Lot 44 Anniston

Stone Code Requirements

A. Joints are necessary at the following locations:
- I) Horizontally at each floor line
- II) No areas larger than 144 sq.ft. exposed
- III) No dimension longer than 18'-0"
- IV) No dimension shorter than 2 1/2 times the shortest dimension

B. Drip screed required at the bottom of all walls 2" above paved areas and 4" above grade.

C. See ASTM 926 and 1063 for further information.

DESIGN LOADS:

1.) Design loads are all dead loads plus:

A) Main floor live load (kitchen level)	40 PSF.
B) All other floors	40 PSF.
C) Attic floor live loading with the following:	
i) Area accessible by stairs	30 PSF.
ii) Roof slopes > 3:12	20 PSF.
iii) Roof slopes < 3:12	10 PSF.
D) Roof live load	20 PSF or as required by Code.
E) Wind load	80 MPH or as required by Code.
F) Snow load	20 PSF or as required by Code.

2.) Bearing for footings on original solid ground is assumed to be 2,000 PSF unless noted otherwise.

3.) All designs are in accordance with North Carolina or South Carolina Standard Building Codes.

FRAMING CONSTRUCTION - OTHER THAN ROOF:

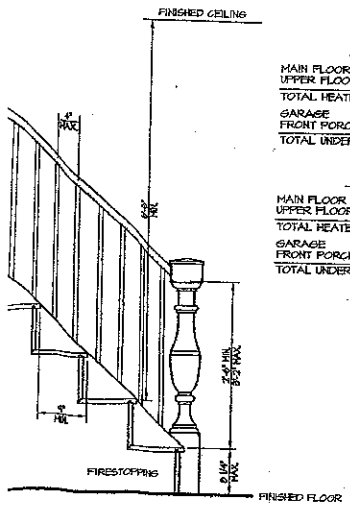
Crawl girders and band with 4" curtain wall and pier construction shall be 2-2x10 Southern Yellow Pine #2 unless noted otherwise. Maximum clear spans are to be 4'-8" (6'-0" o/c spacing of piers).

To avoid objectionably cracking in finished hardwood floors over any girders, use the following procedure:

A.) Nailing
- i) All floor joists must be toenailed to their support girders with a minimum of 3-8d nails at each end. Larger nails will split and render the toenail ineffective. No end nailing through the girder or band is permitted.
- ii) If dropped girders are used, end lap all joists and side nail each with a minimum of 3-16d nails at each end of each joist. Ledger strips should be spaced 3" apart and nailed with 3-16d nails at each joist end.
- iii) Nail multiple member built-up girders with two rows of 16d nails staggered at 32" o/c, 2" down from the top and 2" up from the bottom with 3-16d nails at each end of each piece in the joist through the members making up the multiple girder.
- iv) This nailing pattern will ensure a tight floor from the outside of the house to the outside so that when the framing shrinks during the first heating season, the shrinkage will be uniformly distributed over the entire floor. If the girder-nailing pattern is omitted, then the shrinkage will accumulate over the girders and an objectionable crack will develop in the finished hardwood floor over the girder line.

B) At all girders where the joists change direction, install bridging at 6' o/c for a minimum of six joist spacings beyond any joist direction change. This will insure shrinkage distribution over the floor and not let it accumulate at the girder.

C) There must be wood blocking thru bolted to the steel beam with joists toenailed or attached to the beam with metal hangers under any hardwood floors that pass over a steel beam supporting floor joists. This condition often exists over basement areas.



MAX. HEIGHTS IN ...NCE WITH THE NORTH ... BUILDING CODE

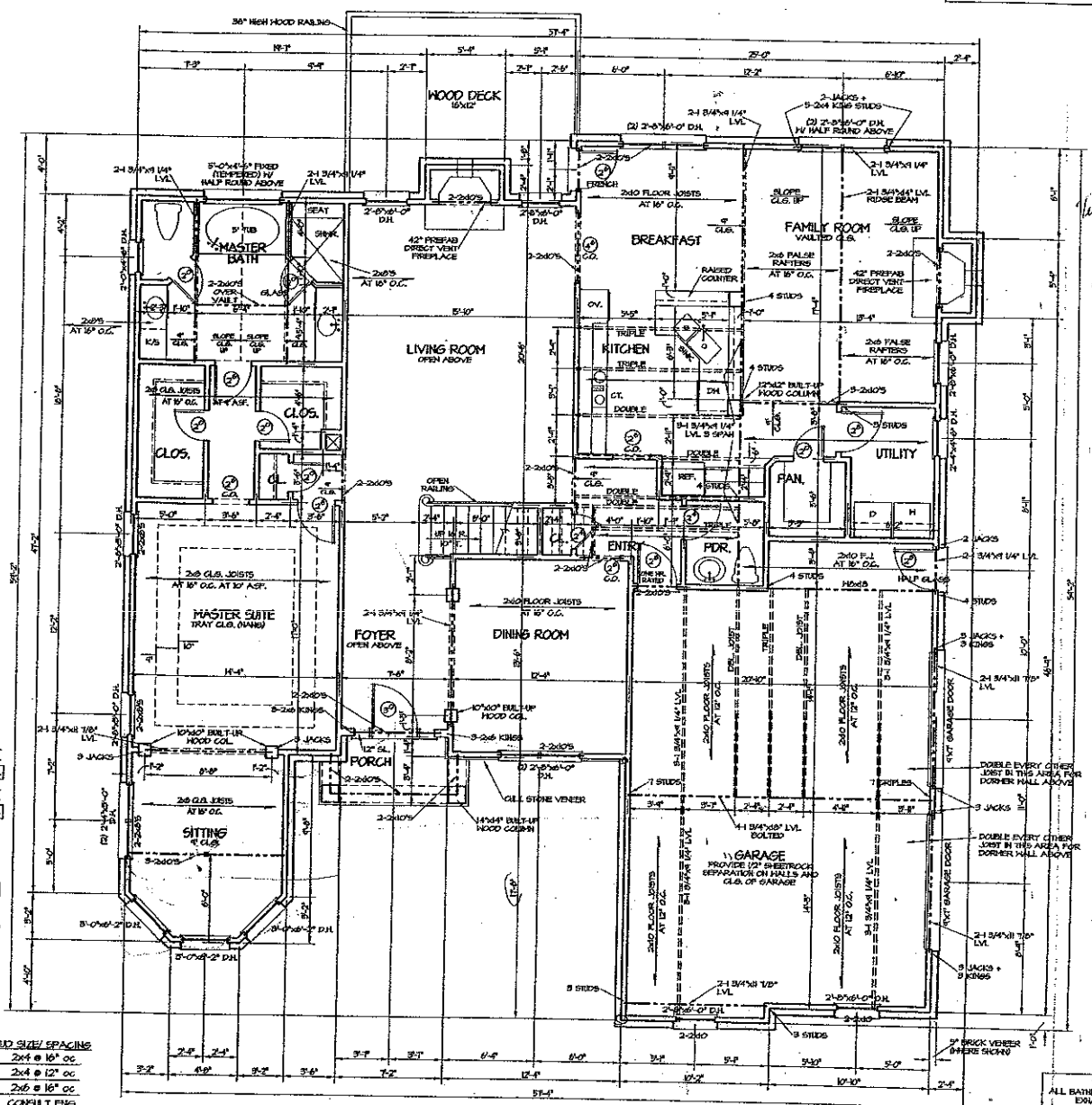
AREA (STUD)

MAIN FLOOR HEATED	2031 S.F.
UPPER FLOOR HEATED	982 S.F.
TOTAL HEATED	3013 S.F.
GARAGE	636 S.F.
FRONT PORCH	38 S.F.
TOTAL UNDER ROOF	3687 S.F.

AREA (BRICK)

MAIN FLOOR HEATED	2104 S.F.
UPPER FLOOR HEATED	982 S.F.
TOTAL HEATED	3086 S.F.
GARAGE	666 S.F.
FRONT PORCH	38 S.F.
TOTAL UNDER ROOF	3790 S.F.

WALL HEIGHT (h)	STUD SIZE/ SPACING
h < 10'	2x4 @ 16" oc
10' < h < 11'	2x4 @ 12" oc
11' < h < 13'	2x6 @ 16" oc
h > 13'	CONSULT ENG.



NOTE: ALL ANGLED WALLS ARE AT 45°

NOTE: ALL HEADERS TO BE 2-2x10 UNO.

NOTE: ALL BATHROOMS TO HAVE EXHAUST FANS

MAIN LEVEL FLOOR PLAN

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

REPRESENTS THE LOCATION FOR SOLID BLOCKING FOR POINT LOAD ABOVE

STRUCTURAL INTEGRITY ENGINEERING, P.A. 315 E. Main St., Suite A Pinehurst, NC 28374 Seal For Permanent Only

6/10/03

Acknowledgement of Plans Submittal ONLY
w/ Exhaustive Date 6/10/03
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w/ Exhaustive Date 6-10-03

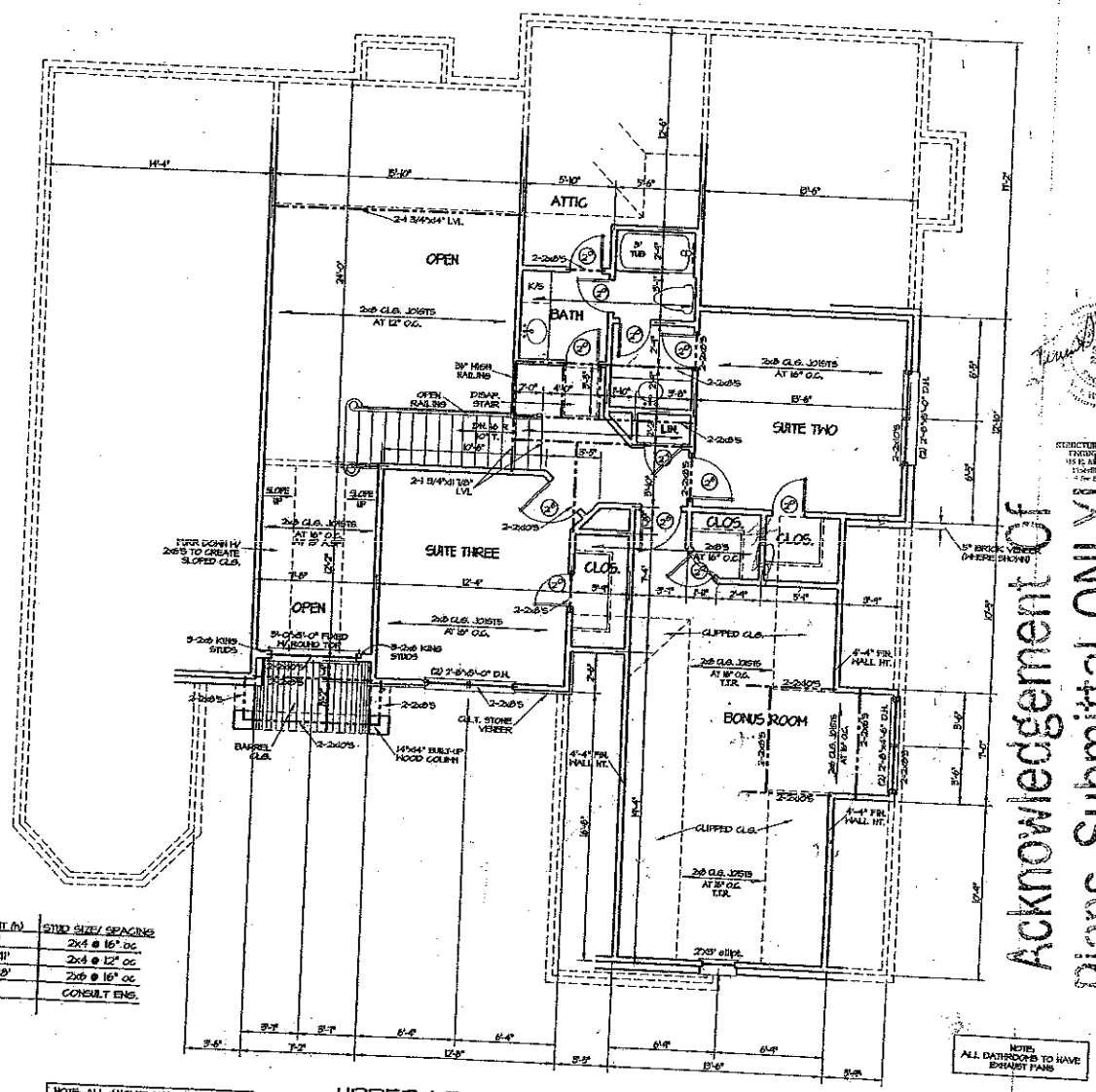
FRAMING CONSTRUCTION - OTHER THAN ROOF: CONTINUED

1) All other lumber may be Spruce #2 unless noted otherwise.
2) Steel beams must have 5-2x4 stud jacks under each end support unless noted otherwise.
3) Microllam beams must have 3-2x4 stud jacks under each end support unless noted otherwise.
4) Masonry lintels:
   A.) For spans up to 6': Use 3½"x3½"x¼" steel angles.
   B.) For spans from 6' to 10': Use 5"x3½"x5/16" steel angles.
   C.) For spans from 9' to 18': Use a pair of 9-gauge wires in each of the first 3 courses of brick on a 5"x3½"x5/16" steel angle. Lap all 9-gauge wire splices a minimum of 12" and extend wires a minimum of 12" into jambs. Temporarily support the steel angles before laying masonry. The shoring may be removed five days following the installation of masonry.
   D.) Where structural steel beams with bottom plates are used to support masonry, the bottom plate must extend the full length of the steel beam. This provides support to the ends of the plate by bearing on the adjacent masonry jambs. The beam should be temporarily shored prior to laying the masonry. The shoring may be removed five days after laying the masonry.
5) All brick veneer over lower roofs (brick climbs) must have a structural angle lag screwed to an adjacent stud wall in accordance with detail, with steel brick stops to prevent sliding of brick.
6) All rafter braces must have two studs from plate through all floors to the foundation or supporting beam below. No braces shall be attached to top wall plate without studs directly under them.
7) Where partitions fall between floor joists or trusses, 2x4 ladders @ 16" o/c must be placed perpendicular to the trusses to support the plywood decking.
8) All wood I-joists and open joists must be braced in accordance with the manufacturer's directions plus details shown on plans. Load-bearing partitions, jacks, beams and column supports must be solid blocked through floor. Trusses and plywood cannot carry concentrated point loads. I-joist material should not be used as blocking under concentrated point loads. All point loads must be carried to foundations with adequate blocking and/or beams.
9) All steel columns shall bear on concrete, masonry, or steel only. An adequately-sized base plate shall be used to spread the column load across the bearing surface areas so as not to exceed its allowable compressive stress. Beams that bear on top of steel columns shall be welded to the column. Base plates shall be bolted with four ½" diameter anchor bolts or expansion bolts to concrete or masonry.
10) Unless noted otherwise on the plans, all exterior facing stud walls taller than 10' shall be constructed as follows:
   A.) Walls 10' to 12' high: Balloon frame 2x4 studs at 12" o/c with ½" OSB sheathing and 3 king studs on each side of each opening nailed securely to the header.
   B.) Walls 12' to 20' high: Balloon frame 2x6 studs at 16" o/c (⅞" OSB sheathing required for wall heights > 17'). Provide 2-1¾"x5¼" LVL king studs on each side of openings 3' to 6' wide and 2-2x6 king studs for openings less than 3' wide. Fasten king studs securely to all headers with a minimum of 12-16d nails or 4-6" diameter lag screws embedded a minimum of 4" into the header.
   C.) Gable end walls of rooms with vaulted ceiling joists: Balloon frame wall and provide triple king stud on each side of openings, nailed securely to the header.
   D.) Two-story high foyer walls less than 9' wide: Extend 3½"x9¼" Parallam® PSL member with 3-2x4 flat plates across the entire wall. Locate the beam near mid-height of the wall at or near first floor top plate.

NOTE: SEE SPECIAL DESIGN OR ENGINEER FOR WALLS TALLER THAN 20', WHEN OPENINGS IN HIGH WALLS EXCEED 6' IN WIDTH, OR IF THE WALL CANNOT BE CONSTRUCTED USING ANY OF THE METHODS MENTIONED.

12) Continuous 2x6 bridging shall be nailed to diagonal or vertical web members of all open-web floors trusses over 10' long. They shall be installed near mid-span as a load distribution member. If the 2x6 bridging is not continuous, lap ends of bridging one truss space.
13) Lower stud walls for buildings over two stories, but not more than three stories:
   A.) Interior walls
      i) Load bearing 2x4 @ 12" o/c
      ii) Non load bearing 2x4 @ 16" o/c
   B.) Exterior walls
      Use 2x6 @ 16" o.c. with ½"x8'x8' plywood sheathing at all corners and every 25'; OR use 2x4 @12" o.c. with ½" plywood sheathing solid on walls.
14) Headers shall be as shown unless noted differently on plans:
   A.) Interior
      i) Spans up to 2'-6" 2-2x6's
      ii) Spans 2'-6" to 3'-6" 2-2x8's
      iii) Spans 3'-6" to 6'-6" 2-2x10's
      iv) Spans 6'-6" or more See Plan
   B) Exterior
      i) Spans up to 2'-0" 2-2x6's
      ii) Spans 2'-0" to 3'-0" 2-2x8's
      iii) Spans 3'-0" to 5'-0" 2-2x10's
      iv) Spans 5'-0" or more See Plan
   Headers wider than 5' shall have a minimum of 3-2x4 king studs on each side unless noted otherwise.
15) When ceiling joists are parallel to an exterior wall and rafters bear on this exterior stud wall top plate, tie the rafters near the top plate to ceiling joists with 2x6 bogs a minimum of 6' long at 6' on center across the top of the ceiling joists.
16) At all bay windows, each panel shall be nailed to each adjacent panel with 5-16d nails or tied together with metal strapping nailed at four locations between floors with a minimum of 2-16d nails into each panel at each strap. This will avoid vertical cracking in panel joints due to horizontal oscillating pencils.
17) At all stairs, every stud at each stringer must be nailed to each stringer with a minimum of 2-16d nails. This will avoid cracking between wallboard and top of base molding due to vertical oscillation of stair stringers.
18) Roof trusses that have non-bearing partitions passing under them should be nailed to the partition plates to avoid ceiling-wall cracking.
19) Roof trusses close to side walls framing and used as dead wood for sheetrock boards should be nailed to the wall framing to prevent ceiling-wall cracking.
20) Note to apply to all hard coat stucco exterior finishes:
   A) Joints are necessary at the following locations:
   i) Horizontally at each floor line.
   ii) No areas larger than 144 S.F. surface exposed.
   iii) No dimension longer than 18'.
   iv) No dimension longer than 2½ times the shortest dimension
   B) Drip screed required at the bottom of all walls 2" above paved areas and 4" above grade.
   C) See ASTM 926 and 1063 for further information.

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■ REPRESENTS THE LOCATION FOR SOLID BLOCKING FOR POINT LOAD ABOVE

UPPER LEVEL FLOOR PLAN

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

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Hendersonville, NC 28739
For Structural Only

6/10/03

Acknowledgement Of Plans Submittal ONLY

w/ revisions Date 6-10-03

Date