

FRONT ELEVATION

Scale: 1/4" = 1'0"

9'0" CEILING HEIGHT FIRST FLOOR (HEADER HEIGHT 7'6") 8'0" CEILING HEIGHT SECOND FLOOR (Frame Headers directly below double top plate')

FRAME WINDOWS TO HEADER HEIGHT



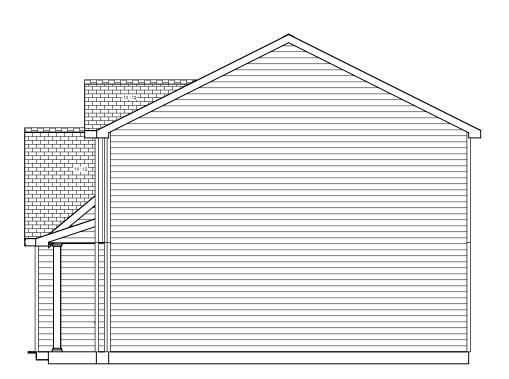
LEFT ELEVATION

Scale: 1/8" = 1'0"



REAR ELEVATION

Scale: 1/8" = 1'0"



NOTICE TO 0

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

10/10/2023

50

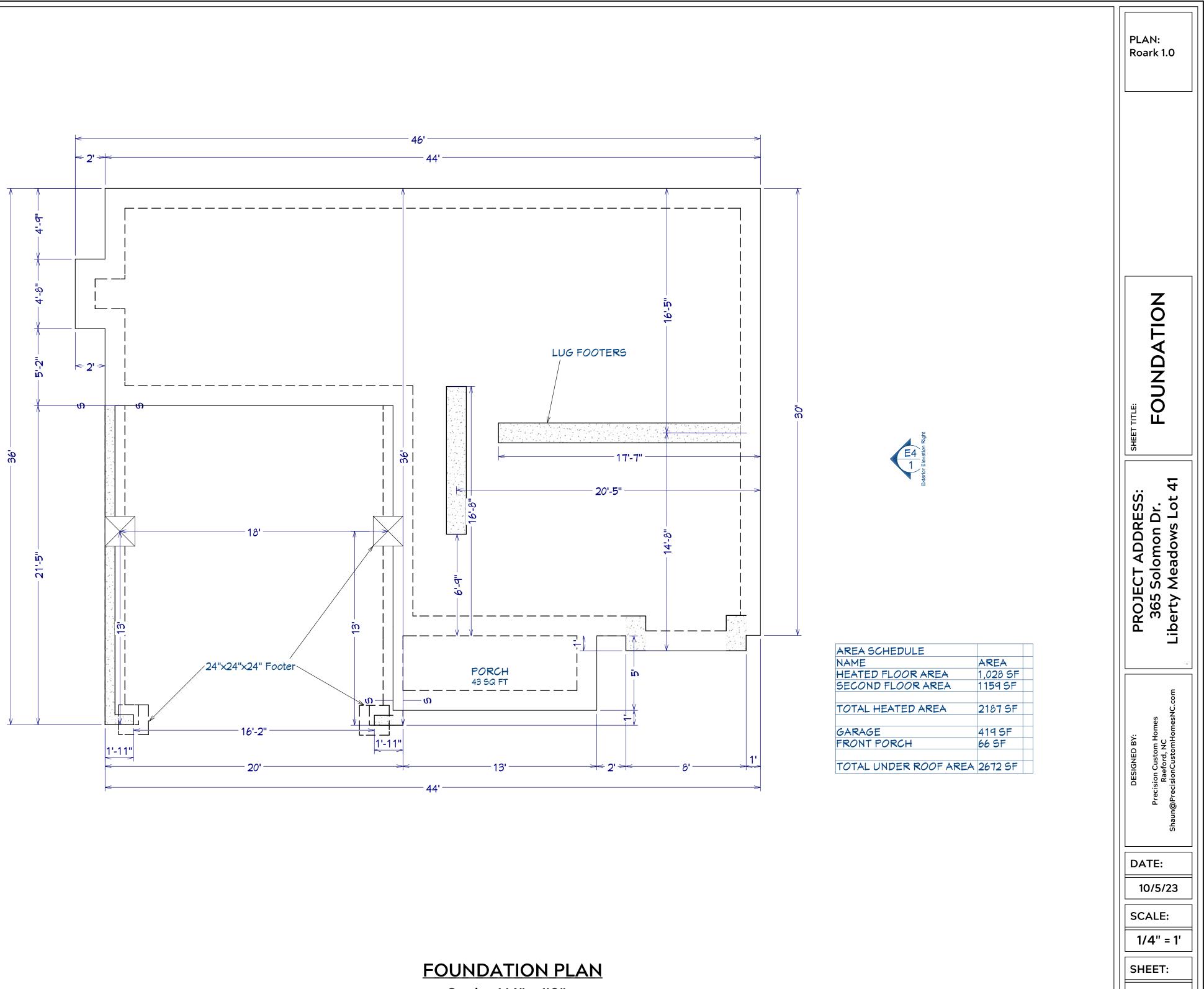
Harnett c o u n t y

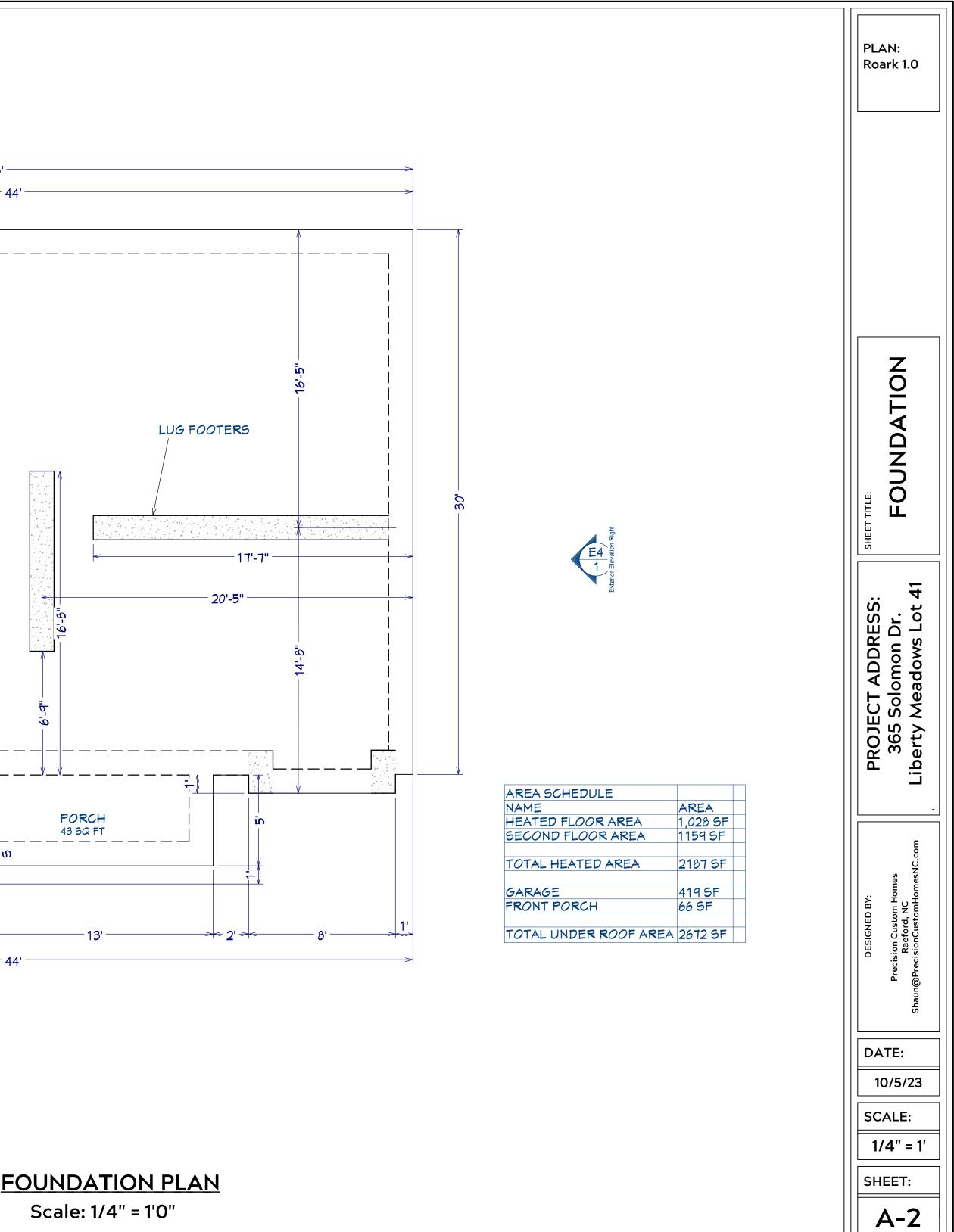
<u>RIGHT ELEVATION</u>

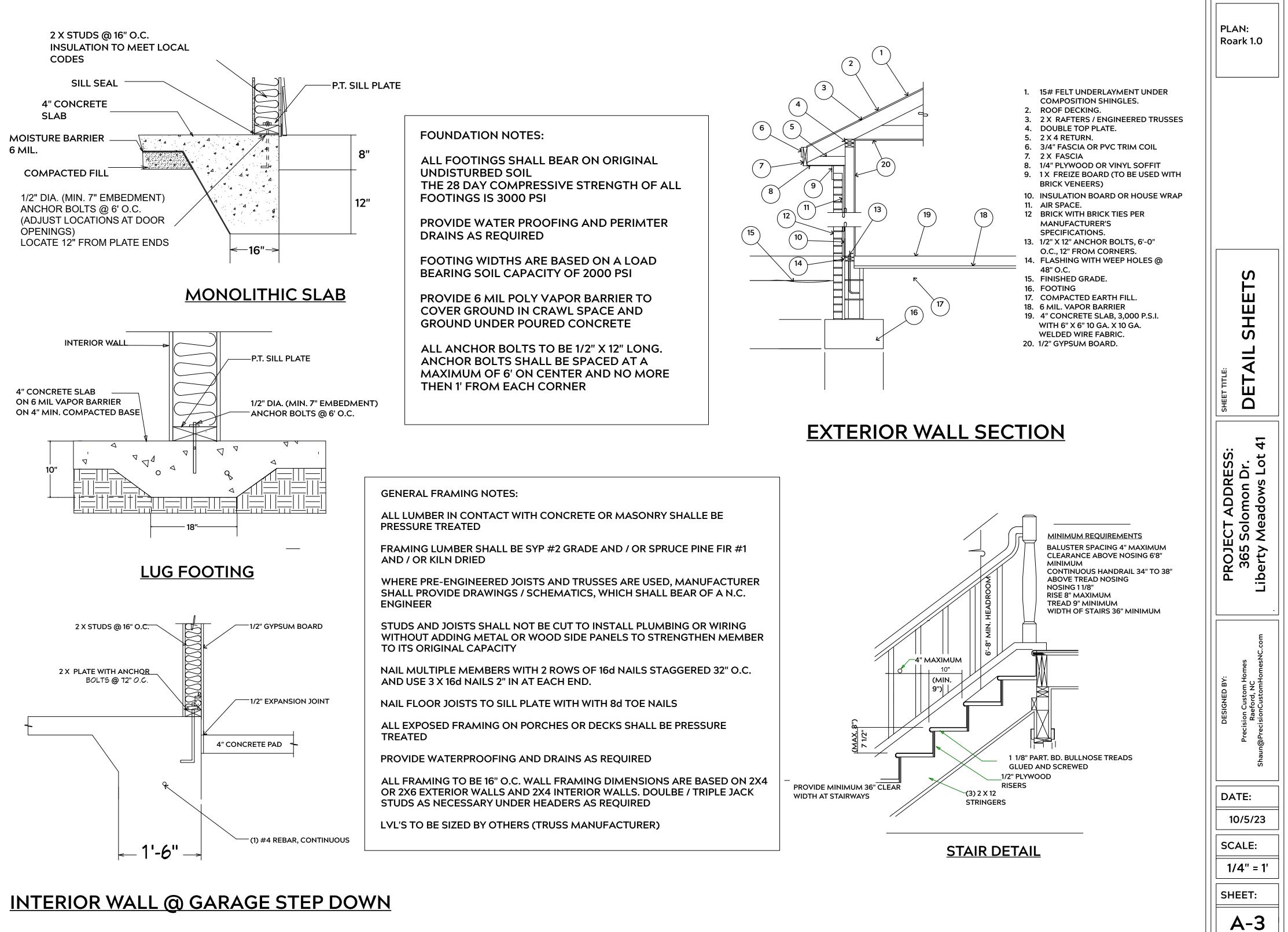
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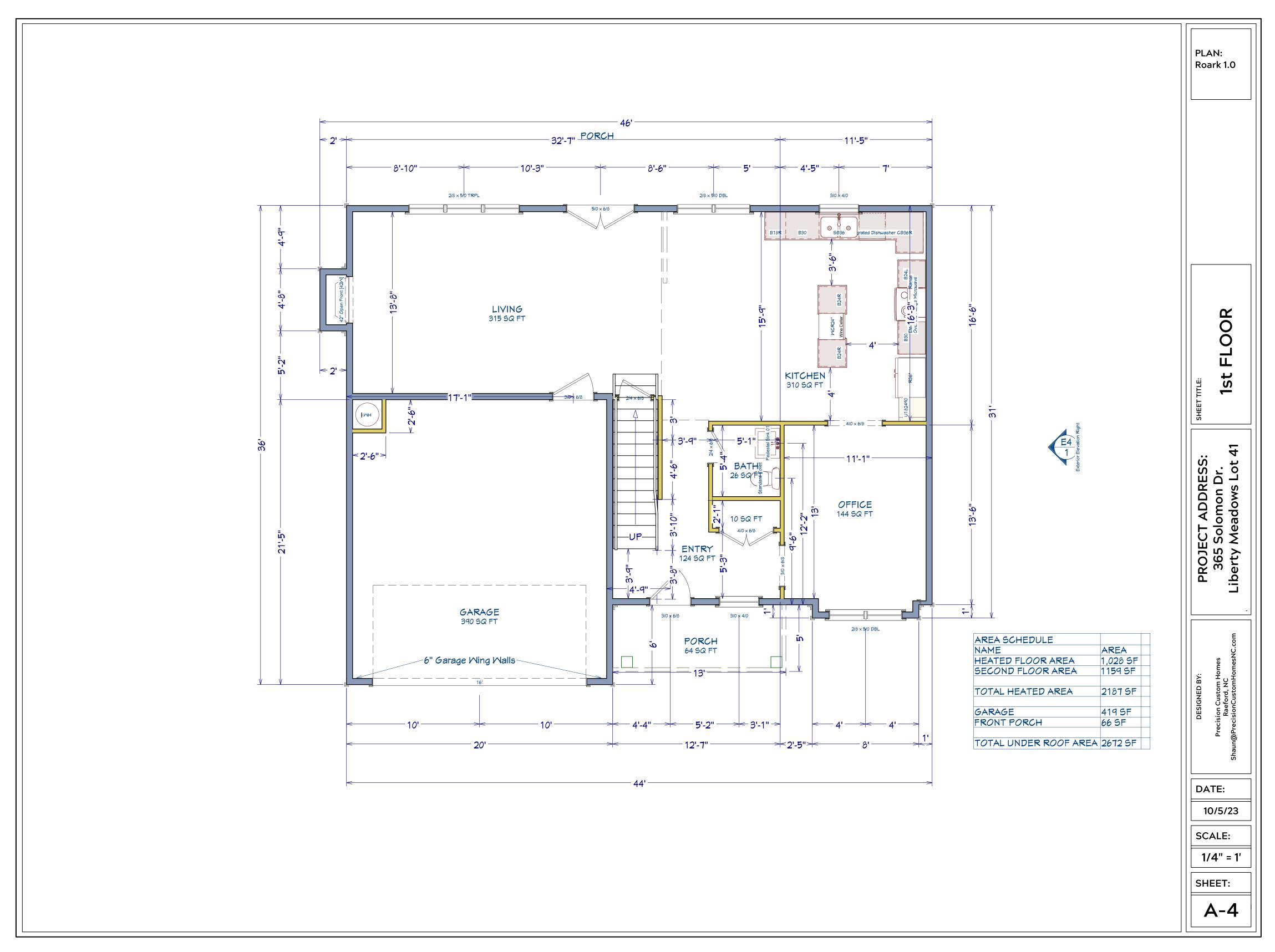
SHEET TITLE: ELEVATIONS
PROJECT ADDRESS: 365 Solomon Dr. Liberty Meadows Lot 41
DESIGNED BY: Precision Custom Homes Raeford, NC Shaun@PrecisionCustomHomesNC.com
DATE:
10/5/23
SCALE:
1/4 = 1 SHEET:
A 1

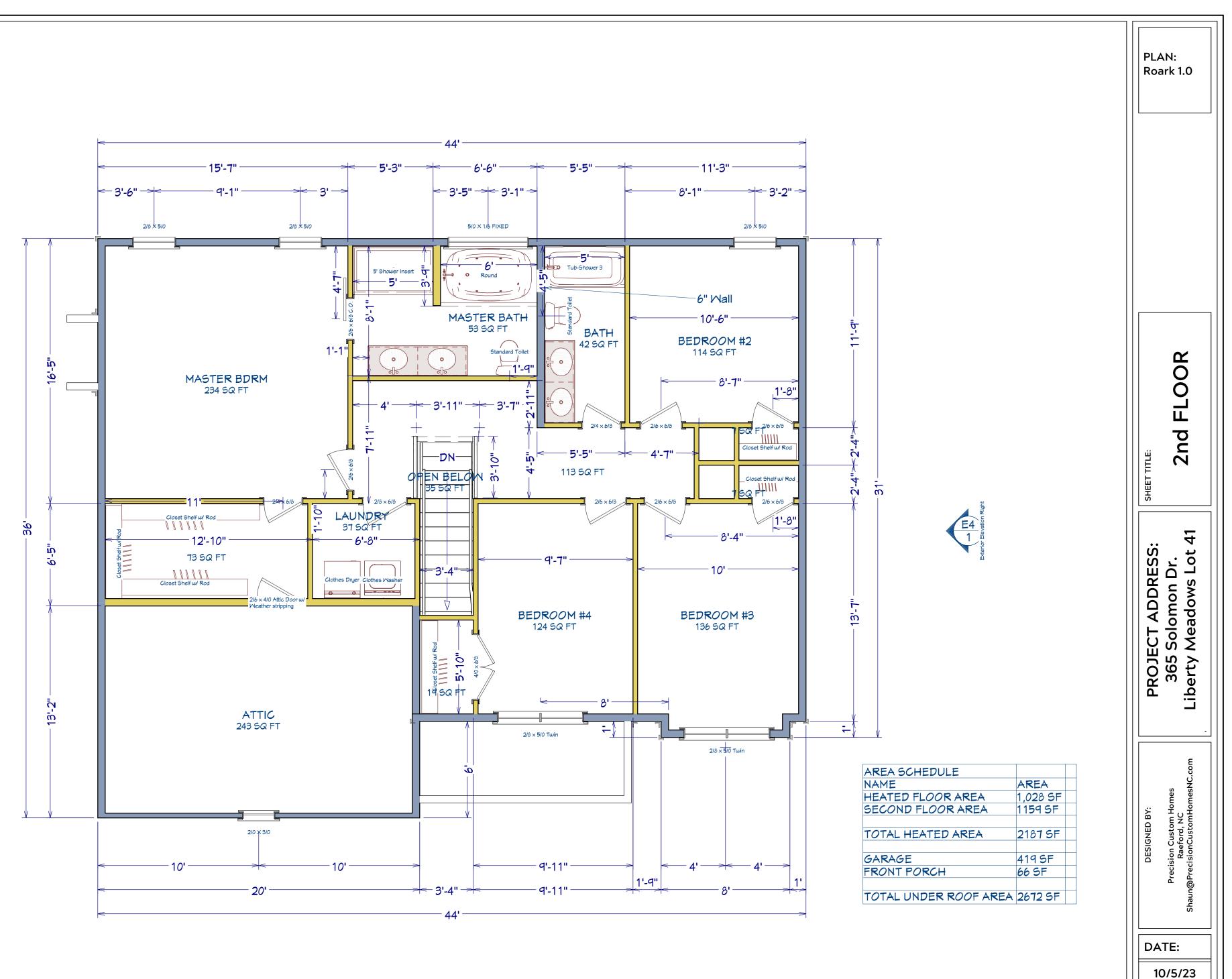
PLAN: Roark 1.0





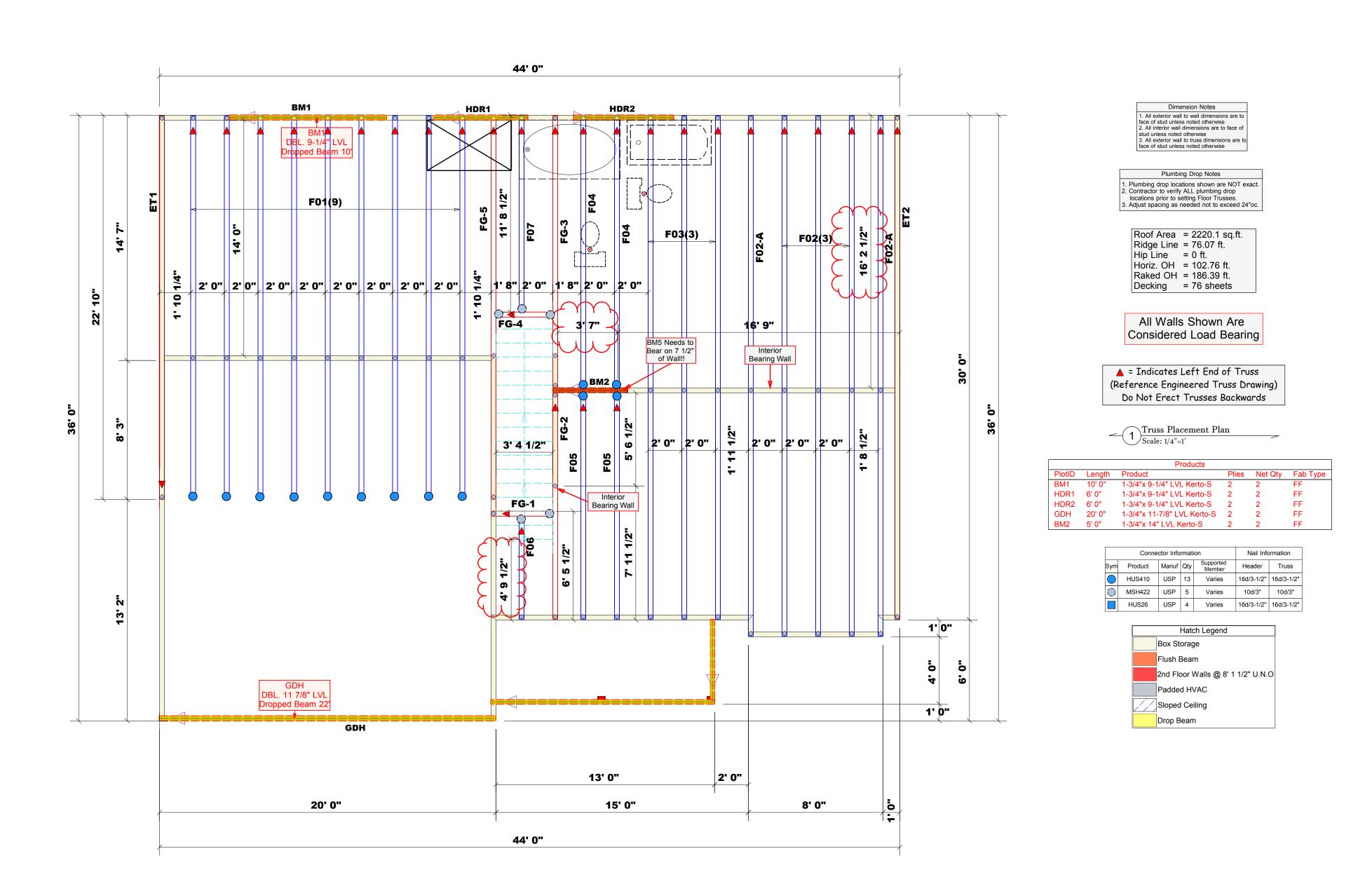


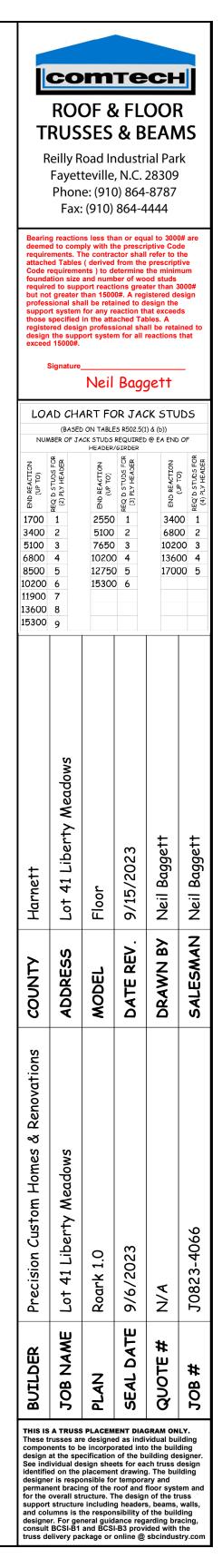


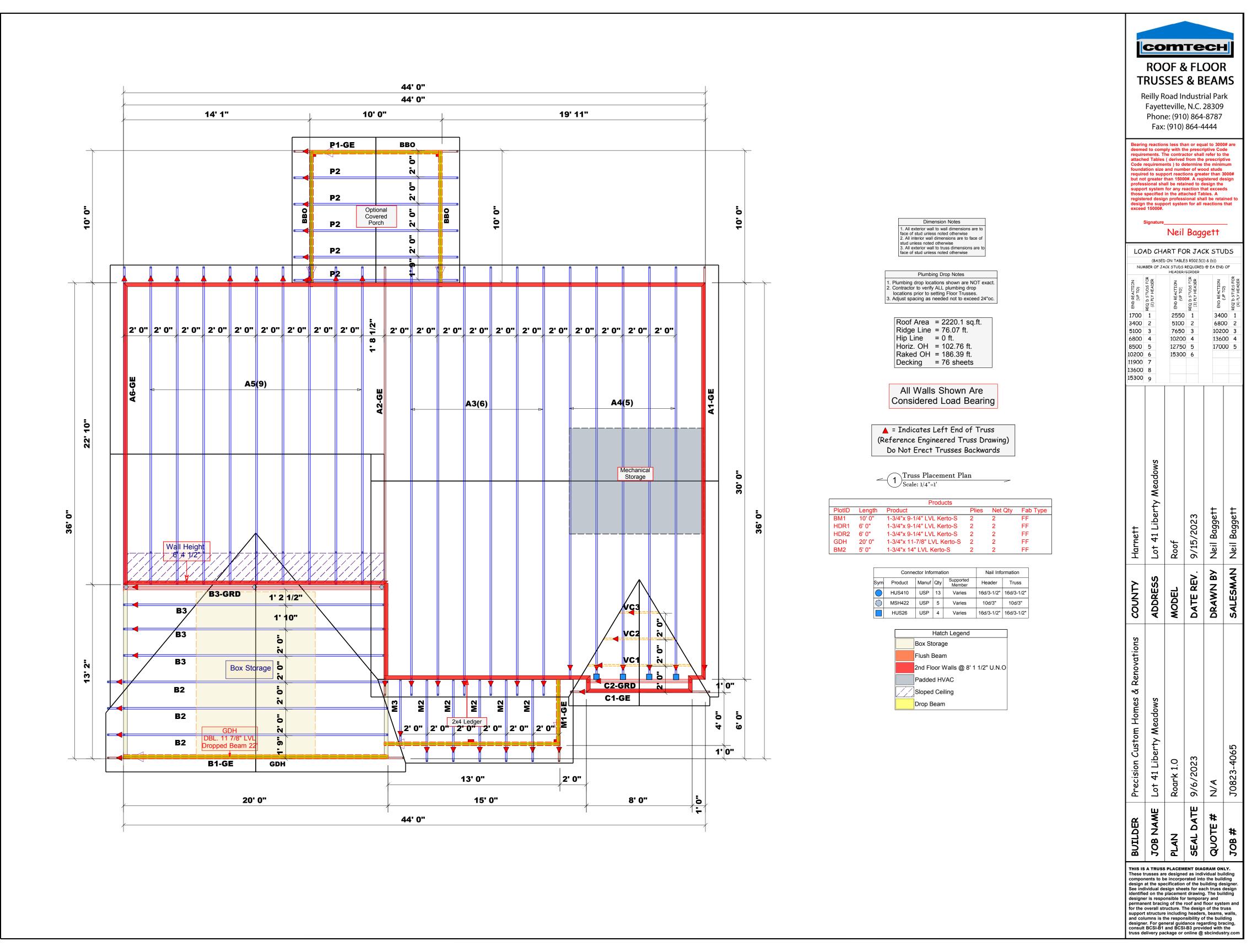


1/4" = 1' SHEET: А-5

SCALE:







North Carolina 2018 - R402.1.5 Total UA

Property

Cameron, NC 28326 Model: Roark Community: Liberty Meadows

Template - SMG Precision - Liberty Meadows lot 1 - CZ 3 slab -Liberty Meadows lot 1 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	40.7	38.6
Above-Grade Walls	184.5	137.0
Windows, Doors and Skylights	101.5	90.8
Slab Floor:	75.7	98.4
Framed Floors	8.0	8.7
Foundation Walls	0.0	0.0
Rim Joists	8.4	6.8
Overall UA (Design must be equal or lower):	418.8	380.3

Requirements

\bigcirc	402.1.5	Total UA alternative compliance passes by 9.2%.	
\bigcirc	402.3.2	Average SHGC: 0.28 Max SHGC: 0.30	
\bigcirc	R402.4.2.2	Air Leakage Testing	Air sealing is 4.80 ACH at 50 Pa. It must not exceed 5.00 ACH at 50 Pa.
\bigcirc	R402.5	Area-weighted average fenestration SHGC	
\bigcirc	R402.5	Area-weighted average fenestration U-Factor	
\bigcirc	R404.1	Lighting Equipment Efficiency	
\bigcirc	Mandatory Checklist	Mandatory code requirements that are not checked by Ekotrope must be met.	
\bigcirc	R403.3.1	Duct Insulation	
\bigcirc	403.3.3	Duct Testing	

Design exceeds requirements for North Carolina 2018 Prescriptive compliance by 9.2%.

Name:	Justin Smith	Signature:	Justin Smith
Organization:	Southern Energy Management	Digitally signed:	8/9/22 at 11:11 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 Cameron, NC 28326 Model: Roark Community: Liberty Meadows

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Organization Southern Energy Management Justin Smith

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Builder SMG Precision Properties

General Building Information	on
Number Of Bedrooms	4
Number Of Floors	2
Conditioned Floor Area [sq. ft.]	2,490
Has Electric Vehicle Ready Space	No
Unconditioned, attached garage?	Yes
Conditioned Volume [cu. ft.]	22,290
Total Units in Building	1
Residence Type	Single family detached
Number of Floors in Building	-
Floor Number	-
Model	Roark
Community	Liberty Meadows
RESNET/IECC 2006 Climate Zone	4A
IECC 2021 Climate Zone	3A

Foundation Wall

None Present

Foundation Wall Library List

Slab								
Name	E Library Type	e Perimeter	Floor Grade	Carpet R	Exposed Masonry Area	Surface Area	Location	Enclosing
slab	Uninsulated	158	On Grade	1	0	1,185.0 ft²	Exposed Exterior	Conditioned Space

Slab Library I	List						
Name	Wall Construction Type	Slab Completely Insulated? In	Underslab sulation Width [ft] h	Perimeter nsulation Depth [ft]	Perimeter Insulation R Value	Thermal Break	Effective R-value
Uninsulated	Wood Frame / Other	No	0	0	0	No	0.00

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Builder SMG Precision Properties

Library Type	Carpet R	Floor Grade	Surface Area	Location
R 19, 16"OC G1 Carpet	0	Above Grade	170.0 ft²	Unconditioned, attached garage

Framed Floor	Library List	
	Name	Effective R-value
R 19, 16"OC G	1 Carpet	19.566

Rim Joist			
Name	Library Type	Surface Area	Location
1st floor ambient	R 19 G1, 16"OC	123.0 ft²	Exposed Exterior
1st floor garage	R 19 G1, 16"OC	28.0 ft²	Unconditioned, attached garage



1st floor garage	R 19 Adv. Framing G1 16" O.C	Medium	315.0 ft²	Unconditioned, attached garage
2nd floor ambient	R 19 Adv. Framing G1 16" O.C	Medium	1,040.0 ft²	Exposed Exterior
2nd floor attic	R 19 Adv. Framing G1 16" O.C	Medium	224.0 ft²	Attic

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Builder SMG Precision Properties

Wall Library Li	st	
	Name	Effective R-value
R 19 Adv. Framing G1 1	16" O.C	17.492

Glazing

Name	Library Type	Wall Assignment	Foundation Wall Assignment	is Operable	Overhang Depth	Overhang Ft To Top	Overhang Ft To Bottom	Orientation	Surface Area
front 2nd unshaded	33/28	2nd floor ambient		Yes	0	0	0	North	53.4 ft²
front shaded	33/28	1st floor ambient		Yes	6	1	5	North	9.6 ft²
front unshaded	33/28	1st floor ambient		Yes	0	0	0	North	13.4 ft²
rear 2nd unshaded	33/28	2nd floor ambient		Yes	0	0	0	South	60.9 ft ²
rear unshaded	33/28	1st floor ambient		Yes	0	0	0	South	96.1 ft²
right unshaded	33/28	1st floor ambient		Yes	0	0	0	West	18.6 ft ²

Glazing Library List			
Name	Shgc	U-factor	
33/28	0.28	0.330	

Skylight

None Present

Skylight Library List

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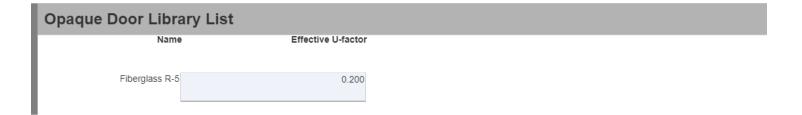
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Builder SMG Precision Properties

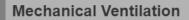
r							
Library Type	Wall Assignment	Foundation Wall Assignment	Emittance		Surface Color	Surface Area	Location
Fiberglass R-5	1st floor ambient		0.9	0.75	Medium	20.0 ft²	Exposed Exterior
Fiberglass R-5	1st floor garage		0.9	0.75	Medium	18.0 ft²	Unconditioned, attached garage
	Library Type	Library Type Wall Assignment Fiberglass R-5 1st floor ambient	Library Type Wall Assignment Foundation Wall Assignment Fiberglass R-5 1st floor ambient	Library Type Wall Assignment Foundation Wall Assignment Emittance Fiberglass R-5 1st floor ambient 0.9	Library Type Wall Assignment Foundation Wall Assignment Emittance Solar Absorptance Fiberglass R-5 1st floor ambient 0.9 0.75	Library Type Wall Assignment Foundation Wall Assignment Emittance Solar Absorptance Surface Color Fiberglass R-5 1st floor ambient 0.9 0.75 Medium	Library Type Wall Assignment Foundation Wall Assignment Emittance Solar Absorptance Surface Color Surface Area Fiberglass R-5 1st floor ambient 0.9 0.75 Medium 20.0 ft²



f Insulatio	n					
Name	Library Type	Attic Exterior Area [ft ²]	Clay or Concrete Roof Tiles	Surface Color	r Surface Area	Location
attic	R 38 Attic BLOWN FG G1 2x10 24"OC NO Padiant Barrier	1,991.85	No	Dark	1,355.0 ft²	Attic

Roof Insulation Library List					
Name	Has Radiant Barrier	Effective R-value			
R 38 Attic BLOWN FG G1 2x10 24"OC NO	No	35.115			

Whole House Infiltration				
Infiltration	Measurement Type	Shelter Class		
1783 CFM at 50 Pa	Blower-door tested	4		



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Builder SMG Precision Properties

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

Onsite Generation	
	None Present

None Present

Solar Generation

None Present

Dehumidifier

None Present

Dehumidifier Library List

None Present

Whole House Fan

Property

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Whole House Fan Library List

None Present

Organization

Justin Smith

Builder

Southern Energy Management

SMG Precision Properties

Conditioning Equipment

U	•••					
Name	Library Type	Serial Number	Heating Percent Load	Cooling Percent Load	Hot Water Percent Load	
1st floor heat pump	z 24k 14 SEER 8.2hspf		48%	48%	0%	Attic
2nd floor heat pump	z 24k 14 SEER 8.2hspf		52%	52%	0%	Attic
Water Heating	z 50 gal. 0.95 EF Elec		0%	0%	100%	Unconditioned Garage

Equipment Type: z 24k 14 SEER 8.2hspf

Equipment Type	Air Source Heat Pump
Fuel Type	Electric
Distribution Type	Forced Air
Motor Type	PSC (Single Speed)
Heating Efficiency	8.2 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 50 gal. 0.9	5 EF Elec
Equipment Type	Residential Water Heater
Fuel Type	Electric
Distribution Type	Hydronic Delivery (Radiant)
Hot Water Efficiency	0.95 Energy Factor
Tank Capacity (gal.)	50
Hot Water Capacity [kBtu/h]	40
Recovery Efficiency	0.98

Inspection Status Results are projected



Property Cameron, NC 28326 Model: Roark Community: Liberty Meadows

Template - SMG Precision - Liberty Meadows lot 1 -CZ 3 slab - ecoSelect Liberty Meadows lot 1

Distribution System

Distribution Type	Forced Air
Heating Equipment	1st floor heat pump
Cooling Equipment	1st floor heat pump
Sa. Feet Served	1,185
# Return Grilles	2
Supply Duct R Value	8
Return Duct R Value	8
Supply Duct Area [ft ²]	319.95
Return Duct Area [ft ²]	118.5
Leakage to Outdoors	47 CFM @ 25Pa (3.97 / 100 ft ²)
Total Leakage	47 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	
Duct Location	Conditioned Space
Percent Supply Area	0
Percent Return Area	0

Organization

Justin Smith Builder

SMG Precision Properties

Inspection Status Southern Energy Management Results are projected



Property Cameron, NC 28326 Model: Roark Community: Liberty Meadows

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Distribution System

Distribution Type	Forced Air
Heating Equipment	2nd floor heat pump
Cooling Equipment	2nd floor heat pump
Sq. Feet Served	1,305
# Return Grilles	2
Supply Duct R Value	8
Return Duct R Value	8
Supply Duct Area [ft ²]	268.11
Return Duct Area [ft ²]	99.3
Leakage to Outdoors	52 CFM @ 25Pa (3.98 / 100 ft²)
Total Leakage	52 CFM25
Total Leakage Duct Test Conditions	Post-Construction
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
Percent Supply Area	0
Percent Return Area	0
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	
Duct Location	Conditioned Space
Percent Supply Area	0
Percent Return Area	0

Organization

Justin Smith

Builder

Southern Energy Management

SMG Precision Properties

HVAC Grading

HVAC Grading Not Conducted

Ceiling Fan

Has Ceiling Fan Cfm Per Watt

No 100 Inspection Status Results are projected



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Water Distribution

Low-flow
No
79
No
No
20
No

Builder

SMG Precision Properties

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

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SMG Precision Properties

Inspection Status Results are projected



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

Builder

Notes

Initial Inputs _____MS 06/30/22__

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