DESIGN LOADS

The following are design loads for Wake County, NC. For all other locations refer to the building code and any applicable local requirements.

1. Building Codes
   1.1 2012 North Carolina Residential Code (2009 International Residential Code with North Carolina Amendments)
   1.2 Minimum Design Loads for Building and Other Structures, ASCE 7-98.

2	Roof Dead Load	15 PSF
3	Roof Live Load	20 PSF
4	Typical Floor Dead Load	10 PSF
5	Floor Live Loads	
	5.1 Rooms other than sleeping rooms	40 PSF
	5.2 Sleeping Rooms	30 PSF
	5.3 Stairs	40 PSF
	5.4 Decks	40 PSF
	5.5 Exterior Balconies	60 PSF
6	Wind Loads / Data	
	6.1 Basic Wind Speed (3 Second Gust)	100 MPH
	6.2 Wind Importance Factor, IW	1.00
	6.3 Exposure	B
	6.4 Walls (Component and Cladding)	25 PSF
	6.5 Roofs (Component and Cladding)	
	6.5.1 Roof Slopes 2.23/12 to 7/12	34.6 PSF
	6.5.2 Roof Slopes 7/12 to 12/12	21 PSF
7	Seismic Loads/ Data	
	7.1 Seismic Use Group	0.075
	7.2 Spectral Response Coefficient, SDS	0.11g(and 40.33g
	7.3 Site Class	D
	7.4 Seismic Importance Factor, IE	1.00
	7.5 Seismic Design Category	B

FOUNDATIONS & CRAWL SPACES

1. Foundations shall conform to the requirements of the North Carolina Residential Building Code, Chapter 4. Should a conflict occur between these drawings and the aforementioned building code references the more stringent shall govern.
2. The architect has not received a subsurface investigation. The foundation is based upon an assumed soil bearing capacity of 2000 psf not bearing. Verification of this assumed value is the responsibility of the owner or contractor should any adverse soil condition be encountered the architect must be contacted before proceeding.
3. Foundations shall extend not less than 12 inches below the finished natural grade and in no case less than the frost line depth. Foundation walls are assumed to restrain earth pressures of 30 pcf or less, unbalanced fill and foundation wall construction shall conform to tables 404.1 of the North Carolina Residential Building Code. Site topography has not been provided to TightLines Designs. Report any unusual site conditions to TightLines Designs before construction.
4. Any fill shall be placed under the direction or recommendation of a licensed professional engineer. The resulting soil shall be compacted to a minimum of 95 percent maximum dry density.
5. Excavation for footings shall be lined temporarily with a 6 mil polyethylene if placement of concrete does not occur within 24 hours of excavation.
6. No concrete shall be poured against any subgrade containing water, ice, frost, or loose material.
7. Enlarged perimeter footings are to be poured monolithically with wall footings. Reinforcement for wall footings, if any, shall run continuously through column footings.
8. Crawl space vents to be 8"x16" w/ min. 50% free air, and shall be located within 3' of each corner unless closed crawl space. Crawl space door may serve as vent.
9. Install 6 mil. vapor barrier below all slabs and on ground area within all crawlspaces.
10. Provide min. 18x24 access panel or larger as required by the NC Mechanical Code when mechanical equipment is located in the crawlspace.
11. Remove earth as required to achieve a minimum clearance from ground to underside of floor joists of 18".
12. Provide foundation drains at all foundation walls. Coordinate location to daylight with owner.

CONCRETE

1. Concrete shall have normal weight aggregate and a minimum compressive strength (fc) at 28 days as listed below.
   1.1. Footings 3000 psi
   1.2. Slabs-on-grade 4000 psi
   1.3. Elevated Slabs 3500 psi
2. Concrete shall be proportioned, mixed, and placed in accordance with ACI 318 latest edition "Building Code Requirements for Reinforced Concrete" and ACI 301 latest edition "Specifications for Structural Concrete for Building"
3. Entrained air must be used in all concrete that will be exposed to freezing and thawing and deicing chemicals. Amount of air entrainment (percent) shall be in accordance with the following schedule with a range of -1 to +2 percentage points of the target value.
   3.1. Footings 5%
   3.2. Interior Slabs 0% see note below
   3.3. Exterior Slabs 5%
   3.4. Note: It is recommended that interior slabs to be given a smooth, dense, hard-troweled finish not contain entrained air since blistering or delamination may occur. If slab will be exposed to deicing or other aggressive chemicals contact TightLines Designs for proper air entrainment requirements.
4. No admixtures shall be added to any structural concrete without written permission of the architect.

CONCRETE SLABS ON GRADE

1. Concrete slabs on grade shall be constructed in accordance with ACI 302.1r-96 "guide for concrete slab and slab construction".
2. The architect is not responsible for differential settlement, slab cracking or other future defects resulting from unreported conditions.
3. Control joints shall be spaced in slabs on grade at a maximum of 20'-0" O.C. Unless noted otherwise.
4. Control joints shall be produced using conventional processes within 4 to 12 hours after the slab has been finished.
5. Reinforcing steel shall not extend through the control joint.
6. All welded wire fabric for concrete slab on grade shall be supplied in flat sheets
7. All welded wire fabric for concrete slab on grade shall be placed 2" from top of slab. The WWF shall be securely supported during the concrete pour.

FOUNDATION & FLOOR FRAMING NOTES

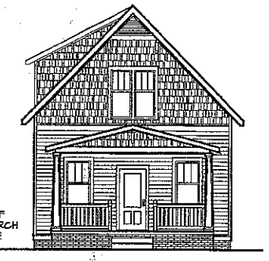
1. All dimensions stretched from the outside face of the foundation wall or the center line of piers.
2. Typical pier is 16"x16" w/ 24"x24"x8" footing U.N.O.
3. Typical wall footing is 16"W x 8"D, U.N.O.
4. All girders and joists to be SPF, U.N.O.
5. Typical floor joists to be 2x10s @ 16" o.c., U.N.O.
6. See sheet A1.1 &A3.1 for additional foundation & framing notes.

FLOOR FRAMING NOTES

1. Floors shall be constructed in accordance with the requirements listed in the North Carolina Residential Building Code Chapter 5.
2. Floors are designed for the uniformly distributed loads shown in the general structural notes. Special loading conditions must be reported to TightLines Designs; TightLines Designs is not responsible for floor defects resulting from unreported conditions.
3. P denotes a point load from above. Provide solid blocking to foundation w/ the same number of studs as above.
4. Install double joists or see truss mant. dwgs. for support under parallel non load bearing partitions above typ.
5. Floor sheathing shall be APA rated sheathing exposure 1 or 2, 3/4" T&G glued and attached to its supporting framing with 1-8d EG nail at 6" O.C. At panels edges and at 12" O.C. in panel field unless otherwise noted on the plans. Sheathing shall be applied perpendicular to framing. Panel end joints shall occur over framing.
6. Joists framing into the side of a girder shall be supported by a 2x2 ledger or by manuf. recommended hangers.

FLOOR PLAN NOTES:

1. All interior walls drawn @ 5 1/2" wide & exterior walls drawn w/sheathing @ 4" wide. All dimensions are drawn to face of stud on interior walls and to exterior sheathing on exterior walls.
2. All windows to have screens.
3. Provide plastic coated wire shelving w/clothes rod in coat closet & bedroom closets, one (1) shelf in laundry closet & four (4) shelves in pantry.
4. See above for additional framing notes.



Ansley I
1113 TOTAL HEATED SF
154 SF FRONT/REAR PORCH
15 SF EXT. STORAGE

GENERAL STRUCTURAL NOTES.

1. This structure is only stable in its completed form. The contractor shall provide all required temporary bracing during construction to stabilize the structure.
2. The architect is not responsible for construction sequences, methods, or techniques in connection with the construction of this structure. The architect will not be held responsible for the contractor's failure to conform to the construction documents, should any non-conformities occur.
3. Verification of assumed field conditions is not the responsibility of the architect. The contractor shall verify the field conditions for accuracy and report any discrepancies to TightLines Designs before construction begins.
4. This structure and all construction shall conform to all applicable sections of the North Carolina residential code and any local laws where the structure is to be constructed.

FIELD SPECIFY REQUIRED ACCESS PANEL & LOCATION - SEE NOTES ON A1.1 FOR ADDITIONAL CRAWL SPACE DETAILS

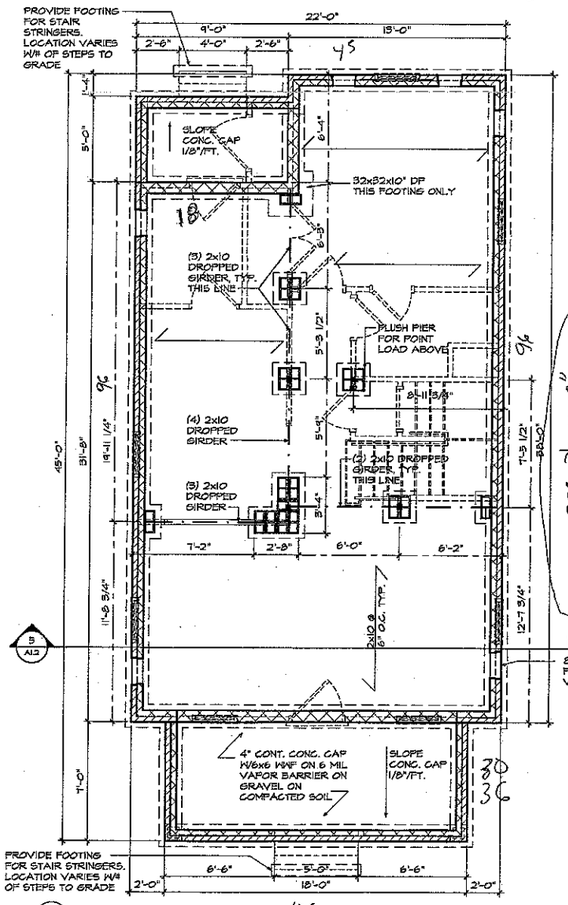
CRAWL SPACE VENT CALCS:
CRAWL SPACE W/ VAPOR BARRIER REQUIRES 1 SF VENT AREA PER 1500 SF CRAWL SPACE AREA

774 SF CRAWL SPACE/1500 SF = .52 SF VENT AREA
.52 SF x 144 Sq.In/SF = 74.88 Sq.In.

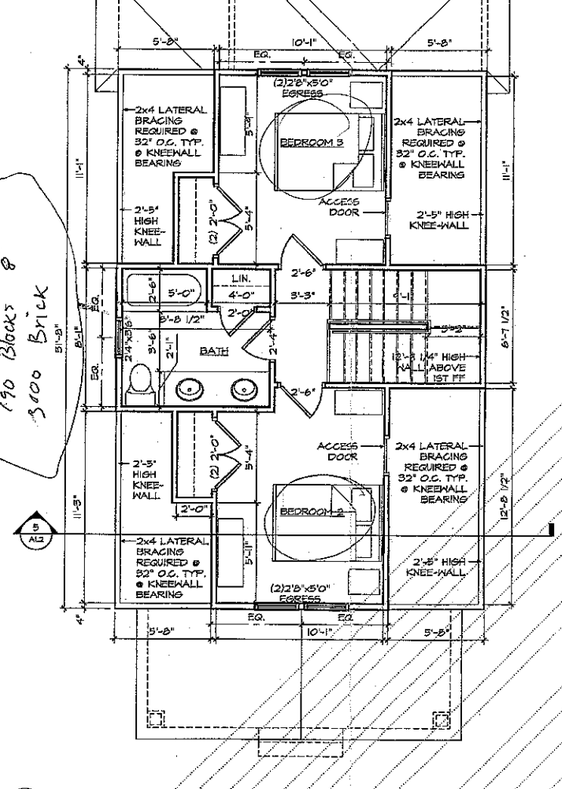
8"x16" VENTS W/50% FREE AIR SPACE = 64 Sq.In. FREE AIR PER VENT

74.88 Sq.In./64 Sq.In. = 1.17 VENTS REQUIRED
6 VENTS PROVIDED

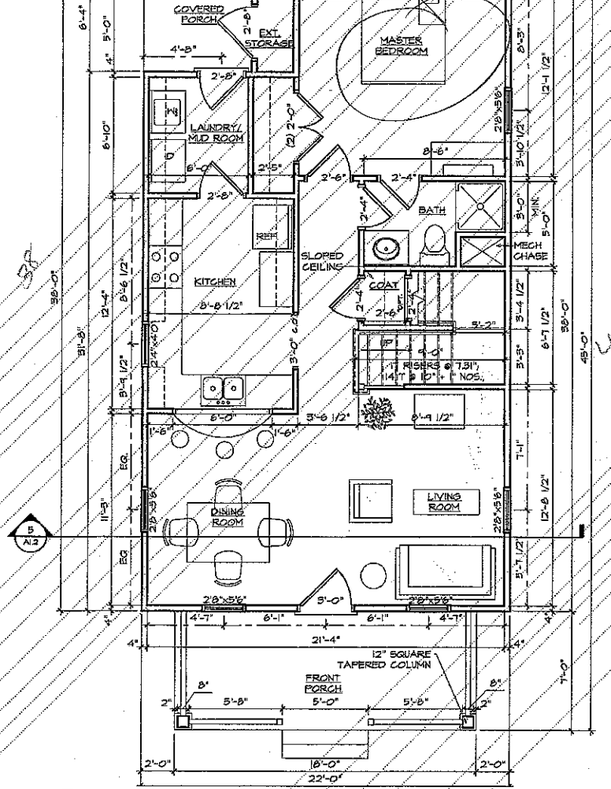
Acknowledgement Of Plans Submittal ONLY!
Date 7-18-14
Date 7/29/14



3 A1.1 FOUNDATION PLAN 1/4" = 1'-0"



2 A1.1 SECOND FLOOR PLAN 1/4" = 1'-0"



1 A1.1 FIRST FLOOR PLAN 1/4" = 1'-0"

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Mooresville, NC

TightLines Designs
creating great places to live
1165 E. Hargett St., Suite 300, Raleigh, NC 27601
919-834-3600 • www.tightlinesdesigns.com

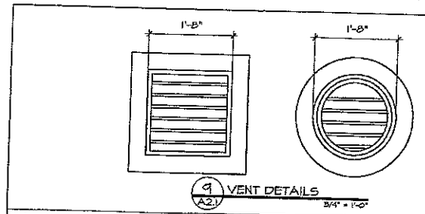
Ansley I

TightLines Designs, Inc. 51728 Raleigh, NC
DAVID SCOTT MAYER 5131 REGISTERED ARCHITECT NORTH CAROLINA RALEIGH, NC
04.17.14

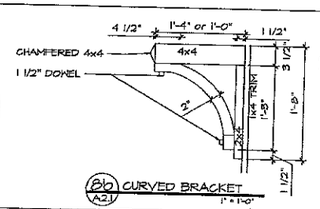
date	04.17.14
drafter	C.L.B.
checked by	D.S.M.
proj. no.	T-14018.3
revisions	date

Floorplan, Foundation Plan, Notes

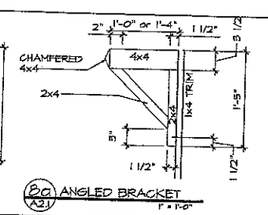
A1.1



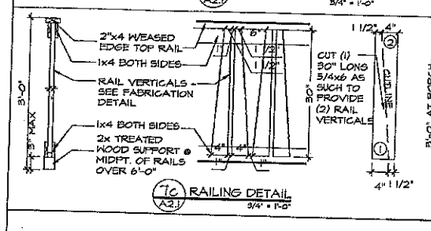
9 A2.1 VENT DETAILS 3/4" = 1'-0"



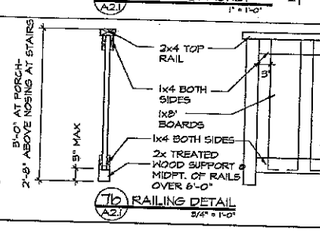
8b A2.1 CURVED BRACKET 1" = 1'-0"



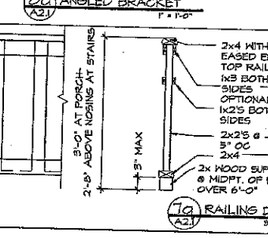
8a A2.1 ANGLED BRACKET 1" = 1'-0"



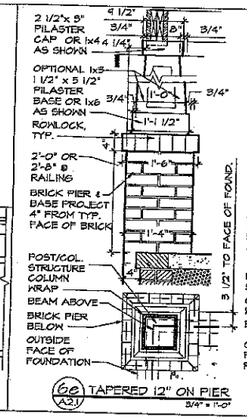
7c A2.1 RAILING DETAIL 3/4" = 1'-0"



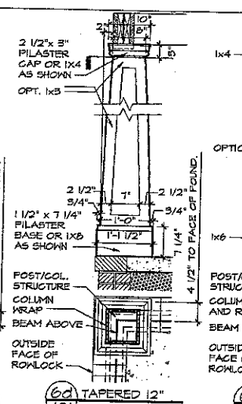
7b A2.1 RAILING DETAIL 3/4" = 1'-0"



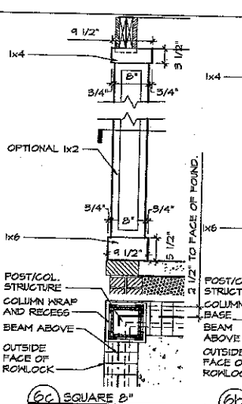
7a A2.1 RAILINGS DETAIL 3/4" = 1'-0"



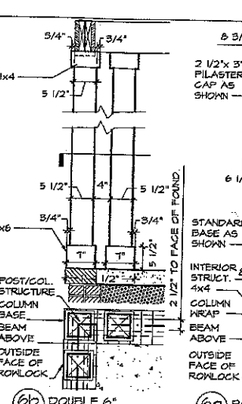
6e A2.1 TAPERED 12" ON PIER 3/4" = 1'-0"



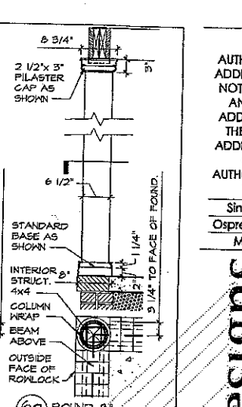
6d A2.1 TAPERED 12" 3/4" = 1'-0"



6c A2.1 SQUARE 8" 3/4" = 1'-0"

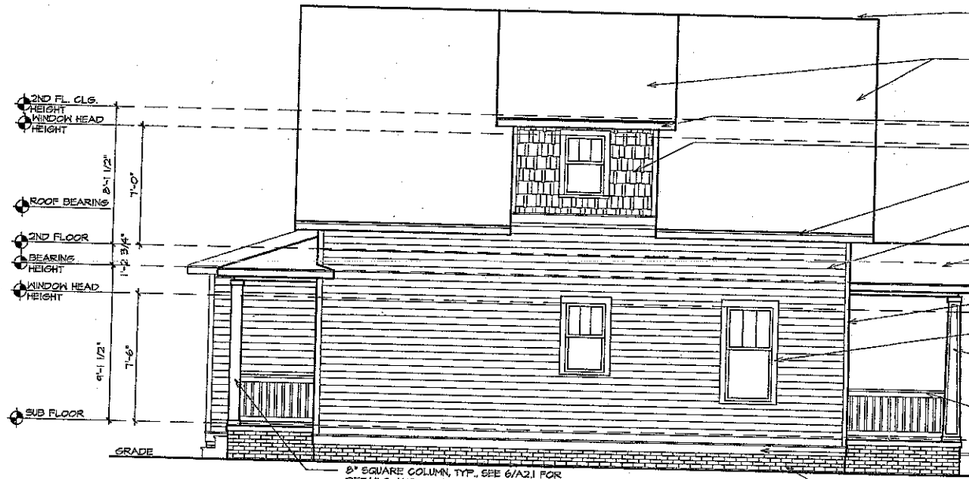


6b A2.1 DOUBLE 6" 3/4" = 1'-0"



6a A2.1 ROUND 8" 3/4" = 1'-0"

GUARDRAIL AND HANDRAILS:
1) INSTALL GUARDS PER 2009 NC RESIDENTIAL BUILDING CODE SECTION R312: PORCHES, BALCONIES, RAMPS OR RAISED FLOOR SURFACES LOCATED MORE THAN 30" ABOVE THE FLOOR OR GRADE BELOW SHALL HAVE GUARDS NOT LESS THAN 36" IN HEIGHT. OPEN SIDES OF STAIRS WITH A TOTAL RISE OF MORE THAN 30" ABOVE THE FLOOR OR GRADE BELOW SHALL HAVE GUARDS NOT LESS THAN 30" IN HEIGHT MEASURED VERTICALLY FROM THE NOSING OF THE TREADS. REQUIRED GUARDS ON OPEN SIDES OF STAIRWAYS, RAISED FLOOR AREAS, BALCONIES AND PORCHES SHALL HAVE INTERMEDIATE RAILS OR ORNAMENTAL CLOSURES WHICH DO NOT ALLOW PASSAGE OF AN OBJECT 6" OR MORE IN DIAMETER. HORIZONTAL SPACING BETWEEN THE VERTICAL MEMBERS IN REQUIRED GUARDRAILS SHALL BE A MAXIMUM OF 4" AT THE NEAREST POINT BETWEEN MEMBERS.
2) INSTALL HANDRAILS PER 2009 NC RESIDENTIAL BUILDING CODE SECTION R311.5.6 AT ALL PORCH STAIRS WITH MORE THAN 4 RISERS. HANDRAIL HEIGHT, MEASURED VERTICALLY FROM THE SLOPED PLANE ADJOINING THE TREAD NOSING, OR FINISH SURFACE OF RAMP SLOPE SHALL NOT BE LESS THAN 30" AND NOT MORE THAN 38".



4 A2.1 LEFT ELEVATION 1/4" = 1'-0"

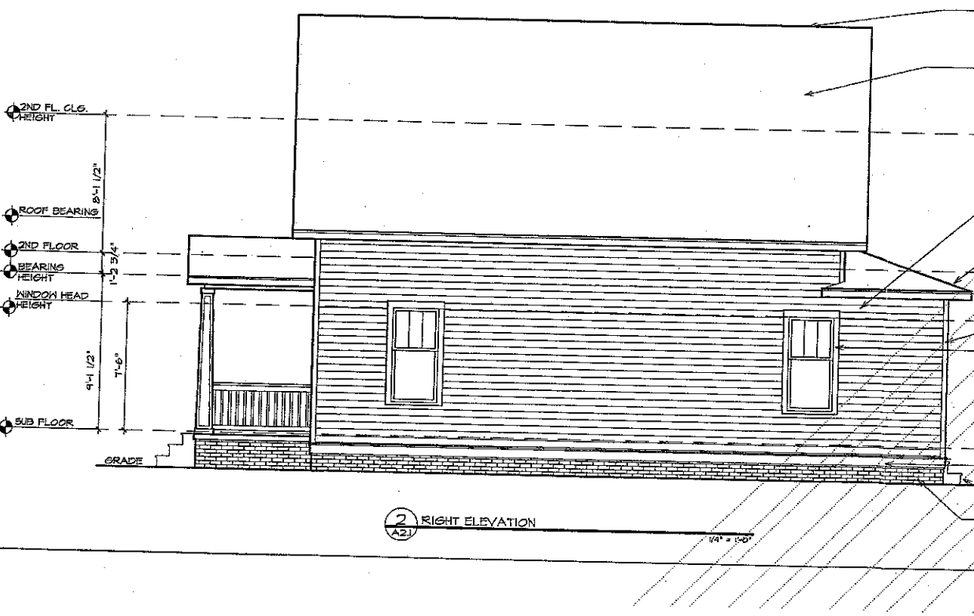


3 A2.1 REAR ELEVATION 1/4" = 1'-0"

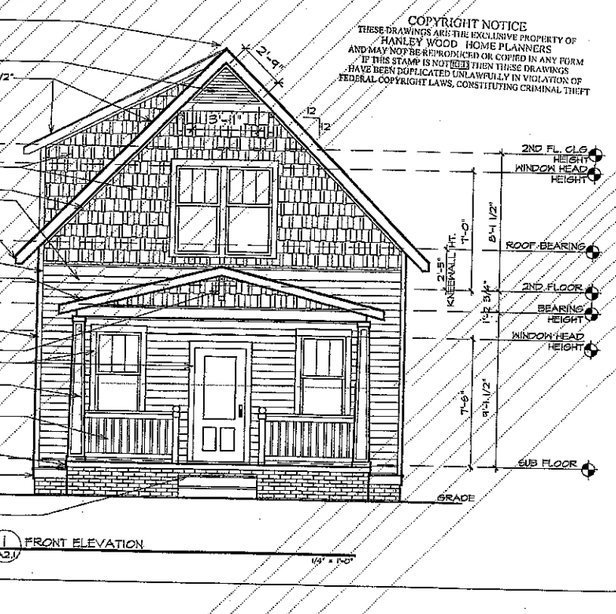
CLADDING VALUES:
PROVIDE POS. AND NEG. WALL & ROOF CLADDING DESIGN VALUES. PLANS MAY STATE THAT WALL CLADDING IS DESIGNED FOR 24.1 LBS/SF OR GREATER POS. OR NEG. PRESSURE FOR HOUSES W/ MEAN ROOF HGT. OF 30 FT. OR LESS. ROOF VALUES, BOTH POS. & NEG., SHALL BE DESIGNED AS FOLLOWS:
- 15.4 LBS/SF FOR ROOF PITCHES OF 0/12 TO 2.25/12
- 24.9 LBS/SF FOR ROOF PITCHES OF 2.25/12 TO 7/12
- 21 LBS/SF FOR ROOF PITCHES OF 7/12 TO 12/12
VALUES STATED ARE FOR ROOFS WITH A MEAN HGT. OF 30 FT. OR LESS. ROOFS W/ MEAN HGTS. GREATER THAN 30 FT. MUST SHOW SPECIFIC INFORMATION FOR CLADDING.

MEAN ROOF HEIGHT: 23'-8"

5 A2.1 NOTES



2 A2.1 RIGHT ELEVATION 1/4" = 1'-0"



1 A2.1 FRONT ELEVATION 1/4" = 1'-0"

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TightLines Designs
creating great places to live
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919-834-3600 | www.tightlinesdesigns.com

Ansley I

TightLines Designs, Inc. 51728 North Carolina Raleigh, NC
DAVID SCOTT WALKER 5131 REGISTERED ARCHITECT NORTH CAROLINA RALEIGH, NC
04.17.14

date	04.17.14
drafter	C.L.B.
checked by	D.S.M.
proj. no.	T-14018.3
revisions	date

Elevations, Details, & Notes

A2.1