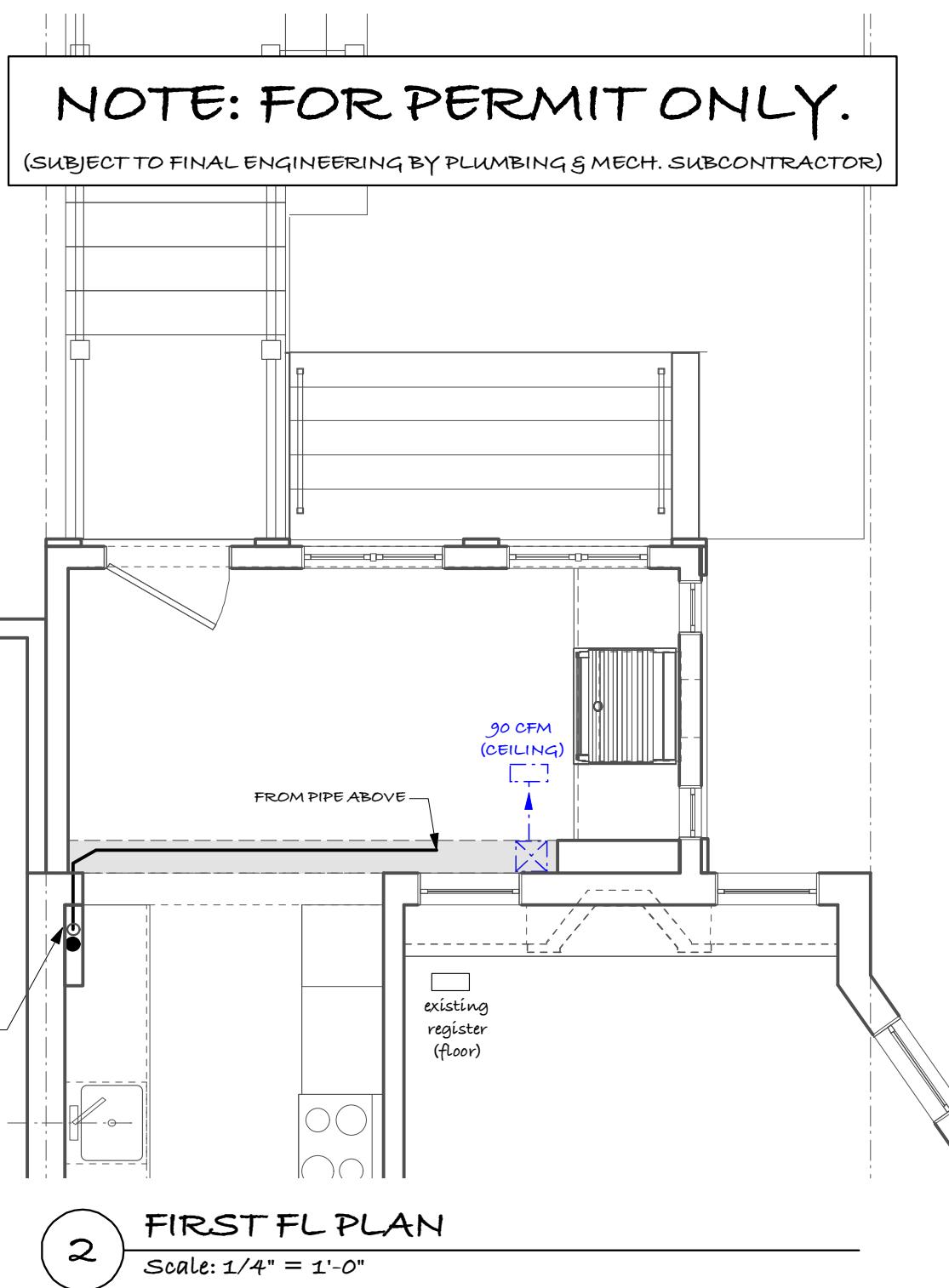
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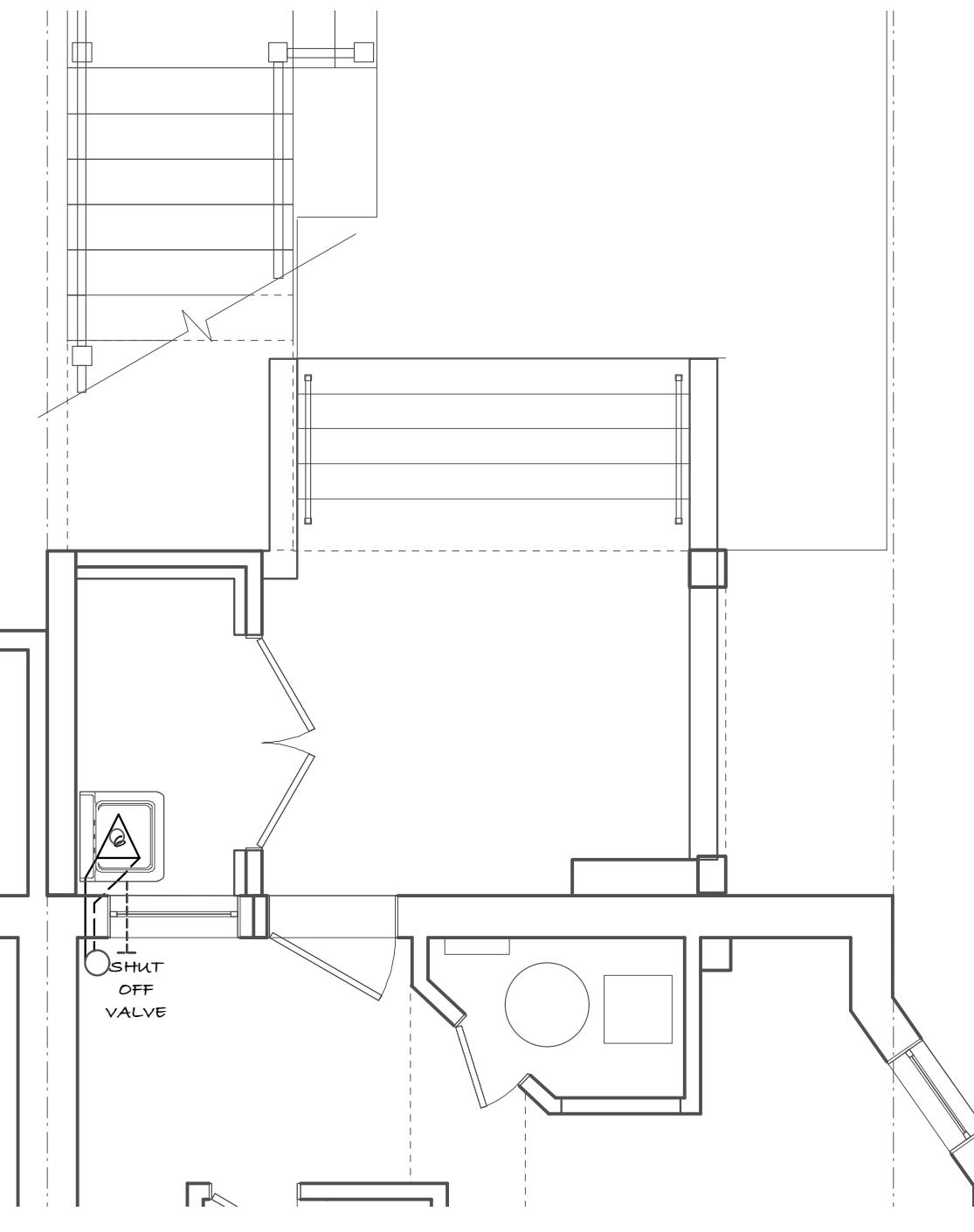
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## MECH/PLUMBING FIRST FL



## GALLAS RESIDENCE ADDITION & RENOVATION



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**MECH/PLUMBING  
SECOND & THIRD FL**

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**GALLAS RESIDENCE  
ADDITION & RENOVATION**

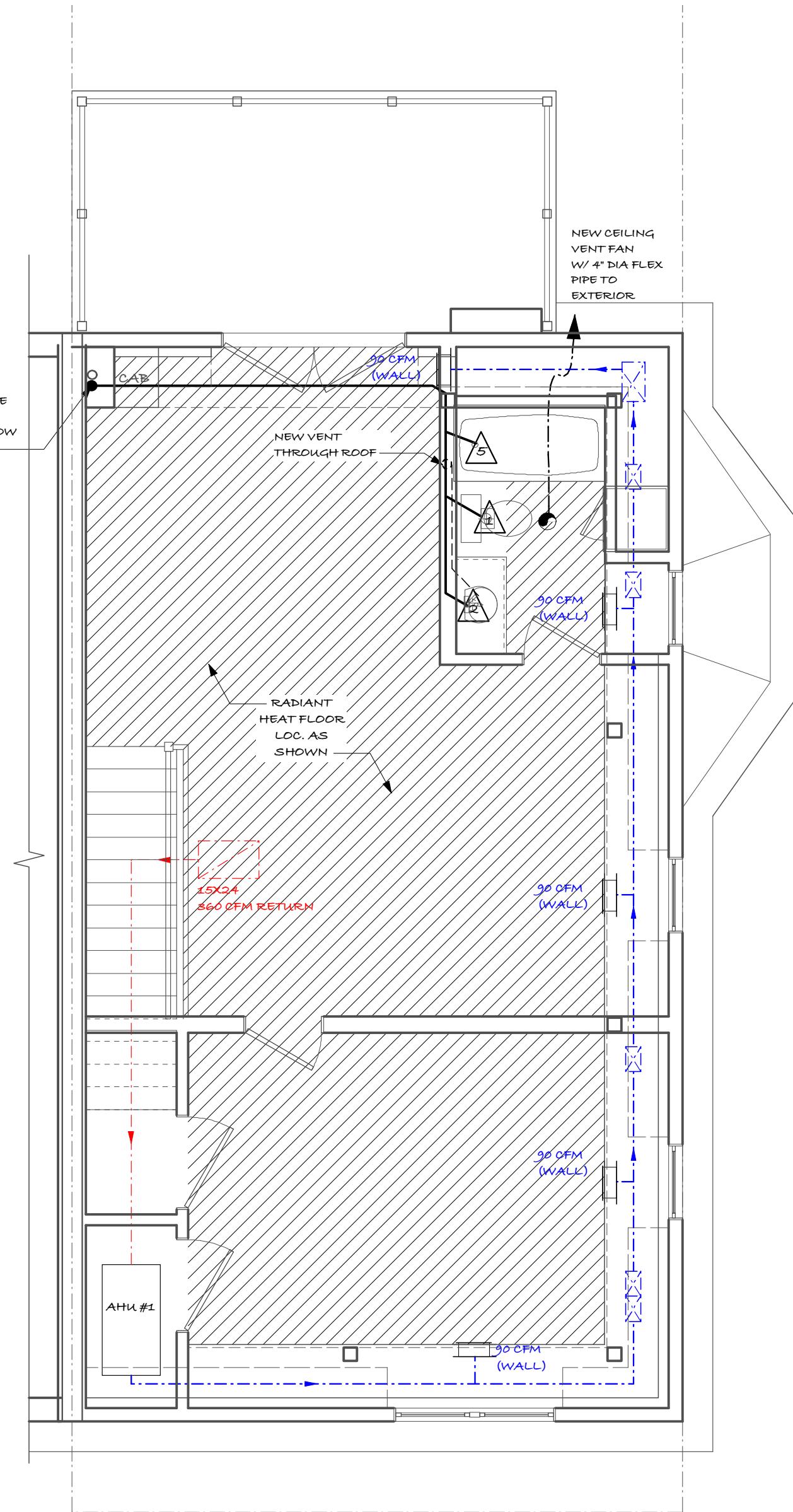
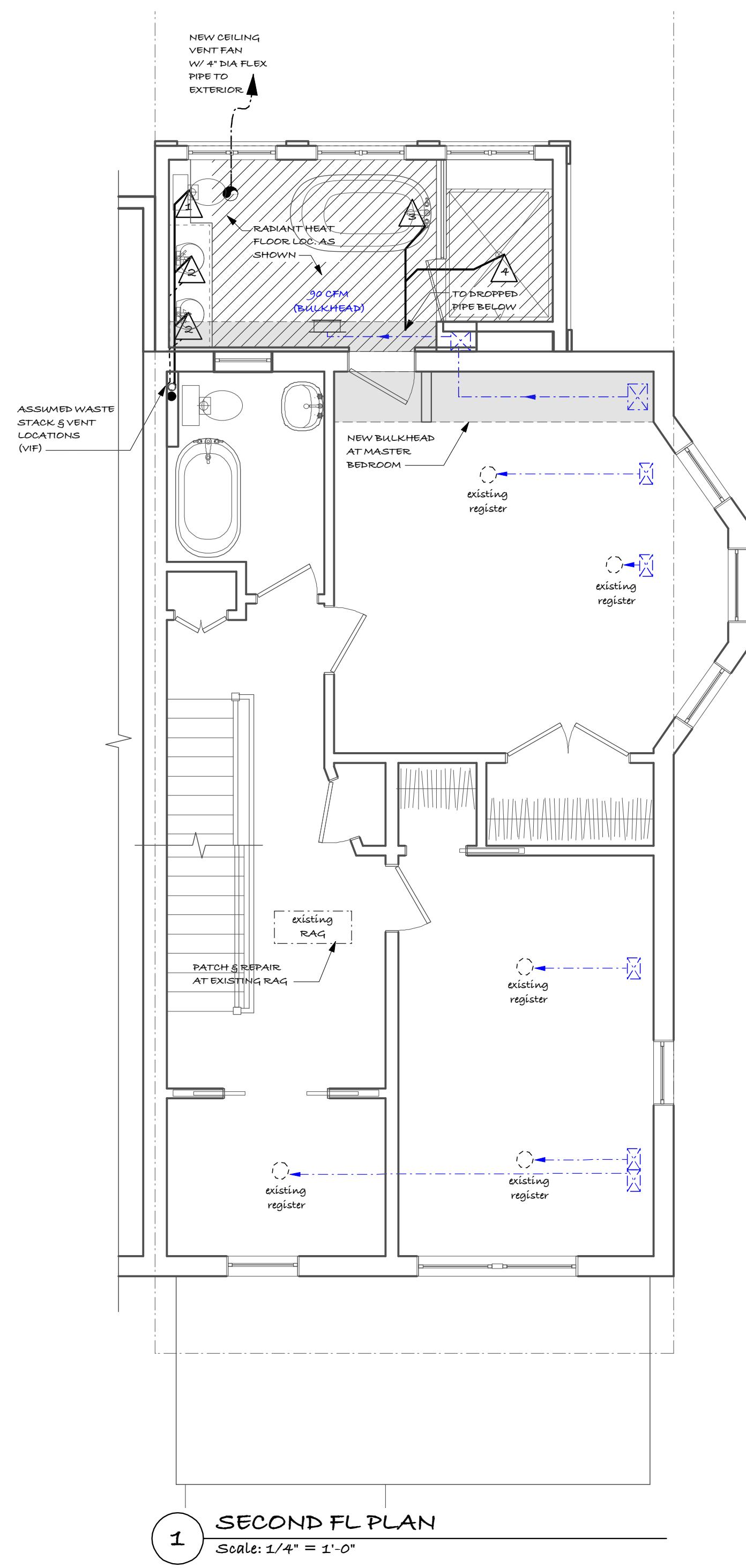
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## STRUCTURAL FOUNDATION, 1ST & 2ND FL

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

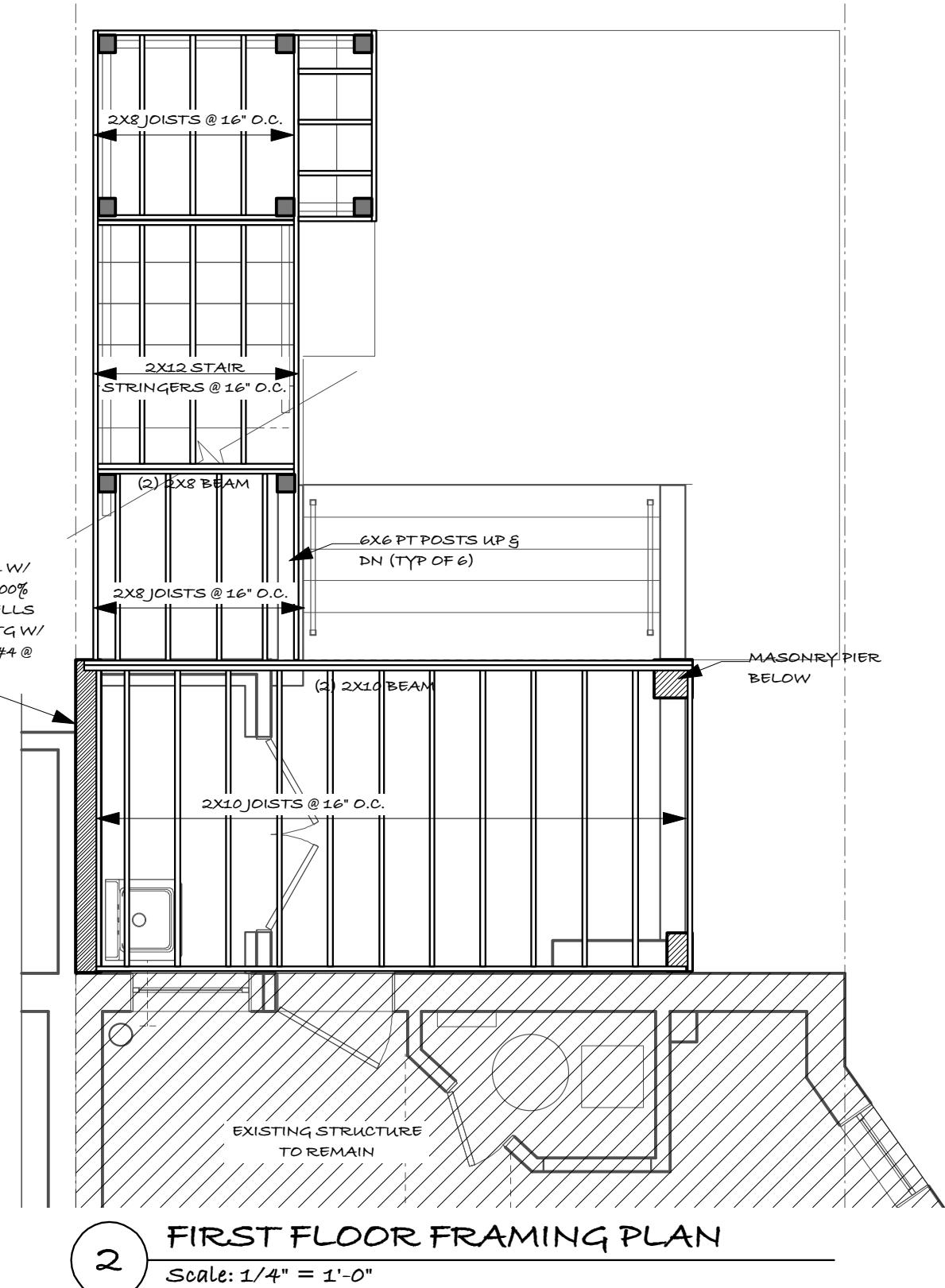
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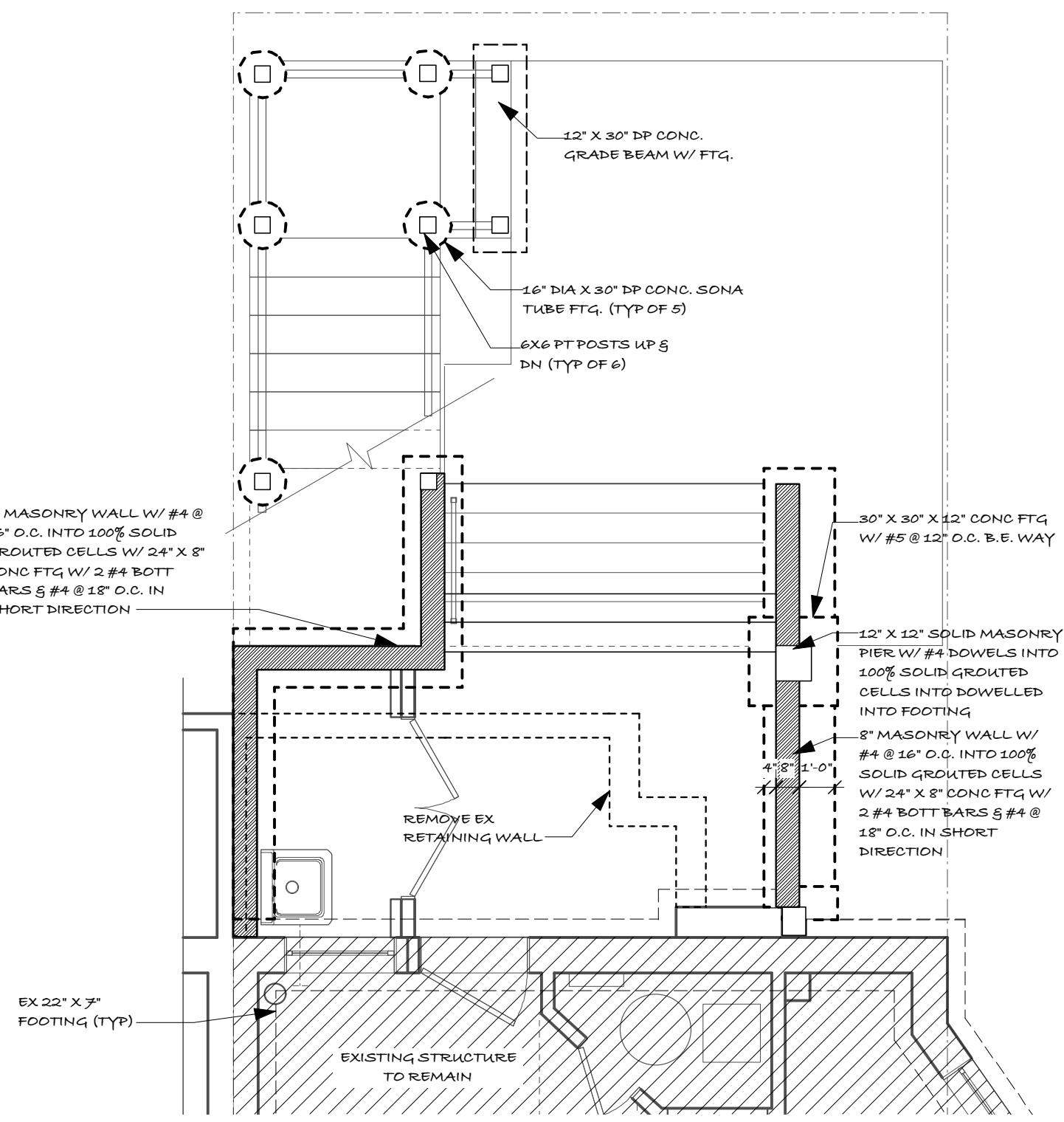
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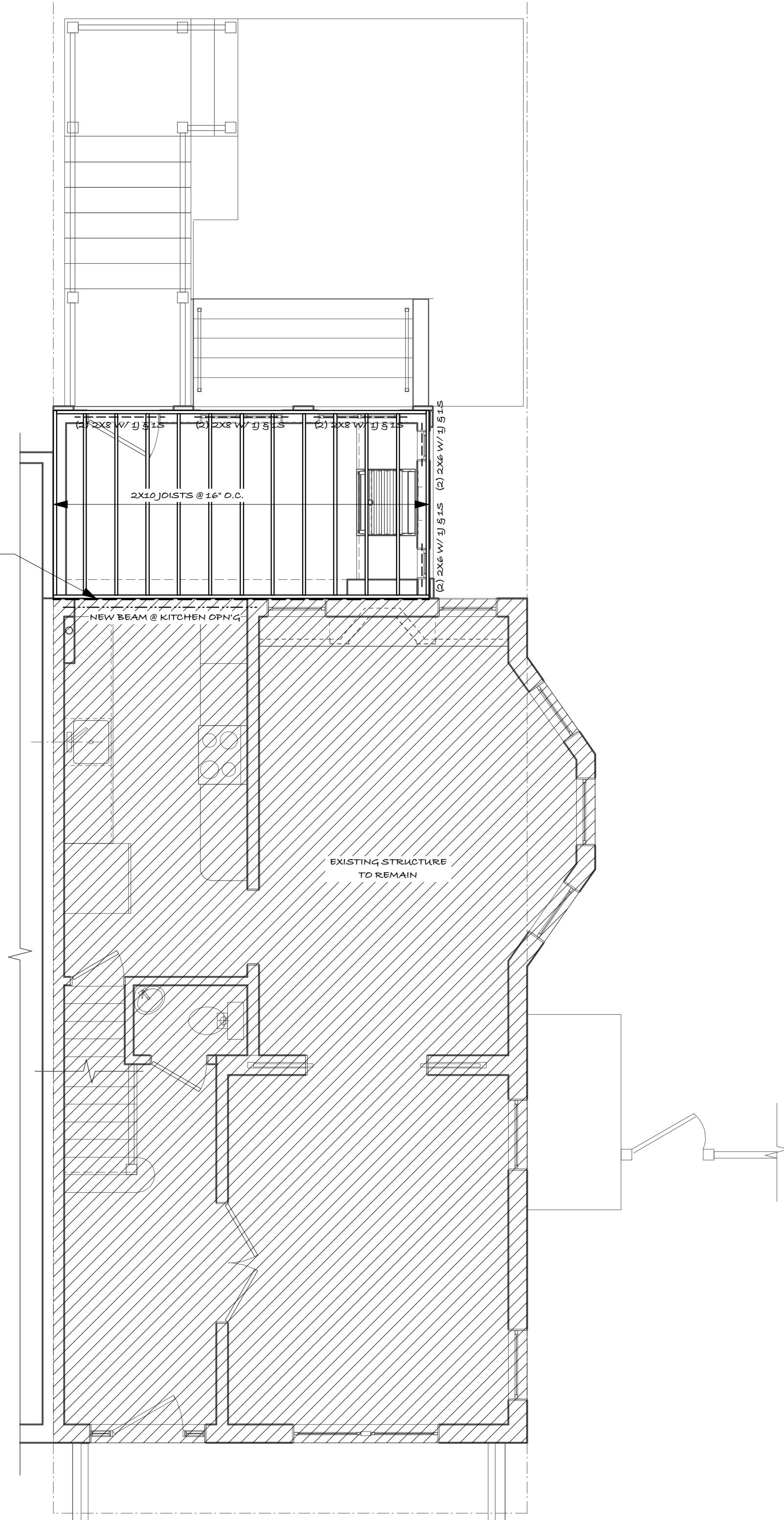
**2 FIRST FLOOR FRAMING PLAN**

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



**1 FOUNDATION PLAN**

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



**3 SECOND FLOOR FRAMING PLAN**

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

## STRUCTURAL 3RD FL & ROOF FRAMING

GALLAS RESIDENCE  
ADDITION & RENOVATION

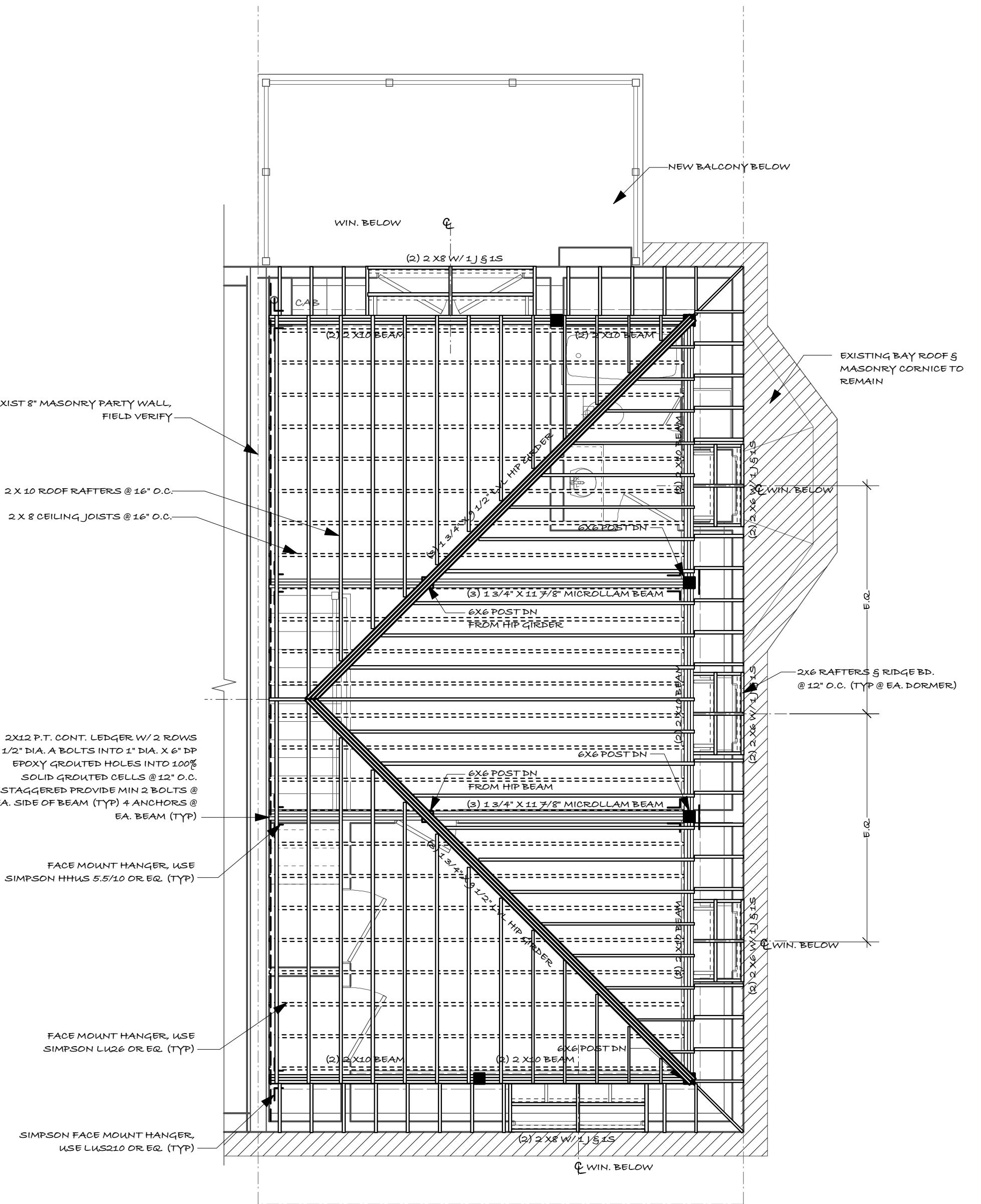
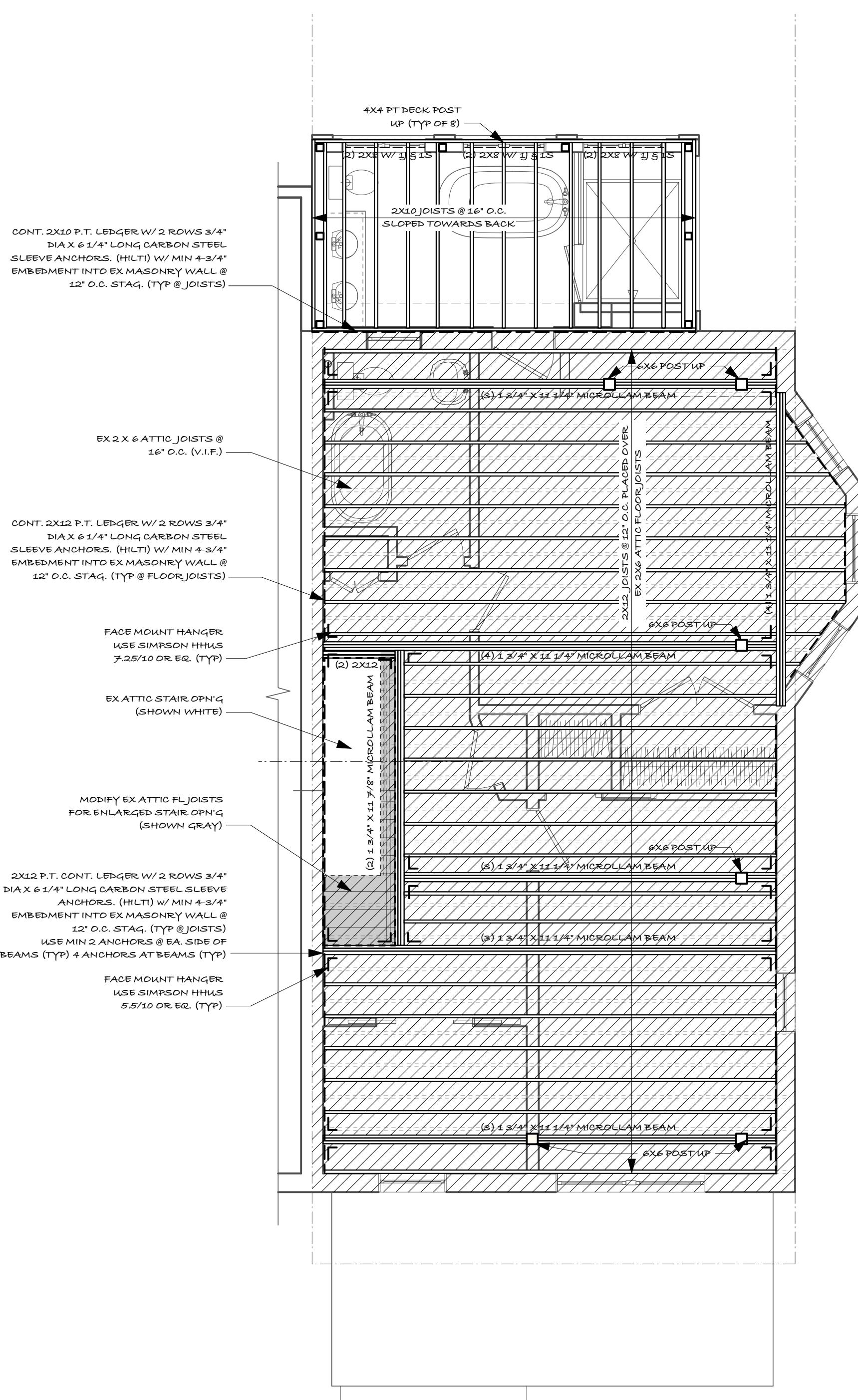
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SCALE: 1/4" = 1'-0"

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STRUCTURAL  
NOTES & DETAILS

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## STRUCTURAL SPECIFICATIONS

### 1. GENERAL

A. THE FOLLOWING LOADING WAS UTILIZED IN THE DESIGN BASED ON IRC 2012:

#### LIVE LOAD:

ROOF SNOW LOAD = 30 PSF; ROOMS OTHER THAN SLEEPING = 40 PSF, SLEEPING ROOMS = 30 PSF, STAIRS = 40 PSF, DECKS = 40 PSF, EXTERIOR BALCONIES = 60 PSF

#### DEAD LOAD:

A MINIMUM OF 12 PSF FOR FLOOR DEAD LOAD AND 15 PSF FOR ROOF 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; BASIC WIND-FORCE-RESISTING SYSTEM = BEARING WALL SYSTEMS WITH WOOD STRUCTURAL PANEL SHEATHING.

#### SNOW LOAD:

GROUND SNOW LOAD PG = 30 PSF; FLAT ROOF SNOW LOAD PF = 21 PSF.

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 **4000 PSF**. THIS VALUE IS TO BE VERIFIED IN THE FIELD PRIOR TO POURING.

#### SEE SOIL BEARING REPORT PROVIDED BY GEOTECH ENGINEERS, INC, 10 APRIL 2015.

B. BOTTOM OF ALL EXTERIOR FOOTINGS SHALL BE A MINIMUM OF 2'-6" BELOW FINISH 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 COMPAKTED TO MINIMUM 95% OF THE DRY MAXIMUM DENSITY AS DETERMINED BY ASTM D-1557 PRIOR TO PROCEEDING WITH THE FOOTING WORK.

### 3. CONCRETE

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:

3/4" 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. WOOD

A. COMPLY WITH THE "MANUAL OF HOUSE FRAMING" BY THE NATIONAL FOREST PRODUCTS ASSOCIATION, INCLUDING NAILING, FIRESTOPPING, ANCHORAGE, FRAMING, AND BRACING. DOUBLE JOISTS AT ALL OPENINGS (HEADER AND TRIMMER) AND UNDER ALL PARTITIONS PARALLEL TO THE JOISTS. 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 CANTS, NAILERS, BLOCKING, FURRING, STRIPPING, AND SIMILAR ITEMS IN CONNECTION WITH ROOFING, FLASHING, 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. MICROLAM BEAMS SHALL BE AS MANUFACTURED BY TRUSJOIST MACMILLAN, OR EQUAL, AND SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES:

BENDING STRESS "FB" = 2400 PSI

HORIZONTAL SHEAR "FV" = 285 PSI

MODULUS OF ELASTICITY "E" = 2,000,000 PSI

E. ALL ROOF RAFTERS SHALL BE CONNECTED AT EACH BEARING POINT WITH ONE PREFABRICATED GALVANIZED METAL CONNECTOR. EACH ANCHOR SHALL BE 18 GAUGE MINIMUM AND SHALL BE ATTACHED TO HAVE THE CAPACITY TO RESIST A 450# LOADING UNLESS OTHERWISE INDICATED OR REQUIRED.

F. 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.

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