

NGEL

PROPOSED HOME RENOVATION.
ADDITION OF 18' X 33' BASEMENT,
FIRST FLOOR AND SECOND FLOOR
AT THE REAR OF THE HOUSE.

PERMIT SET
25-087
9/15/2025



Sheet List					
N	Sheet Number	Sheet Name	Drawn By	Sheet Issue Date	Current Revision Description
1	G-01	GENERAL	S.R.	9/15/2025	
2	G-02	NOTES & CODE NARRATIVE	S.R.	9/15/2025	
3	G-03	WINDOW & DOOR SCHEDULE	S.R.	9/15/2025	
4	A-01	DEMOLITION FLOOR PLAN	S.R.	9/15/2025	
5	A-02	EXISTING ELEVATION	S.R.	9/15/2025	
6	A-03	PROPOSED BASEMENT LEVEL	S.R.	9/15/2025	
7	A-04	PROPOSED FIRST FLOOR PLAN	S.R.	9/15/2025	
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9	A-06	PROPOSED ATTIC FLOOR PLAN	S.R.	9/15/2025	
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12	A-09	SECTION	S.R.	9/15/2025	
13	A-10	STAIRS DETAIL	S.R.	9/15/2025	
14	A-11	ENLARGED BATHROOM	S.R.	9/15/2025	
15	A-12	ENLARGED BATHROOM	S.R.	9/15/2025	
16	A-13	REFLECTED CEILING	S.R.	9/15/2025	
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18	S-02	FRAMING PLAN	S.R.	9/15/2025	
19	S-03	BEAM DETAILS	S.R.	9/15/2025	
20	S-04	WOOD FRAMING AND FASTENING	S.R.	9/15/2025	
21	S-05	DECK FRAMING	S.R.	9/15/2025	

RANGEL PLANNING & DESIGN INC.

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Stephon Gillings

109 SMITH ROAD
MILTON, MA

G-01

FOUNDATION NOTES:

THERMAL & MOISTURE CONT..:

CODES & STANDARDS

MASSACHUSETTS BUILDING CODE REFERENCES – UPDATED JULY 1, 2025	
DISCIPLINE	CODE REFERENCE
BUILDING	INTERNATIONAL BUILDING CODE (IBC) 2021, WITH MASSACHUSETTS AMENDMENTS
ACCESSIBILITY	ICC A117.1-2001 (REFERENCED IN 2021 IBC) + 2010 ADA STANDARDS
MECHANICAL	INTERNATIONAL MECHANICAL CODE (IMC) 2021, WITH MA NATIONAL ELECTRICAL CODE (NEC) 2023, WITH MA AMENDMENTS
ELECTRICAL	MA PLUMBING CODE 248 CMR (NO LONGER P.C. MA USES IBC CODE)
PLUMBING	MA PLUMBING CODE 2021 EDITION, WITH MA AMENDMENTS - S-52
FIRE PREVENTION SAFETY	CAR STATE FIRE CODE
ENERGY	INTERNATIONAL ENERGY CONSERVATION CODE (IECC) WITH MA AMENDMENTS
RESIDENTIAL CODE	INTERNATIONAL RESIDENTIAL CODE (IRC) 2021, WITH MA AMENDMENTS
STREET/CHIEFZERO CODE	APPENDIX RC (ZERO ENERGY PATH), ERMERS OPTIONS, PASSIVE HOUSE ALLOWED
CODES & STANDARDS	
1/4" = 1'-0"	
NOTE #1: ALL WORK SHALL COMPLY WITH THE COMMONWEALTH OF MASSACHUSETTS STATE BUILDING CODE, THE COMPILING EDITION, AND THE LATEST EDITIONS FOR ALL HEALTH STANDARDS AND ALL OTHER APPLICABLE REGULATIONS, LAWS, ORDINANCES ETC. GOVERNING THE WORK.	
NOTE #2: DRAWING INFORMATION TAKEN FROM EXISTING CONDITIONS AND RANDOM FIELD INSPECTIONS AND IS PROVIDED ONLY, TO ASSIST THE CONTRACTOR IN ESTABLISHING THE SCOPE OF WORK.	
NOTE #3: ALL EXISTING CONDITIONS AND PLAY AND DETAIL DIMENSIONS SHOULD BE NOTED BY THE ARCHITECT OF ALL DETAILS IN THE EXISTING CONDITIONS FOR SIZES AND LOCATIONS ETC. BEFORE PROCEEDING WITH AFFECTED PART OF THE WORK.	
NOTE #4: DO NOT SCALE THESE DRAWINGS FOR QUANTITIES, LENGTHS, SIZES, AREAS, CLEARANCES ETC.	
NOTE #5: IT IS NOT INTENDED THAT THESE DRAWINGS SHOW EVERY CUT, CONDITION ETC OF THIS SYSTEM.	
NOTE #6: THIS SHALL BELIEF CLAIM AT THE END OF EACH WORKING DAY. ALL DEBRIS SHALL BE PICKED UP AND PLACED IN CONTAINERS, CONSTRUCTION QUALITY BAGS, DUMPSTER OR OTHER ACCEPTABLE MEANS.	
NOTE #7: ALL DEMOLITION AND CONSTRUCTION DEBRIS SHALL BE PROPERLY DISPOSED AND REEF OF DEBRIS AT THE END OF THE CONTRACT. ALL DEBRIS SHALL BE PROPERLY DISPOSED OF.	
NOTE #8: THE CONTRACTOR SHALL TEMPORARILY DISCONNECT AND REMOVE ALL CONSTRUCTION CONTRACTOR IS RESPONSIBLE TO NOTIFY THE ARCHITECT WHEN ANY TEMPORARILY DISCONNECTED AND REMOVED ITEMS TO THE SATISFACTION OF THE OWNER.	
NOTE #9: ALL EXISTING AREAS DISTURBED OR DAMAGED AS A RESULT OF THE NEW CONSTRUCTION ARE TO BE PATCHED OR REPLACED TO MATCH EXISTING AND IOR NEW ADJACENT SURFACES.	
NOTE #10: ALL MATERIALS AND NOTES REFER TO NEW MATERIALS UNLESS OTHERWISE NOTED OR INDICATED AS EXISTING	
NOTE #11: SEE FLOOR PLANS FOR PARTITION TASS AND LOCATIONS	
NOTE #12: SEE FLOOR PLANS FOR LOCATIONS OF SOUND INSULATION	
NOTE #13: PARTITION THE DETAILS SHOW ONLY PRINCIPLE CONDITIONS AND RED LINES FOR ADDITIONAL WORK WITH U.L. DESIGN NUMBERS MAY HAVE ADDITIONAL COMPONENTS AND REQUIREMENTS. REFER TO U.L. FIRE RESISTANCE DIRECTORY.	
NOTE #14: RATED PARTITIONS SHALL HAVE U.L. HEAD DESIGNS, SEALANT, AND FILL MATERIAL OF THE SAME RATING.	
NOTE #15: ALL THROUGH-WALL PENETRATIONS MUST BE SEaled WITH U.L. LISTED THROUGH-WALL PENETRATIONS. SEALING MATERIALS AND SHALL BE NON-HARDENING CALK, IF SEALED WITH A RESIDENT, NON-HARDENING CALK, IF THE PENETRATIONS IS THOUGH A FIRE-RATED PARTITION, AN ACOUSTICAL FIRE-RATED CALK SHALL BE USED	
NOTE #16: SEE SPECIFICATIONS AND STRUCTURAL DRAWINGS FOR REINFORCING, BRACING AND OTHER SPECIAL REQUIREMENTS.	
NOTE #17: PROVIDE LATERAL BRACING AND CROSS BRACING AS RECOMMENDED BY STUD MANUFACTURER FOR EACH CONDITION.	
NOTE #18: COORDINATE RISERS APPLIED TO PARTITIONS AS ELEVATIONS AND ELSEWHERE IN THE CONTRACT DOCUMENTS	
NOTE #19: PROVIDE BRACING AT LOCATIONS INCLUDING BUT NOT LIMITED TO CARNAGEW, SHELLING COUNTERS, CABINETS, DOOR STOPS, HANDRAIL BRACKETS, TELEVISION LOCATIONS, BATHROOM ACCESSORIES, ETC. WHERE INDICATED, SPECIFIED OR REQUIRED TO PROVIDE A SOLID BASE.	

SPACERS IN ACCORDANCE WITH ACI 301 AND ACI 318.

OF FOOTING AND 2" CLEAR FROM TOP. LOCATE VERTICAL REBAR (REINFORCING STEEL) 4'-0" ON CENTER (OC). ALL REINFORCEMENT (REINFORCING STEEL) SHALL BE IN ACCORDANCE WITH ACI 318-08. STRENGTH

BE USED.

PREPARED REINFORCING STEEL CORNER BARS AT ALL CORNERS AND INTERSECTIONS OF FOOTINGS, BEAMS AND WALLS. EACH SIDE SHOULD OVERLAP 2'-0" WITH AN OVERLAP END. FOOTINGS SHALL BEAR ON UNDISTURBED SOIL AND KEEPS THE EXPOSED END AND WATER, UNDERLAYS LOAD-BEARING WALLS AND REINFORCING STEEL COLUMN FOOTINGS. THICKENED SLABS WITHIN A 7' RADIUS TO 12" THICK.

SLAB FOUNDATIONS - CONCRETE FLOOR SLABS SHALL BE CONSTRUCTED

3600 PSI CONCRETE WITH #5 REBAR (REINFORCING STEEL) AT 12" X 12"
ON CENTER (OC), PLACED IN A VERTICAL GRID. THICKNESS OF SLAB SHALL BE MINIMUM OF 8" THICK FOR 8'-0" WIDE, 10" THICK FOR 9'-0"
WIDE, AND 12" THICK FOR 10'-0" WIDE OR GREATER. PROVIDE APPROPRIATE
CONSTRUCTION DOCUMENTS PATCH ALL JOINTS AND DEPRESSIONS
EXCEEDING 3/8" IN ANY DIRECTION. PROVIDE APPROPRIATE
WATERPROOFING SYSTEM AROUND THE EXTERIOR PERIMETER AND
DRAINAGE AS SPECIFIED BY MANUFACTURERS' RECOMMENDATIONS.
CONTRACTOR IS RESPONSIBLE FOR STAVES AND OTHER PENETRATIONS

FOUNDATION NOTES:
1/8" = 1'-0"

THERMAL & MOISTURE:

NOT LESS THAN 12 INCHES AND SEAL IN ACCORDANCE WITH MANUFACTURER'S GUIDELINES

NOTE #21: WHERE, TWO OR MORE LAYERS OF GYPSUM BOARD ARE USED, BOTH HORIZONTAL AND VERTICAL JOINTS SHALL BE STAGGERED.

FRAMING NOTES:

[illegible][illegible]

EXTERIOR WALLS - ALL EXTERIOR WALLS SHALL BE CONSTRUCTED WITH

DOUBLE TOP PLATES THROUGHOUT. PROVIDE SOLID BLOCKING AT
DOWNLIGHT
IF ALL WALLS, SEE PLANS FOR STUD SIZE.

[illegible]

WATER RESISTANT Gypsum WALLBOARD: AROUND SHOWERS, TUBS, WHIRLPOOLS, OR AS REQUIRED BY APPLICABLE BUILDING CODES, INSTALL:

))))

DE

Date
9/15/2025

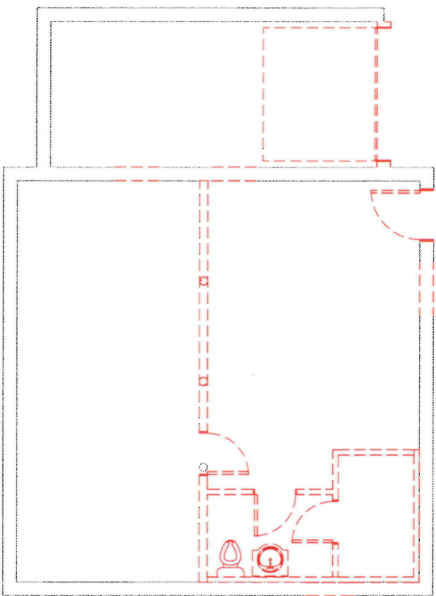
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9/15/2025

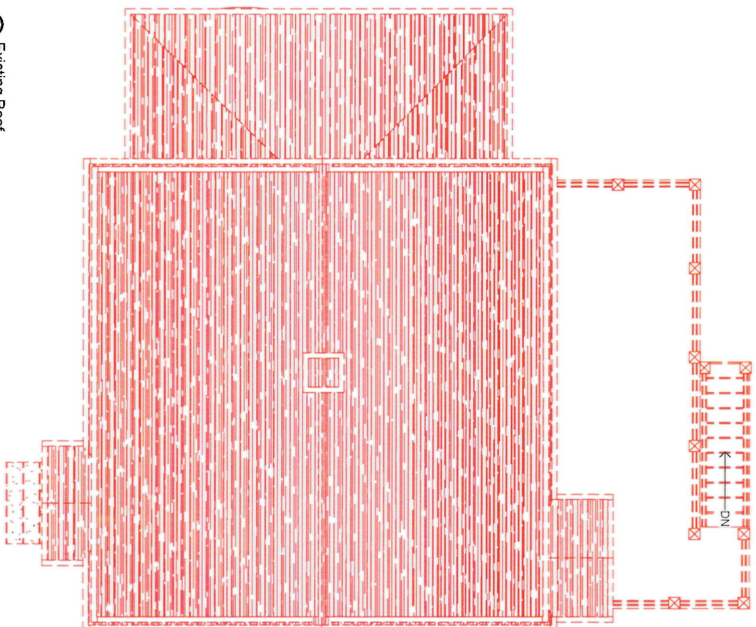
S.R.

J.K.

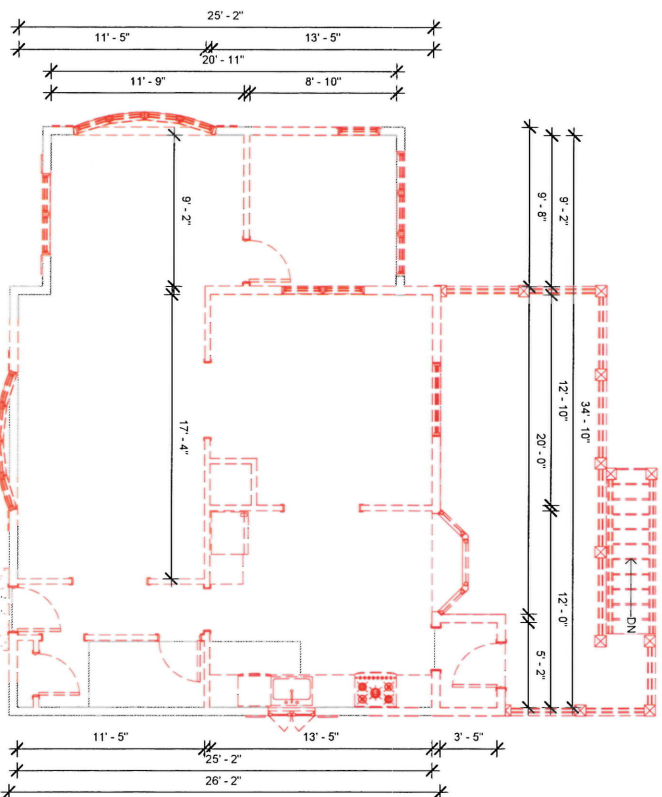
NOTES: VERIFY ALL DIMENSIONS IN FIELD PRIOR TO FABRICATION AND CONSTRUCTION. ALL EXISTING CONDITIONS TO REMAIN AS IS UNLESS OTHERWISE NOTED.
ALL DASHED RED CONSTRUCTION TO BE REMOVED.



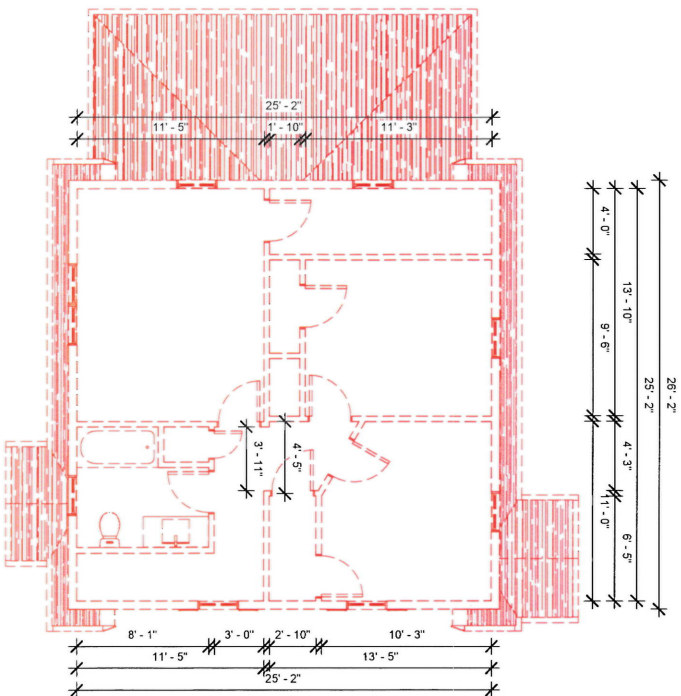
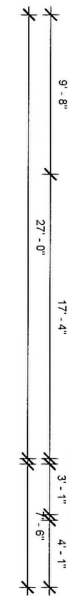
③ Basement Demolition Plan
3/16" = 1'-0"



④ Existing Roof
3/16" = 1'-0"



② First Floor
3/16" = 1'-0"



① Second Floor
3/16" = 1'-0"

A. THE DEMOLITION PLAN IS INTENDED TO SHOW THE GENERAL CONDITIONS WHICH ARE EXPECTED TO OCCUR, VERIFY ALL CONDITIONS BEFORE PROCEEDING WITH THE WORK.

B. WHERE DEFICIENCIES INVOLVE STRUCTURAL ITEMS, REPORT SUCH DEFICIENCIES TO THE ARCHITECT BEFORE PROCEEDING IN THE AREA IN QUESTION.

C. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER'S REPRESENTATIVE THE SALVAGE OF LIGHT FIXTURES, FURNISHINGS, DOORS, AND OTHER MISCELLANEOUS EQUIPMENT.

D. REFER TO CIVIL, MECHANICAL, ELECTRICAL, AND PLUMBING FOR ADDITIONAL DEMOLITION DRAWINGS AND NOTES.

E. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY BARRICADES AND OTHER FORMS OF PROTECTION AS REQUIRED TO PROTECT THE OWNER'S PERSONNEL, OCCUPANTS, AND THE GENERAL PUBLIC FROM INJURY DUE TO WORK.

F. THE CONTRACTOR SHALL REPAIR AT NO COST TO THE OWNER, DAMAGES CAUSED TO ADJACENT AREAS BY DEMOLITION WORK.

DEMOLITION
1/8" = 1'-0"

WALLS EXISTING TO REMAIN

WALLS AND OTHER ELEMENTS TO BE
DEMOLISHED AND DISPOSED OF OFF-SITE

PROPOSED NEW WALLS

○ WALL LEGEND
1/8" = 1'-0"

No	Description	Date
1	SCHEMATIC DESIGN 1	9/15/2025

Rangel Project Number	25-087
Date	9/15/2025
Drawn by	S.R.
Checked by	J.K.



DEMOLITION FLOOR PLAN



A-01

Scale	As indicated
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1	SCHEMATIC DESIGN 1	9/15/2025
Rangel Project Number		25-087
Date		9/15/2025
Drawn by		S.R.
Checked by		
Verifier		



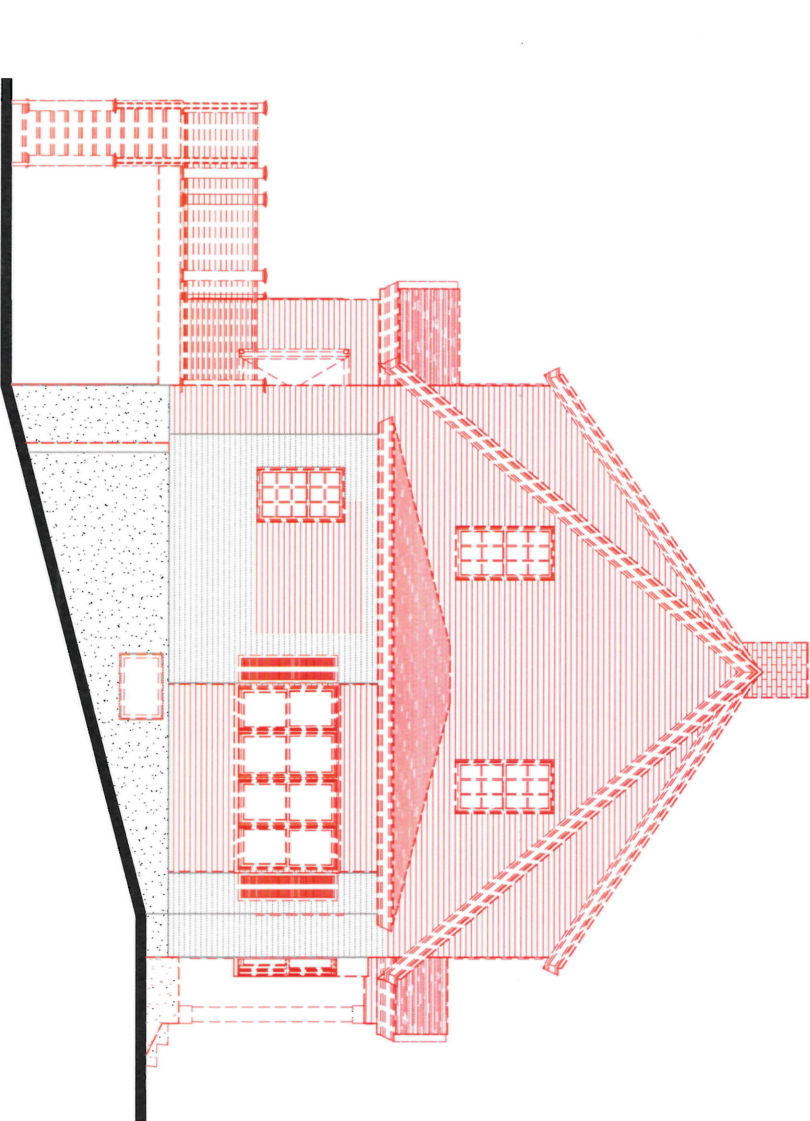
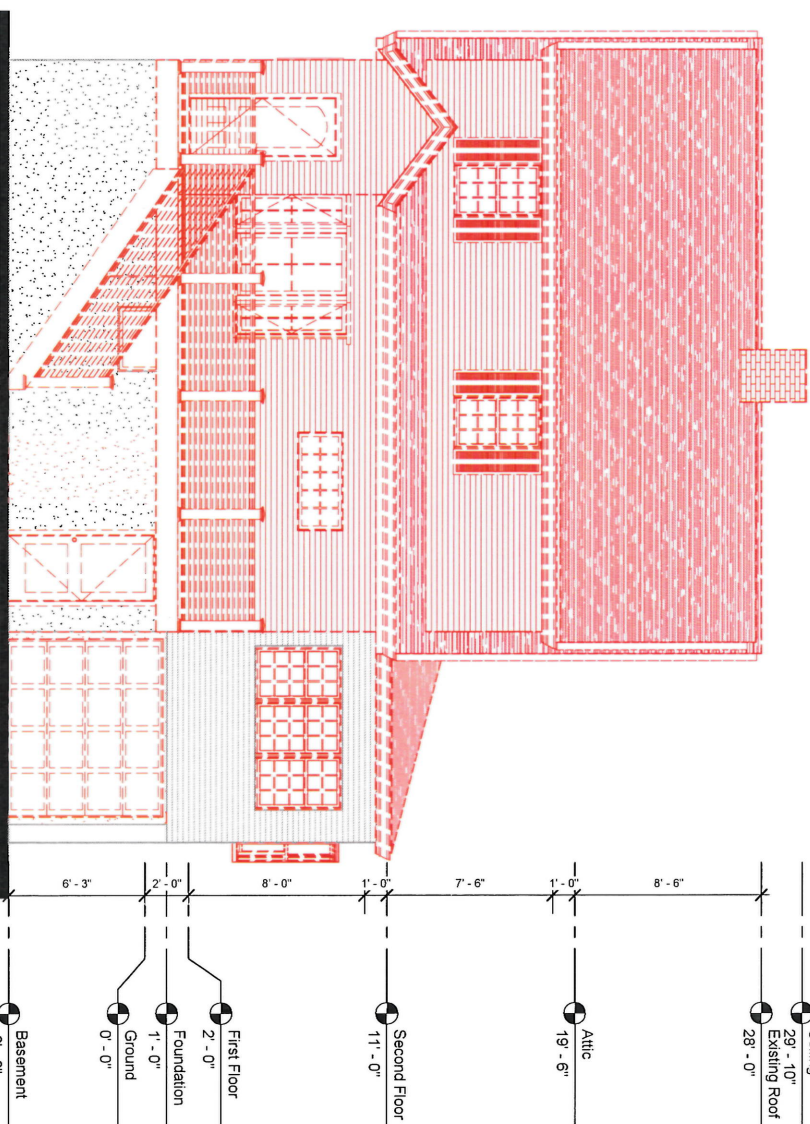
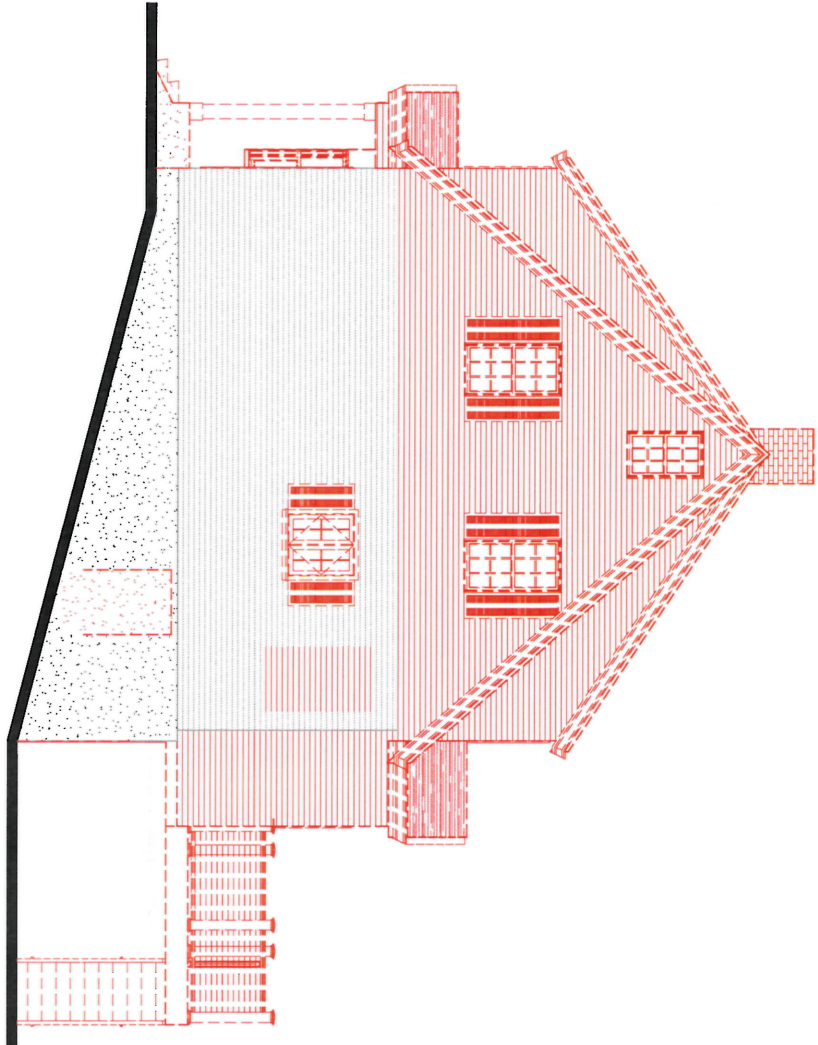
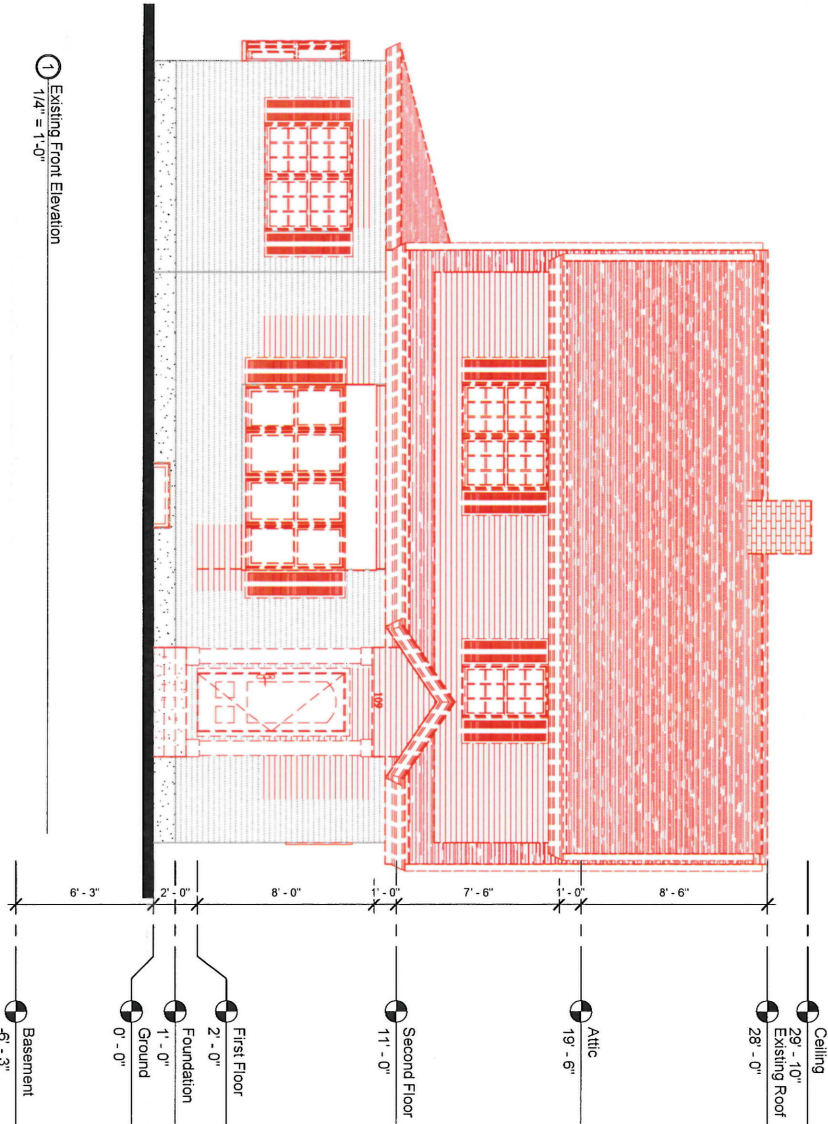
EXISTING
ELEVATION

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A-02

Scale 1/4" = 1'-0"



Room Schedule 2						
Name	Number	Area	Level	Wall Finish	Ceiling Finish	Floor Finish

GARAGE	B-1	193 SF	Basement	1/2 SHEETROCK AND PLASTER	SLAB
BATHROOM	BATH-1	122 SF	Basement	1/2 SHEETROCK AND PLASTER	3/4 PL YWOOD AND TILES
FAMILY Y ROOM	FF-1	570 SF	Basement	1/2 SHEETROCK AND PLASTER	3/4 PL YWOOD AND LAMINATED
BEDROOM	BE-1	161 SF	Basement	1/2 SHEETROCK AND PLASTER	3/4 PL YWOOD AND LAMINATED
CLOSET	CL-1	18 SF	Basement	1/2 SHEETROCK AND PLASTER	3/4 PL YWOOD AND LAMINATED
MECHANICAL ROOM	MR-1	168 SF	Basement	1/2 SHEETROCK AND PLASTER	3/4 PL YWOOD AND LAMINATED
GARAGE ROOM	GR-1	95 SF	Basement	5/8 SHEETROCK	SLAB

FOUNDATION NOTES.

1. ALL FOOTINGS SHALL BE PLACED ON UNDISTURBED SOIL.

2. ALL FOOTINGS SHALL BE PLACED ON A MINIMUM BEARING CAPACITY OF 3,000 LBS PER SQUARE FOOT.

3. ALL FOOTINGS SHALL BE PLACED IN EITHER ON OR FROZEN SOIL.

4. ALL EXTERIOR FOOTINGS SHALL BE A MINIMUM OF 4'-6" BELOW FINISHED GRADE.

5. A MINIMUM OF 8" COMPACTED GRAVEL OR STONE SHALL BE PLACED UNDER ALL POLYMER CONCRETE SLABS.

6. ALL POLYMER CONCRETE SLABS SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4,000 PSI.

7. ALL POLYMER CONCRETE SLABS SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3,500 LBS PER SQUARE INCH ON GRADE CONCRETE SLAB.

8. ALL POLYMER CONCRETE FOUNDATIONS SHALL BE IN ACCORDANCE WITH INTERNATIONAL RESIDENTIAL CODE.

9. R-10 FLOOR JOISTS.

10. DO NOT BACKFILL AGAINST WALL UNTIL CONCRETE HAS A MINIMUM 28 DAY COMPRESSIVE STRENGTH AND IS ADEQUATELY BRACED.

11. ALL FOUNDATIONS SHALL BE PLACED IN STRICT ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.

12. ALL FOUNDATIONS PLACED ON TILL TO BE ENGINEERED BY OTHERS.

IBC Requirements (2021 IBC §1202 Ventilation & §1203 Lighting)
 Natural Light: Habitable rooms shall have glazing area $\geq 8\%$ of the floor area.
 Natural Ventilation: Openable area of windows shall be $\geq 4\%$ of the floor area.

ROOM CALCULATION:

BEDROOM BED-1

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Required Openable Area ($\geq 4\%$): $0.04 \times 161 = 6.44$ SF

Double-Hung Net Operable: Typically $\sim 50\%$ of total = $0.5 \times 15 = 7.5$ SF \rightarrow ✓ Meets the natural ventilation requirement

Diagram illustrating the required dimensions and components for a window well:

- MIN OPENING AREA: 5.7 SQ FT
- MIN OPENING HEIGHT: 24"
- MIN OPENING WIDTH: 20"
- 14" MAXIMUM FROM FLOOR TO WINDOW SILL TO MEET EGRESS CODE REQUIREMENTS
- WINDOW
- WINDOW WELL
- SIDE VIEW
- 3" - 6"
- NOTCH FOR COVER
- WINDOW WELL SIDE PANEL
- MUST EXTEND 4" ABOVE GRADE LEVEL
- GRADE MUST SLOP AWAY
- 3/4 STONE AT LEAST 12" IN WIDTH AROUND ALL SIDES OF THE WELL.

NOTES: SIDE WALL SHOULD EXTEND 4" ABOVE GRADE AND 3 1/2" BELOW THE WINDOW FOOTING DRAIN 3/4" STONE

$$\frac{3/16''}{3/16''} =$$

WALL NOTES:

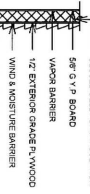
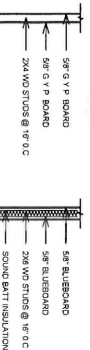
/ BOTTOM PLATE 2X4 PRESSURE

UND FOUNDATION WALLS

R-19 SPRAY CLOSED CELL CONTINUOUS
INSULATION AROUND BASEMENT WALLS
AND BOTTOM OF INTERIOR SPACE

1/2" BLUEBOARD FINISHED
PLASTER AND PAINT
WALLS AND CEILING

FOUNDATION WALL @ WINDOW
3/4" = 1'-0"



X
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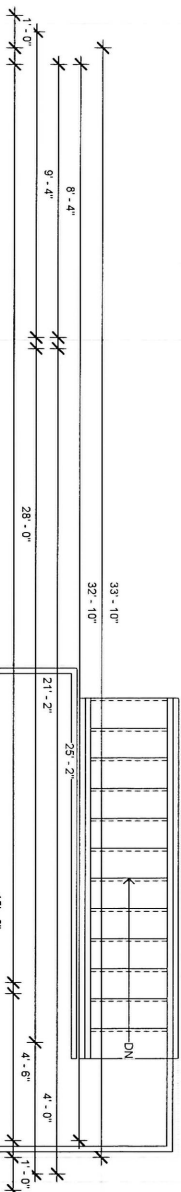
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[illegible]

PROPOSED
BASEMENT LEVEL

A-03

NOTES: VERIFY ALL DIMENSIONS IN FIELD PRIOR TO FABRICATION AND CONSTRUCTION. ALL EXISTING CONDITIONS TO REMAIN AS IS UNLESS OTHERWISE NOTED



Room Schedule					
Name	Number	Area	Level	Wall Finish	Floor Finish
FRONT ENTRY	LV-1-12	137 SF	First Floor	1/2 SHEETROCK AND PLASTER	3/4 T&G Hardwood
STAIRS	LV-1-13	66 SF	First Floor	1/2 SHEETROCK AND PLASTER	3/4 T&G Hardwood
BEDROOM	BED-2	118 SF	First Floor	1/2 SHEETROCK AND PLASTER	3/4 T&G Hardwood
CLOSET	CL	14 SF	First Floor	1/2 SHEETROCK AND PLASTER	3/4 T&G Hardwood
BATHROOM	BATH-2	72 SF	First Floor	1/2 SHEETROCK AND PLASTER	3/4 T&G Tiles
OFFICE	OF-1	104 SF	First Floor	1/2 SHEETROCK AND PLASTER	3/4 T&G Hardwood
12 BATH	BATH-3	26 SF	First Floor	1/2 SHEETROCK AND PLASTER	1/2 T&G Tiles
DINING ROOM	LV-1-19	248 SF	First Floor	1/2 SHEETROCK AND PLASTER	3/4 T&G Hardwood
KITCHEN	LV-1-21	238 SF	First Floor	1/2 SHEETROCK AND PLASTER	3/4 T&G Hardwood

GYPSON WALLBOARD - GYPSON BOARD MUST BE HELD FIRMLY AGAINST THE FRAMING WHILE FASTENING TO AVOID LATER MOVEMENT OF GYPSON BOARD ON THE SHANK SCREWS.

INTERIOR WALLS: SHEATH WALLS AND CEILINGS WITH 1/2" GYPSON WALLBOARD. EITHER VERTICALLY WITH LONG EDGES PARALLEL TO FRAMING OR HORIZONTALLY WITH LONG EDGES AT RIGHT ANGLES TO FRAMING MEMBERS. APPLY ONE LAYER OF 1/2" X 4" X 8" 9" 10" OR 12" FOOT LENGTHS TO ALL WALL SURFACES. OFFSET JOINTS BETWEEN LAYERS. AT LEAST 10" UNLESS OTHERWISE INDICATED. ALL INTERIOR WALLS TO BE COVERED WITH A 1/2" "BLUE BOARD" WITH A VENEER PLASTER SYSTEM WITH METAL CORNER REINFORCING.

CEILINGS: APPLY A SINGLE LAYER OF 1/2" GYPSON WALLBOARD ACROSS THE SUPPORTS AND FASTEN WITH SCREWS. OFFSET JOINTS BETWEEN LAYERS AT LEAST 10". SCREWS ARE SPACED 12" ON CENTER (O.C.) UNLESS OTHERWISE INDICATED. ALL INTERIOR WALLS TO BE COVERED WITH A 1/2" "BLUE BOARD" WITH A VENEER PLASTER SYSTEM WITH METAL CORNER REINFORCING.

FIRE-RATED GYPSON WALLBOARD: IN GARAGES, AROUND GAS WATER HEATERS AND AS REQUIRED BY APPLICABLE BUILDING CODES. INSTALL 5/8" TYPE "X" FIRE-RATED GYPSON WALLBOARD.

WATER RESISTANT GYPSON WALLBOARD: AROUND SHOWERS, TUBS, WHIRLPOOLS, OR AS REQUIRED BY APPLICABLE BUILDING CODES. INSTALL

FINISH NOTES

1. IN CONCEALED SPACES EVERY 10 FEET HORIZ. OR VERTICAL.
2. IN SOFFITS, DROPS & COVE CEILINGS
3. UNDER STAIR AREAS.
4. STAGGERED SOUND WALLS (MAY USE MINERAL FIBER)

FIRE BLOCKING NOTES:

IBC Requirements (2021 IBC §1202 Ventilation & §1203 Lighting)
Natural Light: Habitable rooms shall have glazing area 2 1/2% of the floor area.
Natural Ventilation: Operable area of windows shall be 2 1/2% of the floor area.
ROOM CALCULATION:
BEDROOM BED-2
Room Area: 124 SF
Required Glazing (2 1/2%): 0.08 x 124 = 9.92 SF
Provided Glazing: 2 x (3'x5') = 2 x 15 = 30.00 SF → 24.19% → ✓ Meets
Required Operable Area (2 1/4%): 0.04 x 124 = 4.96 SF
Double-Hung Net Operable (1/6" - 50%): 0.5 x 30 = 15.00 SF → 12.10% → ✓ Meets

PROPOSED FIRST FLOOR PLAN



No. Description Date
1 SCHEMATIC DESIGN 1 9/15/2025
Date 25-087
Range Project Number 9/15/2025
Drawn by S.R.
Checked by J.K.

109 SMITH ROAD
MILTON, MA

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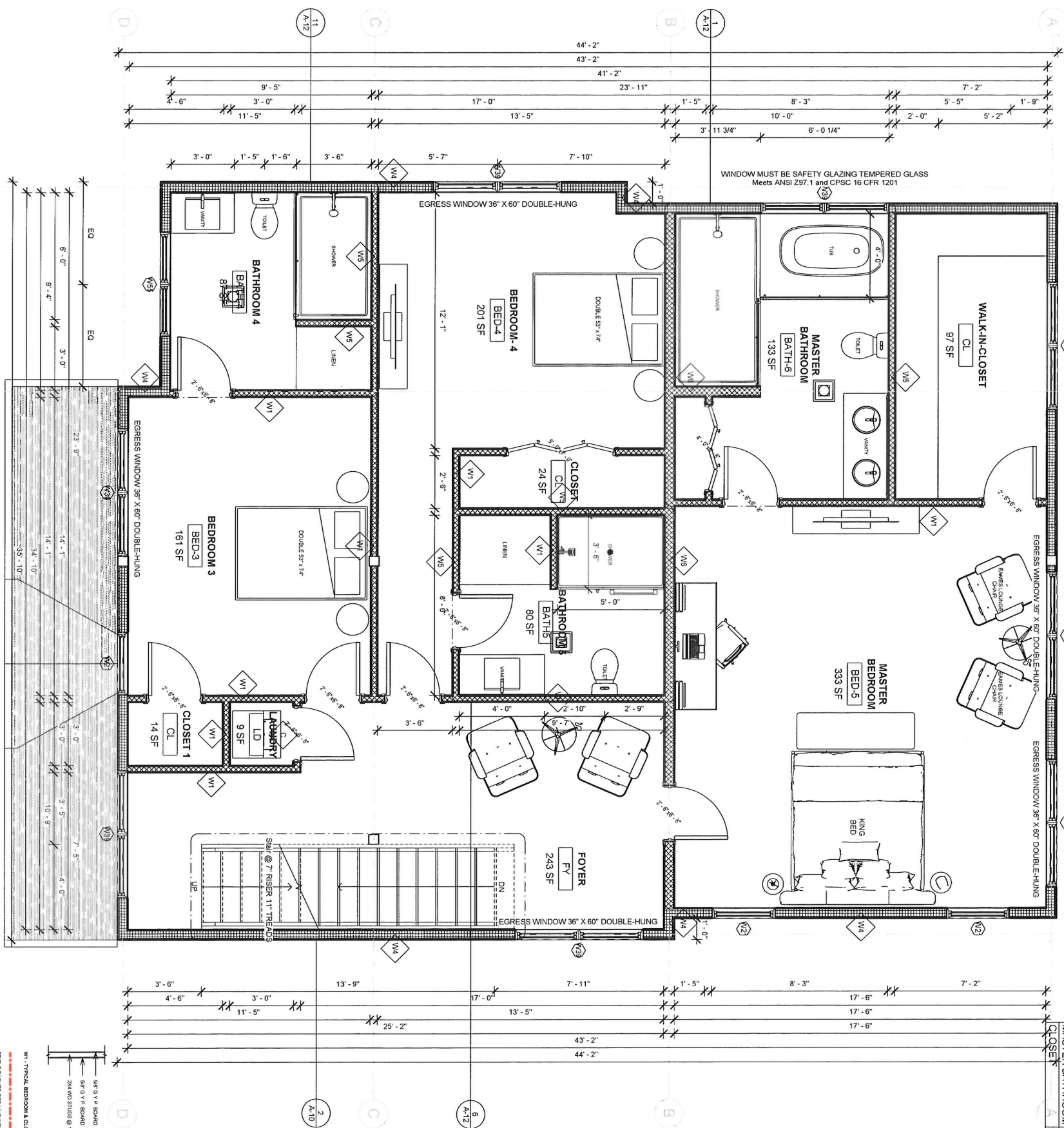
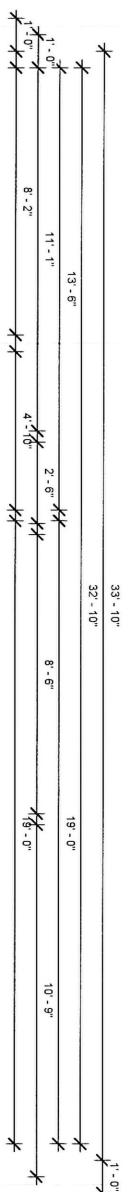
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A-04

Scale As indicated

NOTES: VERIFY ALL DIMENSIONS IN FIELD PRIOR TO FABRICATION AND CONSTRUCTION. ALL EXISTING CONDITIONS TO REMAIN AS IS UNLESS OTHERWISE NOTED



Room Schedule 1						
Name	Number	Area	Level	Wall Finish	Ceiling Finish	Floor Finish
BATHROOM 4	BATH-4	87 SF	Second Floor	1/2 SHEETROCK AND PLASTER	1/2 SHEETROCK AND PLASTER	1/2 18G Tiles
BEDROOM 3	BED-3	161 SF	Second Floor	1/2 SHEETROCK AND PLASTER	1/2 SHEETROCK AND PLASTER	3/4 18G Hardwood
CLOSET 1	CL	14 SF	Second Floor	1/2 SHEETROCK AND PLASTER	1/2 SHEETROCK AND PLASTER	3/4 18G Hardwood
LAUNDRY	LD	9 SF	Second Floor	1/2 SHEETROCK AND PLASTER	1/2 SHEETROCK AND PLASTER	3/4 18G Hardwood
FOYER	FY	243 SF	Second Floor	1/2 SHEETROCK AND PLASTER	1/2 SHEETROCK AND PLASTER	3/4 18G Hardwood
BEDROOM-4	BED-4	201 SF	Second Floor	1/2 SHEETROCK AND PLASTER	1/2 SHEETROCK AND PLASTER	1/2 18G Tiles
BATHROOM 5	BATH-5	80 SF	Second Floor	1/2 SHEETROCK AND PLASTER	1/2 SHEETROCK AND PLASTER	3/4 18G Hardwood
MASTER BEDROOM	BED-5	333 SF	Second Floor	1/2 SHEETROCK AND PLASTER	1/2 SHEETROCK AND PLASTER	3/4 18G Hardwood
WALK-IN-CLOSET	CL	97 SF	Second Floor	1/2 SHEETROCK AND PLASTER	1/2 SHEETROCK AND PLASTER	3/4 18G Hardwood
MASTER BATHROOM	BATH-6	133 SF	Second Floor	1/2 SHEETROCK AND PLASTER	1/2 SHEETROCK AND PLASTER	1/2 18G Tiles
CLOSET	CL	24 SF	Second Floor	1/2 SHEETROCK AND PLASTER	1/2 SHEETROCK AND PLASTER	3/4 18G Hardwood

GYPSUM WALLBOARD - GYPSUM BOARD MUST BE HELD FIRMLY AGAINST THE FRAMING WHILE FASTENING TO AVOID LATER MOVEMENT OF GYPSUM BOARD ON THE SHANK SCREWS.

INTERIOR WALLS: SHEATH WALLS AND CEILINGS WITH 1/2" GYPSUM WALLBOARD, EITHER VERTICALLY WITH LONG EDGES PARALLEL TO FRAMING.

ON THE WALLS, ALL THE OTHER EDGES, AND IN THE CORNERS, NO. 10 REINFORCING BARS SHALL BE PLACED AT 16" ON CENTER. ALL JOINTS BETWEEN MEMBERS, APPLY ONE LAYER OF 1/2" X 4" X .8 .9 .10 OR 12 FOOT LENGTHS TO ALL WALL SURFACES. OFFSET JOINTS BETWEEN LAYERS.

AT LEAST 10" UNLESS OTHERWISE INDICATED, ALL INTERIOR WALLS TO BE COVERED WITH A 1/2" "BLUE BOARD" WITH A VENEER PLASTER SYSTEM WITH METAL CORNER REINFORCING.

Ceilings: Apply a single layer of 1/2" gypsum wall board across the supports and fasten with screws. Offset joints between layers at least 10". Screws are spaced 12" on center (OC), unless otherwise indicated. All interior walls to be covered with a 1/2" "blue board" with a veneer plaster system with metal corner reinforcing.

FIRE-RATED GYPSUM WALLBOARD: IN GARAGES, AROUND GAS WATER HEATERS AND AS REQUIRED BY APPLICABLE BUILDING CODES, INSTALL 5/8" TYPE "X" FIRE-RATED GYPSUM WALLBOARD.

WATER RESISTANT GYPSUM WALLBOARD: AROUND SHOWERS, TUBS, WHIRLPOOLS, OR AS REQUIRED BY APPLICABLE BUILDING CODES, INSTALL

○ FINISH NOTES
1/8" = 1'-0"

1. IN CONCEALED SPACES EVERY 10 FEET HORIZ. OR VERTICAL
2. IN SOFFITS, DROPS & COVE CEILINGS
3. UNDER STAIR AREAS.
4. STAGGERED SOUND WALLS (MAY USE MINERAL FIBER)

FIRE BLOCKING NOTES:

 $\odot 7/8 = 7 \cdot 0$

IBC Requirements (2021 IBC §1202 Ventilation & §1203 Lighting)
Natural Light: Habitable rooms shall have glazing area $\geq 8\%$ of the floor area.
Natural Ventilation: Operable area of windows shall be $\geq 4\%$ of the floor area.

ROOM CALCULATION:

BEDROOM BED-3
Room Area: 161 SF

Required Glazing:

Provided Glazing: $2 \times (3 \times 5) = 2 \times 15 = 30.00 \text{ SF} \rightarrow 18.63\% \rightarrow \checkmark$ Meets

Natural Ventilation (Openable $\geq 4\%$)

Required Operable: $0.04 \times 161 = 6.44$ SF

Double-Hung Net Operable (= 50% of 30 SF): $0.5 \times 30 = 15.00$ SF $\rightarrow 9.32\% \rightarrow \checkmark$ Meets

BEDROOM BED-4
Natural Light (Glazing $\geq 8\%$)

Room Area: 201 S

Required Glazing: $0.08 \times 201 = 16.08$ SF

Provided Glazing: $2 \times (3' \times 5') = 2 \times 15 = 30$

Required Operable: $0.04 \times 201 = 8.04$ SF

Double-Hung Net Operable (= 50% of 30 SF): $0.5 \times 30 = 15.00$ SF $\rightarrow 7.46\% \rightarrow \checkmark$ Meets

BEDROOM BED-5
Natural Light (Glazing \approx 8%)

PROPOSED SECOND FLOOR PLAN

Room Area 333 SF
Required Glazing $0.08 \times 333 = 26.64$ SF
Provided Glazing $4 \times (3 \times 5) + 1 \times 15 = 60.00$ SF — 18.02% — ✓ Meets
Natural Ventilation (Operable % 4%)
Required Operable $0.04 \times 333 = 13.32$ SF
Double-Hung Net Operable, 50% of 60 SF, 0.5 \times 60 = 30.00 SF — 9.01% — ✓ Meets

Double-Hung Net Operable (= 50% of 60 SF): $0.5 \times 60 = 30.00$ SF $\rightarrow 9.01\% \rightarrow \checkmark$ Meets

CLOSED CELL FOAM INSULATION
58" GYP BOARD

(2) LAYERS SUB-TYPE: X F

1/2" EXTERIOR GRADE PLYWOOD
WIND & MOISTURE BARRIER

W4 - EXTERIOR WALL

W5 - TUB / SHOWER PARTITION

GRAPHIC SCALE



Scale _____ As indicated

3/3/2025 4:29:05 PM

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X
RANGEL

Stephon Gillings

109 SMITH ROAD
MILTON, MA

No.	Description	Date
1	SCHEMATIC DESIGN 1	9/15/2025

Rangel Project Number	25-08
Date	9/15/2022
Drawn by	S.R
Checked by	J.K



PROPOSED SECOND FLOOR PLAN

NOTES: VERIFY ALL DIMENSIONS IN FIELD PRIOR TO FABRICATION AND CONSTRUCTION. ALL EXISTING CONDITIONS TO REMAIN AS IS UNLESS OTHERWISE NOTED

Room Schedule 3				
Name	Number	Area	Level	Floor Finish
FINISHED ATTIC	AT	1043 SF	Attic	1/2 SHEETROCK AND PLASTER 3/4 T&G Hardwood

GYPSUM WALLBOARD - GYPSUM BOARD MUST BE HELD FIRMLY AGAINST THE FRAMING WHILE FASTENING TO AVOID LATER MOVEMENT OF GYPSUM BOARD ON THE SHANK SCREWS.

INTERIOR WALLS: SHEATH WALLS AND CEILINGS WITH 1/2" GYPSUM WALLBOARD, EITHER VERTICALLY WITH LONG EDGES PARALLEL TO FRAMING, OR HORIZONTALLY WITH LONG EDGES AT RIGHT ANGLES TO FRAMING MEMBERS. APPLY ONE LAYER OF 1/2" X 4", 8", 9", 10" OR 12" FOOT LENGTHS TO ALL WALL SURFACES. OFFSET JOINTS BETWEEN LAYERS.

AT LEAST 10", UNLESS OTHERWISE INDICATED. ALL INTERIOR WALLS TO BE COVERED WITH A 1/2" "BLUE BOARD" WITH A VENEER PLASTER SYSTEM WITH METAL CORNER REINFORCING.

Ceilings: Use a single layer of 1/2" gypsum wallboard across the supports and fasten with screws. Offset joints between layers at least 10". Screws are spaced 12" on center (OC), unless otherwise indicated. All interior walls to be covered with a 1/2" "blue board" with a veneer plaster system with metal corner reinforcing.

FIRE-RATED GYPSUM WALLBOARD: IN GARAGES, AROUND GAS WATER HEATERS AND AS REQUIRED BY APPLICABLE BUILDING CODES, INSTALL 5/8" TYPE "X" FIRE-RATED GYPSUM WALLBOARD.

WATER RESISTANT GYPSUM WALLBOARD: AROUND SHOWERS, TUBS, WHIRLPOLS, OR AS REQUIRED BY APPLICABLE BUILDING CODES, INSTALL

○ FINISH NOTES
1/8" = 1'-0"

1/8" = 1'-0"

1. IN CONCEALED SPACES EVERY 10 FEET HORIZ. OR VERTICAL
2. IN SOFFITS, DROPS & COVE CEILINGS
3. UNDER STAIR AREAS.
4. STAGGERED SOUND WALLS (MAY USE MINERAL FIBER)

FIRE BLOCKING NOTES:
1/8" = 1'-0"

 $1/8" = 1'-0"$

No.	Description	Date
1	SCHEMATIC DESIGN 1	9/15/2025

Rangel Project Number 25-087

Drawn by _____ S.R.

Checked by	Verificador
------------	-------------



PROPOSED ATTIC
FLOOR PLAN



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109 SMITH ROAD
MILTON, MA



A-06

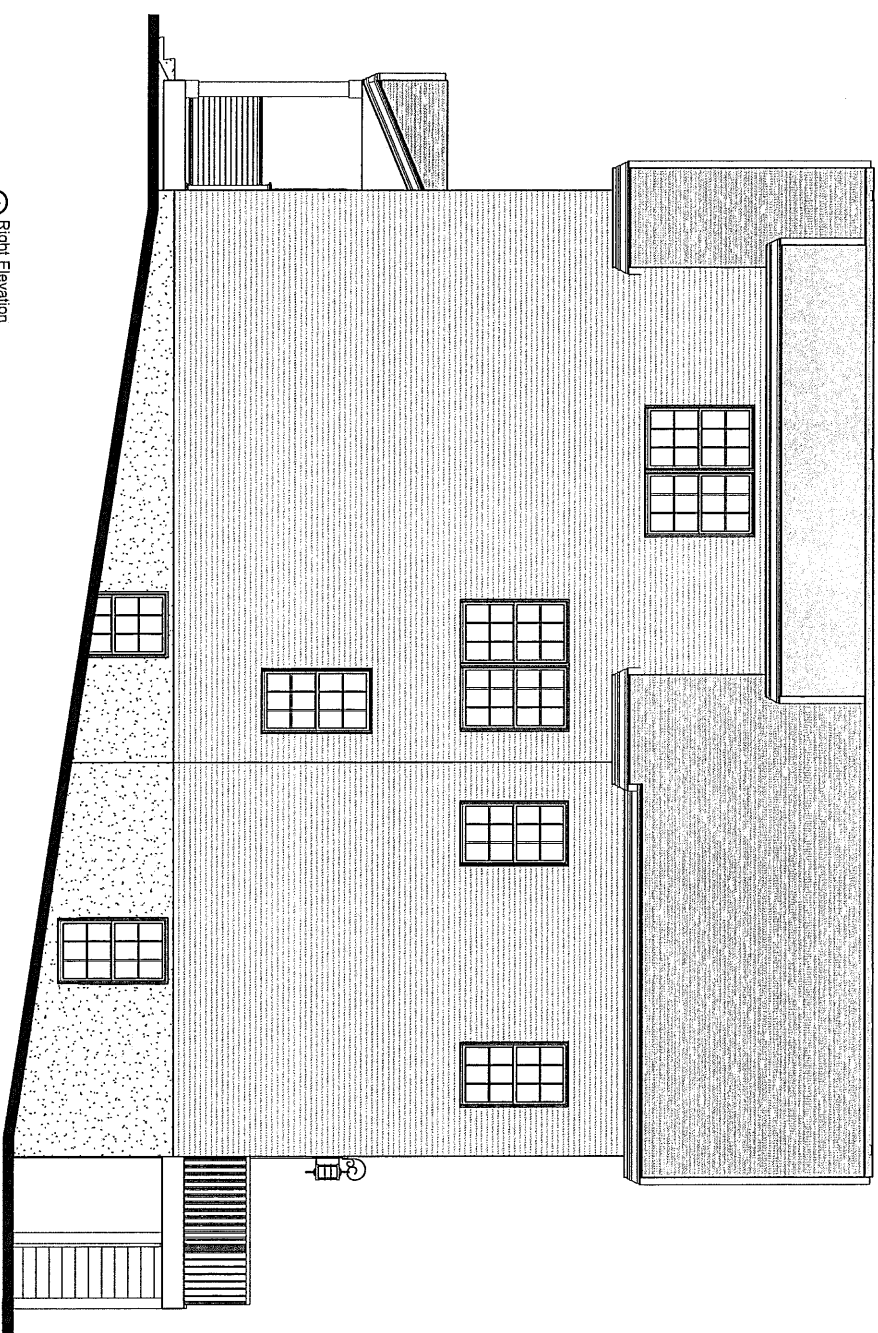
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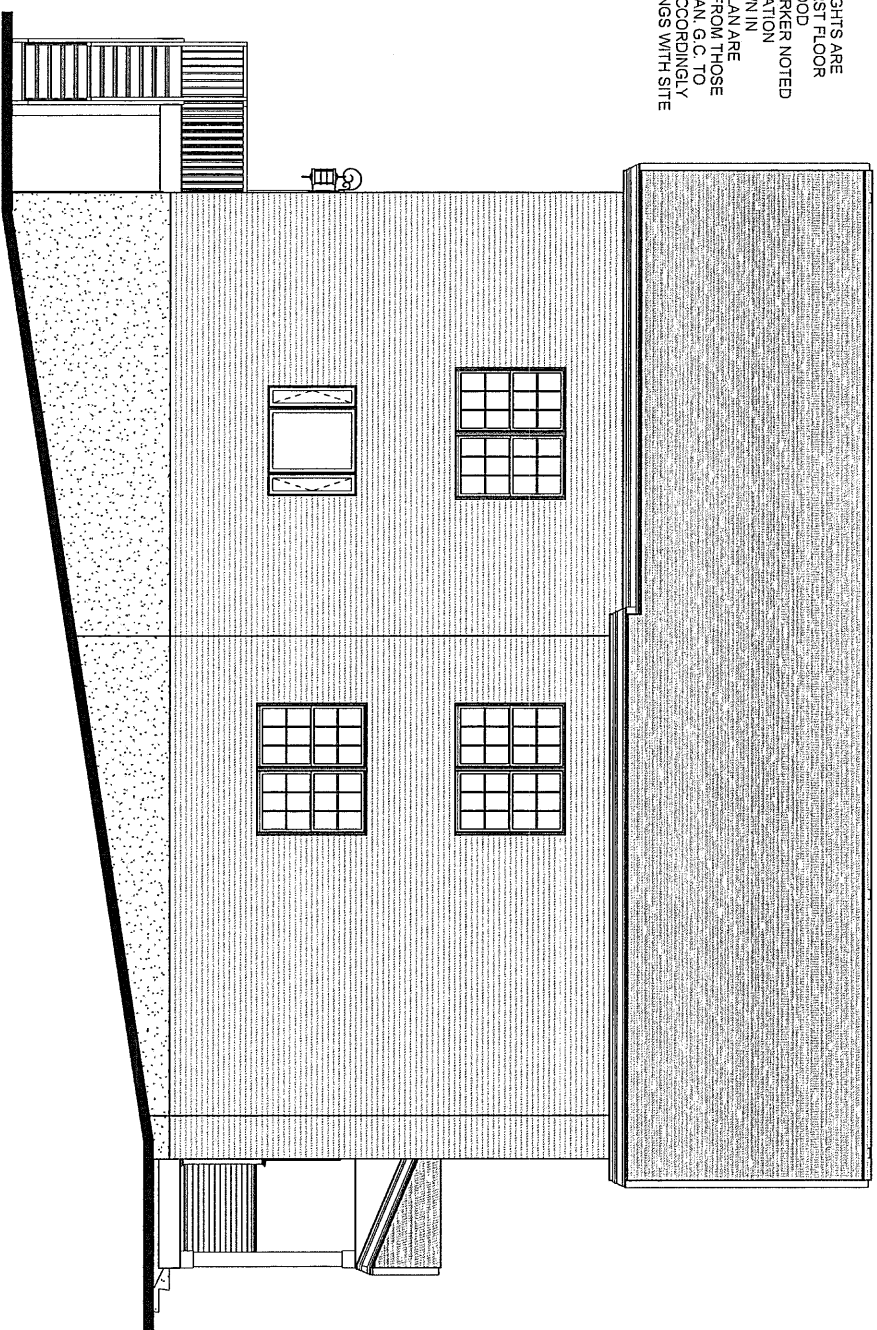
109 SMITH ROAD
MILTON, MA

A-07



① Right Elevation
1/4" = 1'-0"

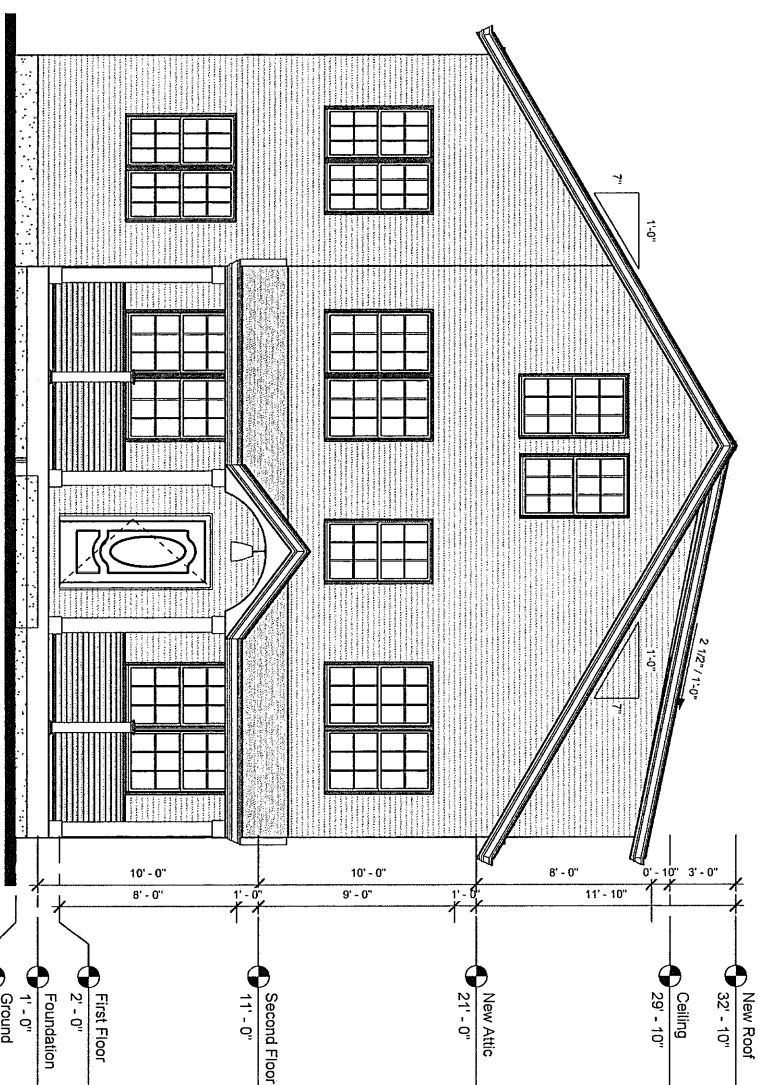
1/4" = 1'-0"



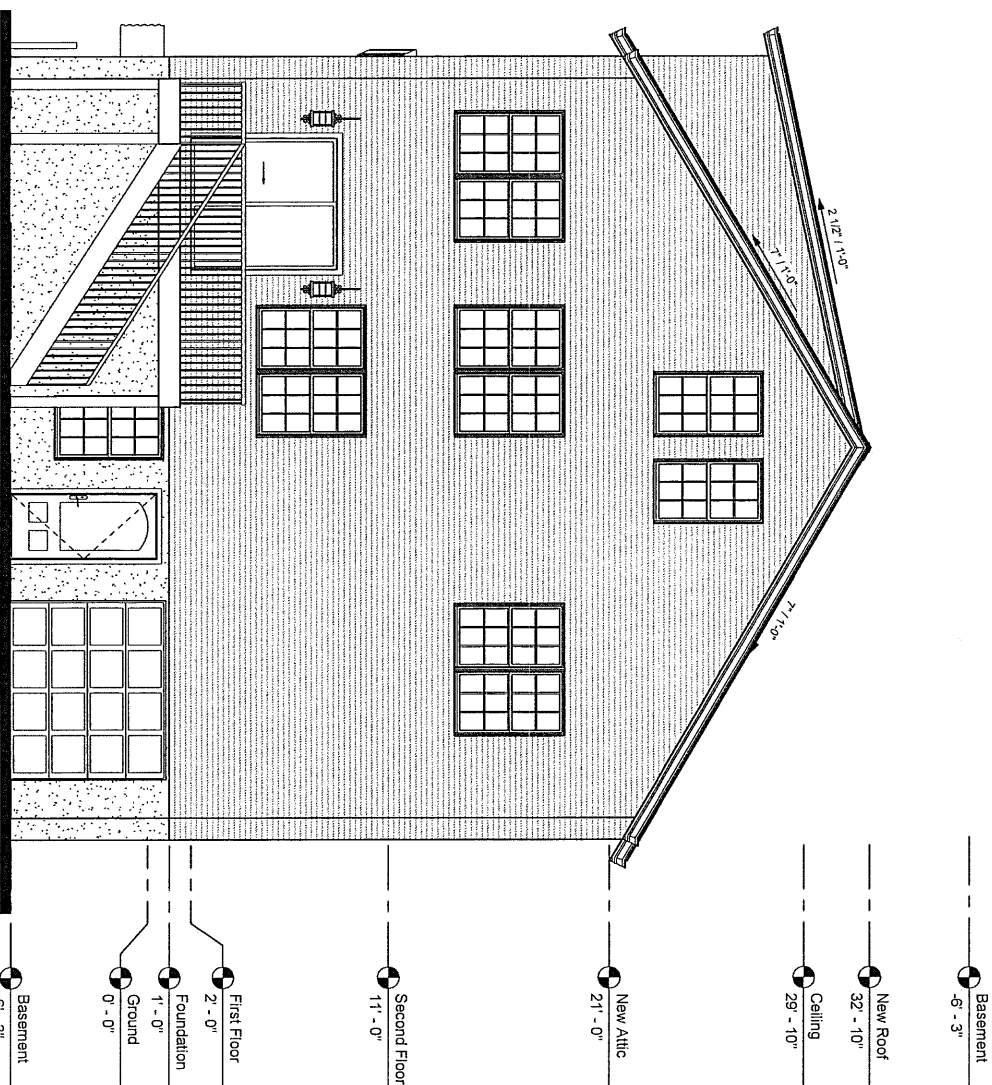
④ Left Elevation
1/4" = 1'-0"

1/4" = 1'-0"

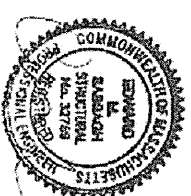
NOTES:
ELEVATION HEIGHTS ARE
DEFINED BY FIRST FLOOR
(TOP OF PLYWOOD
ELEVATION) MARKER NOTED
AS 100'-0" ELEVATION
HEIGHTS SHOWN IN
FOUNDATION PLAN ARE
INDEPENDENT FROM THOSE
OF THE SITE PLAN. G.C. TO
COORDINATE ACCORDINGLY
DESIGN DRAWINGS WITH SITE
PLAN.



③ Front Elevation
1/4" = 1'-0"

$$\overline{t''} = t' - 0$$


② Rear Elevation
1/4" = 1'-0"

$$\overline{4''} = 1'-0$$


ELEVATION

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[illegible]

Date	9/15/2023
Drawn by	S.R
Checked by	J.K



A-08

Scale 1/4" = 1'-0"

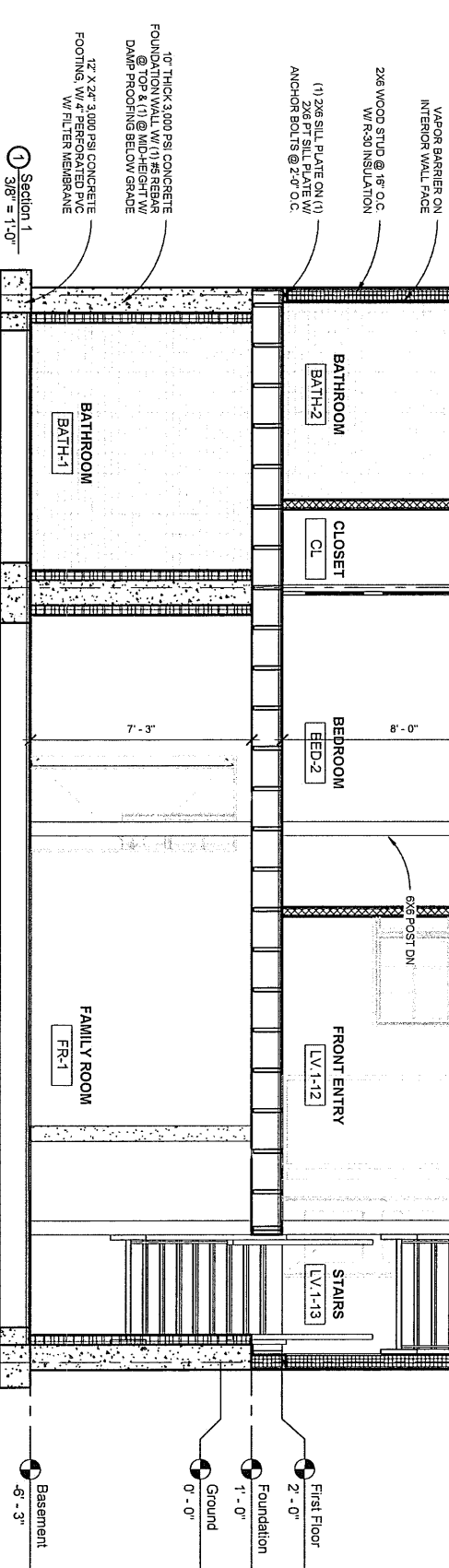
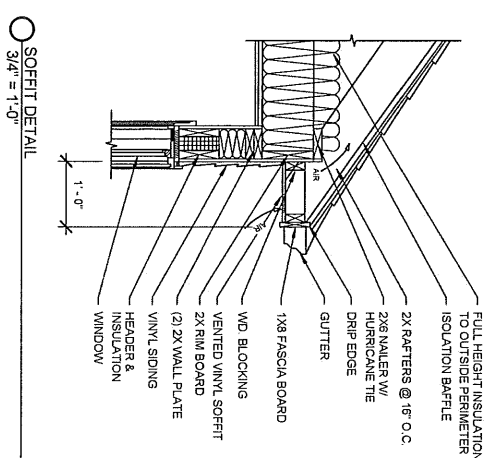
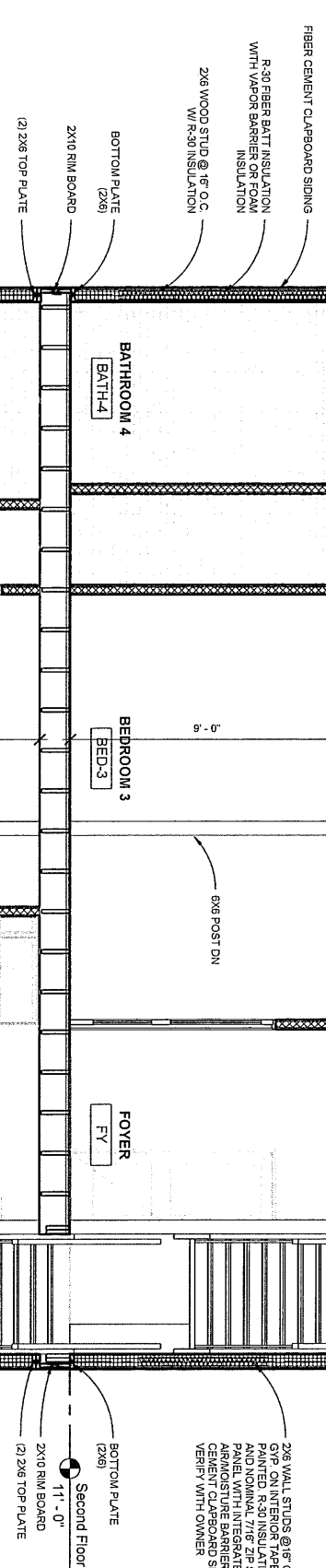
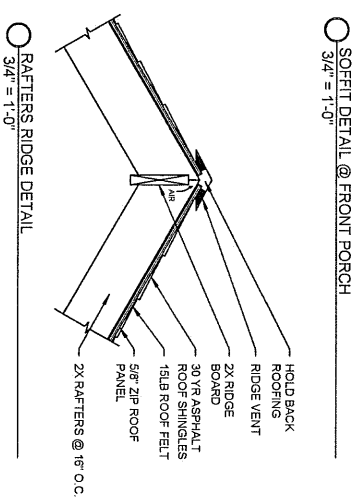
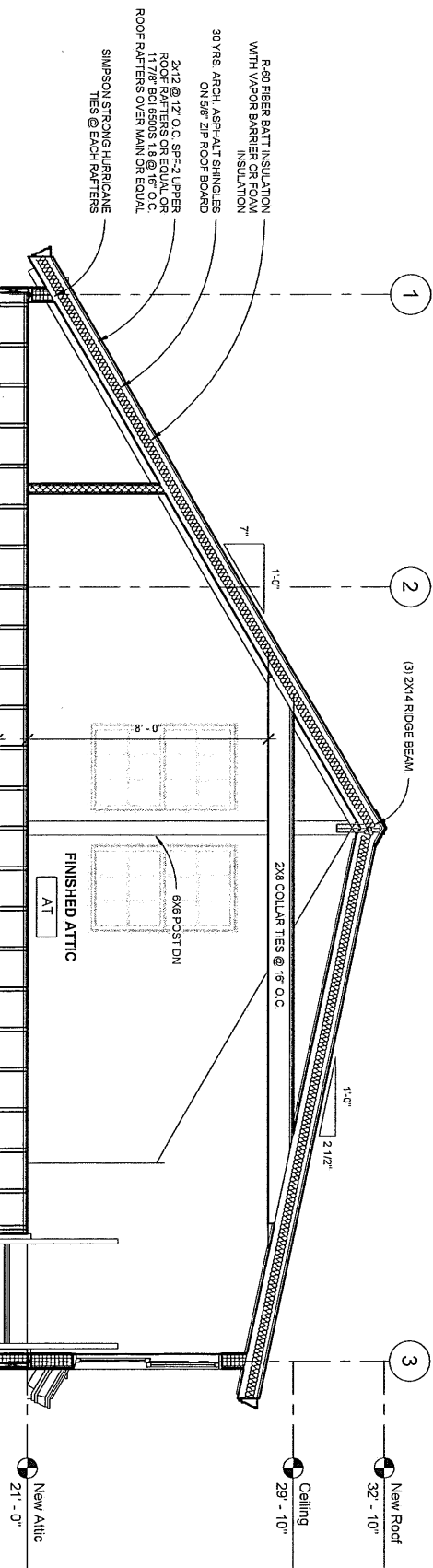
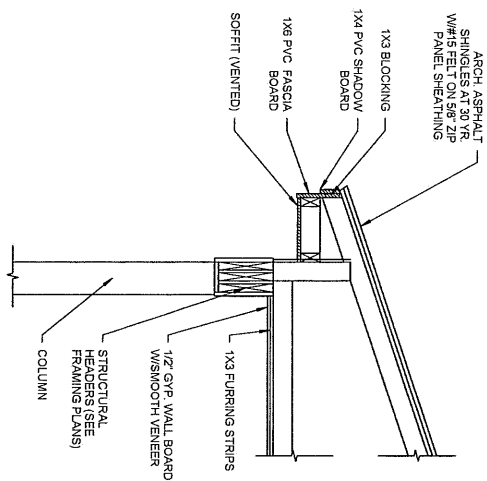
ENERGY CODE REQUIREMENTS (IECC 2018 EDITION)

TABLE R402.1.2 INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT (a)

CLIMATE ZONE	FENESTRATION U-FACTOR (b)	SKYLIGHT(b) U-FACTOR	GLAZED FENESTRATION...	CEILING R-VALUE	WOOD FRAME WALL...	MASS WALL...	FLOOR R-VALUE	BASEMENT (c) WALL R-VALUE	SLAB (d) R-VALUE & ...	CRAWL SPACE (c)...
5 B	0.30	0.55	NR	49	21 or 13+5(n)	13/17	30(g)	15/19	10, 2 ft	15/19

NR = Not Required, For Sl: 1 foot = 304.8 mm

a. R-values are minimums. U-factors and SHGC are maximums. When insulation is installed in a cavity which is less than the label or design thickness of the insulation, the installed R-value of the insulation shall not be less than the R-value specified in the table.

b. The fenestration U-factor column excludes skylights. The SHGC column applies to all glazed fenestration. Exception: Skylights may be excluded from glazed fenestration SHGC requirements in climate zones 1 through 3 where the SHGC for such skylights does not exceed 0.30.

c. "15/19" means R-15 continuous insulation on the interior or exterior of the home or R-19 cavity insulation at the interior of the basement wall. "15/19" shall be permitted to be met with R-13 cavity insulation on the interior of the basement wall plus R-5 continuous insulation on the interior or exterior of the home. "0/13" means R-10 continuous insulation on the interior or exterior of the home or R-13 cavity insulation at the interior of the basement wall.

b. The fenestration U-factor column excludes skylights. The SHGC column applies to all glazed fenestration. Exception: Skylights may be excluded from glazed fenestration SHGC requirements in climate zones 1 through 3 where the SHGC for such skylights does not exceed 0.30.

c. "5/19" means R-15 continuous insulation on the interior or exterior of the home or R-19 cavity insulation at the interior of the basement wall. "5/9" shall be permitted to be met with R-13 cavity insulation on the interior of the basement wall plus R-5 continuous insulation on the interior or exterior of the home. "10/13" means R-10 continuous insulation on the interior or exterior of the home or R-13 cavity insulation at the interior of the basement...

d. R-5 shall be added to the required slab edge R-values for heated slabs. Insulation depth shall be the depth of the footing or 2 feet, whichever is less in Climate Zones 1 through 3 for heated slabs.

e. There are no SHGC requirements in the Marine Zone.

f. Basement wall insulation is not required in warm-humid locations as defined by Figure R301.1 and Table R301.1.

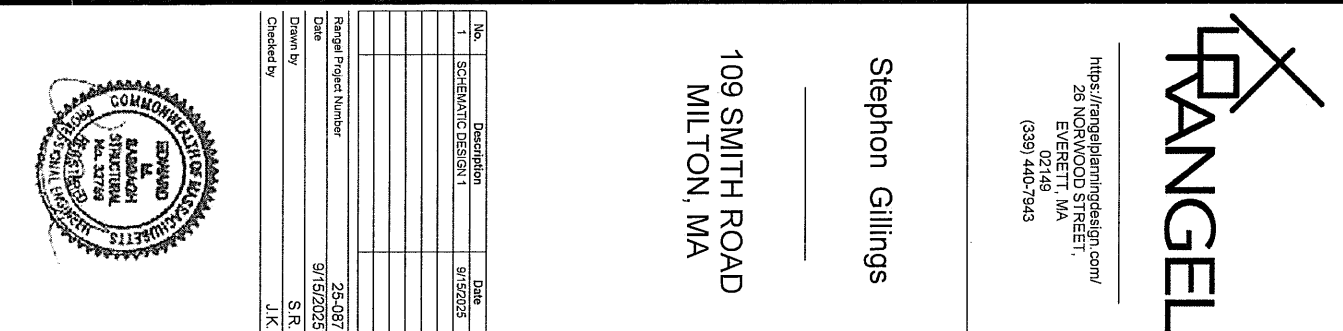
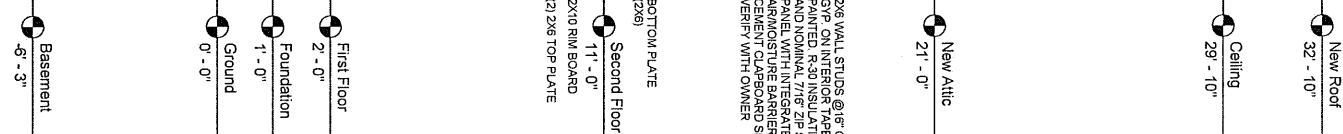
g. Or insulation sufficient to fill the framing cavity, R-19 minimum.

h. The first value is cavity insulation, the second value is continuous insulation, so "13+5" means R-13 cavity insulation plus R-5 continuous insulation

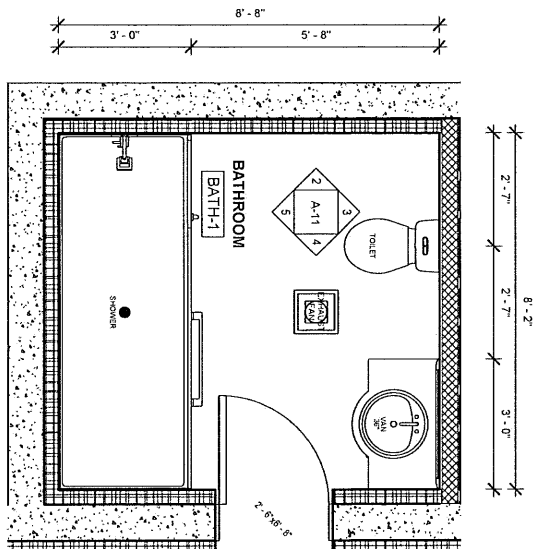
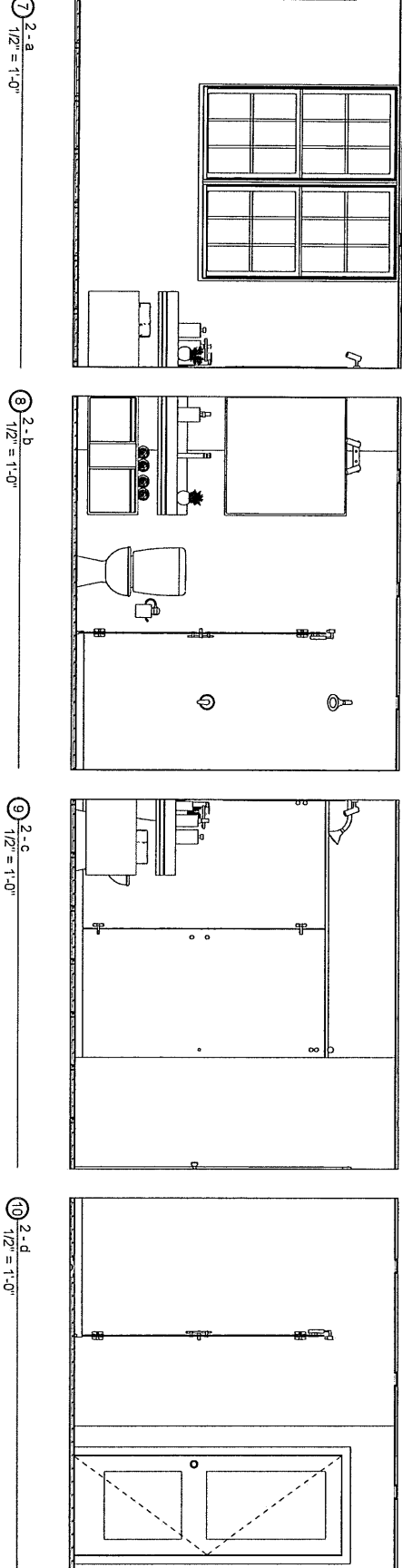
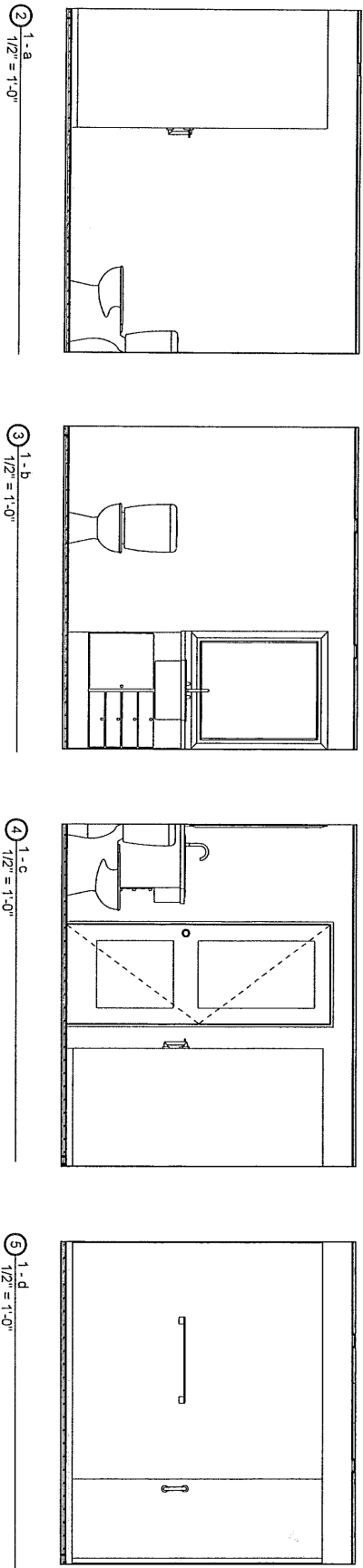
i. The second R-value applies when more than half the insulation is on the interior of the mass wall

INSULATION NOTES - Section 1

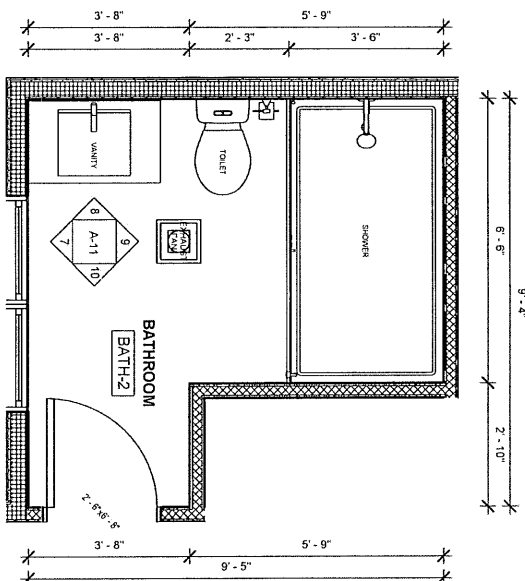
1. PRESCRIPTIVE CONFORMANCE TO IECC SECTION 402 SELECTED FOR COMPLIANCE WITH IRC CHAPTER 11 N1101.2
2. MINIMUM WINDOW PERFORMANCE: U-0.30 OR BETTER
3. MINIMUM SKYLIGHT PERFORMANCE: U-0.55 OR BETTER
4. ROOF AND CEILING INSULATION: PERFORMANCE R-49 OR BETTER, EXTEND FULL DEPTH INSULATION TO EXTERIOR WALL SHEATHING TO ELIMINATE COLD CORNERS AND PREVENT ICE DAM FORMATIONS
5. WOOD FRAME EXTERIOR WALLS: HIGH PERFORMANCE R-21 WALL INSULATION IN 2x6 WD STUD WALLS OR FLASH AND BATT WITH SPRAY FOAM AND FIBERGLAS ATT INSULATION TO MEET MINIMUM REQUIREMENT IN TABLE 402.1.1
6. MASS WALLS: R-17 MINIMUM PERFORMANCE IF INSTALLED INSIDE OF WALL CENTERLINE, R-13 MINIMUM IF INSTALLED ON THE OUTSIDE AS MEASURED FROM THE WALL CENTERLINE
7. FLOOR INSULATION: R-30 INSULATION BETWEEN JOISTS. INSULATION MUST BE INSTALLED FOR PERMANENT DIRECT CONTACT BETWEEN SUB-FLOOR AND INSULATION. INSTALLATIONS THAT ALLOW FUTURE SAGGING OF INSULATION AWAY FROM FLOOR DECK NOT PERMITTED
8. FOUNDATION AND SLAB INSULATION AT BASEMENT: R-30 INSULATION UNDER SLAB



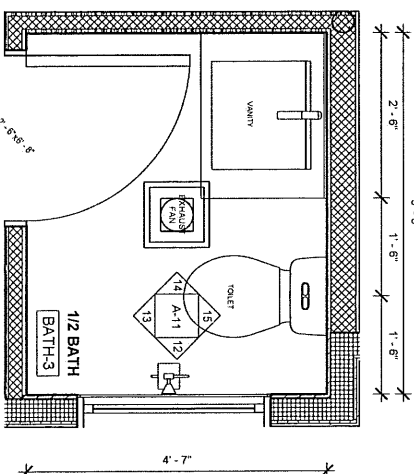
- BATHROOM NOTES:**
- BATH TUB AND SHOWER FLOORS AND WALLS ABOVE BATH TUBS WITH INSTALLED SHOWER HEADS AND IN SHOWER COMPARTMENTS SHALL BE FINISHED WITH A NONABSORBENT SURFACE. SUCH WALL SURFACES SHALL EXTEND TO A HEIGHT OF NOT LESS THAN 6 FEET ABOVE THE FLOOR.
 - AROUND SHOWERS, TUBS, WHIRLPOOLS, INSTALL 1/2" WATER RESISTANT DRYWALL OR EQUAL.
 - ALL TUB OR SHOWER ENCLOSURES ARE TO BE GLAZED WITH SAFETY GLAZING.
 - BATHROOMS AND UTILITY ROOMS ARE TO BE VENTED TO THE OUTSIDE WITH A MINIMUM OF A 60CFM FAN.
 - THE CENTER LINE OF WATER CLOSET SHALL BE NOT LESS THAN 15" FROM ADJACENT WALL PARTITIONS OR 12" FROM A TUB 21" MIN FRONT CLEARANCE.



1 LEVEL 0 - Callout 1
1/2" = 1'-0"



6 LEVEL 1 - Callout 2
1/2" = 1'-0"



11 LEVEL 1 - Callout 3
3/4" = 1'-0"



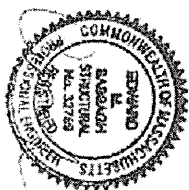
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Stephon Gillings

109 SMITH ROAD
MILTON, MA

No.	Description	Date
1	SCHEMATIC DESIGN 1	9/15/2025

Range Project Number 25,087
Date 9/15/2025
Drawn by S.R.
Checked by J.K.



ENLARGED
BATHROOM

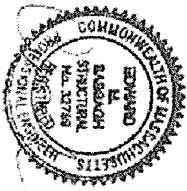
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Scale As Indicated

No.	Description	Date
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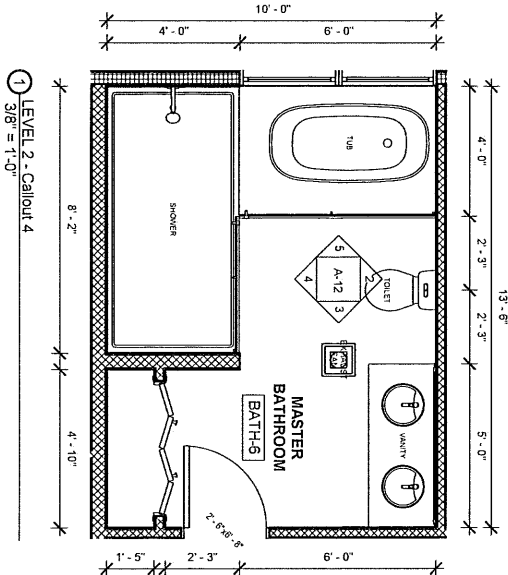
Range! Project Number 25-087
Date 9/15/2025
Drawn by S.R.
Checked by Verificator



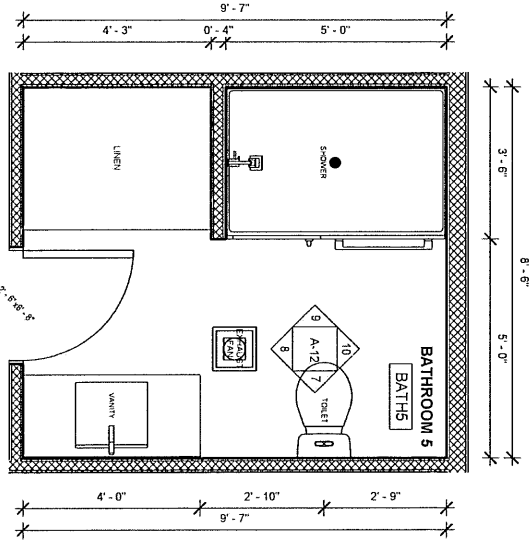
ENLARGED
BATHROOM

A-12

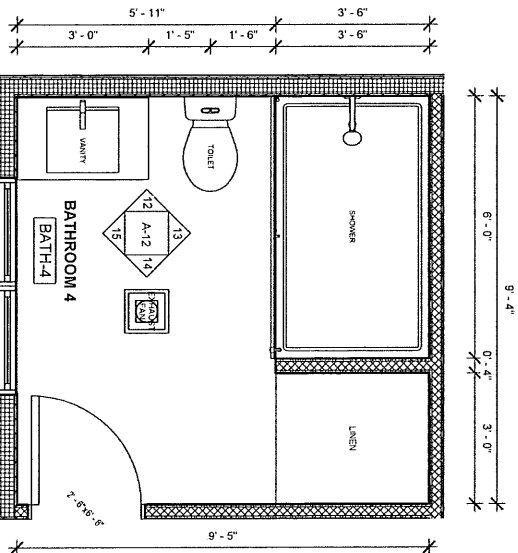
- BATHROOM NOTES:**
- BATH TUB AND SHOWER FLOORS AND WALLS ABOVE BATH TUBS WITH INSTALLED SHOWER HEADS AND IN SHOWER COMPARTMENTS SHALL BE FINISHED WITH A NONABSORBENT SURFACE. SUCH WALL SURFACES SHALL EXTEND TO A HEIGHT OF NOT LESS THAN 6 FEET ABOVE THE FLOOR.
 - AROUND SHOWERS, TUBS, WHIRLPOOLS, INSTALL 1/2" WATER RESISTANT DRYWALL OR EQUAL.
 - ALL TUB OR SHOWER ENCLOSURES ARE TO BE GLAZED WITH SAFETY GLAZING. A 90CFM FAN.
 - BATHROOMS AND UTILITY ROOMS ARE TO BE VENTED TO THE OUTSIDE WITH A MINIMUM OF 21" MIN. FRONT CLEARANCE. WALLS PARTITIONS OR 1/2" FROM A TUB
 - THE CENTER LINE OF WATER CLOSET SHALL BE NOT LESS THAN 15" FROM ADJACENT WALLS PARTITIONS OR 1/2" FROM A TUB



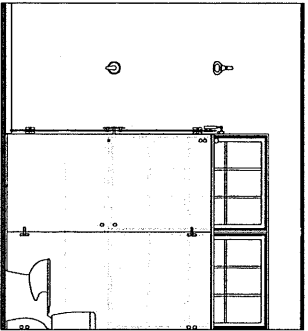
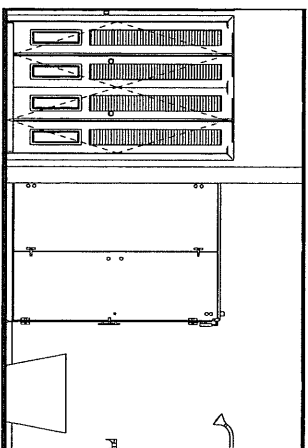
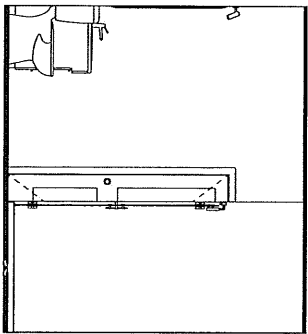
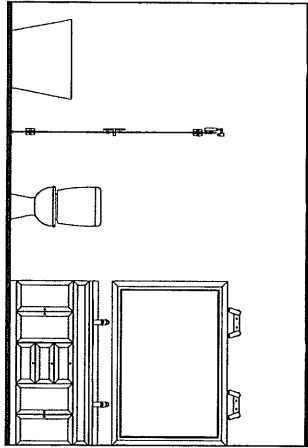
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3/8" = 1'-0"



5 LEVEL 2 - Callout 5
1/2" = 1'-0"



11 LEVEL 2 - Callout 6
1/2" = 1'-0"

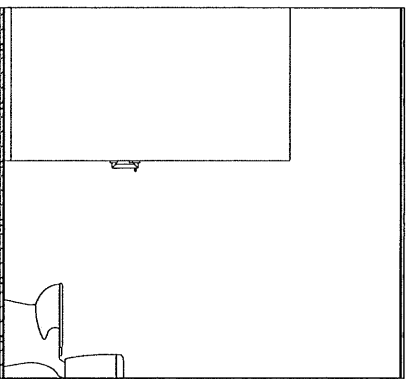
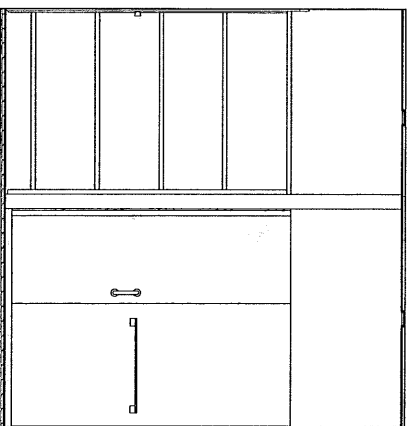
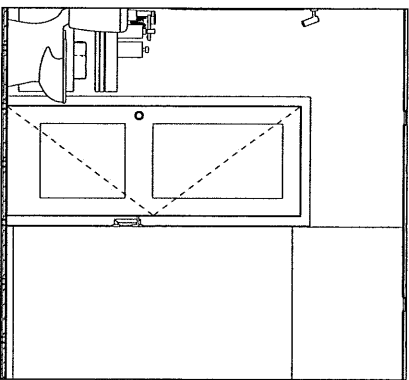
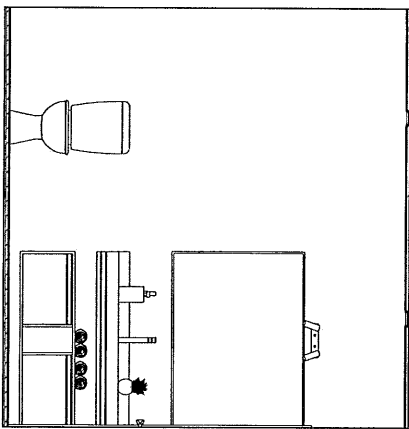


2 4-a
3/8" = 1'-0"

3 4-b
3/8" = 1'-0"

4 4-c
3/8" = 1'-0"

5 4-d
3/8" = 1'-0"

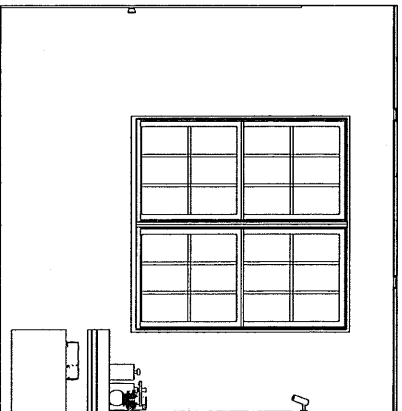
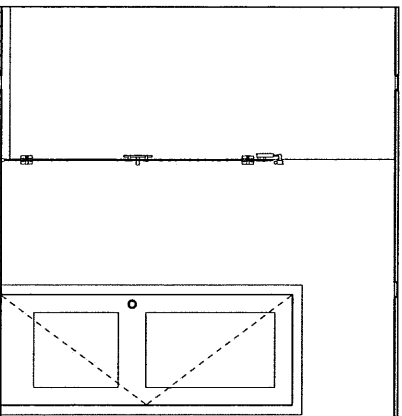
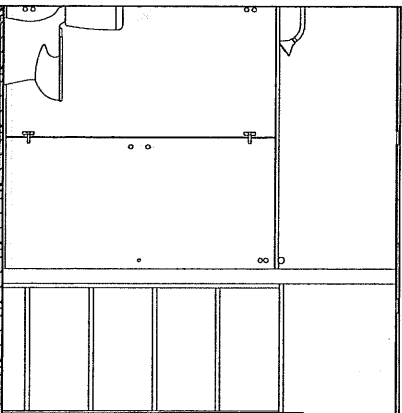
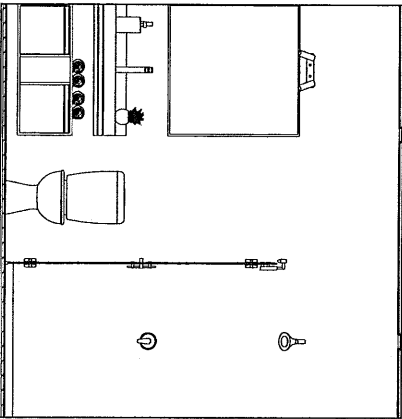


7 5-a
1/2" = 1'-0"

8 5-b
1/2" = 1'-0"

9 5-c
1/2" = 1'-0"

10 5-d
1/2" = 1'-0"



12 6-a
1/2" = 1'-0"

13 6-b
1/2" = 1'-0"

14 6-c
1/2" = 1'-0"

15 6-d
1/2" = 1'-0"

MILTON I.S.D. & FIRE DEPT. SHALL
HAVE FINAL APPROVAL OF ALL LIFE-
SAFETY COMPONENTS

LIFE SAFETY LEGEND:

SMOKE DETECTORS
[R314 PG. 87 AMENDED]
[R315 4 PG. 88 AMENDED]
1 IN EACH BEDROOM
1 OUTSIDE EACH SEPARATE BEDROOM
1 NEAR BASE OF EACH STAIRWAY
1 IN EVERY BASEMENT & WALK UP
ATTIC
1 FOR EVERY 1,000 SQ. FT.

CARBON MONOXIDE
[R315.4 PG. 88 AMENDED]
1 IN EACH HABITATL STORY OF THE
HOUSE
AND WITHIN 10 FT. OF ALL BEDROOMS

SMOKE CARBON MONOXIDE
COMBO
[R315 4 PG. 88 AMENDED]
MAY BE USED WHERE SMOKE
DETECTORS
ARE LOCATED PER R315.3
HEAT DETECTOR
1 IN EACH ATTACHED GARAGE,
NEAR CENTER
EXHAUST FAN AT BATHROOMS

ELECTRICAL NOTES:

NOTE #1: CONTRACTOR TO REVIEW SWITCHING LOCATIONS IN
FIELD WITH ARCHITECT PRIOR TO ROUGH WIRING.
NOTE #2: CONTRACTOR TO REVIEW FINAL SCONCE LOCATION
WITH ARCHITECT AND OWNER PRIOR TO ROUGH WIRING.
NOTE #3: ALL SUSPENDED GYPSUM BOARD CEILINGS TO BE
FRAMED AS HIGH AS POSSIBLE BELOW MECHANICAL
UNITS.
NOTE #4: SUSPENDED GYP. BOARD CEILINGS SHOULD USE USG
DRYWALL SUSPENSION SYSTEM "DGLW" OR EQUAL.
NOTE #5: SUSPENDED CEILINGS WITHIN CORRIDOR TO USE USG
WALL-TO-WALL SUSPENSION SYSTEM "DGLW" OR EQUAL.
NOTE #6: ALL GYPSUM BOARD CEILINGS TO HAVE SMOOTH
TEXTURE AND PAINT FINISH AS SCHEDULED.
NOTE #7: PLANS GOVERN FOR FIXTURE
LOCATION AND TYPE. RE: ELECTRICAL FOR FIXTURE
SPECIFICATIONS.
NOTE #8: ALL LIGHT FIXTURE PENETRATIONS AT FLOOR/CEILING
ASSEMBLIES NEED TO MAINTAIN THE FIRE RATING OF
THE ASSEMBLY.
NOTE #9: CONNECT ALL SMOKE DETECTORS (SEE PLAN FOR LOCATION) TO
HOUSE ELECTRICAL SYSTEM AND INTERCONNECT EACH ONE SO THAT
WHEN ONE IS TRIPPED THEY WILL ALL SOUND.

Stephon Gillings

109 SMITH ROAD
MILTON, MA

No.	Description	Date
1	SCHEMATIC DESIGN 1	9/15/2025

Range Project Number 25-087
Date 9/15/2025
Drawn by S.R.
Checked by J.K.



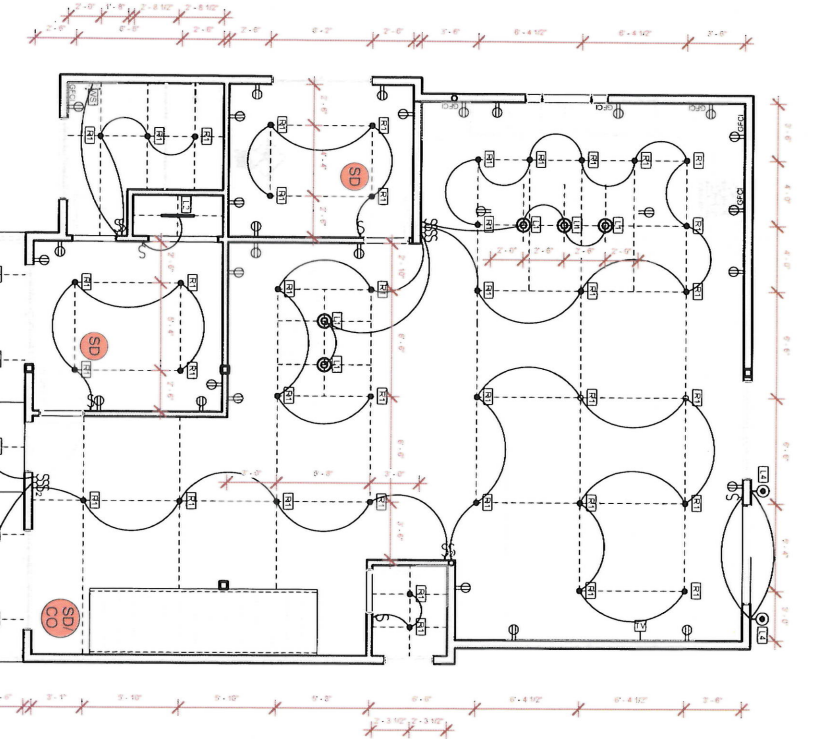
REFLECTED CEILING

ELECTRICAL LEGEND	
	CEILING FAN WITH LIGHT
	TV CONNECTION
	DATA JACK
	TELEPHONE JACK
	GFCI PROTECTED OUTLET
	STANDARD 110V OUTLET
	STANDARD 220V OUTLET
	PROGRAMMABLE THERMOSTAT
	LIGHT SWITCH
	2-WAY LIGHT SWITCH
	3-WAY LIGHT SWITCH
	CEILING MOUND RADINAT HEATER
	ELECTRICAL PANEL
	WALL SCONCE - BATH
	WALL MOUNTED LIGHT FIXTURE
	FLOOD LIGHT FIXTURE
	4' ROUND RECESSED LED DOWNLIGHT (TYP.)
	PENDANT LIGHT FIXTURE
	2' WIDE, 2' FT LONG LINEAR LED LIGHT, GENERAL LIGHT
	2' WIDE, 4' FT LONG LINEAR LED L1 LIGHT, GENERAL LIGHT
	CEILING MOUNTED FAN LIGHT
	SMOKE DETECTOR
	CARBON MONOXIDE DETECTOR
	FIRE EXTINGUISHER (5KG CO2 TYPE)
	FIRE EXTINGUISHER (5KG ABC TYPE)
	HEAT DETECTOR
	DUAL SMOKE DETECTOR
	CARBON MONOXIDE DETECTOR

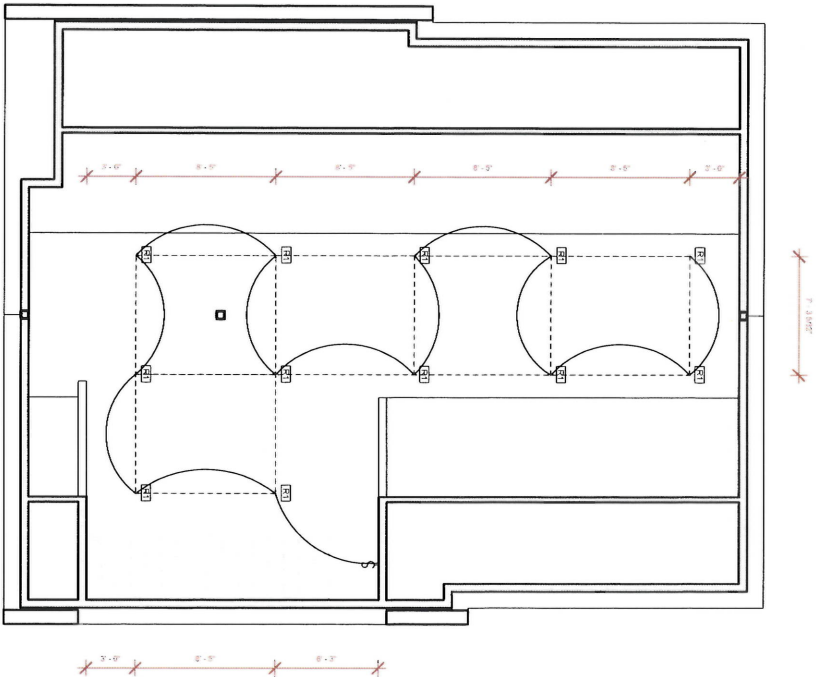
ELECTRICAL SYMBOL & LEGEND

A-13

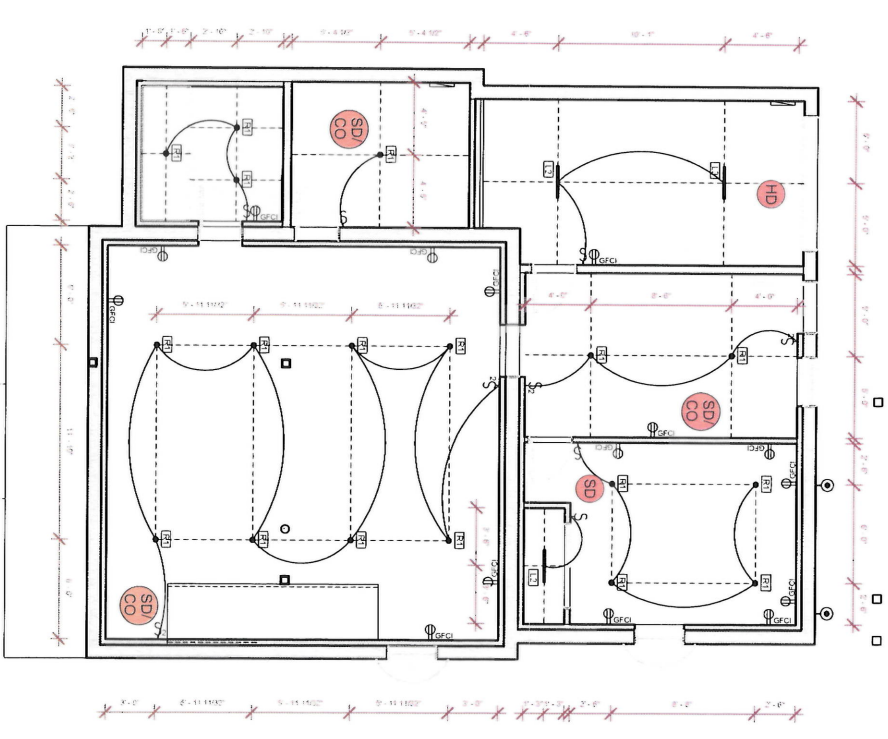
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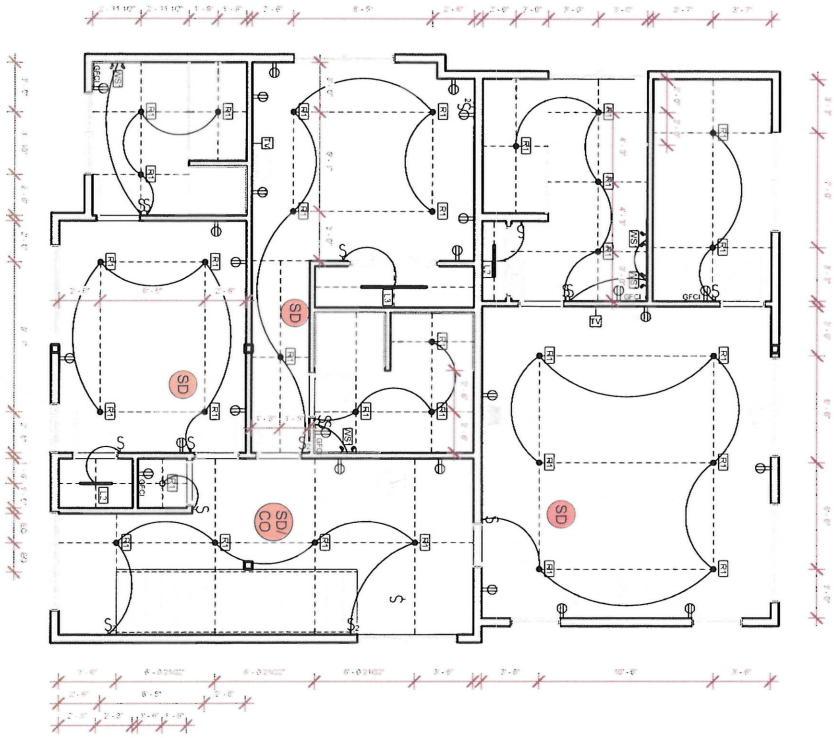
1 First Floor
3/16" = 1'-0"



2 Attic
3/16" = 1'-0"



4 Basement
3/16" = 1'-0"



3 Second Floor
3/16" = 1'-0"

FOUNDATION NOTES

- FOOTINGS ARE TO BEAR ON UNDISTURBED LEVEL SOIL. DEVOID OF ANY ORGANIC MATERIALS AND STEPPED AS REQUIRED TO MAINTAIN THE REQUIRED DEPTH BELOW THE FINAL GRADE.
- SOIL BEARING PRESSURE ASSUMED TO BE 1500 PSF.
- ANY FILL UNDER GRADE SUPPORTED SLABS TO BE A MINIMUM OF 4" GRANULAR MATERIAL COMPACTED TO 95%.
- CONCRETE:
 - BASEMENT WALLS & FOUNDATIONS NOT EXPOSED TO WEATHER: 3000 PSI
 - BASEMENT & INTERIOR SLABS ON GRADE: 3000 PSI
 - BASEMENT WALLS & FOUNDATIONS EXPOSED TO THE WEATHER: 3000 PSI

- (AS PER U.B.C. APPENDIX CHPT. TABLE A-26-A)
- CONCRETE SLABS TO HAVE CONTROL JOINTS AT 25' (MAXIMUM) INTERVALS EACH WAY.
 - CONCRETE SIDEWALKS TO HAVE TOOLED JOINTS AT 5' O.C. (MINIMUM)
 - REINFORCED STEEL TO BE A-615 GRADE 40. WELDED WIRE MESH TO BE A-185.
 - EXCAVATE THE SITE TO PROVIDE A MINIMUM OF 18" CLEARANCE UNDER ALL GRIDERS.
 - COVER ENTIRE CRAWLSPACE WITH 6 MIL BLACK "WISQUEEN" AND EXTEND UP FDN. WALLS TO P.T. MUDSILL.
 - PROVIDE A MINIMUM OF 1 SQ. FT. OF VENTILATION AREA FOR EACH 150 SQ. FT. OF CRAWLSPACE AREA. VENTS ARE TO BE CLOSABLE WITH OPENINGS IN CORROSIVE RESISTANT SCREEN. POST NOTICE RE: OPENING VENTS ARE THE ELECTRICAL PANEL.
 - ALL WOOD IN CONTACT WITH CONCRETE TO BE PRESSURE TREATED OR PROTECTED WITH 55# ROLL ROOFING.
 - BEAM POCKETS IN CONCRETE TO HAVE 1/2" AIRSPACE AT SIDES AND ENDS WITH A MINIMUM BEARING OF 3'.
 - PROVIDE CRAWLSPACE DRAIN AS PER 2910 OF UBC.
 - WATERPROOF BASEMENT WALLS BEFORE BACKFILLING PROVIDING 4" PERFORATED DRAIN TILE BELOW THE TOP OF THE FOOTING.
 - BACKFILL FORMS, SHORING AND POURING METHODS MUST CONFORM TO UP TO DATE A.C.I. STANDARDS.
 - DAY STRENGTH AND NOT BEFORE STRUCTURAL FLOOR FRAMING (INCLUDING SUB-FLOOR) IS IN PLACE. (FRAMING MUST BE FULLY NAILED AND ANCHORED)
 - ALL CONCRETE IN FOUNDATION SHALL DEVELOP A MIN. COMPRESSION STRENGTH OF 3000 PSI IN 28 DAYS.
 - SINGLE STORY AND TWO STORY STRUCTURES SHALL HAVE A FOOTING 18" BELOW THE FINISHED GRADE LINE. A THREE STORY STRUCTURE SHALL HAVE A FOOTING AT 24" BELOW FINISHED GRADE

FOUNDATION NOTES.

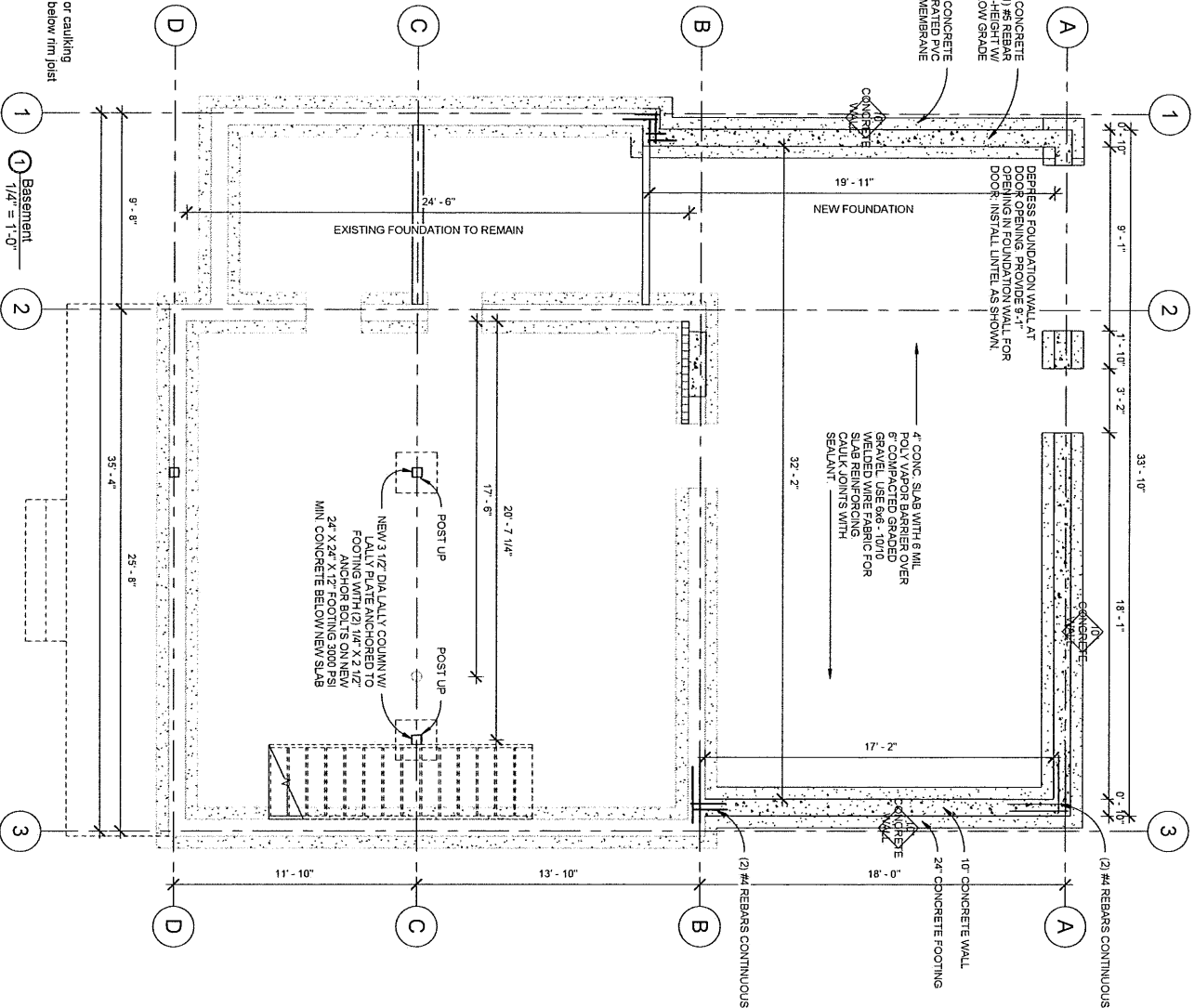
1/8" = 1'-0"

Number of Floors Supported By the Foundation	Thickness of Foundation Wall (inches)	Width of Footing (inches)	Thickness Of Footing (inches)	Depth Below Undisturbed Ground Surface (inches)
1	6	12	6	12
2	8	15	7	18
3	10	18	8	24

FOUNDATION FOR STUD BEARING WALLS--MIN. REQ. CONTINUOUS #4 BARS @ Top of Mud Sill Wall and in Footing.

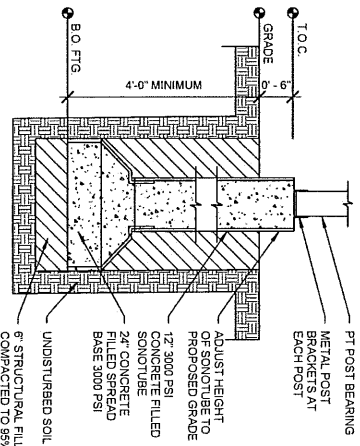
FOUNDATION SCHEDULE

1/8" = 1'-0"



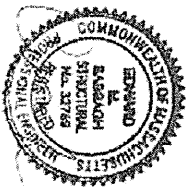
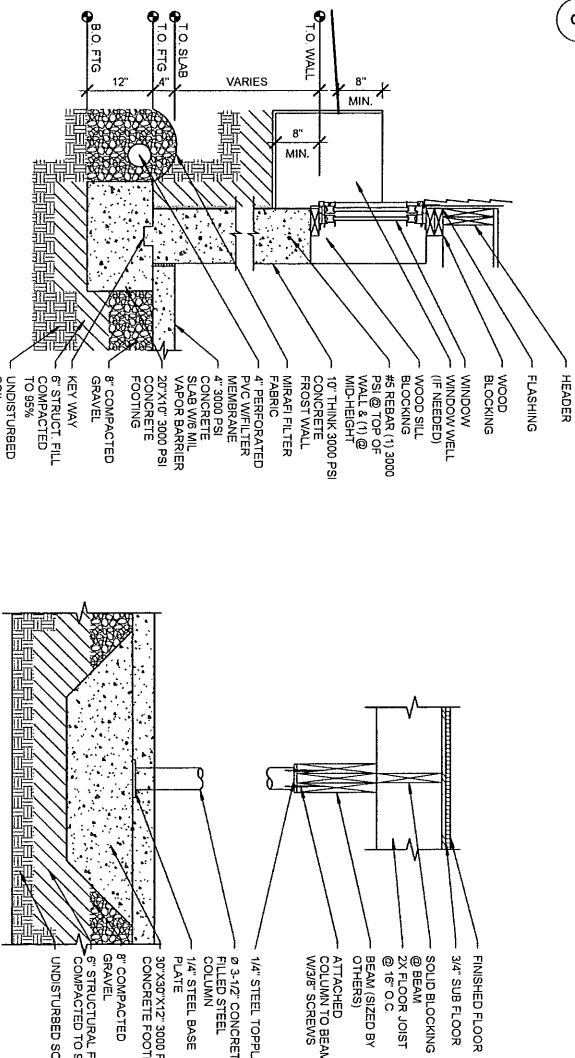
SPREADBASE SONOTUBE

3/4" = 1'-0"



SPREADBASE SONOTUBE

3/4" = 1'-0"



109 SMITH ROAD
MILTON, MA

Stephon Gillings

https://rangelplanningdesign.com/
26 NORWOOD STREET,
EVERETT, MA
02149
(339) 440-7943



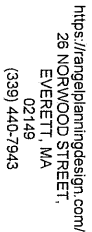
FOUNDATION PLAN

S-01



Scale

As indicated



109 SMITH ROAD
MILTON, MA

Rangel Project Number	25-087
Date	9/15/2025
Drawn by	S.R.
Checked by	Verificador





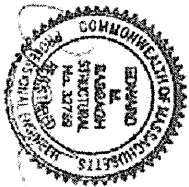
<https://rangelplanningdesign.com/>
26 NORWOOD STREET,
EVERETT, MA
02149
(339) 440-7943

Stephon Gillings

109 SMITH ROAD
MILTON, MA

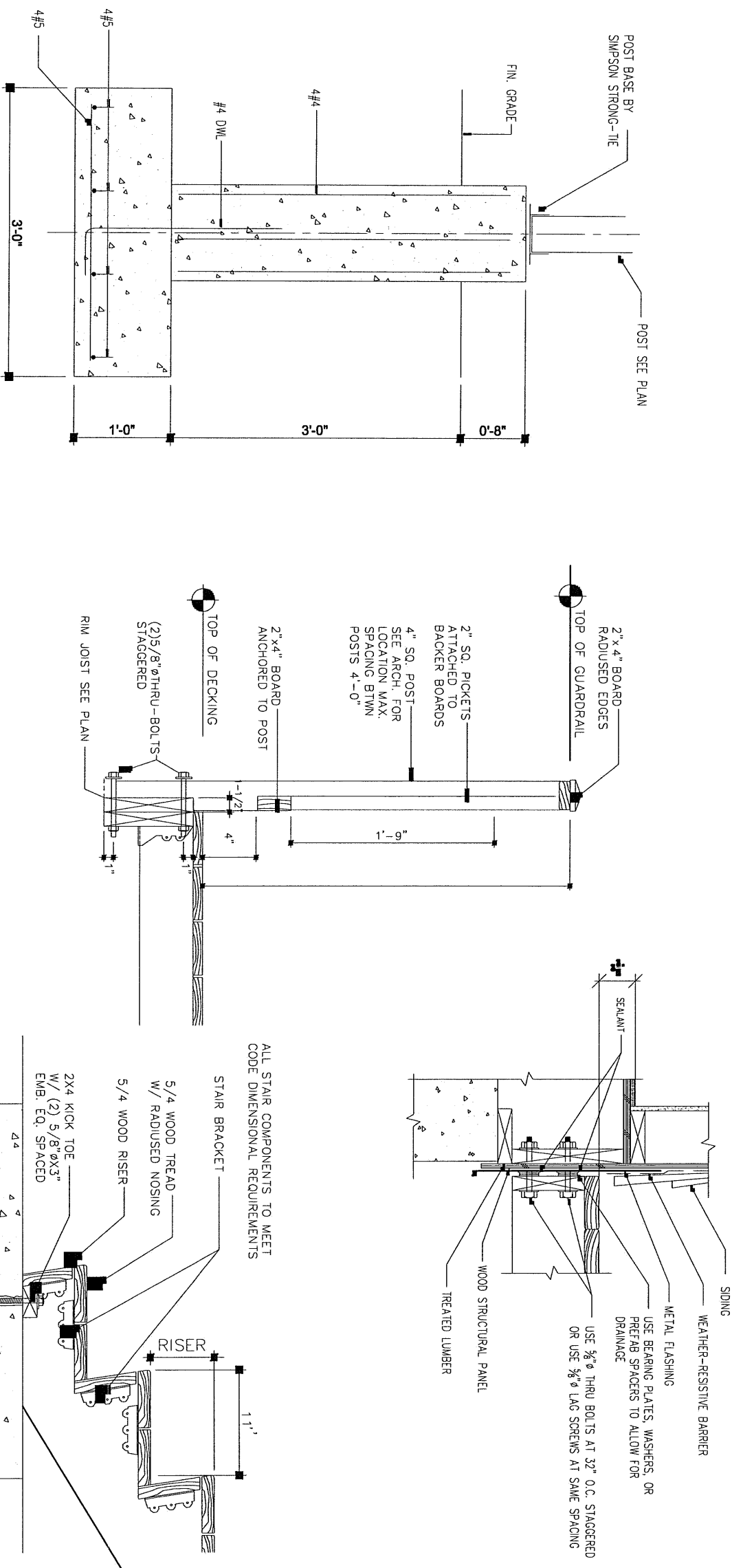
No.	Description	Date
1	SCHEMATIC DESIGN 1	9/15/2025

Rangel Project Number 25-087
Date 9/15/2025
Drawn by S.R.
Checked by J.K.



DECK FRAMING

NOTES: VERIFY ALL DIMENSIONS IN FIELD PRIOR TO FABRICATION AND CONSTRUCTION. ALL EXISTING CONDITIONS TO REMAIN AS IS UNLESS OTHERWISE NOTED



DECK DETAIL
1 1/2" = 1'-0"



S-05

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

(2) 1-3/4x 11-7/8 1.9E TJ Microlam LVL	Lu = 0.0 Ft
--	-------------

ConditionsNDS 2018

Min Bearing Area R1= 6.3 in² R2= 6.3 in² (1.5) DL Defl= 0.07 in

Beam Span	8.6 ft	Reaction 1 LL	3096 #	Reaction 2 LL	3096 #
Beam Wt per ft	10.68 #	Reaction 1 TL	4690 #	Reaction 2 TL	4690 #
Bm Wt Included	92 #	Maximum V	4690 #		
Max Moment	10083 #	Max V (Reduced)	3611 #		
TL Max Defl	L / 240	TL Actual Defl	L / 611		
LL Max Defl	L / 360	LL Actual Defl	L / >1000		

Section (in³)	Shear (in²)	TL Defl (in)	LL Defl
82.26	41.56	0.17	0.10
46.47	19.00	0.43	0.29
OK	OK	OK	OK
56%	46%	39%	33%

Reference Values	2600	285	1.9	750
Adjusted Values	2604	285	1.9	750
CF Size Factor	1.001			
Cd Duration	1.00	1.00		
Cr Repetitive	1.00			
Ch Shear Stress		N/A		
Cm Wet Use	1.00		1.00	1.00
CI Stability	1.0000	Rb = 0.00	Le = 0.00 Ft	

Selection

Conditions

Data

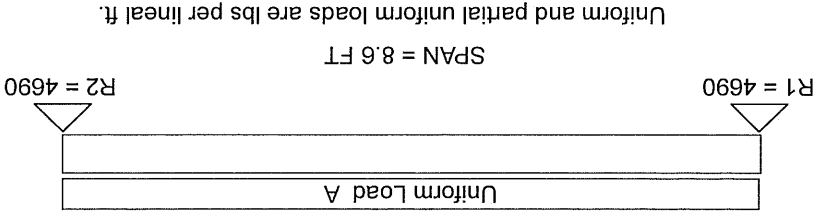
Attributes

Actual
Critical
Status
Ratio

Values

Adjustments

Loads



Uniform and partial uniform loads are lbs per lineal ft.

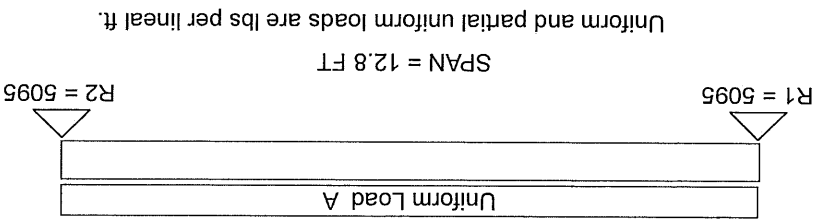
Selection	(3) 1-3/4x 11-7/8 1.9E TJ Microlam LVL
Conditions	NDS 2018

Min Bearing Area R1= 6.8 in² R2= 6.8 in² (1.5) DL Defl= 0.18 in

Data	Beam Span	12.8 ft	Reaction 1 LL	3328 #	Reaction 2 LL	3328 #	5095 #
	Beam Wt per ft	16.02 #	Reaction 1 TL	5095 #	Reaction 2 TL	5095 #	5095 #
	Bm Wt Included	205 #	Maximum V	5095 #			
	Max Moment	16302 #	Max V (Reduced)	4307 #			
	TL Max Defl	L / 240	TL Actual Defl	L / 380			
	LL Max Defl	L / 360	LL Actual Defl	L / 682			

Attributes	Section (in³)	Shear (in²)	TL Defl (in)	LL Defl
Actual	123.39	62.34	0.40	0.23
Critical	75.14	22.67	0.64	0.43
Status	OK	OK	OK	OK
Ratio	61%	36%	63%	53%

Values	Reference Values	2600	285	1.9	750
	Adjusted Values	2604	285	1.9	750
Adjustments	CF Size Factor	1.001			
	Cd Duration	1.00	1.00		
	Cr Repetitive	1.00			
	Ch Shear Stress	1.00	N/A	1.00	1.00
	Cm Wet Use	1.00			
Loads	CI Stability	1.0000	Rb = 0.00	Le = 0.00 Ft	



Uniform and partial uniform loads are lbs per lineal ft.

109 SMITH ROAD MILTON, MA
B04
BEAM AT FIRST FL CEILING
Date: 10/03/25

W 12x 79 50 ksi Wide Flange Steel

Lateral Support: Lc = 10.8 ft max.

Conditions

Actual Size is 12-1/8 x 12-3/8 in.

Min Bearing Length R1= 1.4 in. R2= 1.4 in. (1.0) DL Defl= 0.32 in Recom Camber= 0.47 in

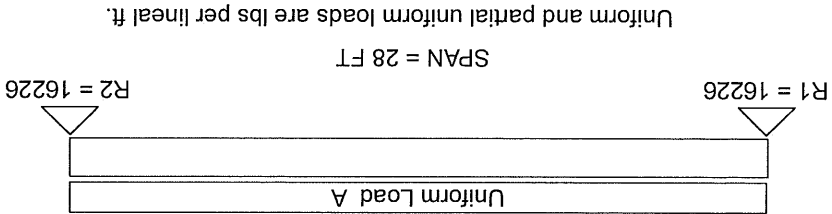
Data		Attributes		Values		Adjustments	
Beam Span	28.0 ft	Reaction 1 LL	10080 #	Reaction 2 LL	10080 #	Beam Wt per ft	79.0 #
Bm Wt per ft	79.0 #	Reaction 1 TL	16226 #	Reaction 2 TL	16226 #	Bm Wt Included	2212 #
Max Moment	113582 #	Max V (Reduced)	N/A				
TL Max Defl	L / 240	TL Actual Defl	L / 403				
LL Max Defl	L / 360	LL Actual Defl	L / 649				

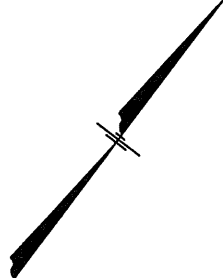
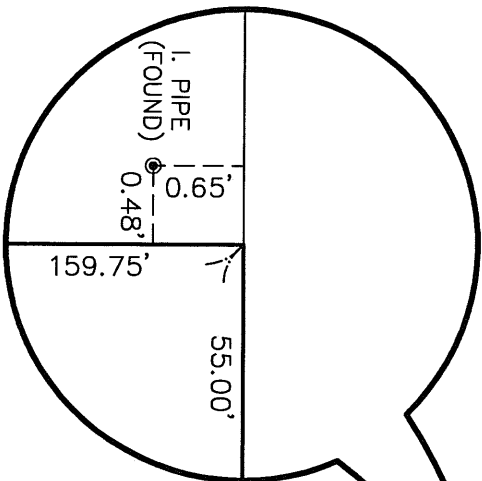
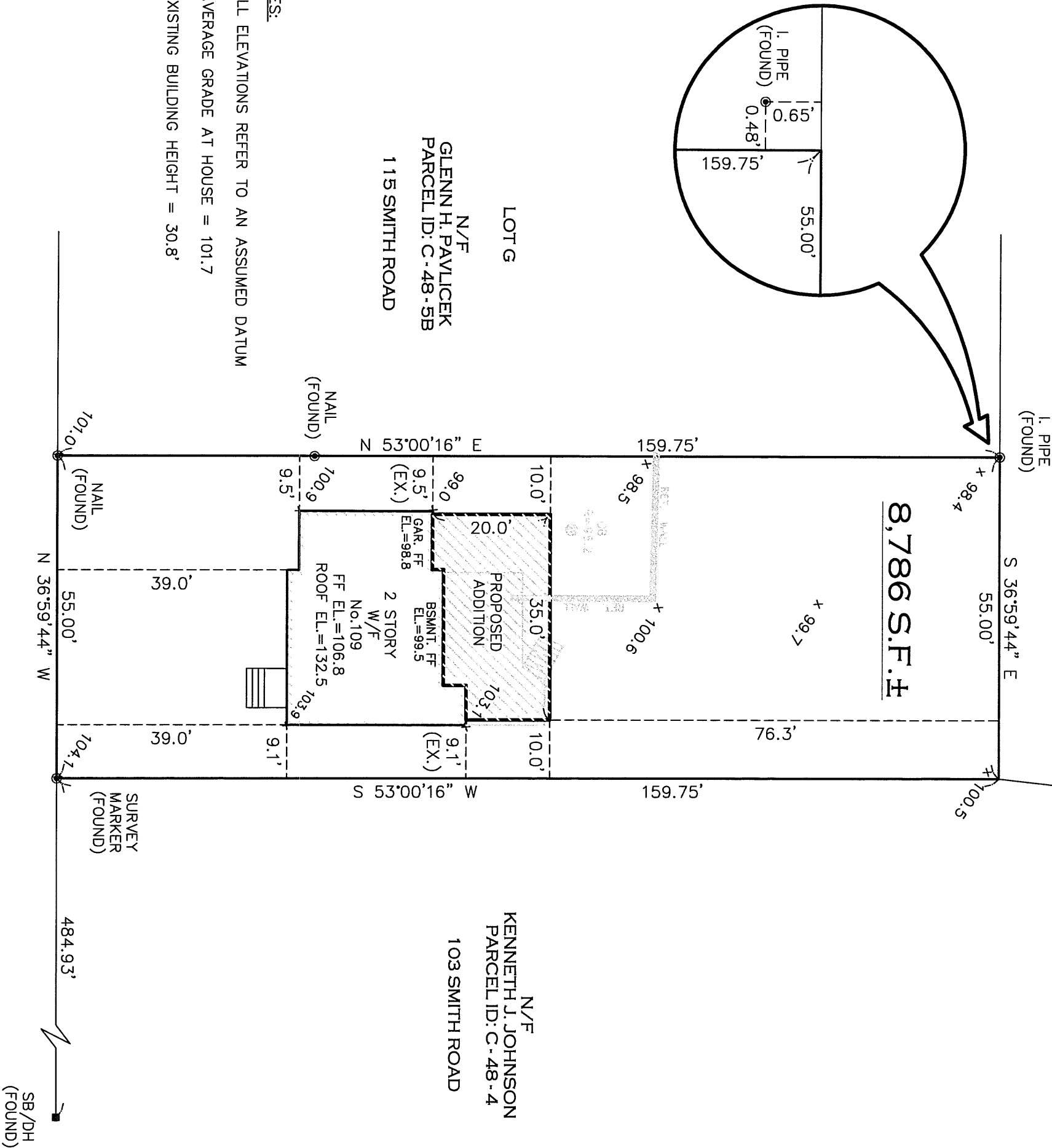
Actual	107.00	5.82	0.83	0.52
Critical	41.30	0.81	1.40	0.93
Status	OK	OK	OK	OK
Ratio	39%	14%	60%	55%

Ref. Value Fy	50000	50000	29.0
Adjusted Values	33000	20000	29.0

YP Factor, Lc	0.66	0.40
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Uniform LL: 720
Uniform TL: 1080 = A





JAMES L. NABSTEDT PLS NO. 39693

PLOT PLAN
SHOWING
PROPOSED ADDITION
AT
109 SMITH ROAD
IN
MILTON, MASS.

PREPARED BY:
NEPONSET VALLEY SURVEY ASSOC., INC.
95 WHITE STREET
QUINCY, MA 02169

SCALE: 1"=20'	DATE: SEPTEMBER 22, 2025	SHEET 1 OF 1
------------------	-----------------------------	-----------------

- NOTES:
- 1) ALL ELEVATIONS REFER TO AN ASSUMED DATUM
 - 2) AVERAGE GRADE AT HOUSE = 101.7
 - 3) EXISTING BUILDING HEIGHT = 30.8'

N/F
GLENNH. PAVLICEK
PARCEL ID: C-48-5B
115 SMITH ROAD

N/F
KENNETH J. JOHNSON
PARCEL ID: C-48-4
103 SMITH ROAD

SMITH ROAD

