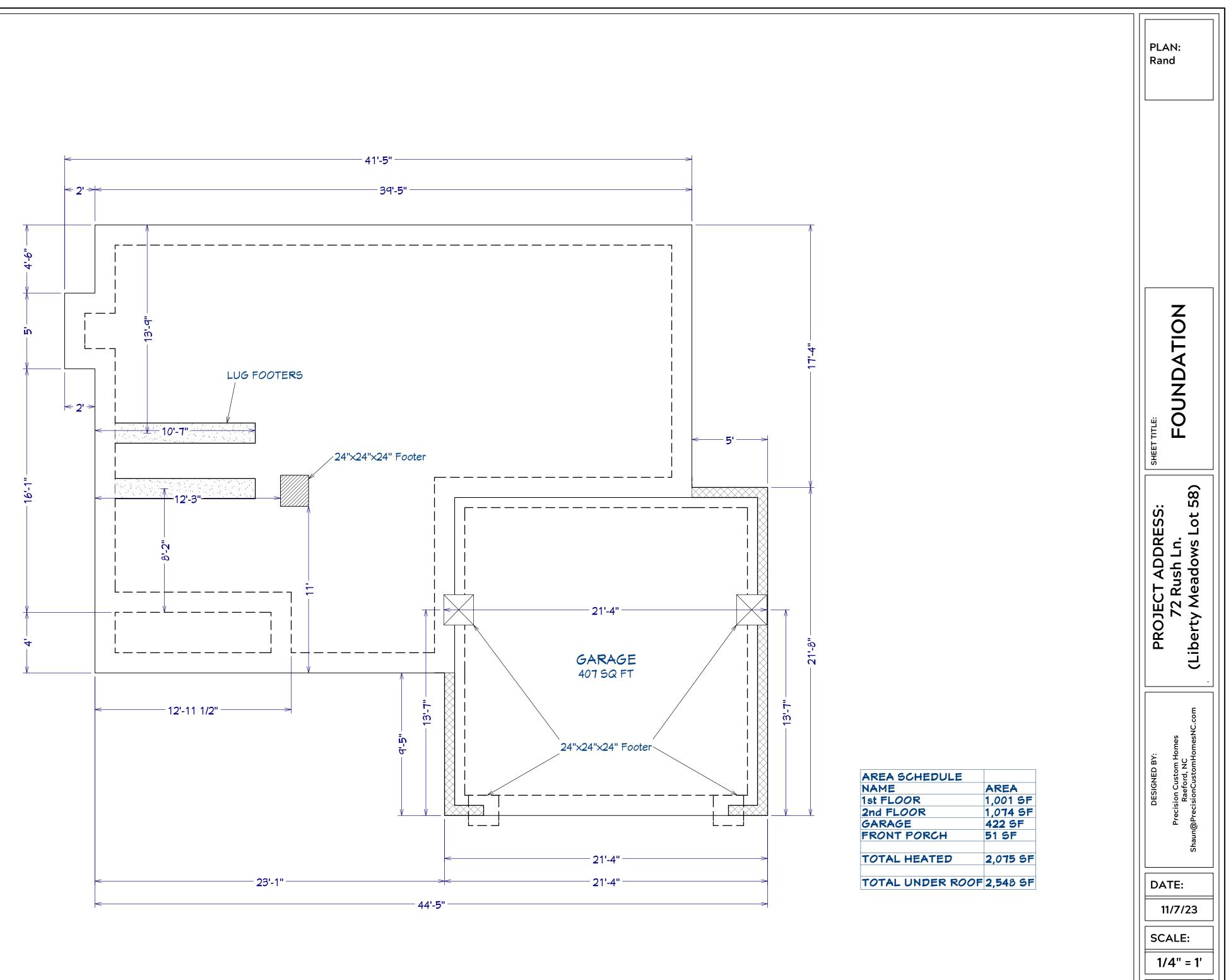




LEFT ELEVATION

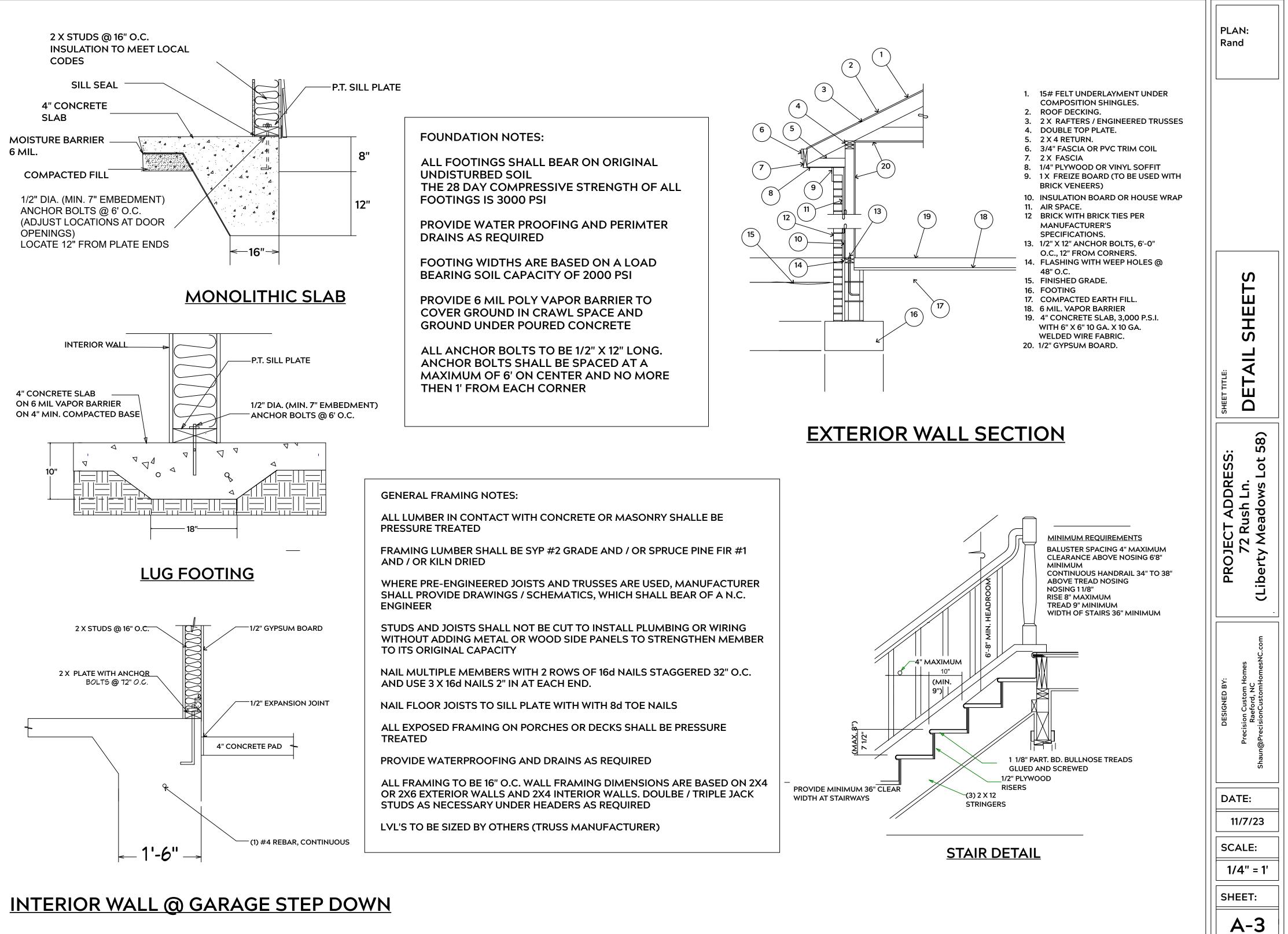
Scale: 1/8" = 1'0"

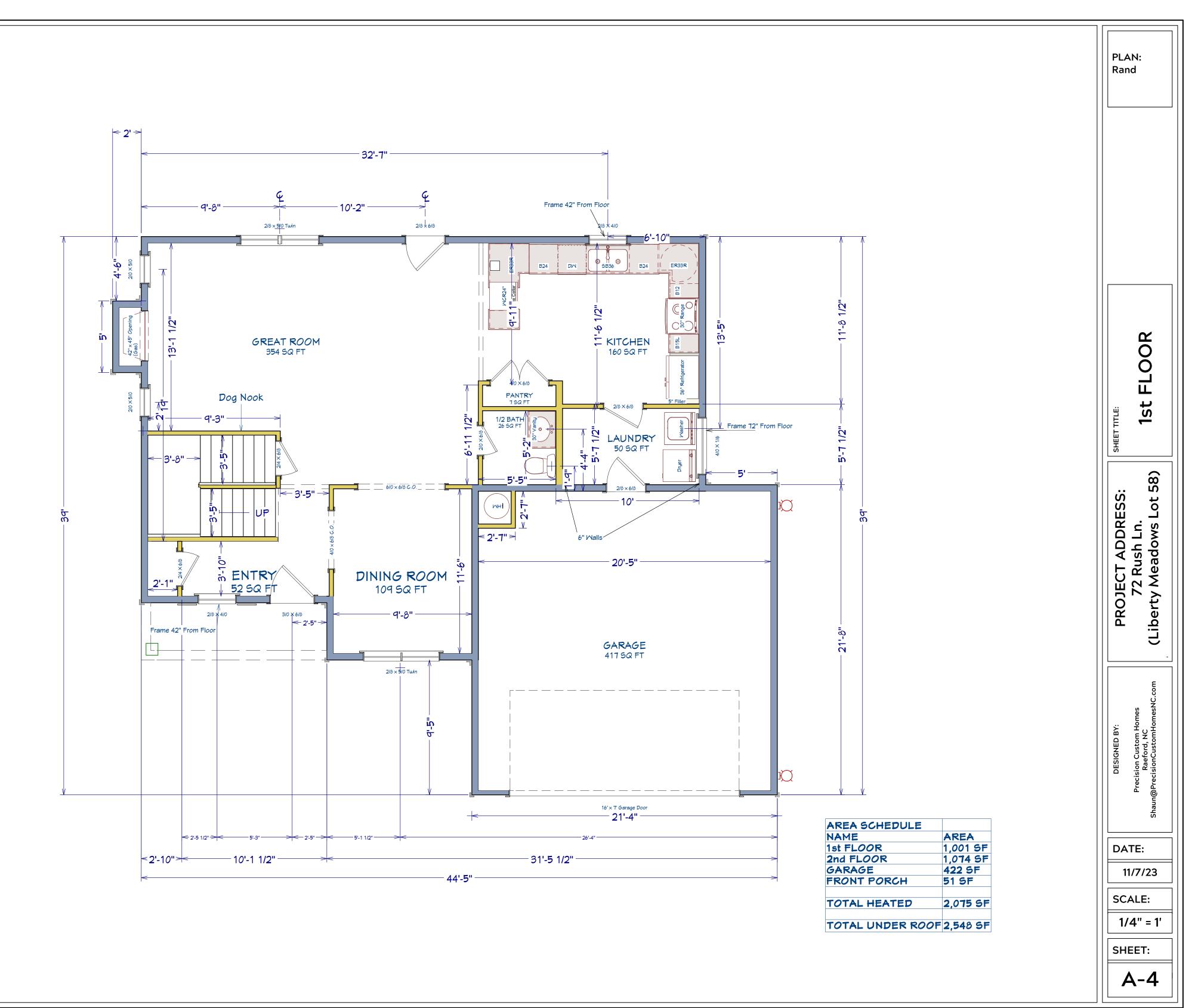


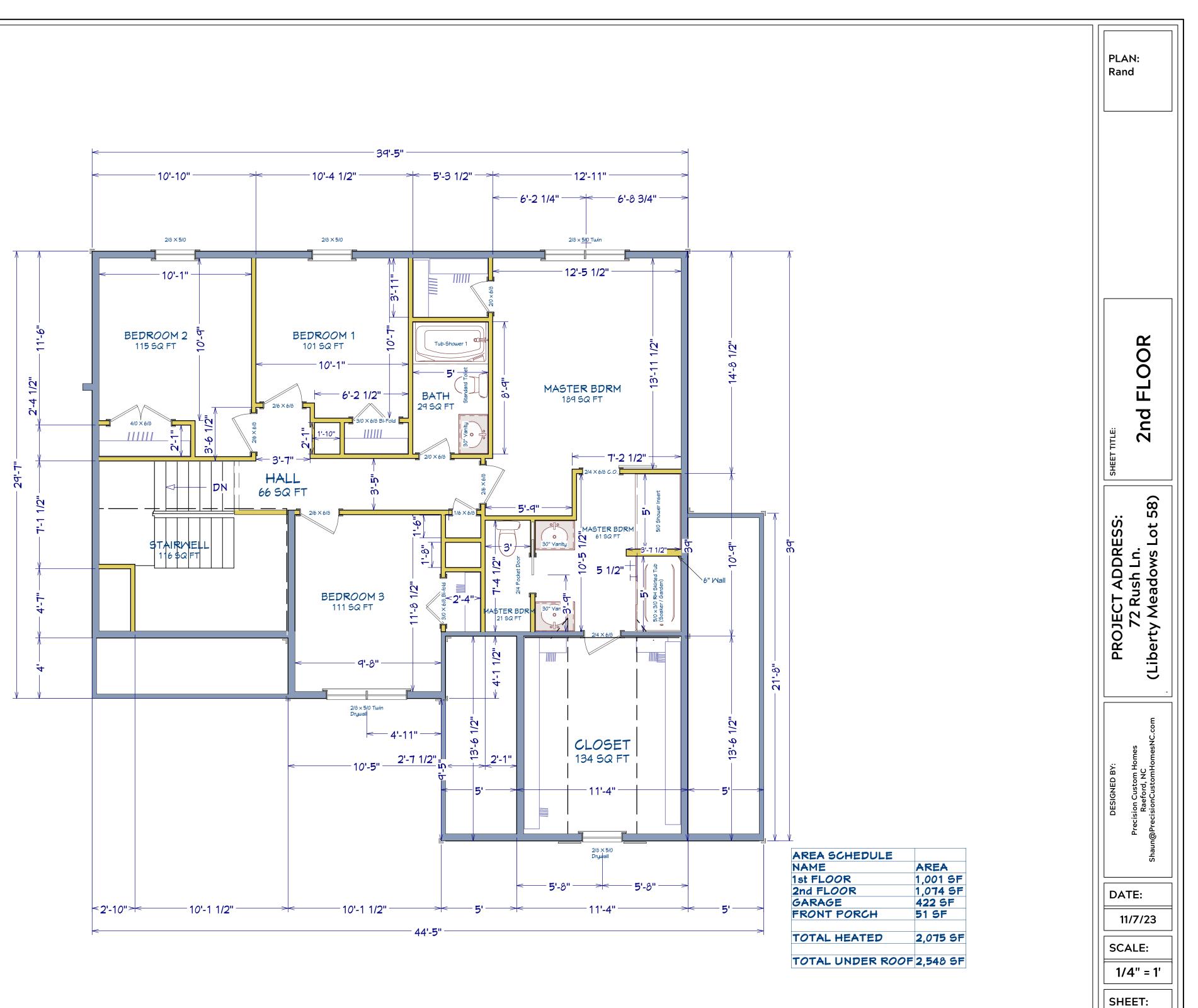
FOUNDATION PLAN Scale: 1/4" = 1'0"

SHEET:

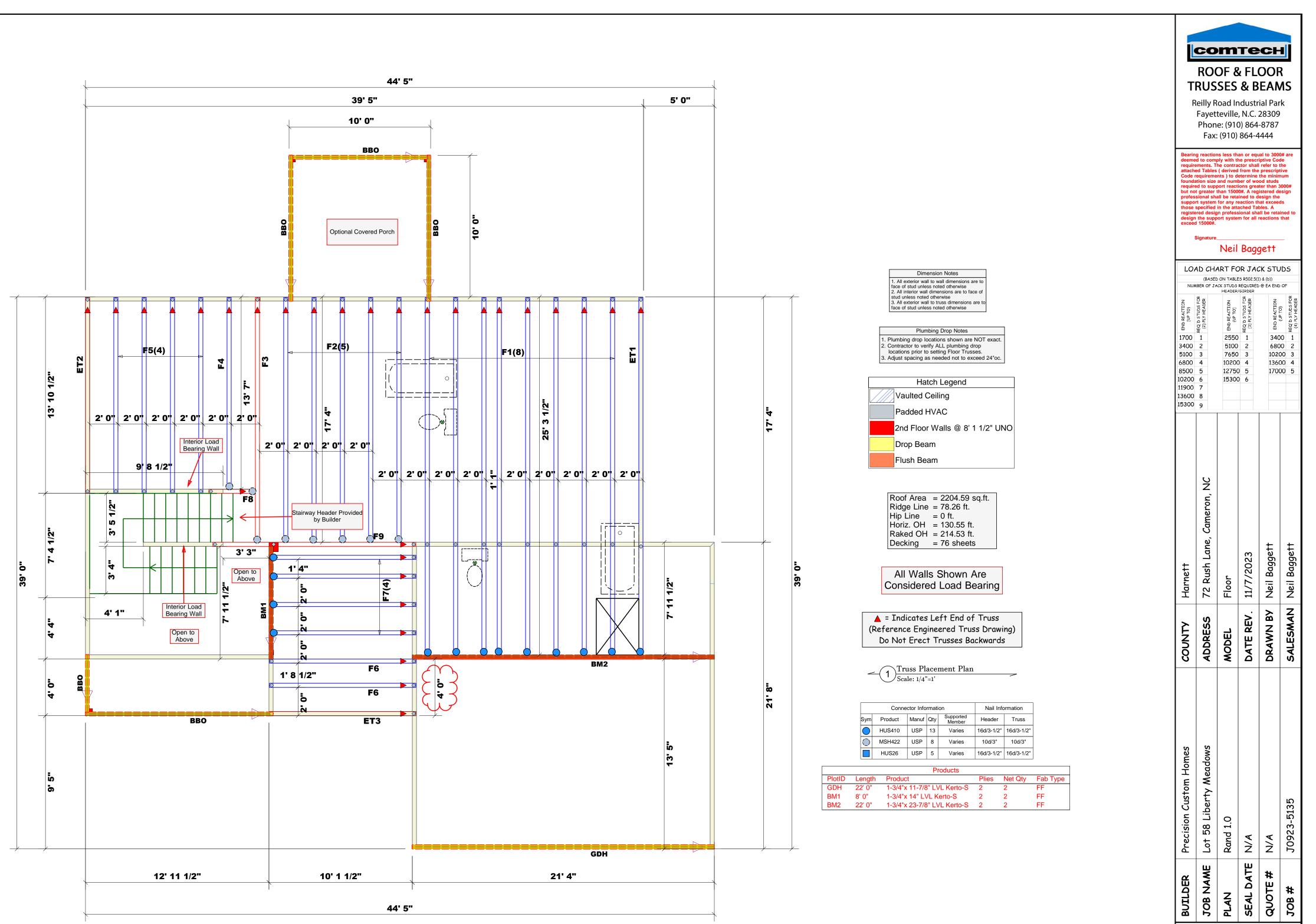
A-2





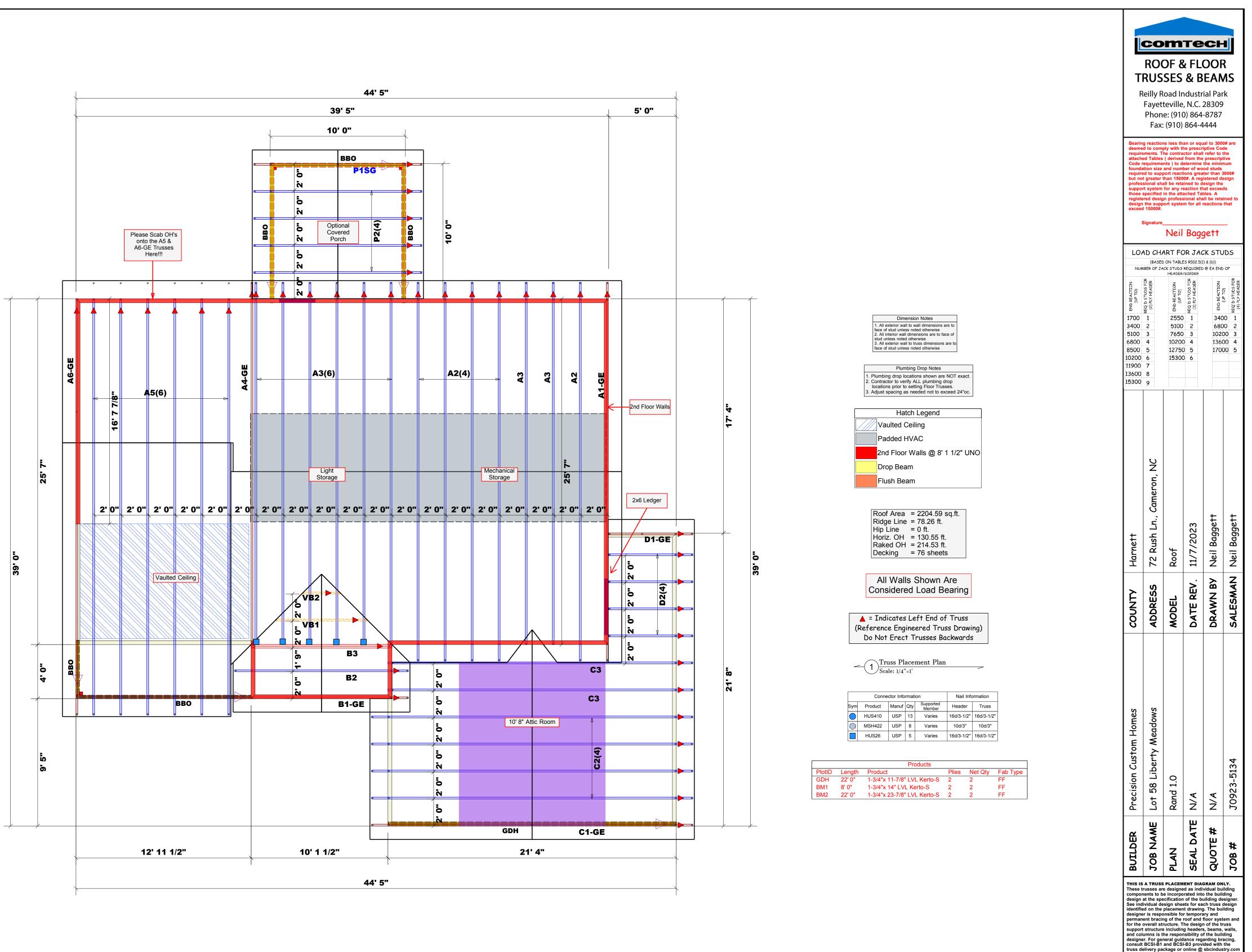


A-5



THIS IS A TRUSS PLACEMENT DIAGRAM ONLY. THIS IS A TRUSS PLACEMENT DIAGRAM ONLY. These trusses are designed as individual building components to be incorporated into the building design at the specification of the building designer. See individual design sheets for each truss design identified on the placement drawing. The building designer is responsible for temporary and permanent bracing of the roof and floor system and for the overall structure. The design of the truss support structure including headers, beams, walls, and columns is the responsibility of the building designer. For general guidance regarding bracing, consult BCSI-B1 and BCSI-B3 provided with the truss delivery package or online @ sbcindustry.com

russ delivery package or online @ sbcindustry.co



truss delivery package or online @ sbcindustry.com

North Carolina 2018 - R402.1.5 Total UA

Property

16 Hancock Ct Cameron, NC 28326 Model: Rand Community: Liberty Meadows

Template - SMG Precision - Liberty Meadows Lot 35 - CZ 4 slab -Liberty Meadows Lot 35 Organization

Southern Energy Manager Justin Smith

Inspection Status Results are projected



Builder SMG Precision Properties

This report is based on a proposed design and does not confirm field enforcement of design elements.

Building UA

Elements	NC Reference	As Designed
Ceilings	38.6	36.7
Above-Grade Walls	177.6	131.8
Windows, Doors and Skylights	89.6	79.3
Slab Floor:	65.9	85.5
Framed Floors	13.4	14.6
Foundation Walls	0.0	0.0
Rim Joists	7.1	5.7
Overall UA (Design must be equal or lower):	392.2	353.6

Requirements

	R402.1.5	Total UA alternative compliance passes by 9.8%.	The proposed home meets the UA requirement by 9.8%
\bigcirc	402.3.2	Average SHGC: 0.28 Max SHGC: 0.30	Average SHGC of 0.28 is greater than the maximum of 0.30.
\bigcirc	R402.4.2.2	Air Leakage Testing	Air sealing is 0.28 CFM50 / ft ² Shell Area. It must not exceed 0.30 CFM50 / ft ² Shell Area.
\bigcirc	R402.5	Area-weighted average fenestration SHGC	Area-weighted average fenestration SHGC is 0.28. The maximum allowed value is [No Limit].
\bigcirc	R402.5	Area-weighted average fenestration U-Factor	
\bigcirc	R404.1	Lighting Equipment	At least 75.0% of fixtures shall be high-efficacy lamps, currently 90.0% are high- efficacy.
\bigcirc	Mandatory Checklist	Mandatory code requirements that are not checked by Ekotrope must be met.	2015 IECC Mandatory Checklist must be checked as complete.
\bigcirc	R403.3.1	Duct Insulation	Duct insulation meets the requirements specified in North Carolina 2018 Code Section 403.3.1.
\bigcirc	403.3.3	Duct Testing	

Design exceeds requirements for North Carolina 2018 Prescriptive compliance by 9.8%.

Name:	Justin Smith	Signature:	Justin Smith
Organization:	Southern Energy Management	Digitally signed:	8/17/23 at 11:42 AM

North Carolina 2018 Prescriptive compliance results calculated using Ekotrope RATER's energy and code compliance algorithm, including appropriate amendments. Ekotrope RATER is a RESNET Accredited HERS Rating Tool. All results are based on data entered by Ekotrope users. Ekotrope disclaims all liability for the information shown on this report.

Property 16 Hancock Ct Cameron, NC 28326 Model: Rand Community: Liberty Meadows

Template - SMG Precision - Liberty Meadows Lot 35 - CZ 4 slab - ecoSelect Liberty Meadows Lot 35

Organization Southern Energy Management Justin Smith

Builder

SMG Precision Properties

Inspection Status Results are projected



General Building Information	
Number Of Bedrooms	4
Number Of Floors	2
Conditioned Floor Area [sq. ft.]	2,075
Has Electric Vehicle Ready Space	No
Unconditioned, attached garage?	Yes
Conditioned Volume [cu. ft.]	18,602
Total Units in Building	1
Residence Type	Single family detached
Number of Floors in Building	-
Floor Number	-
Model	Rand
Community	Liberty Meadows
RESNET/IECC 2006-2018 Climate Zone	4A
IECC 2021 Climate Zone	3A

Foundation Wall

None Present

Foundation Wall Library List

None Present

Slab									
Na	me	Library Type	Perimeter	Floor Grade	Carpet R	Exposed Masonry Area	Surface Area	Location	Enclosing
sl	ab	Uninsulated	138	On Grade	1	0	1,001.0 ft²	Exposed Exterior	Conditioned Space

Slab Library List									
Name	Wall Construction Type		Underslab Insulation Width [t]	Perimeter Insulation Depth [t]	Perimeter Insulation R Value	Perimeter Insulation Is Exterior	Thermal Break Effe	ctive R-value	
Uninsulated	Wood Frame / Other	No	0	0	0	Yes	No	0.00	

Property 16 Hancock Ct Cameron, NC 28326 Model: Rand Community: Liberty Meadows

Organization Southern Energy Management Justin Smith

SMG Precision Properties

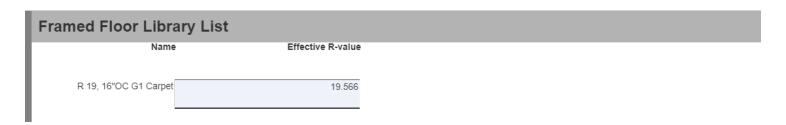
Builder

Inspection Status Results are projected



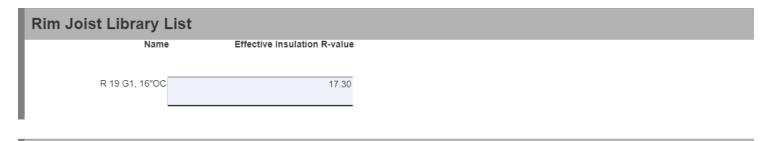
Template - SMG Precision - Liberty Meadows Lot 35 - CZ 4 slab - ecoSelect Liberty Meadows Lot 35

Framed Floor Name Library Type Carpet R Floor Grade Surface Area Location over garage R 19, 16"OC G1 Carpet 0 Above Grade 286.0 ft2 Unconditioned, attached garage



Rim Joist

Name	e Library Type	Surface Area	Location
1st floor ambient	R 19 G1, 16"OC	100.0 ft²	Exposed Exterior
1st floor garage	R 19 G1, 16"OC	28.0 ft²	Unconditioned, attached garage



Wall Library Type Surface Color Name Surface Area Location 1st floor ambient R 19 Adv. Framing G1 16" O.C Medium 993.0 ft2 Exposed Exterior 1st floor garage R 19 Adv. Framing G1 16" O.C Medium 249.0 ft² Unconditioned, attached garage R 19 Adv. Framing G1 16" O.C 2nd floor ambient Medium 800.0 ft² Exposed Exterior 2nd floor attic R 19 Adv. Framing G1 16" O.C 520.0 ft² Attic Medium

Property 16 Hancock Ct Cameron, NC 28326 Model: Rand Community: Liberty Meadows

Template - SMG Precision - Liberty Meadows Lot 35 - CZ 4 slab - ecoSelect Liberty Meadows Lot 35

Organization Southern Energy Management Justin Smith

Builder

SMG Precision Properties

Inspection Status Results are projected



Wall Libr	ary List	
	Name	Effective R-value
R 19 Adv. Fra	ming G1 16" O.C	17.492

Glazing

NameLibrary TypeWall AssignmentFoundation Wall AssignmentIs Operable Wall AssignmentOverhang Overhang Ft To DepthOverhang Ft To TopOverhang Ft To BottomOrientationSufront 2nd unshaded33/282nd floor ambientYes000Westfront shaded33/281st floor ambientYes515Westfront unshaded33/281st floor ambientYes000Westleft unshaded33/281st floor ambientYes000West	5								
front shaded33/281st floor ambientYes515Westfront unshaded33/281st floor ambientYes000Westleft unshaded33/281st floor ambientYes000North	Name	e Library Type	Wall		Overhang Depth	Overhang Ft To Top	Overhang Ft To Bottom	Orientation	Surface Area
Image: state in the state in	front 2nd unshaded	33/28		Yes	0	0	0	West	40.5 ft²
ambient Yes 0 North	front shaded	33/28		Yes	5	1	5	West	10.8 ft²
	front unshaded	33/28		Yes	0	0	0	West	27.0 ft²
	left unshaded	33/28		Yes	0	0	0	North	20.0 ft²
rear 2nd unshaded 33/28 2nd floor Yes 0 0 0 East	rear 2nd unshaded	33/28		Yes	0	0	0	East	54.0 ft²
rear unshaded 33/28 1st floor Yes 0 0 0 East	rear unshaded	33/28		Yes	0	0	0	East	57.8 ft²
right unshaded 33/28 1st floor Yes 0 0 0 South ambient	right unshaded	33/28		Yes	0	0	0	South	6.0 ft²

Glazing Library List

Name	Shgc	U-factor
33/28	0.28	0.330

Skylight

None Present

Skylight Library List

None Present

Property 16 Hancock Ct Cameron, NC 28326 Model: Rand Community: Liberty Meadows

Template - SMG Precision - Liberty Meadows Lot 35 - CZ 4 slab - ecoSelect Liberty Meadows Lot 35

Organization Southern Energy Management Justin Smith

Builder SMG Precision Properties

Inspection Status Results are projected



Opaque Dooi Name		Wall Assignment	Foundation Wall Assignment	Emittance	Solar Absorptance	Surface Color	Surface Area	Location
front entry	Fiberglass R-5	1st floor ambient		0.9	0.75	Medium	20.0 ft²	Exposed Exterior
garage entry	Fiberglass R-5	1st floor garage		0.9	0.75	Medium	20.0 ft²	Unconditioned, attached garage

Opaque Door Library List Name Effective U-factor Fiberglass R-5 0.200

Roof Insulation	on					
Name	Library Type	Attic Exterior Area [ft ²]	Clay or Concrete Roof Tiles		Surface Area	Location
attic	R 38 Attic BLOWN FG G1 2x10 24"OC NO	1,891.89	No	Dark	1,287.0 ft²	Attic

Roof Insulati	on Library List		
Name	Has Radiant Barrier	Effective R-value	
R 38 Attic BLOWN FG G1 2x10 24"OC NO Radiant Parrier	No	35.115	
Whole House	e Infiltration		
Infiltratior	Measurement Type	Shelter Class	
1488 CFM at 50 Pa	Blower-door tested	4	
Mechanical \			
	None Present		

Property 16 Hancock Ct Cameron, NC 28326 Model: Rand Community: Liberty Meadows

Template - SMG Precision - Liberty Meadows Lot 35 - CZ 4 slab - ecoSelect Liberty Meadows Lot 35

Organization Southern Energy Management Justin Smith

Inspection Status Results are projected



Builder SMG Precision Properties

Lighting					
% Interior Fluorescent Lighting		% Exterior Fluorescent Lighting	% Exterior LED Lighting	9 % Garage Fluorescent Lighting	% Garage LED Lighting
0	90	0	0	0	0

Onsite Generation

None Present

Onsite Generation Library List

None Present

Solar Generation

None Present

Dehumidifier

None Present

Dehumidifier Library List

None Present

Whole House Fan

None Present

Property 16 Hancock Ct Cameron, NC 28326 Model: Rand Community: Liberty Meadows

Template - SMG Precision - Liberty Meadows Lot 35 - CZ 4 slab - ecoSelect Liberty Meadows Lot 35

Organization Southern Energy Management Justin Smith

Inspection Status Results are projected



Builder SMG Precision Properties

Whole House Fan Library List

None Present

Conditioning	Equipment					
Name	Library Type	Serial Number	Heating Percent Load	Cooling Percent Load	Hot Water Percent Load	Location
1st floor heat pump	z 24k 14 SEER 8.0hspf		48%	48%	0%	Attic
2nd floor heat pump	z 24k 14 SEER 8.0hspf		52%	52%	0%	Attic
Water Heating	z 50 gal. 0.95 EF Elec		0%	0%	100%	Unconditioned Garage

Equipment Type: z 24k 14 SEER 8.0hspf		
Equipment Type	Air Source Heat Pump	
Fuel Type	Electric	
Distribution Type	Forced Air	
Motor Type	PSC (Single Speed)	
Heat Pump System Type	Unspecified	
Heating Efficiency	8 HSPF	
Heating Capacity [kBtu/h]	24	
Backup Fuel Type	Electric	
Switchover Temperature [°F]	0	
Backup Heating Efficiency	1 COP	
Use default Supplemental Heat	Yes	
Cooling Efficiency	14 SEER	
Cooling Capacity [kBtu/h]	24	

Equipment Type: z 24k 14 SEER 8.0hspf

Equipment Type	Air Source Heat Pump
Fuel Type	Electric
Distribution Type	Forced Air
Motor Type	PSC (Single Speed)
Heat Pump System Type	Unspecified
Heating Efficiency	8 HSPF
Heating Capacity [kBtu/h]	24
Backup Fuel Type	Electric
Switchover Temperature [°F]	0
Backup Heating Efficiency	1 COP
Use default Supplemental Heat	Yes
Cooling Efficiency	14 SEER
Cooling Capacity [kBtu/h]	24

Property 16 Hancock Ct Cameron, NC 28326 Model: Rand Community: Liberty Meadows

Template - SMG Precision - Liberty Meadows Lot 35 - CZ 4 slab - ecoSelect Liberty Meadows Lot 35

Organization Southern Energy Management Justin Smith

Inspection Status Results are projected



Builder SMG Precision Properties

Equipment Type: z 50 gal. 0.95 EF Elec Equipment Type Residential Water Heater Fuel Type Electric Hydronic Delivery (Radiant) Distribution Type Hot Water Efficiency 0.95 Energy Factor Tank Capacity (gal.) 50 Hot Water Capacity [kBtu/h] 40 Recovery Efficiency 0.98

Distribution System	
Distribution Type	Forced Air
Heating Equipment	1st floor heat pump
Cooling Equipment	1st floor heat pump
Sq. Feet Served	1,001
# Return Grilles	2
Supply Duct R Value	8
Return Duct R Value	8
Supply Duct Area [ft ²]	270.27
Return Duct Area [ft ²]	100.1
Leakage to Outdoors	40 CFM @ 25Pa (4 / 100 ft ²)
Total Leakage	40 CFM25
Total Leakage Duct Test Conditions	Post-Construction
Use Default Flow Rate	Yes
Duct 1	
Duct Location	Attic (well vented)
Percent Supply Area	70
Percent Return Area	70
Duct 2	
Duct Location	Conditioned Space
Percent Supply Area	30
Percent Return Area	30
Duct 3	
Duct Location	Conditioned Space
Percent Supply Area	0
Percent Return Area	0
Duct 4	
Duct Location	Conditioned Space
Percent Supply Area	0
Percent Return Area	0
Duct 5	
Duct Location	Conditioned Space
Percent Supply Area	0
Percent Return Area	0
Duct 6	0
Duct Location	Conditioned Space
Percent Supply Area	0
Percent Return Area	0

Property

16 Hancock Ct Cameron, NC 28326 Model: Rand Community: Liberty Meadows

Template - SMG Precision - Liberty Meadows Lot 35 - CZ 4 slab - ecoSelect Liberty Meadows Lot 35

Distribution System

Distribution Type Forced Air Heating Equipment 2nd floor heat pump Cooling Equipment 2nd floor heat pump Sq. Feet Served 1,074 # Return Grilles 2 Supply Duct R Value 8 Return Duct R Value 8 Supply Duct Area [ft2] 289.98 Return Duct Area [ft²] 107.4 Leakage to Outdoors 42 CFM @ 25Pa (3.91 / 100 ft2) 42 CFM25 Total Leakage Post-Construction Total Leakage Duct Test Conditions Use Default Flow Rate Yes Duct 1 Duct Location Attic (well vented) Percent Supply Area 100 Percent Return Area 100 Duct 2 Duct Location Conditioned Space 0 Percent Supply Area Percent Return Area 0 Duct 3 Duct Location Conditioned Space Percent Supply Area 0 0 Percent Return Area Duct 4 Duct Location Conditioned Space Percent Supply Area 0 Percent Return Area 0 Duct 5 Duct Location Conditioned Space Percent Supply Area 0 Percent Return Area 0 Duct 6 Duct Location Conditioned Space Percent Supply Area 0 Percent Return Area 0

Organization

Justin Smith

SMG Precision Properties

Builder

HVAC Grading

HVAC Grading Not Conducted

Ceiling Fan

Has Ceiling Fan Cfm Per Watt

No 100

Inspection Status Southern Energy Management Results are projected



Property 16 Hancock Ct Cameron, NC 28326 Model: Rand Community: Liberty Meadows

Template - SMG Precision - Liberty Meadows Lot 35 - CZ 4 slab - ecoSelect Liberty Meadows Lot 35

Water Distribution

Water Fixture Type	Low-flow
Use Default Hot Water Pipe Length	No
Hot Water Pipe Length [ft]	84
At Least R3 Pipe Insulation?	No
Hot Water Recirculation System?	No
Recirculation System Pipe Loop Length [ft]	20
Drain Water Heat Recovery?	No

Organization

Justin Smith

SMG Precision Properties

Builder

Clothes Dryer	
Cef	3.01
Fuel Type	Electric
Field Utilization	Timer Controls
Is Outside Conditioned Space	No
Clothes Dryer Available	Yes
Defaults Type	HERS Reference

Clothes Washer

Label Energy Rating	153 kWh/Year
Annual Gas Cost	\$12.00
Electric Rate	\$0.11/kWh
Gas Rate	\$1.22/Therm
Capacity	3.31
Imef	2.1547
Defaults Type	Custom
Load Type	Front-load
Loads Per Week	6
Is Outside Conditioned Space	No
Clothes Washer Available	Yes

Dishwasher	
Dishwasher Efficiency	270 kWh
Dishwasher Size	Standard
Annual Gas Cost	\$22.23
Electric Rate	\$0.12/kWh
Gas Rate	\$1.09/Therm
Is Outside Conditioned Space	No

Inspection Status Southern Energy Management Results are projected SOUTHERNENERGY M A N A G E M E N T ENERGY EFFICIENCY & SOLAR POWER

Property 16 Hancock Ct Cameron, NC 28326 Model: Rand Community: Liberty Meadows

Template - SMG Precision - Liberty Meadows Lot 35 - CZ 4 slab - ecoSelect Liberty Meadows Lot 35

Organization Southern Energy Management Justin Smith

Inspection Status Results are projected



Builder SMG Precision Properties

Appliances and Controls	
Thermostat Cooling Setpoint	* * * * 75.0
Thermostat Heating Setpoint	* * * * 70.0
Range/Oven Fuel	Electric
Convection Oven?	No
Induction Range?	No
Range/Oven Outside Conditioned Space?	No
Refrigerator Consumption	538 kWh/Year
Refrigerator Outside Conditioned Space?	No

Notes

Initial Inputs _____JS 08/17/23__

-confirm HVAC specs -confirm water heater specs -confirm ventilation entry -modeled to worst case orientation -confirm cfl lighting %