CITY OF METHUEN
METHUEN HISTORIC DISTRICT COMMISSION
SEARLES BUILDING, SUITE 217
41 PLEASANT STREET
METHUEN, MA 01844
(978) 983-8560 / Fax (978) 983-8976

APPLICATION FOR CERTIFICATE

Please refer to the official Historic District Commission meeting schedule for meeting dates (typically held the fourth Thursday of every month) and their associated submission deadlines.

Please submit the following, to the Department of Economic and Community Development, 41 Pleasant Street, Suite 217 by the appropriate submission deadline:

- A **$25.00 application fee** in the form of a check payable to "City of Methuen"
- **One original and ten (10) copies—ELEVEN (11) TOTAL** of:
  - The completed application
  - Secured to each copy of the application: Photographs, material and color samples, manufacturer's illustrations, plans and elevations, shop drawings, site or plot plan, and any other applicable exhibits needed to best inform Commissioners of your proposed actions. **Sign applications** must include dimensions, accurate color samples (paint chips), materials, location, method of display, an image of the proposed sign at an appropriate scale in its proposed location, and an image of any existing signs. Note whether the sign is new or replaces an existing sign.

  Applications will not be accepted if incomplete, missing copies, or with unpaid fees.
- If your application requires a public hearing (please inquire at the Department of Economic and Community Development), your application must also include:
  - A certified Historic District Commission abutter's list, obtained through Customer Service in Suite 119 or directly from the Assessor's office in Suite 103 ($35.00 to City of Methuen).
  - Stamped envelopes, pre addressed to each of the abutters and the applicant. If the City of Methuen, 41 Pleasant Street is listed as an abutter, no stamp is required on the addressed envelope.

Applicants, or their representatives, are expected to be present at the meeting during which their application is discussed. Otherwise, the application is subject to removal from the agenda. Application decisions may require more than one meeting.

If any change in use of occupancy or location, or increase in square footage, height, or enclosed space (including garages) is proposed, certification that a ZONING VARIANCE has been issued by the Methuen Zoning Board of Appeals is required. The Commission will NOT hold a hearing on the Application before that certification is issued.

Name of Applicant/Contact: IVONE THARION

Site Location of Application: 163 BROADWAY ROAD METHUEN MA 01826

Business Name (or N/A): THARION GENERAL CONSTRUCTION INC

Applicant Mailing Address: 16 EUGENE DRIVE

City, State, Zip: BELCHERTOWN MA 01007

Telephone/Fax #'s: 413 461 6073 /

E-mail: IVY.THARION@GMAIL.COM

Check type of Certificate applying for:

X **CERTIFICATE OF APPROPRIATENESS** for work described and exhibits filed.

____ **CERTIFICATE OF NON-APPLICABILITY** for the following reason(s):

- ____ Not visible from public street, way, place or body of water
- ____ Reconstruction similar to original following fire or other disaster
- ____ Maintenance, repair, or replacement, using same design, materials, colors
- ____ No architectural features involved
- ____ Proposed work complies with guidelines
- ____ Other

____ **CERTIFICATE OF HARDSHIP**, financial or otherwise described herein and not a substantial derogation from intent and purposes of law.

DESCRIPTION OF PROPOSED WORK. Proposed project and current site conditions:

DEMO THE EXISTING DECK, BUILD A 12'6" X 35 ADITTION ON TOP OF A SLAB FOUNDATION. INTERIOR LAYOUT CONSISTS OF A FAMILY ROOM, A BEDROOM, AND FULL BATH. EXTERIOR FINISHES CONSISTS OF VYNIL SIDING, VYNIL WINDOWS (UNITED), ASPHALT SHINGLES OUR PROJECT DOES NOT PROPOSE ANY ALTERATIONS TO THE FRONT / SIDES OF THE HOUSE

Proposed Start Date: PERMIT ISSUED Proposed Completion Date: 4 MONTHS AFTER

Name of Contractor: IVONE THARION

Contact Person: IVONE THARION

Address: 16 EUGENE DRIVE

City, State, Zip: BELCHERTOWN MA 01007

License #: CS-115072

Telephone/Fax #'s: 413 461 6073 /

E-mail: THARIONGENERALCONSTRUCTION@GMAIL.COM

Name of Architect: JOHN KARAVOLAS

Contact Person: SHAYANE RANGEL

Address: 26 NORWOOD STREET

City, State, Zip: EVERETT MA 02149

Mass. Reg. #: 38495

Telephone/Fax #'s: 339 440 79436 /

E-mail: INFO@RANGELPLANNINGDESIGN.COM

DOCUMENTATION ATTACHED:

____ Photographs

____ Materials and/or Color Samples

____ Manufacturer's Illustration

X Plans and Elevations

____ Shop Drawing(s)

X Site or Plot Plan

____ Abutters List

____ Stamped envelopes, pre-addressed to abutters

____ Other

Failure to submit the appropriate materials, substantial information, and/or application fee will result in rejection of this application as incomplete.

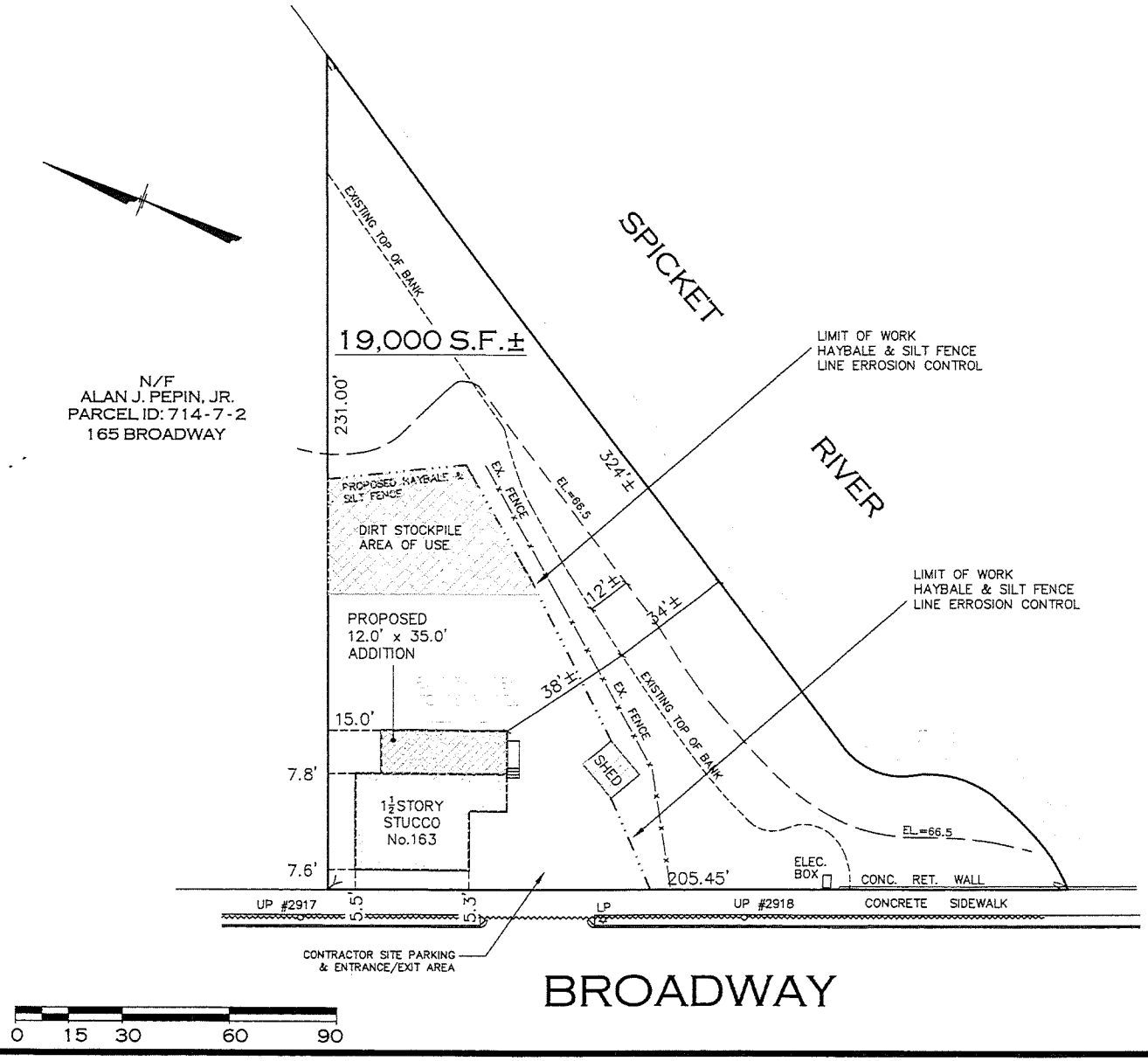
CERTIFICATION:

The applicant hereby certifies that this application is complete and accurate, to the best of his/her knowledge, and that no material misrepresentation is made herein.

Applicant(s): _____ Signature(s) 06/13/2025 Date

Contractor: _____ Signature 06/13/2025 Date

OWNER: MARIA MEDINA SANCHEZ
DEED: BOOK: 15009 PAGE: 51
PLAN: BOOK: 1356 PAGE: 267
PARCEL ID: 714-7-1



COMMONWEALTH OF MASSACHUSETTS
JAMES L. NABSTEDT
39693
PROFESSIONAL LAND SURVEYOR

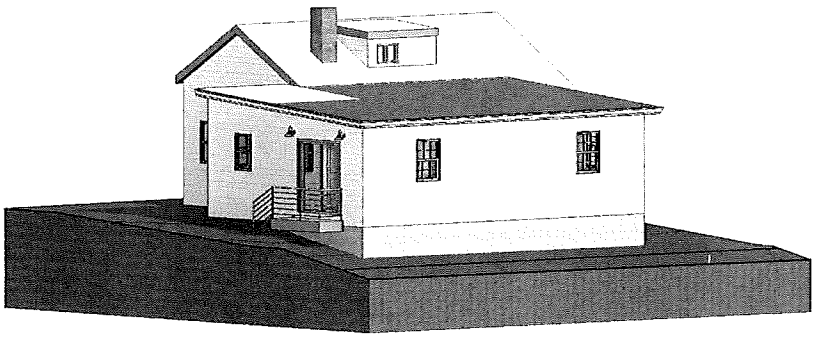
JAMES L. NABSTEDT PLS No. 39693

PLOT PLAN
SHOWING
PROPOSED ADDITION
AT
163 BROADWAY
IN
METHUEN, MASS.

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

SCALE:	DATE:	SHEET
1"=30'	MARCH 10, 2025	1 OF 1

RANGEL



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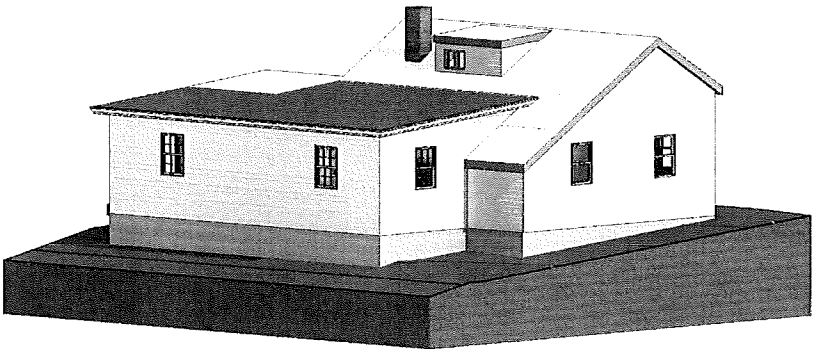

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ARCHITECTURE | INTERIOR DESIGN

RANGEL PLANNING & DESIGN INC.

26 NORWOOD STREET,
EVERETT, MA 02149
T:339-440-7943

OWNER

Ivone Tharion

163 BROADWAY
METHUEN, MA

SHEET LIST

Sheet List			
N	Sheet Number	Sheet Name	Dra
	A-02	EXISTING ELEVATION	Auto
	S-00	PROPOSED FOUNDATION PLAN	Auto
1	G-01	GENERAL	S.R.
2	G-02	CODE NARRATIVE	S.R.
4	G-03	WINDOW & DOOR SCHEDULE	S.R.
5	G-04	BUILDING DATA	S.R.
6	A-01	DEMOLITION FLOOR PLAN	S.R.
7	A-03	PROPOSED BASEMENT LEVEL	S.R.
8	A-04	PROPOSED FIRST FLOOR PLAN	S.R.
10	A-06	ROOF PLAN	S.R.
11	A-07	ELEVATION	S.R.
12	A-08	SECTION	S.R.
14	A-09	ENLARGED BATHROOM	S.R.
15	E-01	REFLECTED CEILING	S.R.
16	S-01	FRAMING PLAN	S.R.

ARCHITECTURAL REFERENCE

ABBREVIATION

ABBREVIATIONS	K KIP
A C P ACOUSTIC CEILING PANEL	LBL LABEL
A/C AIR CONDITION	LAV LAVATORY
ALUM ALUMINUM	LG LENGTH, LONG
A B ANCHOR BOLT	LT'L LINTEL
& AND	LVR LOUVER
ANGLE	L P LOW POINT
APPROX APPROXIMATELY	M H MANHOLE
ARCH ARCHITECTURAL	M MARBLE
A&G ASPHALT & GRAVEL	MAS MASONRY
BL BASE LINE	M O MASONRY OPENING
B PL BASE PLATE	MAT'L MATERIAL
BEAM BEAM	MECH MECHANICAL
BPC BED PAN	MT'L MATERIAL
BLK'G BLOCKING	MIN MINIMUM
B S BOTH SIDES	MISC MISCELLANEOUS
B W BOTH WAYS	MTG MOUNTING
BOT BOTTOM	NOM NOMINAL
BRK BRICK	N I C NOT IN CONTRACT
BLD'G BUILDING	N T S NOT TO SCALE
B/ BOTTOM OF - - -	NO # NUMBER
CPT CARPET	NC NURSE CALL
CLG CEILING	OFF OFFICE
CL CENTER LINE	O C ON CENTER
C T C CERAMIC TILE COVE	OPG OPENING
C T CERAMIC TILE	OPP OPPOSITE
CERM CERMAGUARD	OZ OUNCE
C F CEMENT FIBERBOARD	O D OUTSIDE DIAMETER
C L F CHAIN LINK FENCE	O F OUTSIDE FACE
CR CHAIR RAIL	O A OVERALL
C O CLEAN OUT	O H D OVERHEAD DOOR
CLR CLEAR(ANCE)	OFI OWNER FURNISHED AND INSTALLED
CLSR CLOSER	OFCI OWNER FURNISHED CONTRACTOR INSTALLED
CLS CLOSET	PT PNEUMATIC TUBE SYSTEM
CHK COAT HOOK	PTD PAINTED
COL COLUMN	PNL PANEL
C M COCOA MAT	P/H PARTIAL HEIGHT
CONC CONCRETE	P F PARTICLE FILLED
C B CONCRETE BLOCK	PTN PARTITION
CONC BD CONCRETE BOUND	PLAS PLASTIC
C M U CONCRETE MASONRY UNIT	PL PLASTIC
CONSTR CONSTRUCTION	P LAM PLASTIC LAMINATE
CONT CONTINUOUS	PLUM PLUMBING
C J CONTROL JOINT	LB POUND
C G CORNER GUARD	P S I POUNDS / SQUARE INCH
CORR CORRIDOR	P S F POUNDS / SQUARE FOOT
CTSK COUNTERSUNK	PREF PREFINISHED
CRS COURSE	P M PRESSED METAL
CYL CYLINDER	PROP PROPERTY / PROPOSED
C/H CEILING HEIGHT	QT QUARRY TILE
DEPT DEPARTMENT	Q T C QUARRY TILE COVE
DEP DEPRESSION	R RADIUS / RISER
DIAG DIAGONAL	REC RECEPTICLE / ELECTRICAL RTPH
DIAMETER ROUND	REF REFERENCE
DIM DIMENSION	REINF REINFORCE(ING)
DO DITTO	REM REMOVE
DR DOOR	REQ'D REQUIRED
D L DOCK LEVELER	REV REVISION / REVERSE
D A DOUBLE ACTING	R F RIGID FRAME
D S DOWNSPOUT	RD ROAD
D DRAIN	R D ROOF DRAIN
DWG DRAWING	R W L RAIN WATER LEADER
D W DRYWALL	RGH ROUGH
EA EACH	SECT SECTION
E F EACH FACE	S S SERVICE SINK
E W EACH WAY	S/S STAINLESS STEEL
ELEC ELECTRIC	SH V SHEET VINYL
EW C ELECTRIC WATER COOLER	S W SHOP WELD
ELEV ELEVATOR, ELEVATION	SL DR SLIDING DOOR
EL ELEVATION	S C SOLID CORE
ENCL ENCLOSE, ENCLOSURE	SPEC SPECIFICATION
ENG ENGINEER(ING)	SPR SPRINKLER
ENT ENTRANCE	SQ FT SQUARE FEET
EQ EQUAL	STD STANDARD
EQUIP EQUIPMENT	STL STEEL
EXIST EXISTING	STRUC STRUCTURAL
EXP EXPANSION, EXPOSED	SUSP SUSPENDED
E B EXPANSION BOLT	SYMM SYMMETRICAL
E J EXPANSION JOINT	TELE TELEPHONE
EXTER EXTERIOR	TLB THOUSAND POUND
F B FACE BRICK	THR'D THRESHOLD
F/ FACE OF - - -	TOIL TOILET
F TO F FACE TO FACE	T/ TOP OF - - -
FT FEET, FOOT	TB TOWEL BAR
F W FIELD WELD	TRU-GLZ TRU-GLAZE
FIN FINISH	T TREAD
F E C FIRE EXTINGUISHER CABINET	TYP TYPICAL
F H C FIRE HOSE CABINET	UC UNDERCUT
FLASH'G FLASHING	UNF UNFINISHED
FLR FLOOR	U N O UNLESS NOTED OTHERWISE
FLR'G FLOORING	V P VENT PIPE
F D FLOOR DRAIN	VERT VERTICAL
FLUOR FLUORESCENT	VIN VINYL
FTG FOOTING	V C T VINYL COMPOSITION TILE
FRT FIRE RETARDANT TREATED	V B C VINYL BASE COVE
FDN FOUNDATION	V B S VINYL BASE STRAIGHT
F/H FULL HEIGHT	V T R VENT THRU ROOF
FUS LINK FUSIBLE LINK	V W C VINYL WALL COVERING
GA GAGE OR GAUGE	WSCT WAINSCOT
GALV GALVANIZED	W C WATER CLOSET
G C GENERAL CONTRACTOR	WT WEIGHT
GL GLASS	W W F WELDED WIRE FABRIC
GB GRAB RAIL	W G WIRE GLASS
GYP BD GYPSUM WALLBOARD	W M WIRE MESH
G W B GYPSUM WALLBOARD	W/ WITH
HDCP HANDICAP	W/O WITHOUT
HDWR HARDWARE	WD WOOD
H D HEAVY DUTY	WB WOOD BASE
HGT HT HEIGHT	W P WORKING POINT
H C HOLLOW CORE	W P WATER PROOF
H M HOLLOW METAL	
HORIZ HORIZONTAL	
H B HOSE BIBB	
H W H HOT WATER HEATER	
HUMI HUMIGUARD CEILING	
IN (") INCHES	

ARCHITECTURAL ABBREVIATIONS
1/4" = 1'-0"

CODES & STANDARDS

Building
INTERNATIONAL BUILDING CODE 2015 WITH MA AMENDMENTS
Accessibility
IBC 2006
A117 1 - 2003 AMERICANS WITH DISABILITIES ACT (ADA)
Mechanical
INTERNATIONAL MECHANICAL CODE - 2015 WITH MA AMENDMENTS
Electrical
NATIONAL ELECTRICAL CODE - 2015 WITH MA AMENDMENTS
Plumbing
INTERNATIONAL PLUMBING CODE - 2015 WITH MA AMENDMENTS
Fire/Life Safety
NFPA - 101 - 2009 EDITION
STATE FIRE CODE 5AF - C 6000 WITH MA AMENDMENTS
Energy
INTERNATIONAL ENERGY CONSERVATION CODE - 2021
IECC
Residential Code
GUIDELINES FOR DESIGN AND CONSTRUCTION OF RESIDENTIAL PROJECTS - 2015 WITH MA AMENDMENTS

CODES & STANDARDS
1/4" = 1'-0"

LIST OF ARCHITECTURAL NOTES:

NOTE #1: ALL WORK SHALL COMPLY WITH THE COMMONWEALTH OF MASSCHUSETTS STATE BUILDING CODE, THE REQUIREMENTS OF THE TOWN, THE OCCUPATIONAL AND HEALTH STANDARDS AND ALL OTHER APPLICABLE REGULATIONS, LAWS, ORDINANCES ETC. GOVERNING THE WORK

NOTE #2: DRAWN INFORMATION IS TAKEN FROM EXISTING CONDITIONS AND RANDOM FIELD MEASUREMENTS AND IS PROVIDED ONLY TO ASSIST THE CONTRACTOR IN ESTABLISHING THE SCOPE OF WORK

NOTE #3: ALL EXISTING CONDITIONS AND PLAN AND DETAIL DIMENSIONS SHOULD BE VERIFIED IN THE FIELD PRIOR TO COMMENCING THE WORK. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT OF ALL DEVIATIONS IN THE EXISTING CONDITIONS, DIMENSIONS 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: SITE SHALL BE LEFT CLEAN 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 OF DURING THE EXTENT OF THE WORK, AND THE SITE SHALL BE LEFT COMPLETELY CLEAN AND FREE 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 EXISTING SERVICES THAT INTERFERE WITH THE PROPER INSTALLATION OF THE NEW CONSTRUCTION. CONTRACTOR IS RESPONSIBLE TO NOTIFY THE ARCHITECT/OWNER OF THESE SERVICES BEFORE DISCONNECTION. REINSTALL AND RECONNECT ALL 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 /OR 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 TAGS AND LOCATIONS

NOTE #12: SEE FLOOR PLANS FOR LOCATIONS OF SOUND INSULATION

NOTE #13: PARTITION TYPE DETAILS SHOW ONLY PRINCIPLE COMPONENTS AND REQUIREMENTS. RATED PARTITIONS 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 COMPLETED TO PREVENT DIRECT CONTACT WITH FRAMING MEMBERS AND SHALL BE ACOUSTICALLY SEALED WITH A RESILIENT, NON-HARDENING CAULK. IF THE PENETRATION IS THOUGH A FIRE-RATED PARTITION, AN ACOUSTICAL FIRE-RATED CAULK SHALL BE USED

NOTE #16: SEE SPECIFICATIONS AND STRUCTURAL DRAWINGS FOR REINFORCING, BRACING AND OTHER SPECIAL REQUIREMENTS

NOTE #17: PROVIDE LATERAL BRACING AND CROSS-BRIDGING AS RECOMMENDED BY STUD MANUFACTURER FOR EACH CONDITION

NOTE #18: COORDINATE FINISHES APPLIED TO PARTITIONS AS INDICATED IN THE FINISH SCHEDULE, INTERIOR ELEVATIONS AND ELSEWHERE IN THE CONTRACT DOCUMENTS

NOTE #19: PROVIDE BLOCKING AT LOCATIONS INCLUDING BUT NOT LIMITED TO CASEWORK, SHELVING, COUNTERS, CABINETS, DOOR STOPS, HANDRAIL BRACKETS, TELEVISION LOCATIONS, BATHROOM ACCESSORIES, ETC WHERE INDICATED, SPECIFIED OR REQUIRED TO PROVIDE A SOLID BASE

NOTE #20: SUBSTITUTE MOISTURE-RESISTANT GYPSUM BOARD ATALL BATHROOMS AND LAUNDRY ROOMS

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

NOTE #22: FIBER INSULATION SHOULD BE UN-FACED AND SECURED TO STRUCTURE TO PREVENT SAGGING

LIST OF ARCHITECTURAL NOTES:
1/4" = 1'-0"

FOUNDATION NOTES:

CONCRETE SPECIFICATIONS - ALL CONCRETE WORK SHALL BE DESIGNED ON THE BASIS OF "STRENGTH DESIGN" IN ACCORDANCE WITH ACI 318 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE." CONCRETE WORK SHALL BE PROPORTIONED IN ACCORDANCE WITH ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE" AND ACI 211.1 "RECOMMENDED PRACTICE FOR SELECTING PROPORTIONS FOR NORMAL WEIGHT CONCRETE". CONCRETE SLABS, PATIOS, DRIVEWAYS, WALLS AND FOUNDATIONS SHALL BE CONSTRUCTED OF A MINIMUM 3000 PSI CONCRETE.
28 DAY TEST, WITH A 4" MINIMUM TO 6" MAXIMUM SLUMP MAXIMUM. AIR-ENTRAINED TO 5 - 8%. NO ADDITIONAL WATER SHALL BE ADDED TO CONCRETE AFTER SLUMP TEST IS RECORDED. CYLINDERS SHALL BE TAKEN FROM EVERY BATCH TRUCK AND TESTED FOR COMPRESSIVE STRENGTH AT 7
AND 28 DAYS. CONCRETE SHOULD BE A MIX OF HIGH GRADE PORTLAND CEMENT, CLEAN SAND OR GRANULAR FILL AND WASHED GRAVEL OR CRUSHED
STONE AS COARSE AGGREGATE PER ACI 530. MAXIMUM AGGREGATE SIZE SHALL BE ¼". ALL AGGREGATES SHALL CONFORM TO ASTM C33. GRAVEL SHOULD BE WELL GRADED AND NOT EXCEED 1 1/2" IN SIZE. WATER SHALL NOT EXCEED 5 1/2 GALLONS FOR EACH BAG, UNLESS SAND IS VERY DRY. CONCRETE SHALL BE MIXED USING AN APPROVED BATCH MACHINE OR MOBILE MIXER UNTIL UNIFORM IN COLOR AND PROVIDING A 4" MINIMUM TO 6" MAXIMUM SLUMP

REINFORCING STEEL - REINFORCING STEEL (REBAR) SHALL BE MINIMUM ASTM A615, GRADE 40. ALL REINFORCEMENT SPLICES SHALL BE AS FOLLOWS: #5 BARS 25" MINIMUM, #7 BARS 35" MINIMUM. ALL REBAR (REINFORCING STEEL) SHALL BE LOCATED 3" CLEAR FROM BOTTOM AND SIDE
OF FOOTING AND 2" CLEAR FROM TOP. LOCATE VERTICAL REBAR (REINFORCING STEEL) 4'-0" ON CENTER (OC). ALL REINFORCEMENT SPLICES SHALL BE IN ACCORDANCE WITH ACI 318 FOR "STRENGTH DESIGN." ALL REINFORCEMENT STEEL SHALL BE ACCURATELY PLACED, RIGIDLY SUPPORTED, AND FIRMLY TIED IN PLACE WITH BAR SUPPORTS AND SPACERS IN ACCORDANCE WITH ACI 301 AND ACI 318.

WELDED WIRE MESH - WELDED WIRE FABRIC SHALL CONFORM TO ASTM A105 AND BE LOCATED IN THE CENTER OF THE DEPTH. INSTALL AT SLAB ON GRADE CONDITIONS

ANCHOR BOLTS - CAST-IN-PLACE ANCHOR BOLTS SHALL CONFORM TO ASTM F1554 - GRADE 36 OR ASTM A36. ANCHOR BOLTS FOR WALL FRAMING SHALL BE 1/2 INCH DIAMETER, 12 INCHES LONG, SPACED AT 5 FT. MAXIMUM AND 12 INCHES MAXIMUM FROM CORNERS AND ENDS. FOR BASE PLATES SET ON EXISTING CONCRETE, ADHESIVE ANCHORS SHALL
BE USED

FOOTINGS - CENTER ALL FOOTINGS ON WALLS, PIERS, OR COLUMNS ABOVE UNLESS OTHERWISE NOTED. ALL FOOTINGS SHALL REST ON UNDISTURBED VIRGIN SOIL WITH MINIMUM SOIL BEARING ALLOWABLE OF 2500 PSF, TESTED FOR 95 PERCENT COMPACTION, OR 3/4" STONE COMPACTED IN 12" LIFTS TO 95 PERCENT DENSITY IF FILL IS REQUIRED. FOOTINGS AT BUILDING PERIMETER SHALL BE A MINIMUM OF 12" BELOW FROST LINE AND 20" WIDE, (CHECK WITH LOCAL BUILDING OFFICIALS FOR FROST LINE LEVEL) CONSTRUCTED OF 3000 PSI CONCRETE. PROVIDE 3 - #5 REBAR (REINFORCING STEEL) CONTINUOUS THROUGH FOOTINGS. PROVIDE #5 REBAR
(REINFORCING STEEL) CORNER BARS AT ALL CORNERS AND INTERSECTIONS OF
FOOTINGS, BEAMS AND WALLS. EACH SIDE SHOULD OVERLAP 2'-0", WITH A 90 DEGREE BEND. FOOTINGS SHALL BEAR ON UNDISTURBED SOIL AND KEPT FREE FROM GROUND WATER. UNDERNEATH LOAD-BEARING WALLS AND INTERIOR OR EXTERIOR COLUMN FOOTINGS, THICKEN SLABS WITHIN A 1' RADIUS TO 12"THICK

SLAB FOUNDATIONS - CONCRETE FLOOR SLABS SHALL BE CONSTRUCTED OF
3000 PSI CONCRETE, 4" THICK REINFORCED WITH 10 GAUGE 6" X 6" WELDED-WIRE MESH CONTINUOUS AND REBAR (REINFORCING STEEL) AS PER PLANS. PLACE SLABS OVER WELL-COMPACTED GRANULAR FILL COMPACTED IN 12 INCH LIFTS TO 95 PERCENT DENSITY PER AASHTO T-180 PROCTOR, AND A 4 OR 6 MIL VAPOR BARRIER. CONSTRUCTION OR CONTROL JOINTS SHALL BE PROVIDED IN SLABS ON GRADE SO THAT THE MAXIMUM AREA BETWEEN JOINTS SHALL BE 400 SQ. FT. AND THE LENGTH OF THAT AREA IS NOT MORE THAN TWICE THE WIDTH. PROVIDE SMOOTH STEEL TROWEL FINISH FOR ALL INTERIOR SLAB AREAS AND GARAGE
SURFACES. PROVIDE BROOM FINISH TEXTURE FOR ALL EXTERIOR SLABS. SLOPE EXTERIOR PATIO OR PORCH SLABS AWAY FROM BUILDING AT 1/4" OF DROP IN ELEVATION FOR EVERY 1'-0" IN DISTANCE. AT GARAGE SLAB, PROVIDE POSITIVE DRAINAGE AND TAPER LIP AT GARAGE/OVERHEAD DOOR

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

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

THERMAL & MOISTURE:

WATERPROOFING & DAMPPROOFING - ALL JOINTS AND PENETRATIONS IN WALLS, FLOORS, AND ROOFS SHALL BE MADE WATERTIGHT USING APPROVED METHODS AND MATERIALS. WATERPROOFING AND DAMPPROOFING RECOMMENDATIONS CONTAINED HEREIN ARE MINIMUM. CHECK WITH LOCAL CODE OFFICIALS FOR ADDITIONAL REQUIREMENTS

SLAB FOUNDATIONS - INSTALL A MINIMUM (6 MIL) POLYETHYLENE VAPOR BARRIER IN ALL SLABS, DIRECTLY UNDERNEATH CONCRETE. LAP JOINTS NOT LESS THAN 12 INCHES AND TAPE AND SEAL IN ACCORDANCE WITH MANUFACTURERS GUIDELINES

CRAWLSPACE FOUNDATIONS - INSTALL A MINIMUM (4 MIL) POLYETHYLENE VAPOR BARRIER IN ALL CRAWLSPACE AREAS. LAP JOINTS NOT LESS THAN 12 INCHES AND SEAL IN ACCORDANCE WITH MANUFACTURERS GUIDELINES

BASEMENT WALLS – INSTALL NECESSARY WATERPROOFING MATERIAL SYSTEM TO EXTERIOR BASEMENT WALLS AND FOUNDATION SURFACES, FROM A POINT 12" BELOW THE LOWEST SLAB TO NOT LESS THAN 6" ABOVE FINISH GRADE. INSTALL AS DESCRIBED IN "FOUNDATIONS" SECTION OF THIS SPECIFICATIONS.

INSULATION - EFFECTIVE R VALUES SHALL BE IN ACCORDANCE WITH LOCAL AND STATE ENERGY CODES. FLOOR, WALLS AND CEILINGS INSULATION SHALL BE INSTALLED AS NOTED IN THE CONSTRUCTION DOCUMENTS. ALL PLUMBING CHASES IN INTERIOR AND EXTERIOR WALLS SHALL BE INSULATED WITH BATT INSULATION FOR SOUND ATTENUATION

THERMAL & MOISTURE CONT.:

EXTERIOR WALLS - WALL INSULATION SHALL HAVE AN R VALUE NO LESS THAN R-20 OR A COMBINATION OF R-13 IN CAVITIES AND MINIMUM R-5 CONTINUOUS INSULATION

INTERIOR WALLS - INSTALL 3 1/2", R-11 BATT INSULATION AROUND BATHS, LAUNDRY ROOMS AND OTHERWISE SPECIFIED FOR SOUND ATTENUATION.

UPPER FLOOR CEILINGS OR ROOFS- SHALL HAVE A TOTAL R-VALUE NO LESS THAN R-49

FOUNDATION - FOR CONCRETE SLAB FOUNDATION, PROVIDE 2"THICK X 24"HIGH AND 24"WIDE X 2"THICK L-SHAPED R-10 STYROFOAM FROST BARRIER AROUND PERIMETER OF STRUCTURE IF REQUIRED. SLOPE AWAY FROM BUILDING AT 1" PER FOOT. INSTALL FROST WALL 48" BELOW FINISHED GRADE, ALONG GARAGE/OVERHEAD DOOR OPENING

FLOORS - BETWEEN CRAWLSPACE AND FIRST FLOOR, SHALL HAVE AN R VALUE NO LESS THAN R-30

AIR INFILTRATION AND MOISTURE CONTROL - AIR LEAKAGE FOR ALL BUILDINGS SHALL BE CONTROLLED AT OPENINGS IN THE EXTERIOR BUILDING
ENVELOPE AS PER MASSACHUSETTS ENERGY CODE.
CAULKING, GASKETING, WEATHERSTRIPPING, FOAMING OR OTHER SEALING IS REQUIRED TO LIMIT INFILTRATION, AROUND WINDOW AND DOOR FRAMES, SOLE PLATES AND STRUCTURAL FLOOR, FRAMING JOINTS, AROUND
OPENINGS FOR PLUMBING, ELECTRICITY, TELEPHONE AND GAS LINES IN WALLS, FLOORS AND CEILINGS, AT MUDSILL IN CONDITIONED BASEMENTS OR CRAWLSPACES AND AT ALL OTHER OPENINGS IN EXTERIOR BUILDING ENVELOPE. ELECTRIC OUTLET PLATE GASKETS SHALL BE INSTALLED ON ALL RECEPTACLE, SWITCH OR OTHER ELECTRICAL BOXES IN EXTERIOR AND INTERIOR WALLS. THE ENTIRE STRUCTURE SHALL BE WRAPPED WITH THE "TYVEK", OR EQUAL INFILTRATION BARRIER TO FORM A CONTINUOUS BARRIER
WITH MINIMUM 8" OVERLAPS AT JOINTS. TYVEK SHOULD COMPLETELY COVER ALL COMPONENT PARTS OF THE STRUCTURE, STAPLED TO SHEATHING
AT 30" O.C. AND WRAPPED TO INSIDE OF DOOR AND WINDOW OPENINGS. SEE MANUFACTURERS INSTRUCTIONS FOR FURTHER INFORMATION. FELTS SHALL BE ORGANIC FIBER BASE SATURATED WITH BITUMEN WEIGHING 14-15 LBS. PER SQUARE. STRIPS OF FELT 8" WIDE SHALL BE INSTALLED AT HEADS AND JAMBS OF WINDOWS AND DOORS JUST PRIOR TO INSTALLATION OF EXTERIOR TRIM. USE ON ROOF OR SIDEWALLS
NOT RECOMMENDED. PROVIDE ROOF UNDERLAYMENT AS REQUIRED BY SHINGLE MANUFACTURER

FLASHING AND SHEET METAL - INSTALL APPROPRIATE FLASHING AT ALL JOINTS OF CHIMNEYS, DORMERS, WALLS, VENT PIPES AND OTHER CONNECTION POINTS TO PREVENT THE INFILTRATION OF WATER. FLASHING SHALL BE ASSEMBLED OF 26 GAUGE MINIMUM GALVANIZED, CORROSION RESISTANT SHEET METAL. VALLEYS SHALL BE WRAPPED WITH 20" WIDE GALVANIZED FLASHING AND EXTEND 10" IN EACH DIRECTION FROM CENTER-LINE OF VALLEY. USE 4"WIDE X 4"HIGH X 10'LONG GALVANIZED FLASHING BETWEEN WALL SIDING AND ROOF SURFACES AND STEP FLASHING BETWEEN MASONRY AND ROOF SURFACES. KEEP FLASHING CONCEALED EXCEPT WHERE EXPOSED ON VERTICAL SURFACES OR COUNTER FLASHING. PROVIDE ICE AND WATERSHIELD (W.R. GRACE

THERMAL & MOISTURE PROTECTION NOTES
1/8" = 1'-0"

FINISH NOTES:

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' 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 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, WHIRLPOOLS, OR AS REQUIRED BY APPLICABLE BUILDING CODES, INSTALL 1/2" WATER RESISTANT DRYWALL OR EQUAL

FINISH NOTES
1/8" = 1'-0"

FRAMING NOTES:

STRUCTURAL METALS - STRUCTURAL STEEL WORK SHALL CONFORM TO "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS" (AISC 1989), "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES" (AISC), AND "STRUCTURAL WELDING CODE" (AWS D1.1). STRUCTURAL STEEL SHALL BE DETAILED IN ACCORDANCE WITH "DETAILING FOR STEEL CONSTRUCTION" (AISC). WIDE FLANGE STEEL BEAMS SHALL CONFORM TO ASTM A572 (FY = 50 KSI). HOLLOW STRUCTURAL SECTIONS (HSS) SHALL CONFORM TO ASTM A500 GRADE B (FY = 46 KSI). PLATES AND ANGLES SHALL CONFORM TO ASTM A36. BEAM AND COLUMN CONNECTIONS CAN BE BOLTED OR WELDED. HIGH STRENGTH BOLTS SHALL CONFORM TO ASTM A325. MINIMUM DIAMETER SHALL BE 3/4 INCH. FILLET WELDS SHALL BE 1/4 INCH MINIMUM. STRUCTURAL STEEL SHALL BE PAINTED IN THE SHOP WITH ONE COAT OF PRIMER

METAL FABRICATION - INSTALL METAL DETAILING AS SPECIFIED ON CONSTRUCTION DOCUMENTS. INSTALL METAL GATES, GRILLES, IRON WORK ETC. TO MEET ALL APPLICABLE BUILDING CODES, WITH APPROPRIATE DETAILING AND PATTERNS AS SHOWN IN CONSTRUCTION DOCUMENTS. METAL SHALL BE SHOP BUILT, WELDED TOGETHER, CLEANED THOROUGHLY AND PAINTED WITH TWO COATS OF AN ANTI-RUST PRIMER. AFTER INSTALLATION, APPLY AN ADDITIONAL COAT AND ANTI-RUST PRIMER IN PREPARATION FOR FINISH COATS

ROUGH CARPENTRY - FRAMING LUMBER SHALL BE SPRUCE-PINE-FIR # 2 OR BETTER. PRESSURE TREATED LUMBER SHALL BE USED WHERE ANY LUMBER SHALL COME INTO CONTRACT WITH CONCRETE, MASONRY BLOCK OR SOIL AND WHEN USING AS SUPPORT MEMBERS FOR DECKS, PORCHES OR BALCONIES. PROVIDE ADEQUATE BRACING AND SHORING DURING THE CONSTRUCTION PROCESS. STUDS AND JOISTS CUT TO INSTALL PLUMBING AND/OR WIRING SHALL BE REINFORCED BY ADDING METAL OR WOOD STRUCTURAL REINFORCING TO STRENGTHEN MEMBER BACK TO ORIGINAL CAPACITY AND MAINTAIN STRUCTURAL INTEGRITY. HOLES BORED SHALL NOT BE LARGER THAN 1/3 THE DEPTH AND NOT CLOSER THAN 2" TO THE TOP OR BOTTOM OF THE JOIST. ALL POSTS SHALL BE FULLY BLOCKED BETWEEN FLOORS WITH THE GRAIN OF BLOCKING IN A VERTICAL ORIENTATION

FLOOR JOISTS: SPACE FLOOR JOISTS 12" TO 16" ON CENTER (OC) DEPENDING ON TYPE OF CONSTRUCTION, LOAD BEARING AND SPANNING CAPABILITIES OF WOOD SPECIES. JOISTS SHALL REST ON A MINIMUM 1 1/2" OF BEARING WOOD OR 3" OF MASONRY. CUT JOISTS FLUSH WITH THE OUTSIDE EDGE OF SILL. IF JOISTS ARE LAPPED OVER GIRDER, THE MINIMUM AMOUNT OF LAP IS 4" AND MAXIMUM OVERHANG IS 12". DO NOT LAP AT WOOD I-BEAMS. JOISTS SHALL BE INSTALLED SO THAT THE END OF THE SUB-FLOOR SHEETS FALL DIRECTLY ON THE CENTER OF THE
FLOOR JOISTS. NAIL JOISTS AT EACH BEARING POINT USING ONE 8D OR 10D NAIL ON EACH SIDE. NAILS SHALL BE AT LEAST 1 1/2" FROM ENDS. WOOD CROSS BRIDGING SHALL BE AT LEAST NOMINAL 1" X 3" LUMBER WITH TWO 6D NAILS AT EACH END. INSTALL ONE ROW OF BRIDGING FOR 8'-0" TO 15'-0" SPANS AND OVER 16'-0" SPANS INSTALL TWO ROWS OF BRIDGING. INSTALL DOUBLE HEADER JOISTS & TRIMMERS @ ALL FLOOR OPENINGS. INSTALL DOUBLE JOISTS UNDER ALL PARALLEL PARTITIONS INSTALL 1"X3"

WOOD SUB-FLOORS - 3/4" TONGUE AND GROOVE PLYWOOD SUB-FLOOR SHALL BE INSTALLED WITH BOTH NAILS AND APPROVED SUB-FLOOR ADHESIVE. STAGGER JOINTS A MINIMUM 2 STUD SPACES. FOR ATTIC ACCESS, INSTALL NECESSARY PLYWOOD WALKWAYS TO MEET APPLICABLE BUILDING CODES. IN BATH AND TOILET AREAS USE WATER RESISTANCE PLYWOOD (UNDERLAYMENT C-C PLUGGED EXT. APA) OVER SUBFLOOR

EXTERIOR WALLS - ALL EXTERIOR WALLS SHALL BE CONSTRUCTED WITH WOOD STUDS AT 16"ON CENTER (OC), WITH DOUBLE BOTTOM PLATES AND DOUBLE TOP PLATES THROUGHOUT. PROVIDE SOLID BLOCKING AT MIDHEIGHT
OF ALL WALLS, SEE PLANS FOR STUD SIZE

WALL SHEATHING - BETWEEN STUDS AND SHEATHING, INSTALL ONE LAYER OF APPROVED MOISTURE BARRIER OVERLAPPED A MINIMUM OF 6". PROVIDE AND INSTALL EXTERIOR SHEATHING OF A MIN. ½" RATED PLYWOOD PANELS, FIBERBOARD, GYPSUM BOARD OR RIGID FOAM BOARD. FOR PLYWOOD PANELS, USE 6D NAILS SPACED 6" APART ON THE EDGES AND 12" APART ON THE STUDS. FOR FIBERBOARD SHEATHING, FASTEN WITH ROOFING NAILS OR BUTTON CAPS SPACED 3" APART AT EDGES AND 6" APART IN THE CENTER. A MINIMUM OF 3/8" FROM EDGES. FOR GYPSUM SHEATHING USE ROOFING NAILS OR BUTTON CAPS, SPACED 4" APART AROUND THE EDGES AND 8" APART ON THE STUDS. INSIDE. FOR RIGID FOAM BOARD CONSULT EIFS SYSTEM FOR SPECIFIC MANUFACTURERS RECOMMENDATIONS.

INTERIOR WALLS - ALL INTERIOR WALLS SHALL BE 2" X 4" WOOD STUDS AT 16" O.C., WITH SINGLE BOTTOM PLATES AND DOUBLE TOP PLATES THROUGHOUT. PROVIDE SOLID BLOCKING AT MID-HEIGHT OF ALL WALLS WHICH EXCEED 9'-0" IN HEIGHT. PROVIDE SOLID BLOCKING FOR HANDRAILS, CABINETRY AND FIXTURE LOCATIONS THROUGHOUT PROJECT

CEILING JOISTS: THE SIZE OF CEILING JOISTS ARE DETERMINED BY SPAN, LOAD AND THE KIND AND GRADE OF LUMBER. CHECK APPROPRIATE SPANNING CHARTS WITH LOCAL BUILDING OFFICIALS. AT OPENINGS IN CEILINGS, DOUBLE JOISTS FOR STRUCTURAL RIGIDITY

ROOF FRAMING: THE SIZE OF RAFTERS ARE DETERMINED BY SPAN, LOAD AND THE KIND AND GRADE OF LUMBER. AT OPENINGS IN ROOF, DOUBLE RAFTERS FOR STRUCTURAL RIGIDITY. PROVIDE SIMPSON H2.5 HURRICANE TIES AT EVERY RAFTER/TOP PLATE CONNECTION. CONNECT OPPOSING RAFTERS TOGETHER WITH COLLAR TIES OR WITH STEEL STRAP TIES OVER THE
RIDGE (SIMPSON LSTA21).

ROOF DECKING - PROVIDE AND INSTALL 5/8" EXTERIOR SHEATHING OF APA RATED AND CODE CERTIFIED CDX PLYWOOD PANELS OR OSB. SHEATHING SHALL BE INSTALLED WITH THE FACE GRAIN RUNNING ACROSS THE RAFTERS, VERTICAL JOINTS STAGGERED. NAILS SHALL BE 6D OR 8D COMMON SMOOTH, RING-SHANK OR SPIRAL THREAD NAILS SPACED 6" APART ON THE ENDS AND 12" APART INSIDE. INSTALL WITH PLYWOOD "H" CLIPS BETWEEN EACH PIECE OF DECKING, EVERY 48". INSTALL ONE LAYER OF MOISTURE BARRIER 30# FELT, OVERLAPPED A MINIMUM OF 6"

DECKS, PORCHES, BALCONIES – EXTERIOR GRADE LUMBER SHALL BE USED FOR EXTERIOR DECKS, PORCHES OR BALCONIES. PROVIDE AND INSTALL GALVANIZED JOIST HANGERS TO CONNECT 2"X 10" FLOOR JOISTS TO THE MAIN STRUCTURE EVERY 12"-16"ON CENTER (OC). ALL HANDRAILS SHALL BE CONSTRUCTED SO AS TO PREVENT PASSAGE OF A 4" SPHERE. PROVIDE HANDRAIL AND DETAILING AS SHOWN IN CONSTRUCTION DOCUMENTS. STAIN AND SEAL WOOD A MINIMUM OF 6 MONTHS AFTER INSTALLATION TO ALLOW FOR PROPER CURING. WOOD TYPE SHALL BE A MOISTURE RESISTANT SPECIES: REDWOOD, CEDAR, TREATED PINE, ETC. OR COMPOSITE MATERIAL

STRUCTURAL LAMINATED BEAMS - LAMINATED VENEER LUMBER (LVL) SHALL HAVE A MODULUS OF ELASTICITY (E) OF 2,000,000 PSI AND AN ALLOWABLE BENDING STRESS (FB) OF 2,800 PSI. LVL'S SHALL BE INSTALLED AND FASTENED TOGETHER PER MANUFACTURER'S RECOMMENDATIONS. CONFORM TO MANUFACTURER'S RECOMMENDATIONS WITH RESPECT TO INSTALLATION, CUTTING, NOTCHING, AND FASTENING OF ALL
ENGINEERED LUMBER

METAL FASTENERS - ALL FASTENERS FOR WOOD MEMBERS SHALL BE MFG BY THE SIMPSON CO. "STRONG TIE" OR EQUAL

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

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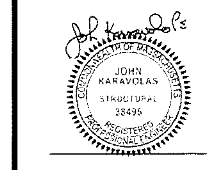
Ivone Tharion

163 BROADWAY
METHUEN, MA

No.	Description	Date
1	SCHEMATIC DESIGN 1	10/01/2024

Rangel Project Number	24-087
Date	10/01/2024
Drawn by	S.R.
Checked by	J.K.



CODE NARRATIVE

G-02

Scale: As indicated

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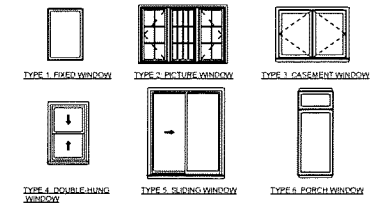
WINDOW NOTES

Fenestration U-Factor	**0.35**
Skylight U-Factor	**0.60**
Glazed Fenestration SHGC	**NR**

WINDOWS - CONFIRM THAT OPENINGS ARE COMPLIANT WITH ALL APPLICABLE BUILDING CODES CONCERNING EGRESS, LIGHTING AND VENTILATION REQUIREMENTS. TEMPER ALL GLASS LOCATED WITHIN 2'-0" FROM EXTERIOR DOORS, ALL GLASS IN DOORS AND ABOVE TUB ENCLOSURES, GLASS GREATER THAN 9 SQ.FT. IN AREA AND A SILL HEIGHT LESS THAN 18" ABOVE FINISH FLOOR. PROVIDE AND INSTALL NECESSARY WINDOWS AND APPROPRIATE HARDWARE TO OPERATE AND
LOCK WINDOWS. BEDROOM WINDOWS SHALL COMPLY WITH CODE REQUIREMENTS FOR EMERGENCY ESCAPE WITH APPROPRIATE EGRESS HARDWARE. MINIMUM NET CLEAR OPENING SHALL BE 5.7 SQ.FT., MINIMUM NET CLEAR WIDTH SHALL BE 20", MINIMUM NET CLEAR HEIGHT SHALL BE 24" AND SILL HEIGHT SHALL NOT EXCEED 24" ABOVE FLOOR.



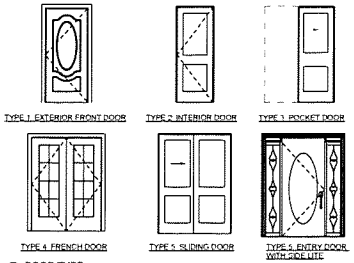
WINDOW TYPE
1/4" = 1'-0"

DOOR NOTES

EXTERIOR DOORS - ALL EXTERIOR DOORS SHALL BE SOLID CORE, INSULATED AND SWING INSIDE WITH WEATHER-TIGHT THRESHOLDS. INSTALL WEATHER-STRIPPING AROUND ALL DOORS. INSTALL PRE-HUNG DOOR UNITS. SEE DOOR SCHEDULE FOR DOOR AND FRAME MATERIAL.

INTERIOR DOORS - INTERIOR DOORS SHALL BE PRE-HUNG UNITS. SEE DOOR SCHEDULE FOR DOOR AND FRAME MATERIAL.

DOOR HARDWARE - FINISH HARDWARE SHALL INCLUDE KEYED DEADBOLT LOCKSETS AT ALL EXTERIOR DOORS. INTERIOR DOORS SHALL BE
A COMBINATION OF PRIVACY AND PASSAGE LOCKS. SEE DOOR SCHEDULE FOR DOOR HARDWARE REQUIREMENTS.

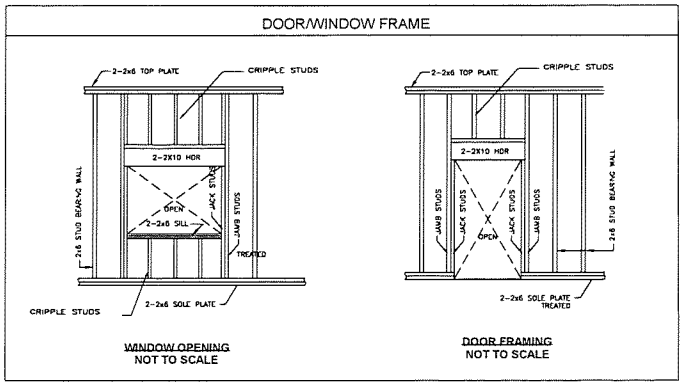


DOOR TYPE
1/4" = 1'-0"

DOOR SCHEDULE

Door Schedule							
Mark	Function	Head Height	Level	Thickness	Height	Width	Type
D01	Interior	6' - 8"	First Floor	0' - 2"	6' - 8"	5' - 8"	68" x 80"
D02	Interior	6' - 8"	First Floor	0' - 2"	6' - 8"	2' - 6"	30" x 80"
D03	Interior	6' - 8"	First Floor	0' - 2"	6' - 8"	2' - 6"	30" x 80"
D04	Interior	6' - 8"	First Floor	0' - 1 3/4"	6' - 8"	6' - 0"	72" x 80"

TOTAL: 4



DOOR-WINDOW FRAME
3/8" = 1'-0"

WINDOW SCHEDULE

Window Schedule							
Type Mark	Level	Width	Height	Head Height	Sill Height	Type	Header
W01	First Floor	2' - 11 1/2"	3' - 11 3/4"	6' - 11 3/4"	3' - 0"	Double Hung Window	3 - 2X10
W01	First Floor	2' - 11 1/2"	3' - 11 3/4"	6' - 11 3/4"	3' - 0"	Double Hung Window	3 - 2X10
W01	First Floor	2' - 11 1/2"	3' - 11 3/4"	6' - 11 3/4"	3' - 0"	Double Hung Window	3 - 2X10

TOTAL: 3

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163 BROADWAY
METHUEN, MA

No.	Description	Date
1	SCHEMATIC DESIGN 1	10/01/2024

Rangel Project Number	24-087
Date	10/01/2024
Drawn by	S.R.
Checked by	J.K.

COMMONWEALTH OF MASSACHUSETTS
JOHN KARAVOLAS
STRUCTURAL
38496
REGISTERED PROFESSIONAL ENGINEER

WINDOW & DOOR SCHEDULE

N

G-03

Scale As indicated

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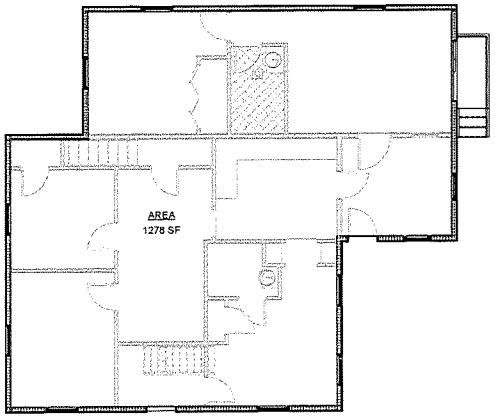
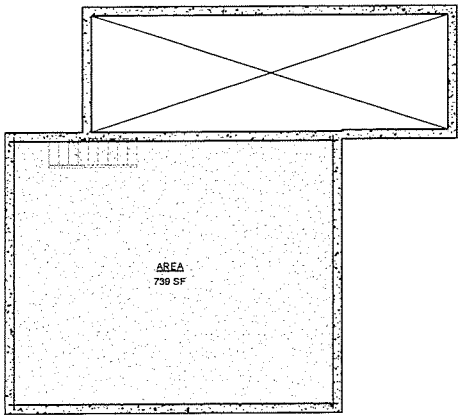
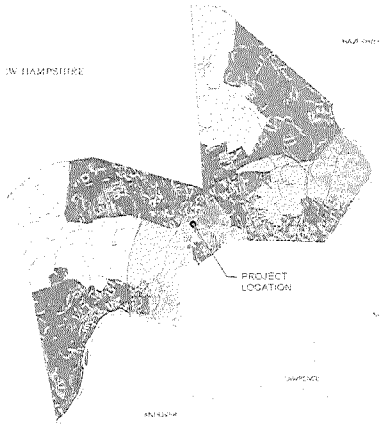


1 First Floor
3/16" = 1'-0"



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

ZONING MAP



ZONING MAP
1" = 400'-0"

BUILDING DATA:

1. PROTECTION	
SPRINKLER FIRE ALARM	NONE AUTOMATIC, SUPERVISED
2. USE GROUP	SINGLE RESIDENCE DISTRICT
3. CONSTRUCTION TYPE	VB
4. HEIGHT/ AREA	2.5 STORIES INCLUDING STAIRS AT FRONT AND REAR & A BASEMENT
5. PROJECT AREA	
LOT AREA TOTAL HABITABLE AREA GARAGE	10,018 SQFT 2,017 SQFT ONE CAR
6. EGRESS TRAVEL DISTANCE AT PROJECT AREA	
	EXIT ACCESS TRAVEL = 200 SF. MAX DEAD END LIMIT = 20 FT. MAX.
7. OCCUPANT LOAD AT PROJECT AREA	
	2 PER BEDROOM = 3 BEDROOM = 6 PEOPLE

BUILDING DATA
1/4" = 1'-0"

PROPOSED GROSS BUILDING	
FAR	GSF/LOT AREA
Name	Area
BASEMENT	739 SF
FIRST FLOOR	1278 SF
TOTAL	2017 SF

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Drawn by	S.R.
Checked by	J.K.

COMMONWEALTH OF MASSACHUSETTS
JOHN KARAVOLAS
STRUCTURAL
38495
REGISTERED PROFESSIONAL ENGINEER

BUILDING DATA

G-04

Scale As indicated

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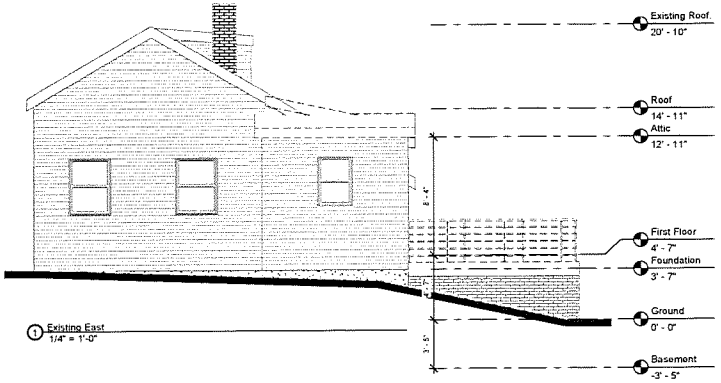
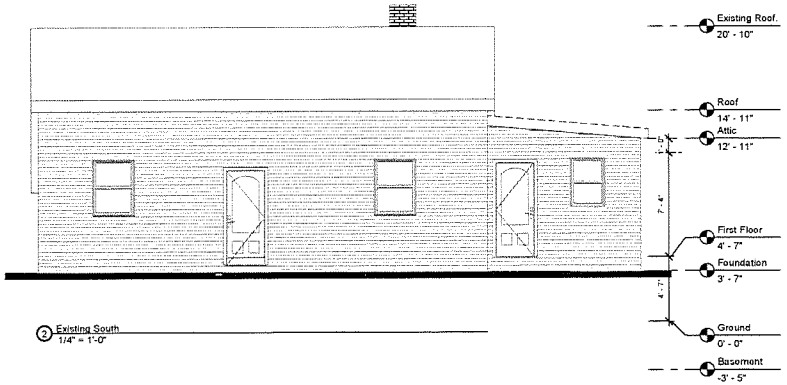
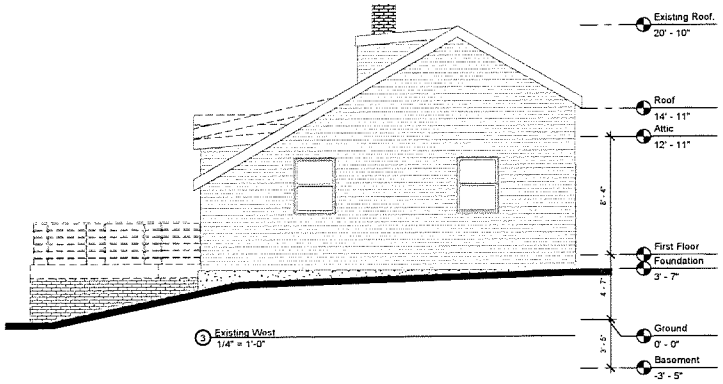


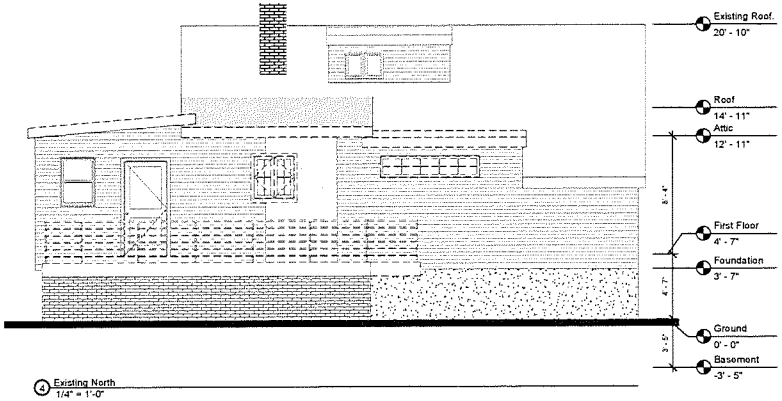
1 Existing East
1/4" = 1'-0"



2 Existing South
1/4" = 1'-0"



3 Existing West
1/4" = 1'-0"



4 Existing North
1/4" = 1'-0"

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Drawn by	Autor
Checked by	Verificador

COMMONWEALTH OF MASSACHUSETTS
JOHN KARAVOLAS
STRUCTURAL
38496
REGISTERED PROFESSIONAL ENGINEER

EXISTING ELEVATION

N

A-02

Scale 1/4" = 1'-0"

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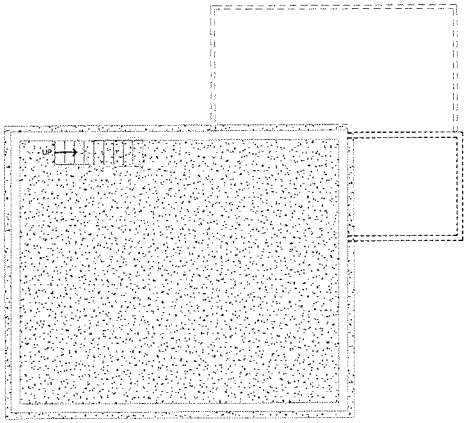
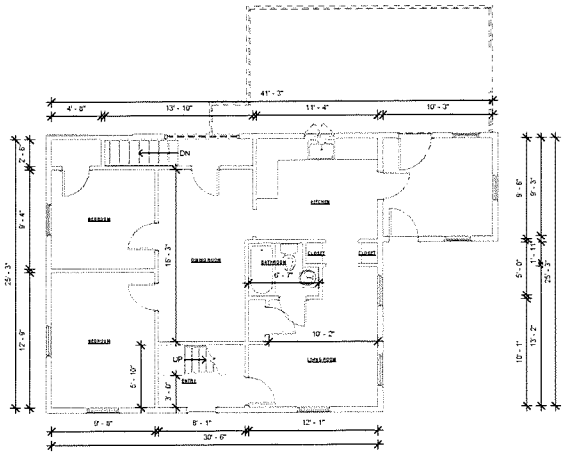
NOTES: VERIFY ALL DIMENSIONS IN FIELD PRIOR TO FABRICATION AND CONSTRUCTION. ALL EXISTING CONDITIONS TO REMAIN AS IS UNLESS OTHERWISE NOTED

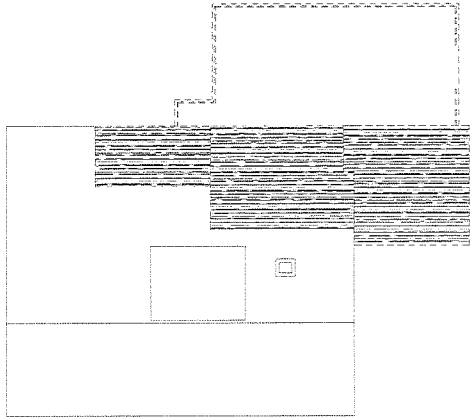
ALL DASHED RED CONSTRUCTION TO BE REMOVED.



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



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



1 Existing Roof
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 NOTES:
1/8" = 1'-0"

WALLS EXISTING TO REMAIN

WALLS AND OTHER ELEMENTS TO BE DEMOLISHED AND DISPOSED OF OFFSITE

PROPOSED NEW WALLS

WALL LEGEND
1/8" = 1'-0"

GRAPHIC SCALE
0 3 6 9 12

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163 BROADWAY
METHUEN, MA

No.	Description	Date
1	SCHEMATIC DESIGN 1	10/01/2024

Rangel Project Number	24-087
Date	10/01/2024
Drawn by	S.R.
Checked by	J.K.

COMMONWEALTH OF MASSACHUSETTS
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DEMOLITION FLOOR PLAN

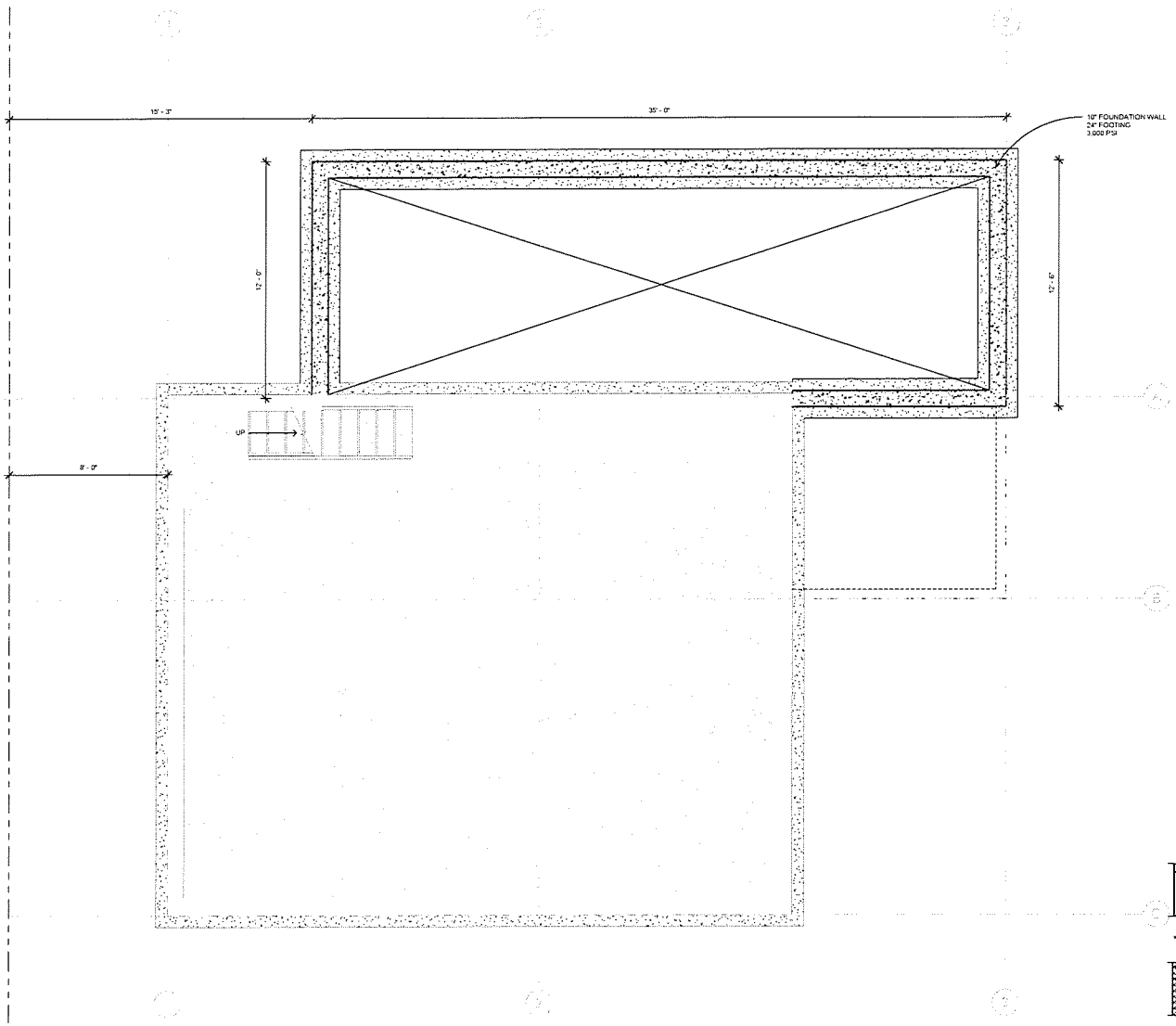
N

A-01

Scale As indicated

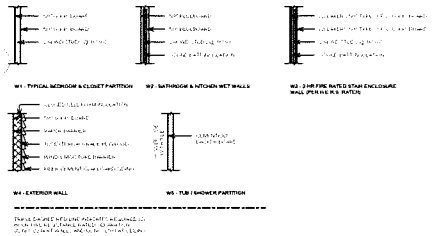
11/15/2025 10:11:33 AM

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



1 Basement
3/8" = 1'-0"

GRAPHIC SCALE
0 16 32 48 64



WALL LEGEND 2
1/4" = 1'-0"

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PROPOSED
BASEMENT LEVEL

N

A-03

Scale As indicated

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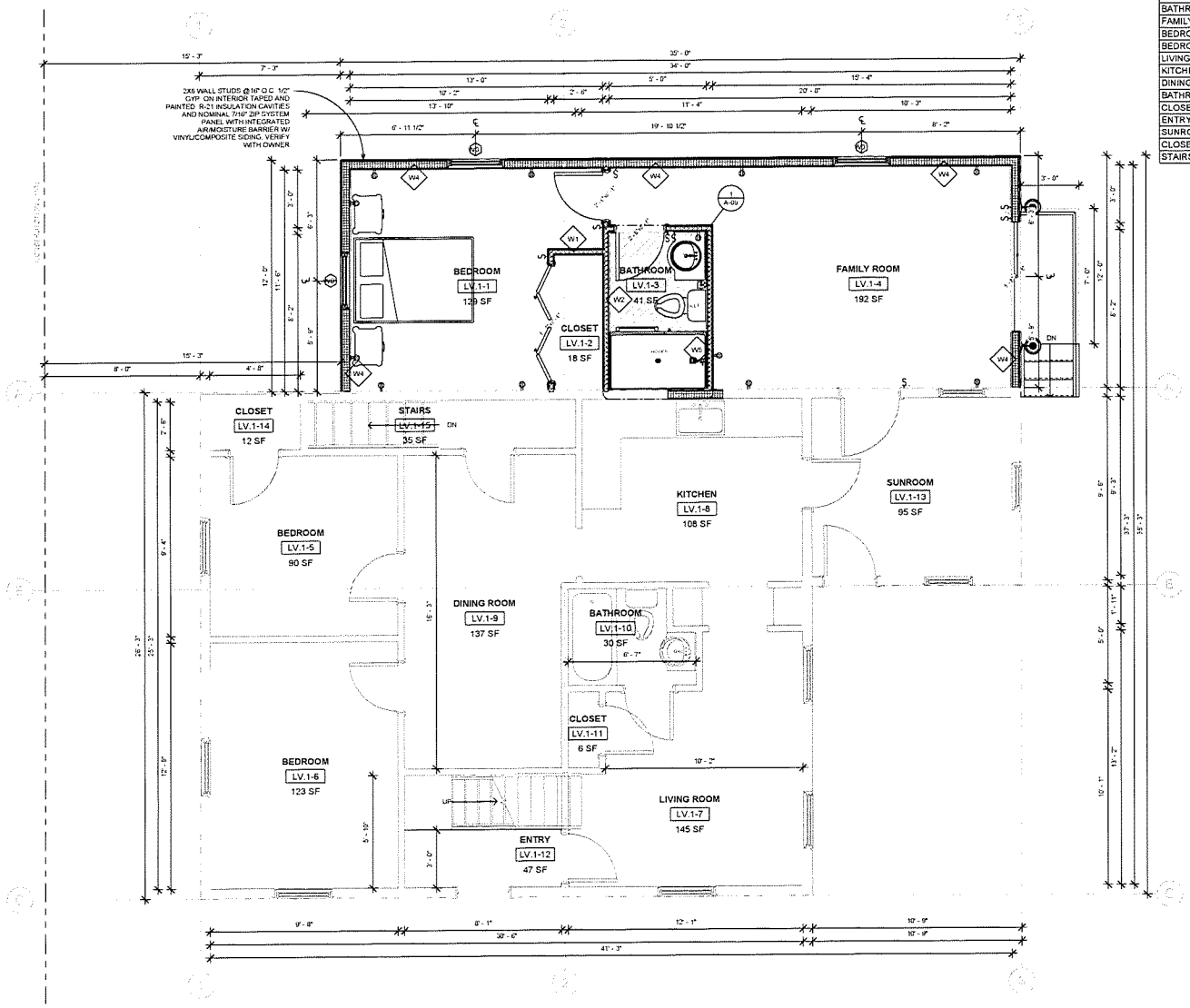
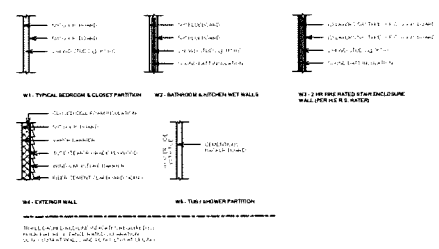
NOTES: VERIFY ALL DIMENSIONS IN FIELD PRIOR TO FABRICATION AND CONSTRUCTION. ALL EXISTING CONDITIONS TO REMAIN AS IS UNLESS OTHERWISE NOTED



1 Proposed First Floor
3/8" = 1'-0"

GRAPHIC SCALE
0 16 32 48 64

Room Schedule						
Name	Number	Area	Level	Wall Finish	Ceiling Finish	Floor Finish
BEDROOM	LV.1-1	129 SF	First Floor	5/8 SHEETROCK	5/8 SHEETROCK	HARDWOOD
CLOSET	LV.1-2	18 SF	First Floor	5/8 SHEETROCK	5/8 SHEETROCK	HARDWOOD
BATHROOM	LV.1-3	41 SF	First Floor	5/8 SHEETROCK	5/8 SHEETROCK	TILE
FAMILY ROOM	LV.1-4	192 SF	First Floor	5/8 SHEETROCK	5/8 SHEETROCK	HARDWOOD
BEDROOM	LV.1-5	90 SF	First Floor	EXISTING	EXISTING	EXISTING
BEDROOM	LV.1-6	123 SF	First Floor	EXISTING	EXISTING	EXISTING
LIVING ROOM	LV.1-7	145 SF	First Floor	EXISTING	EXISTING	EXISTING
KITCHEN	LV.1-8	108 SF	First Floor	EXISTING	EXISTING	EXISTING
DINING ROOM	LV.1-9	137 SF	First Floor	EXISTING	EXISTING	EXISTING
BATHROOM	LV.1-10	30 SF	First Floor	EXISTING	EXISTING	EXISTING
CLOSET	LV.1-11	6 SF	First Floor	EXISTING	EXISTING	EXISTING
ENTRY	LV.1-12	47 SF	First Floor	EXISTING	EXISTING	EXISTING
SUNROOM	LV.1-13	95 SF	First Floor	EXISTING	EXISTING	EXISTING
CLOSET	LV.1-14	12 SF	First Floor	EXISTING	EXISTING	EXISTING
STAIRS	LV.1-15	35 SF	First Floor	EXISTING	EXISTING	EXISTING



WALL LEGEND 2
1/4" = 1'-0"

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163 BROADWAY
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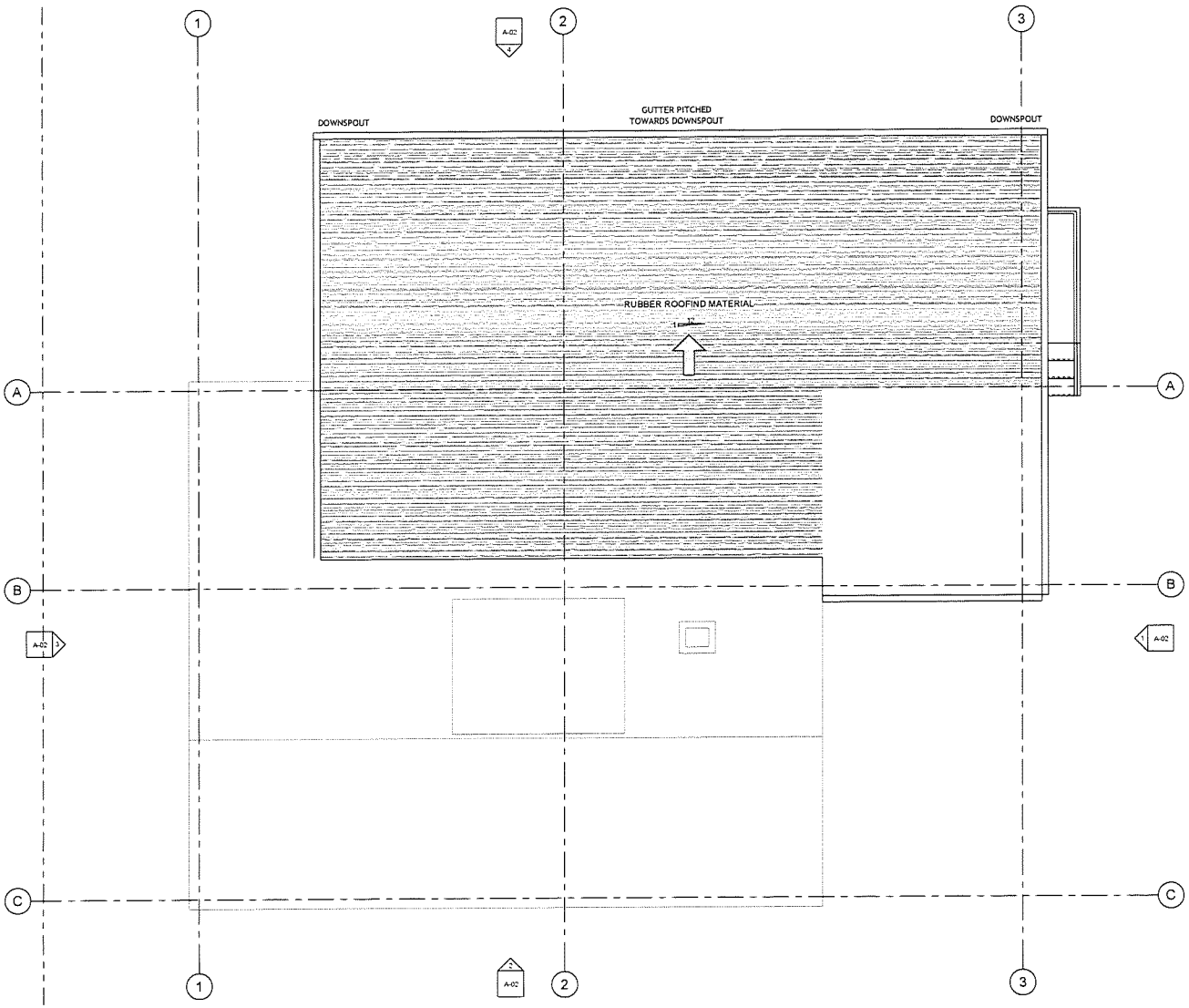
PROPOSED FIRST FLOOR PLAN

A-04

Scale As indicated

6/15/2025 10:11:16 AM



1 Roof
3/8" = 1'-0"

GRAPHIC SCALE
0 16 32 48 64

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ROOF PLAN

N

A-06

Scale 3/8" = 1'-0"

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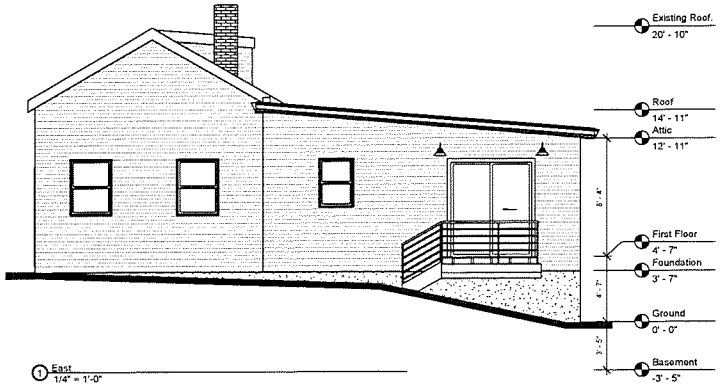
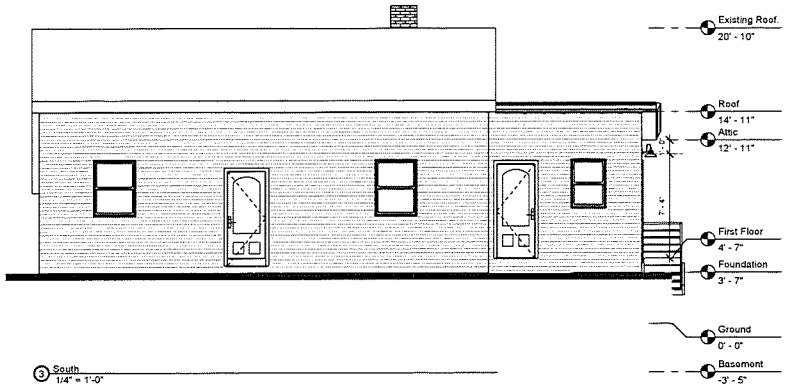
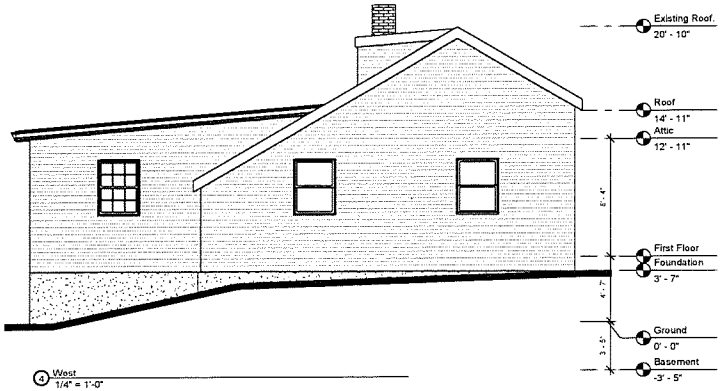


1 East
1/4" = 1'-0"

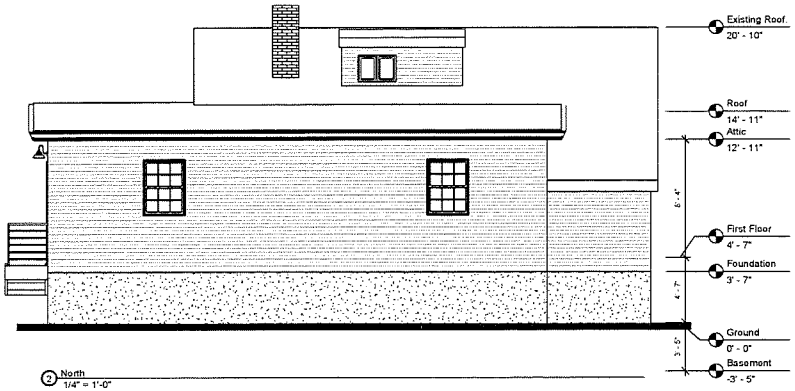


3 South
1/4" = 1'-0"

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 PPLAN. G.C. TO COORDINATE ACCORDINGLY ARCHITECTURE DRAWINGS WITH SITE PLAN.



4 West
1/4" = 1'-0"



2 North
1/4" = 1'-0"

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ELEVATION

N

A-07

Scale 1/4" = 1'-0"

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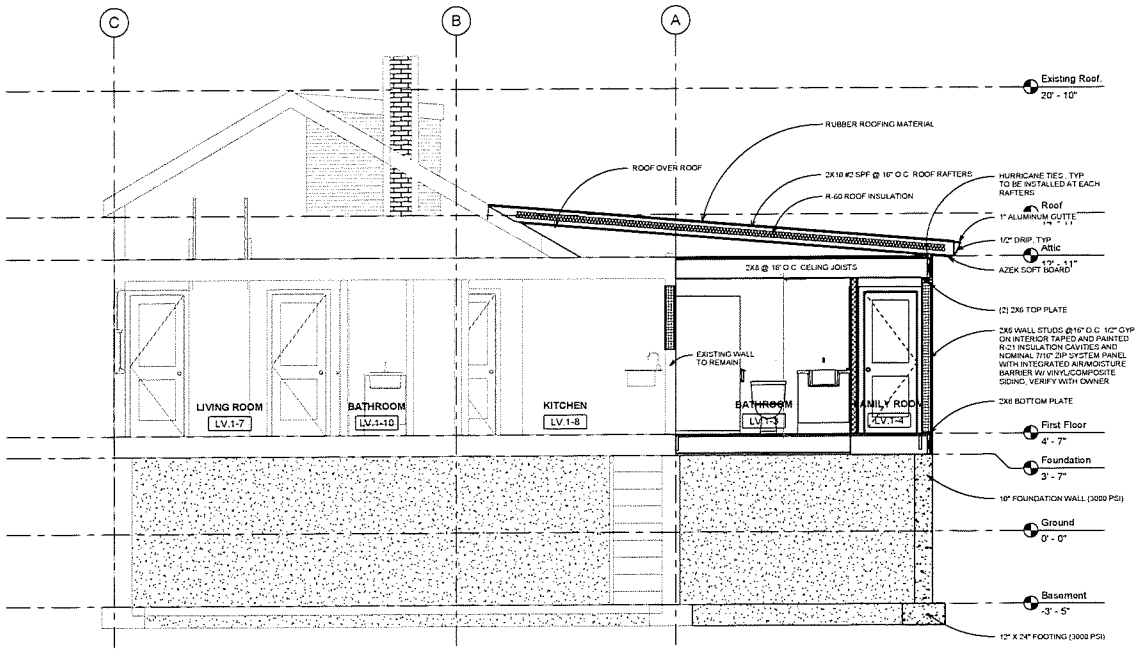
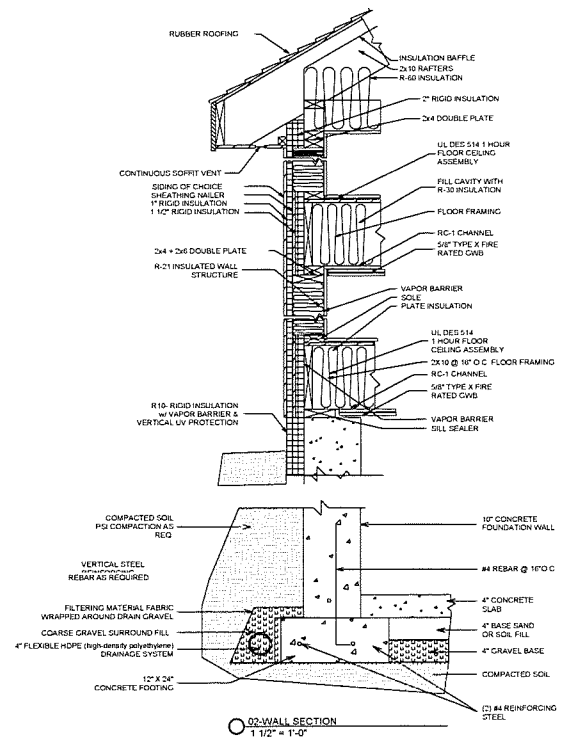


1 Section 1
3/8" = 1'-0"



2 02-WALL SECTION
1 1/2" = 1'-0"

ENERGY CODE REQUIREMENTS (IECC 2021 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(h)	13/17	30(g)	15/19	10, 2 ft	15/19
NR - Not Required; For SI: 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. "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 basemen...										
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 MEETMINIMUM 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

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SECTION

A-08

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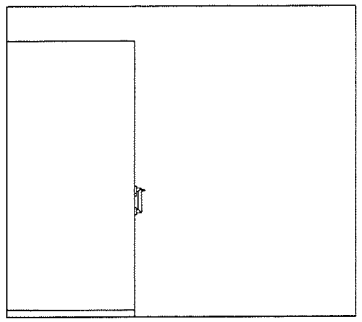
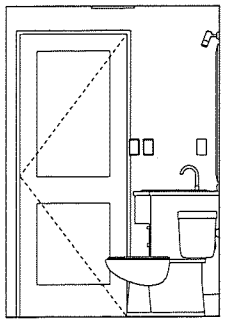
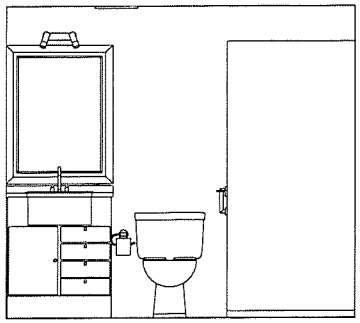


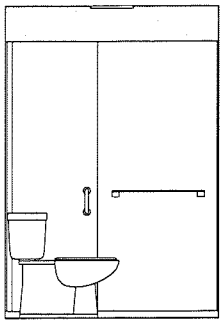
2 1-a
3/4" = 1'-0"



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



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



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

BATHROOM NOTES:

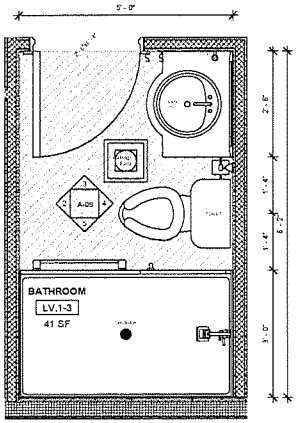
1 BATHTUB AND SHOWER FLOORS AND WALLS ABOVE BATHTUBS WITH INSTALLED SHOWER HEADS AND IN SHOWER COMPARTMENTS SHALL BE FINISHED WITH A NONABSORBENT SURFACE. SUCH WALL SURFACES SHALL EXTEND TO A HEIGHT OF NOT LESS THAN 6 FEET ABOVE THE FLOOR

2 AROUND SHOWERS, TUBS, WHIRLPOOLS, INSTALL 1/2" WATER RESISTANT DRYWALL OR EQUAL

3 ALL TUB OR SHOWER ENCLOSURES ARE TO BE GLAZED WITH SAFTEY GLAZING

4 BATHROOMS AND UTILITY ROOMS ARE TO BE VENTED TO THE OUTSIDE WITH A MINIMUM OF A 90CFM FAN

5 THE CENTER LINE OF WATER CLOSET SHALL BE NOT LESS THAN 15" FROM ADJACENT WALLS/PARTITIONS OR 12" FROM A TUB 21" MIN. FRONT CLEARANCE



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

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ENLARGED BATHROOM

A-09

Scale 3/4" = 1'-0"

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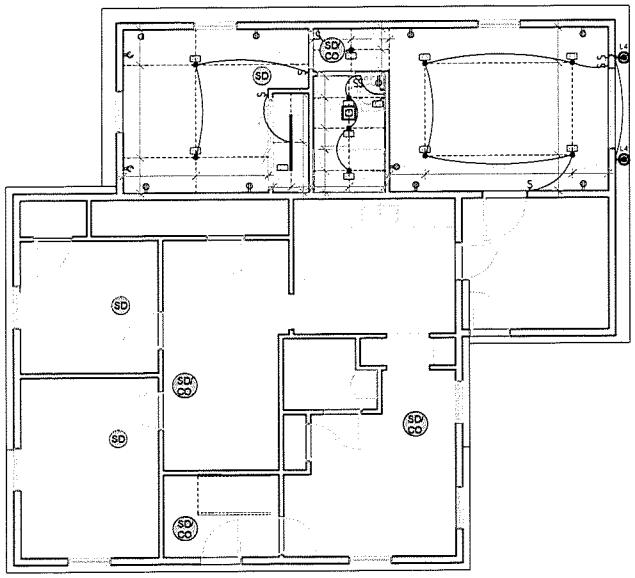
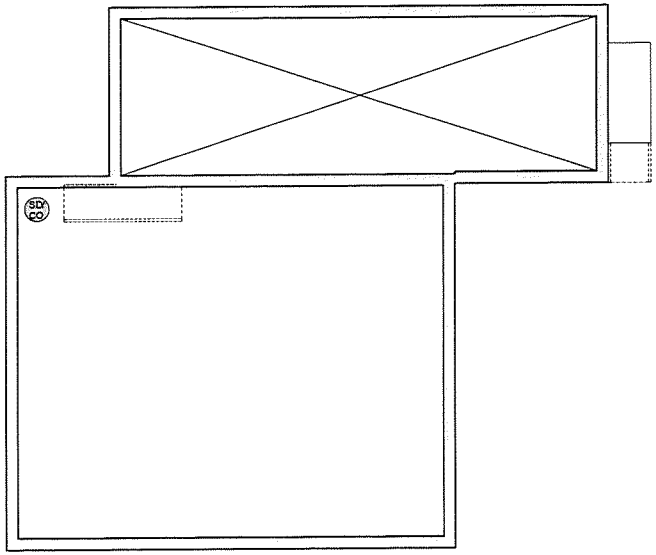


1 First Floor
1/4" = 1'-0"



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

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

LIFE SAFETY LEGEND:

SMOKE DETECTORS
[R314 PG. 67 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. 68 AMENDED]
1 IN EACH HABITAL STORY OF THE HOUSE
AND WITHIN 10 FT. OF ALL BEDROOMS.

SMOKE/ CARBON MONOXIDE COMBO
[R315.4 PG. 68 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 "DGW", OR EQUAL.
NOTE #6: ALL GYPSUM BOARD CEILINGS TO HAVE SMOOTH TEXTURE AND PAINT FINISH AS SCHEDULED.
NOTE #7: ARCHITECTURAL 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.

	ELECTRICAL LEGEND	
		CEILING FAN WITH LIGHT
		TV CONNECTION
		DATA JACK
		TELEPHONE JACK
	GFCI	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
EP		ELECTRICAL PANEL
WS1		WALL SCONCE - BATH
L4		WALL MOUNTED LIGHT FIXTURE
L5		FLOOD LIGHT FIXTURE
R1		4" ROUND RECESSED LED DOWNLIGHT (TYP.)
L1		PENDANT LIGHT FIXTURE
L2		2" WIDE, 2' FT LONG LINEAR LED LIGHT, GENERAL LIGHT
L3		2" WIDE, 4' FT LONG LINEAR LED L1 LIGHT, GENERAL LIGHT
FL1		CEILING MOUNTED FAN LIGHT
	SD	SMOKE DETECTOR
	CM	CARBON MONOXIDE DETECTOR
	CO2	FIRE EXTINGUISHER(5KG CO2 TYPE)
	ABC	FIRE EXTINGUISHER(5KG ABC TYPE)
	HD	HEAT DETECTOR
	SD CM	DUAL SMOKE DETECTOR CARBON MONOXIDE DETECTOR

ELECTRICAL SYMBOL & LEGEND
1/8" = 1'-0"

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38495
REGISTERED PROFESSIONAL ENGINEER

REFLECTED CEILING

N

E-01

Scale As indicated

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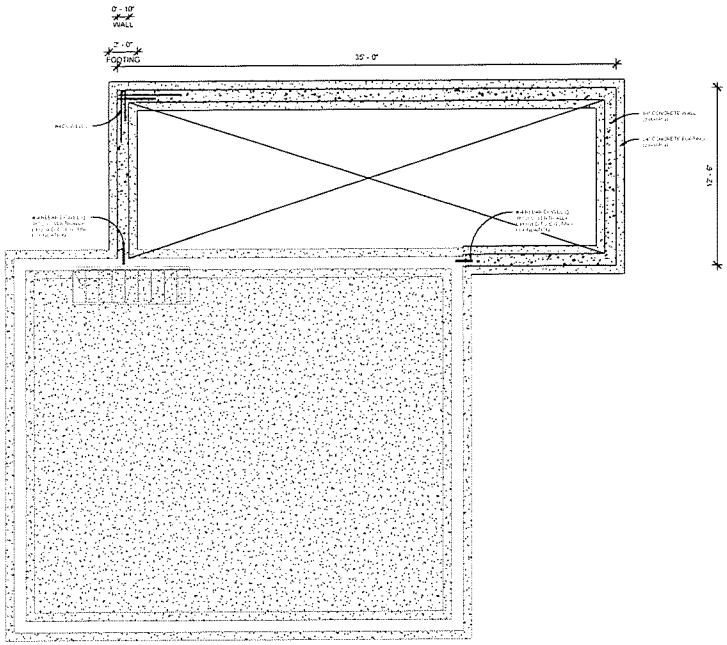


1 Basement
1/4" = 1'-0"

FOUNDATION NOTES

1. 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 GRAGE.
2. SOIL BEARING PRESSURE ASSUMED TO BE 1500 PSI.
3. ANY FILL UNDER GRADE SUPPORTED SLABS TO BE A MINIMUM OF 4" GRANULAR MATERIAL COMPACTED TO 95%.
4. 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. APPENDEX CHPT. TABLE A-26-A)

5. CONCRETE SLABS TO HAVE CONTROL JOINTS AT 25' (MAXIMUM) INTERVALS EACH WAY.
6. CONCRETE SIDEWALKS TO HAVE TOOLED JOINTS AT 5' O.C. (MINIMUM)
7. REINFORCED STEEL TO BE A-615 GRADE 40. WELDED WIRE MESH TO BE A-185.
8. EXCAVTE THE SITE TO PROVIDE A MINIMUM OF 18" CLEARANCE UNDER ALL GIRDERS.
9. COVER ENTIRE CRAWLSPACE WITH 6 MIL BLACK "VISQUEEN" AND EXTEND UP FDTN. WALLS TO P.T. MUDSILL.
10. 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.
11. ALL WOOD IN CONTACT WITH CONCRETE TO BE PRESSURE TREATED OR PROTECTED WITH 55# ROLL ROOFING.
12. BEAM POCKETS IN CONCRETE TO HAVE 1/2" AIRSPACE AT SIDES AND ENDS WITH A MINIMUM BEARING OF 3".
13. PROVIDE CRAWLSPACE DRAIN AS PER 2910 OF UBC.
14. WATERPROOF BASEMENT WALLS BEFORE BACKFILLING PROVIDING A4" PERFORATED DRAIN TILE BELOW THE TOP OF THE FOOTING.
15. BACKFILL FORMS, SHORING AND POURING METHODS MUST CONFORM TO UP TO DATE AC.I STANDARDS.
16. DAY STRENGTH AND NOT BEFORE STRUCTURAL FLOOR FRAMING (INCLUDING SUB-FLOOR) IS IN PLACE. (FRAMING MUST BE FULLY NAILED AND ANCHORED)
17. ALL CONCRETE IN FOUNDATION SHALL DEVELOP A MIN. COMPRESSION STRENGTH OF 3000 PSI IN 28 DAYS.
18. 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"

Foundation Schedule

Number of Floors Supported By the Foundation	Thickness of Foundation Wall (Inches) Concrete	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.
Continous #4 Bars @ Top of Mud Sill Wall and in Footing.

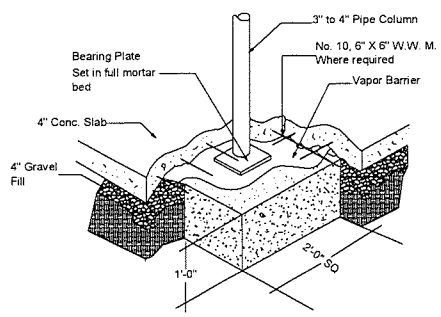
FOUNDATION SCHEDULE
1/8" = 1'-0"

FLOOR NOTES:

1 All sill plates to be 2" x 6" pressure treated
2 Rim joist to be 2" x 10" DF/FT. ENGINEER TO CALCULATE JOITS MATERIAL
3 All joists spans over 7'-0" to have 2" x 2" cross bridging @ 7'-0" O.C
4 Provide solid blocking on first & last joist spans @ 7'-0" O.C
5 Provide solid blocking between joists not on 16" O.C

FINISH Customer Choice
UNDERLAYMENT For tile, vinyl or hardwood floors use 1/2" A.D solid core plywood or approved equal
SUB-FLOOR 1 1/8" T&G 2-4-1 plywood deck, or 2x6 T&G Decking
JOIST See foundation or floor plan
INSULATION Insulate entire joist space w-R30 for electric heat, R-19 all others systems. (MIN.)
VAPOR BARRIER 4 Mil or greater– Support insulation 24" O.C. Max

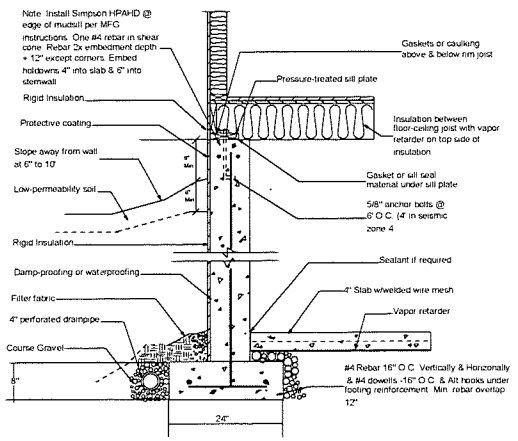
FLOOR FRAMING NOTES
1/8" = 1'-0"



NOTE: ONE STORY PLANS SHOWN.
FOR TWO STORIES PLANS, USE
2'-6" SQUARE X 1'-4" HIGH.

PIPE COLUMN FOOTING FOR A BASEMENT

POST FOOTING DETAIL
1" = 1'-0"



Concrete Basement Wall
W/exterior insulation

FOUNDATION BASEMENT WALL W/ INSULATION
1" = 1'-0"

RANGEL

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

Ivone Tharion

163 BROADWAY
METHUEN, MA

No.	Description	Date
1	SCHEMATIC DESIGN 1	10/01/2024

Rangel Project Number	24-087
Date	10/01/2024
Drawn by	Autor
Checked by	Verificador

COMMONWEALTH OF MASSACHUSETTS
JOHN KARAVOLAS
STRUCTURAL
38495
REGISTERED PROFESSIONAL ENGINEER

PROPOSED
FOUNDATION PLAN

S-00

Scale As indicated

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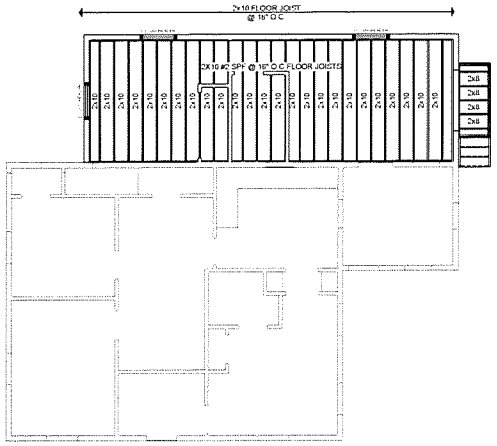
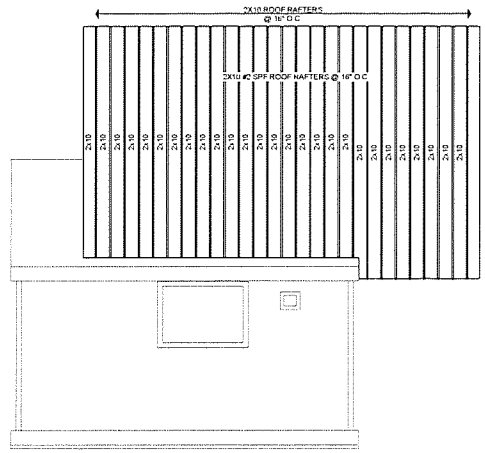
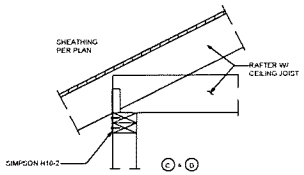


2 First Floor
3/16" = 1'-0"



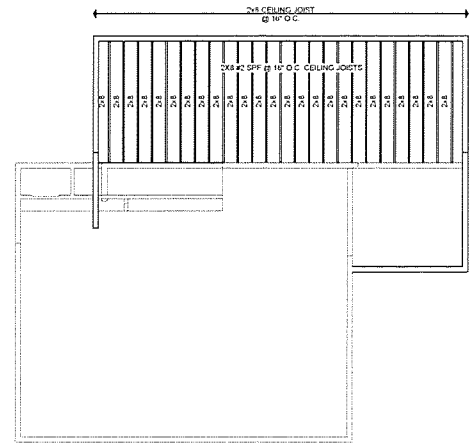
1 Roof
3/16" = 1'-0"



NOTE: BLOCKING BETWEEN RAFTERS AND ADDITIONAL SHEAR TRANSFER NOT SHOWN FOR CLARITY. SEE APPLICABLE DETAILS AS REQUIRED

RAFTER TIE TO TOP PLATE

DETAIL MARK	SIMPSON PIECE	FASTENERS - NAILS	
		RAFTER	TOP PLATE
A	H1	6-8d x 1 1/2	6-8d
B	H10, H10R	8-8d x 1 1/2	8-8d x 1 1/2
C	H11Z	6-16d x 2 1/2	6-16d x 2 1/2
D	H16-2	6-10d	6-10d
E	HS24	2-8d SKANT	6-8d



4 Attic
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Drawn by	S.R.
Checked by	J.K.

COMMONWEALTH OF MASSACHUSETTS
JOHN KARAVOLAS
STRUCTURAL
38496
REGISTERED PROFESSIONAL ENGINEER

FRAMING PLAN

S-01

Scale: As indicated

10/15/2025 10:11:46 AM