

### FIREPLACE NOTES

- CHIMNEY FRAMING- PROVIDE 1" CLEARANCE FROM FLUE TO COMBUSTIBLE MATERIAL.
- GAS FIREPLACE W/ DIRECT VENT DIMENSIONS
- FP R.O.
- 35" H
- 37" W
- 16 1/4" D
- FP R.O. 3" ABOVE HEARTH
- HEARTH
- 11" D
- 16" H

### GENERAL NOTES

- WRITTEN DIMENSIONS SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS. DO NOT SCALE THE DRAWINGS.
- ALL WORK SHALL COMPLY WITH APPLICABLE CODES LISTED.
- ALL MATERIALS SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS UNLESS NOTED OTHERWISE.
- ALL ELECTRICAL AND PLUMBING WORK SHALL BE INSTALLED BY LICENSED PROFESSIONAL(S) AND SHALL CONFORM WITH CURRENT CODES.
- CONFIRM AND COORDINATE LOCATIONS OF ALL UTILITIES WITH CONTRACTOR.
- CONTRACTOR SHALL NOTIFY DESIGNER IMMEDIATELY OF ANY DISCREPANCIES IN THE DRAWINGS.

INFORMATION CONTAINED IN THIS DRAWING SET HAS BEEN PREPARED FOR THE USE OF A PROFESSIONAL LICENSED CONTRACTOR WHO IS FAMILIAR WITH BUILDING CODE AND OTHER LEGAL REQUIREMENTS WITHIN THE PROJECT'S JURISDICTION. NO WARRANTIES, EXPRESSED OR IMPLIED, ARE GIVEN OR INTENDED BY THE PREPARATION OF THESE DRAWINGS.

**ADOPTED CODES:**

2012 INTERNATIONAL RESIDENTIAL CODE	2012 UNIFORM PLUMBING CODE
2012 INTERNATIONAL MECHANICAL CODE	2014 NATIONAL ELECTRIC CODE
2012 INTERNATIONAL FUEL GAS CODE	2012 INTERNATIONAL ENERGY CONSERVATION CODE (IECC)

### CONSTRUCTION NOTES

- ALL LUMBER IN CONTACT W/ CONCRETE OR MASONRY OR WITHIN 8" OF GRADE SHALL BE PRESSURE TREATED.
- FIREBLOCKING TO BE INSTALLED IN ALL WALL CAVITIES GREATER THAN 10 FEET TALL AND AS APPLICABLE PER CODE REQUIREMENTS (R602.8).
- PROVIDE BLOCKING AS NEEDED FOR ALL WALL MOUNTED EQUIPMENT, FURNISHINGS, ETC.
- CONFIRM STARTING POINT OF FLOOR FRAMING TO REDUCE CONFLICTS WITH PLUMBING- FRAMING CONTRACTOR TO VERIFY.
- CONTRACTOR SHALL VERIFY FLOOR JOISTS FOR DESIRED FLOOR STIFFNESS, TYP.
- GARAGE SHALL HAVE 5/8" TYPE 'X' GYP BD AT CEILING AND 1/2" GYP BD AT WALLS, UNLESS NOTED OTHERWISE.
- INTERIOR CEILINGS TO RECEIVE 5/8" GYP BD, UNLESS NOTED OTHERWISE.
- PROVIDE SELF-ADHERING ICE AND WATER PROTECTION MEMBRANE AT ALL LEAVES TO A POINT 24" INSIDE THE EXTERIOR WALL FACE.
- WINDOWS IDENTIFIED AS 'SCREENS' SHALL HAVE MINIMUM CLEAR WIDTH OF 20". MINIMUM CLEAR HEIGHT OF 27". AND MINIMUM CLEAR AREA OF 5.7 SQ FT. SILL HEIGHT TO BE 44" MAXIMUM ABOVE FLOOR.
- ALL PENETRATIONS GREATER THAN 100 SQ INCHES IN COMMON/SHARED GARAGE WALL SHALL BE UL1479 LISTED, UNLESS NOTED OTHERWISE.
- CONCRETE SIDEWALKS TO HAVE TOOLED 3/4" JOINT AT 5' INTERVALS, UNLESS NOTED OTHERWISE.
- ATTIC VENTILATION OPENINGS SHALL BE COVERED WITH CORROSION-RESISTANT METAL MESH WITH 1/8" MINIMUM TO 1/4" MAXIMUM OPENINGS.
- FURNACE MUST BE LOCATED WITHIN 20" OF CRAWL SPACE ACCESS IF INSTALLED IN CRAWL SPACE. PROVIDE 27 SQ INCHES COMBUSTION FLUE TO OUTSIDE, SUSPENDED 6" MIN. ABOVE GRADE (ASSUMED 80% RH). ALL GLAZING WITHIN A DOOR PANEL, WITHIN 24" OF A SWINGING DOOR, IN WALLS CONTAINING SHOWERS AND BATHTUBS, WHERE AN INDIVIDUAL PANE IS LARGER THAN 9 SQUARE FEET, AND ANY GLAZING WHERE THE BOTTOM EDGE IS LESS THAN 18" ABOVE THE ADJACENT WALKING SURFACE SHALL BE SAFETY GLAZING.
- SPRAY FOAM INSULATION SHALL BE PROTECTED IN ACCORDANCE W/ IRC SECTION R316.

### STRUCTURAL NOTES

- EXTERIOR WALLS SHALL BE CONSTRUCTED OF 2x6 STUDS @ 16" o.c. WITH R-21 INSULATION, UNLESS NOTED OTHERWISE. ALL EXTERIOR SHEATHING TO BE 1/2" NOMINAL CONTINUOUS STRUCTURAL RATED PANEL.
- INTERIOR WALLS SHALL BE CONSTRUCTED OF 2x4 STUDS @ 16" o.c., UNLESS NOTED OTHERWISE. PROVIDE 2x4 WALLS AT ALL POCKET DOORS. INTERIOR WALLS TO RECEIVE 1/2" GYP BD, UNLESS NOTED OTHERWISE.
- FLOOR JOISTS TO BE 11-7/8" TJI 210 @ 19.2" o.c. WITH 1-3/4" MIN BEARING, UNLESS NOTED OTHERWISE.
- FLOOR DECK TO BE 3/4" TONGUE-AND-GROOVE, STRUCTURAL RATED PANEL (48/24 CDX) UNLESS NOTED OTHERWISE.
- ALL LUMBER SHALL BE NO. 2 GRADE OR BETTER.
- ALL HEADERS (6' MAX SPAN) AT EXTERIOR WALLS SHALL BE (2) 2x10 HF#2 OR BETTER W/ (2) JACK STUDS AT EACH END, UNLESS NOTED OTHERWISE.
- PROVIDE BLOCKING BETWEEN TRUSSES AT ALL BEARING LOCATIONS.

### INSULATION REQUIREMENTS

CONTRACTOR SHALL BE RESPONSIBLE FOR INSULATING THE RESIDENCE IN ACCORDANCE WITH THE 2012 INTERNATIONAL ENERGY CONSERVATION CODE (IECC) INCLUDING MONTANA AMENDMENTS.

**APPLICABLE PRESCRIPTIVE PATH REQUIREMENTS:**

CEILING:	R-49 (UNCOMPRESSED R-38 ALLOWED AT EAVES)
EXTERIOR WALL:	R-21 (or R-13 + R-5 CONTINUOUS INSULATION)
BASEMENT WALL:	R-19 (or R-15 CONTINUOUS INSULATION) - SEE NOTE A
SLAB PERIMETER:	R-10 (or R-15 IF HEATED SLAB)
CRAWLSPACE WALL:	R-19 (or R-15 CONTINUOUS INSULATION)
WINDOW / DOOR:	U-0.32 (R-3)

NOTE A: RES-CHECK ANALYSIS MAY ALLOW LOWER R-VALUE (R-10 MINIMUM)

### BRACED PANEL SCHEDULE

TYPE	SUPPORTS	FASTENERS SPACING
A.	STUDS @ 16" o.c.	8d NAILS 6" o.c. (EDGE) & 12" o.c. (FIELD)
B.	STUDS @ 16" o.c. MAX 1-1/4" SCREWS	4" o.c. (EDGE) & 8" o.c. (FIELD)
C.	STUDS @ 16" o.c. MAX 1-1/4" SCREWS	4" o.c. (EDGE) & 8" o.c. (FIELD)

ALL BRACED WALLS SHALL BE TYPE 'A' - UNLESS NOTED OTHERWISE. MINIMUM REQUIRED LENGTH OF BRACED WALL PANEL NOTED ON PLAN (PER SECTION R602.10).

TYPE A  
 1/2" NOMINAL OSB ONE SIDE  
 TYPE B - 1/2" GWB - BOTH SIDES  
 TYPE C - 1/2" GWB - ONE SIDE

**NOTE:** CONNECT ALL INTERIOR BRACED WALL PANELS TO STRUCTURAL FRAMING IN ACCORDANCE W/ R602.10.6 & TABLE R602.3(1). PROVIDE FULL HEIGHT BLOCKING AS NEEDED.



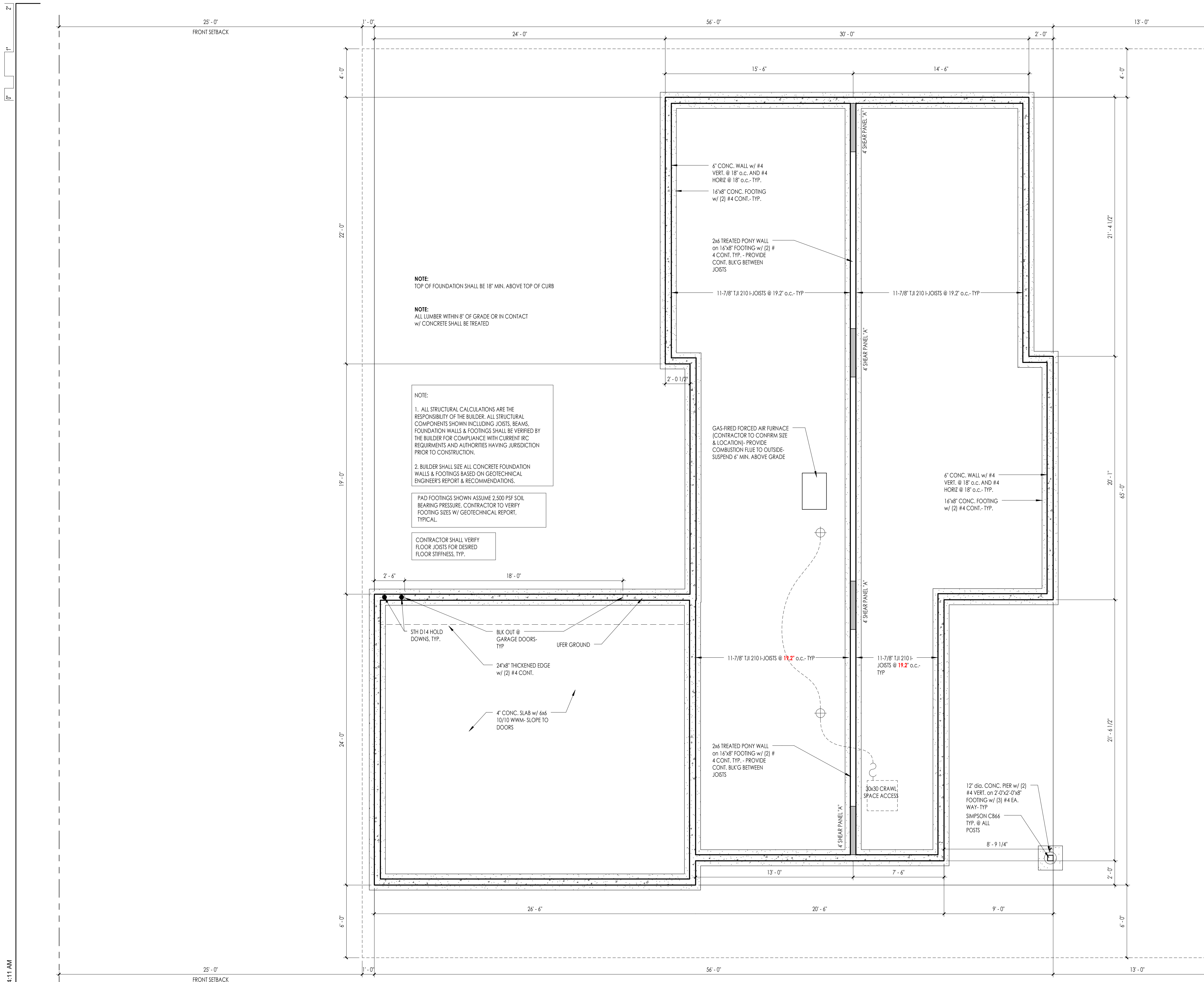
**BEN NISTLER**  
**406-570-7345**  
**PLAN NAME:**  
**NORTHERN LIGHT**

REVISIONS:

NO.	DESCRIPTION	DATE

PROJECT NUMBER: 15.067  
 DRAWN BY / CHECKED BY: EML STH  
 DATE: DECEMBER 2, 2015  
 PHASE: CONST.  
 DRAWING TITLE: **MAIN FLOOR**  
 DRAWING NUMBER: **A2.1**

1. 1.0 MAIN LEVEL  
 1/4" = 1'-0"



**NOTE:**  
TOP OF FOUNDATION SHALL BE 18" MIN. ABOVE TOP OF CURB

**NOTE:**  
ALL LUMBER WITHIN 8" OF GRADE OR IN CONTACT W/ CONCRETE SHALL BE TREATED

**NOTE:**  
1. ALL STRUCTURAL CALCULATIONS ARE THE RESPONSIBILITY OF THE BUILDER. ALL STRUCTURAL COMPONENTS SHOWN INCLUDING JOISTS, BEAMS, FOUNDATION WALLS & FOOTINGS SHALL BE VERIFIED BY THE BUILDER FOR COMPLIANCE WITH CURRENT IRC REQUIREMENTS AND AUTHORITIES HAVING JURISDICTION PRIOR TO CONSTRUCTION.  
2. BUILDER SHALL SIZE ALL CONCRETE FOUNDATION WALLS & FOOTINGS BASED ON GEOTECHNICAL ENGINEER'S REPORT & RECOMMENDATIONS.

PAD FOOTINGS SHOWN ASSUME 2,500 PSF SOIL BEARING PRESSURE. CONTRACTOR TO VERIFY FOOTING SIZES W/ GEOTECHNICAL REPORT, TYPICAL.

CONTRACTOR SHALL VERIFY FLOOR JOISTS FOR DESIRED FLOOR STIFFNESS, TYP.

GAS-FIRED FORCED AIR FURNACE (CONTRACTOR TO CONFIRM SIZE & LOCATION)- PROVIDE COMBUSTION FLUE TO OUTSIDE- SUSPEND 6" MIN. ABOVE GRADE

STH D14 HOLD DOWNS, TYP.

BLK OUT @ GARAGE DOORS- TYP

UFER GROUND

24x8" THICKENED EDGE w/ (2) #4 CONT.

4" CONC. SLAB w/ 6x6 10/10 W/M- SLOPE TO DOORS

2x6 TREATED PONY WALL on 16x8" FOOTING w/ (2) #4 CONT. TYP. - PROVIDE CONT. BLK'G BETWEEN JOISTS

30x30 CRAWL SPACE ACCESS

12" dia. CONC. PIER w/ (2) #4 VERT. on 2'-0"x2'-0"x8" FOOTING w/ (3) #4 EA. WAY- TYP

SIMPSON CB66 TYP. @ ALL POSTS

8'-9 1/4"

1 0.2 FOUNDATION  
1/4" = 1'-0"

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**CONSTRUCTION NOTES**

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3. PROVIDE BLOCKING AS NEEDED FOR ALL WALL MOUNTED EQUIPMENT, FURNISHINGS, ETC.
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5. CONTRACTOR SHALL VERIFY FLOOR JOISTS FOR DESIRED FLOOR STIFFNESS, TYP.
6. GARAGE SHALL HAVE 5/8" TYPE 'X' GYP BD AT CEILING AND 1/2" GYP BD AT WALLS, UNLESS NOTED OTHERWISE.
7. INTERIOR CEILINGS TO RECEIVE 5/8" GYP BD, UNLESS NOTED OTHERWISE.
8. PROVIDE SELF-ADHERING ICE AND WATER PROTECTION MEMBRANE AT ALL LEAVES TO A POINT 24" INSIDE THE EXTERIOR WALL FACE.
9. WINDOWS IDENTIFIED AS 'EGRESS' SHALL HAVE MINIMUM CLEAR WIDTH OF 20", MINIMUM CLEAR HEIGHT OF 22", AND MINIMUM CLEAR AREA OF 5.7 SQ FT. SILL HEIGHT TO BE 44" MAXIMUM ABOVE FLOOR.
10. ALL PENETRATIONS GREATER THAN 100 SQ INCHES IN COMMON/SHARED GARAGE WALL SHALL BE UL1479 LISTED, UNLESS NOTED OTHERWISE.
11. CONCRETE SIDEWALKS TO HAVE TOOLED 3/4" JOINT AT 5' INTERVALS, UNLESS NOTED OTHERWISE.
12. ATTIC VENTILATION OPENINGS SHALL BE COVERED WITH CORROSION-RESISTANT METAL MESH WITH 1/8" MINIMUM TO 1/4" MAXIMUM OPENINGS.
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14. ALL GLAZING WITHIN A DOOR PANEL, WITHIN 24" OF A SWINGING DOOR, IN WALLS CONTAINING SHOWERS AND BATHUBS, WHERE AN INDIVIDUAL PANE IS LARGER THAN 9 SQUARE FEET, AND ANY GLAZING WHERE THE BOTTOM EDGE IS LESS THAN 18" ABOVE THE ADJACENT WALKING SURFACE SHALL BE SAFETY GLAZING.
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WINDOW / DOOR:	U<0.32 (R-3)

NOTE A: RES-CHECK ANALYSIS MAY ALLOW LOWER R-VALUE (R-10 MINIMUM)

**FOUNDATION NOTES**

1. SOILS ENGINEER TO REVIEW SOIL CONDITIONS FOLLOWING EXCAVATION AND VERIFY FOOTING DESIGN (DESIGN ASSUMES 2500 PSF).
2. SOILS ENGINEER TO PERFORM INSPECTION AND PROVIDE APPROVAL OF THE FOUNDATION DESIGN PRIOR TO CITY PERMIT INSPECTION.
3. FOOTINGS ARE TO BEAR ON UNDISTURBED, LEVEL SOIL DEVOID OF ANY ORGANIC MATERIAL.
4. STEP FOOTINGS AS NEEDED TO MAINTAIN REQUIRED DEPTH BELOW FINAL GRADE.
5. ALL GRANULAR FILL SHALL BE COMPACTED TO 95% DENSITY, UNLESS NOTED OTHERWISE.
6. SLOPE FLOOR OF GARAGE TO OPENING(S) AT 1/8" PER FOOT MINIMUM.
7. CONCRETE SLABS ON GRADE SHALL HAVE CONTROL JOINTS AT MINIMUM 12' INTERVALS EACH WAY, UNLESS NOTED OTHERWISE.
8. REINFORCING STEEL SHALL BE #4'S GRADE 60. PROVIDE MINIMUM 40 BAR DIAMETER LAP AT SPLICES, CORNERS, AND INTERSECTIONS.
9. DAMPPROOF FOUNDATION BEFORE BACKFILLING.
10. FINAL GRADE SHALL BE SLOPED AWAY FROM STRUCTURE AT 2% MINIMUM FOR 5' MINIMUM AT FOUNDATION PERIMETER.

**BRACED PANEL SCHEDULE**

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TYPE B - 1/2" GWB - BOTH SIDES  
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**BEN NISTLER**  
**406-570-7345**  
**PLAN NAME:**  
**NORTHERN LIGHT**

REVISIONS:

NO.	DESCRIPTION	DATE

PROJECT NUMBER: 15.067

DRAWN BY / CHECKED BY: EML STH

DATE: DECEMBER 2, 2015

PHASE: CONST.

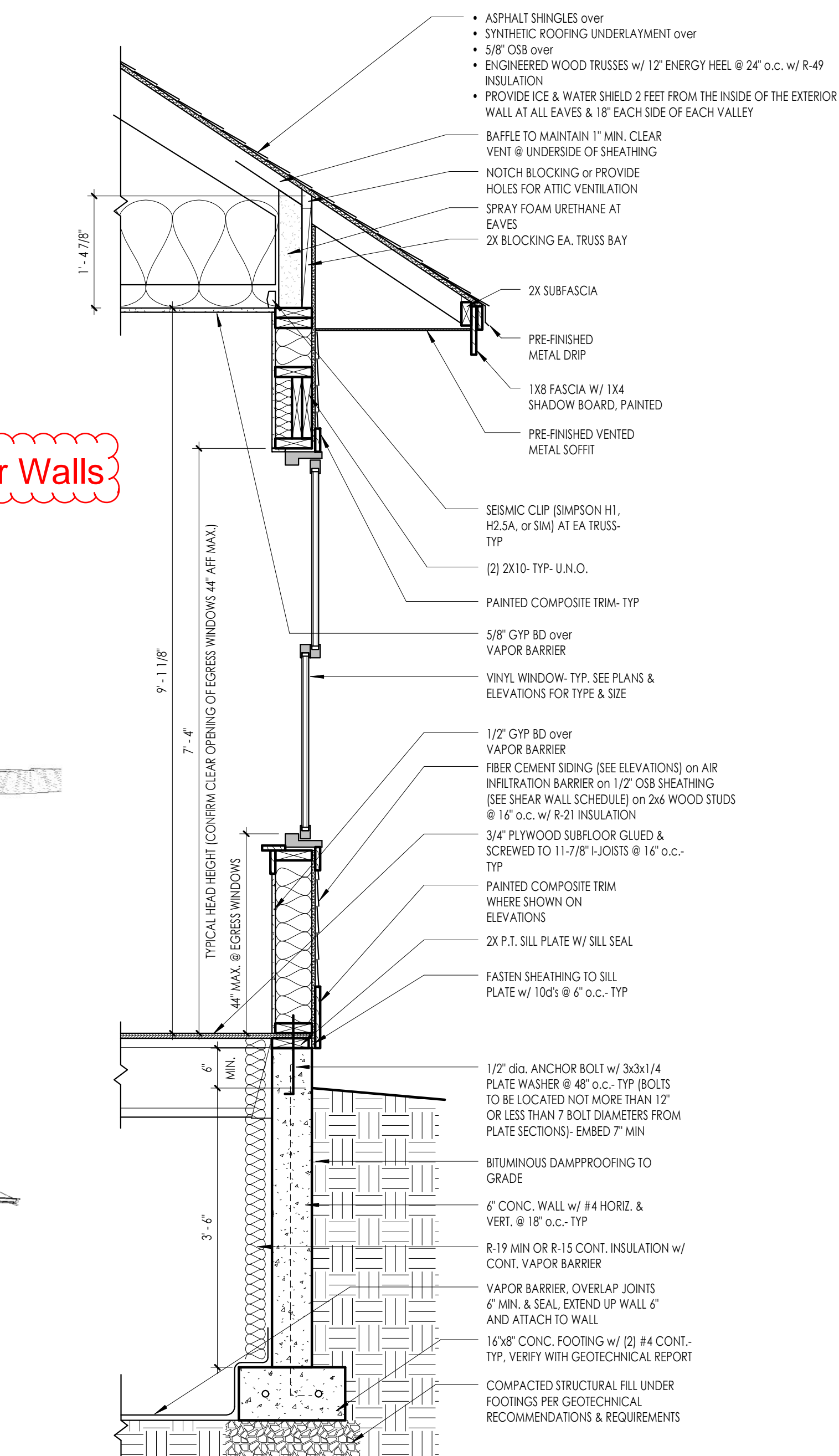
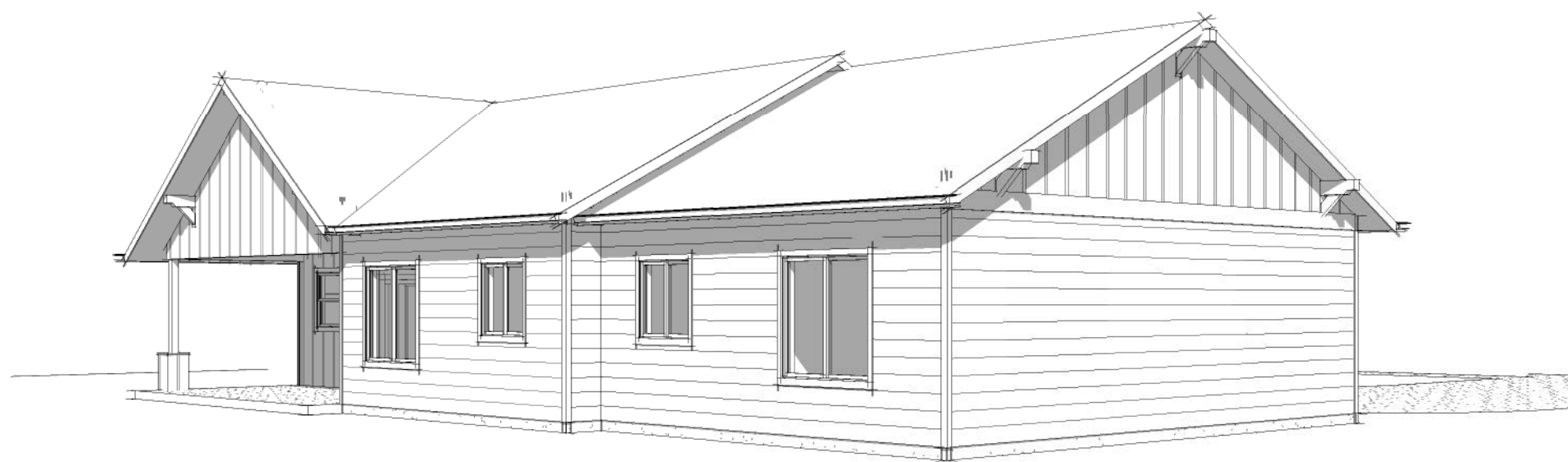
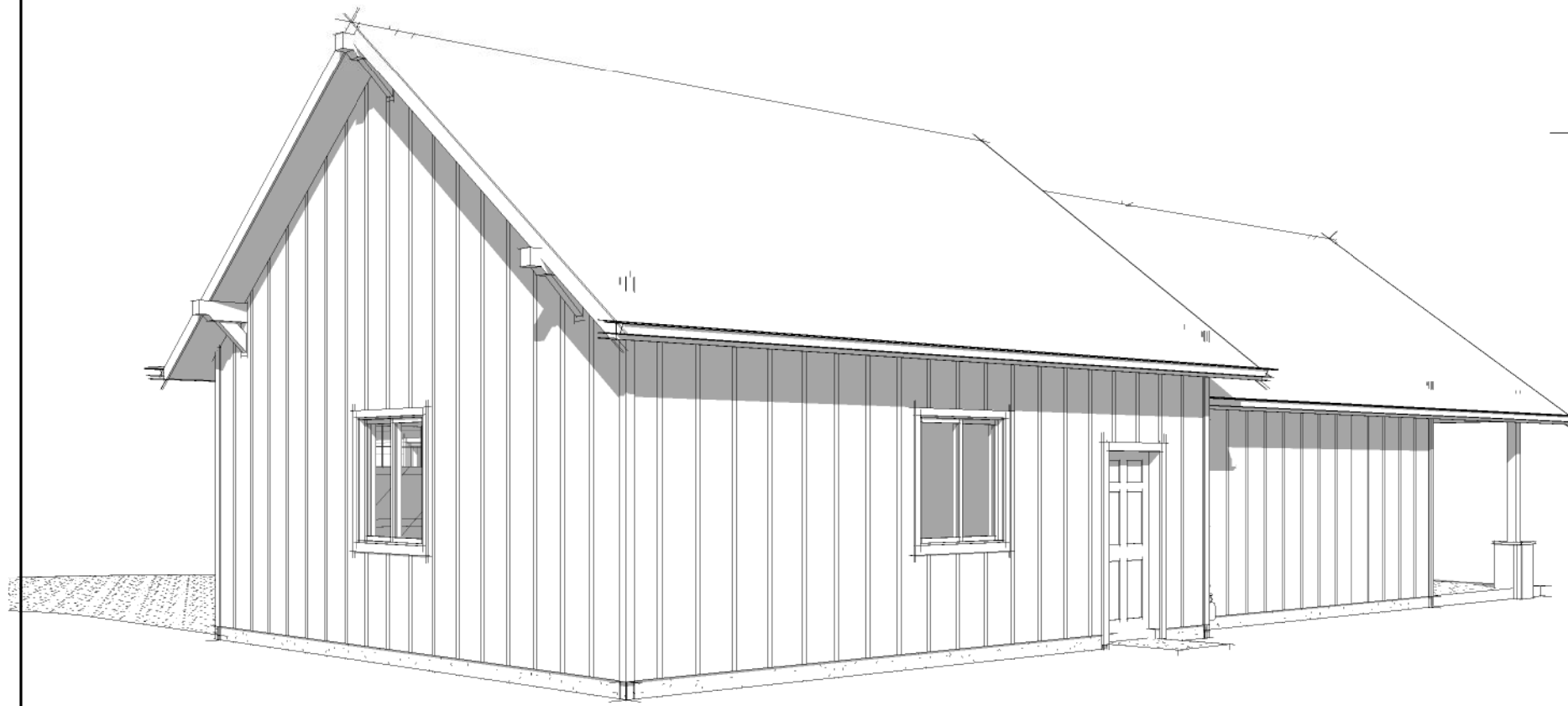
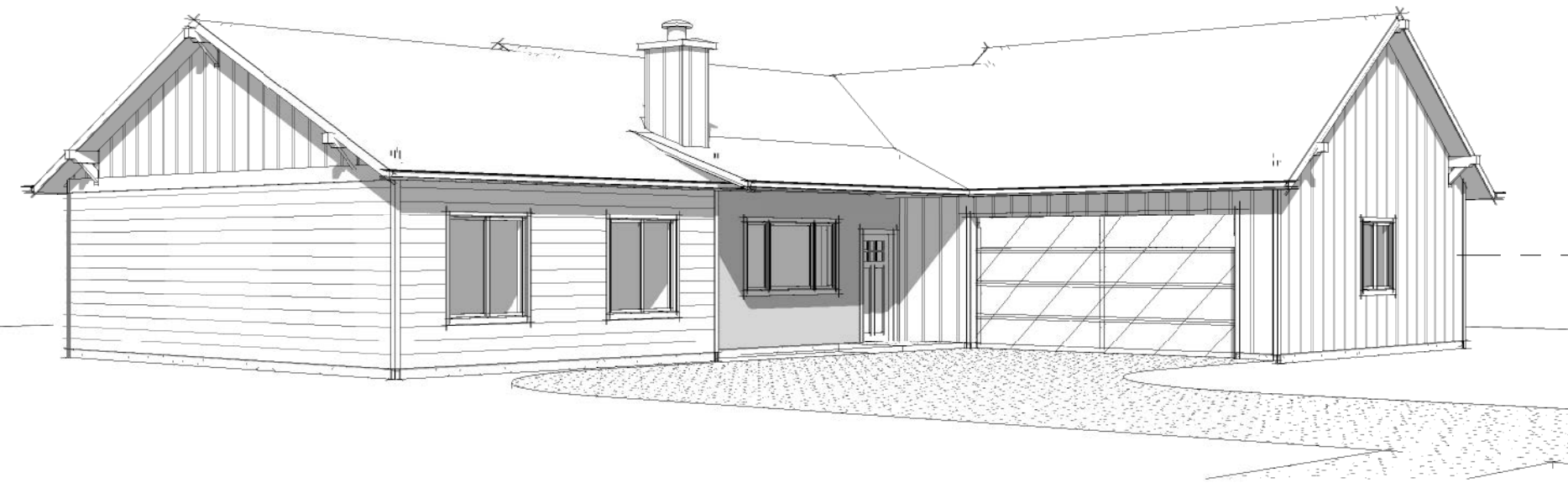
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**FOUNDATION**

DRAWING NUMBER:

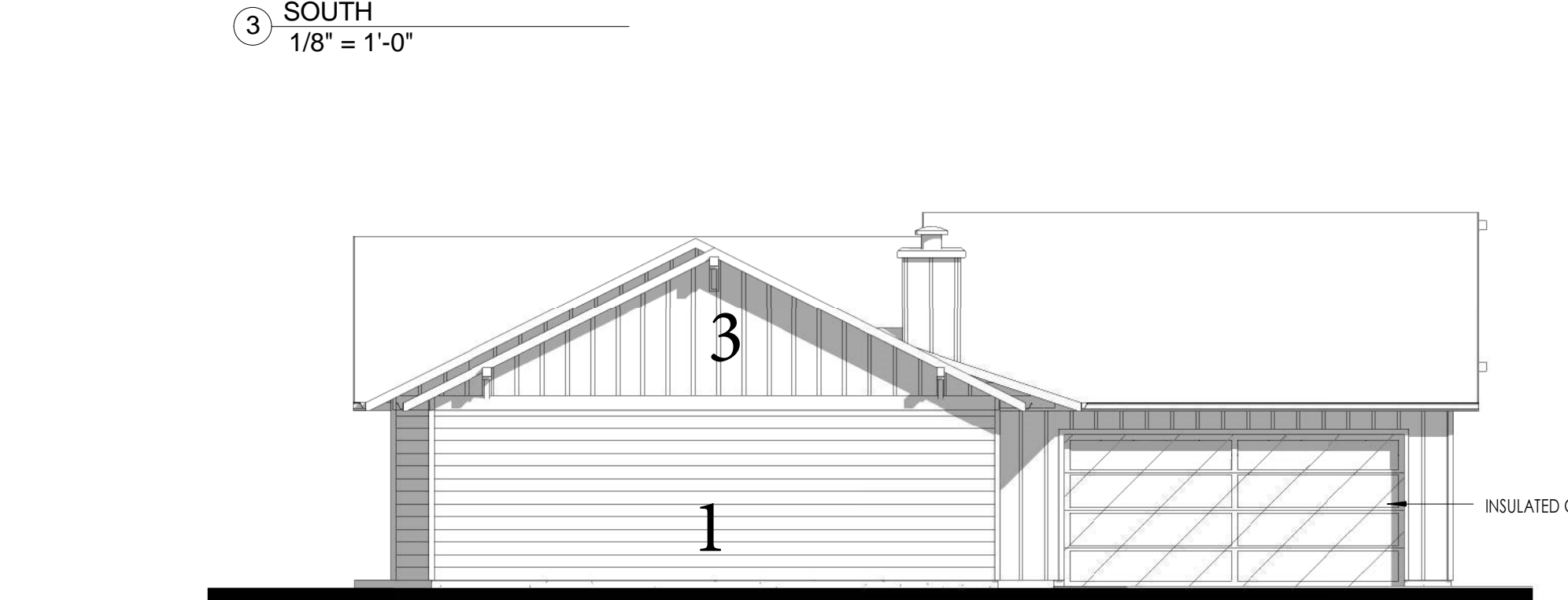
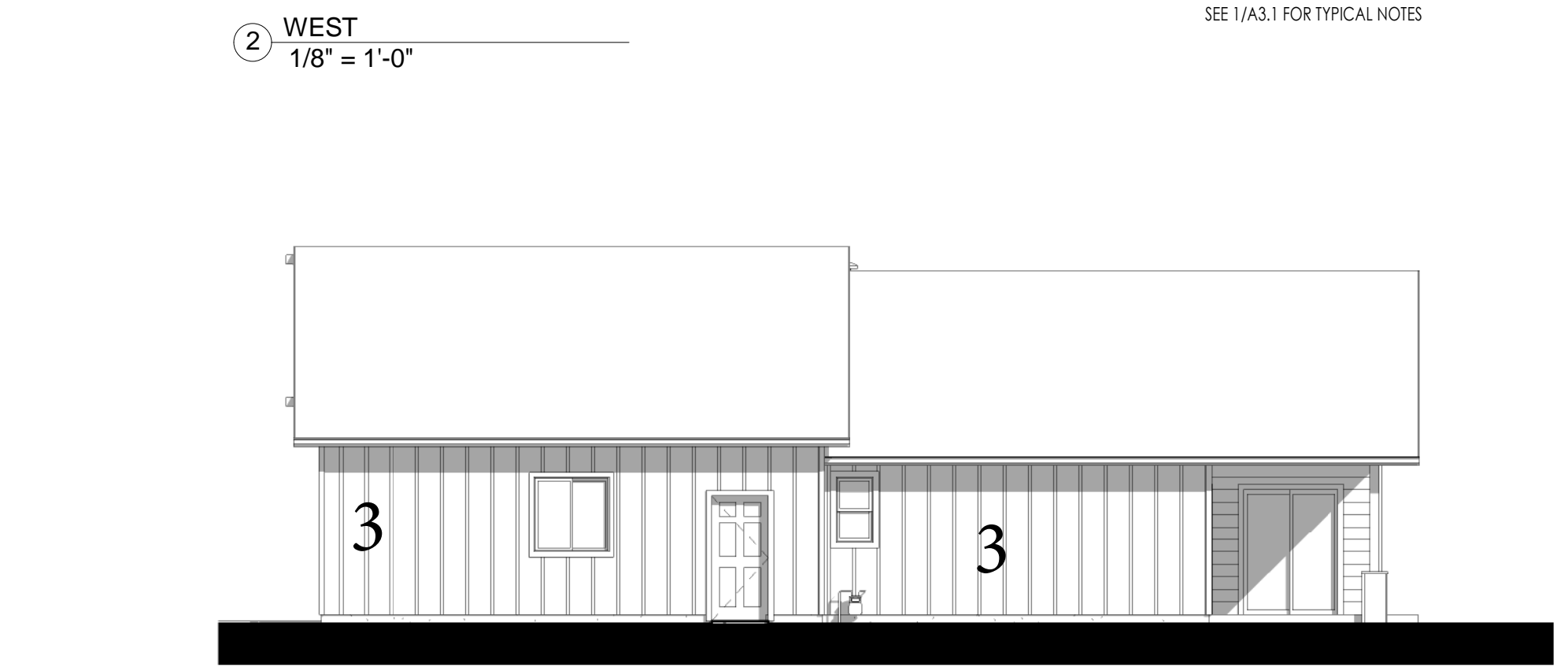
**A2.3**

12/2/2015 9:04:11 AM

12/2/2015 9:04:17 AM



WALL SECTION - 1-STORY DROPPED JOISTS  
 3/4" = 1'-0"



ELEVATION 4: NORTH  
 1/8" = 1'-0"

8" Interior Walls

All trim = 2

**BEN NISTLER**  
 406-570-7345  
 PLAN NAME:  
 NORTHERN  
 LIGHT

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 DATE: DECEMBER 2, 2015  
 PHASE: CONST.

DRAWING TITLE:  
**ELEVATIONS**  
 DRAWING NUMBER:  
**A3.1**