1 / A1 FRONT ELEVATION

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

FIRST FLOOR	1485 S.F.
SECOND FLOOR	1862* S.F.
TOTAL	3347 S.F.

*N/I OPEN TO BELOW AREA

Alternative Designs Inc.

26-147

Alternative Designs Inc.
www.altdesigns.us
Residential/Commercial Design
94 Old Granite Street
Manchester, NH 03101
phone: (603) 645-4388
fax: (603) 645-6010

BALCONY

NEW HOUSE TO BE BUILT IN PELHAM, NH

ZONE 5

2021 INTERNATIONAL RESIDENTIAL CODE

Contractor to check & verify all dimensions & structural members before construction. All construction shall be in strict compliance with The State of New Hampshire or Massachusetts Building Codes, whichever applicable.

REVISIONS

26-147

APR 2026

SHEET 1 OF 8

A1

CODE:

1. ALL CONSTRUCTION SHALL FOLLOW LOCAL STATE BUILDING CODE, MANUFACTURES' SPECIFICATIONS, AND WELL KNOWN INDUSTRY STANDARDS. IF ANY QUESTIONS SHALL ARISE, THE DESIGNER OR ENGINEER ON RECORD SHALL BE CONTACTED.
2. INTERNATIONAL RESIDENTIAL CODE 2021 (IRC 2021) AND THE REFERENCED STANDARDS INCLUDED THEREIN. AHJ = AUTHORITY HAVING JURISDICTION.
   A. NUMBER OF UNITS: __1__ (1 OR 2)
   B. NUMBER OF STORIES: __2_ (MAX. 3)

DESIGN LOADS:

1. UNIFORM FLOOR LIVE LOAD (NON-BEDROOM):
   A. NON -BEDROOM 40PSF
   B. BEDROOM 30PSF
   C. ATTIC 20PSF
2. UNIFORM FLOOR DEAD LOAD: 15PSF
3. ROOF SNOW LOAD (AHJ):
   A. GROUND SNOW LOAD: 55 PSF (TOWN, STATE SPECIFIC)
   B. DEAD LOAD: 10 PSF
4. WIND DESIGN:
   A. EXPOSURE CATEGORY __B__ (A-D, R301.2.1.4) (B IS NORMAL)
   B. WIND SPEED ZONE (AHJ) 120 (90 - 120, MOST OF NORTHERN AND WESTERN NH AND WESTERN MA=90, CENTRAL AND SOUTH NH AND MA = 100, NH COAST, BOSTON AND SOUTH = 110, CAPE COD AND ISLANDS = 120
5. SEISMIC
   A. DESIGN CATEGORY (AHJ) (A-E, R301.2.2), (C FOR MOST OF SOUTH AND CENTRAL NH AND B FOR MA)
6. DAMAGE:
   A. WEATHERING: SEVERE (CONCRETE) (R301.2(3))
   B. TERMITE INFESTATION PROBABILITY: SLIGHT (NORTHERN NH), MODERATE (SOUTHERN NH), HEAVY (MA)
7. DESIGN FROST DEPTH OF __4__FEET BELOW FINISHED GRADE (4' IS TYPICAL; VERIFY AS NEEDED WITH AHJ)
8. WINTER DESIGN TEMP: NH: 0 DEG. F., MA 10 DEG. F. (PER 301.2(1))
9. FLOOD HAZARD (AHJ): __NO__

GENERAL NOTES:

1. THESE DRAWINGS REPRESENT AN OVERALL DESIGN CONCEPT. THEY ARE PREPARED WITH THE INTENT TO DEMONSTRATE THE OVERALL DESIGN ARRANGEMENT AND METHODS OF ASSEMBLY TO THE VARIOUS COMPONENTS. THE DRAWINGS DO NOT INDICATE EXTENSIVE DETAILS. THE CONTRACTOR SHALL HAVE REVIEWED THESE PLANS, SEEN THE SUBJECT PROPERTY, AND BE CAPABLE OF EXECUTING THE DETAIL WORK AS NECESSARY TO ACHIEVE THE INTENDED RESULT, IN A MANNER CONSISTENT WITH QUALITY WORKMANSHIP WITHIN THE REGION.
2. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE NATIONAL STATE AND LOCAL CODES, REGULATIONS AND FHA/VA MPS.
3. CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AT SITE BEFORE BEGINNING CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED TO ALTERNATIVE DESIGNS INC. FOR JUSTIFICATION AND OR CORRECTION BEFORE PROCEEDING WITH WORK.
4. THE OWNER AND CONTRACTOR SHALL HOLD HARMLESS THE DESIGNER FROM AND AGAINST ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES (INCLUDING LEGAL FEES) ARISING OUT OF OR RESULTING FROM THE PERFORMANCE OF THE WORK BY THE CONTRACTOR.
5. ALL DIMENSIONS SHOULD BE READ OR CALCULATED AND NEVER SCALED.
6. ALL DIMENSIONS AND CONDITIONS MUST BE VERIFIED IN THE FIELD BY THE CONTRACTOR. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGNER OR STRUCTURAL ENGINEER BEFORE PROCEEDING.
7. IN THE EVENT OF A CONFLICT BETWEEN PLANS, SPECIFICATIONS, AND DETAILS, THE DESIGNER OR STRUCTURAL ENGINEER SHALL BE NOTIFIED IMMEDIATELY FOR CONSULTATION. IF CONDITIONS AT THE SITE ARE DIFFERENT THAN SHOWN, THE DESIGNER OR STRUCTURAL ENGINEER SHALL BE NOTIFIED BEFORE ANY WORK IS PROCEEDED WITH.
8. ALTERNATIVE DESIGN ASSUMES NO LIABILITY AS A RESULT OF ANY CHANGES OR NON CONFORMANCE WITH THESE PLANS EXCEPT UPON THE WRITTEN APPROVAL OF THE DESIGNER OR ENGINEER ON RECORD.
9. ALTERNATIVE DESIGN ASSUMES NO LIABILITY FOR WORK PERFORMED WITHOUT AN ACCEPTABLE PROGRAM OF TESTING AND INSPECTION AS APPROVED BY THE ENGINEER ON RECORD.
10. REPRODUCTION OF DESIGNER PLANS AND STRUCTURAL DRAWINGS FOR SHOP DRAWINGS IS NOT PERMITTED.
11. SECTIONS, DETAILS, NOTES, METHODS, OR MATERIALS SHOWN AND/OR NOTED ON ANY PLAN, SECTION, OR ELEVATION SHALL APPLY TO ALL OTHER SIMILAR LOCATIONS UNLESS NOTED OTHERWISE.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SHORING AND BRACING REQUIRED DURING CONSTRUCTION. TEMPORARY SUPPORTS REQUIRED FOR STABILITY DURING ALL INTERMEDIATE STAGES OF CONSTRUCTION SHALL BE REMOVED AFTER CONSTRUCTION AND ARE THE RESPONSIBILITY OF THE CONTRACTOR.

FOUNDATIONS:

1. FOUNDATIONS CONSIST OF CONTINUOUS FOOTINGS ASSUMED TO BEAR ON COMPACTED STRUCTURAL FILL PLACED ON UNDISTURBED NATURAL SOIL HAVING AN ASSUMED ALLOWABLE BEARING PRESSURE OF 2,500 PSF (TO BE VERIFIED BY BUILDER). IF THE SOIL AT BEARING DEPTH IS DISTURBED OR THE ACTUAL ALLOWABLE BEARING PRESSURE IS LESS THAN 2,500 PSF, THEN A QUALIFIED GEOTECHNICAL ENGINEER SHALL BE CONSULTED.
2. UNLESS OTHERWISE NOTED, FOOTINGS SHALL BE CENTERED UNDER SUPPORTED MEMBERS.
3. THE BOTTOM PERIMETER FOUNDATIONS SHALL BE DESIGN FROST DEPTH BELOW FINISHED GRADE.
4. THE BOTTOM 3 INCHES OF FOOTING EXCAVATIONS SHALL BE FINISHED BY HAND SHOVEL.
5. FINISH EXTERIOR GRADE SHALL BE AT LEAST 8" BELOW TOP OF FOUNDATION WALL.
6. PLACE BACKFILL SIMULTANEOUSLY ON BOTH SIDES OF WALLS TO THE GRADES INDICATED.
7. UNBRACED/UNBALANCED FOUNDATION WALLS: MAXIMUM UNBALANCED FILL: 24" WITHOUT DESIGN/ENGINEER INPUT/APPROVAL. (EXAMPLE GARAGE SLAB ON GRADE WHERE BACKFILL WILL BE MORE THAN 24" BELOW TOP OF SLAB) (SEE R404.1.3) (ENGINEER DESIGN REQUIRED WHEN >48")
8. WE RECOMMEND THAT WALKOUT AND KNEEWALL STYLE BASEMENTS BE REVIEWED. (IE. WHENEVER PERIMETER FOUNDATION WALLS ARE NOT FULL HEIGHT).
9. PROVIDE FORMWORK FOR ALL FOOTINGS, WALLS, AND PIERS. EARTH FORMED FOUNDATIONS ARE NOT ALLOWED.
10. SUB -SOIL SHALL HAVE 3/4 " MAXIMUM AGGREGATE WITHIN 12" OF SLAB ON GRADE
11. ANCHOR BOLTS: 1/2" X 9" (MIN. 7" EMBEDMENT) @ 4' OC AND BETWEEN 6 -12" OF EACH END. (R403.1.6)
12. DAMP PROOFING ALWAYS REQUIRED BELOW GRADE WHEN INTERIOR SPACE IS CREATED (PER R406)
13. WATERPROOFING REQUIRED WHEN INTERIOR SPACE CREATED AND HIGH WATER TABLE OR OTHER CONDITIONS. (PER R406)
14. INSTALL FOUNDATION PERIMETER DRAINS (PER R405)

CONCRETE:

1. CONCRETE SHALL BE A MIX DESIGNED FOR ULTIMATE STRENGTH IN ACCORDANCE WITH ACI 211.1 TO ACHIEVE THE DESIRED COMPRESSIVE STRENGTH. STANDARD MINIMUM 3,000 PSI FOR FOOTINGS AND INTERIOR FLOOR, 3,500 PSI FOR WALLS AND GARAGE SLAB. (R402.2)
2. CONCRETE SHALL NOT BE CAST IN WATER OR ON FROZEN GROUND. CONCRETE SHALL NOT BE EXPOSED TO WATER (I.E. RAIN) DURING SETTING PERIOD.
3. CONCRETE FLOORS SHALL BE PLACED OVER MIN. 4" THICK POROUS LAYER (SUCH AS CRUSHED STONE) WITH DRAINAGE AND APPROVED VAPOR BARRIER. (R405.2.2)
4. TOP OF FOUNDATION WALLS AND SLABS SHALL BE SMOOTH AND LEVEL.
5. NO PIPE GREATER THAN 4" DIAMETER WITH APPROPRIATE SLEEVE SHALL PASS THROUGH CONCRETE WITHOUT ENGINEER APPROVAL. PIPE SLEEVES SHALL BE PROVIDED AND SPACED A MINIMUM THREE DIAMETERS APART.
6. KEYS SHALL BE 2"X4", WITH BEVELED SIDES, UNLESS OTHERWISE NOTED
7. CONSTRUCTION JOINTS SHALL BE FORMED WITH A KEY, AND REINFORCING SHALL BE LAPPED TO DEVELOP THE FULL TENSION CAPACITY OF THE (SMALLER) BAR.
8. EXPOSED CONCRETE SHALL BE RUBBED IMMEDIATELY AFTER REMOVAL OF FORMS AND SNAP TIES REMOVED TO FLUSH.
9. OPENINGS IN CONCRETE WALLS SHALL BE LOCATED, SIZED, AND REINFORCED (WITH THE EXCEPTION OF SMALL OPENINGS AND/OR SLEEVES OF A SIZE THAT WILL NOT DISPLACE OR INTERRUPT THE CONTINUITY OF THE REINFORCING) AS SHOWN ON RESPECTIVE DETAILS. ANY ALTERATIONS REQUIRE APPROVAL OF THE STRUCTURAL ENGINEER.
10. DO NOT BACKFILL FOUNDATION WALLS UNTIL THE CONCRETE HAS BEEN IN PLACE FOR SEVEN (7) DAYS AND ATTAINED 75% OF ITS DESIGN COMPRESSIVE STRENGTH, AND FLOOR DIAPHRAGMS ARE IN PLACE. (R404.1.7)

REINFORCING STEEL:

1. REINFORCING STEEL SHALL BE NEW STEEL BAR, FREE FROM LOOSE RUST AND SCALE, AND CONFORMING TO ASTM A615, GR 60.
2. STANDARD MINIMUM FOUNDATION FOOTING: 16" WIDE X 8" HIGH WITH NO REINFORCING.
3. STANDARD MINIMUM VERTICAL FOUNDATION WALL REINFORCING FOR COMMON CONDITIONS:

WALL HEIGHT	MAX. BACKFILL	WALL THICKNESS	HORIZONTAL REINFORCING (R404.1.2(1))	VERTICAL * REINFORCING
8'	7'	8"	1 #4 WITHIN 12" OF TOP AND 1 #4 AT MID -HEIGHT	#6 @ 36" OC *
9'	8'	10"	1 #4 WITHIN 12" OF TOP AND #4 BARS AT THIRD HEIGHTS	#6 @ 30" OC *
10'	9'	10"	1 #4 WITHIN 12" OF TOP AND #4 BARS AT THIRD HEIGHTS	#6 @ 30" OC **

TABLE ABOVE ASSUMES BEST SOIL CLASS GW, GP, SW AND SP.

* AT 8' AND 9' WALLS, VERTICAL REINFORCING NOT REQUIRED IF 75% DESIGN COMPRESSIVE STRENGTH AND 7 DAYS BEFORE BACKFILL IS ATTAINED

** AT 10' WALLS, ADDITIONAL ENGINEERING REQUIRED IF BACKFILLED BEFORE 75% DESIGN COMPRESSIVE STRENGTH IS ATTAINED

4. FLATWORK: WELDED WIRE FABRIC (WWF 6"X6" X NO. 10) RECOMMENDED IN ALL FLATWORK. IT SHALL CONFORM TO ASTM A185. LAP TWO SQUARES AT JOINTS AND TIE AT 3'-0" O.C. FURNISH WWF IN FLAT SHEETS.
5. PLAN CONTROL JOINTS AT 10-12' OC BOTH DIRECTIONS. WWF MUST NOT CROSS CONTROL JOINTS.
6. DECOUPLE FLATWORK FROM WALLS.
7. WELDED WIRE FABRIC SHALL BE SUPPORTED ON CONCRETE BRICKS SP. AT 24" OC EACH DIRECTION ON GRADE. WELDED WIRE FABRIC SHALL BE SUPPORTED ON ELEVATED DECK WITH CONTINUOUS BOLSTERS LOCATED OVER JOISTS AND BEAMS.
8. CLEAR CONCRETE COVER OVER BARS SHALL BE IN ACCORDANCE WITH ACI 318.
9. ACCESSORIES SHALL HAVE UPTURNED LEGS AND BE PLASTIC DIPPED AFTER FABRICATION. ACCESSORIES FOR REINFORCING SHALL BE IN ACCORDANCE WITH THE MOST CURRENT ACI EDITION.
10. LAP REINFORCING TO DEVELOP THE FULL TENSION CAPACITY OF THE (SMALLER) BAR.
11. NO BARS SHALL BE CUT OR OMITTED IN THE FIELD BECAUSE OF SLEEVES, DUCT OPENINGS, OR RECESSES. BARS MAY BE MOVED ASIDE WITHOUT CHANGE IN LEVEL WITH THE PRIOR APPROVAL OF STRUCTURAL ENGINEER.
12. ANCHOR BOLT MATERIAL SHALL CONFORM TO ASTM A36, A307, OR BETTER, AND MEET IRC 2021 CODE.

WOOD:

1. WORK SHALL BE IN ACCORDANCE WITH THE AMERICAN WOOD COUNCIL, ANSI/AF&PA, "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION 2012 (NDS)" INCLUDING "DESIGN VALUES FOR WOOD CONSTRUCTION", NATIONAL FOREST PROTECTION ASSOCIATION.
2. ALL LUMBER SHALL BE NEW AND STRAIGHT AS DESCRIBED IN "STANDARD GRADING RULES FOR NORTHEASTERN LUMBER" BY NORTHEASTERN LUMBER MANUFACTURERS ASSOCIATION.
3. NEW WOOD FOR STRUCTURAL USE SHALL HAVE A MOISTURE CONTENT AS SPECIFIED IN THE "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION."
4. FRAMING FOR WALLS AND JOISTS SHALL BE SPRUCEPINE -FIR NO. 1/NO. 2 OR BETTER. UNLESS NOTED OTHERWISE, DIMENSIONAL LUMBER REPRESENTS NOMINAL SIZES.
5. SHEATHING PANELS SHALL BE MARKED WITH THE AMERICAN PLYWOOD ASSOCIATION (APA) TRADEMARK AND SHALL MEET THE LATEST US PRODUCT STANDARD PS 1 OR APA PRP -108 PERFORMANCE STANDARDS.
6. ALL WALL SHEATHING PANELS SHALL BE NOMINAL 1/2" THICK APA RATED , UNLESS OTHERWISE NOTED, FASTEN WITH 8D COMMON NAIL SPACED AT 6" OC AT PANEL PERIMETER SUPPORTED EDGES AND 12" OC AT INTERIOR INTERMEDIATE SUPPORTS (FIELD). 1 -3/8" MIN. FASTENER PENETRATION. LAY WALL WITH REQUIREMENTS OF IRC 604.
7. ALL ROOF SHEATHING PANELS SHALL BE 5/8" THICK UNLESS NOTED OTHERWISE, C -D EXTERIOR GRADE, APA RATED EXPOSURE 1 MEETING DOC PS1 OR PS2. FASTEN WITH 8D COMMON NAILS SPACED AT 6" OC AT PANEL PERIMETER SUPPORTED EDGES AND 6" OC AT INTERIOR INTERMEDIATE SUPPORTS (FIELD). 1 3/8" MIN. FASTENER PENETRATION. LAY ROOF SHEATHING WITH LONG DIMENSION PERPENDICULAR TO SUPPORT MEMBERS.
8. WOOD TO STEEL AND WOOD TO WOOD BOLTED CONNECTORS SHALL BE MADE WITH ASTM A307 BOLTS WITH FLAT WASHERS. BOLT HOLES IN WOOD SHALL BE 1/32" LARGER THAN THE BOLT. WOOD NAILERS SHALL BE FASTENED WITH 3/8" DIA. BOLTS STAGGERED AT 20" OC UNLESS OTHERWISE NOTED.
9. FASTENING SCHEDULE (SEE ALSO TABLE R602.3(1):
   I. PLATE TO STUD, DIRECT: 2 - 16D
   II. STUD TO PLATE, TOENAIL: 4 - 8D
10. WOOD IN CONTACT WITH SOIL, MOISTURE, WEATHER, CONCRETE, OR MASONRY SHALL BE PRESSURE TREATED SOUTHERN PINE NO. 2, OR BETTER AND APPROVED FOR THE APPLICATION.
11. BRACING: THE PERMANENT LATERAL BRACING SYSTEM INCLUDES PLYWOOD, WALL AND ROOF SHEATHING WITH FASTENING AND LAYOUT AS DEFINED BY: SECTION 602. CONTRACTOR SHALL PROVIDE TEMPORARY BRACING AS REQUIRED TO LATERALLY SUPPORT THE STRUCTURE DURING CONSTRUCTION.
12. ENGINEERED LUMBER (LVL, ETC.) SHALL MATCH MANUFACTURER AND SERIES LISTED OR APPROVED EQUIVALENT. PROVIDE LATERAL SUPPORT AT ALL BEARING POINTS AND ALONG COMPRESSION EDGES AT INTERVALS OF 24" OC, OR CLOSER.
13. MINIMUM SECTION WIDTH = 1-3/4", 3-1/2", 5-1/4" AND 7" MEMBERS MAY BE COMBINATIONS OF 1-3/4"MEMBERS. FOLLOW MANUFACTURER'S GUIDELINES FOR MULTIPLE MEMBER CONNECTIONS AND FOR SIDE LOADED BEAMS.
14. WOOD CONSTRUCTION CONNECTORS SHALL BE MANUFACTURED BY SIMPSON STRONG-TIE CO., INC., OR APPROVED EQUAL, AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS, INCLUDING FASTENERS.
15. ALL FLUSH FRAMING TO HAVE APPROPRIATELY SIZED METAL JOIST HANGERS.
16. LATERAL RESTRAINT REQUIRED AT ENDS OF FLOOR FRAMING SOLID BLOCK OF SAME MATERIAL (R502.7)
17. BRIDGING OR CONT. 1X3 BRACE NAILED TO UNDERSIDE OF FLOOR FRAMING REQUIRED AT 8' INTERVALS (R502.7.1)
18. HEADERS: DEFAULT (MAX. 48" SPAN UNLESS POINT LOAD FROM ABOVE OR LATERAL BRACING REQUIREMENTS. SEE R.502.5) :
    1. INTERIOR: (2) 2X8
    2. EXTERIOR: (2) 2X10 (WITH 2-1/2" RIGID FOAM INSULATION).

    HEADERS: DEFAULT (MAX. 72" SPAN) 3-2X12 FOR 2 FLOORS CEILING AND ROOF
19. WIND BRACING: PROVIDE DIAGONAL WIND BRACING AT ALL OUTSIDE CORNERS. AT CORNERS WITH LESS THAN 48" OF PANEL WALL, USE ALTERNATE BRACING PANELS IN ACCORDANCE WITH R602.10.6.2. (GENERAL REFERENCE: R602)
20. RAFTER/CEILIMG JOIST HEEL CONNECTIONS (VAULTED CLGS @ 1/3) TABLE R802.5.2

PRE -ENGINEERED WOOD TRUSSES:

1. ALL PRE-ENGINEERED WOOD TRUSSES SHALL CONFORM TO ANSI/TPII -2002 "NATIONAL DESIGN STANDARDS FOR METAL PLATE CONNECTED WOOD TRUSS CONSTRUCTION."
2. THE MANUFACTURER OF THE PRE -ENGINEERED TRUSSES SHALL BE A TRUSS PLATE INSTITUTE (TPI) CERTIFIED PLANT. PROOF OF CERTIFICATION SHALL BE SUBMITTED TO THE DESIGNER/ENGINEER PRIOR TO FABRICATION OF THE WOOD TRUSSES.
3. THE CONTRACTOR SHALL ENSURE PROPER HANDLING, BRACING, AND LATERAL RESTRAINT IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. ALL TEMPORARY AND PERMANENT TRUSS BRACING (INDIVIDUAL AND OVERALL) SHALL BE DESIGNED BY THE TRUSS MANUFACTURER AND INSTALLED BY THE CONTRACTOR. ALL PERMANENT TRUSS BRACING/LATERAL RESTRAINT REQUIREMENTS AND LOCATIONS SHALL BE DETAILED AND SUBMITTED PRIOR TO CONSTRUCTION TO THE ENGINEER OF RECORD BY THE TRUSS MANUFACTURER. ALTERNATIVELY, THE TRUSS DESIGNER MAY DESIGN ALL TRUSSES SUCH THAT NO PERMANENT LATERAL RESTRAINT IS REQUIRED.
4. ALL ROOF TRUSSES SHALL BE DESIGN FOR THE FOLLOWING UNIFORM LOADS WITH 51/2"OR 31/2"MAX BEARING. COORDINATE TRUSS BEARING WITH BEARING WALL FRAMING WIDTH:
   A. SNOW LIVE LOAD: GROUND SNOW LOAD X 0.7= XX PSF
   B. BOTTOM CHORD LIVE LOAD (ATTIC): 20 PSF
   C. TOP CHORD DEAD LOAD: 10 PSF
   D. BOTTOM CHORD DEAD LOAD: 10 PSF
5. TRUSS SHALL BE DESIGNED FOR AN UNBALANCED UNIFORM SNOW LOADING AS WELL AS ANY DRIFTED VALLEY SNOW LOADING CONDITIONS, AND WIND LOADING AS SPECIFIED IN THE PROJECT BUILDING CODE.
6. PRE-ENGINEERED ROOF TRUSSES TO BE APPROVED BY THE STRUCTURAL ENGINEER. TRUSS SHOP DRAWINGS SHALL BE DESIGNED, STAMPED, AND SUBMITTED BY A LICENSED PROFESSIONAL ENGINEER QUALIFIED TO PERFORM THE WORK IN THE STATE WHERE THE PROJECT IS LOCATED. SUBMITTAL SHALL INCLUDE ALL LOADING COMBINATIONS, A FULL REPORT FOR EACH TRUSS, AND TEMPORARY AND PERMANENT LATERAL TRUSS RESTRAINT LAYOUT AND DETAILS.
7. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL VENTS, STACKS, RISERS, DRAINS, ETC. BEFORE TRUSSES ARE FIXED IN PLACE.
8. ALL TRUSSES SHALL HAVE HURRICANE CLIPS INSTALLED AT EACH END OF EACH TRUSS IN ORDER TO PREVENT LIFT.
9. ALL TRUSS TO TRUSS CONNECTION DESIGNS ARE RESPONSIBILITY OF THE TRUSS MANUFACTURER.
10. ALL TEMPORARY AND PERMANENT TRUSS BRACING (INDIVIDUAL AND OVERALL) IS THE RESPONSIBILITY OF THE TRUSS DESIGNER. BRACING AND LATERAL TRUSS RESTRAINT (INCLUDING DETAILS) SHALL BE SHOWN ON TRUSS DESIGN DRAWINGS AND TRUSS ERECTION DRAWINGS.

MASONRY:

1. CONCRETE MASONRY UNITS (CMU) SHALL BE NOMINAL THICKNESS UNLESS NOTED OTHERWISE.
2. MASONRY CONSTRUCTION SHALL CONFORM TO BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES (ACI 530/ASCE 5/TMS 402)
3. SPECIFIED MASONRY COMPRESSIVE STRENGTH, F'M = 1500PSI.
4. HOLLOW LOAD BEARING CMU SHALL HAVE THE FOLLOWING PROPERTIES: ASTM C90, TYPE I, GRADE N-I (NORMAL WEIGHT) WITH A MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI ACCORDING TO ASTM C140, OVEN DRY WEIGHT OVER 125PCF AND MAXIMUM MOISTURE ABSORPTION OF 13PCF.
5. MORTAR SHALL BE ASTM C270, TYPE S WITH 28 DAY COMPRESSIVE STRENGTH OF 2000PSI. MIX MORTAR MATERIALS TO PRODUCE MORTAR CUBES HAVING A 2000PSI COMPRESSIVE STRENGTH WHEN TESTED IN ACCORDANCE WITH COMPRESSIVE STRENGTH TEST ASTM C780.
6. GROUT SHALL BE ASTM C476, FINE GROUT WITH MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 2000PSI.
7. VERTICAL AND HORIZONTAL DEFORMED REINFORCEMENT SHALL BE ASTM A615 GR 60 AND HORIZONTAL JOINT REINFORCEMENT SHALL BE ASTM A82, GALVANIZED ACCORDING TO ASTM A641 CLASS 1 AS SPECIFIED.
8. PRISM TESTS ACCORDING TO ASTM E446 ARE REQUIRED PRIOR TO WORK.
9. GROUT CMU SOLID AT EXPANSION ANCHOR LOCATIONS.
10. CORES AND BOND BEAMS WITH REINFORCING SHALL BE FILLED SOLIDLY WITH GROUT. FILLING SUCH CORES AND BOND BEAMS WITH MORTAR IS STRICTLY PROHIBITED. IN ADDITION, CARE SHALL BE EXERCISED IN KEEPING CORES FREE FROM MORTAR DROPPINGS.
11. MINIMUM REINFORCING REQUIREMENTS FOR REINFORCED CMU WALLS SHALL CONFORM TO THE SCHEDULE SHOWN ON THE CONTRACT DRAWINGS AND THE APPLICABLE BUILDING CODE REQUIREMENTS.
12. GROUT SHALL BE PLACED USING LOW OR HIGH LIFT GROUTING PROCEDURES CONFORMING TO ACI/ASCE. TERMINATE GROUT POURS 1-1/2" BELOW TOP COURSE OF PLACEMENT. REINFORCING SHALL BE SPLICED A MINIMUM OF 40 BAR DIAMETERS.
13. VERTICAL REINFORCING SHALL BE SECURELY HELD IN PROPER ALIGNMENT AND POSITION DURING GROUTING OPERATIONS BY USING "REBAR POSITIONERS," AS MANUFACTURED BY WIRE BOND OR APPROVED EQUIVALENT. THE PRODUCT, IN ADDITION, SHALL ALLOW FOR GUIDING THE SPLICED REINFORCING DROPPED FROM THE TOP OF THE LIFT.
14. MASONRY SHALL BE BRACED DURING CONSTRUCTION. BRACE SPACING SHALL NOT EXCEED TEN TIMES THE WALL THICKNESS BUT NOT LESS THAN THE PROCEDURES LISTED UNDER NCMA-TEK 72
15. PROVIDE FULL HEIGHT VERTICAL REINFORCEMENT AT EACH SIDE OF CONTROL JOINTS, WINDOWS, DOORS, AND WALL OPENINGS, AT ALL ENDS OF WALLS AND CORNERS. REINFORCING SHALL BE GROUTED SOLID AND MATCH THE DIAMETER OF THE TYPICAL WALL REINFORCING.

FIRE RESISTANT CONSTRUCTION

1. FOLLOW SECTION 302. A FEW COMMON CRITICAL LOCATIONS FOLLOW:
   A. GARAGE/RESIDENCE OR GARAGE/ATTIC SEPARATION 5/8" TYPE X GYPSM DRYWALL AT GARAGE SIDE WHEN ADJACENT TO LIVING SPACE. 5/8" TYPE X DRYWALL REQUIRED AT CEILING WHEN LIVING SPACE ABOVE. (TABLE R302.6)
   B. ENCLOSED ACCESSIBLE SPACE UNDER STAIRS REQUIRES MIN. 1/2" GYPSUM (R302.7)
   C. FIREBLOCKING IS REQUIRED TO ISOLATE EACH FLOOR LEVEL. 2X BLOCKING AND 1/2" GYPSUM AND FIBERGLASS/MINERAL WOOL IF SECURE ARE ALL ACCEPTABLE (R302.11.1)
2. DUPLEX/2 FAMILY STANDARD SEPARATION IS 5/8" TYPE X BOTH SIDES. (R302.3)
3. TOWNHOUSE STANDARD SEPERATION: SEE DETAIL _XX__
4. GC & OWNER TO REVIEW AND COMPLY WITH LOCAL, FIRE AND STATE CODE ENFORCEMENT AUTORITIES. INSTALL FIRE SUPPRESSION SYSTEM PER REQUIREMENTS OF CURRENT NFPA 1, 101 AND IBC 2021 PRIOR TO CONSTRUCTION

Alternative Designs Inc.
www.alternativedesigns.net
Residential/Commercial Design
94 Old Granite Street
Manchester, NH 03101
phone: (603) 645-4388
fax: (603) 645-6010

Contractor to check & verify all dimensions & structural members before construction. All construction shall be in strict compliance with The State of New Hampshire or Massachusetts Building Codes, whichever applicable.

REVISIONS

26-147
APR 2026
SHEET 2 OF 9

A2

HEADER SCHEDULE

SIZE	ALLOWABLE SPAN 28' BLDG WIDTH			
	NON-BRG	ROOF ONLY	1 FL & ROOF	2 FL & ROOF
2 - 2 X 6	6'-0"	4'-0"	NA	NA
2 - 2 X 8	8'-0"	5'-2"	4'-0"	NA
3 - 2 X 8	10'-0"	6'-5"	5'-8"	5'-1"
2 - 2 X 10	12'-0"	6'-3"	5'-6"	4'-11"
2 - 2 X 12	16'-0"	7'-3"	6'-5"	5'-9"

PROVIDE DBL JACKS FOR ALL SPANS OVER 5'-0"

DOOR SCHEDULE

MARK	QTY	SIZE	RSO	NOTES
1		3'0 X 6'8		EXT. DOOR W/ SIDE LIGHTS
2		2'8 X 6'8		EXT. FULL VIEW
3		2'6 X 6'8		INTERIOR
4		2'4 X 6'8		INTERIOR
5		4'0 X 6'8		DOUBLE DOOR
6		1'10 X 6'8		INTERIOR
7		5'0 X 6'8		DOUBLE DOOR
8		2'0 X 6'8		INTERIOR
9		2'8 X 6'8		FIRERATED DOOR
10		2'8 X 6'8		9-LITE STEEL INSUL.
11		3'0 X 6'8		9-LITE

RSO TO BE DETERMINED BY DOOR MANUFACTURER.

WINDOW SCHEDULE

MARK	QTY	MODEL NUMBER	RSO	NOTES
A		244DH2850		DBL HUNG (7'8" HD HT)
B		244DH1850-2850-1850		TRIPLE MULLION (7'8" HD HT)
C		244DH2836	TEMP. AT TUB	DBL. HUNG
D		CN335		5'X3'5 CASEMENT (TEMP.)
E		244DH3050		DBL HUNG
F		(2)-244DH3050		MULLION
G		(3)-244DH3050		TRIPLE MULLION
H		T.B.D.		FEATURE WINDOW
J				
K				

NOTES:

1. RSO TO BE DETERMINED BY WINDOW MANUFACTURER.
2. BEDROOM WINDOWS TO MEET EGRESS
3. IN ACCORDANCE WITH I.R.C.(2021)-R312.2 , WHERE THE OPENING OF AN OPERABLE WINDOW IS MORE THAN 72" ABOVE THE EXT. FINISHED GRADE OR EXT. DECK BELOW, THE LOWEST PART OF THE CLEAR OPENING IS TO BE A MIN. OF 24" ABV. THE FIN. FLR.
4. WINDOWS ARE BASED ON ANDERSEN 200 SERIES TILT-WASH MODEL NUMBERS

EGRESS WINDOWS

SECTIONS R-310 EMERGENCY ESCAPE AND RESCUE REQUIRED

BASEMENTS, HABITABLE ATTICS AND EVERY SLEEPING ROOM SHALL HAVE AT LEAST ONE OPERABLE EMERGENCY ESCAPE AND RESCUE OPENING.
WHERE BASEMENTS CONTAIN ONE OR MORE SLEEPING ROOMS, EMERGENCY EGRESS AND RESCUE OPENINGS SHALL BE REQUIRED IN EACH SLEEPING ROOM.
WHERE EMERGENCY AND RESCUE OPENINGS ARE PROVIDED, THEY SHALL HAVE A SILL HEIGHT OF NOT MORE THAN 44" ABOVE THE FLOOR.

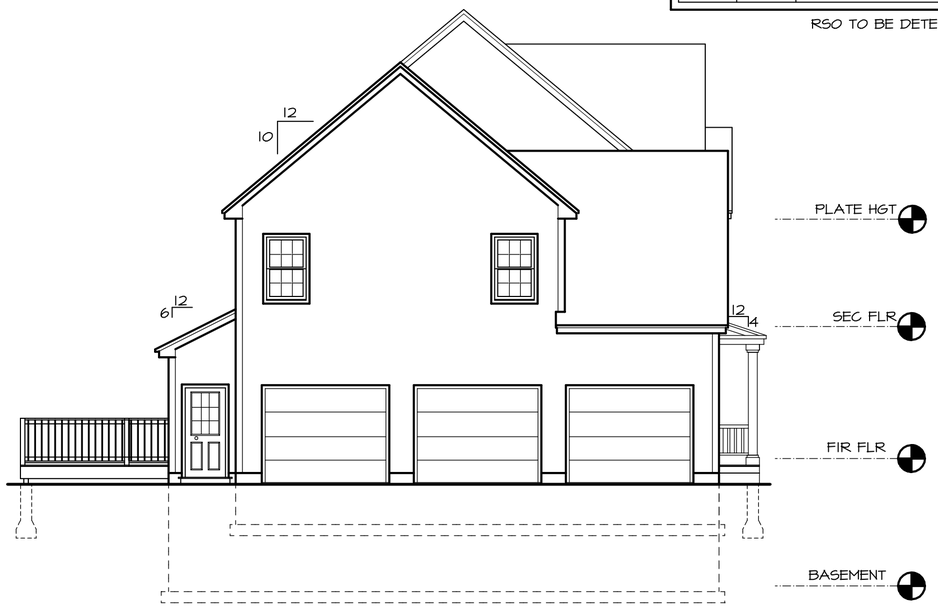
MINIMUM OPENING AREA.

ALL EMERGENCY ESCAPE AND RESCUE OPENINGS SHALL HAVE A MINIMUM NET CLEAR OPENING OF 5.7 SQUARE FEET (0.530 M2).

MINIMUM OPENING HEIGHT. THE MINIMUM NET CLEAR OPENING HEIGHT SHALL BE 24 INCHES (610 MM).

MINIMUM OPENING WIDTH. THE MINIMUM NET CLEAR OPENING WIDTH SHALL BE 20 INCHES (508 MM).

OPERATIONAL CONSTRAINTS. EMERGENCY ESCAPE AND RESCUE OPENINGS SHALL BE OPERATIONAL FROM THE INSIDE OF THE ROOM WITHOUT THE USE OF KEYS OR TOOLS



2 A2 LEFT ELEVATION

SCALE: 1/8" = 1'-0"

1 A2 REAR ELEVATION

SCALE: 1/8" = 1'-0"

3 A2 RIGHT ELEVATION

SCALE: 1/8" = 1'-0"

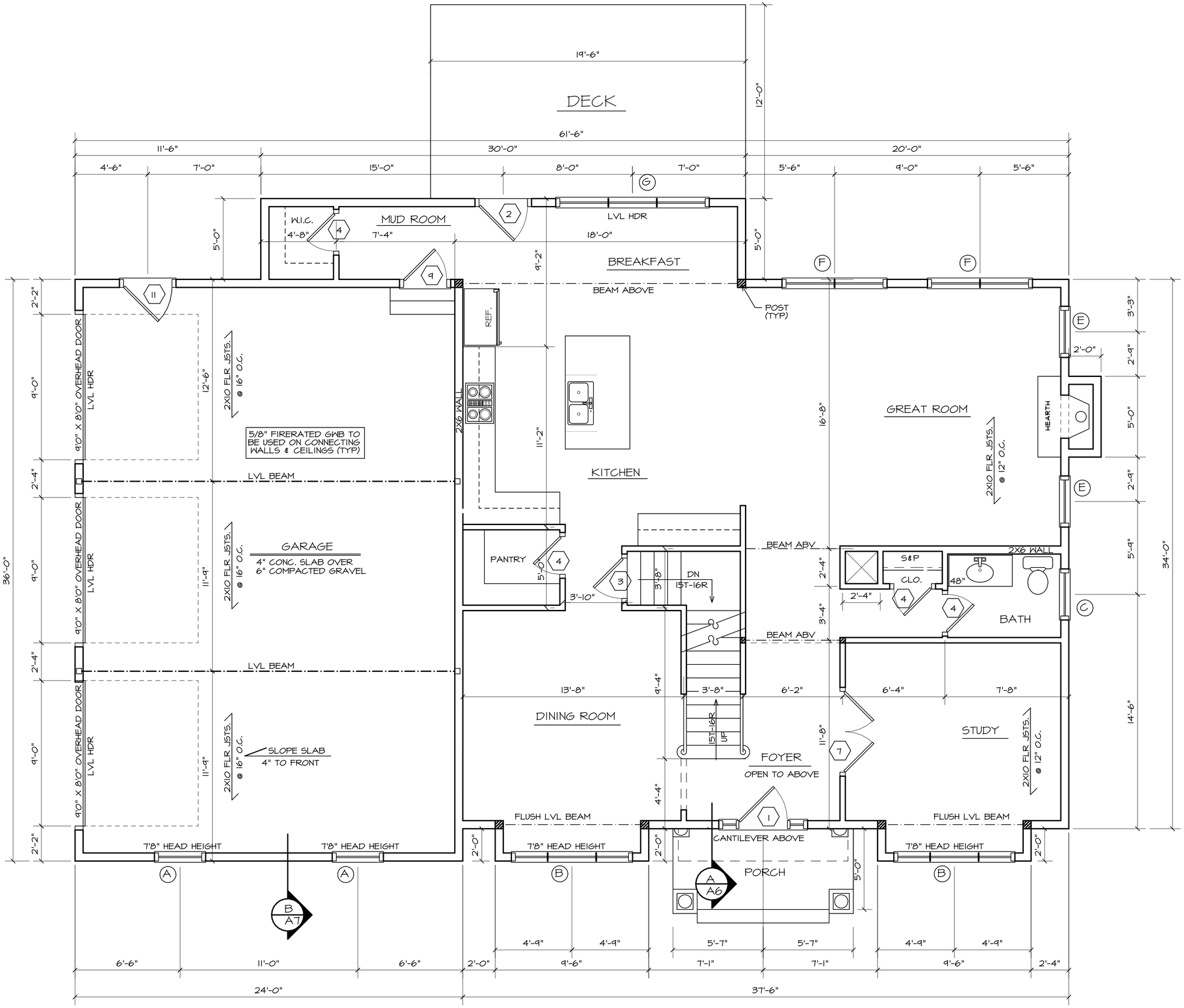
Alternative Designs Inc.
www.altdesigns.us
Residential/Commercial Design
94 Granite Street
Manchester, NH 03101
phone: (603) 645-4388
fax: (603) 645-6010

Contractor to check & verify all dimensions & structural members before construction. All construction shall be in strict compliance with The State of New Hampshire or Massachusetts Building Codes, whichever applicable.

REVISIONS

26-147
APR 2026
SHEET 3 OF 9

A3



1 / A3 FIRST FLOOR PLAN

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

NOTE:

1. PROVIDE HANDRAIL AT EACH STAIRWAY WITH 4 OR MORE RISERS R311.7.8

WIND BRACING NOTE: PROVIDE DIAGONAL WIND BRACING AT ALL OUTSIDE CORNERS. AT CORNERS WITH LESS THAN 48" OF PANEL WALL, USE ALTERNATE BRACING PANELS IN ACCORDANCE WITH INTERNATIONAL BUILDING CODE FIGURE R602.10.2.2

Alternative Designs Inc.
www.altdesigns.us
Residential/Commercial Design
94 Old Granite Street
Manchester, NH 03101
phone: (603) 645-4388
fax: (603) 645-6010

Contractor to check & verify all dimensions & structural members before construction. All construction shall be in strict compliance with The State of New Hampshire or Massachusetts Building Codes, whichever applicable.

REVISIONS

26-147

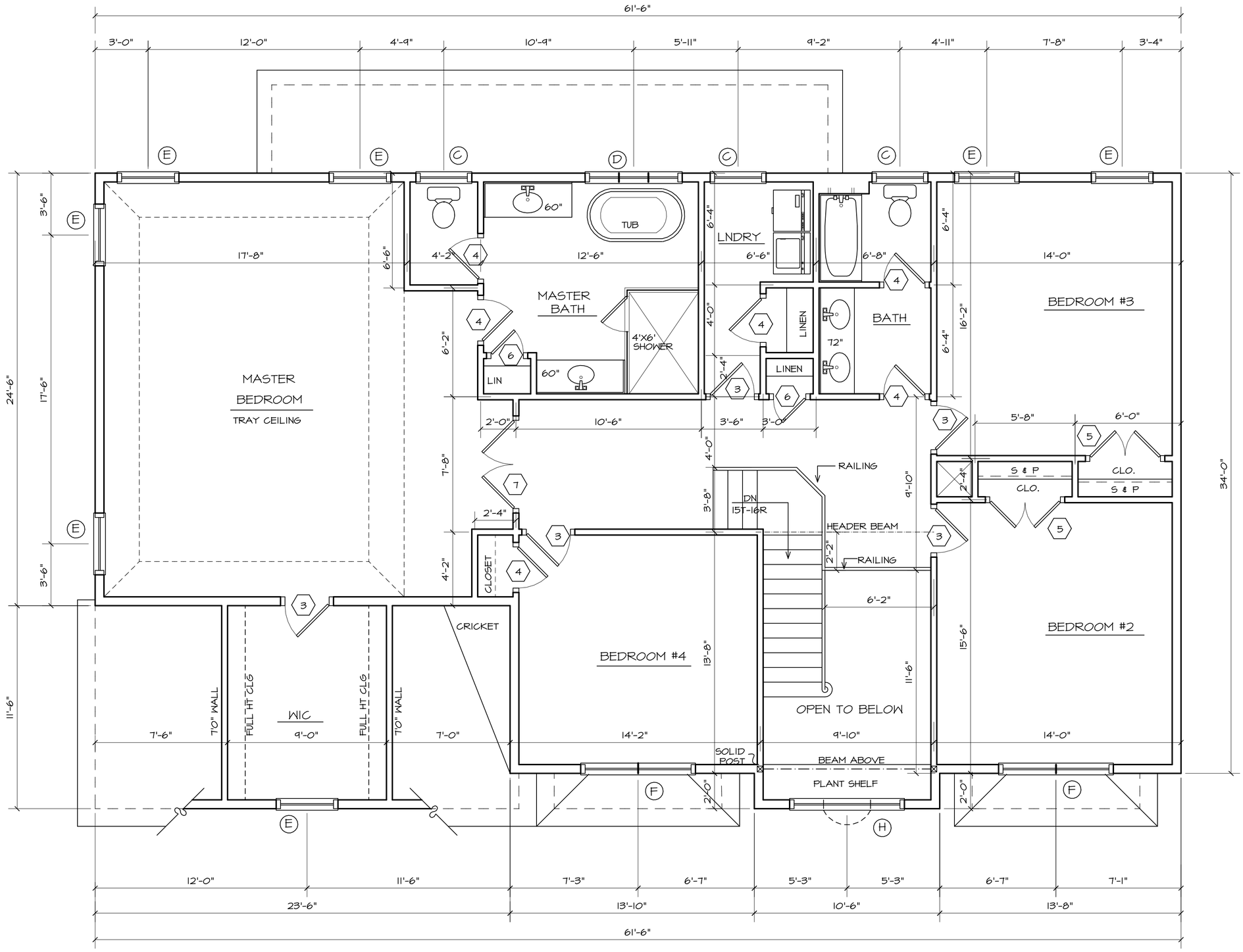
APR 2026

SHEET 4 OF 9

Alternative Designs Inc.

26-147

A4



1 / A5 SECOND FLOOR PLAN

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

NOTE:

1. PROVIDE HANDRAIL AT EACH STAIRWAY WITH 4 OR MORE RISERS R311.7.8

WIND BRACING NOTE: PROVIDE DIAGONAL WIND BRACING AT ALL OUTSIDE CORNERS. AT CORNERS WITH LESS THAN 48" OF PANEL WALL, USE ALTERNATE BRACING PANELS IN ACCORDANCE WITH INTERNATIONAL BUILDING CODE FIGURE R602.10.2.2

Alternative Designs Inc.
www.altdesigns.us
Residential/Commercial Design
94 Old Granite Street
Manchester, NH 03101
phone: (603) 645-4388
fax: (603) 645-6010

Contractor to check & verify all dimensions & structural members before construction. All construction shall be in strict compliance with The State of New Hampshire or Massachusetts Building Codes, whichever applicable.

REVISIONS

26-147

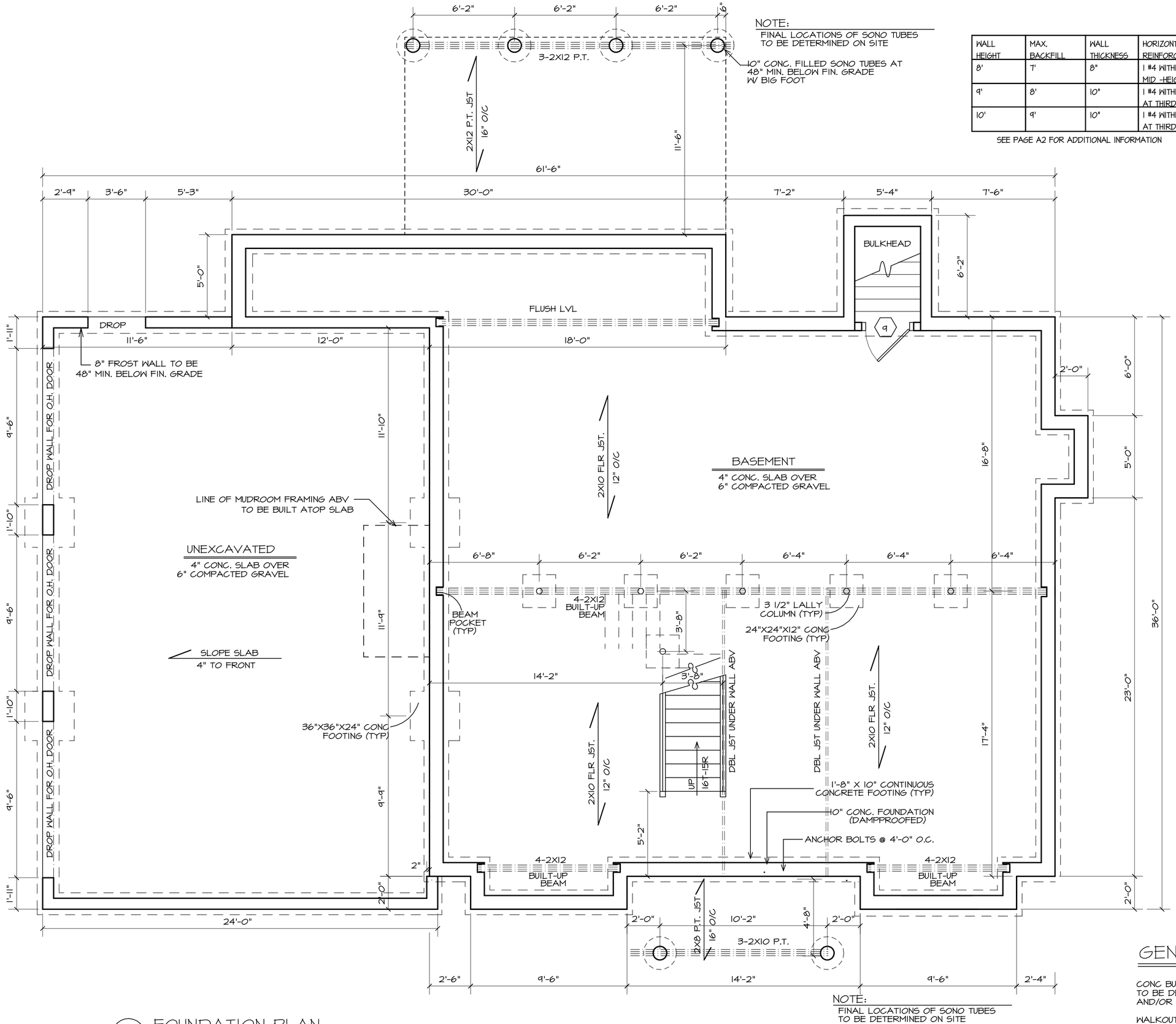
APR 2026

SHEET 5 OF 9

A5

Alternative Designs Inc.

26-147



NOTE:
FINAL LOCATIONS OF SONO TUBES
TO BE DETERMINED ON SITE

10" CONC. FILLED SONO TUBES AT
48" MIN. BELOW FIN. GRADE
W/ BIG FOOT

WALL HEIGHT	MAX. BACKFILL	WALL THICKNESS	HORIZONTAL REINFORCING (R404.1.2)	VERTICAL # REINFORCING
8'	7'	8"	1 #4 WITHIN 12" OF TOP AND 1 #4 AT MID -HEIGHT	#6 @ 36" OC #
9'	8'	10"	1 #4 WITHIN 12" OF TOP AND #4 BARS AT THIRD HEIGHTS	#6 @ 30" OC #
10'	9'	10"	1 #4 WITHIN 12" OF TOP AND #4 BARS AT THIRD HEIGHTS	#6 @ 30" OC ##

SEE PAGE A2 FOR ADDITIONAL INFORMATION

1 / A6 FOUNDATION PLAN
SCALE: 1/4" = 1'-0"

NOTE:
FINAL LOCATIONS OF SONO TUBES
TO BE DETERMINED ON SITE

GENERAL NOTES

CONC BULKHEAD SIZE AND LOCATION
TO BE DETERMINED BY SITE CONDITIONS
AND/OR CONTRACTOR

WALKOUTS AS PER SITE CONDITIONS
AND CONTRACTOR

STEEL SASH WINDOW SIZES AND LOCATIONS
TO BE DETERMINED BY CONTRACTOR

NOTE: SEE DRAWING A2 FOR CONCRETE NOTES AND ADDITIONAL INFORMATION

Alternative Designs Inc.
www.altdesigns.us
Residential/Commercial Design
94 Old Granite Street
Manchester, NH 03101
phone: (603) 645-4388
fax: (603) 645-6010

Contractor to check & verify all dimensions & structural members before construction. All construction shall be in strict compliance with The State of New Hampshire or Massachusetts Building Codes, whichever applicable.

REVISIONS

26-147
APR 2026
SHEET 6 OF 9

A6

GENERAL NOTES

A. LVL RIDGE BOARD

B. 2X10/12 RAFTERS 12/16" O/C (UNLESS OTHERWISE NOTED) PLYWOOD SHEATHING, 15# BUILDING PAPER, & 235# ASPHALT SHINGLES W/ ICE SHIELD AT RAFTER TAILS AND VALLEYS.

C. 2X6 COLLAR TIES AT 32" O/C (TYPICAL)

D. 2X8 CEILING JOISTS AT 16" O/C WITH R-49 FIBERGLASS BATT INSULATION (TYPICAL)

E. METAL DRIP EDGE, 1X4 PINE BLOCKING (SUB-FASCIA) 1X8 PINE BOARD FASCIA, & 3/8" EXTERIOR, AC PLYWOOD SOFFIT WITH 2" CONTINUOUS LOUVERED VENTS (TYPICAL)

F. 2X6 STUDS 16" O/C, R-21 FIBERGLASS BATT INSULATION IN BETWEEN, 1/2" PLYWOOD SHEATHING & EXTERIOR SIDING W/ "TYVEK" OR EQUAL (OPTIONAL) AND 1/2" GYP. BD. ON THE INTERIOR.

G. 2-2X6 TOP PLATES AND 1-2X6 SHOE (BOTTOM PLATE)

H. 2X10 FLOOR JOISTS 16" O/C (UNLESS OTHERWISE NOTED) WITH 3/4" T&G SUBFLOOR (GLUED & NAILED) R-30 FIBERGLASS BATT INSULATION AT FIRST FLOOR ONLY.

J. 8" CONCRETE FOUNDATION WALL WITH 1-2X6 PRESSURE TREATED SILL PLATE W/ SILL SEALER; ANCHOR BOLTS @ 4'-0" O.C. (TYPICAL)

K. 4" CONCRETE SLAB FLOOR OVER (MIN. 6") COMPACTED GRAVEL

L. 8" CONCRETE FROST WALL TO BE 48" MIN. BELOW FINISHED GRADE WITH 1-2X6 PRESSURE TREATED SILL PLATE W/ SILL SEALER; ANCHOR BOLTS @ 4'-0" O.C. (TYPICAL)

M. 1'-4" X 8" CONTINUOUS CONCRETE FOOTING (TYPICAL)

N. 4-2X12 BUILT-UP BEAM OVER 3 1/2" DIAM. STEEL LALLY COLUMN WITH TOP AND BOTTOM END PLATES, OVER 24"X24"X12" CONCRETE FOOTINGS.

O. 1X3 STRAPPING AT 16" O/C & 1/2" GYP. BD. (TYPICAL)

P. 2X12 STAIR STRINGERS

Q. CONTINUOUS RIDGE VENT

R. 2X6 STUD WALL @ 16" O.C.

S. HURRICANE CLIPS AND FRAMING ANCHORS AS REQ'D.

T. 2" RIGID INSULATION INSIDE FACE OF CONCRETE WALL TO TOP OF SLAB

DESIGN LOADS

LIVE LOAD AT LIVING SPACES: 40 PSF
LIVE LOAD AT SLEEPING SPACES: 30 PSF
ROOF DEAD LOAD: 10 PSF
GROUND SNOW LOAD: _____55 PSF_____

FRAMER TO INSTALL DOUBLE FLOOR JOISTS UNDER ALL PARALLEL BEARING WALLS

PROVIDE 1X4 CROSS BRIDGING AT MID POINT OF SPAN OR 8'-0" O.C. MAXIMUM IN ALL FLOORS.

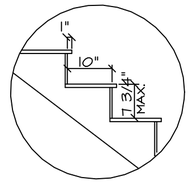
WHERE PREENGINEERED FLOOR OR ROOF TRUSSES ARE USED, TRUSS MANUFACTURER MUST PROVIDE SHOP DRAWINGS WHICH BEAR SEAL OF REGISTERED ENGINEER IN STATE IN WHICH WORK IS TO BE PERFORMED.

ALL LUMBER MUST BE NO. 2 OR BETTER, SPRUCE - PINE - FIR.

PROVIDE MOISTURE VAPOR RETARDERS IN ALL FRAMED WALLS, FLOORS AND ROOF/CEILINGS IN ACCORDANCE WITH I.R.C. SECTIONS R702.7

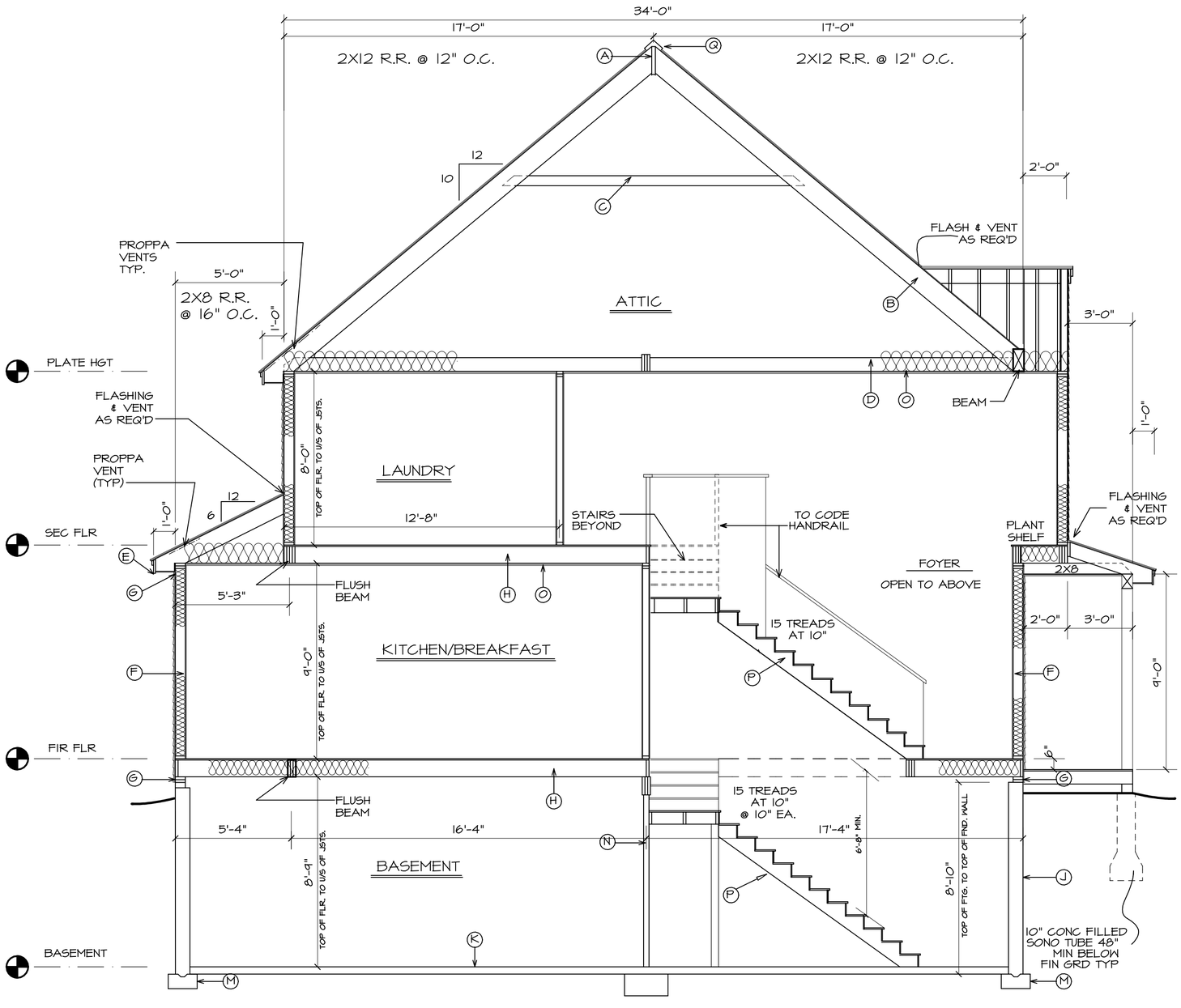
PROVIDE MOISTURE VAPOR RETARDERS UNDER CONC. SLABS AS PER R-506.2.3

ATTIC ACCESS (MIN 22" X 30") LOCATION TO BE DETERMINED BY CONTRACTOR



STAIR CODE

NOT TO SCALE



A / A6 SECTION

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

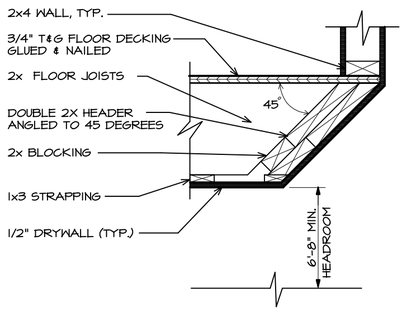
Alternative Designs Inc.
www.altdesigns.us
Residential/Commercial Design
94 Old Granite Street
Manchester, NH 03101
phone: (603) 645-4388
fax: (603) 645-6010

Contractor to check & verify all dimensions & structural members before construction. All construction shall be in strict compliance with The State of New Hampshire or Massachusetts Building Codes, whichever applicable.

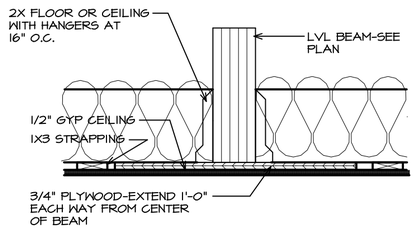
REVISIONS

26-147
APR 2026
SHEET 7 OF 9

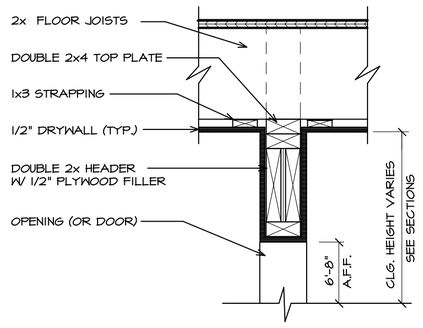
A7



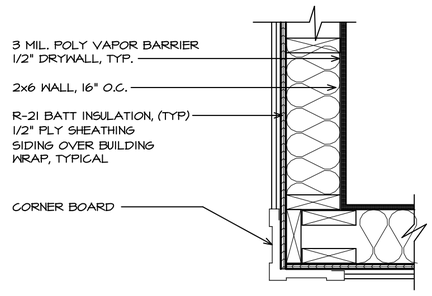
1 STAIRWELL HEADER
SCALE: 1" = 1'-0"



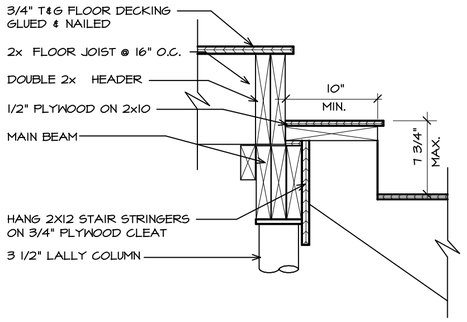
2 LVL FLUSH BEAM
SCALE: 1" = 1'-0"



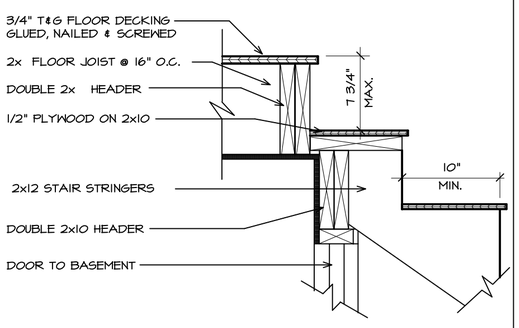
3 INTERIOR HEADER DTL.
SCALE: 1" = 1'-0"



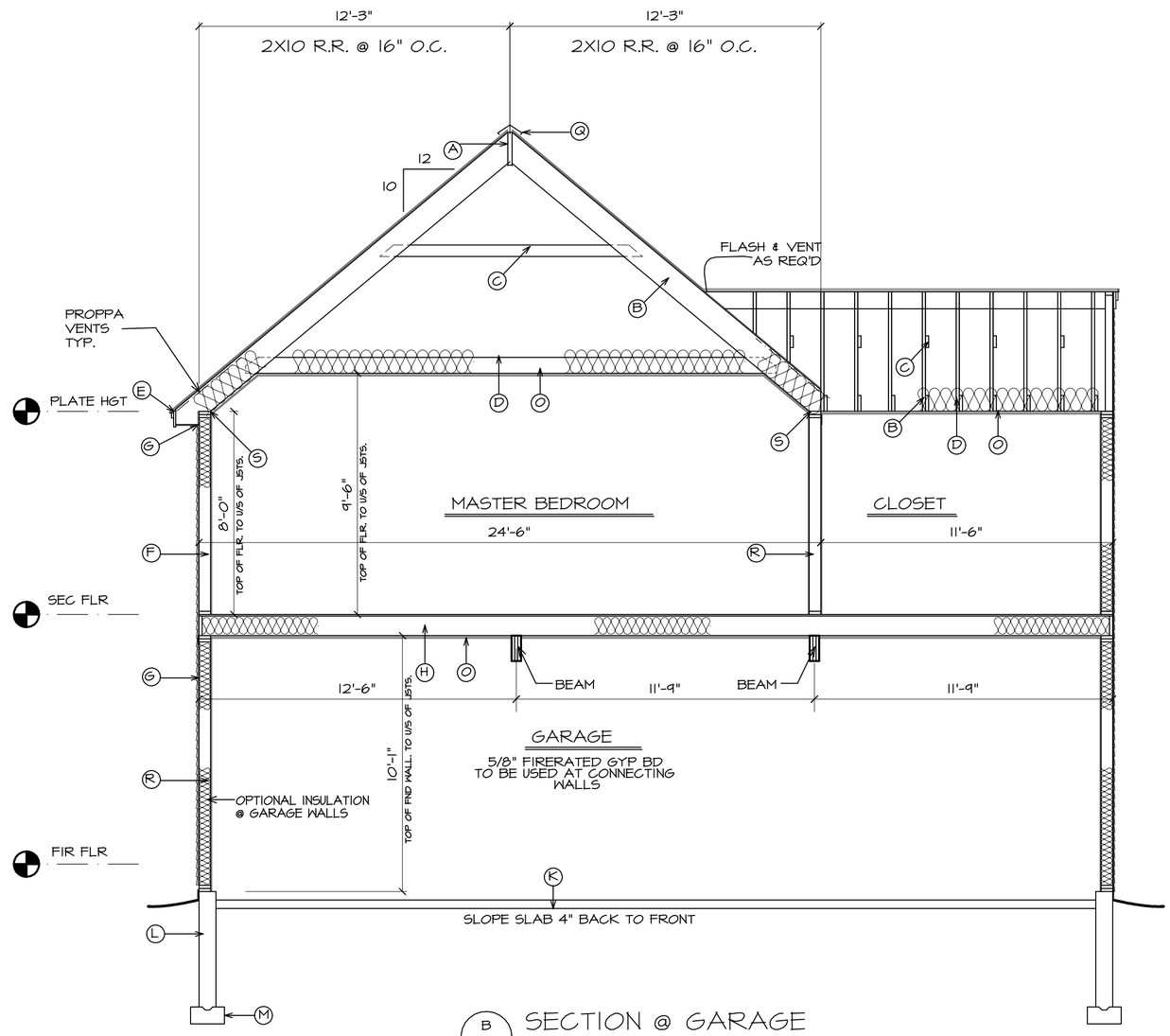
4 EXT. CORNER DETAIL
SCALE: 1" = 1'-0"



5 STAIRWELL BEAM
SCALE: 1" = 1'-0"



6 STAIR OVER HEADER
SCALE: 1" = 1'-0"



B/A7 SECTION @ GARAGE
SCALE: 1/4" = 1'-0"

Alternative Designs Inc.
www.altdesigns.us
Residential/Commercial Design
94 Old Granite Street
Manchester, NH 03101
phone: (603) 645-4388
fax: (603) 645-6010

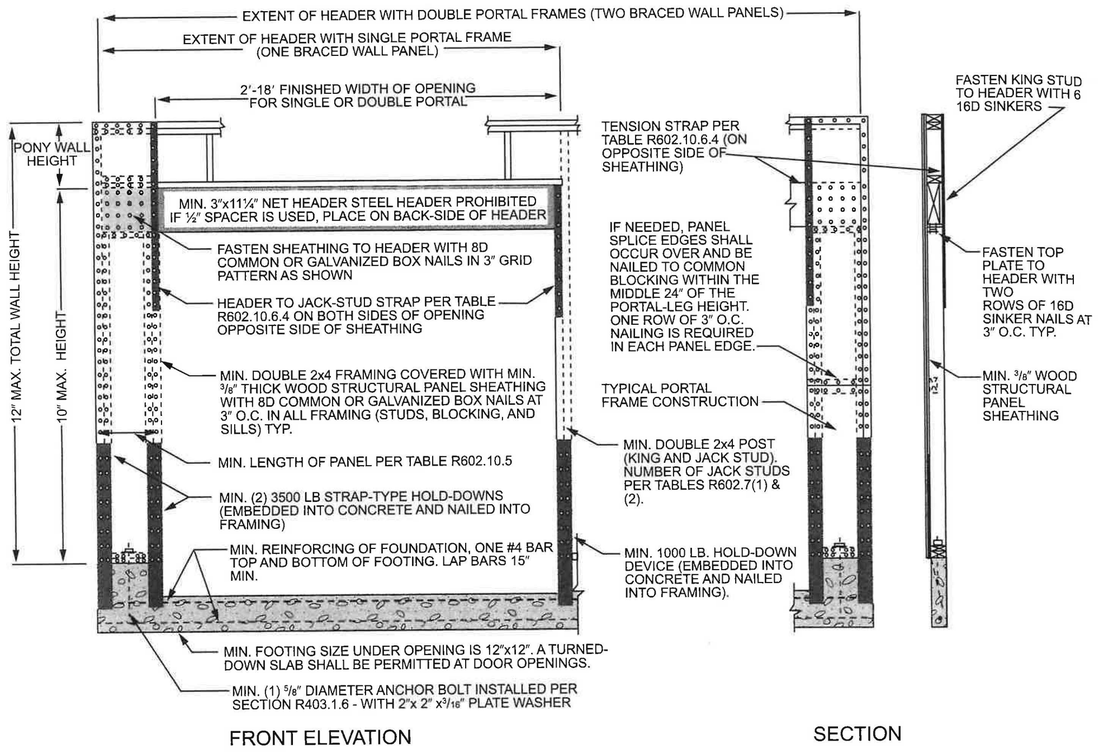
Contractor to check & verify all dimensions & structural members before construction. All construction shall be in strict compliance with The State of New Hampshire or Massachusetts Building Codes, whichever applicable.

REVISIONS

26-147
APR 2026
SHEET 8 OF 9

A8

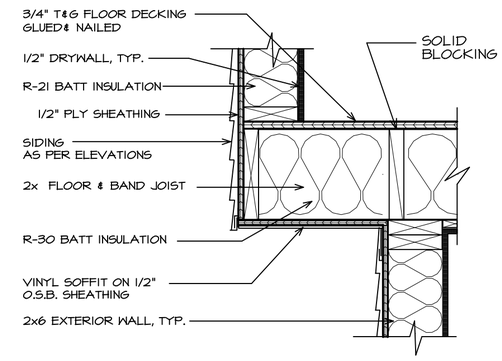
WALL CONSTRUCTION



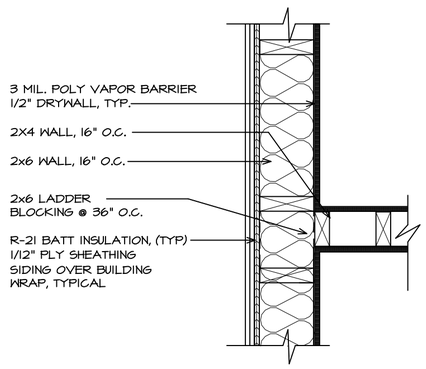
For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

FIGURE R602.10.6.2
METHOD PFH—PORTAL FRAME WITH HOLD-DOWNS

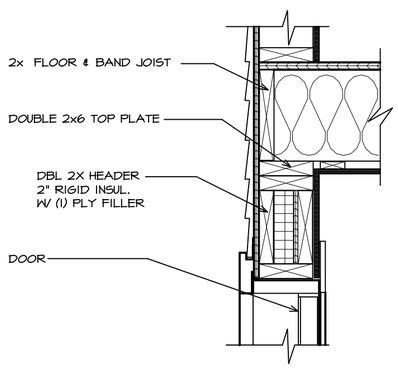
13 METHOD PFH - PORTAL FRAME WITH HOLD-DOWNS
REF. (FIGURE R602.10.6.2)



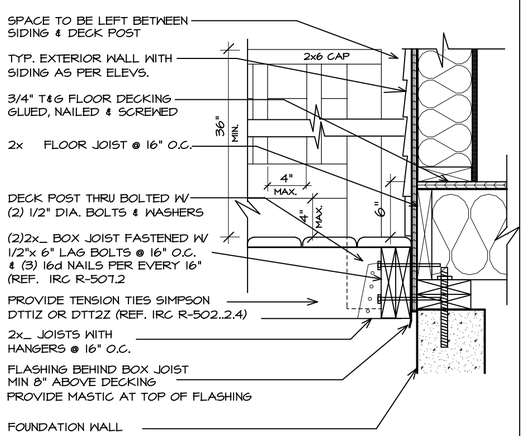
7 CANTILEVER DETAIL
SCALE: 1" = 1'-0"



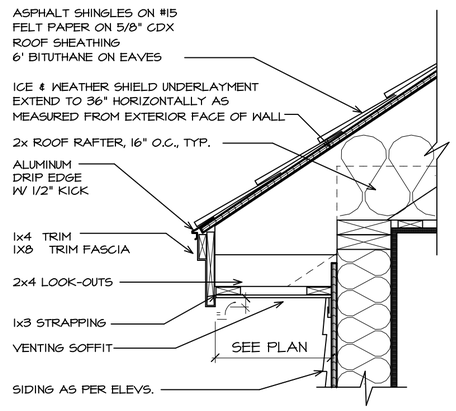
8 INT. WALL TO EXT. WALL
SCALE: 1" = 1'-0"



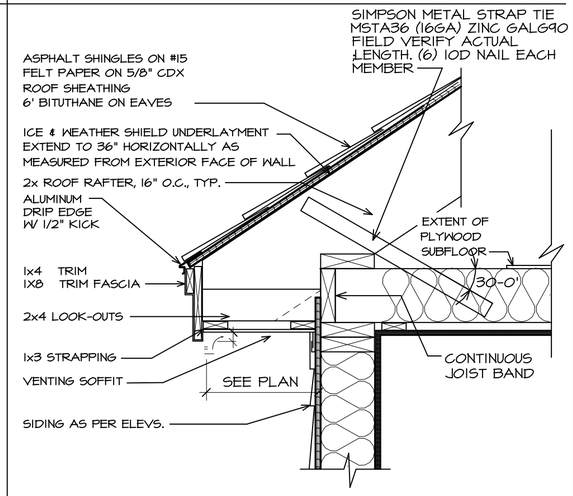
9 EXT. DOOR HEADER DTL
SCALE: 1" = 1'-0"



10 DECK TO HOUSE DETAIL
SCALE: 1" = 1'-0"



11 SOFFIT DETAIL (LOW EAVE)
SCALE: 1" = 1'-0"



12 SOFFIT DETAIL (HIGH EAVE)
SCALE: 1" = 1'-0"

Alternative Designs Inc.
www.altdesigns.us
Residential/Commercial Design
94 Old Granite Street
Manchester, NH 03101
phone: (603) 645-4388
fax: (603) 645-6010

Contractor to check & verify all dimensions & structural members before construction. All construction shall be in strict compliance with The State of New Hampshire or Massachusetts Building Codes, whichever applicable.

REVISIONS

26-147
APR 2026
SHEET 9 OF 9

A9