

CONSTRUCTION SPECIFICATIONS (WHERE APPLICABLE)

GENERAL CONDITIONS

1.) THESE ARE BUILDERS PLANS. THE FOLLOWING, UNLESS PROVIDED FOR IN THESE DRAWINGS, ARE TO BE FURNISHED BY OTHERS:

A.) SITE GRADING, SOIL BEARING CAPACITY, DRAINAGE, UTILITIES, BUILDING LOCATION AND CONSTRUCTION OUTSIDE OF BUILDING PROPER INCLUDING LANDSCAPING.

B.) SELECTION OF MATERIALS, FINISHES, CABINETRY, AND HARDWARE.

C.) DESIGN OF HEATING, PLUMBING, AND ELECTRICAL PLANS AND THE COORDINATION OF THEM IN CONSTRUCTION.

2.) THE ARCHITECT WILL NOT BE RESPONSIBLE WHERE CONSTRUCTION DEVIATES FROM THESE DRAWINGS OR WRITTEN RECOMMENDATIONS.

3.) CONSTRUCTION SHALL CONFORM TO ALL LOCAL BUILDING CODES AND ORDINANCES HAVING JURISDICTION. WHERE DRAWINGS CONFLICT WITH CODES, CODE REQUIREMENTS SHALL TAKE PRECEDENCE.

FOUNDATION

1.) REMOVE ALL TOP SOIL, RUBBISH AND OTHER DETERIOUS MATERIAL FROM INSIDE BUILDING AREA BEFORE BEGINNING WORK.

2.) PLACE ALL DEEP FILLS UNDER SLABS IN 6" LAYERS, COMPACTED TO 95% MINIMUM A.A.S.H.O. DENSITY.

3.) EXTERIOR FOOTINGS SHALL BE 4'-0" MIN. BELOW FINISHED GRADES OR DEEPER IF REQUIRED BY CODE.

4.) FOOTINGS SHALL BE MIN. 4" EACH SIDE OF WALL ABOVE AND MIN. 8" DEEP. ADD 6" TO WIDTH OF FOOTINGS ARE NOT FORMED. CHIMNEY - 8" EACH SIDE AND 12" DEEP.

5.) WHERE FOOTINGS ARE STEPPED, BOTTOMS SHALL NOT SLOPE MORE THAN ONE FOOT VERTICALLY FOR EACH TWO FOOT HORIZONTALLY.

6.) FOOTINGS ARE DESIGNED FOR AND SHALL BEAR ON FIRM UNDISTURBED EARTH HAVING 4000 P.S.F. BEARING CAPACITY.

7.) CONSTRUCT GROUND SLABS ON 4" POROUS FILL. PROVIDE VAPOR BARRIER OF MIN. 6 MIL. PROVIDE MIN. 6"x8" 10/10 WWM.

8.) CONCRETE SHALL BE 2500 P.S.I. STONE AGGREGATE READY MIX FOR FOOTINGS, AND 3500 P.S.I. OR GREATER FOR SLABS.

MASONRY

1.) CONSTRUCT FOUNDATION WALLS OF POURED CONCRETE OR LIGHT WEIGHT CONCRETE BLOCK, LAID UP IN RUNNING BOND WITH BOTTOM COURSE FILLED SOLID AND A 4" MIN. SOLID CAP BLOCK UNDER FRAMING MEMBERS. (CINDER BLOCK WITH 1000 P.S.I. COMPRESSIVE STRENGTH MAY BE USED IN RESIDENTIAL CONSTRUCTION.)

2.) FOUNDATION DEPTH

FOUNDATION WALL CONSTRUCTION	THICKNESS	MAX. DEPTH BELOW GRADE SUPPORTING WALL CONSTRUCTION		
		FRAME	MASONRY	MASONRY VENEER
HOLLOW	8"	4'-0"	4'-6"	5'-0"
MASONRY	10"	5'-0"	5'-6"	6'-0"
	12"	7'-0"	7'-0"	7'-0"

3.) DAMPPROOF HOLLOW BLOCK WALLS WITH 1/2" PORTLAND CEMENT PARING, APPLIED TO EXTERIOR FROM COVE TO CAP. APPLY BITUMINOUS DAMPPROOFING OVER PARING BELOW GRADE.

4.) PROVIDE 1/2"x 1'-6" ANCHOR BOLTS AT 6'-0" O.C. FOR WOOD SILLS.

5.) PROVIDE 8" SOLID BRICK MASONRY UNDER GIRDER ENDS.

6.) INSTALL FIRE CLAY FLUE LINING AND THIMBLE IN ALL MASONRY CHIMNEYS AS FOLLOWS:

A.) FOR HEATING UNIT: SIZE AS RECOMMENDED BY MANUFACTURER.

B.) FOR FIREPLACES: SIZE AS REQUIRED BY DAMPER MANUFACTURER FOR FIREPLACE DIMENSIONS SHOWN.

C.) PREFABRICATED FIRE PLACE AND CHIMNEY FLUES SHALL BE INSTALLED AS PER MANUFACTURER'S WRITTEN SPECIFICATIONS.

7.) BRICK VENEER SHALL BEAR ON 12" BLOCK FOUNDATIONS WITH SEMI-SOLID BLOCK UNDER FIRST COURSE OF BRICK. PROVIDE FLASHING WITH WEEP HOLES AT 8'-0" O.C.

8.) ANCHOR BRICK VENEER TO MASONRY BACK UP OR WOOD FRAMING WITH GALVANIZED STEEL TIES SPACED 24" HORIZONTALLY AND 16" VERTICALLY.

9.) LINTELS - ONE ANGLE FOR EACH FOUR INCHES OF MASONRY OVER ALL OPENINGS AND RECESSES AS FOLLOWS:

0'-0" TO 4'-0" USE 3 1/2" X 3 1/2" X 5/16"
4'-0" TO 6'-0" USE 4" X 3 1/2" X 5/16"

6'-0" TO 8'-0" USE 5" X 3 1/2" X 5/16"
8'-0" TO 10'-0" USE 6" X 3 1/2" X 5/16"
LINTELS SHALL BEAR 8" MIN. EACH END.

10.) PROVIDE 3/8" CAULKING JOINT BETWEEN WINDOW OR DOOR SILLS AND MASONRY SILLS.

CARPENTRY

1.) LUMBER AND IT'S FASTENINGS SHALL CONFORM TO THE "NATIONAL DESIGN SPECIFICATIONS" RECOMMENDED BY THE N.F.P.A. AND LOCAL BUILDING CODE STANDARDS.

2.) STRUCTURAL LUMBER SIZES ARE BASED ON HEMLOCK FIR #2 OR BETTER WITH A FIBER STRESS OF 1150 PSI AND AN "E" OF 1,400,000.

3.) ANCHOR SILLS TO BOLTS SET IN MASONRY. ALL SILLS IN CONTACT WITH CONCRETE SHALL BE WOLMANIZED LUMBER.

4.) SET ALL JOISTS AND BEAMS WITH NATURAL CAMBER UP. ENDS LAPPED OVER BEARING SHALL BE SECURELY SPIKED TOGETHER. FIRECUT ENDS BEARING IN MASONRY WALLS WITH "T" ANCHORS EVERY 4TH JOIST.

5.) FRAME OPENINGS LARGER THAN 16" WITH DOUBLE HEADERS AND TRIMMERS. DOUBLE UP JOISTS UNDER PARTITIONS PARALLEL ABOVE.

6.) PROVIDE 5/4" X 3" CROSS BRIDGING @ 8'-0" O.C. MAXIMUM AND SOLID BLOCKING AT ENDS, UNLESS NOTED OTHERWISE.

7.) SUBFLOORING SHALL BE "C-D" PLYWOOD #32/16 OR BETTER WITH EXTERIOR GLUE IN SIZES SHOWN ON DRAWING.

8.) HEADERS - UNLESS NOTED OTHERWISE:

0'-0" - 2'-2" USE (2) 2" X 4"
2'-0" - 3'-0" USE (2) 2" X 6"
3'-0" - 5'-0" USE (2) 2" X 8"
5'-0" - 7'-0" USE (2) 2" X 10"
7'-0" - 8'-0" USE (2) 2" X 12"

SPANS OVER 7'-0" PROVIDE DOUBLE STUD BEARING EACH SIDE.

9.) EXTERIOR WALL SHEATHING MAY BE OMITTED WHEN CORNER BRACING AND SOLID OR HORIZONTAL SIDINGS ARE USED.

10.) WOOD STAIRS: STRINGERS - CLEAR SOFT WOOD, 5/4" X 12" MINIMUM, WITH 3 1/2" MINIMUM EFFECTIVE DEPTH. TREADS - HARDWOOD, MINIMUM 10". BASEMENT STAIRS MAY BE OF SOFT WOOD. RISERS CLEAR SOFT WOOD, 7 3/4" MAXIMUM. HAND RAILS - EACH SIDE OF STAIRS AND GUARDS. BALLUSTERS @ MAXIMUM 4" O.C. OMIT ONE HANDRAIL ON STAIRS LESS THAN 44" WIDE.

MISCELLANEOUS

1.) ENTRANCE DOORS, SIDELIGHTS AND SHOWER DOORS HAVING GLAZING MUST CONFORM TO THE REQUIREMENTS OF THE ANNOTATED LAWS OF MASSACHUSETTS BUILDING CODE, 8TH EDITION.

2.) ALL BATHS & LAVATORIES SHALL HAVE EXHAUST FANS DUCTED TO EXTERIOR.

ENERGY COMPLIANCES

THE BUILDING SHOWN COMPLIES WHEN IT MEETS ALL CRITERIA OF ENERGY CONSERVATION PER MASSACHUSETTS STATE BUILDING CODE, 8TH ED.

1.) THERMAL ENVELOPE:

A) WINDOW AND DOOR AREA IS LESS THAN 15% OF GROSS WALL AREA.

B) WALL INSULATION (R-13) MINIMUM

C) CEILING / ROOF INSULATION (R-30) MINIMUM

D) FLOOR INSULATION (R-20) MINIMUM

E) SLAB ON GRADE (R-10)

4.) PLUMBING SYSTEM:

FIXTURES	DRAIN	TRAP	VENT	H.W.	C.W.
WATER CLOSET	4"	4"	2"	-	1 1/2"
TUB	1 1/2"	1 1/2"	1 1/2"	1/2"	1/2"
SHOWER	2"	2"	1 1/2"	1/2"	1/2"
LAVATORY	1 1/2"	1 1/2"	1 1/2"	1/2"	1/2"
KITCHEN SINK	1 1/2"	1 1/2"	1 1/2"	1/2"	1/2"
LAUNDRY	1 1/2"	1 1/2"	1 1/2"	1/2"	1/2"

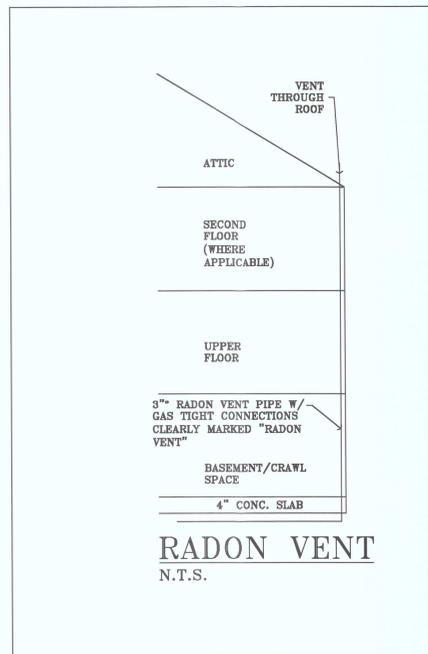
A) DOMESTIC WATER COMBINED MAIN= 3/4"

B) BUILDING WATER SUPPLY= 3/4" COPPER

C) COMBINED BUILDING WASTE= 4" C.I.

LIGHTING

LIGHTING: BUILDING SHALL COMPLY TO CONSERVATION PER MASSACHUSETTS STATE BUILDING CODE, 8TH ED.



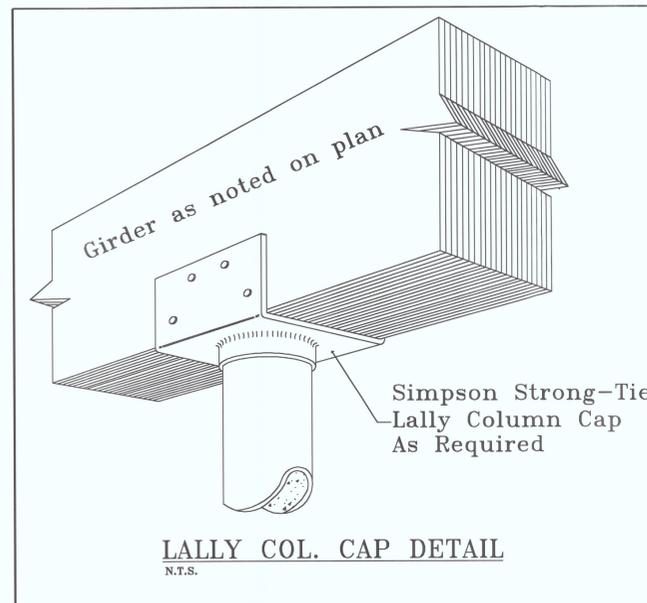
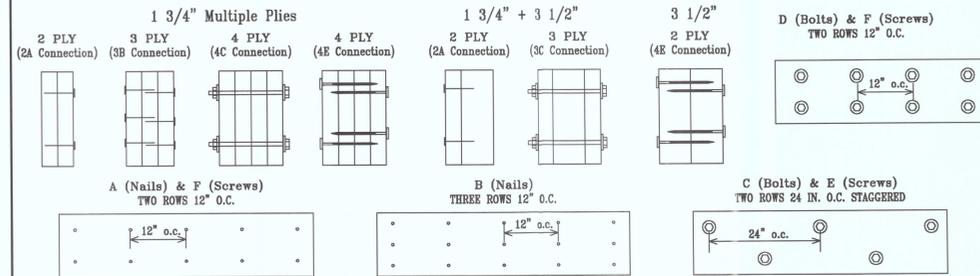
BEAM & HEADER FASTENING SCHEDULE

Maximum Uniform Load Applied to Either or Both Outside Pieces (Pounds per lineal foot)

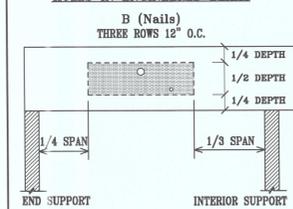
Pieces in Member	16d NAILS		1/2" BOLTS		SCREWS (Note 9)	
	A	B	C	D	E	F
2	505	760	505	1015	500	995
3	380	570	380	760	375	745
4	Not Permitted		340	875	330	665

NOTES:

1. Confirm adequacy of the beam (depth and number of pieces) for carrying the designated load.
2. Stress level for nail and bolt values is 100%. Increases of 15% for snow loaded or 25% for non-snow loaded roof conditions are permitted.
3. Top and bottom row of connectors should be 2" from edge.
4. Bolt holes are to be the same diameter as the bolt. Every bolt must extend through the full thickness of the member. Use washers under head and nut.
5. For three-piece member, specified nailing is from the each side.
6. To minimize rotation, four-piece members should only be used when loads are applied to both sides, or completely across the top of the member.
7. Four-piece members must be bolted or attached with 6" screws from both sides.
8. Floor joists must be attached with approved metal hangers.
9. Screws are USP WS series or Simpson Strong-Tie SDS installed per manufacturer instructions.
10. Screws for 3-ply and 4-ply members must be from both sides of beam.



HOLES IN ENGINEERED BEAMS



NOTES:

1. THIS NOTE APPLIES ONLY TO UNIFORMLY LOADED, SIMPLE AND MULTIPLE SPAN BEAMS. BEAMS THAT CARRY CONCENTRATED LOADS, OR CANTILEVERED BEAMS, ARE OUTSIDE THE SCOPE OF THIS TECHNICAL NOTE.
 2. SQUARE AND RECTANGULAR HOLES ARE NOT PERMITTED.
 3. ROUND HOLES MAY BE DRILLED OR CUT WITH A HOLE SAW ANYWHERE WITHIN THE SHADED AREA OF THE BEAM.
 4. THE HORIZONTAL DISTANCE BETWEEN ADJACENT HOLES MUST BE AT LEAST TWO TIMES THE SIZE OF THE LARGER HOLE. THIS RESTRICTION ALSO APPLIES TO THE LOCATION OF ACCESS HOLES RELATIVE TO BOLT HOLES IN MULTI-PLY BEAMS.
 5. DO NOT DRILL MORE THAN THREE ACCESS HOLES IN ANY FOUR FOOT LONG SECTION OF BEAM.
 6. THE MAXIMUM ROUND HOLE DIAMETER PERMITTED IS:
- | BEAM DEPTH | 5.5" | 7.25" | 9.25" OR GREATER |
|-------------------|------|-------|------------------|
| MAX HOLE DIAMETER | .75" | 1" | 1.5" |
7. THESE LIMITATIONS APPLY TO HOLES DRILLED FOR PLUMBING OR WIRING ACCESS ONLY. THE SIZE AND LOCATION OF HOLES DRILLED FOR FASTENERS ARE GOVERNED BY THE PROVISIONS OF THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION.
 8. BEAMS DEFLECT UNDER LOAD. SIZE HOLES TO PROVIDE CLEARANCE WHERE REQUIRED.

REVISION	#

GENERAL NOTES SCHEDULE & DETAILS

PROPOSED HOUSE ADDITION-ALTERATION FOR:
HARALAMBOUS RESIDENCE
8 POWERLINE DRIVE
GRAFTON, MA.



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SCALE: NOTED	CHKD: JMI
FILE NAME:	REV: