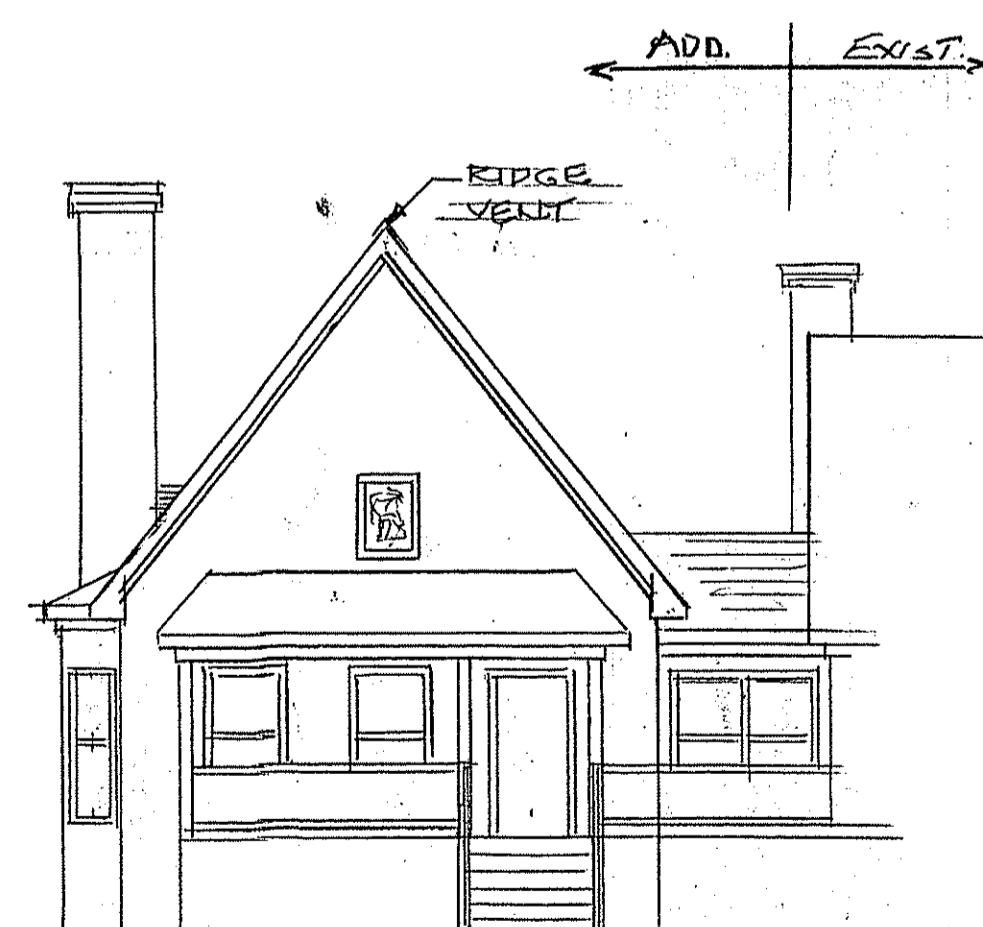
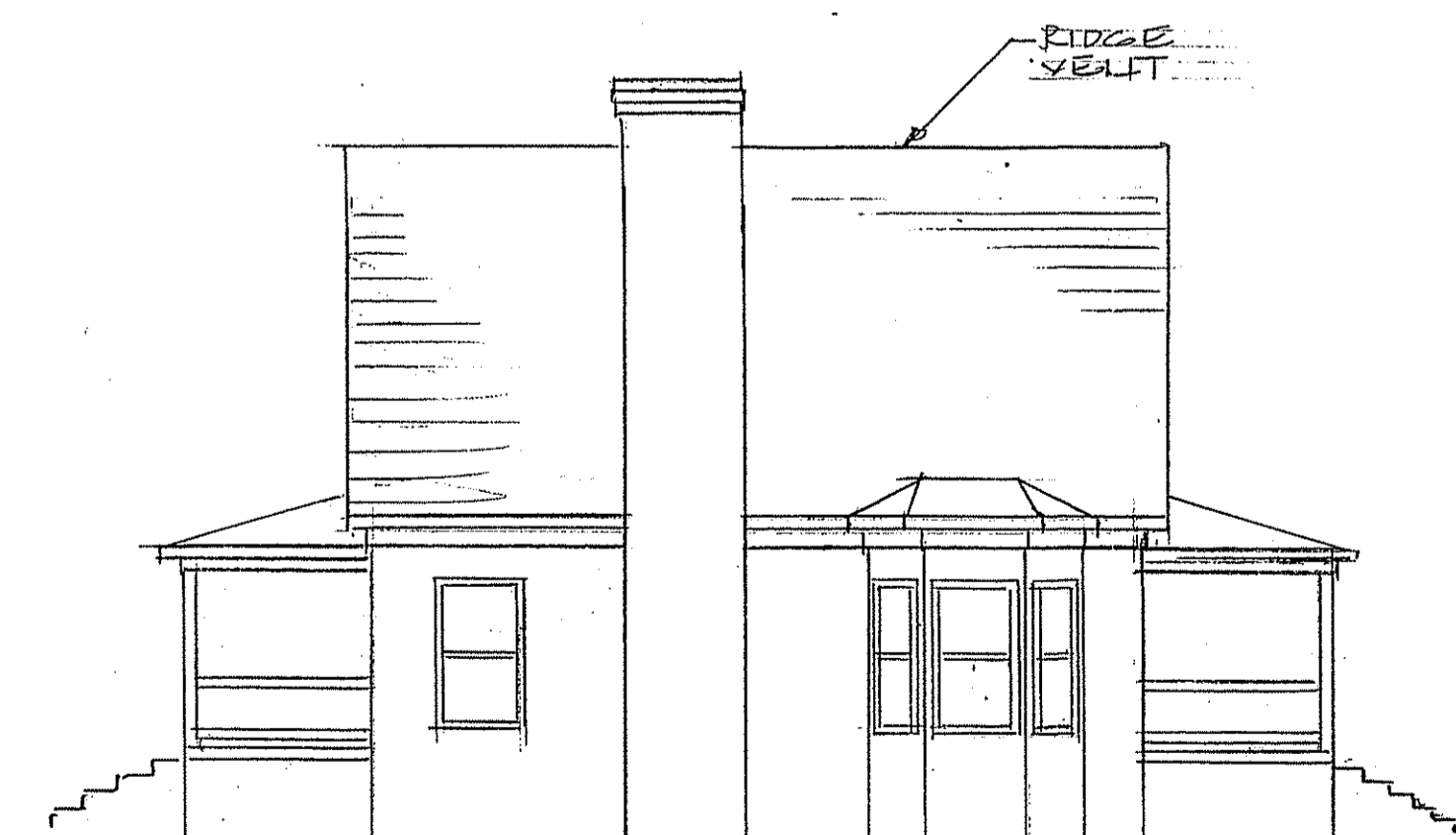




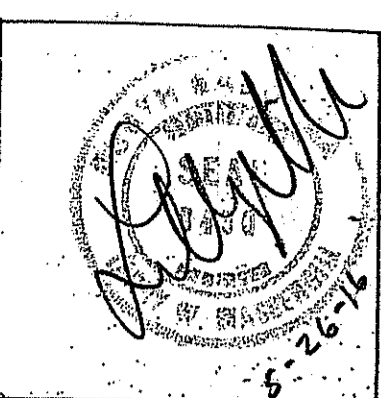
1
S-1 FRONT ELEVATION
SCALE: 1/4" = 1'-0"



2
S-1 REAR ELEVATION
SCALE: 1/8" = 1'-0"



3
S-1 RIGHT SIDE ELEVATION
SCALE: 1/8" = 1'-0"



MASSENGILL ASSOCIATES, P.A.
CONSULTING ENGINEERING
116 E. MAIN ST. P.O. BOX 695
BEASON N.C. 27504-0695
PHONE: 919-894-2077 FAX: 919-894-7288

RESIDENCE ADDITION
KENT & SUE JOHNSON

ELEVATION

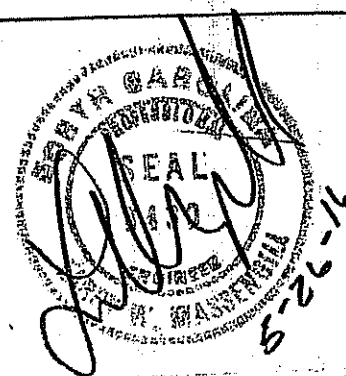
THESE DOCUMENTS ARE INSTRUMENTS OF SERVICE AND AS SUCH REMAIN THE PROPERTY OF THE ENGINEER. PUBLISH OR USE THEM ONLY WITH THE ENGINEER'S WRITTEN APPROVAL.

SCALE: AS NOTED

DATE: 5-26-16

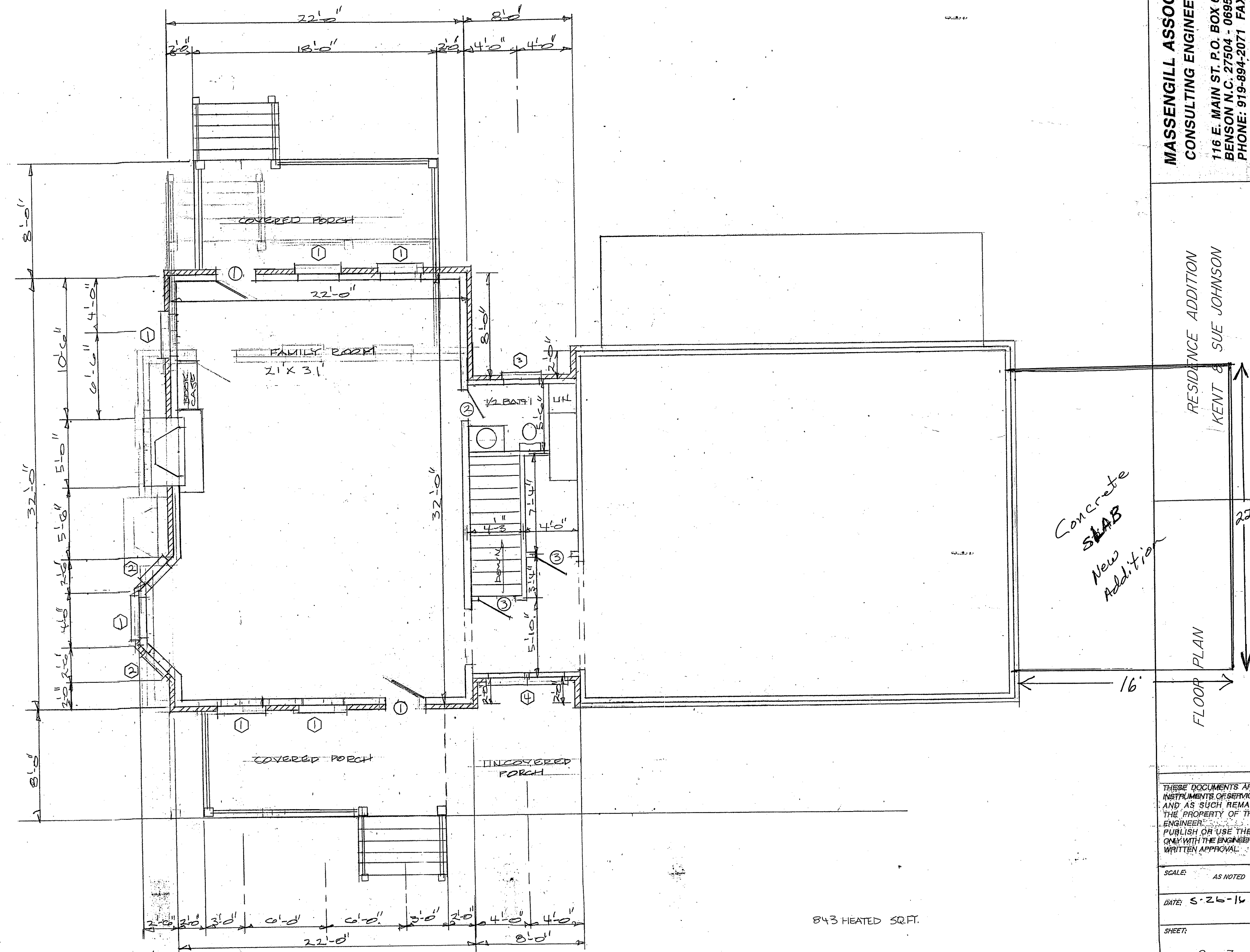
SHEET:

S-1



MASSENGILL ASSOCIATES, P.A.
CONSULTING ENGINEERING
 116 E. MAIN ST. P.O. BOX 695
 BENSON N.C. 27504 - 0695
 PHONE: 919-894-2071 FAX: 919-894-7288

RESIDENCE ADDITION
 KENT & SUE JOHNSON



7/12/16
 6:30 PM
 21451

1
 5-3
FLOOR PLAN
 SCALE: 1/4" = 1'-0"

THESE DOCUMENTS ARE INSTRUMENTS OF SERVICE AND AS SUCH REMAIN THE PROPERTY OF THE ENGINEER. PUBLISH OR USE THEM ONLY WITH THE ENGINEER'S WRITTEN APPROVAL.

SCALE: AS NOTED

DATE: 5-26-16

SHEET:

5 - 3

Attic Ventilation	
Required	SQ. Ft. of Attic / 600 = SQ. Ft. Each of Inlet & Outlet
Provided	NA
Inlet	SQ. FT. Per x Linear FT. of vent = SQ. FT. of vent
Outlet	SQ. FT. Per x Linear FT. of vent = SQ. FT. of vent

Crawl Space Ventilation	
Required	SQ. FT. / 150 = SQ. FT. of Ventilation
Provided	NA
Use	Type B (SQ. FT. of Ventilation)

Equipment Schedule	
1	Water Closet
2	Lavatory W / Vanity
3	Fiberglass Tub Unit
4	Dressing Table
5	Whirlpool
6	Shower
7	Overhead Cabinets
8	Base Cabinets
9	Smoke Detector
10	Refrigerator
11	Dishwasher
12	Double Kitchen Sink
13	Island
14	Bar
15	Range / Hood / Oven
16	Desk
17	Built In
18	Washer
19	Dryer
20	Laundry Sink
21	Freezer
22	Water Heater
23	Pedestal Sink
24	Fold Down Ironing Board
25	Laundry Chute
26	Window Seat
27	Bar Sink
28	Double Ovens
29	Prefab Fireplace

Window Schedule	
1	3'-0" x 5'-2"
2	2'-0" x 5'-2"
3	2'-8" x 3'-2"
4	2'-2" x 5'-2"
5	2'-0" x 3'-0" STAINLESS IN GABLE

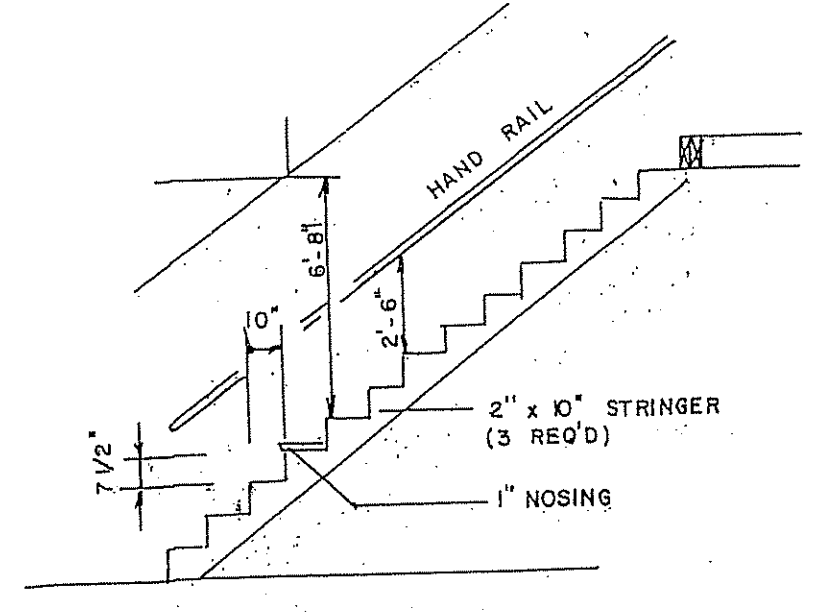
Door Schedule	
1	3'-0" x 6'-0" x 1 3/4"
2	2'-4" x 6'-8" x 1 3/8"
3	2'-8" x 6'-8" x 1 3/8"

Finish Schedule	
Floor:	
Carpet	
Ceramic tile	
Hardwood	
Italian Tile	
Vinyl Tile	
Concrete	
Laminate	
Treated Wood	
Wall:	
Sheetrock	
Ceramic Tile	
Wood	
Ceiling:	
Sheetrock	
Wood	

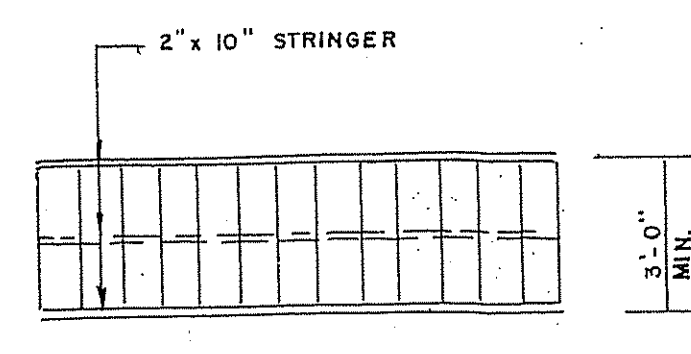
Notes:
 Minimum Size: All egress or rescue windows from sleeping rooms must have a net clear opening of 4.0 square feet. The minimum net clear height shall be 22 inches. The minimum net clear width shall be 20 inches. Each egress window from sleeping rooms must have a minimum total glass area of not less than 5.0 square feet in the case of a ground window and not less than 5.7 square feet in the case of a second story window.
 Where openings are provided as a means of escape and rescue they shall have a sill height of not more than 44 inches above the floor.

NOTE: VINYL INSULATED FRAME WINDOWS

- Standard Notes:**
- The design of this building is based on the requirements of North Carolina residential code 2012 Ed.
 - Foundation drainage shall be installed based on the site condition as required by sec 40S & 40C HCBC 2012 Ed.
 - Anchor bolt shall be required as shown in plans and as required by NCBC 2012 Max spacing 6' or with bolt location within 12" of end of mud sill. Minimum bolt 1/2" 7" embedment in masonry.
 - Mean or assumed roof height _____
 - The roof & wall cladding is designed for a 25 psf positive and negative wind loading.
 - Energy Compliance
 - A. Window U-Factor & design pressure (see attached manufacturer's literature.) 0.35 U.F.
 - B. Insulation R Values
 Ceiling/Roof: R-28
 Wall: R-15
 Floor: R-19
 - C. Fenestration Calculation
 - Treated Lumber To Be # 2 SP
 All Other Framing Lumber To Be # 2 SPF



STAIR SECTION



STAIR PLAN

STAIR DETAIL

- STRUCTURAL STEEL NOTES:**
- ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM A-36 DESIGN, FABRICATION, AND ERECTION SHALL CONFORM TO "AISC SPECIFICATIONS FOR BUILDINGS", LATEST EDITION.
 - ALL STRUCTURAL STEEL SHAPES WIDE FLANGE, PLATES AND BARS - SHALL BE ASTM A 36, Fy = 36 KSI
 - ALL COLD-FORMED STRUCTURAL STEEL TUBING - SHALL BE ASTM A 500, GRADE B, Fy = 46 KSI
 - ANCHOR BOLTS - SHALL BE ASTM A 307, Fy = 36 KSI
 - CONNECTIONS NOT DETAILED SHALL BE DESIGNED FOR LOADS GIVEN IN STANDARD AISC LOAD TABLES FOR LENGTH, SECTIONS AND STRENGTH SPECIFIED. BOLTED USING 1/2" H. S. BOLTS (A325), EXCEPT WHERE FIELD WELDING IS SHOWN.
 - ALL WELDING SHALL BE IN ACCORDANCE WITH AWS D11 "STRUCTURAL WELDING CODE - STEEL". WELD ELECTRODES SHALL BE E70XX. PROVIDE 3/16" CONTINUOUS FILLET WELDS UNLESS OTHERWISE NOTED.
 - WORK THESE DRAWINGS WITH THE ARCHITECTURAL DRAWINGS FOR DETAILS AND SECTIONS.
 - THE CONTRACTOR SHALL COORDINATE AND VERIFY ALL DIMENSIONS PRIOR TO STARTING CONSTRUCTION. ANY DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.

- ROUGH CARPENTRY NOTES:**
- ROUGH CARPENTRY SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL FOREST PRODUCTS ASSOCIATION (NFPA) "NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION"
 - WOOD FRAMING MEMBERS PERMANENTLY EXPOSED TO THE WEATHER AND ALL SILL PLATES AROUND THE BUILDING PERIMETER SHALL BE PRESERVATIVE-TREATED IN ACCORDANCE WITH THE SPECIFICATIONS.
 - UNLESS OTHERWISE NOTED, ALL NAILING FASTENERS SHALL CONFORM TO "FASTENING SCHEDULE" OF THE NORTH CAROLINA STATE BUILDING CODE, LATEST EDITION.
 - CONSTRUCTION PANELS SHALL COMPLY WITH FSI "U.S. PRODUCT STANDARD FOR CONSTRUCTION AND INDUSTRIAL PLYWOOD" FOR PLYWOOD CONSTRUCTION PANELS AND THE FOLLOWING REQUIREMENTS:
 - A) EXTERIOR WALL AND SHEAR WALL WALL SHEATHING: 1/2" APA RATED SHEATHING, EXTERIOR EXPOSURE I EXPOSURE DURABILITY CLASSIFICATION.
 - B) ROOF SHEATHING: 1/2" APA RATED SHEATHING, EXTERIOR EXPOSURE DURABILITY CLASSIFICATION.
 - WOOD FRAMING SHALL COMPLY THE FOLLOWING REQUIREMENTS:
 - A) MOISTURE CONTENT - SEASONED, WITH 19 PERCENT MAXIMUM MOISTURE CONTENT.
 - B) GRADE - NO. 2 SPF
 - DOUBLE JOISTS UNDER ALL PARTITIONS WHICH RUN PARALLEL TO FRAME AROUND ALL OPENINGS TO SUPPORT SHEATHING.

NOTE:

ALL ROOF AREA W/ SLOPE LESS THAN 3 1/2 1/2 TO BE SINGLE PLY MEMBRANE ROOF. ALL SHINGLE AREAS & VALLEYS WITH SLOPE LESS THAN 3 1/2 1/2 TO BE COVERED WITH ICE DAM MEMBRANE.

Concrete and masonry foundation waterproofing. In areas where a high water table or other severe soil-water conditions are known to exist, exterior foundation walls that retain earth and enclose habitable or usable spaces located below grade shall be waterproofed with a membrane extending from the top of the footing to the finished grade. The membrane shall consist of 2-ply hot-mopped felts, 55 pound (25 kg) roll roofing, 6-mil (0.15 mm) polyvinyl chloride, 6-mil (0.15 mm) polyethylene or 40-mil (1 mm) polymer-modified asphalt. The joints in the membrane shall be lapped and sealed with an adhesive compatible with the waterproofing membrane.

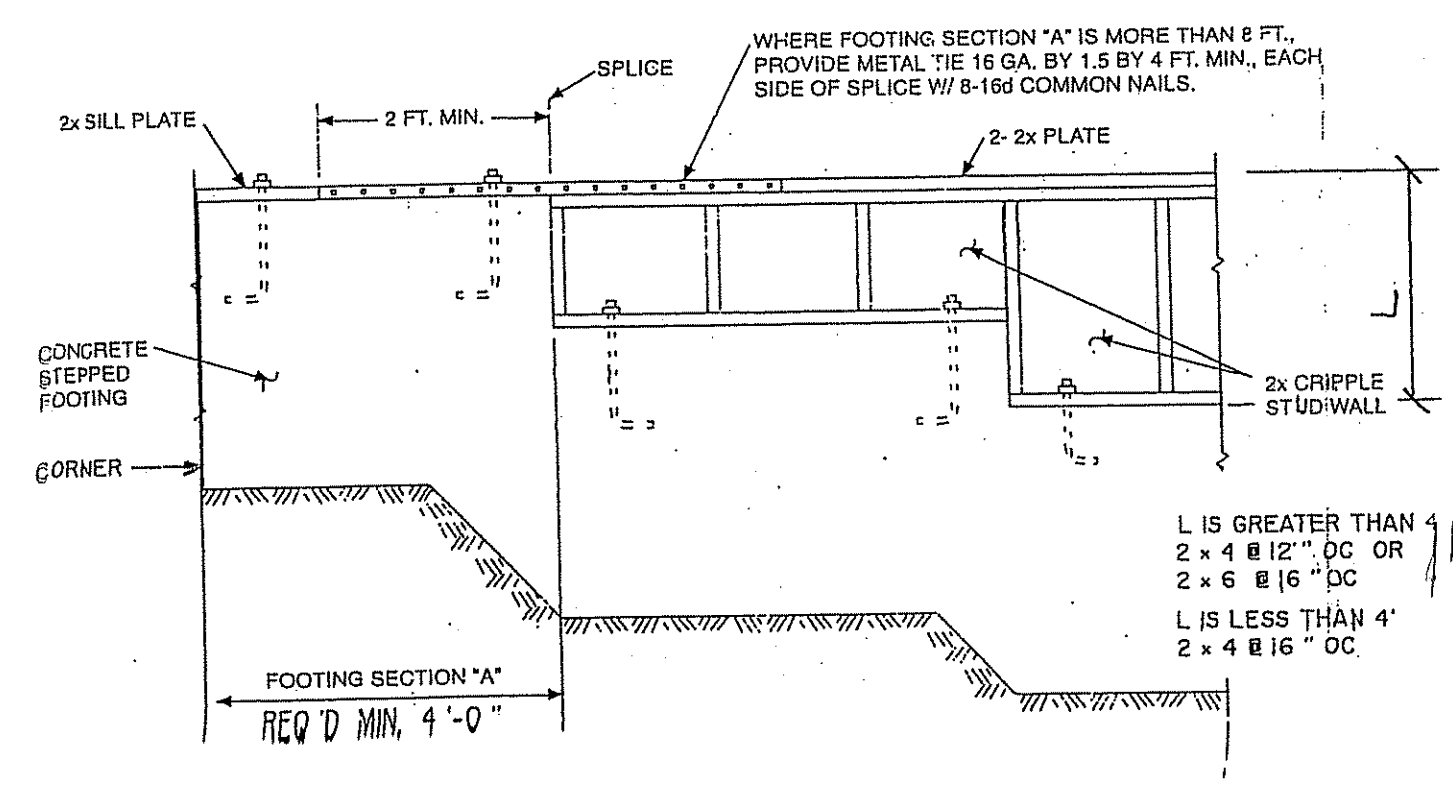
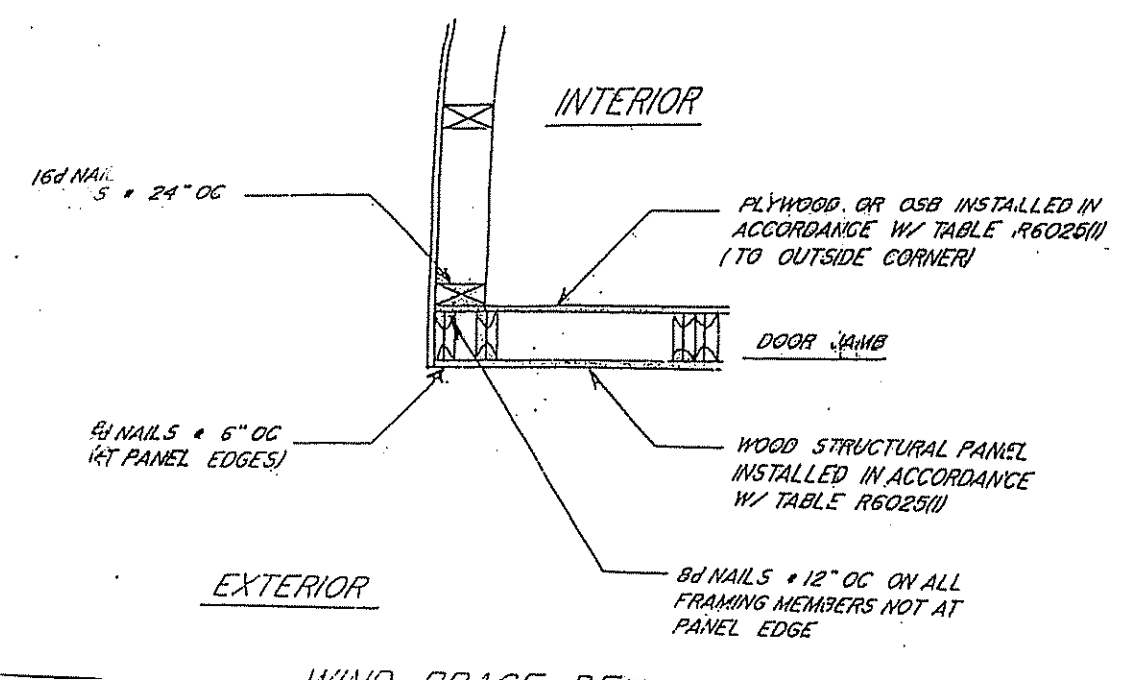


FIGURE R602.11.3 STEPPED FOUNDATION CONSTRUCTION

NOTE: WALL HEIGHT FROM FINISH FLOOR TO TOP OF STUDS 4'-12" OC

SAFETY GLAZING	
ALL SAFETY GLAZING MATERIALS MUST BE PERMANENTLY LABELED TO INDICATE IT CONFORMS TO ANSI Z97.1. LAMINATED GLASS MAY BE PERMANENTLY LABELED OR ACCOMPANIED BY A CERTIFICATE CERTIFYING CONFORMANCE TO ANSI Z97.1.	
SAFETY GLAZING MATERIAL MUST BE USED FOR THE FOLLOWING SPECIFIED HAZARDOUS LOCATIONS:	
1.	ALL BATHROOM DOORS AND ENCLOSURES AND WINDOWS
2.	ALL SHOWER DOORS AND ENCLOSURES AND WINDOWS
3.	ALL STORM DOORS OR COMBINATION DOORS
4.	ALL SLIDING GLASS DOORS (PARTI TYPE)
5.	ALL SHOWER ENIT AND ENTRANCE DOORS BOTH FRAMED AND UNFRAMED STYLES
6.	ALL GLAZING IN FIXED PANELS HAVING A GLAZED AREA IN EXCESS OF 9 SQUARE FEET WITH LOWEST EDGE LESS THAN 18 INCHES ABOVE THE FINISHED FLOOR LEVEL, SIDEWALKS, PATIOS OR DESIGNED WALKING SURFACE ON EITHER SIDE WITHIN 16 INCHES OF SUCH GLAZING (INCLUDES GLAZED PANELS IN MULTI-STORY STRUCTURES)
7.	ALL GLAZING IN RAILINGS REGARDLESS OF AN AREA OR HEIGHT ABOVE A WALKING SURFACE. INCLUDED ARE STRUCTURAL BALUSTER PANELS AND NONSTRUCTURAL IN-FILL PANELS.



WIND BRACE DETAIL



MASSGILL ASSOCIATES, P.A.
 CONSULTING ENGINEERING
 116 E. MAIN ST. P.O. BOX 695
 BENSON N.C. 27504 - 0695
 PHONE: 919-894-2071 FAX: 919-894-7288

RESIDENCE FOR
 KENT & SUE JOHNSON

SCHEDULE SHEET

THESE DOCUMENTS ARE INSTRUMENTS OF SERVICE AND AS SUCH REMAIN THE PROPERTY OF THE ENGINEER. PUBLISH OR USE THEM ONLY WITH THE ENGINEER'S WRITTEN APPROVAL.

SCALE: _____
 DATE: 5-26-16
 SHEET: _____