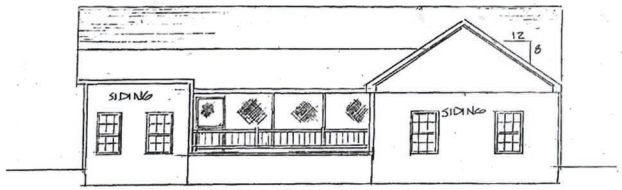
NOTICE TO CONTRACTOR
All construction must comply with current NC Building Codes and is subject to field inspection and verification.

APPROVED
Limited building only review
Permit holder responsible for full compliance with the code

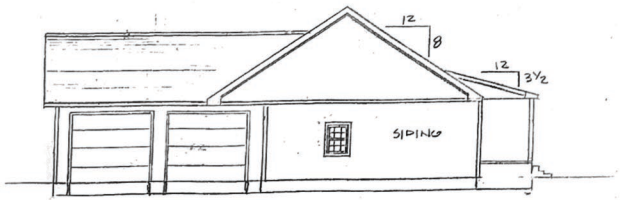
05/07/2021

Harnett COUNTY NORTH CAROLINA

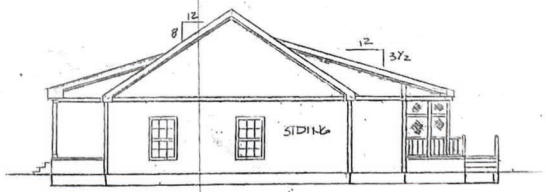
1 S-1 FRONT ELEVATION
SCALE: 1/4"=1'-0"



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



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



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

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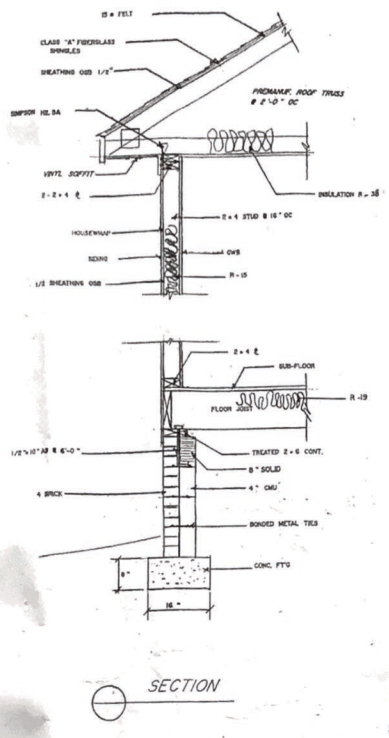
RESIDENCE FOR
LARYCE BARNES

ELEVATION

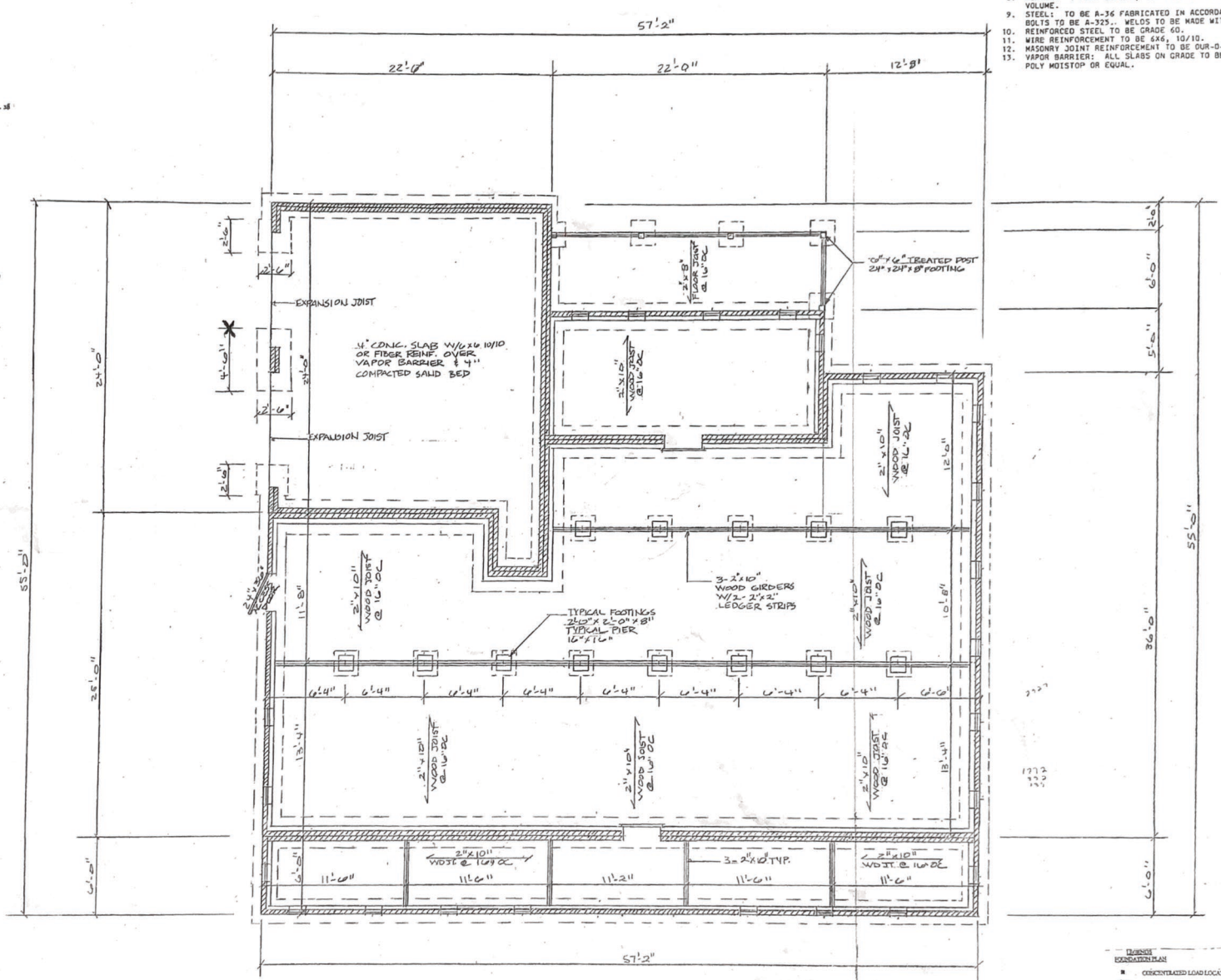
SCALE: AS NOTED

DATE:

SHEET:
S-1



SECTION



FOUNDATION PLAN

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

FOUNDATION NOTES:

1. FOUNDATION DESIGN BASED ON 2000 LB/SF ALLOWABLE SOIL BEARING CAPACITY. CONTACT ENGINEER IF POOR SOIL CONDITIONS ARE ENCOUNTERED IN FOUNDATION EXCAVATION.
2. ALL CONCRETE TO BE 3000 PSI AT 28 DAYS.
3. CONCRETE BLOCK (CMU) TO BE HOLLOW, LOADBEARING, CONCRETE MASONRY UNITS, ASTM C90-64T.
4. PORTLAND CEMENT: ASTM SPEC 150.
5. SAND: CLEAN, HARD, SHARP, FREE FROM ORGANIC MATTER, PASSING # 8 SIEVE.
6. LIME: TYPE S AND MEETING ASTM SPEC. C-207.
7. MIXING WATER: CLEAN AND FREE FROM OIL, ACID, INJURIOUS AMOUNT OF ORGANIC MATTER, ALKALI AND OTHER MATERIAL.
8. MORTAR: 1 PART CEMENT, 1/4 PART LIME PUTTY, 3 PARTS SAND, BY VOLUME.
9. STEEL: TO BE A-36 FABRICATED IN ACCORDANCE WITH AISC SPEC. BOLTS TO BE A-325.. WELDS TO BE MADE WITH E-70 ELECTRODES.
10. REINFORCED STEEL TO BE GRADE 60.
11. WIRE REINFORCEMENT TO BE 6x6, 10/10.
12. MASONRY JOINT REINFORCEMENT TO BE OUR-O-WALL AT 16" VERTICAL.
13. VAPOR BARRIER: ALL SLABS ON GRADE TO BE PLACED ON 6 MIL POLY MOISTOP OR EQUAL.

LEGEND
FOUNDATION PLAN

- CONCENTRATED LOAD LOCATION
- FIELD AND FOOTING 2'-0" x 2'-0" x 10" W/ 16" x 16" CMU PIER, UNLESS OTHERWISE NOTED
- DOUBLE JOIST
- GIRDER 3-2 x 10 @ 2 SPF UNLESS OTHERWISE NOTED
- 4" BRICK
- 8" CONC. MASONRY UNIT WALL
- FLOOR JOIST 2 x 10 @ 16" @ 2 SPF UNLESS OTHERWISE NOTED

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RESIDENCE FOR
LARYCE BARNES

FOUNDATION PLAN

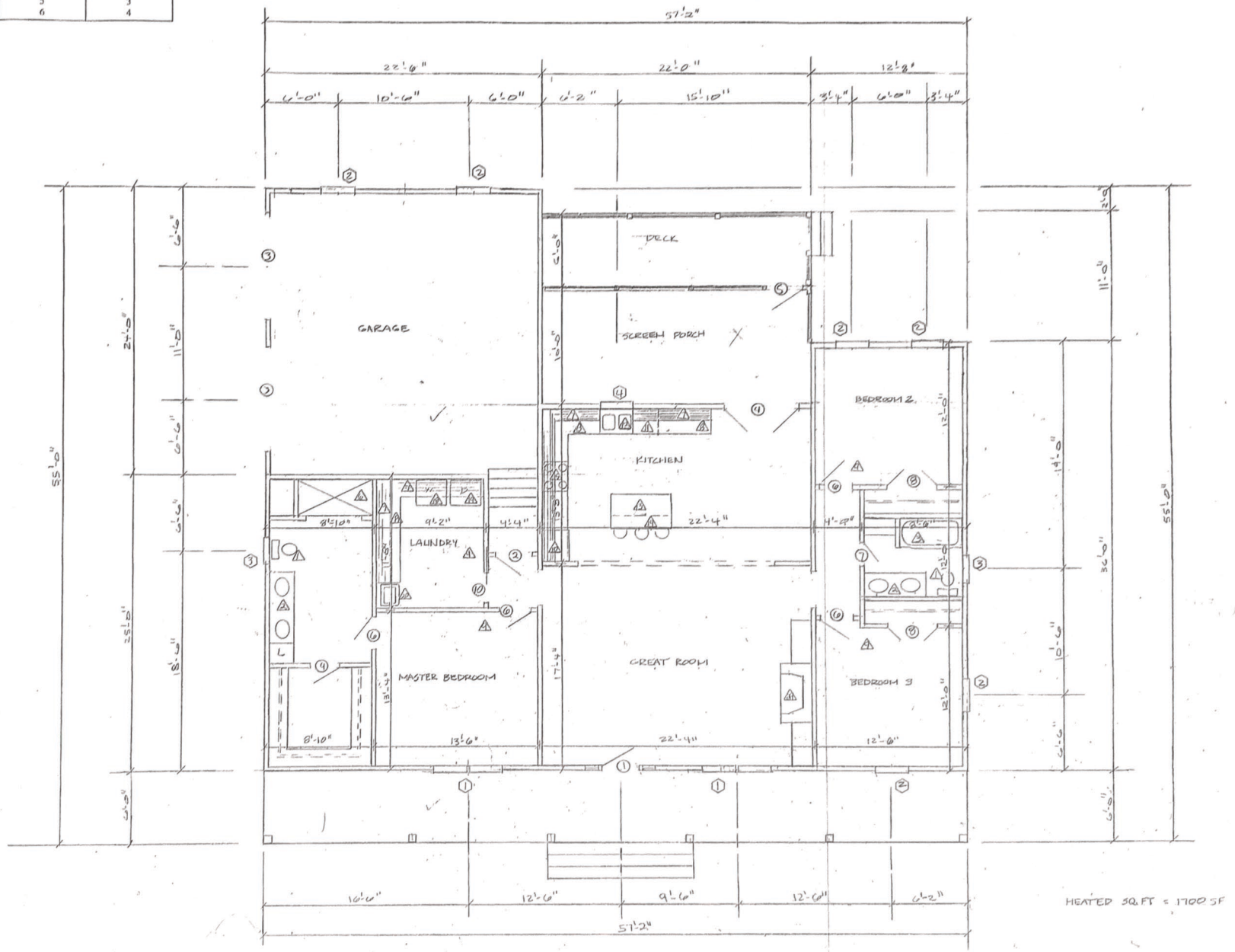
SCALE: AS NOTED

DATE: 10-29-09

SHEET: S-2

TABLE R602.7.5
MINIMUM NUMBER OF FULL HEIGHT STUDS AT EACH END OF HEADERS IN EXTERIOR WALLS

HEADER SPAN (feet)	MAXIMUM STUD SPACING (Inches) [per Table R602.3(5)]	
	16	24
≤ 3'	1	1
4'	2	1
8'	3	2
12'	5	3
16'	6	4



HEATED SQ. FT = 1700 SF

(1/S-3) FLOOR PLAN
SCALE: 1/4"=1'-0"

LEGEND
FIRST FLOOR & SECOND FLOOR

- CONCENTRATED LOAD LOCATION
- WOOD STUD WALL
- BRICK VENEER WALL
- CEILING JOIST 2 x 10 @ 16" OC #1 SPF UNLESS OTHERWISE NOTED
- BEAM AS NOTED
- NUMBER OF STUDS REQ'D FOR BEAM SUPPORT

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RESIDENCE FOR
LARYCE BARNES

FLOOR PLAN

ISSUED AS NOTED

DATE:

SHEET:
S-3

PREFABRICATED WOOD TRUSS NOTES:

1. PREFABRICATED METAL-PLATE-CONNECTED WOOD TRUSSES SHALL BE DESIGNED IN ACCORDANCE WITH THE NATIONAL FOREST PRODUCTS ASSOCIATION (NFPA) "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION" AND THE TRUSS PLATE INSTITUTE (TPI) "DESIGN SPECIFICATION FOR METAL-PLATE-CONNECTED WOOD TRUSSES.

2. WOOD TRUSS DESIGN LOADS SHALL BE AS FOLLOWS:

   A) TOP CHORD LOADING:
   LIVE LOAD = 20 PSF
   DEAD LOAD = 10 P.S.F. (PLUS ADDITIONAL 5 PSF AT SUPERIMPOSED ROOF FRAMING AREAS)
   WIND LOAD = NET UPLIFT REACTIONS, USE MAXIMUM RESISTING DEAD LOAD = 9 PSF TOTAL.

   B) BOTTOM CHORD LOADING:
   LIVE LOAD = AS REQUIRED BY NORTH CAROLINA STATE BUILDING CODE, LATEST EDITION.
   DEAD LOAD = 10 P.S.F.

   TRUSS DESIGN BASED ON BOTTOM CHORD IS NOT BRACED BY THE CEILING.

3. SUBMIT SHOP DRAWINGS AND CALCULATION PREPARED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF NORTH CAROLINA FOR THE DESIGN OF PREFABRICATED METAL-PLATE-CONNECTED WOOD TRUSSES. DESIGN INFORMATION SHALL INCLUDE DESIGN LOADINGS AND REACTIONS APPLIED TO THE SUPPORTING STRUCTURE. PROVIDE TRUSS UPLIFT REACTIONS FOR WIND FORCES SECONDARY BENDING STRESSES IN TRUSS TOP AND BOTTOM CHORDS DUE TO LOADS SHALL BE CONSIDERED IN THE DESIGN. THE CONTRACTOR SHALL PROVIDE TRUSS LAYOUT DRAWINGS SEALED BY A PROFESSIONAL ENGINEER FOR REVIEW AND APPROVAL. INCLUDE ALL TRUSS SPLICE DETAILS AND TRUSS TO TRUSS CONNECTION DETAILS

4. WOOD TRUSS FRAMING MEMBERS SHALL COMPLY WITH PS 20 "AMERICAN SOFTWOOD LUMBER STANDARD" AND THE FOLLOWING REQUIREMENTS:

   A) SPECIES – SOUTHERN PINE GRADED UNDER SPIB RULES.

   B) GRADE – NO. 2 MIN.

   C) MOISTURE CONTENT – SEASONED, WITH 19 PERCENT MAXIMUM MOISTURE CONTENT.

   D) SIZE – TOP AND BOTTOM CHORDS MINIMUM 2X6 WEBS – SIZE AS REQ'D.

5. WHERE MULTIPLE TRUSSES ARE INDICATED, SCAB TRUSS MEMBERS TOGETHER WITH 16d NAILS AT 12" ON CENTER, OR AS INDICATED ON TRUSS SHOP DRAWINGS. PROVIDE SAME NUMBER OF SUPPORT STUDS AS NUMBER OF MULTIPLE TRUSS PLIES.

6. TRUSS MANUFACTURER MAY USE ALTERNATIVE TRUSS WEB CONFIGURATIONS SUBJECT TO APPROVAL OF THE ENGINEER.

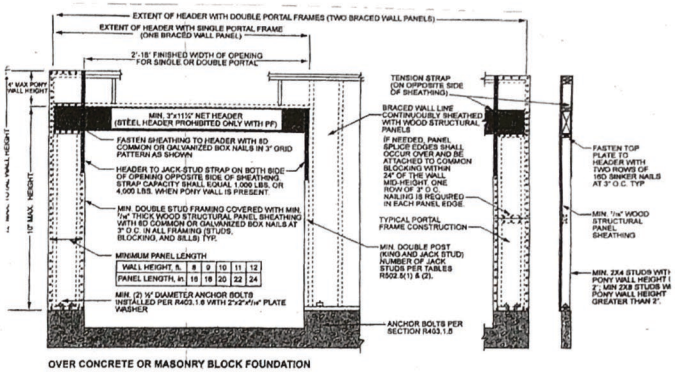
7. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY AND PERMANENT BRACING AS REQUIRED FOR SAFE ERECTION OF THE TRUSSES, OR AS RECOMMENDED BY THE MANUFACTURER. THE GUIDELINES SET FORTH IN THE TRUSS PLATE INSTITUTE PUBLICATION "BRACING WOOD TRUSSES, COMMENTARY AND RECOMMENDATIONS" SHALL BE CONSIDERED AS MINIMUM REQUIREMENTS.

8. METAL CONNECTOR PLATES SHALL COMPLY WITH ASTM A 446, GRADE A WITH COATING AS SPECIFIED.

9. METAL FRAMING ANCHORS SHALL COMPLY WITH ASTM A 446 GRADE A (STRUCTURAL QUALITY). OR MANUFACTURER'S PUBLISHED LOADS FOR REFERENCED ITEMS.

TABLE R602.7.5
MINIMUM NUMBER OF FULL HEIGHT STUDS AT EACH END OF HEADERS IN EXTERIOR WALLS

HEADER SPAN (feet)	MAXIMUM STUD SPACING (inches) [per Table R602.3(5)]	
	16	24
≤ 3'	1	1
4'	2	1
8'	3	2
12'	5	3
16'	6	4



OVER CONCRETE OR MASONRY BLOCK FOUNDATION

5-4 ROOF FRAMING PLAN
SCALE 1/4"=1'-0"

LEGEND
ROOF LEGEND
- 4"x 6" BRACE FOR HIP & VALLEY TO BEAM OR BEAM OR BEARING WALL
- ROOF RAFTER, 2 x 8 @ 16 OC & 2 STP UNLESS OTHERWISE NOTED
- RIDGE
- DOUBLE RAFTERS
- WOOD STUD WALL
- BRICK VENEER WALL

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RESIDENCE FOR
LARYCE BARNES

ROOF FRAMING PLAN

SCALE: AS NOTED

DATE: 10-29-20

SHEET: 5 - 4

Attic Ventilation

Required

2600 SQ Ft of Attic / 600 = 4.3 SQ. Ft. Each of Inlet & Outlet

Provided

Inlet 09 SQ. FT. Per x _____ Linear Ft. of vent = _____ SQ. FT. of vent

Outlet 09 SQ. FT. Per x _____ Linear FT. of vent = _____ SQ Ft of vent

- Calculations shown, consider ventilators used at least 3 feet above the cornice vents.
- Cathedral ceilings shall have a 1" minimum clearance between the bottom of the roof deck and the insulation.

Crawl Space Ventilation

Required

2263 SQ. FT. / 150 = 15 SQ. FT. of Ventilation

Provided

44 SQ. FT. / Vent x 23 Vents = 10.12

Use _____ Type 8 (SQ. FT. of Ventilation)

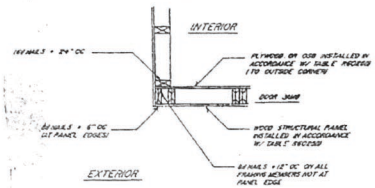
An approved vapor retarder shall be installed to cover 100% of the crawl space area. Vents shall be so placed as to provide ventilation at all points and prevent dead air pockets.

Note: Foundation vents sized for 1/150 ratio. Provide ground vapor barrier IAW NC BC Section 409.

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.



WIND BRACE DETAIL

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 BATHTUB 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 (PATIO TYPE)
5. ALL SWINGING EXIT 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, SLEEPING PATIOS OR DESIGNED WALKING SURFACE ON EITHER SIDE WITHIN 36 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 INFILL PANELS.

NOTE: WALL HEIGHT THAT EXCEEDS 10' MUST BE 2 x 6 STUDS @ 12" OC

Equipment Schedule

Mark	Description
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

NOTE: VINYL INSULATED FRAME WINDOWS

Notes:

Any special order window, door, or fixture should not be ordered until the building is rough framed to verify actual dimensions for correct order. Plan dimensions may vary and should not be used for special order items.

Window Schedule

Mark	Description
1	2-2'-8" x 4'-6"
2	2'-8" x 4'-6"
3	2'-4" x 3'-2"
4	2'-8" x 3'-2"

Door Schedule

Mark	Description
1	3'-0" x 6'-8" x 1 3/4" W/SIDE LITES
2	3'-0" x 6'-8" x 1 3/4" FIRE RATED METAL
3	9'-0" x 8'-0" GARAGE
4	2-3'-0" x 6'-8" x 1 3/4 FRENCH
5	3'-0" x 6'-8" SCREEN
6	2'-8" x 6'-8" x 1 3/8"
7	2'-0" x 6'-8" x 1 3/8"
8	2-2'-0" x 6'-8" x 1 3/8"
9	2'-4" x 6'-8" x 1 3/8"
10	2'-8" x 6'-8" POCKET

Finish Schedule

	Foyer	Living Room	Dining Room	Library / Study / Office	Tub Bath	Great Room	Kitchen	Breakfast	Powder Room	Sun Room	Utility / Laundry Room	Garage	Screen Porch	Master Bedroom	Master Bath	Bedroom 2	Bedroom 3	Bedroom 4	Bedroom 5	Bath 2	Bath 3	Bath 4	Master Bath/Porch Closet	Exercise Room	Mud Room	Front Porch
Floor:																										
Carpet																										
Ceramic tile																										
Hardwood																										
Italian Tile																										
Vinyl Tile																										
Concrete																										
Laminate																										
Wall:																										
Sheetrock																										
Ceramic Tile																										
Ceiling:																										
Sheetrock																										

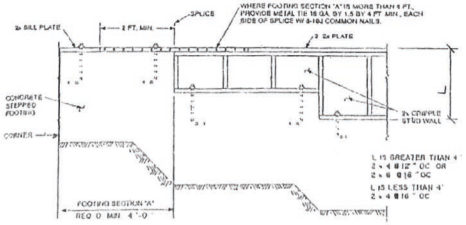
BY OWNER

Standard Notes:

1. The design of this building is based on the requirements of North Carolina residential code 2012 Ed.
2. Foundation drainage shall be installed based on the site condition as required by sec 405 & 406 NCBC 2012 Ed.
3. 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.
4. Mean or assumed roof height _____
5. The roof & wall cladding is designed for a 25 psf positive and negative wind loading.
6. Energy Compliance
   A. Window U-Factor & design pressure (see attached manufacturer's literature.) 0.35 x UR
   B. Insulation R Valves
      Ceiling/Roof R-38
      Wall R-15
      Floor R-19
   C. Fenestration Calculation
7. Treated Lumber To Be # 2 SP
   All Other Framing Lumber To Be # 2 SPF

NOTE:

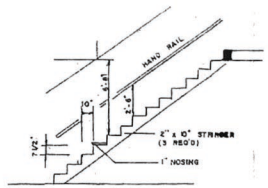
ALL ROOF AREA W/SLOPE LESS THAN 3 1/2 /12 TO BE SINGLE PLY MEMBRANE ROOF. ALL SHINGLE AREAS @ VALLEYS WITH SLOPE LESS THAN 3 1/2 /12 TO BE COVERED WITH ICE DAM MEMBRANE



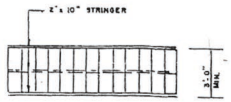
For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

Note: Where footing Section "A" is less than 8 feet long to a 35 foot solid length wall, provide bracing at angle and end.

FIGURE R602.11.3
STEPPED FOUNDATION CONSTRUCTION



STAIR SECTION



PLAN

STAIR DETAIL

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.

STRUCTURAL STEEL NOTES

1. ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM A-36. DESIGN, FABRICATION, AND ERECTION SHALL CONFORM TO "AISC SPECIFICATIONS FOR BUILDINGS", LATEST EDITION.
2. ALL STRUCTURAL STEEL SHAPES WIDE FLANGE, PLATES AND BARS – SHALL BE ASTM A 36, Fy = 36KSI
3. ALL COLD-FORMED STRUCTURAL STEEL TUBING – SHALL BE ASTM A 500, GRADE B, Fy = 46 KSI
4. ANCHOR BOLTS – SHALL BE ASTM A 307, Fy = 36 KSI
5. CONNECTIONS NOT DETAILED SHALL BE DESIGNED FOR LOADS GIVEN IN STANDARD AISC LOAD TABLES FOR LENGTH, SECTIONS AND STRENGTH SPECIFIED, BOLTED USING ½" H. S. BOLTS (A325), EXCEPT WHERE FIELD WELDING IS SHOWN.
6. ALL WELDING SHALL BE IN ACCORDANCE WITH AWS D1.1, "STRUCTURAL WELDING CODE – STEEL". WELD ELECTRODES SHALL BE E70XX. PROVIDE 3/16" CONTINUOUS FILLET WELDS UNLESS OTHERWISE NOTED.
7. WORK THESE DRAWINGS WITH THE ARCHITECTURAL DRAWINGS FOR DETAILS AND SECTIONS.
8. 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

1. ROUGH CARPENTRY SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL FOREST PRODUCTS ASSOCIATION (NFPA) "NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION."
2. WOOD FRAMING MEMBERS PERMANENTLY EXPOSED TO THE WEATHER AND ALL SILL PLATES AROUND THIS BUILDING PERIMETER SHALL BE PERSERVATIVE-TREATED IN ACCORDANCE WITH THIS SPECIFICATIONS.
3. UNLESS OTHERWISE NOTED, ALL NAILING FASTENERS SHALL CONFORM TO "FASTENING SCHEDULE" OF THE NORTH CAROLINA STATE BUILDING CODE, LATEST EDITION.
4. CONSTRUCTION PANELS SHALL COMPLY WITH PS 1 "U.S. PRODUCT STANDARD FOR CONSTRUCTION AND INDUSTRIAL PLYWOOD" FOR PLYWOOD CONSTRUCTION PANELS AND THE FOLLOWING REQUIREMENTS:
   A) EXTERIOR WALL AND SHEARWALL WALL SHEATHING IS APA RATED SHEATHING, EXTERIOR EXPOSURE I EXPOSURE DURABILITY CLASSIFICATION.
   B) ROOF SHEATHING: "APA RATED SHEATHING, EXTERIOR EXPOSURE DURABILITY CLASSIFICATION."
5. WOOD FRAMING SHALL COMPLY THE FOLLOWING REQUIREMENTS.
   A) MOISTURE CONTENT – SEASONED, WITH 19 PERCENT MAXIMUM MOISTURE CONTENT
   B) GRADE – (#2) 2, SPF
6. PROVIDE DOUBLE JOISTS UNDER ALL PARTITIONS WHICH RUN PARALLEL WITH JOISTS. PROVIDE MULTIPLE STUDS AS INDICATED ON THE PLANS.
7. PROVIDE HEADERS OF THE SAME CROSS SECTION AS JOISTS OR RAFTERS TO FRAME AROUND ALL OPENINGS TO SUPPORT SHEATHING.
8. ATTACH BLOCKING AND NAILERS TO FRAMING USING 3/16" DIAMETER POWDER ACTUATED FASTENERS AT 24" ON CENTER OR DIAMETER BOLTS AT 48" ON CENTER STAGGER FASTENERS TO ALTERNATE SIDES OF BEAM WEB.

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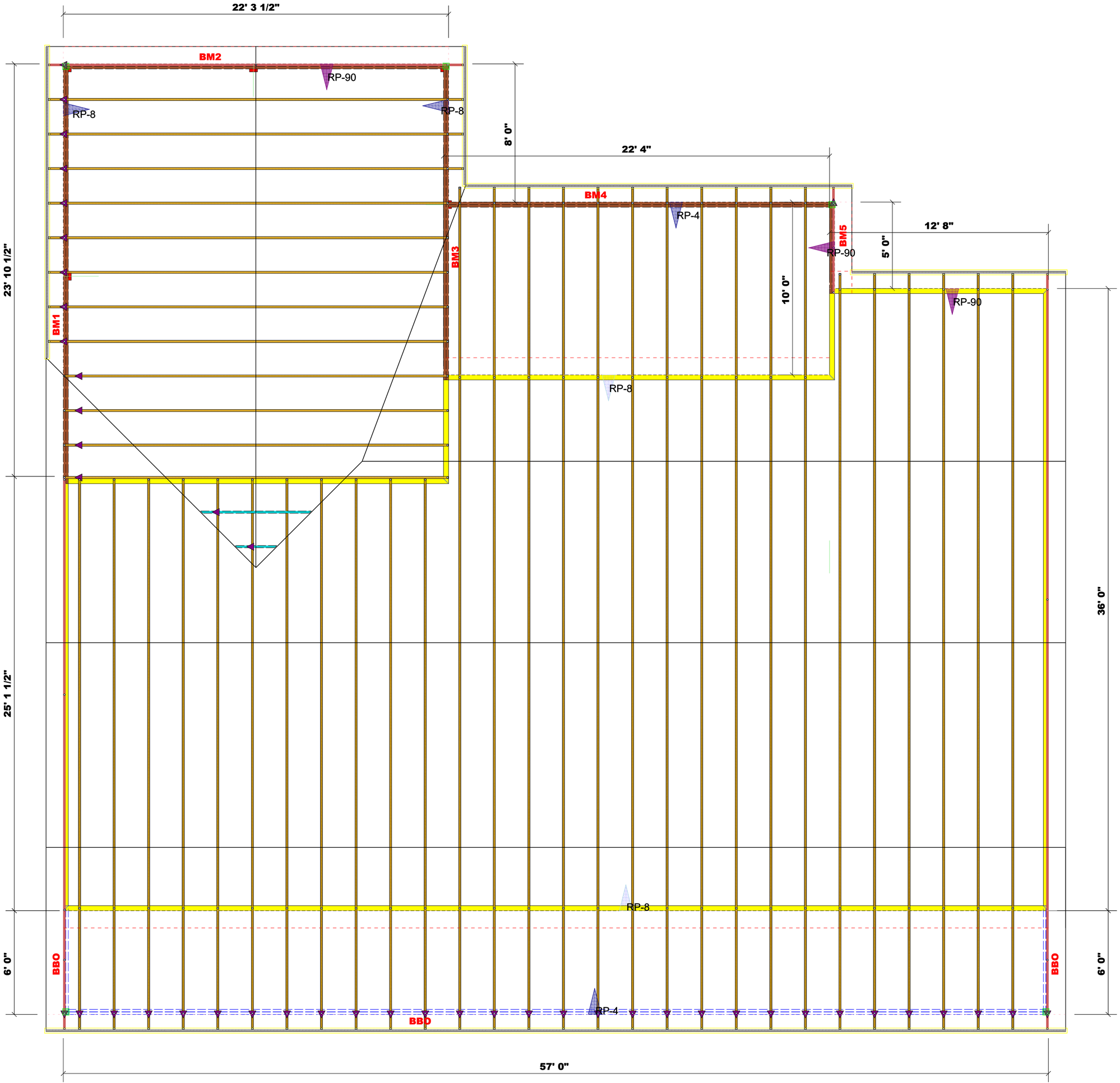
RESIDENCE FOR
LARYCE BARNES

SCHEDULE SHEET

DATE 10-29-20

SHEET

S-5


22' 3 1/2"
BM2
RP-90
RP-8
RP-8
8' 0"
22' 4"
BM4
RP-4
BM5
12' 8"
RP-90
5' 0"
23' 10 1/2"
BM3
BM1
10' 0"
RP-90
RP-8
36' 0"
25' 1 1/2"
RP-8
6' 0"
BBO
BBO
RP-4
BBO
6' 0"
57' 0"