



## HISTORIC PRESERVATION COMMISSION

Marc Elrich  
County Executive

Robert K. Sutton  
Chairman

Date: June 23, 2023

### MEMORANDUM

TO: Rabbiah Sabbakhan  
Department of Permitting Services

FROM: Dan Bruechert  
Historic Preservation Section  
Maryland-National Capital Park & Planning Commission

SUBJECT: Historic Area Work Permit #993041 - Building Addition

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The Montgomery County Historic Preservation Commission (HPC) has reviewed the attached application for a Historic Area Work Permit (HAWP). This application was **Approved** at the June 6, 2022 HPC meeting with revisions approved at the May 24, 2023 HPC meeting.

The HPC staff has reviewed and stamped the attached construction drawings.

THE BUILDING PERMIT FOR THIS PROJECT SHALL BE ISSUED CONDITIONAL UPON ADHERENCE TO THE ABOVE APPROVED HAWP CONDITIONS AND MAY REQUIRE APPROVAL BY DPS OR ANOTHER LOCAL OFFICE BEFORE WORK CAN BEGIN.

Applicant: Jennifer Gibson & Andreas Smith  
Address: 109 Elm Ave., Takoma Park

This HAWP approval is subject to the general condition that the applicant will obtain all other applicable Montgomery County or local government agency permits. After the issuance of these permits, the applicant must contact this Historic Preservation Office if any changes to the approved plan are made. Once work is complete the applicant will contact Dan Bruechert at 301.563.3400 or [dan.bruechert@montgomeryplanning.org](mailto:dan.bruechert@montgomeryplanning.org) to schedule a follow-up site visit.







DATE	ISSUE - REMARKS

I CERTIFY THAT THESE CONTRACT DOCUMENTS WERE PREPARED UNDER MY SUPERVISION OR APPROVED BY ME AND I AM A DULY LICENSED REGISTERED ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.

LICENSE #: 15216 EXPIRATION DATE: 10-31-2023

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**WALL LEGEND**

	EXISTING WALLS AND PARTITIONS TO REMAIN
	EXISTING WALLS AND PARTITIONS TO BE REMOVED
	NEW WOOD FRAMED WALLS AND PARTITIONS
	NEW LOW WALLS
	NEW CMU WALLS

- GENERAL NOTES:**
- DO NOT SCALE THE DRAWINGS
  - NEW CONSTRUCTION DIMENSIONED TO FRAMING (U.N.O.)
  - EXISTING CONSTRUCTION DIMENSIONED TO FINISH (U.N.O.)

**SPECIFICATIONS** (CONTINUED FROM SP100)

- 10.7 Ridge Vent: Contractor shall provide SHINGLEVENT II, by Air Vent, polyethylene, approximately 1 in thick, black. Source: Air Vent Inc.: Peoria Heights, IL, 1.800.AIR-VENT; or approved equivalent. Installation: Continuously on roof ridges, as shown on drawings and in accordance with manufacturers recommendations. Provide baffles between air permeable insulation and roof deck as required to maintain airflow from soffit vent to ridge. Ridge vents shall not be provided at conditioned attics.
- 10.8 Access Panels: Provide paint grade, hinged, metal access panels to all concealed mechanical, plumbing and electrical devices to include (but not limited to) dampers, valves, shut-offs, disconnects, transformers, etc.

**DIVISION 11: EQUIPMENT**

- 11.1 Kitchen
- 11.1.1 Cabinets, Hardware and Shelving: Owner to select, Contractor to provide and install. See Div. 17 for Allowance Summary. Submit shop drawings to the Architect for review/coordination. Cabinet(s) shall be 24" deep U.N.O.
- 11.1.2 Countertops: Owner to select, Contractor to provide and install. See Div. 17 for Allowance Summary.
- 11.1.3 Appliances: Owner to select, Contractor to provide and install. See Div. 17 for Allowance Summary.
- Slide-in refrigerator with icemaker/dispenser. Provide connection for icemaker. Salvage and reuse existing refrigerator.
  - Gas range
  - Exhaust hood and blower. Duct to exterior
  - Dishwasher
  - Disposal
- 11.2 Bathroom vanities
- 11.2.1 Bath #1 vanity & top: Owner to select, Contractor to provide and install. See Div. 17 for Allowance Summary.
- 11.2.2 Bath #2 vanity & top: Owner to select, Contractor to provide and install. See Div. 17 for Allowance Summary.
- 11.3 Other cabinetry/built-ins
- 11.3.1 Mudroom cubbies and bench: Contractor to provide and install. See interior elevations.

**DIVISION 15: PLUMBING / MECHANICAL** (See Sheet MP-100)

**DIVISION 16: ELECTRICAL** (See Sheet E-100)

**DIVISION 17: ALLOWANCE SUMMARY**

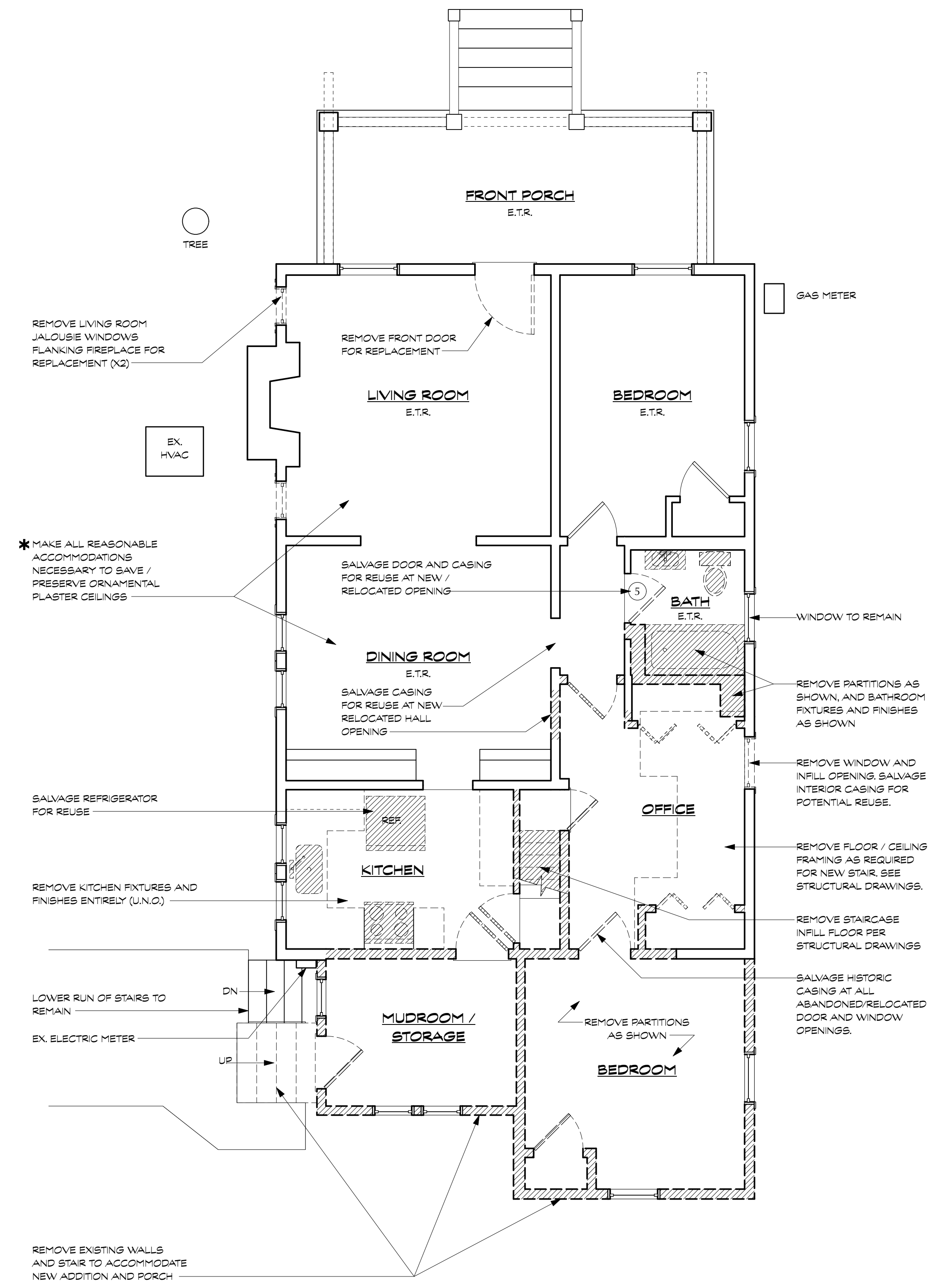
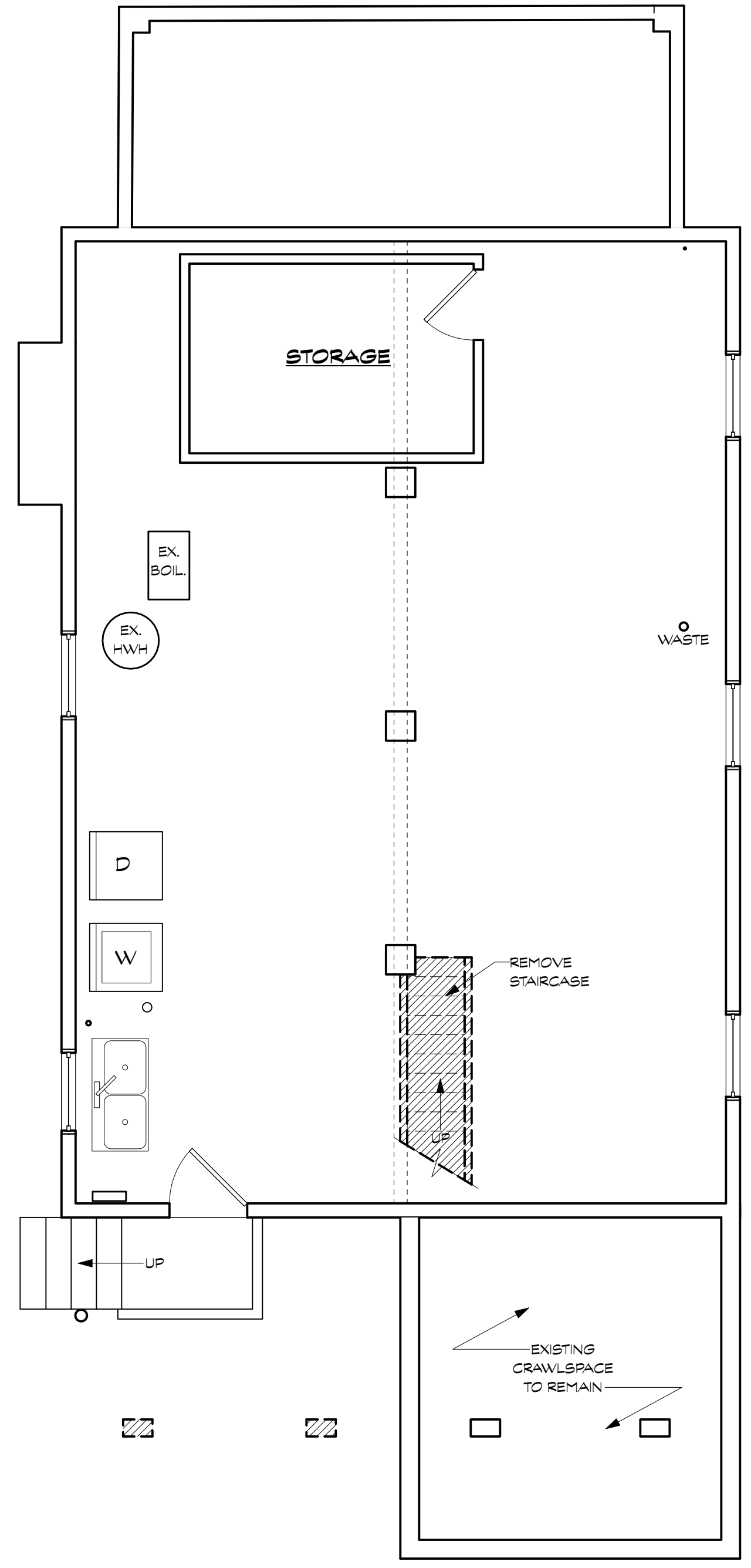
- The Contractor shall provide the following allowances (to be included in the base scope):
- \$2,500 Entry door and hardware (materials only, installation included in base bid).
  - \$6,000 Tile and grout (materials only, installation included in base bid). See Division 9 for locations.
  - \$2,000 Glass shower enclosure (materials and installation).
  - \$20,000 Kitchen cabinets (materials only, installation in base bid). See Division 11 and interior elevations.
  - \$7,500 Kitchen countertops (materials and installation). See Division 11
  - \$8,000 Kitchen appliances. See Division 11
  - \$4,000 Bathroom vanities (materials only, installation in base bid). See Division 11 and interior elevations.
  - \$5,000 Plumbing fixtures (materials only, installation in base bid). See Division 15 for locations.
  - \$4,000 Lighting fixture allowance (materials only, installation in base bid). Lighting allowance shall include all recessed and surface-mounted fixtures and associated lamps / bulbs. See drawings for locations.

(SPECIFICATIONS CONTINUED ON MP100)

APPROVED  
Montgomery County  
Historic Preservation Commission



**REVIEWED**  
By Dan.Bruechert at 12:36 pm, Jun 23, 2023



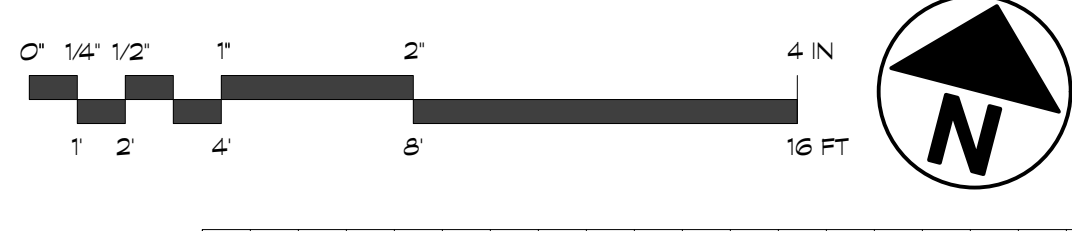
**GIBSON-SMITH ADDITION**

109 Elm Avenue, Takoma Park, MD 20912  
Project # 2115

21 JUNE 2023

DEMOLITION PLANS

**D100**







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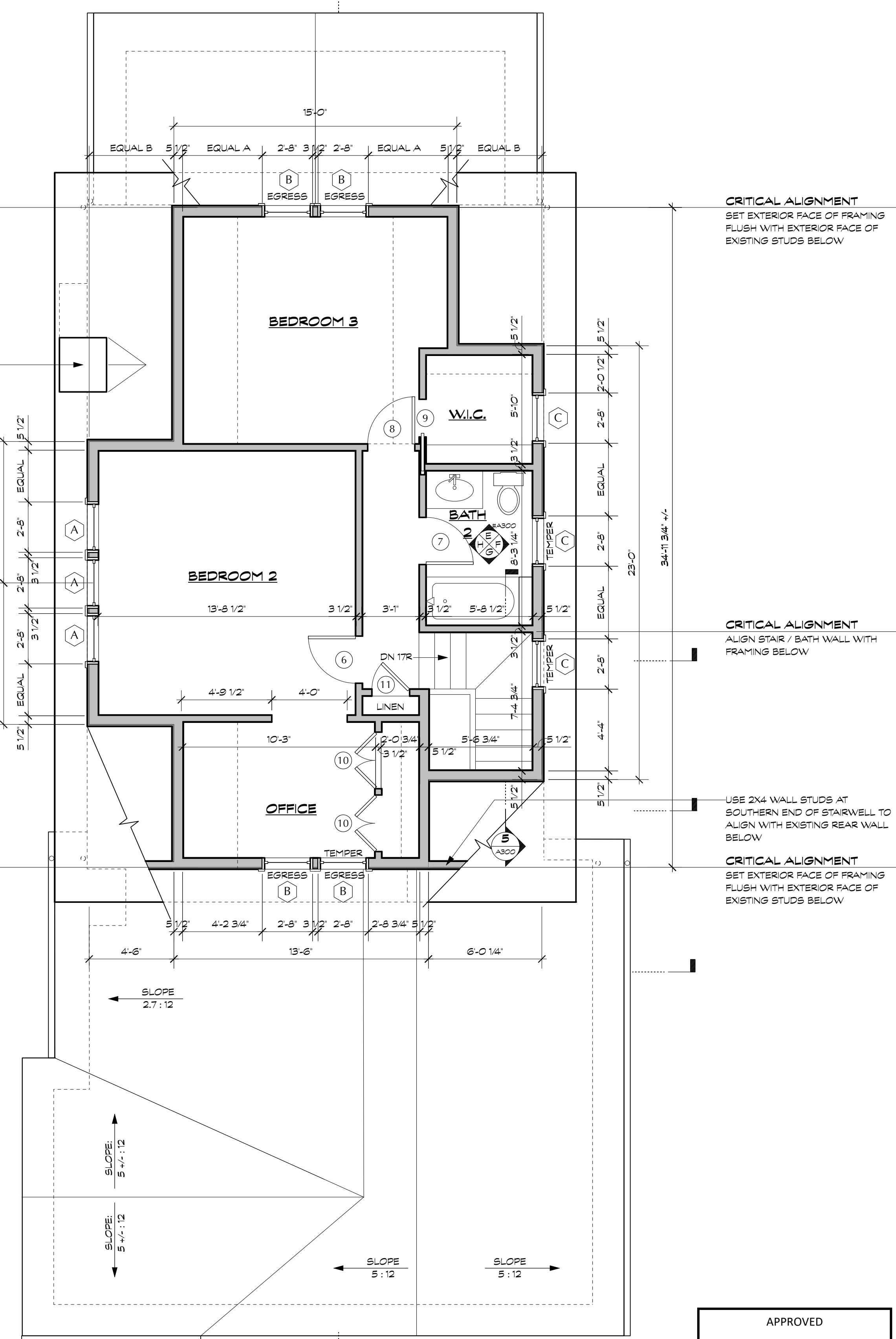
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15216 10-31-2023

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**WALL LEGEND**

	EXISTING WALLS AND PARTITIONS TO REMAIN
	EXISTING WALLS AND PARTITIONS TO BE REMOVED
	NEW WOOD FRAMED WALLS AND PARTITIONS
	NEW LOW WALLS
	NEW CMU WALLS

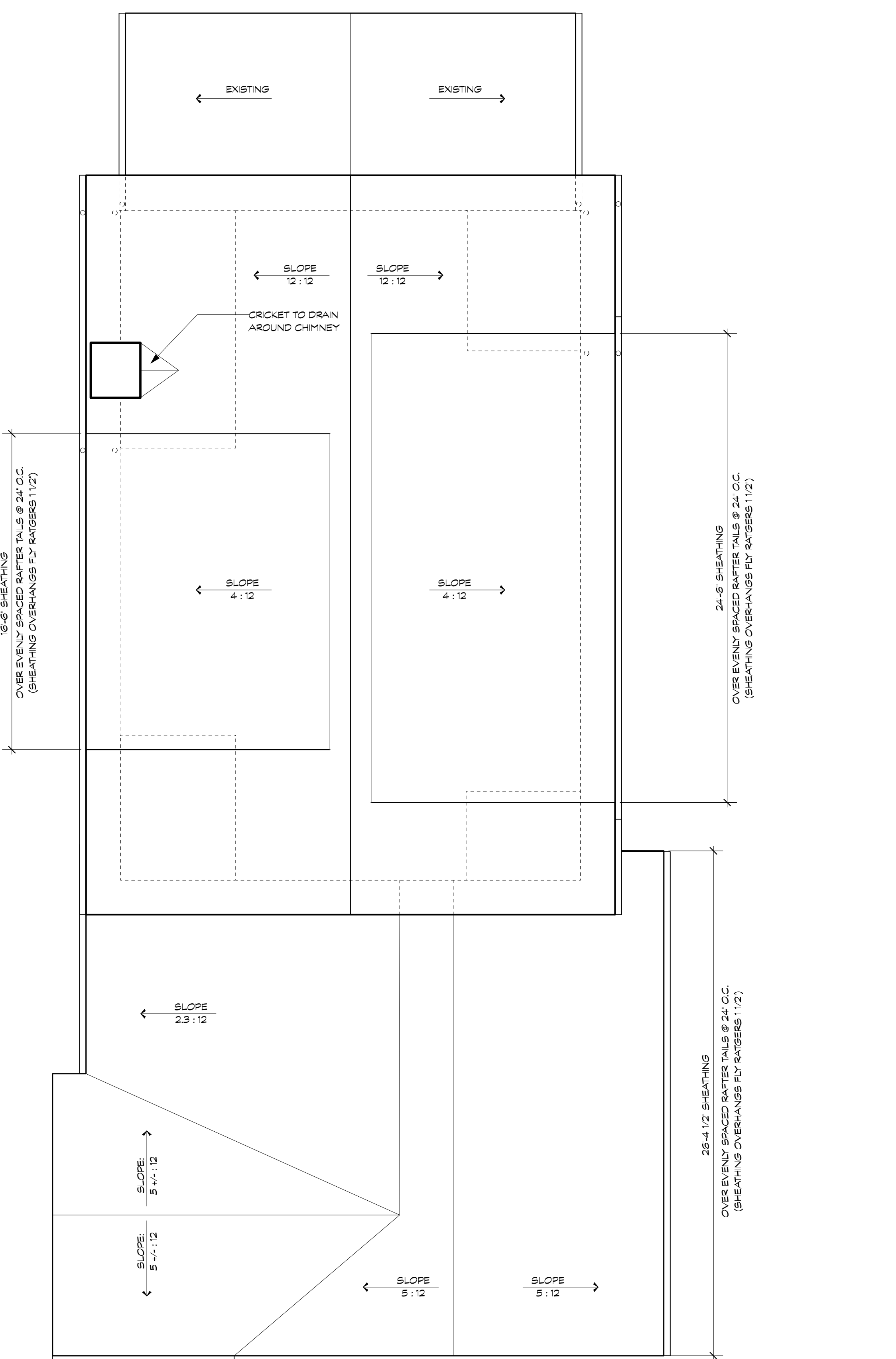
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- DO NOT SCALE THE DRAWINGS
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  - EXISTING CONSTRUCTION DIMENSIONED TO FINISH (U.N.O)



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

APPROVED  
Montgomery County  
Historic Preservation Commission

**REVIEWED**  
By Dan.Bruechert at 12:36 pm, Jun 23, 2023



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



**GIBSON-SMITH ADDITION**  
109 Elm Avenue, Takoma Park, MD 20912  
Project # 2115

21 JUNE 2023

**SECOND FLOOR & ROOF PLAN**  
**A101**



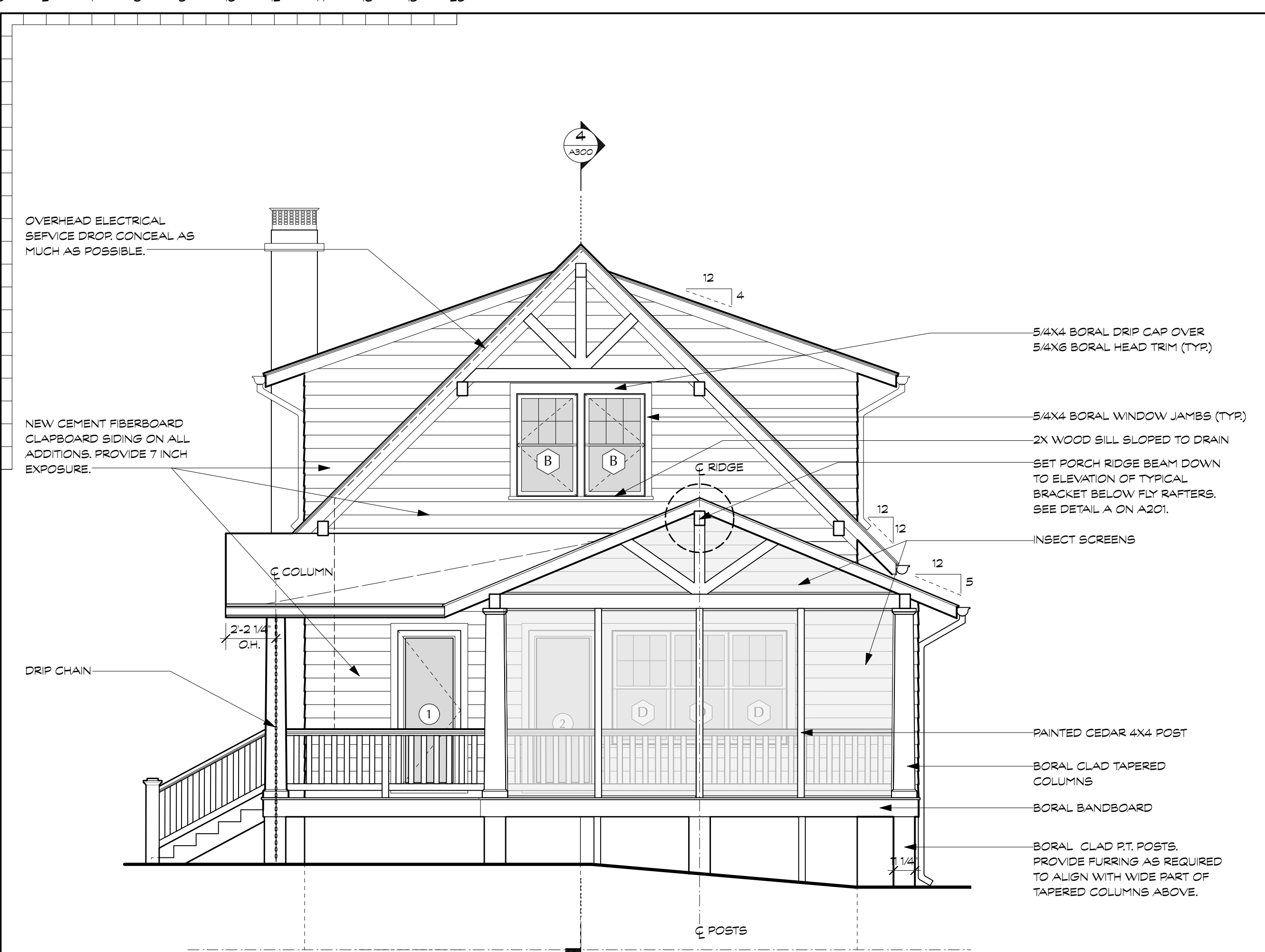


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FINISH SCHEDULE								
ROOM	FLOORING	BASE	WALLS	PAINT	CEILING	PAINT	TRIM	REMARKS
CELLAR	STORAGE / UTILITY	EX. CONCRETE	NA	E.T.R.	NA	NA	NA	NOTE 4 FOR EX. CONCRETE SLAB
FIRST FLOOR	LIVING ROOM	E.T.R.	E.T.R.	E.T.R.	E.T.R.	E.T.R.	E.T.R.	
	BEDROOM 1	E.T.R.	E.T.R.	E.T.R.	E.T.R.	E.T.R.	E.T.R.	
	BATH 1	NEW TILE	NEW TILE	NOTES 2 AND 4	SEMI-GLOSS	NOTE 4	SEMI-GLOSS	NOTE 4 ENLARGE BATH AND INSTALL SHOWER. NOTE 2
	DINING ROOM	EXISTING WOOD	NOTE 4	NOTE 4	FLAT	E.T.R.	E.T.R.	NOTE 4 RELOCATE DOORWAY AS SHOWN
	KITCHEN	NEW WOOD	MATCH EXISTING	GWB AND NOTE 3	SEMI-GLOSS	GWB	SEMI-GLOSS	MATCH EXISTING NOTE 3
	FAMILY ROOM	NEW WOOD	MATCH EXISTING	GWB	FLAT	GWB	FLAT	MATCH EXISTING
	HALL	NEW WOOD	MATCH EXISTING	GWB	EGGSHELL	GWB	FLAT	MATCH EXISTING
	MUDROOM	NEW WOOD	MATCH EXISTING	GWB	EGGSHELL	GWB	FLAT	MATCH EXISTING
	COVERED PORCH	DECK PLANKS	MATCH EXISTING	NA	SEMI-GLOSS	BEADBOARD	SEMI-GLOSS	
	SCREEN PORCH	DECK PLANKS	MATCH EXISTING	NA	SEMI-GLOSS	INVERTED T-11	SEMI-GLOSS	
SECOND FLOOR	BATH 2	NEW TILE	PAINTED 1x4	GWB NOTE 2	SEMI-GLOSS	GWB	FLAT	PAINTED 1x4 NOTE 2
	BEDROOM 2	NEW WOOD	PAINTED 1x4	GWB	FLAT	GWB	FLAT	PAINTED 1x4
	BEDROOM 3	NEW WOOD	PAINTED 1x4	GWB	FLAT	GWB	FLAT	PAINTED 1x4
	OFFICE	NEW WOOD	PAINTED 1x4	GWB	FLAT	GWB	FLAT	PAINTED 1x4
	HALL	NEW WOOD	PAINTED 1x4	GWB	EGGSHELL	GWB	FLAT	PAINTED 1x4
STAIR	NEW WOOD	PAINTED 1x4	GWB	EGGSHELL	GWB	FLAT	PAINTED 1x4	

NOTES:  
 1. PATCH TO MATCH EXISTING WOOD FLOOR AS NECESSITATED BY NEW WORK. SAND / REFINISH ENTIRE FLOOR TO UNIFORM APPEARANCE. TAKE CARE TO MINIMIZE SANDING AT ALL ORIGINAL / HISTORIC WOOD FLOORS.  
 2. TILE SHOWER SURROUND  
 3. TILE BACKSPLASH  
 4. PATCH / RESTORE / EXTEND EXISTING WHERE DISTURBED BY NEW WORK  
 5. REVIEW OPTIONS FOR LEVELING UNEVEN FLOOR WITH OWNER AND ARCHITECT

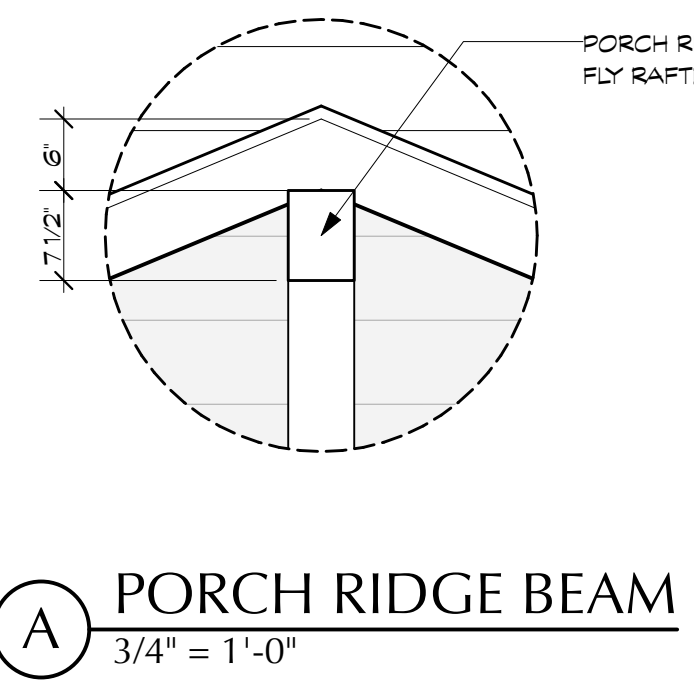
E.T.R. = EXISTING TO REMAIN  
 GWB = GYPSUM WALLBOARD (DRYWALL)

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

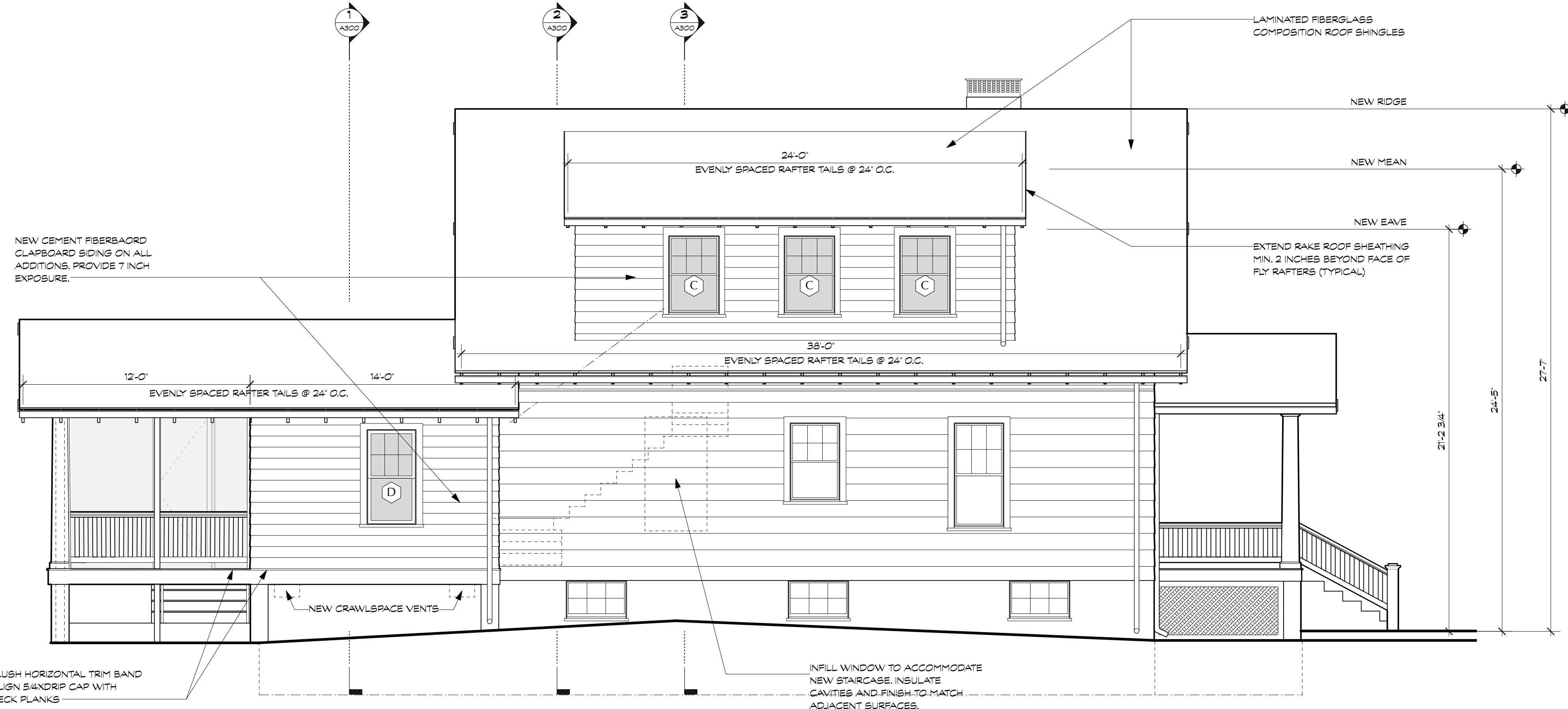
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Montgomery County  
Historic Preservation Commission

*Robert G. ...*

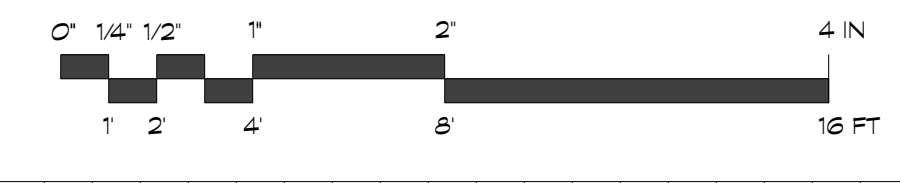
**REVIEWED**  
By Dan.Bruechert at 12:37 pm, Jun 23, 2023



**A PORCH RIDGE BEAM**  
3/4" = 1'-0"



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



**GIBSON-SMITH ADDITION**  
109 Elm Avenue, Takoma Park, MD 20912  
Project # 2115

21 JUNE 2023

PROPOSED ELEVATIONS  
**A201**

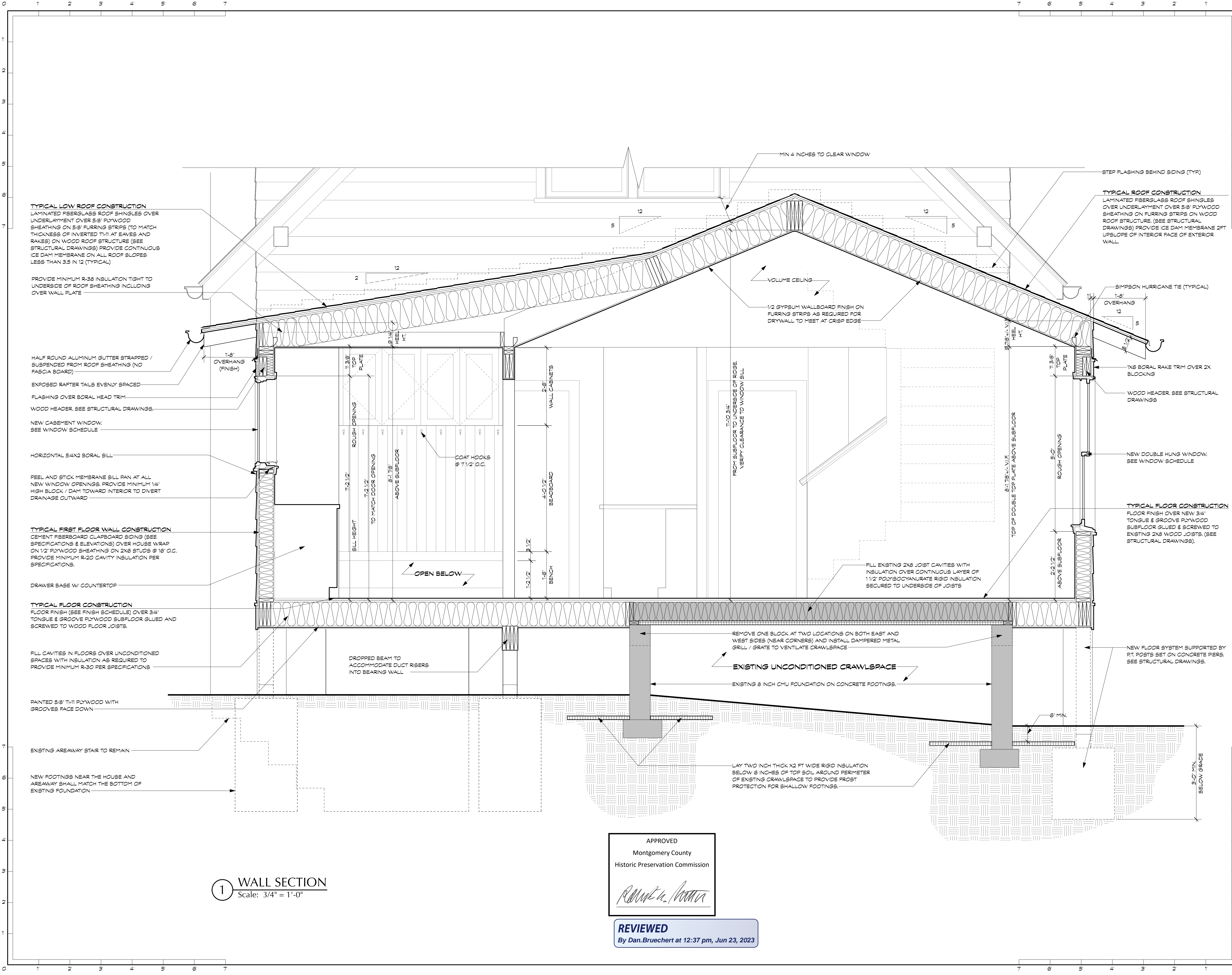


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**TYPICAL LOW ROOF CONSTRUCTION**  
LAMINATED FIBERGLASS ROOF SHINGLES OVER UNDERLAYMENT OVER 5/8" PLYWOOD SHEATHING ON 5/8" FURRING STRIPS (TO MATCH THICKNESS OF INVERTED T-11 AT EAVES AND RAKES) ON WOOD ROOF STRUCTURE (SEE STRUCTURAL DRAWINGS) PROVIDE CONTINUOUS ICE DAM MEMBRANE ON ALL ROOF SLOPES LESS THAN 3:5 IN 12 (TYPICAL)

PROVIDE MINIMUM R-38 INSULATION TIGHT TO UNDERSIDE OF ROOF SHEATHING INCLUDING OVER WALL PLATE

HALF ROUND ALUMINUM GUTTER STRAPPED / SUSPENDED FROM ROOF SHEATHING (NO FASCIA BOARD)  
EXPOSED RAFTER TAILS EVENLY SPACED  
FLASHING OVER BORAL HEAD TRIM  
WOOD HEADER, SEE STRUCTURAL DRAWINGS  
NEW CASEMENT WINDOW, SEE WINDOW SCHEDULE  
HORIZONTAL 5/4X2 BORAL SILL  
PEEL AND STICK MEMBRANE SILL PAN AT ALL NEW WINDOW OPENINGS, PROVIDE MINIMUM 1/4" HIGH BLOCK / DAM TOWARD INTERIOR TO DIVERT DRAINAGE OUTWARD

**TYPICAL FIRST FLOOR WALL CONSTRUCTION**  
CEMENT FIBERBOARD CLAPBOARD SIDING (SEE SPECIFICATIONS & ELEVATIONS) OVER HOUSE WRAP ON 1/2" PLYWOOD SHEATHING ON 2X6 STUDS @ 16" O.C. PROVIDE MINIMUM R-20 CAVITY INSULATION PER SPECIFICATIONS.

**TYPICAL FLOOR CONSTRUCTION**  
FLOOR FINISH (SEE FINISH SCHEDULE) OVER 3/4" TONGUE & GROOVE PLYWOOD SUBFLOOR GLUED AND SCREWED TO WOOD FLOOR JOISTS.

FILL CAVITIES IN FLOORS OVER UNCONDITIONED SPACES WITH INSULATION AS REQUIRED TO PROVIDE MINIMUM R-30 PER SPECIFICATIONS

PAINTED 5/8" T-11 PLYWOOD WITH GROOVES FACE DOWN

EXISTING AREAWAY STAIR TO REMAIN

NEW FOOTINGS NEAR THE HOUSE AND AREAWAY SHALL MATCH THE BOTTOM OF EXISTING FOUNDATION

**TYPICAL ROOF CONSTRUCTION**  
LAMINATED FIBERGLASS ROOF SHINGLES OVER UNDERLAYMENT OVER 5/8" PLYWOOD SHEATHING ON FURRING STRIPS ON WOOD ROOF STRUCTURE (SEE STRUCTURAL DRAWINGS) PROVIDE ICE DAM MEMBRANE 2FT UPSLOPE OF INTERIOR FACE OF EXTERIOR WALL.

VOLUME CEILING  
1/2 GYPSUM WALLBOARD FINISH ON FURRING STRIPS AS REQUIRED FOR DRYWALL TO MEET AT CRISP EDGE

**TYPICAL FLOOR CONSTRUCTION**  
FLOOR FINISH OVER NEW 3/4" TONGUE & GROOVE PLYWOOD SUBFLOOR GLUED & SCREWED TO EXISTING 2X6 WOOD JOISTS. (SEE STRUCTURAL DRAWINGS).

FILL EXISTING 2X6 JOIST CAVITIES WITH INSULATION OVER CONTINUOUS LAYER OF 1 1/2" POLYISOCYANURATE RIGID INSULATION SECURED TO UNDERSIDE OF JOISTS

REMOVE ONE BLOCK AT TWO LOCATIONS ON BOTH EAST AND WEST SIDES (NEAR CORNERS) AND INSTALL DAMPERED METAL GRILL / GRATE TO VENTILATE CRAWLSPACE

EXISTING UNCONDITIONED CRAWLSPACE

EXISTING 8 INCH CMU FOUNDATION ON CONCRETE FOOTINGS.

LAY TWO INCH THICK X2 FT WIDE RIGID INSULATION BELOW 6 INCHES OF TOP SOIL AROUND PERIMETER OF EXISTING CRAWLSPACE TO PROVIDE FROST PROTECTION FOR SHALLOW FOOTINGS.

NEW FLOOR SYSTEM SUPPORTED BY RT. POSTS SET ON CONCRETE PIERS, SEE STRUCTURAL DRAWINGS.

**1 WALL SECTION**  
Scale: 3/4" = 1'-0"

APPROVED  
Montgomery County  
Historic Preservation Commission

*Robert A. Norman*

**REVIEWED**  
By Dan.Bruechert at 12:37 pm, Jun 23, 2023

**GIBSON-SMITH ADDITION**  
109 Elm Avenue, Takoma Park, MD 20912  
Project # 2115

21 JUNE 2023

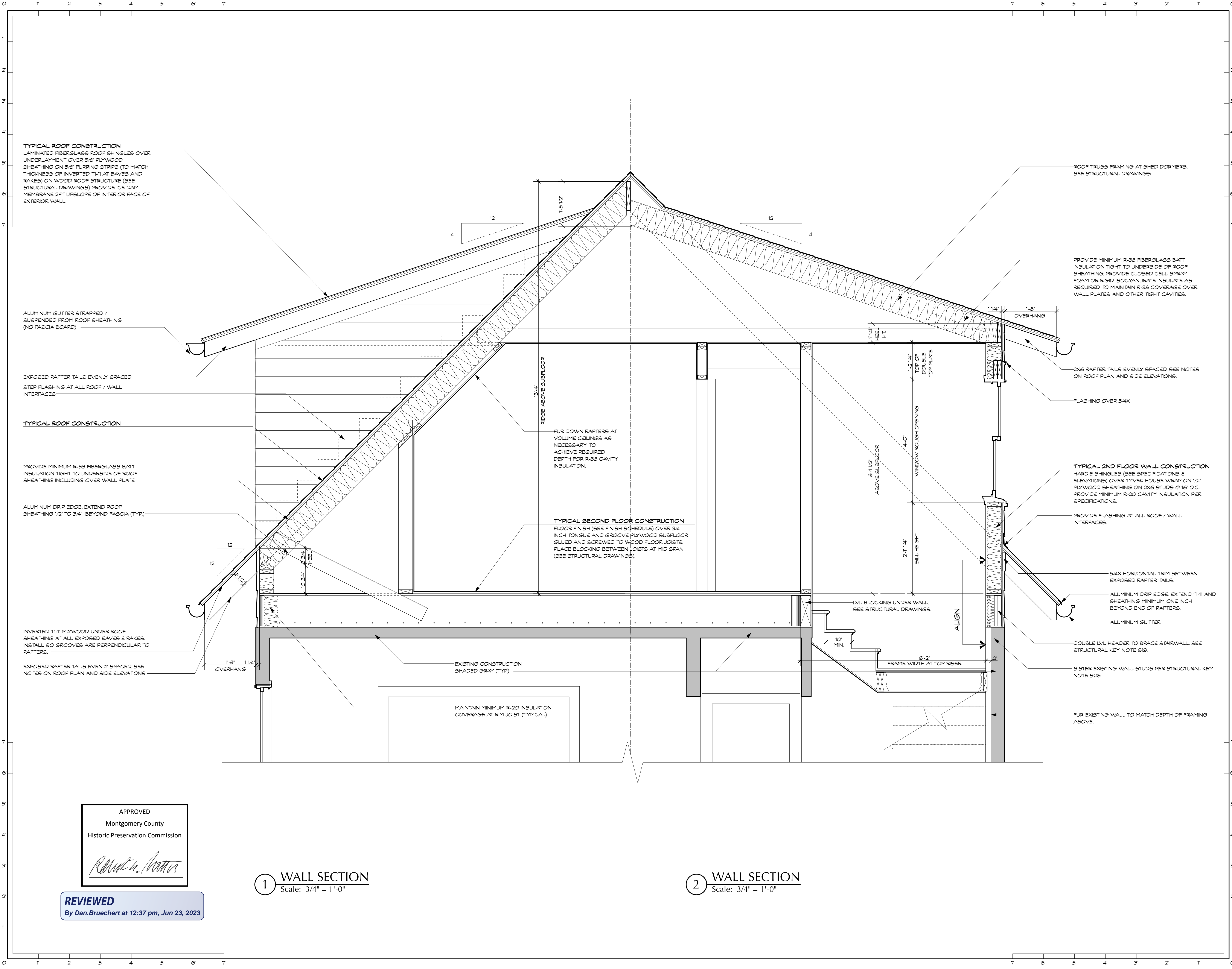
WALL SECTION  
**A301**

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**TYPICAL ROOF CONSTRUCTION**  
LAMINATED FIBERGLASS ROOF SHINGLES OVER UNDERLAYMENT OVER 5/8" PLYWOOD SHEATHING ON 5/8" FURRING STRIPS (TO MATCH THICKNESS OF INVERTED T-11 AT EAVES AND RAKES) ON WOOD ROOF STRUCTURE (SEE STRUCTURAL DRAWINGS) PROVIDE ICE DAM MEMBRANE 2FT UPSLOPE OF INTERIOR FACE OF EXTERIOR WALL.

ALUMINUM GUTTER STRAPPED / SUSPENDED FROM ROOF SHEATHING (NO FASCIA BOARD)

EXPOSED RAFTER TAILS EVENLY SPACED  
STEP FLASHING AT ALL ROOF / WALL INTERFACES

**TYPICAL ROOF CONSTRUCTION**

PROVIDE MINIMUM R-38 FIBERGLASS BATT INSULATION TIGHT TO UNDERSIDE OF ROOF SHEATHING INCLUDING OVER WALL PLATE

ALUMINUM DRIP EDGE, EXTEND ROOF SHEATHING 1/2" TO 3/4" BEYOND FASCIA (TYP.)

INVERTED T-11 PLYWOOD UNDER ROOF SHEATHING AT ALL EXPOSED EAVES & RAKES. INSTALL SO GROOVES ARE PERPENDICULAR TO RAFTERS.

EXPOSED RAFTER TAILS EVENLY SPACED, SEE NOTES ON ROOF PLAN AND SIDE ELEVATIONS

FUR DOWN RAFTERS AT VOLUME CEILINGS AS NECESSARY TO ACHIEVE REQUIRED DEPTH FOR R-38 CAVITY INSULATION.

**TYPICAL SECOND FLOOR CONSTRUCTION**  
FLOOR FINISH (SEE FINISH SCHEDULE) OVER 3/4" INCH TONGUE AND GROOVE PLYWOOD SUBFLOOR GLUED AND SCREWED TO WOOD FLOOR JOISTS. PLACE BLOCKING BETWEEN JOISTS AT MID SPAN (SEE STRUCTURAL DRAWINGS).

EXISTING CONSTRUCTION SHADED GRAY (TYP.)

MAINTAIN MINIMUM R-20 INSULATION COVERAGE AT RIM JOIST (TYPICAL)

ROOF TRUSS FRAMING AT SHED DORMERS, SEE STRUCTURAL DRAWINGS.

PROVIDE MINIMUM R-38 FIBERGLASS BATT INSULATION TIGHT TO UNDERSIDE OF ROOF SHEATHING. PROVIDE CLOSED CELL SPRAY FOAM OR RIGID ISOCYANURATE INSULATE AS REQUIRED TO MAINTAIN R-38 COVERAGE OVER WALL PLATES AND OTHER TIGHT CAVITIES.

2X6 RAFTER TAILS EVENLY SPACED SEE NOTES ON ROOF PLAN AND SIDE ELEVATIONS.

FLASHING OVER 5/4X

**TYPICAL 2ND FLOOR WALL CONSTRUCTION**  
HARDIE SHINGLES (SEE SPECIFICATIONS & ELEVATIONS) OVER TYVEK HOUSE WRAP ON 1/2" PLYWOOD SHEATHING ON 2X6 STUDS @ 16" O.C. PROVIDE MINIMUM R-20 CAVITY INSULATION PER SPECIFICATIONS.

PROVIDE FLASHING AT ALL ROOF / WALL INTERFACES.

5/4X HORIZONTAL TRIM BETWEEN EXPOSED RAFTER TAILS.

ALUMINUM DRIP EDGE, EXTEND T-11 AND SHEATHING MINIMUM ONE INCH BEYOND END OF RAFTERS.

ALUMINUM GUTTER

DOUBLE LVL HEADER TO BRACE STAIRWALL. SEE STRUCTURAL KEY NOTE S19.

SISTER EXISTING WALL STUDS PER STRUCTURAL KEY NOTE S26

FUR EXISTING WALL TO MATCH DEPTH OF FRAMING ABOVE.

APPROVED  
Montgomery County  
Historic Preservation Commission

**REVIEWED**  
By Dan.Bruechert at 12:37 pm, Jun 23, 2023

**1 WALL SECTION**  
Scale: 3/4" = 1'-0"

**2 WALL SECTION**  
Scale: 3/4" = 1'-0"

**GIBSON-SMITH ADDITION**

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Project # 2115

21 JUNE 2023

WALL SECTION  
**A302**

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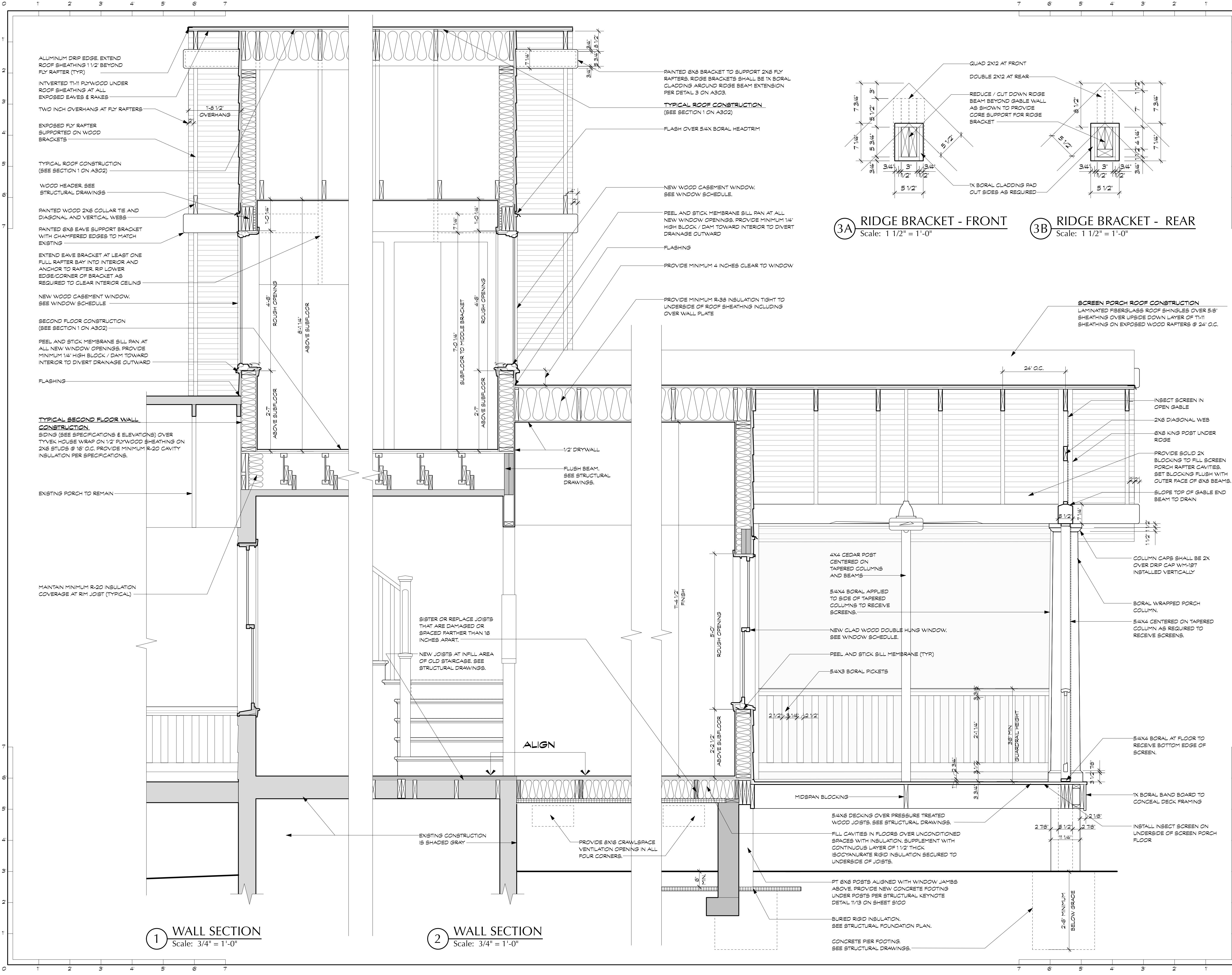
*Robert A. ...*

**REVIEWED**  
By Dan.Bruechert at 12:37 pm, Jun 23, 2023

**GIBSON-SMITH ADDITION**  
109 Elm Avenue, Takoma Park, MD 20912  
Project # 2115

21 JUNE 2023

WALL SECTIONS  
**A303**



**1 WALL SECTION**  
Scale: 3/4" = 1'-0"

**2 WALL SECTION**  
Scale: 3/4" = 1'-0"

**3A RIDGE BRACKET - FRONT**  
Scale: 1 1/2" = 1'-0"

**3B RIDGE BRACKET - REAR**  
Scale: 1 1/2" = 1'-0"

21 JUNE 2023









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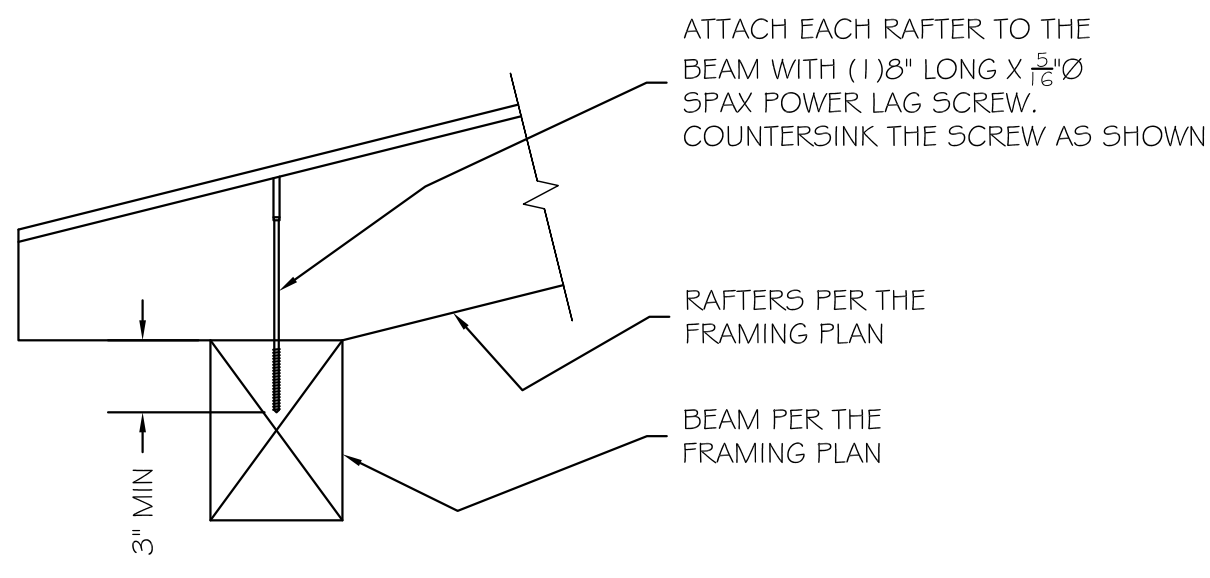
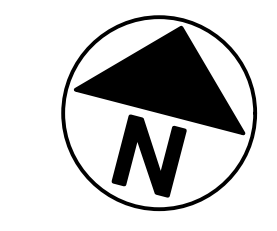
*Robert A. Norton*

**REVIEWED**  
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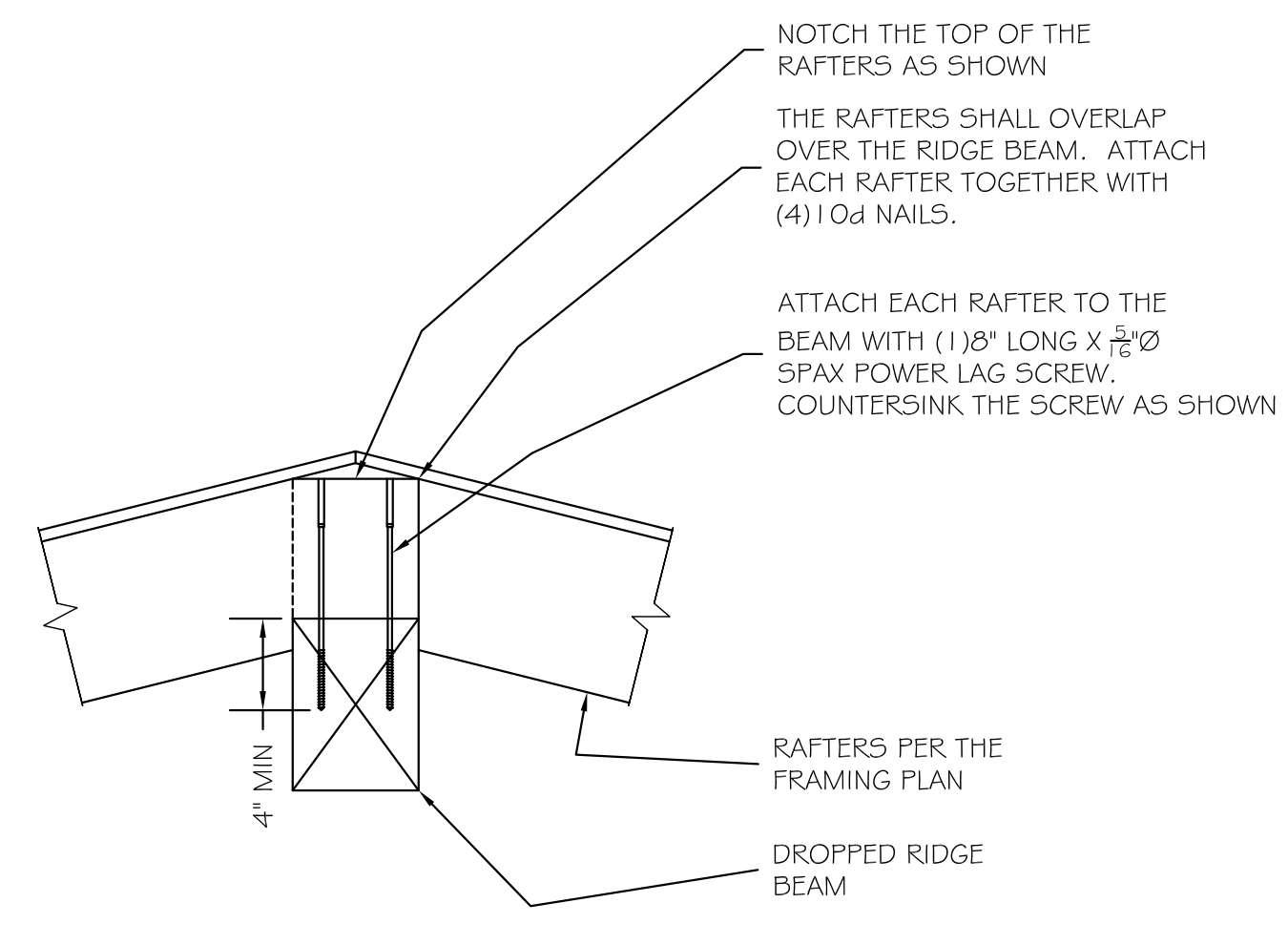
**SECOND FLOOR FRAMING PLAN**  
**S102**

21 JUNE 2023



**Rafter to Beam Detail (Porch)**

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



**Rafter to Ridge Beam Detail (Porch)**

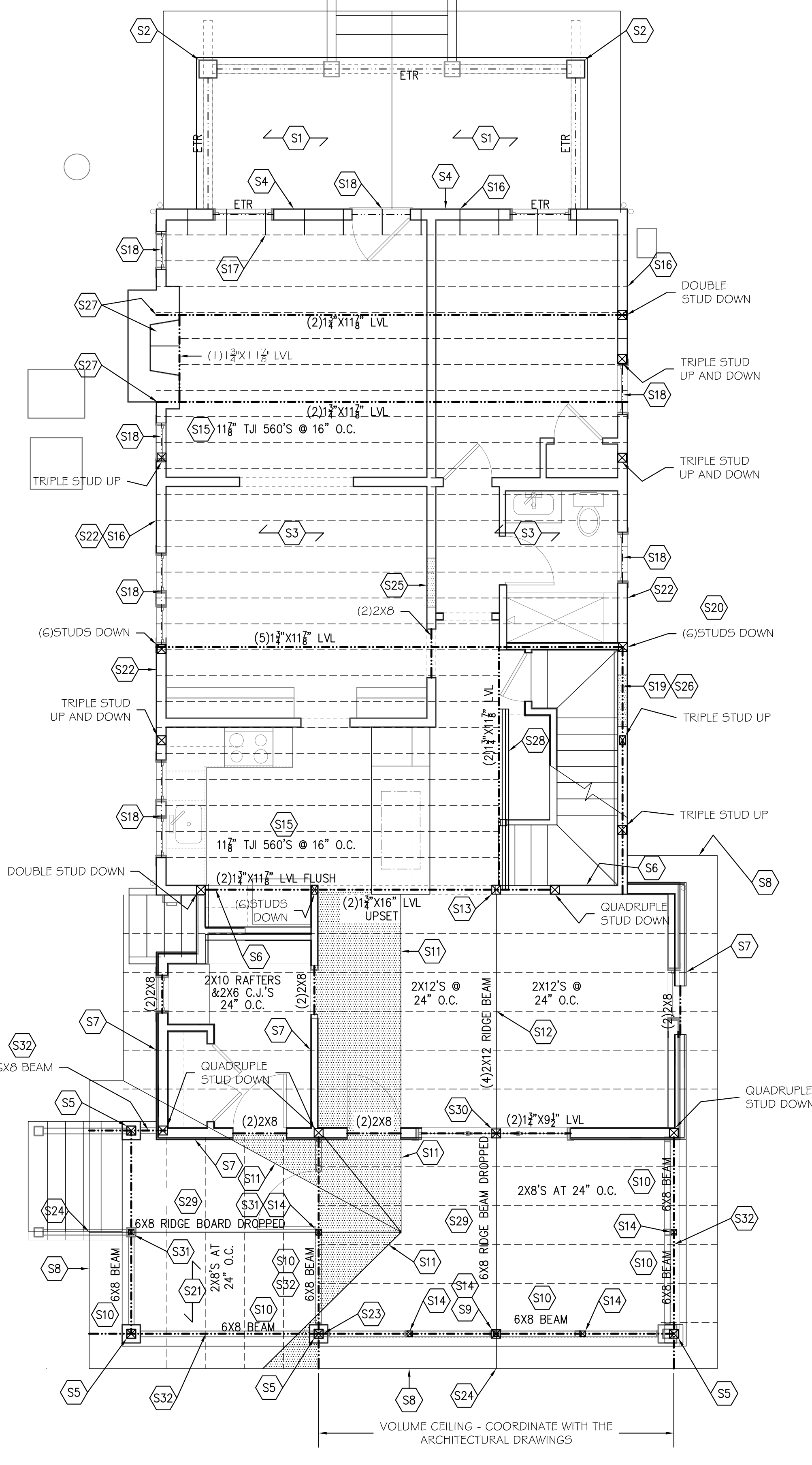
Scale: 1 1/2" = 1'-0"

**FRAMING NOTES:**

- THE BOTTOM OF ALL FOOTINGS SHALL BE 30" MINIMUM BELOW GRADE.
- ALL HEADERS ARE ASSUMED TO BE SUPPORTED BY A DOUBLE JACK AND SINGLE KING STUD, UNLESS NOTED OTHERWISE.
- PROVIDE SQUASH BLOCKING AS NEEDED BELOW ALL POSTS, COLUMNS, AND MULTIPLE STUDS.
- ATTACH ALL QUADRUPLE AND QUINTUPLE BEAMS TOGETHER WITH 2 ROWS OF 3/4" Ø BOLTS AT 16" O.C. STAGGERED.
- EPOXY BOLTS SHALL BE SIMPSON "SET". FOLLOW MANUFACTURERS INSTRUCTIONS FOR INSTALLATION AND THE INSTRUCTIONS OF ESR 1772. EPOXY BOLTS SHALL HAVE 6" EMBEDMENT WITH SCREEN TUBES WHEN PLACED IN HOLLOW MASONRY UNLESS NOTED OTHERWISE.
- CONTRACTOR SHALL PROVIDE TEMPORARY SHORING DURING CONSTRUCTION AS NEEDED FOR THE EXISTING STRUCTURAL ELEMENTS THAT WILL REMAIN.
- ALL STEEL ANGLE LINTELS SHALL BE LONG LEG VERTICAL (LLV). PROVIDE 6" BEARING FOR STEEL ANGLES ON SOLID MASONRY.
- ALL NAILS USED FOR EXTERIOR APPLICATIONS SHALL BE RING SHANK NAILS.
- ALL NAILS, HANGERS, BOLTS, AND SCREWS EXPOSED TO THE EXTERIOR SHALL BE GALVANIZED.
- ALL LUMBER EXPOSED TO EXTERIOR CONDITIONS SHALL BE TREATED SOUTHERN PINE #2.
- ALL SLAB CONCRETE SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH OF 4500PSI AND HAVE 6%±1% AIR ENTRAINMENT.
- WHEN ATTACHING EXISTING JOISTS TO FLUSH BEAMS USE OVERSIZED SIMPSON LUS HANGERS. ADD BLOCKING AS NEEDED TO FILL THE GAPS BETWEEN THE JOIST AND THE HANGER.
- THE CONTRACTOR SHALL SURVEY ALL EXPOSED MASONRY IN THE HOME AND POINT ANY DETERIORATED JOINT THAT IS DISCOVERED AND REPLACE ANY DETERIORATED BRICKS OR BLOCKS.
- TYPICAL JOIST HANGER SHALL BE A SIMPSON IUS OR SIMPSON LUS HANGER.
- TYPICAL RAFTER TO RIDGE HANGER SHALL BE A SIMPSON LSU.
- TYPICAL RAFTER TO FLUSH BEAM HANGER SHALL BE A SIMPSON L70 ON EACH SIDE OF THE RAFTER.
- TYPICAL POST TO BEAM CONNECTOR SHALL BE A SIMPSON LPC ON EACH SIDE.
- TYPICAL POST TO FLOOR PLATE CONNECTOR SHALL BE A SIMPSON L30 ON EACH SIDE OF THE POST.
- TYPICAL STRINGER TO FRAMING CONNECTOR SHALL BE A SIMPSON MTS15 ON EACH SIDE.
- TYPICAL DIMENSIONAL BEAM TO BEAM HANGER SHALL BE A SIMPSON HU MAX.
- TYPICAL LVL TO LVL BEAM HANGER SHALL BE A SIMPSON HHUS.
- SEE THE MONTGOMERY COUNTY TYPICAL DECK DETAILS FOR ITEMS NOT SHOWN ON THESE PLANS SUCH AS GUARD RAILS, STAIRS, LEDGER BOARD ATTACHMENTS ETC.
- PLACE A DOUBLE JOIST BELOW ALL WALLS THAT RUN PARALLEL TO THE FLOOR FRAMING. ALTERNATE: PLACE BLOCKING BETWEEN THE ADJACENT JOISTS BELOW THE WALL AT 16" O.C.
- ADD BLOCKING TO THE WEB OF THE ENGINEERED JOISTS AS NEEDED WHEN USING HURRICANE TIES OR JOIST HANGERS.

- S1 EXISTING ROOF FRAMING UNCHANGED.
- S2 EXISTING POST TO REMAIN.
- S3 EXISTING CEILING JOISTS TO REMAIN NEXT TO THE NEW FLOOR JOISTS. SISTER ANY DAMAGED JOIST THAT IS FOUND WITH A DOUBLE 2X4.
- S4 ATTACH THE 1ST EXISTING RAFTER TO THE NEW EXTERIOR WALL WITH (2)#8 SCREWS AT 6" O.C.
- S5 PT 6X6 POST DOWN. ATTACH THE POST TO THE BEAM THAT IS PERPENDICULAR TO THE RAFTERS WITH A SIMPSON CBT4Z. HANG THE BEAM THAT IS PARALLEL TO THE RAFTERS FROM THE 1ST BEAM WITH A SIMPSON CJT3Z CONCEALED HANGER.
- S6 2X10 OR 2X12 CLEAT FOR THE ROOF ATTACHED TO THE WALL WITH (2)#8 SCREWS AT 6" O.C. THE CLEAT SHALL MATCH THE SIZE OF THE RAFTERS.
- S7 ATTACH EACH RAFTER TO THE BEAM OR WALL WITH A SIMPSON H2.5A HURRICANE TIE. WHEN APPLICABLE, HOLD THE TOP OF THE RAFTERS UP AS NEEDED FOR INSULATION AND VENTILATION.
- S8 PLACE A FLY RAFTER AT THE EDGE OF THE ROOF PER THE ARCHITECTURAL DRAWINGS. THE MINIMUM SIZE OF THE FLY RAFTER SHALL BE A 2X6. THE FLY RAFTER SHALL BE WEATHER RESISTANT.
- S9 6X6 CEDAR POST BETWEEN THE RIDGE BEAM AND THE BEAM IN THE CEILING. ATTACH THE POST TO RIDGE BEAM AND THE BEAM IN THE CEILING WITH A SIMPSON CBT4Z.
- S10 THE 6X8 BEAM SHALL BE WEATHER RESISTANT LUMBER.
- S11 OVERBUILT ROOF. RIP THE UPPER RAFTERS AND PLACE THEM ON THE LOWER ROOF. ATTACH EACH RAFTER TO THE LOWER ROOF WITH (3)10d TOE NAILS AND A SIMPSON LSS0 ON EACH SIDE OF EACH RAFTER.
- S12 ATTACH EACH RAFTER TO THE RIDGE WITH A SIMPSON LSU HANGER. HOLD THE TOP OF THE RIDGE DOWN AS NEEDED FOR VENTILATION AND SO THAT THE BOTTOM OF THE RIDGE IS EVEN WITH OR DEEPER THAN THE BOTTOM OF THE RAFTERS. ATTACH THE TRIPLE RAFTERS TO THE RIDGE WITH A SIMPSON LUS HANGER. NOTCH THE BOTTOM OF THE TRIPLE RAFTER AS NEEDED TO FIT IN THE CONNECTOR.
- S13 PLACE A QUADRUPLE STUD BETWEEN THE RIDGE AND HEADER BELOW OR THE BEAM BELOW.
- S14 4X4 CEDAR POST DOWN. THE BEAM SHALL BE CONTINUOUS AT THE POST. ATTACH THE POST TO THE BEAM WITH A SIMPSON CBT2Z CONCEALED CONNECTOR.
- S15 PLACE BLOCKING BETWEEN THE JOISTS AT THE 1/3 POINTS OF THE SPAN.
- S16 SET THE JOISTS ON 2X4 SPACERS PLACED ON TOP OF THE EXISTING WALL. PROVIDE RAFTER TIES BETWEEN THE NEW RAFTERS AND THE NEW JOISTS WHEN APPLICABLE.

- S17 PLACE SOLID BLOCKING AT 24" O.C. IN THE 1ST BAY.
- S18 FLUSH DOUBLE 1 1/2"X11 1/8" LVL HEADER OVER THE EXISTING HEADER. CUT THE EXISTING CEILING JOISTS AS NEEDED TO HANG THE NEW JOISTS FROM THE HEADER.
- S19 PLACE A FLUSH DOUBLE 1 1/2" LVL HEADER ON TOP OF THE EXISTING WALL AT THE STAIR OPENING FOR LATERAL STABILITY. RIP THE LVL'S TO FILL THE SPACE. ATTACH THE PLY'S TOGETHER WITH (3) ROWS OF #10 SCREWS AT 4" O.C. DRIVEN FROM EACH SIDE OF THE BEAM.
- S20 SET THE SIDE TO SIDE BEAM ON THE WOOD POST. HANG THE FRONT TO BACK LVL INSIDE THE WALL FROM THE SIDE TO SIDE BEAM AND POST WITH A SIMPSON HUC CONCEALED FLANGE HANGER. NOTCH THE BOTTOM OF THE SIDE TO SIDE BEAM AS NEEDED TO FIT IN THE CONNECTOR.
- S21 2X8 CEILING JOISTS AT 24" O.C. PLACE A CEILING JOIST NEXT TO EACH RAFTER. ATTACH EACH CEILING JOIST TO EACH RAFTER WITH (8)10d NAILS. THE JOISTS AND THE RAFTERS FORM A SELF SUPPORTING ROOF.
- S22 DECORATIVE EAVE PER THE TYPICAL DETAIL.
- S23 HANG EACH SIDE TO SIDE BEAM FROM THE FRONT TO BACK BEAM WITH A SIMPSON HUC CONCEALED FLANGE HANGER.
- S24 EXTEND THE RIDGE SO THAT IT FORMS AN OUTLOOK BRACKET FOR THE FLY RAFTERS PER THE ARCHITECTURAL DRAWINGS. ATTACH EACH FLY RAFTER TO THE LOOK OUT BRACKET WITH (3)#10 TOE SCREWS WITH 2" MINIMUM EMBEDMENT IN THE BRACKET.
- S25 INFILL THE EXISTING WALL WITH 2X STUDS AT 16" O.C. USE STUDS THAT MATCH THE WIDTH OF THE EXISTING WALL STUDS.
- S26 SISTER EACH EXISTING WALL STUD AT THE NEW STAIRS WITH A 2X AS NEEDED SO THAT THE STUDS ARE CONTINUOUS FROM THE EXISTING SILL PLATE ON THE FOUNDATION WALL TO THE 1ST FLOOR CEILING. USE STUDS THAT MATCH THE SIZE OF THE EXISTING WALL STUDS.
- S27 PLACE THE LVL HEADER ON THE STRUCTURAL PORTION OF THE FIRE PLACE. INFILL THE FLOOR IF NEEDED BETWEEN THE HEADER AND THE CHIMNEY.
- S28 PAD THE LVL BEAM WITH MORE LVL'S AS NEEDED TO ALLOW THE 2ND FLOOR TO EXTEND PAST THE OPENING. ATTACH THE PADDED LVL'S TO THE DOUBLE LVL BEAM WITH 3/4" Ø BOLTS AT 16" O.C. TOP AND BOTTOM STAGGERED. HANG THE EXISTING CEILING JOISTS FROM THE BEAM WITH A SIMPSON MTS12 ON ONE SIDE OF THE EXISTING CEILING JOIST.
- S29 NOTCH THE RAFTERS AND PLACE THEM ON THE RIDGE BEAM. ATTACH EACH RAFTER TO THE RIDGE WITH A 3/8" Ø SPAX POWER LAG SCREWS. THE SCREWS SHALL HAVE 4" MINIMUM EMBEDMENT IN THE RIDGE BEAM.



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





**Structural Notes**

- All work and materials to comply with the requirements of the 2018 IBC and IRC codes as revised by Montgomery County
- Codes: the following design standards are applicable by reference:  
TMS 402-2016 Building Code Requirements for Masonry Structures.  
AWC NDS -2018 - Wood Frame Construction Manual for One and Two Family Dwellings.  
ACI 318-14 Building Code Requirements for Reinforced Concrete  
AISC - 360-16 Specifications for Steel Buildings.
- Foundations: footings, underpinning and slab on grades are designed to bear on native soil type SM or SC with an allowable bearing pressure of 2000 psf. A qualified soil-bearing inspector prior to placement of concrete shall verify all bearing values.
- Structural steel:
  - All structural steel, including detail material shall conform to ASTM A572 Fy = 50ksi, U.N.O.
  - All structural tubing shall conform to ASTM A500, gr.B
  - All steel pipe shall be ASTM A53, type E or S, grade B
  - All welders shop and field, shall be certified. Use E70xx electrodes only.
  - All steel exposed to weather and exterior masonry support shall receive one shop coat of corrosion-inhibiting primer.
  - Detailing, fabrication and erection shall be in accordance with AISC. Adequately brace all steel against lateral loads during erection.
  - All exterior structural steel shall receive rust preventative paint.
  - Connections:
    - All beam connections shall be simple shear connections, U.N.O. Where no reaction is provided, the beam shall be assumed to carry 120 % of the allowable uniform load in Kips for beams laterally supported, as given in the AISC steel construction manual.
    - Except as noted, all fasteners shall be 3/4" diameter ASTM A325 bolts, designed to act in bearing type connections with threads included.
- Lumber:
  - Lumber shall be SPF #2 with a min. Fb = 875psi Min. Fv = 135psi and min. E = 1,400,000psi.
  - LVL and PSL shall have a min. Fb = 2850psi; Fv = 285psi; E = 2,000,000psi.
  - Floor decking shall be 3/4" APA rated decking. Roof decking shall be 5/8" APA rated decking. Wall sheathing shall be 7/8" APA rated sheathing. Glue and screw the floor decking to the joists.
  - Interior wood walls shall be 2x4 studs at 16" O.C. and exterior walls shall be 2x4 studs at 16" O.C. with a double top plate and single bottom plate. Provide solid blocking at the midheight of each wall and at a minimum of 48" O.C. vertically.
  - Provide double joists under all walls that run parallel to floor framing.
  - Nail all multiple members together per the manufacturer's recommendations and at a minimum use 2-10d nails at 6" O.C. stagger sides that nails are driven from.
  - Provide bridging at center of all joist spans Exceeding 8'-0" and at 1/3 points of all joist spans exceeding 16'-0". Provide solid blocking at all bearing points on top of walls or beams.
  - Provide solid blocking below all wood posts.
  - All posts shall have Simpson Cap and Base Plates typ.
  - All joists shall have Simpson Hangers where applicable.
  - Glue all multiple studs together. Nail together with 2-10d nails at 3" O.C. Stagger the sides of the studs that the nails are driven from.
  - All lumber in contact with masonry or concrete or within 8" of soil shall be pressure treated. All lumber to conform to IRC R317 and R318 for protection against corrosion and termite damage.
  - All lumber shall be kiln dried. Store lumber on site in such a manner as to prevent the seepage of water into the wood.
  - Wood Lintels shall be as follows:  
Opening  $\leq$  3'-0" - 2-2x6  
3'-0" < Opening  $\leq$  5'-0" - 2-2x8  
5'-0" < Opening  $\leq$  8'-0" - 2-2x10  
Greater than 8'-0" - See plans

- Fasteners:
  - All prefabricated angles, bearing plates, and joist hangers shall be installed per the manufacturer recommendations.
  - Follow the manufacturer recommendations for setting epoxy bolts.
  - Expansion bolts shall be rawl power studs.
- Masonry:
  - Masonry construction shall be in conformance with the applicable sections of TMS 402-2016 "Building Code Requirements for Masonry Structures."
  - Concrete masonry units shall be hollow load bearing units (ASTM C90) grade n-1 with a net strength of 2000psi and F'm - 1500psi.
  - All joints to be filled solid with mortar.
  - Mortar to comply with ASTM C270 (type M or S).
  - Provide corrugated masonry ties between brick facia and wood walls or cmu walls at 16" O.C. in each direction.
  - Provide 9ga truss style joint reinforcement @ 16" O.C. vertically.
  - Lintels shall be as follows:  
Opening  $\leq$  3'-0" - L4x3 1/2 LVL/ 4" of wall  
3'-0" < Opening  $\leq$  7'-0" - L6x3 3/4 LVL/ 4" of wall.  
Opening > 7'-0" - See Plan
- Cast in place concrete:
  - Concrete construction shall be in conformance with the applicable sections of ACI 318-14, "Part 3 - Construction Requirements."
  - Concrete shall have a minimum compressive strength at 28 days of 3000psi, UNO (unless noted otherwise).
  - All concrete shall be placed with a slump of 4" ( $\pm$  1/2")
  - All concrete shall be normal weight, UNO.
  - All concrete exposed to weather shall have 6%  $\pm$  1% entrained air.
  - Contractor shall pour extra concrete to account for the deflection of the formwork to provide a flat finished surface.
  - Concrete cover for reinforcement shall be:  
Columns and beams 1 1/2"  
Slabs 3/4"  
Footings 3"
- Reinforcement:
  - Reinforcing bars shall be deformed bars conforming to ASTM A615, grade 60 (Fy = 60ksi)
  - Welded wire fabric (w/f) shall conform to ASTM a185. Lap edges of wire fabric at least 6" in each direction.
- Dimensions: The contractor shall field verify all dimensions prior to fabrication of structural components.
- Coordination: The contractor shall coordinate all sleeves, duct openings and holes between trades. Any conduits or pipes embedded in concrete must be in accordance with ACI 318-14, chapter 6. Where sleeves are closely spaced in a group, the group shall be treated as an opening and reinforced accordingly. Submit drawings showing all opening sizes and locations for the approval by the structural engineer.

<b>Dead Loads:</b>	
SPF #2 -	25 PCF
1/2" Decking -	1.7 PSF
3/4" Decking -	2.5 PSF
Asphalt Shingles -	2.5 PSF
Slate Shingles -	15 PSF
1/2" Drywall -	2.2 PSF
Insulation -	1.5 PSF
Siding -	2.0 PSF
CMU -	87 PCF
Brick -	130 PCF
<b>LIVE LOADS:</b>	
DECK:	40PSF
ATTIC:	20PSF
FLOOR:	40PSF
BALCONY:	60PSF
BEDROOM:	40PSF
ROOF:	30PSF
<b>WIND LOADS:</b>	
WIND SPEED:	Vult = 115mph; Vasd = 89mph
WIND LOAD IMPORTANCE FACTOR:	1.0
WIND EXPOSURE FACTOR:	B
WIND DESIGN PRESSURE:	11PSF
<b>SNOW LOADS:</b>	
GROUND SNOW LOAD (PG):	30PSF
FLAT ROOF SNOW LOAD(PF):	30PSF
SNOW EXPOSURE FACTOR (CE):	0.9
SNOW IMPORTANCE FACTOR (I):	1.0
<b>Deflection Limitations:</b>	
Rafters:	L/240
Interior Walls and Partitions:	H/180
Floors and Plastered Ceilings:	L/360
All Other Structural Members:	L/240
Ext. Walls with plaster or stucco finishes:	L/360
Ext. Walls - Wind Loads with Brittle Finishes:	L/240
Ext. walls - Wind Loads with Flexible Finishes:	L/120
<b>SEISMIC DESIGN DATA:</b>	
SEISMIC IMPORTANCE FACTOR (Ie):	1.0
SPECTRAL RESPONSE ACCELERATIONS:	
(Ss):	2.0%
(S1):	8.0%
<b>SPECTRAL RESPONSE COEFFICIENTS:</b>	
(Sds):	33%
(Sd1):	18.7%
SEISMIC DESIGN CATEGORY:	B
SEISMIC SITE CLASSIFICATION:	D
SEISMIC COEFFICIENT (Cs):	0.05
SEISMIC MODIFICATION FACTOR (R):	6.5
BASE SHEAR:	1.95k
ANALYSIS PROCEDURE:	EQUIV. LATERAL FORCE
BASIC SFRS:	LIGHT FRAMED WALLS

APPROVED  
Montgomery County  
Historic Preservation Commission

*Robert H. Porter*

**REVIEWED**  
By Dan.Bruechert at 12:38 pm, Jun 23, 2023

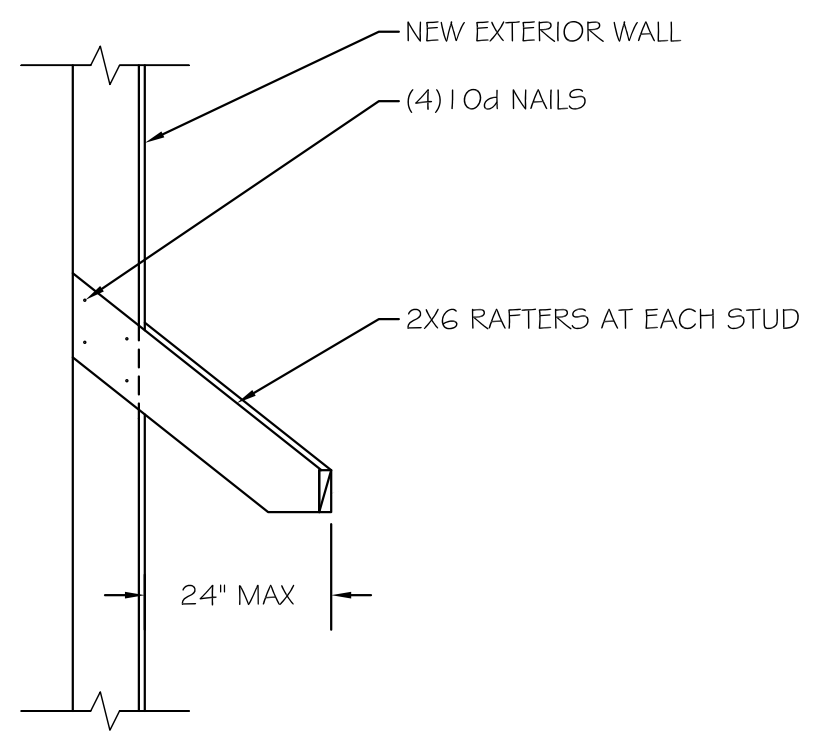
**BENNETT FRANK MCCARTHY**  
architects, inc.  
1400 Spring Street, Suite 320, Silver Spring, Maryland 20910-2755  
(301) 585-2222 www.bfmarch.com fax (301) 585-8917

DATE	ISSUE - REMARKS

I CERTIFY THAT THESE CONTRACT DOCUMENTS WERE PREPARED UNDER MY SUPERVISION OR APPROVED BY ME AND I AM A DULY LICENSED STRUCTURAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.

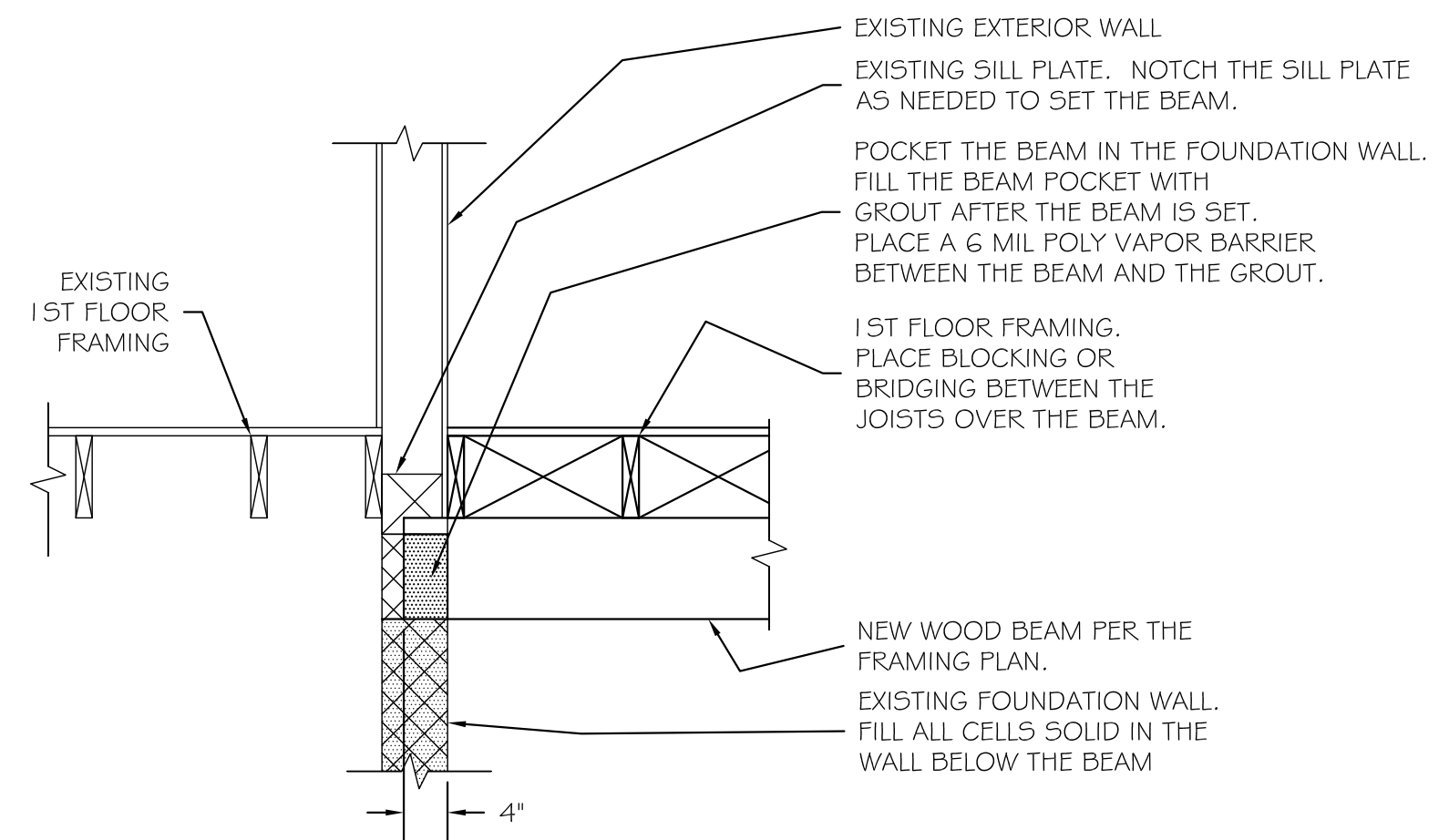
LICENSE #: 15216 EXPIRATION DATE: 10-31-2023

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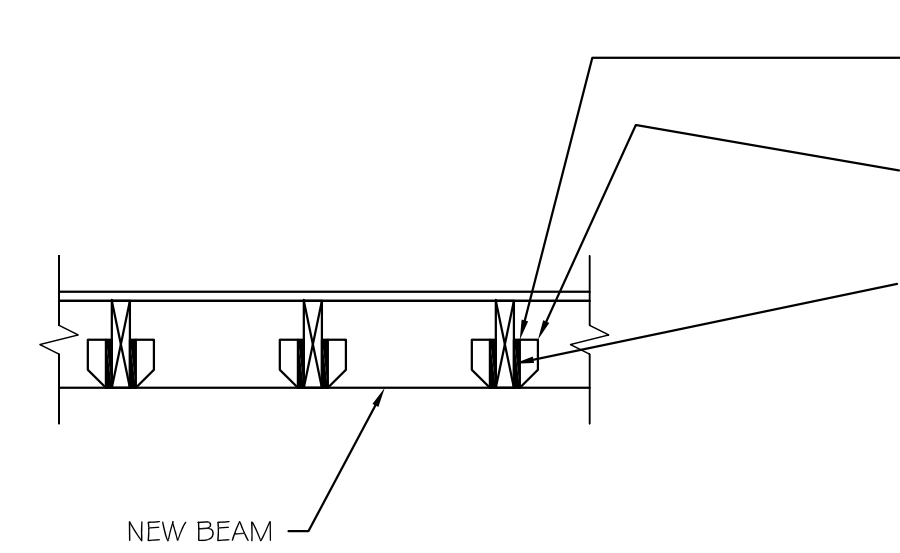
**Typical Details at Decorative Eave**

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



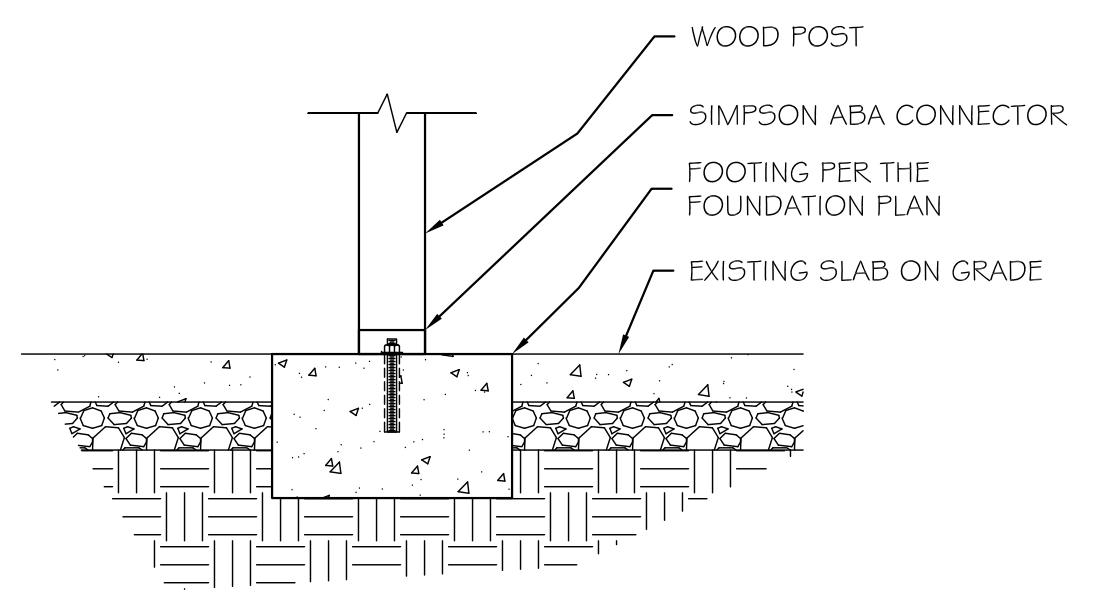
**Typical Wood Beam to Existing Terracotta Foundation Wall Detail**

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



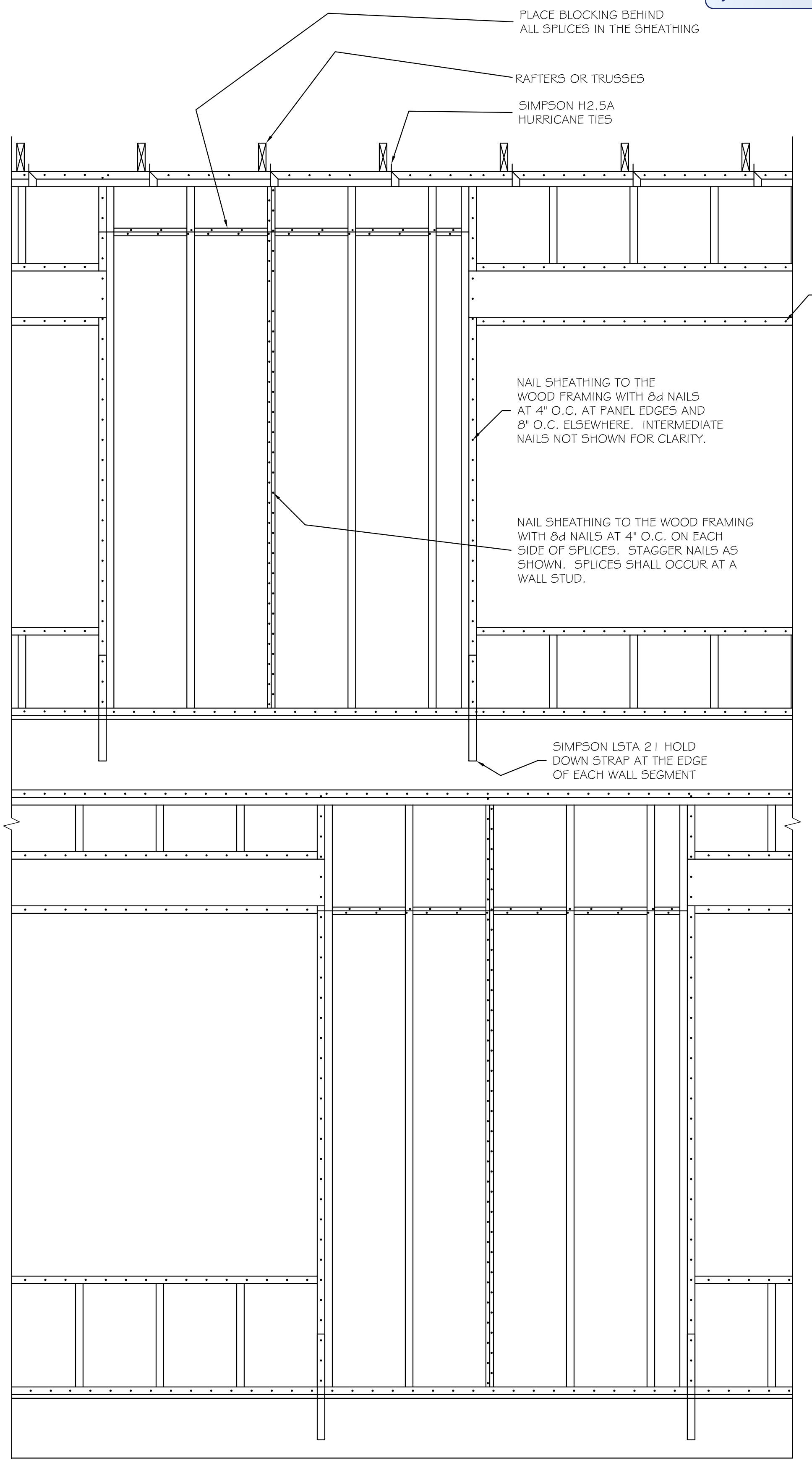
**Typical Ex. Joist to New Beam Detail**

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



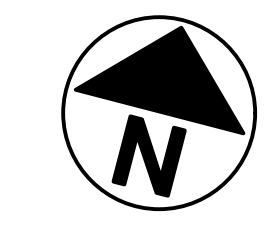
**Typical Interior Post to Footing Detail**

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



**Typical Framing Elevation at EDP Panels**

Scale: 3/4" = 1'-0"±



2110 Seminary Road  
Silver Spring, MD 20910  
301-565-0543  
301-565-0849 (fax)

**APAC**  
ENGINEERING, Inc

**GIBSON-SMITH ADDITION**  
109 Elm Avenue, Takoma Park, MD 20912  
Project # 2115

STRUCTURAL  
NOTES & DETAILS

**S201**

21 JUNE 2023

DATE	ISSUE - REMARKS

I CERTIFY THAT THESE CONTRACT DOCUMENTS WERE PREPARED UNDER MY SUPERVISION OR APPROVED BY ME AND I AM A DULY LICENSED REGISTERED ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.

LICENSE #: 15216 EXPIRATION DATE: 10-31-2023

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MECHANICAL CONSULTANT

Ron Gallant, Gallant Mechanical  
13001 Cleveland Drive  
Rockville, Maryland 20850 (240) 750-4988

**GIBSON-SMITH ADDITION**  
109 Elm Avenue, Takoma Park, MD 20912  
Project # 2115

21 JUNE 2023

CELLAR & FIRST FLOOR MECHANICAL PLANS

MP100

MECHANICAL NOTES

- EXISTING GAS-FIRED FURNACE
- EXISTING CONDENSING UNIT
- NEW CONDENSING UNIT  
DAIKIN MODEL DZ55AE2410 TWO TON  
15.2 SEER 208/230V 25 AMP5 SINGLE PHASE
- ATTIC MOUNTED AIR HANDLER  
DAIKIN MODEL ASTM024UUB14 TWO TON HORIZONTAL MOUNTED  
OVER EMERGENCY DRAIN PAN,  
800 CFM 208/230V WITH MODEL HKSC08XC 8KW BACK UP  
HEATER PACKAGE, 60 AMP COMBINED DEMAND
- EXISTING GAS-FIRED HWH
- INSTALL BALANCING DAMPER

APPROVED  
Montgomery County  
Historic Preservation Commission

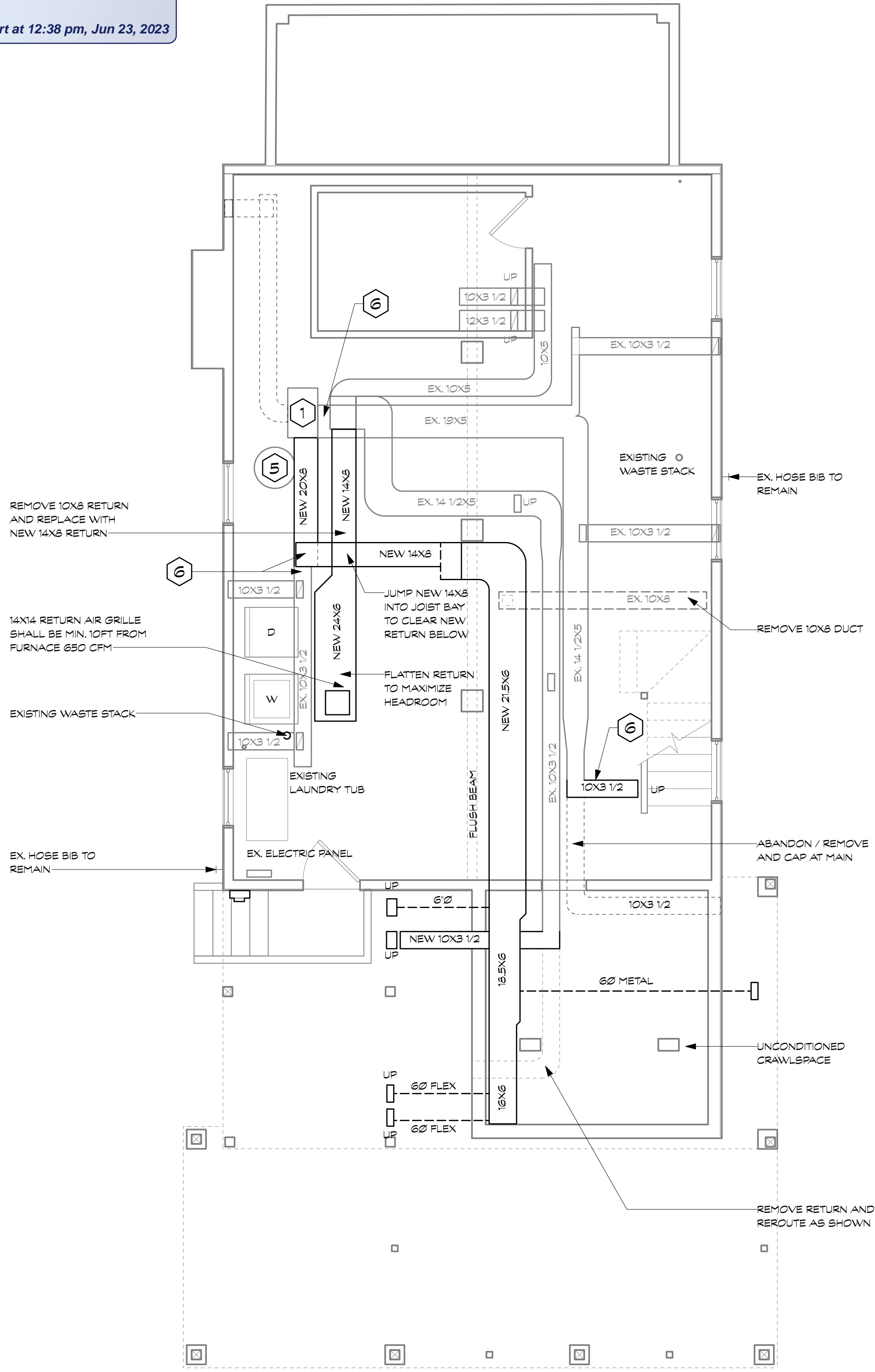


REVIEWED  
By Dan.Bruechert at 12:38 pm, Jun 23, 2023

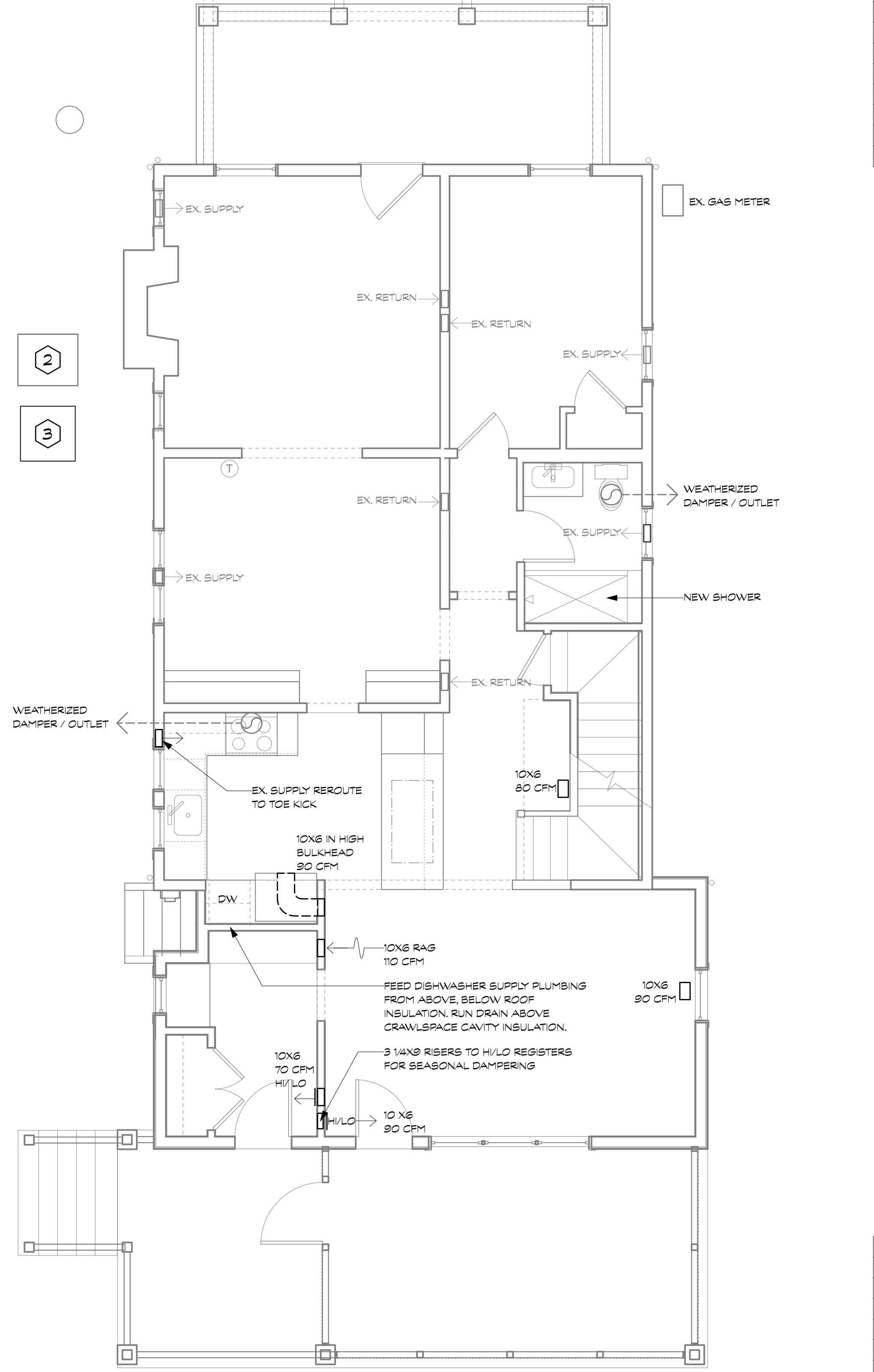
SPECIFICATIONS (CONTINUED FROM D100)

DIVISION 15: PLUMBING / MECHANICAL

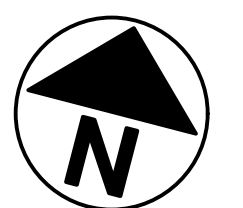
- 15.1 Plumbing: Contractor shall furnish and install complete domestic hot and cold PEX tubing or cpvc water piping, and PVC waste and vent system to new fixtures in accordance with all applicable codes, standards, and manufacturer's specifications. Water and waste lines to be tied into existing house system. Existing house waste to be modified as required by new construction. Condition and capacity of existing supply and drainage piping should be reviewed with recommendations for replacement/repair as necessary. All piping in finished areas shall be run in concealed spaces. Neither supply nor waste piping shall be installed anywhere it would limit headroom below 6'-8", without the expressed approval of the Owner.
- 15.1.1 Supply Piping: Hot and cold supply shall be PEX tubing or cpvc pipe. Supply lines shall be insulated with min. R3, continuous foam pipe jacket insulation. Shut-off valves shall be provided at all fixtures. All exposed piping, couplings, valves and accessories shall be chrome plated unless noted otherwise. Water hammer arrestors shall be provided at all valved appliances such as dishwashers and washing machines.
- 15.1.2 Sanitary lines and vent pipes shall be PVC (UNO).
- 15.1.3 Galvanized Piping: all existing galvanized piping and fittings that are exposed in the course of construction, or readily accessible with modest effort, shall be removed and replaced.
- 15.1.4 Pipe penetrations through partitions should not make rigid contact with framing or gypsum board. Provide resilient sealant around the perimeter opening where pipe passes through.
- 15.1.5 Hose Bibs: In locations as shown. Provide internal shut-offs.
- 15.1.6 Hot Water Heater: existing to remain.
- 15.1.7 Gas: Supply gas service/piping to all new gas appliances.
- 15.1.8 Kitchen fixtures (sink & faucet): Owner to select, Contractor to provide and install. See Div. 17 for Allowance Summary. Provide water via copper tubing supply with in-line filter and shut-off to main refrigerator for water / ice dispenser.
- 15.1.9 Bathroom #1 fixtures (basin & faucet, toilet, shower head and controls): Owner to select, Contractor to provide and install. See Div. 17 for Allowance Summary. Provide membrane pan and tiled shower floor and curb, per Division 9.
- 15.1.10 Bathroom #2 fixtures (basin & faucet, toilet, tub, shower head and controls): Owner to select, Contractor to provide and install. See Div. 17 for Allowance Summary.
- 15.2 Mechanical
- Existing gas-fired furnace, coil, condensing unit and flue shall remain in place to serve first floor and basement. Modify as shown. Provide manual balancing dampers at each main trunkline.
- 15.2.1 Attic mounted system to serve second floor (see mechanical plans):
- Condensing Unit: Daikin model DZ55AE2410 / 2 ton / 15.2 SEER-2 / Inverter Driven Heat pump condenser R-410A refrigerant.
  - Air Handler/Heat Pump: Daikin model ASTM024UUB14 / 2 ton / 800 CFM.
  - Horizontal air handler w/ model HKSC08XC 8kw back-up heater.
  - Air handler cabinet leakage shall be < 2% of air flow.
  - Electrical: Provide 208 / 230 V, 60 amp circuit for AHU and 20 amp single phase circuit for CU.
  - Programmable, WiFi controller.
  - Vibration isolation
  - Back-up/emergency overflow pan drained to exterior.
  - Programmable, WiFi controller.
  - Provide manual balancing dampers at each main trunkline.
  - Vibration isolation
- 15.2.2 Energy load calculations: HVAC subcontractor shall be responsible to provide any and all energy calculations (Manual J, S and D as applicable) required to properly size/design the system and obtain permits.
- 15.2.3 Performance: Entire installation shall conform to all local applicable codes and manufacturer's specifications including but not limited to:
- Current adopted version and modifications of ICC IRC
  - Latest SMACNA recommendation.
- 15.2.4 Equipment to be installed in strict conformance with manufacturer's instructions.
- 15.2.5 Warranties:
- HVAC sub shall register with manufacturer within 90 days of installation.
  - 12 years on all parts and labor.
  - 12 years on parts covered by manufacturer.
  - 12 year on compressor.
- 15.2.6 Provide gravity flow PVC condensate drain lines. Condensate from systems > 90% efficient must discharge inside the conditioned envelope (i.e. laundry sink or sump) to avoid freezing at an external outfall. Include an auxiliary safety drain pan beneath fan coil unit in attic. Pan to contain float switch to cut off unit upon accumulation of water in pan.
- 15.2.7 Floor register equal to Lima 40, Selkirk 310 or Hart & Cooley 411. Wall and ceiling registers to be Hart & Cooley 92VHV. Return grilles to be Tuttle and Bailey T-70. Registers located in damp areas - notably bathrooms - shall be made of aluminum, not steel.
- (SPECIFICATIONS CONTINUED ON MP101)



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



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

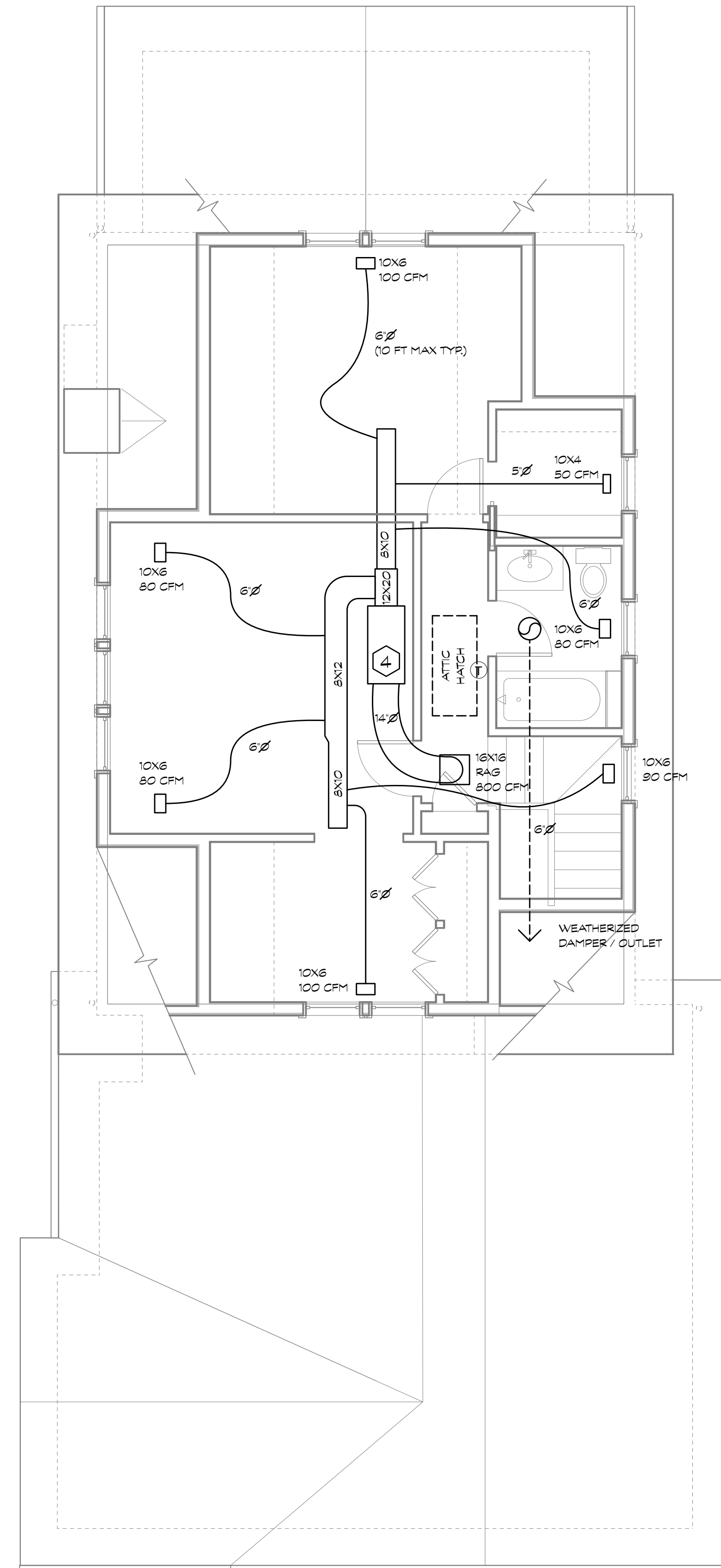


**SPECIFICATIONS** (CONTINUED FROM MP100)

- 15.2.8 Ductwork to be galvanized steel fabricated and installed in conformance with ASHRAE GUIDE and ACCA Manual.
  - Elbows in trunk ducts to be square-throated, square-back with turn vanes. Round branch ducts to be connected to trunk ducts using square-to-round take-off fittings.
  - Maximum air velocity in the main duct and branches shall be 900 fpm and 600 fpm respectively.
  - All joints shall be sealed with mastic to minimize air leakage.
  - Total duct leakage shall be  $\leq 8$  cfm per 100 square feet with air handler installed.
  - Lining only as shown. Internal duct insulation/lining shall be NOT be used on any supply ductwork. All returns shall be lined though the second bend away from air handler unit.
  - Flexible pre-insulated branch ducts may be used in attic as shown. Use flexible duct connections to the air handler.
  - All ductwork in unconditioned spaces shall be insulated and sealed in foil-coated (to inhibit condensation) fiberglass blanket insulation (min R8).
  - Ductwork shall NOT be installed anywhere it would limit headroom below 6'-8" in occupied areas.
  - Oval duct shall be used only as necessitated by framing depths.
  - Building cavities shall not be used as ducts or plenums.
- 15.2.9 Refrigerant piping to follow routes to be determined at site.
- 15.2.10 HVAC piping carrying fluids > 105 degrees F or < 55 degrees F shall be insulated to R3 minimum. Provide UV resistant pipe protection at all exterior applications.
- 15.2.11 Include pre-fabricated foundation for outdoor unit(s).
- 15.2.12 Thermostat: existing to remain on first floor. Provide seven day electronic setback/programmable wifi enabled thermostat for new HVAC unit. See mechanical plan for location.
- 15.3 Exhaust Fans: All exhaust fans and intakes shall have weatherized auto gravity dampers. All vents run through unconditioned space shall be insulated to min R5.
- 15.3.1 Bath exhaust: Contractor shall provide and install wall and ceiling mounted exhaust fans and vents per Division 16, and exterior louver in bathroom(s) per plans. Contractor shall be responsible for ducting through exterior wall and wiring as required. Provide Lutron Maestro timer switch per Division 16: Electrical.
- 15.3.2 Kitchen exhaust: Install new kitchen exhaust and duct to exterior in accordance with manufacturers recommendations. Provide weatherized/dampened termination. Make-up air shall be provided for hoods  $\geq 400$  CFM. Provide 6 inch diameter outside air duct connected to return of HVAC unit closest to kitchen. Intake shall have a 6 inch wall cap with screen (no flap) with 6 inch automated damper initiated upon operation of the hood exhaust fan at any RPM. Provide low voltage 18/5 control wire interlock from damper to hood. Use induction/current sensing relay or pressure switch on hood motor.
- 15.3.3 Dryer vent: existing to remain.
- 15.4 Attic Ventilation: Convection ventilation shall be provided by soffit and ridge vents as shown on drawings. See Division 10.

**MECHANICAL NOTES**

- ① EXISTING GAS-FIRED FURNACE
- ② EXISTING CONDENSING UNIT
- ③ NEW CONDENSING UNIT  
DAIKIN MODEL Q256AE2410 TWO TON  
15.2 SEER 208/230V 25 AMP3 SINGLE PHASE
- ④ ATTIC MOUNTED AIR HANDLER  
DAIKIN MODEL ABT1024UJ84 TWO TON, HORIZONTAL MOUNTED  
OVER EMERGENCY DRAIN PAN,  
800 CFM 208/230V WITH MODEL HK5C02XC 8KW BACK UP  
HEATER PACKAGE, 60 AMP COMBINED DEMAND
- ⑤ EXISTING GAS-FIRED HWH
- ⑥ INSTALL BALANCING DAMPER



① SECOND FLOOR MECHANICAL PLAN  
Scale: 1/4" = 1'-0"

DATE	ISSUE - REMARKS

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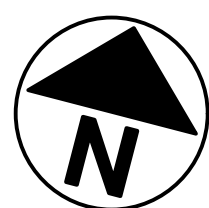
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**MECHANICAL CONSULTANT**  
Ron Gallant, Gallant Mechanical  
13001 Cleveland Drive  
Rockville, Maryland 20850 (240) 750-4988

**GIBSON-SMITH ADDITION**  
109 Elm Avenue, Takoma Park, MD 20912  
Project # 2115

SECOND FLOOR MECHANICAL PLAN  
**MP101**



APPROVED  
Montgomery County  
Historic Preservation Commission

*[Signature]*

**REVIEWED**  
By Dan.Bruechert at 12:39 pm, Jun 23, 2023

21 JUNE 2023

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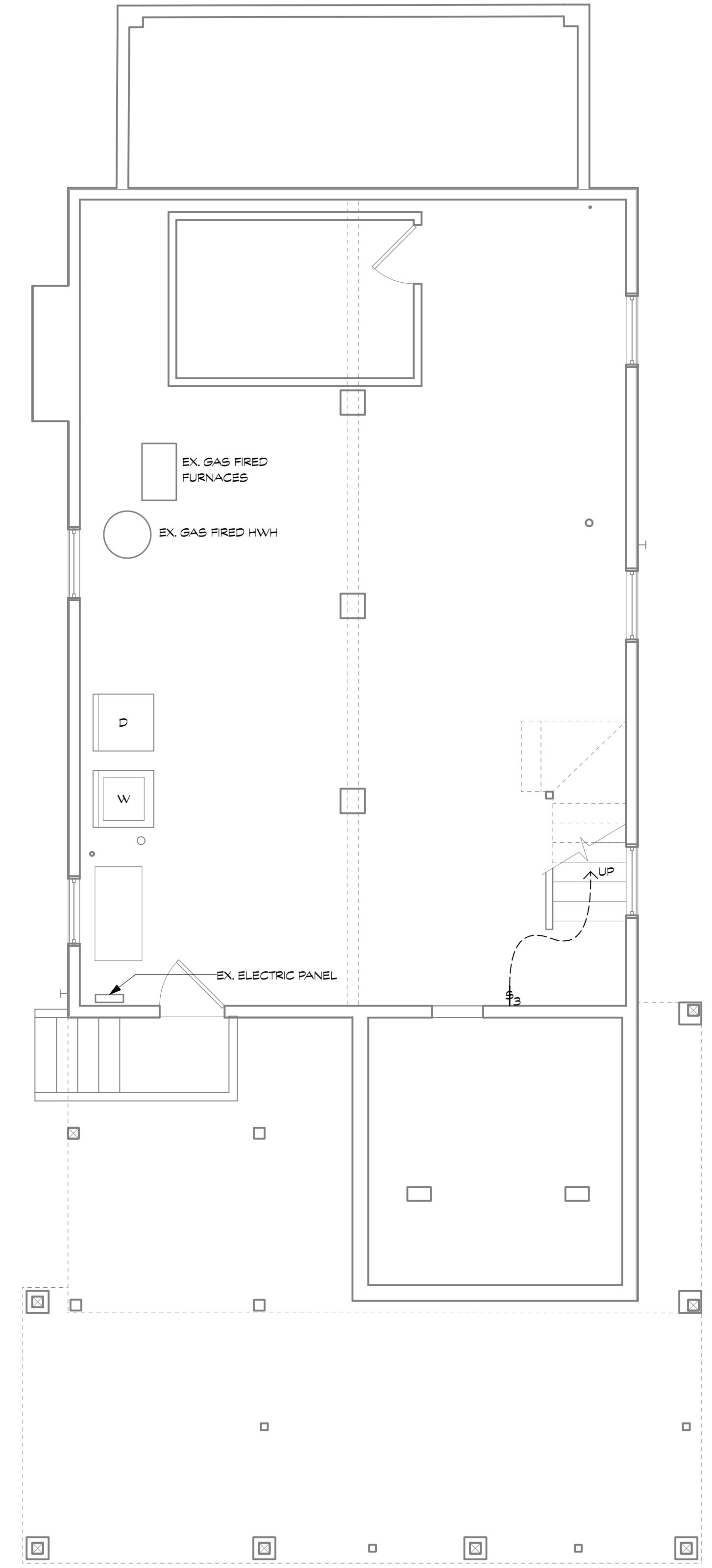
**ELECTRICAL SYMBOLS**

	DUPLEX RECEPTACLE (OUTLET) - 15/20 AMP @ 15' A.F.F. COORDINATE W/ PANEL & EQUIP.
	GFI DUPLEX RECEPTACLE (OUTLET) - 15/20 AMP EXTERNALLY MOUNTED IN WATERPROOF HOUSING
	DUPLEX RECEPTACLE (OUTLET) - 15/20 AMP @ 45' A.F.F. COORDINATE W/ PANEL & EQUIP.
	GFI OUTLET - 20 AMP @ 15' A.F.F.
	GFI OUTLET - 20 AMP @ 45' A.F.F.
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	FLOOR MOUNTED DUPLEX RECEPTACLE W/ FLUSH DECORATIVE COVER
	JUNCTION BOX - SIZE AS REQUIRED
	DATA/TELEPHONE JACK - MOUNT @ 15' A.F.F. (U.N.O.)
	CABLE TV OUTLET
	EXISTING SMOKE DETECTOR - REPLACE/RELOCATE AS NECESSARY TO MEET CODE
	SMOKE DETECTOR - HARDWIRED INTERCONNECT PER CODE
	EXHAUST FAN - NUTONE MODEL LS-100

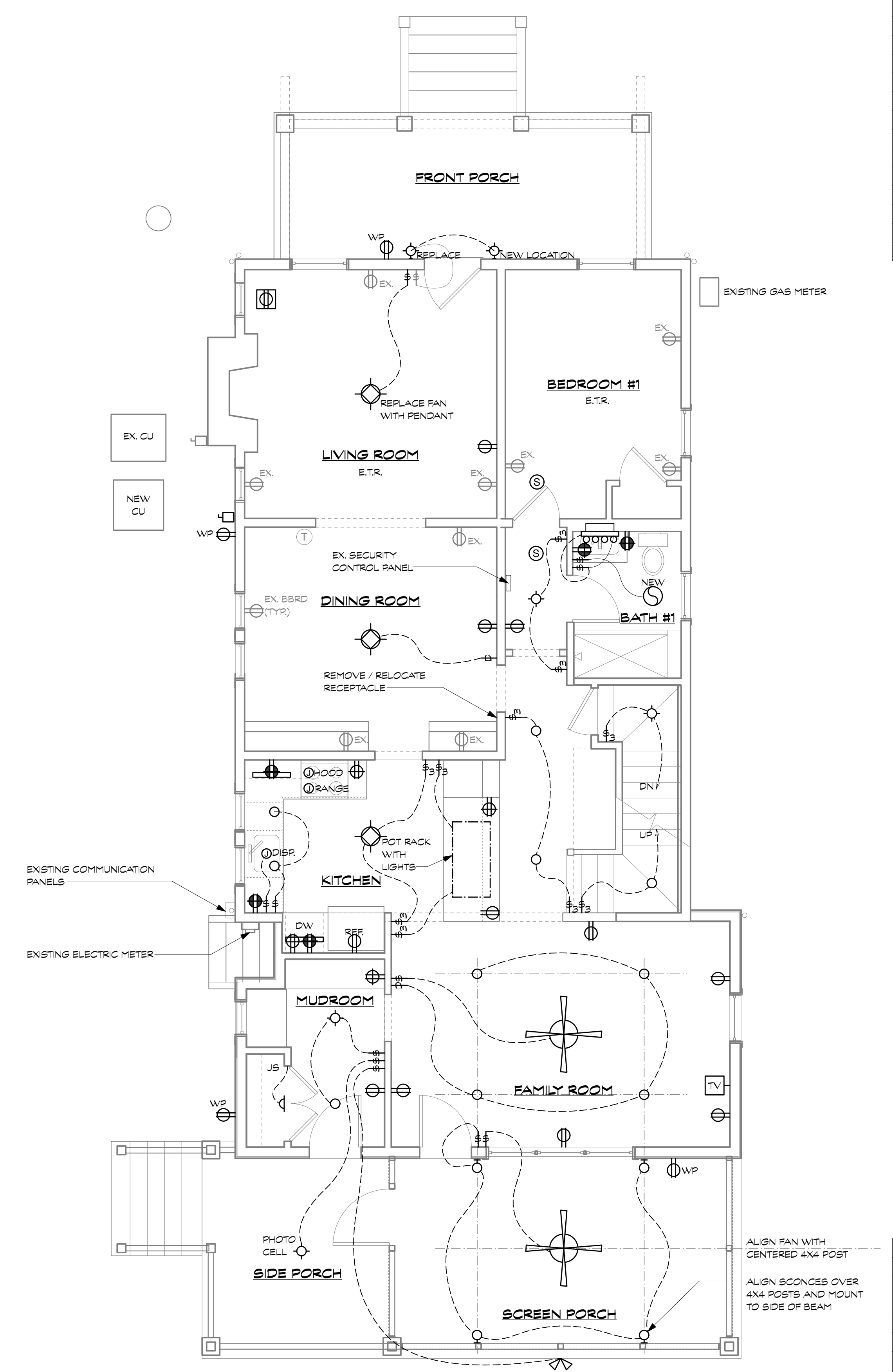
**LIGHTING SYMBOLS**

	SURFACE MOUNTED CEILING LIGHT FIXTURE
	FULLY RECESSED LED LIGHT- FOUR INCH DIAMETER (MAX)
	FULLY RECESSED LED WALL WASH LIGHT MOUNT 2'-0" FROM WALL U.N.O.
	UNDER CABINET MOUNTED FIXTURE
	SUSPENDED HALOGEN FIXTURE
	PENDANT FIXTURE
	VANITY LIGHT
	WALL-MOUNTED LIGHT FIXTURE
	SCONCE FIXTURE
	CEILING FAN/LIGHT
	FLUORESCENT LIGHT FIXTURE
	SWITCH
	THREE WAY SWITCH
	DIMMER SWITCH
	DIMMER THREE WAY SWITCH
	JAMB SWITCH
	SECURITY FLOODLIGHT ON MOTION DETECTOR

GENERAL: PROVIDE 'I.C.' HOUSING AS NECESSARY IN INSULATED CAVITIES



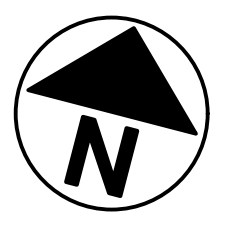
**1 CELLAR ELECTRICAL PLAN**  
 Scale: 1/4" = 1'-0"



**2 FIRST FLOOR ELECTRICAL PLAN**  
 Scale: 1/4" = 1'-0"

**GIBSON-SMITH ADDITION**  
 109 Elm Avenue, Takoma Park, MD 20912  
 Project # 2115

**CELLAR & FIRST FLOOR ELECTRICAL PLANS**  
**E100**



21 JUNE 2023

DATE	ISSUE - REMARKS

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**SPECIFICATIONS** (CONTINUED FROM M100)

**DIVISION 16: ELECTRICAL**

- 16.1 Electrical service: Existing electric service shall be reviewed by Contractor and Electrical subcontractor. Provide new service, subpanel and/or additional breakers as necessary to accommodate new work, equipment, systems and appliances. Provide ground fault circuit interrupt breakers at panels as required for all outlets requiring GFCI safety cutoff where indicated and where otherwise required. Label all new circuits at the panel.
- 16.2 Receptacles and Switches: Contractor shall provide wall switches, dimmer switches, and wall plates, etc. in areas of new work in conformance with NEC and local code. Contractor shall provide and install all specialty and appliance receptacles and switches.
  - Style: Decora style as manufactured by Lutron.
    - Typical single pole rocker switch shall be Lutron model CA-1PS-WH.
    - Three way rocker switch shall be Lutron model CA-3PS-WH.
    - Dimmer switch shall be Lutron model LUT DVCL-153P-WH (wattage rating requirement should be coordinated with fixtures).
    - Representative duplex receptacle style shall be Lutron model CAR-15/20-SW (coordinate amperage with equipment/circuit)
    - Timer switch for exhaust fans shall be Maestro model MA-T51-WH.
  - Color: All devices and cover plates shall be white, unless noted otherwise.
  - Consistency: Where devices are added in existing spaces all devices in that space shall be upgraded to match new devices.
  - Plates: use standard, not enlarged wall plates, in finish to match devices.
- 16.3 Provide ground fault interrupt devices where indicated and where otherwise required by code. Provide arc fault devices in all habitable spaces where ground fault are not otherwise provided.
- 16.4 Lighting: Owner to select, Contractor to provide and install. See Div. 17 for Allowance Summary. See drawings for locations. Coordinate mounting heights with Architect. Provide housings rated for insulation contact in all insulated ceiling cavities (housings shall be labeled to indicate <math>-2.0\text{ CFM}</math> leakage at 75 Pa). Seal at housing / interior finish. Submit all recessed fixtures for review and approval prior to rough wiring. 85% of lamps in permanent fixtures or 85% of permanent fixtures shall use high efficiency lamps.
- 16.5 Bath exhausts: Contractor to provide/install Broan Ultra Green model LP80. Wall mounted, 1.0 sones, 80 CFM with 4 inch dia duct.
- 16.6 Smoke/Fire protection: Smoke/Carbon Monoxide detectors shall be installed in each sleeping room, outside of each separate sleeping area in the immediate vicinity of the bedrooms and on each additional story of the dwelling, including basements and cellars. Provide 10-year lithium ion battery or hardwired with battery back-up. All detectors shall be approved and listed and shall be installed in accordance with the manufacturer's instructions.
- 16.7 Telephone & Cable TV:
  - Telephone / Data: Provide Category 5E, 4 pair wiring at each jack as shown on drawings. Contractor shall provide jacks and install for data and telephone. Each jack shall be wired as a dual jack outlet, one for data, one for telephone. Each jack shall be homerun to the phone board. Provide a main phone panel adjacent to the main electrical panel. Phone service shall be established by the Owner, with coordination assistance from the contractor.
  - Cable TV: Provide RG-6 jacks in locations shown. Provide homerun wiring from each jack.
- 16.8 Home Security System: The contract for construction shall include coordination as required for the modification of the existing home security system.

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**LIGHTING SYMBOLS**

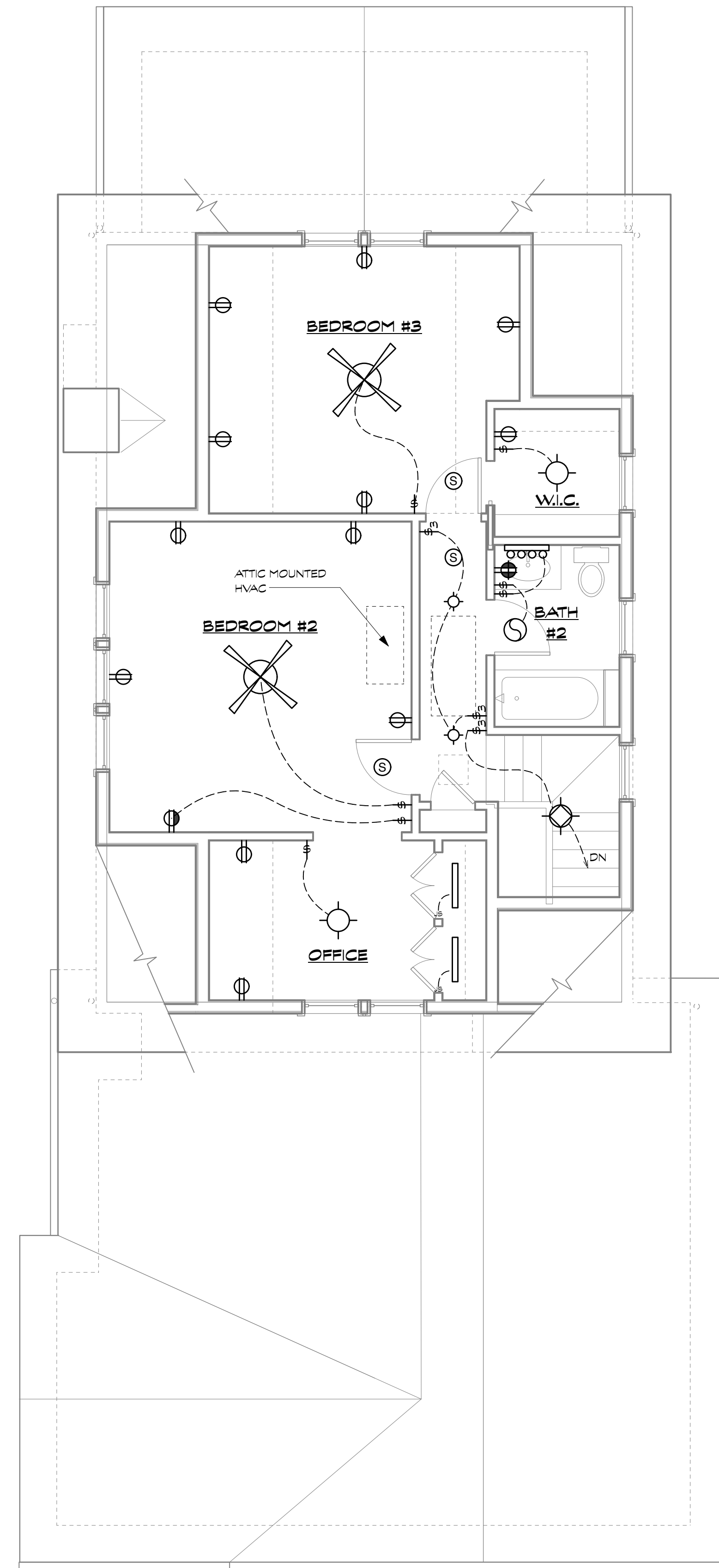
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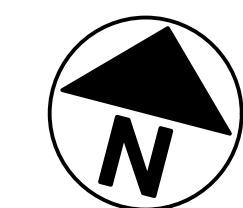
APPROVED  
 Montgomery County  
 Historic Preservation Commission

*Robert G. ...*

**REVIEWED**  
 By Dan.Bruechert at 12:39 pm, Jun 23, 2023



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



**GIBSON-SMITH ADDITION**  
 109 Elm Avenue, Takoma Park, MD 20912  
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**SECOND FLOOR ELECTRICAL PLAN**  
**E101**

21 JUNE 2023