# GreenOx™

## THE WORLD'S MOST ADVANCED SHEDS

# ASSEMBLY GUIDE

# READ THIS FIRST!

The GreenOx shed you are assembling will provide years of lasting performance unlike any sheds offered in the market today. Ease of assembly, overall strength, insulated environment, no rot, mold, fire or infestation-all clear advantages of GreenOx Sheds. Please assemble with care-never drop a panel and take time when placing in sill channel. Once built, the building will be exceptionally strong and durable If you do dent the surface of the panel, simply use exterior joint compound to patch. Let dry sand and paint like you would any other surface. Additionally, do not nail heavy (more than 10#) material directly into the MgOx surface. The recommeded method of hanging material to the MgOx surface is to affix a header board (see Appendix B). Keeping in mind these material handling instructions will insure your complete satisfaction. Thank you!

## BEFORE YOU BEGIN – SURFACE PREPARATION
To ensure proper assembly and performance needs to be built on a solid, level surface. We recommend a poured concrete slab or the use of treated 2' x 4' lumber supported by deck blocks. See image on page 9.

## BEFORE YOU BEGIN – MAGNESIUM OXIDE PROPERTIES
Magnesium Oxide panels are a unique building material and have spcific requirements for fasteners. Care should be taken in fastening into the material. For instructions for hanging anything on the walls of your new GreenOx panels please refer to Appenix B at the of the Assembly Manual.

## BEFORE YOU BEGIN – LOCATION
When choosing a location in your yard make sure you choose an area with easy access and one that provides proper drainage for water to run away from the shed location. Prior to beginning the assembly please complete the following items:

• Thoroughly review all assembly steps (it is important that the steps are followed in the correct order)

• Review the parts list and make sure that no parts are missing

## BEFORE YOU BEGIN – APPENDICES
Please read the appendices beginning on page 31 for required Lowes materials as well as instructions on handling instructions for MagOx Sips.

# Table Of Contents

# Why GreenOx?

GreenOx is the future of outdoor storage and small

buildings, combines the energy efficient "green"

elements of traditional SIPs with the incredible

strength and durability that comes with incorporating

Magnesium Oxide (MagOx) as the strucutral skin.

MagOx is naturally occurring, extremely strong, long-

lasting and fire resistant.

The GreenOx shed you are about to assemble is:
- Fire resistant (UL-approved, ASTM-tested)
- Moisture, mold, and mildew resistant
- Insect resistant
- Extraordinarily durable
- "Green" and eco-friendly - no asbestos or silica
- Contains no organic solvents, heavy metals or
  other toxic ingredients

**GreenOx**

**THE WORLD'S MOST ADVANCED SHEDS**
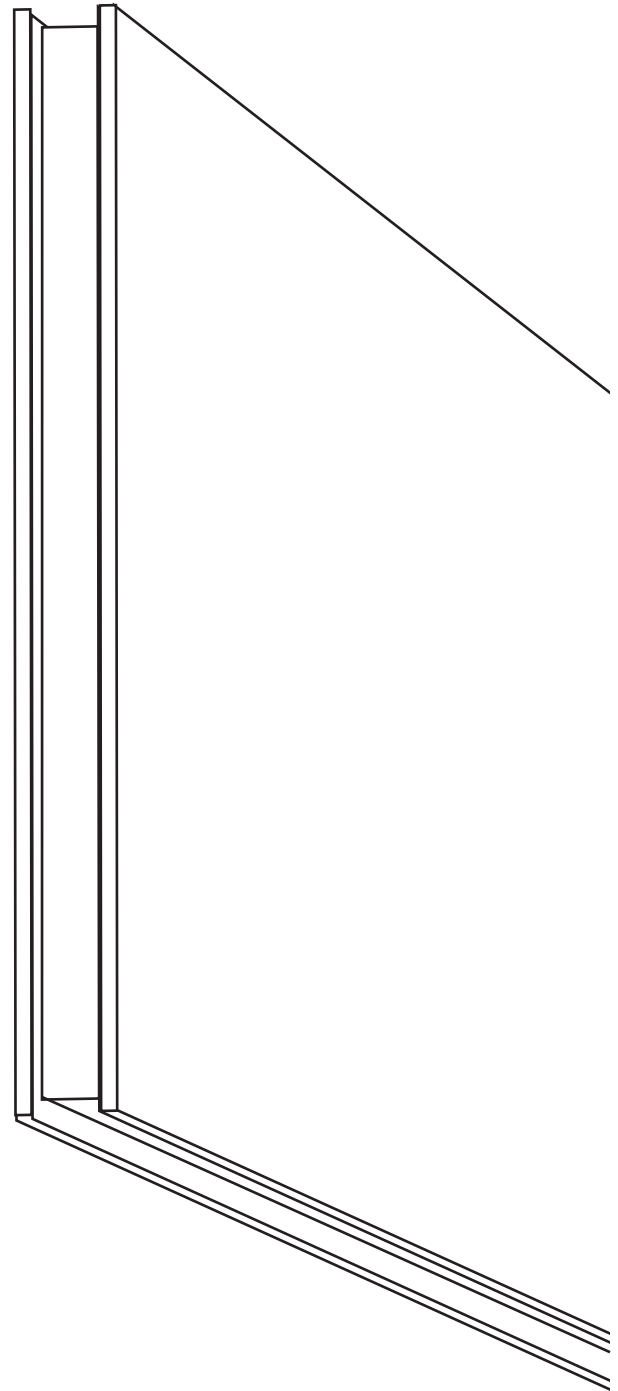
## The importance of Painting or Priming the MagOx panels
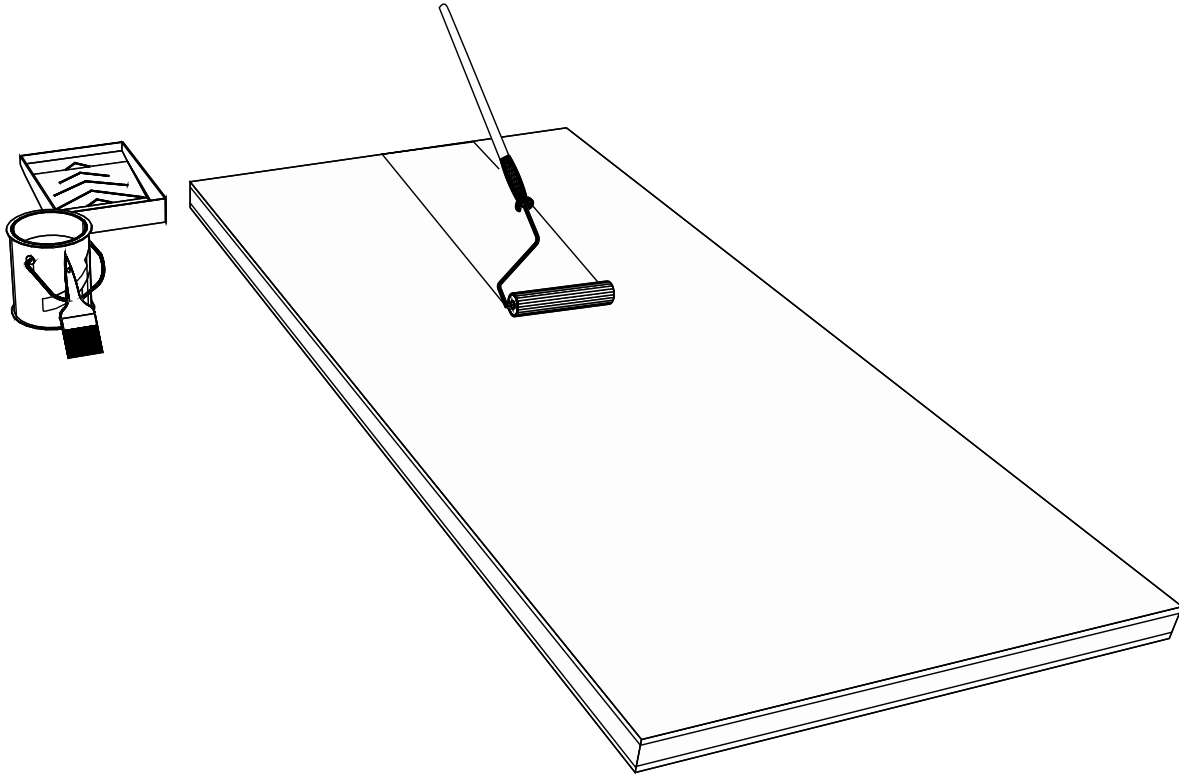
The panels need to be primed or painted around the  MagOx edges (the edge that is ultimately inside the H and C channels) before construction in order to meet warranty requirements.  Furthermore they have to be primed or painted on all MagOx surfaces to meet warranty requirements (whether painted prior to assembly or after).

## Recommended  Painting Procedure

Lay out all panels beforehand and use a roller. Let dry before assembling.

# Parts & Materials
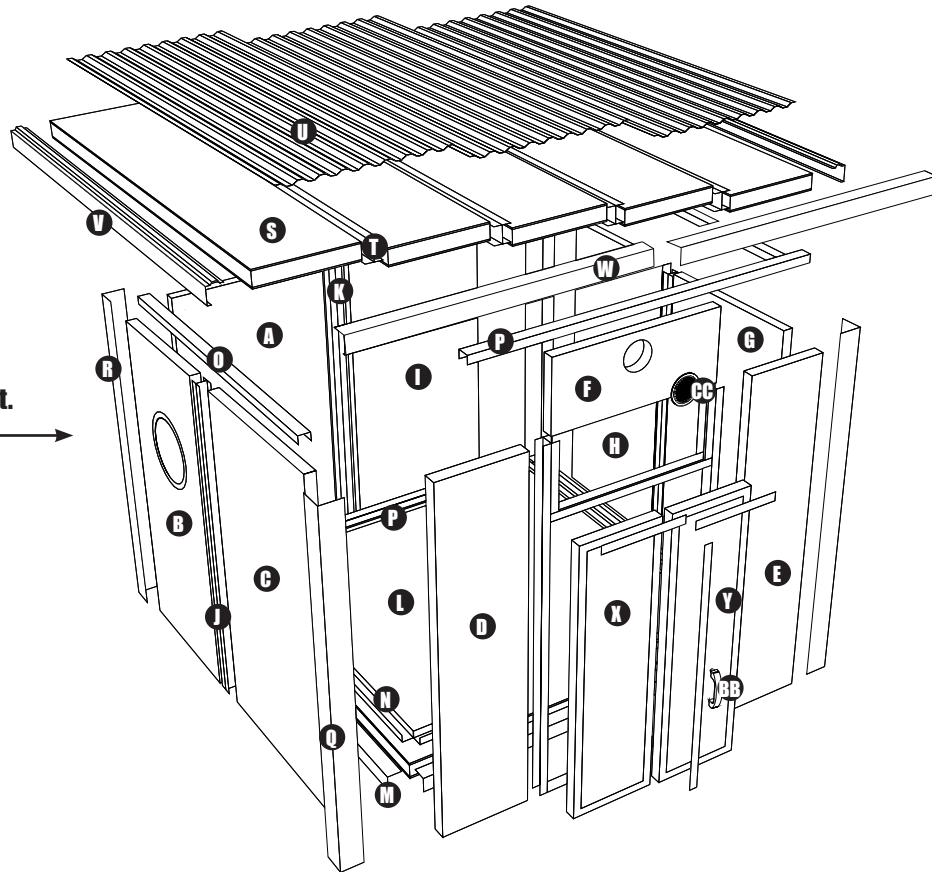
NOTE: Standard 8 ft. x 8 ft. Shed shown here. →

| FLOOR | QUANTITY | | | ASSEMBLY |
|---|---|---|---|---|
| | 8 X 8 | 8 X 10 | 8 X 12 | LETTER |
| Floor Panel - 4' x 8' | 2 | 2 | 3 | L |
| Floor Panel - 2' x 8' | | 1 | | L |
| Floor Trim (L-Shaped) 8' | 4 | 2 | 2 | M |
| Floor Trim 5' 2" | | 4 | | M |
| Floor Trim 6' 2" | | | 4 | M |
| C-Channel Sill (Front) 22" | 2 | | | N |
| C-Channel Sill (Front) 34" | | 2 | | N |
| C-Channel Sill (Front) 46" | | | 2 | N |
| C-Channel Sill (Side+Back) 90" | 2 | 2 | 2 | N |
| C-Channel Sill (Back) 57" | | 2 | | N |
| C-Channel Sill (Back) 69" | | | 2 | N |
| | | | | |
| **WALLS** | | | | |
| Back Panel (Left) "A" - 4' x 7' 4" | 1 | 1 | 2 | A |
| Back Panel (Middle) "A" - 2' x 7' 4" | | 1 | | NS* |
| Side Panel "B" (left+window) 4" x 7' 9" | 1 | 1 | 1 | B |
| Side Panel "C" (left) 4 x 7' 9" | 1 | 1 | 1 | C |
| Front Panel "D" (Left) 2' x 8' | 1 | | | D |
| Front Panel "D" (Left) 3' x 8' | | 1 | | D |
| Front Panel "D" (Left) 4' x 8' | | | 1 | D |
| Front Panel "E" (Right) 2' x 8' | 1 | | | E |
| Front Panel "E" (Right 3' x 8' | | 1 | | E |
| Front Panel "E" (Right 4' x 8' | | | 1 | E |
| Door Header Panel "F" 4' x 2' | 1 | 1 | 1 | F |
| Side Panel "G" (Right) 4' x 7' 9" | 1 | 1 | 1 | G |
| Side Panel "H" (Right) 4' x 7' 6" | 1 | 1 | 1 | H |
| Back Panel "I" (Right) 4' x 7' 6" | 1 | 1 | 2 | I |
| H-Channel (Side) 7' 8" | 2 | 2 | 2 | J |
| H-Channel (Back) 7' 6" | 1 | 2 | 2 | K |

| WALL TRIM | QUANTITY | | | ASSEMBLY |
|---|---|---|---|---|
| | 8 X 8 | 8 X 10 | 8 X 12 | LETTER |
| Top Cap C-Channel (Sides) 90" | 2 | 2 | 2 | O |
| Top Cap C-Channel (Front+Back) 90" | 2 | | | P |
| Top Cap C-Channel (Front+Back) 57" | | 4 | | P |
| Top Cap C-Channel (Front+Back) 69" | | | 4 | P |
| Front Outside Corner Trim (L+R) 8' 4 1/2" | 2 | 2 | 2 | Q |
| Front Inside Corner Tril (L+R) 8' | 2 | 2 | 2 | NS* |
| Back Outside Corner Trim (L+R) 7' 9" | 2 | 2 | 2 | R |
| Back Inside Corner Tril (L+R) 8' | 2 | 2 | 2 | NS* |
| | | | | |
| **ROOF** | | | | |
| Roof Panels- 2' x 9' | 5 | 6 | 7 | S |
| Roof H-Channels 9' | 4 | 6 | 6 | T |
| Roof Sheeting 9' | 3 | 4 | 5 | U |
| Roof Trim (Sides) 9' | 2 | 2 | 2 | V |
| Roof Trim (Front) 5' | 2 | | | W |
| Roof Trim (Front) 6' | | 2 | | W |
| Roof Trim (Front) 7' | | | 2 | W |
| Roof Trim (Back) 5' 2" | 2 | | | NS |
| Roof Trim (Back) 6' 2" | | 2 | | NS |
| Roof Trim (Back) 7' 2" | | | 2 | NS |
| Foam Insert (Front) 36" | 3 | 4 | 5 | NS |
| Foam Insert (Back 36" | 3 | 4 | 5 | NS |
| | | | | |
| **DOOR** | | | | |
| Door Panel+Hinges (Left) 2' x 8' | 1 | 1 | 1 | X |
| Door Panel+Hinges (Right) 2' x 8' | 1 | 1 | 1 | Y |
| Standard Door Handle | 1 | 1 | 1 | BB |
| Vent | 1 | 1 | 1 | CC |
| | | | | |
| **MISC** | | | | |
| High Eave Trim 2 3/4" | 2 | 2 | 2 | NS* |
| High Eave Screen Cap 18" | 1 | 1 | 1 | NS* |

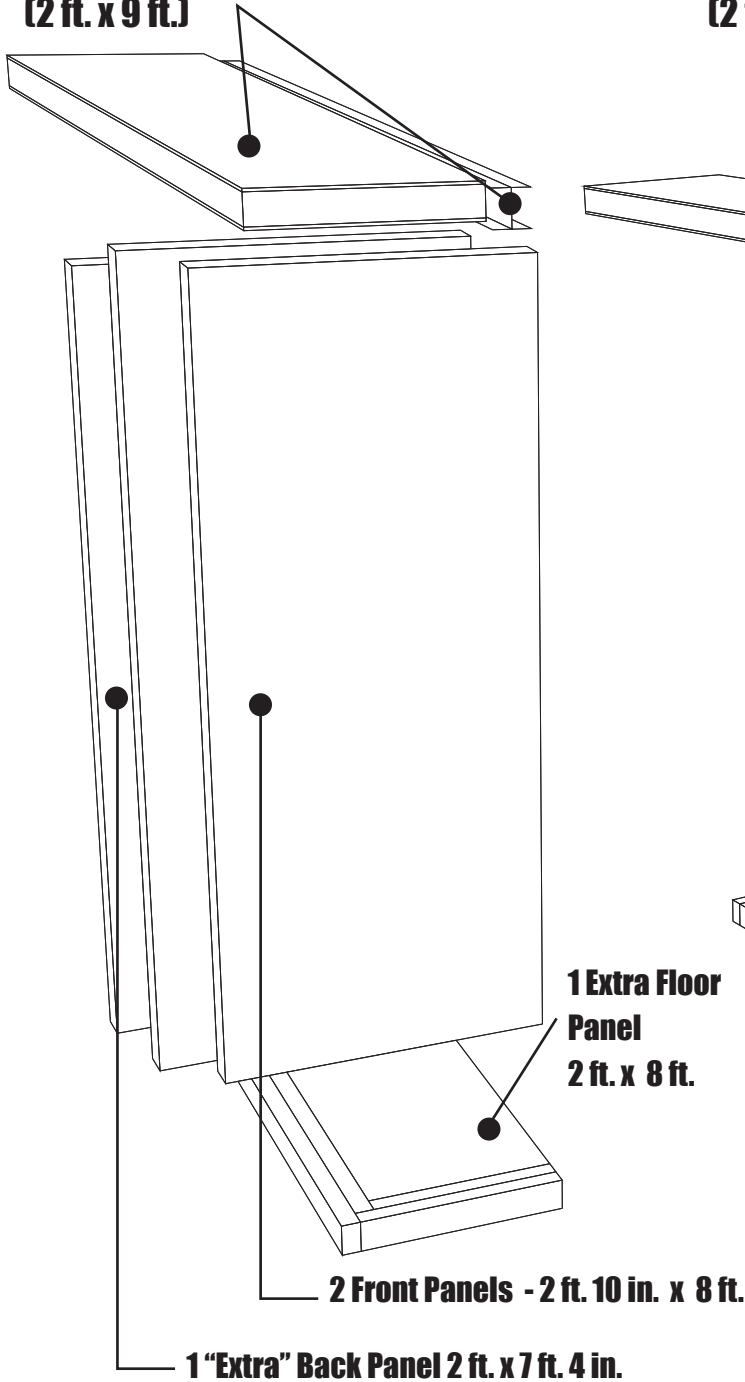*NS = Not Shown

# 10 ft. and 12 ft. Shed Panels

**GreenOx**
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**IMPORTANT: this assembly guide is based on the 8 ft. x 8 ft. GreenOx shed. If you purchased an 8 ft. x 10 ft. or a 8 ft. 12 ft. GreenOx Shed, see the additional panels below.**
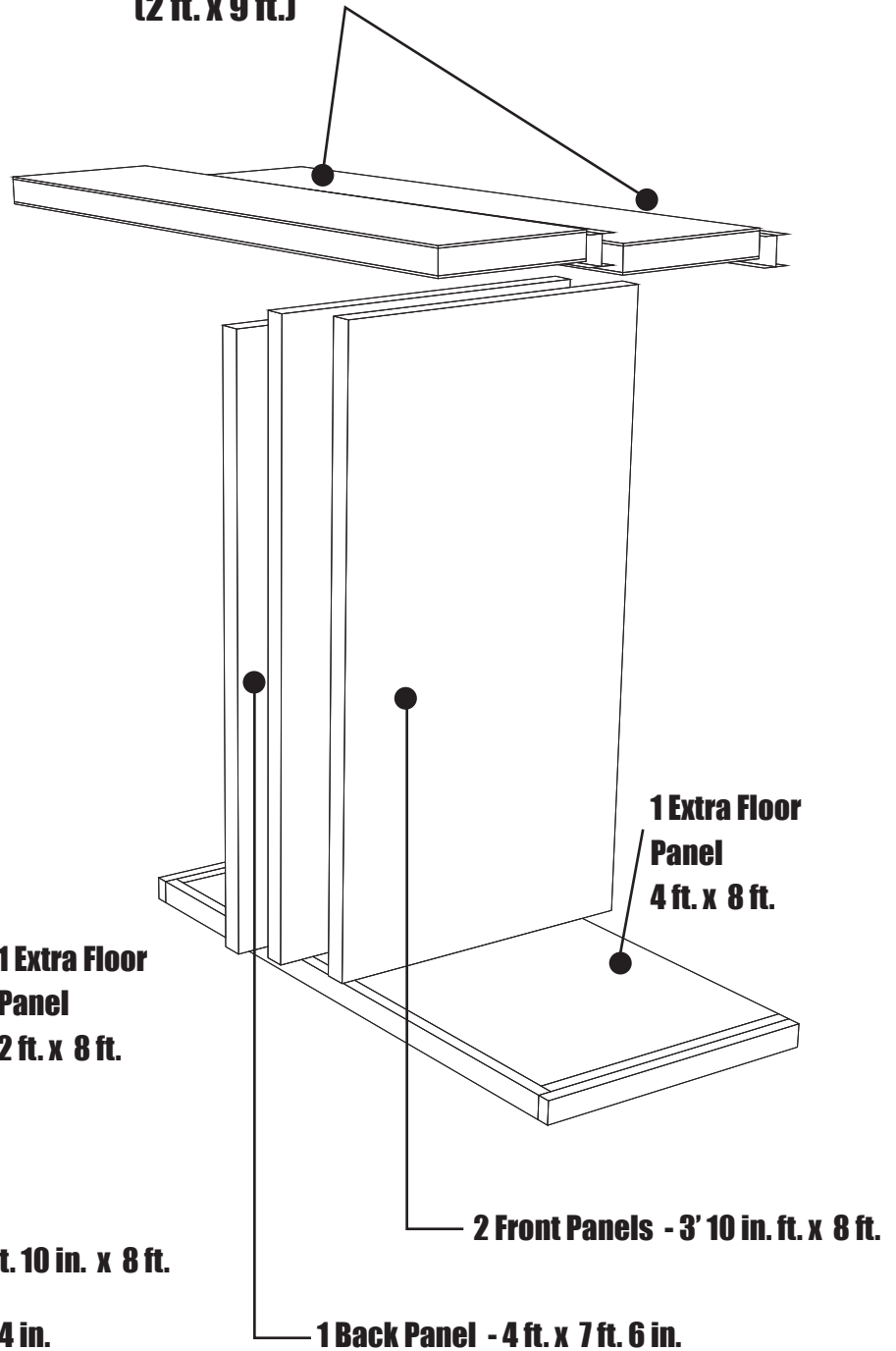
**Additional panels for 8 ft. x 10 ft. Shed**

**1 Extra Roof Panel & H-Channel (2 ft. x 9 ft.)**

**1 Extra Floor Panel 2 ft. x 8 ft.**

**2 Front Panels - 2 ft. 10 in. x 8 ft.**

**1 "Extra" Back Panel 2 ft. x 7 ft. 4 in.**

**Additional panels for 8 ft. x 12 ft. Shed**

**2 Extra Roof Panels & H-Channels (2 ft. x 9 ft.)**

**1 Extra Floor Panel 4 ft. x 8 ft.**

**2 Front Panels - 3' 10 in. ft. x 8 ft.**

**1 Back Panel - 4 ft. x 7 ft. 6 in.**

# Dimensions

## GreenOx Shed  Dimensions

### 8 ft. x 8 ft.



Back wall height
7 ft. 11.5 in.

Front wall height
8 ft. 5.5 in.

Side wall width
8 ft.

Front wall width
8 ft.

### 8 ft. x 10 ft.



Back wall height
7 ft. 11.5 in.

Front wall height
8 ft. 5.5 in.

Side wall width
8 ft.

Front wall width
10 ft.

### 8 ft. x 12 ft.



Back wall height
7 ft. 11.5 in.

Front wall height
8 ft. 5.5 in.

Side wall width
8 ft.

Front wall width
12 ft.
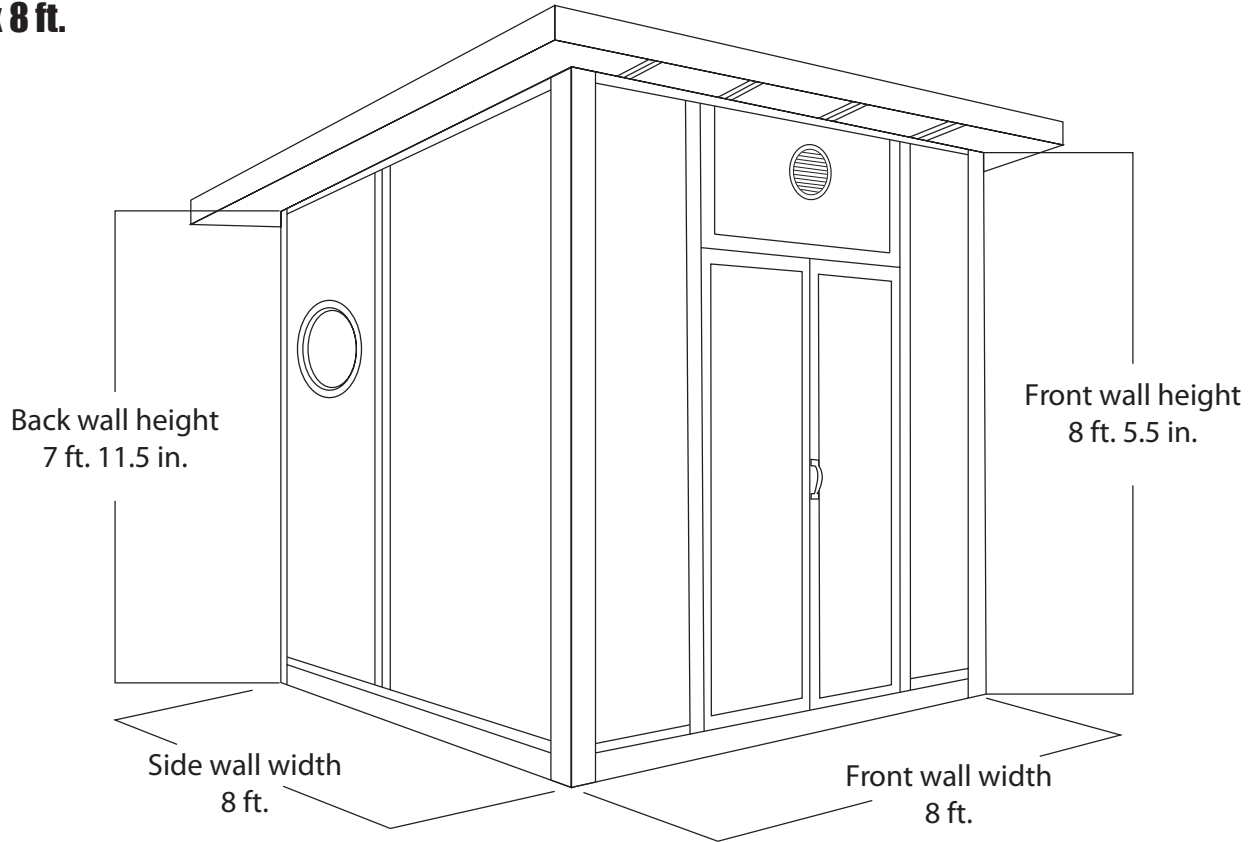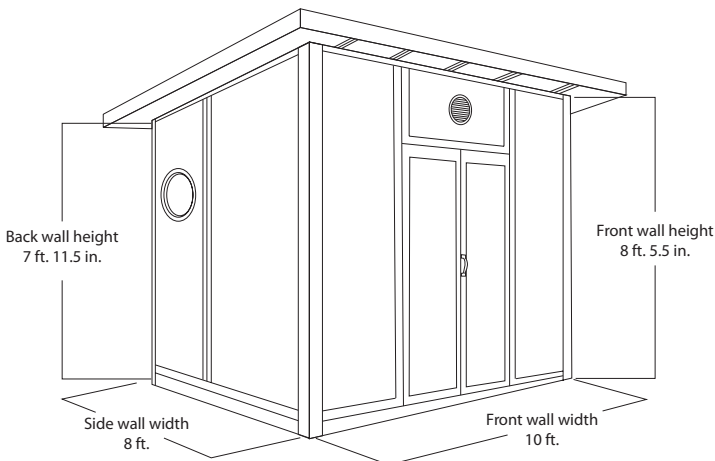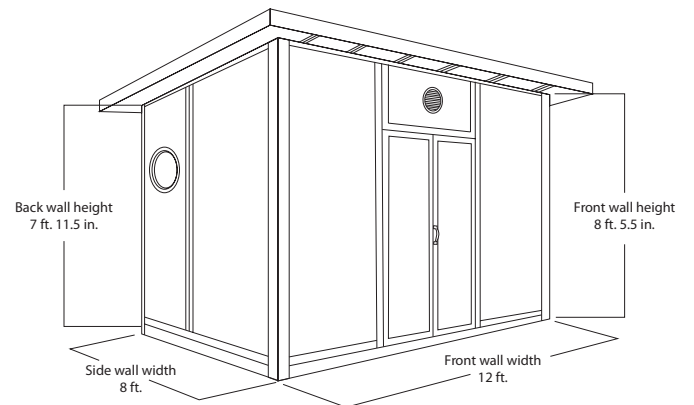
# Foundations

## Shed Foundation

Build a solid, level surface for the shed foundation; minimum foundation dimensions are shown. Consult your local building authority for ordinances or restrictions before building any structure at your home.
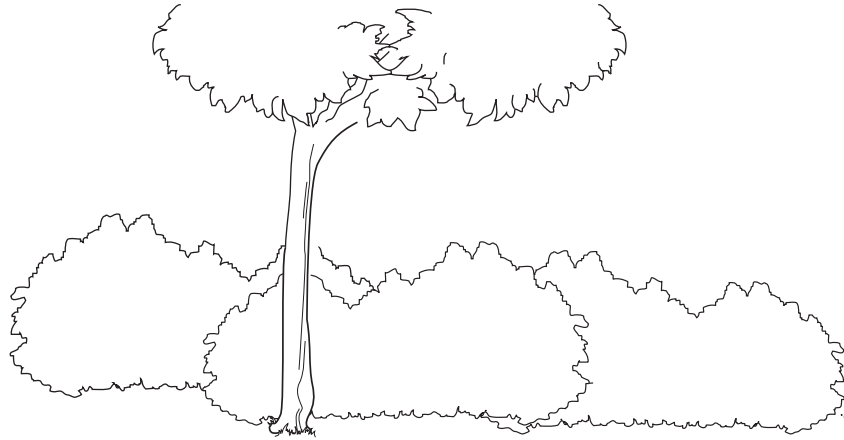
## Note:

Minimum dimensions for 8 ft. x 8 ft. foundations shown.

96"

96"
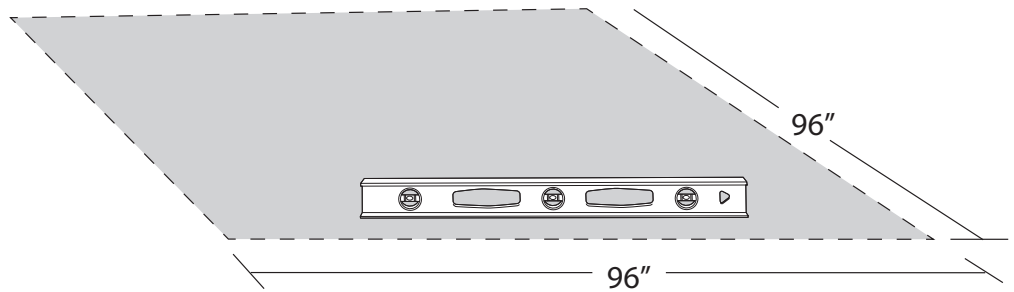
## Using a floating foundation deck system

# Floor Assembly
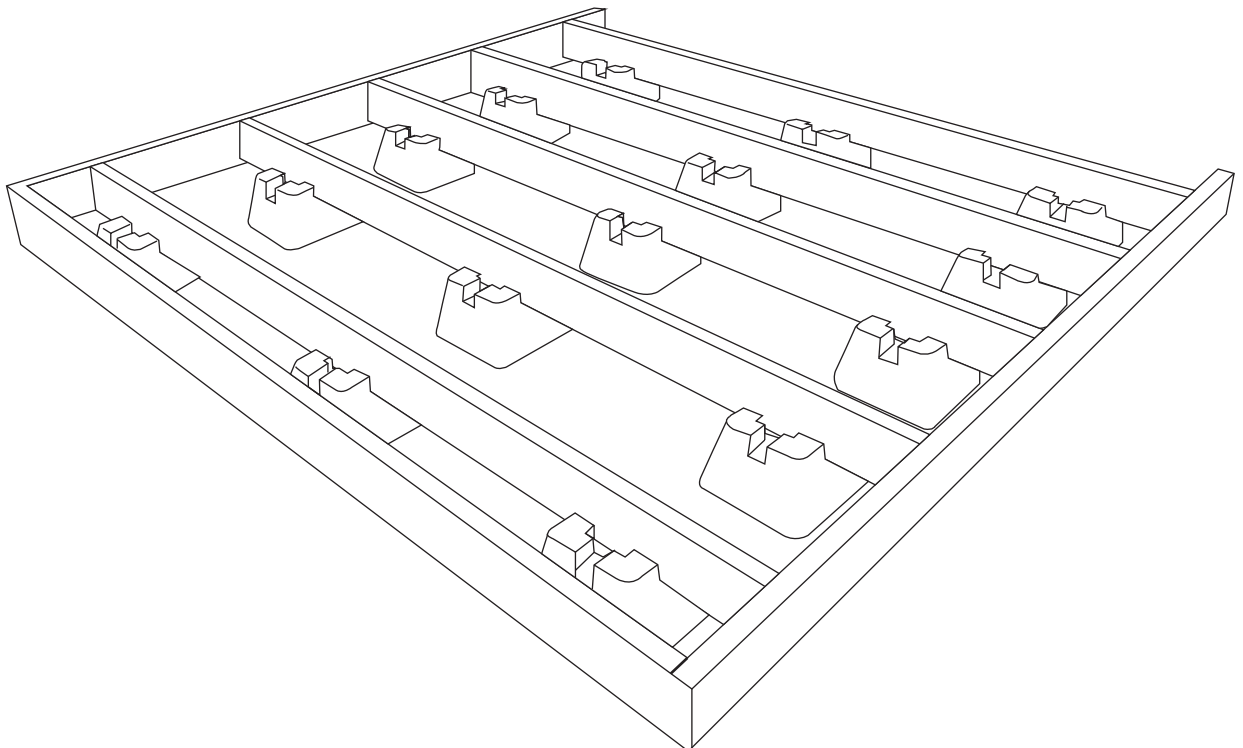
## Floor Dimensions

The floor is comprised of Pressure treated (1/2") plywood SIPs (3-1/2" thick EPS) double recessed outside, single in middle. Recessed 1-1/2" for single and 3" for double. Second board nails to inside of first panel and second panel slides in to fit. Boards nail from the top with standard 16D nails.

### Lumber requirements for floor assembly

(4) 7' 6" Pressure Treated 2x4's

(4) 7' 9" Pressure Treated 2x4's

(2) 8' 0" Pressure Treated 2x4's

See Appendix 'A'

(Lowe's material list)

Floor dimension diagram labels: 7 ft. 9", 7 ft. 6", 7 ft. 6", 4 ft., 8 ft., 7 ft. 9", 8 ft., 7 ft. 6", 7 ft. 9"

## Floor Elements

Pressure treated plywood: 4 ft. x 8 ft. - 1/2 in. thick (top skin of floor SIP)

Treated lumber (2 x 4s - all boards shown)

EPS foam 3 1/2" thick (core of floor SIP)

Pressure treated plywood: 4 ft. x 8 ft. - 1/2 in. thick (bottom skin of floor SIP)
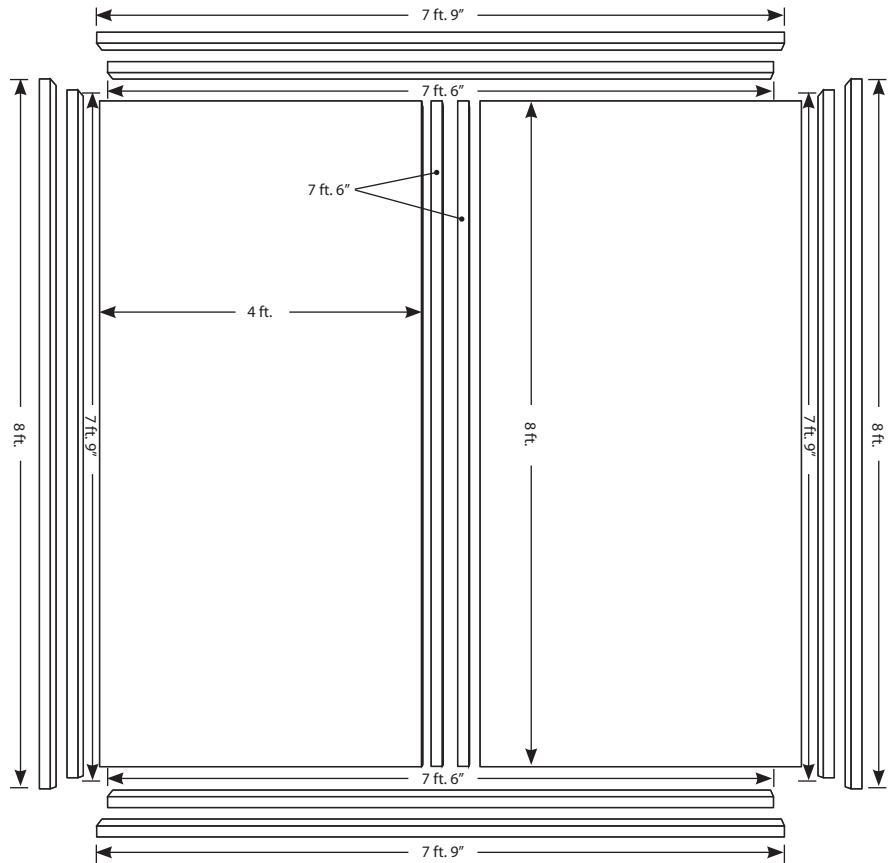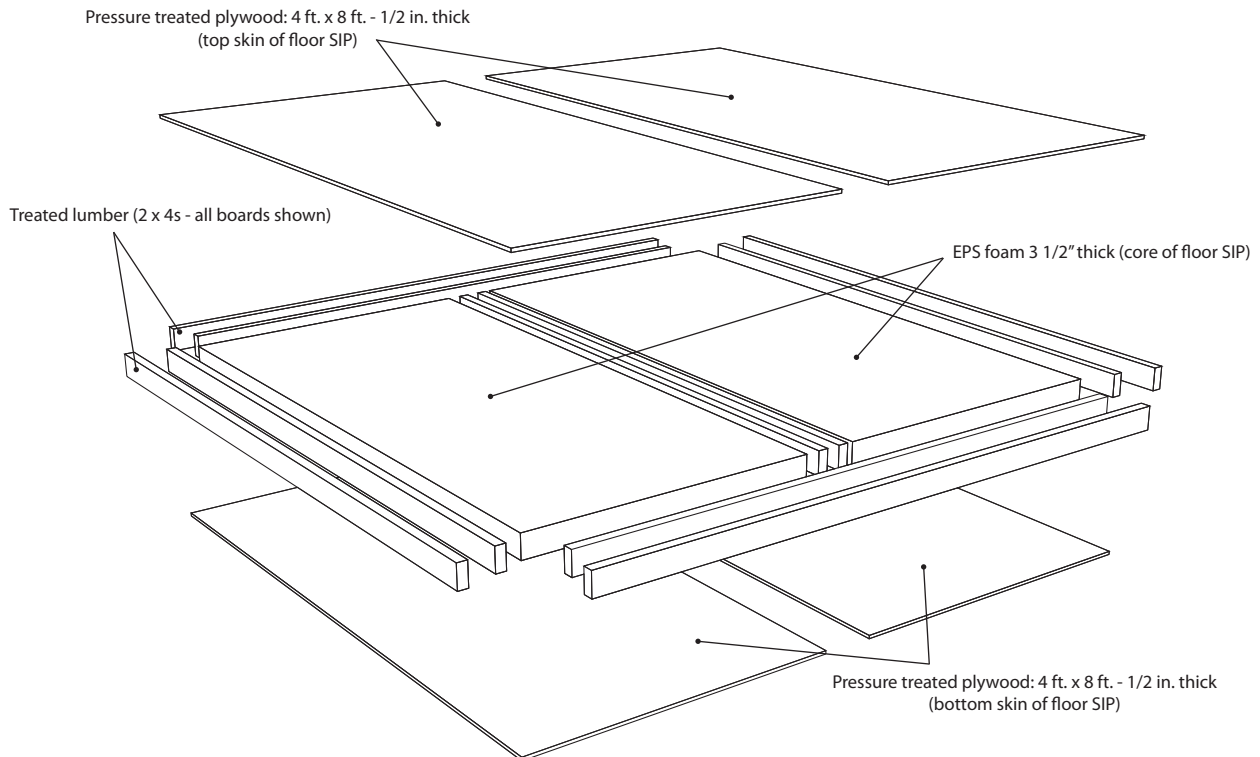
# Floor Assembly

**1** **Place 1st 7' 6" center board flush with foam of left floor SIP.**

**NOTE:** Before starting assembly, stage your floor panels next to your foundation so you can easily place them on your foundation when instructed.

TOP

LEFT

Left floor SIP

BOTTOM
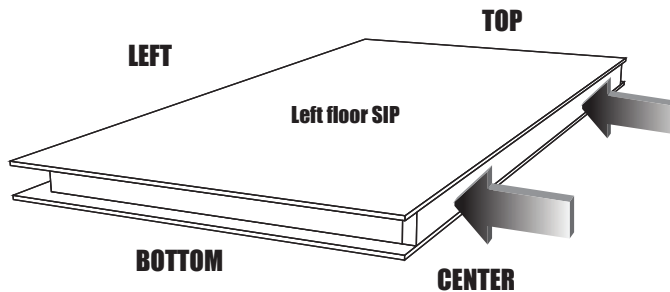
CENTER

**2** **Secure to SIP with 16D nails placed 2/4" from the top edge and spaced 12" apart.**

TOP

LEFT

Left floor SIP

CENTER

BOTTOM
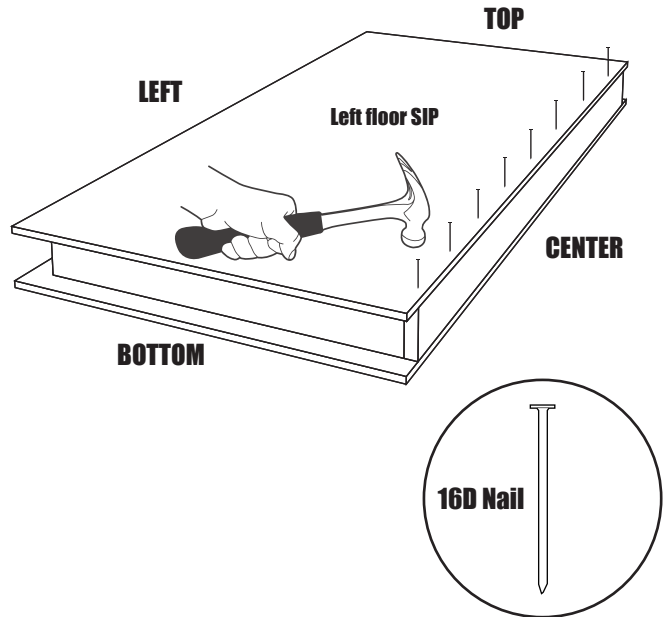
16D Nail

**3** **Place 2nd center board flush with 1st center board and secure with 16D nails placed in center of board and spaced 12" apart.**

TOP

LEFT

Left floor SIP
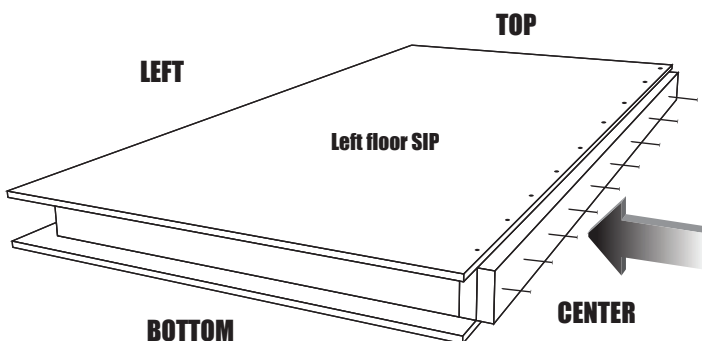
BOTTOM

CENTER

**4** **Slide right floor SIP over 2nd center board and flush with left floor SIP. Secure with 16D nails aligned and spaced as in Step 2.**

TOP

Right floor SIP

LEFT

Left floor SIP

RIGHT
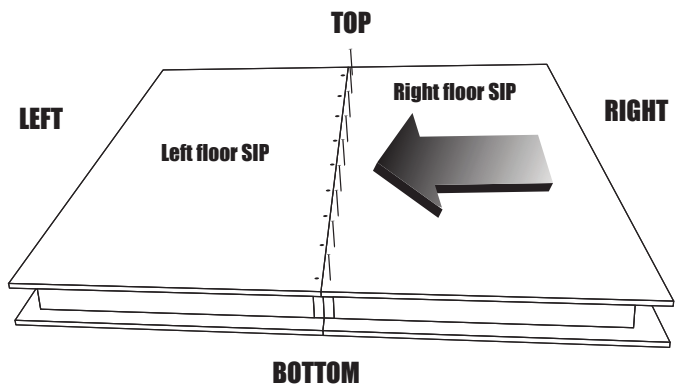
BOTTOM

# Floor Assembly

**5** Slide 7' 6" board into bottom of floor SIP flush to the foam and secure with 16D nails 1-1/2" from the edge (center to the board edge).

RIGHT
TOP
LEFT
BOTTOM
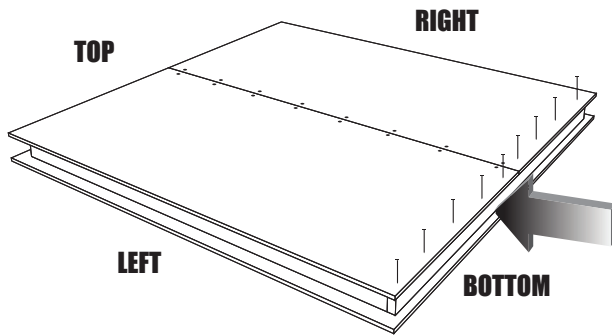
**6** Slide 7' 6" board into bottom of floor SIP flush to the foam and secure with 16D nails 1-1/2" from the edge (center to the board edge).

BOTTOM
LEFT
RIGHT
TOP
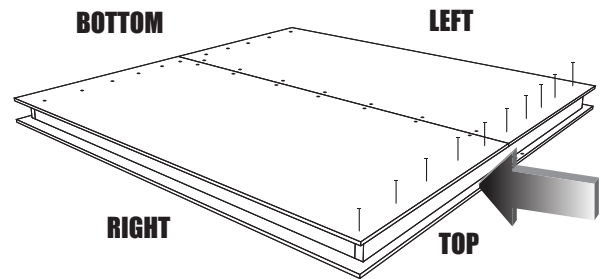
**7** Place 7' 9" board into left side of floor SIP flush to the foam and secure with 16D nails and placed 1-1/2" from the edge (center to the board edge).

TOP
RIGHT
LEFT
BOTTOM
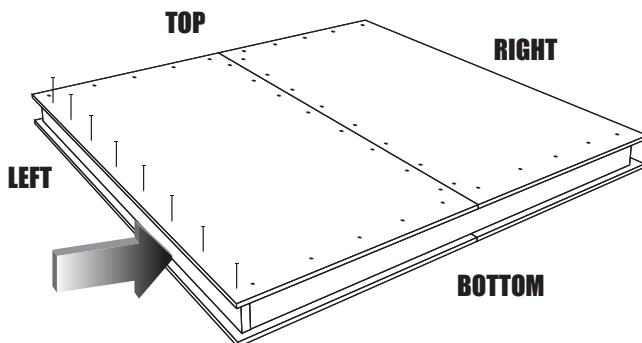
**8** Place 7' 9" board into right side of floor SIP flush to the foam and secure with 16D nails and placed 1-1/2" from the edge (center to the board edge).

TOP
LEFT
BOTTOM
RIGHT
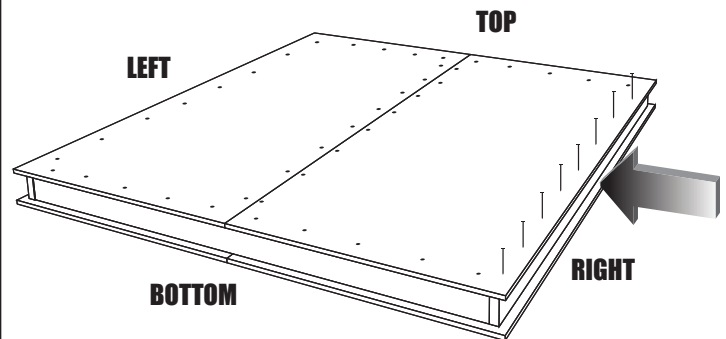
# Floor Assembly

**9** Slide 8' board into left side of floor SIP flush to the 7' 9" board andedges of plywood and secure with 16D nails 3/4" from the edge (center to the board edge).

TOP
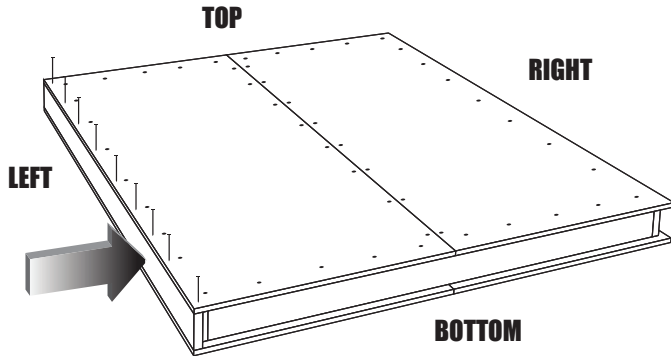
RIGHT

LEFT

BOTTOM

**10** Slide 7' 9" board into bottom of floor SIP flush to the 7' 6" board and the exposed edge of the 8' left board. Secure with 16D nails 3/4" from the edge (center to the board edge).
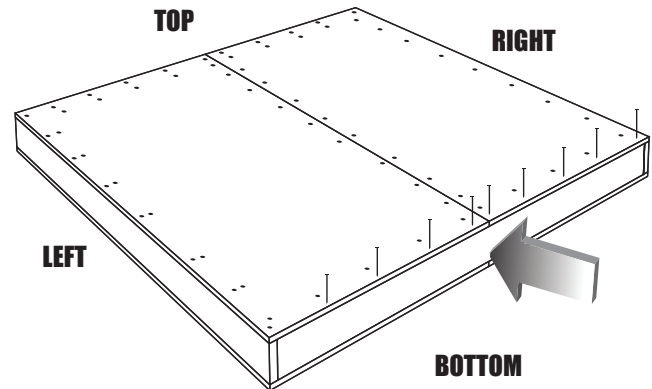
TOP

RIGHT

LEFT

BOTTOM

**11** Place 7' 9" board into right side of floor SIP flush to the foam and secure with 16D nails and placed 1-1/2" from the edge (center to the board edge).

LEFT

TOP

BOTTOM
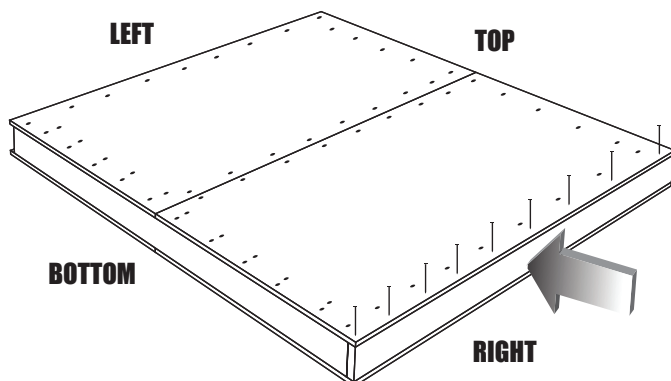
RIGHT

**12** Place 7' 9" board into right side of floor SIP flush to the foam and secure with 16D nails and placed 1-1/2" from the edge (center to the board edge).

BOTTOM

LEFT

RIGHT

TOP
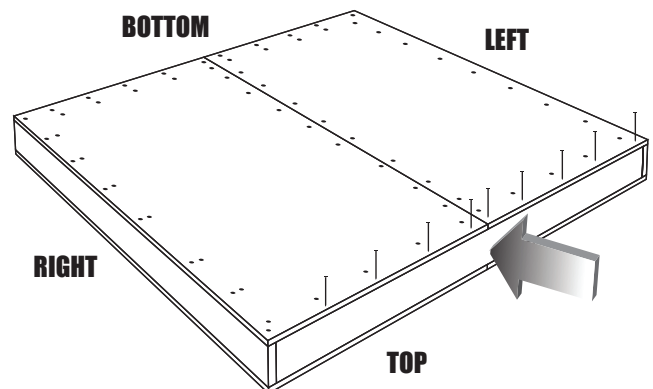
With the help of a partner, flip the floor assembly over and

# Floor Assembly

## Floor Nail Pattern

TOP

Place nails 12" apart

12"

LEFT

CENTER

RIGHT

BOTTOM

## Isometric View

TOP

RIGHT

CENTER

LEFT

BOTTOM
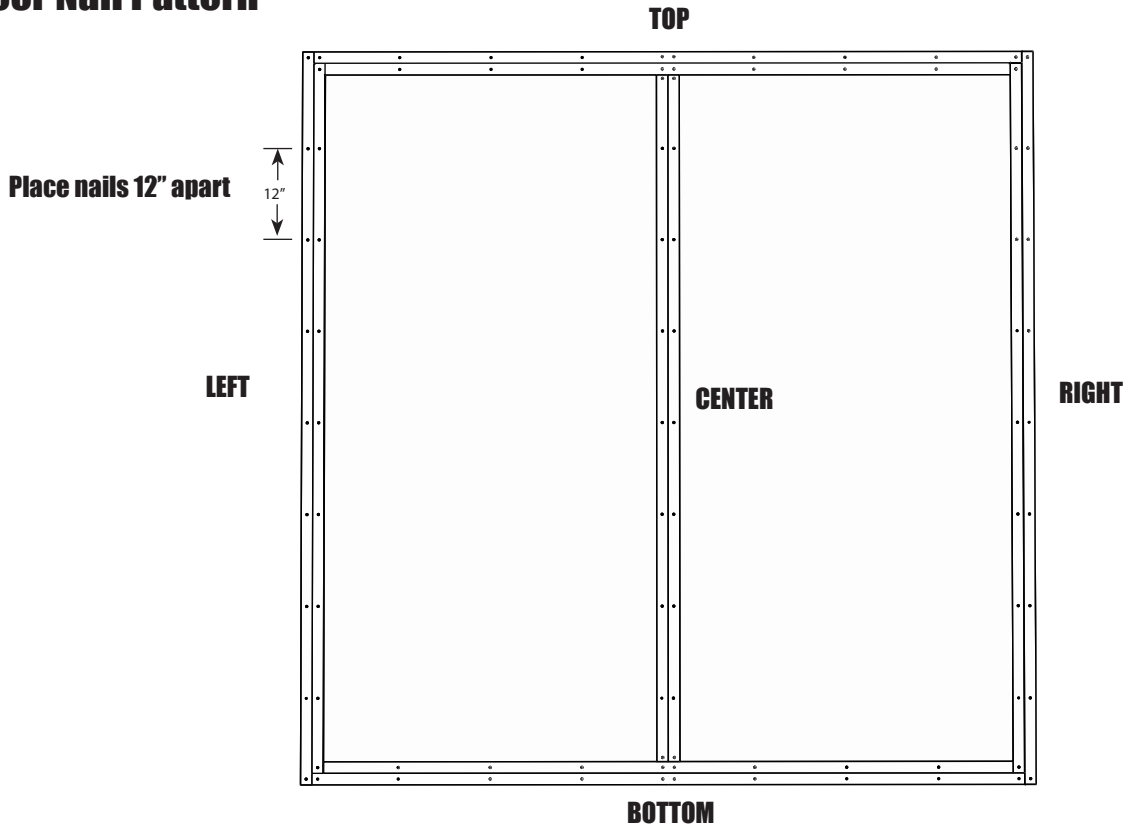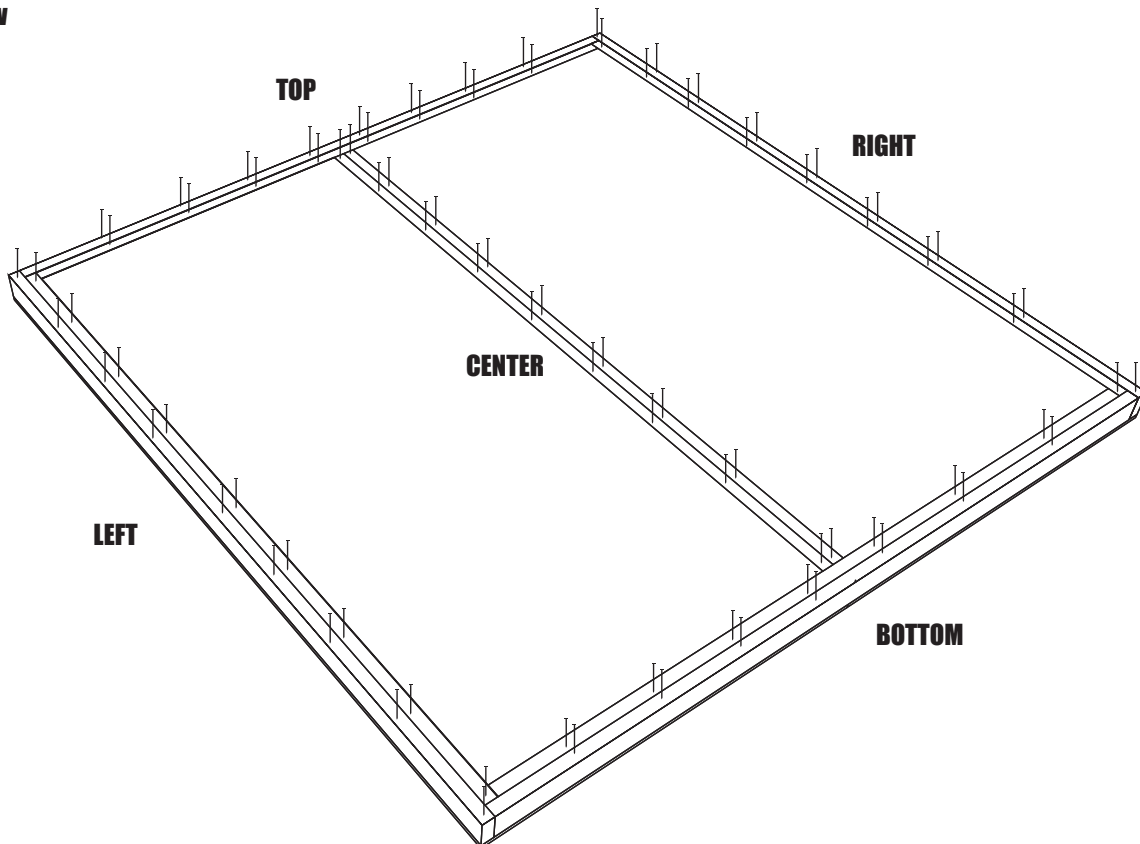
# Floor Trim

**1** Assembled Floor.

TOP

RIGHT

LEFT

BOTTOM
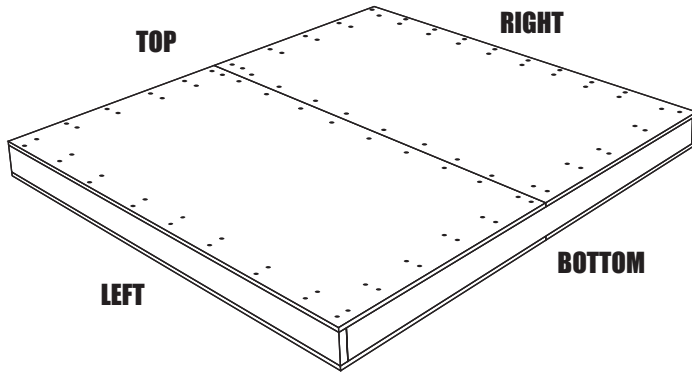
**2** Installing "L-Shaped" Floor Trim.

TOP

RIGHT

LEFT

BOTTOM
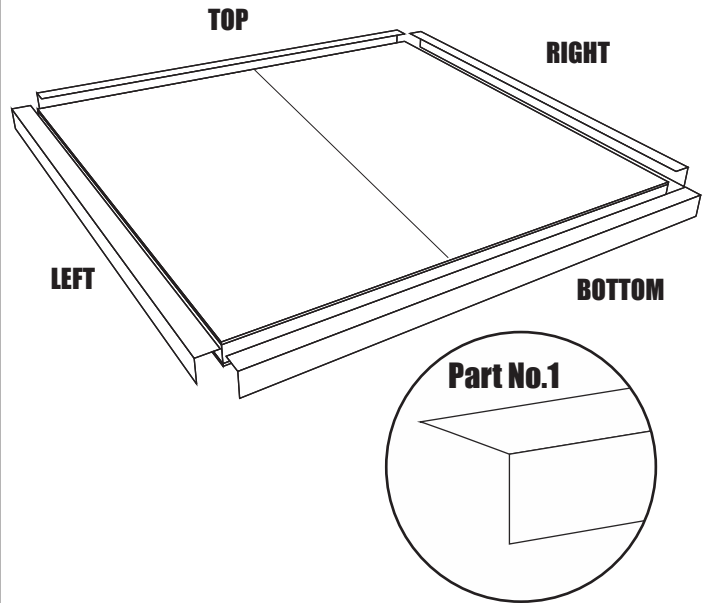
Part No.1

**3** Trim is placed flush to the top and sides of the floor but not yet secured.
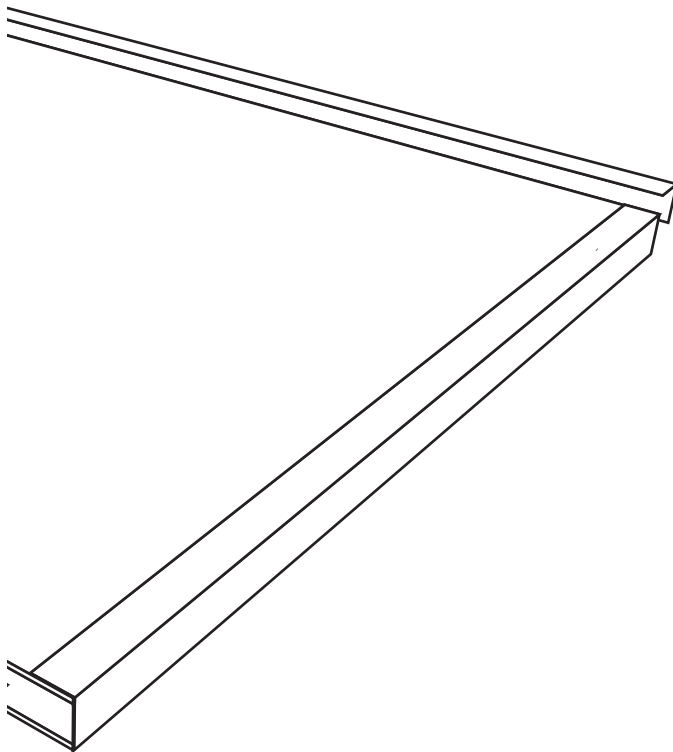
**4** Floor with Trim in place.
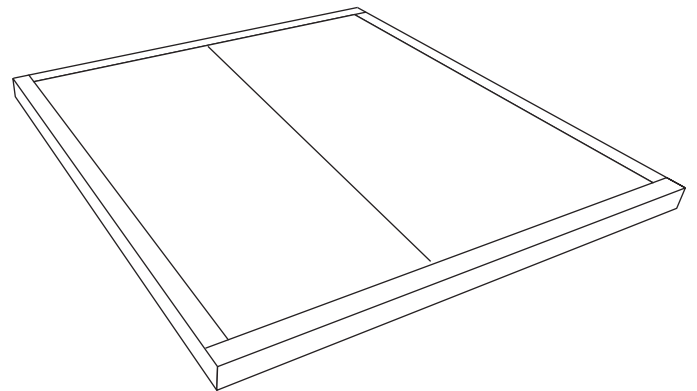
# Floor C-Channel Sills

**1** C-Channel Sills.
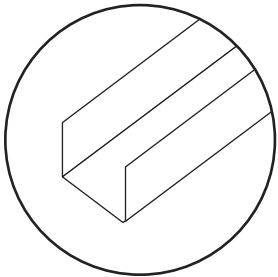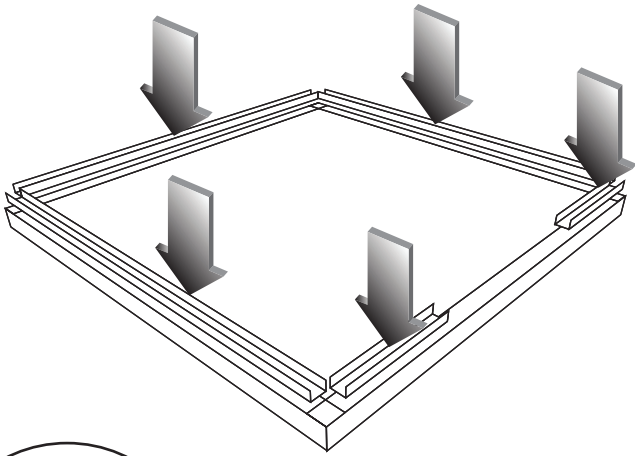
Front Sills - Part No. 4

Sides & Back Sills - Part No. 36

**2** Securing the C-Channels to the L-Trim & Floor.
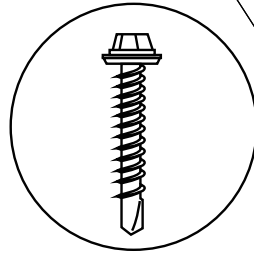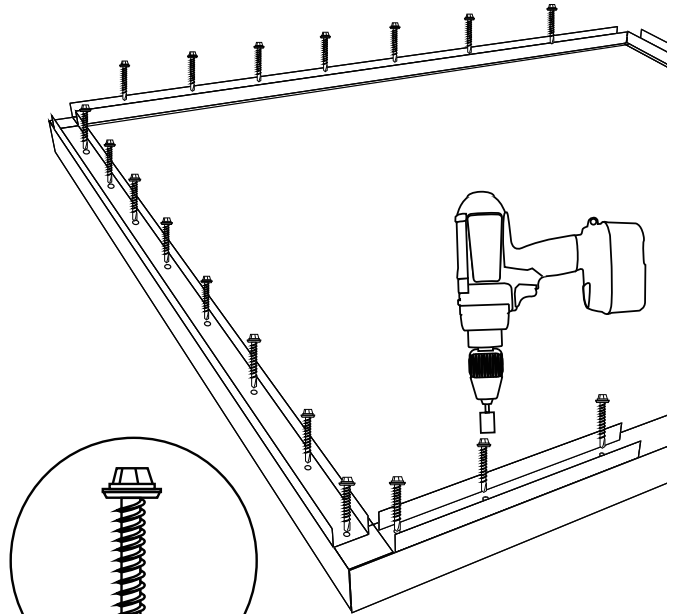
Front Sills - Part No. 4

**3** Completed Floor Assembly with L-Trim and C-Channels in place.
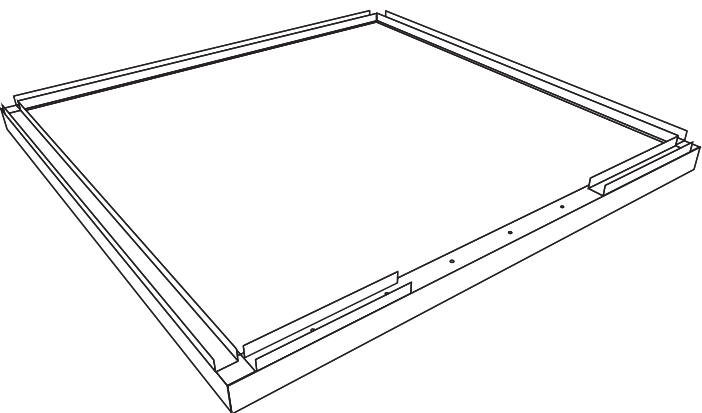
**4** Screw Pattern for C-Channel Sills.
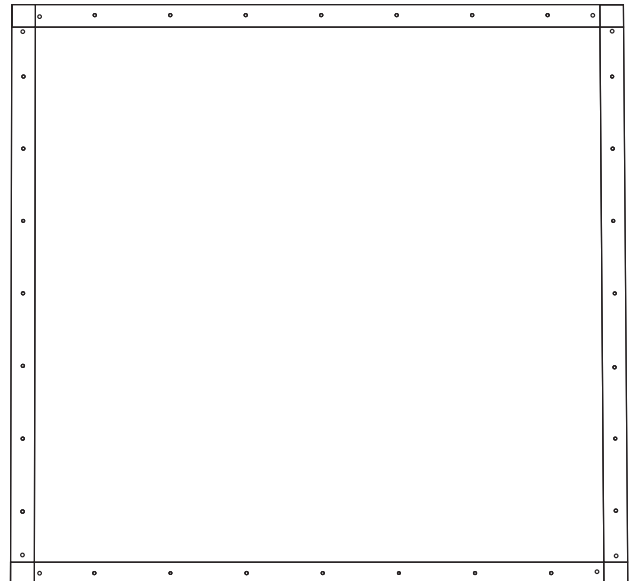
# MagOx SIP Installation

## 1   Install Panel A.
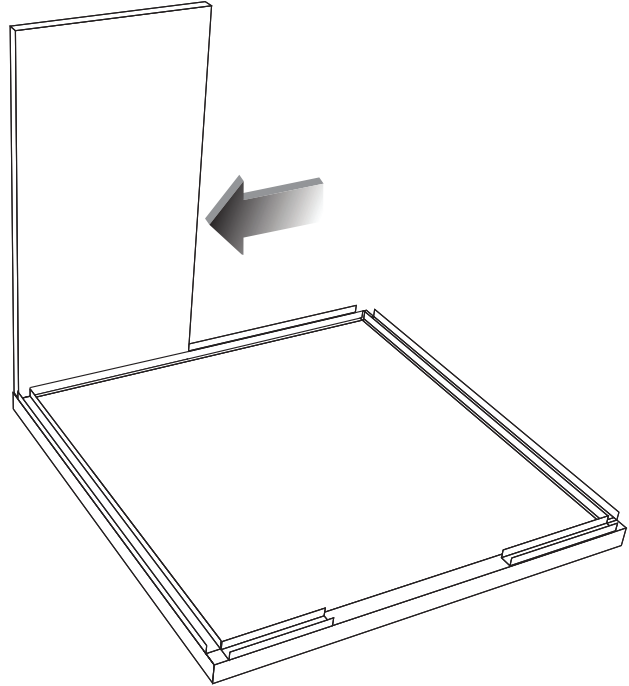
## 2   Secure Panel A to C-Channel Sill.
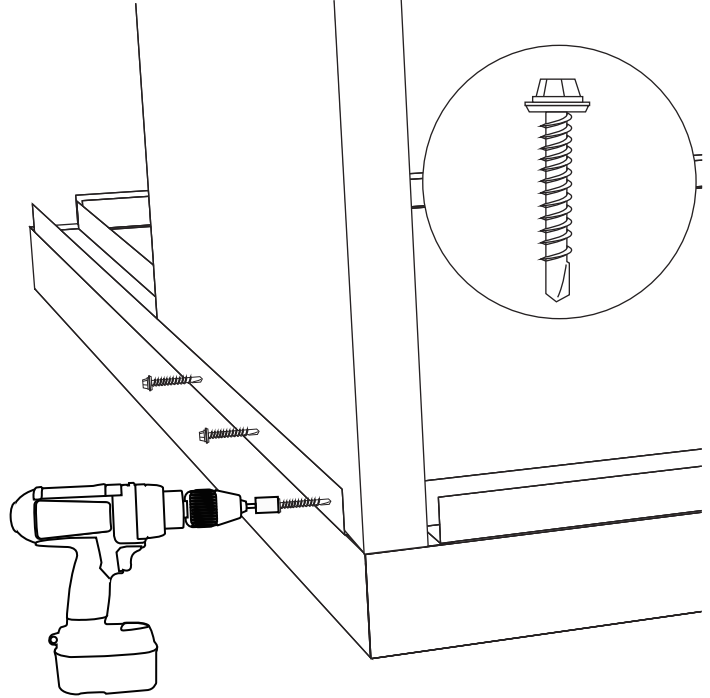
## 3   Install Panel B
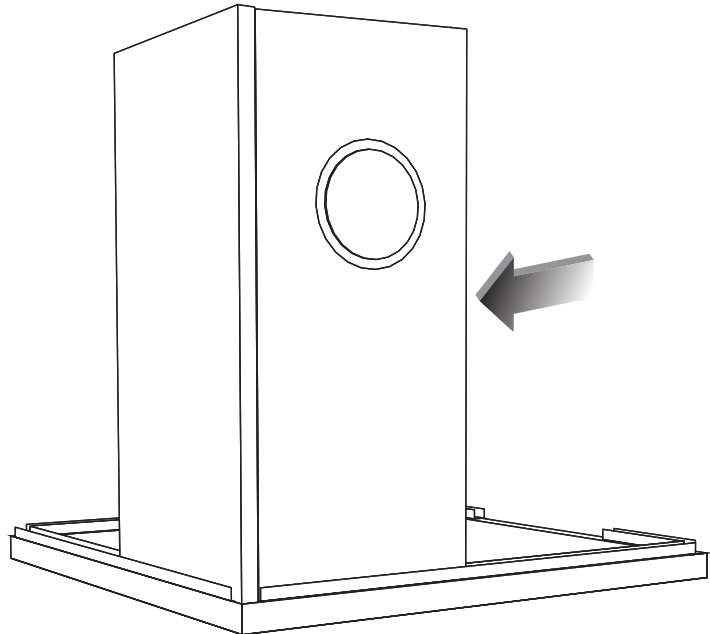
## 4   Secure Panel A to Panel B

Top

4-1/2" SIP screws

Bottom

# MagOx SIP Installation
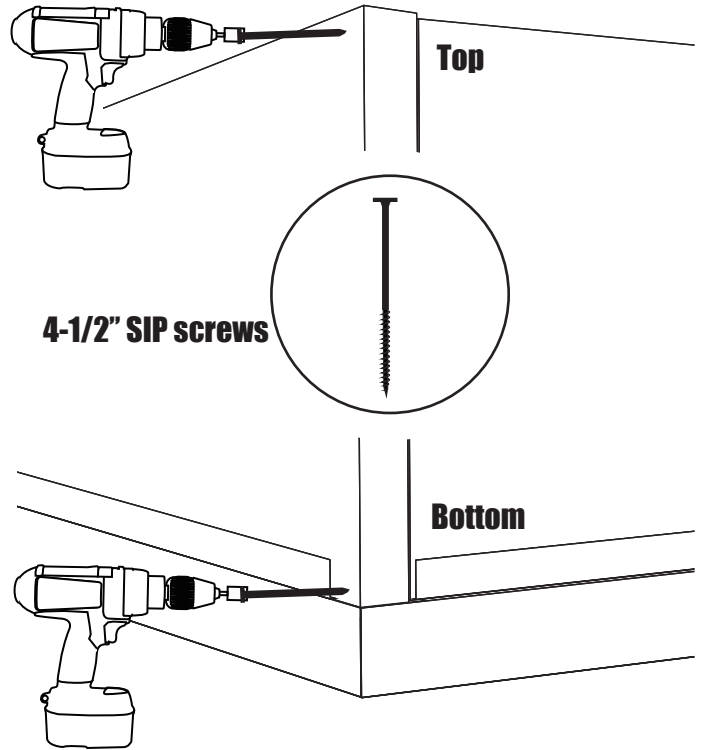
## 5   Install Left Side H-Channel.

Part No. 10

H-Channel installs inside the C-Channel sill
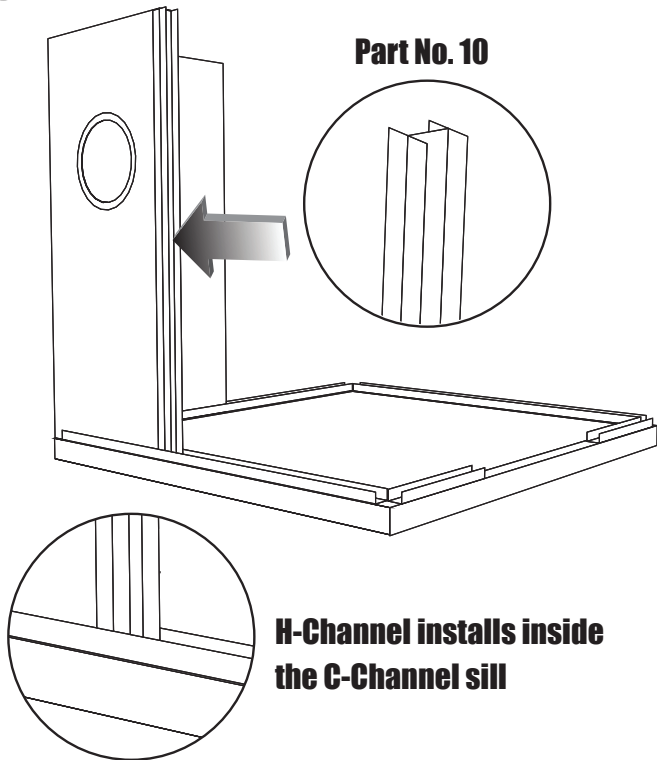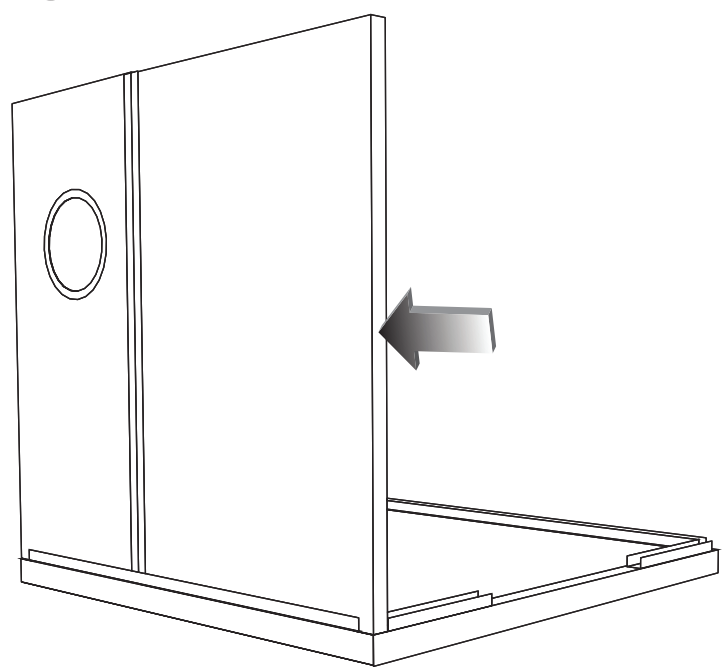
## 6   Install Panel C.

## 7   Install Panel D (front left panel).
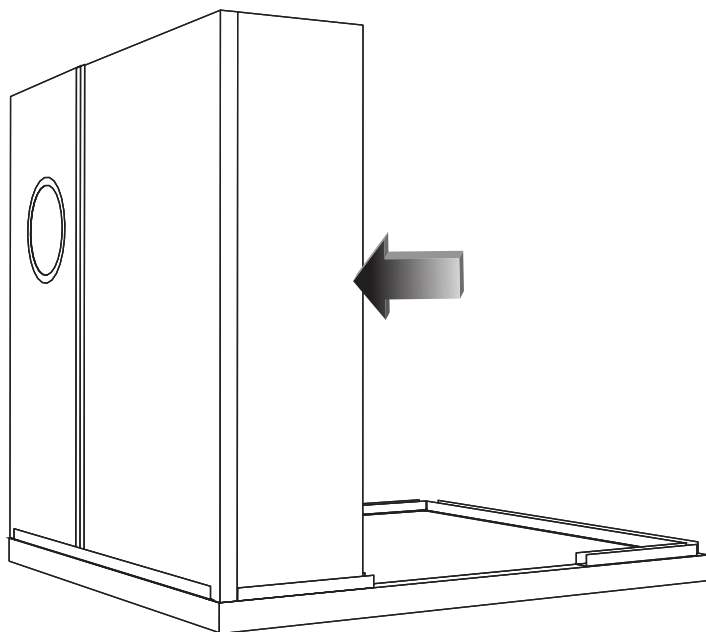
## 8   Secure Panel D to Panel C.
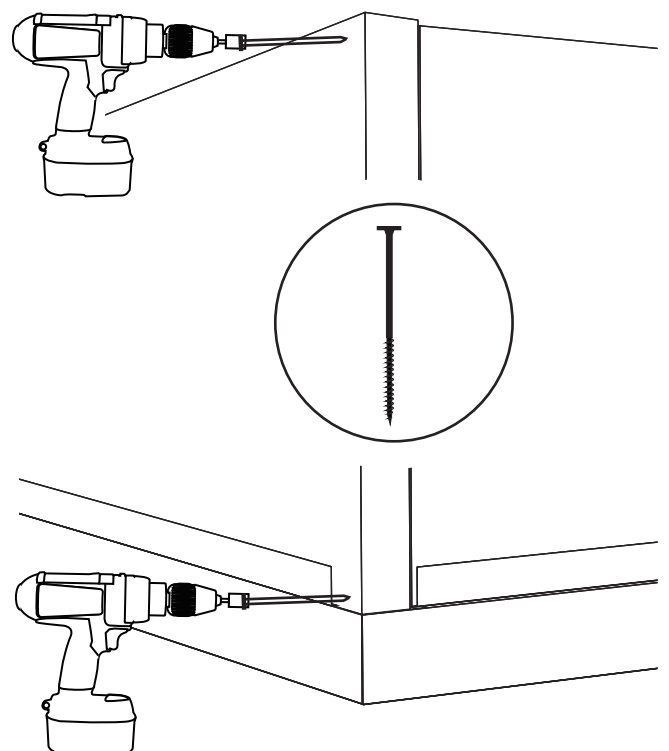
# MagOx SIP Installation

**9**    **Install the Door Frame.**
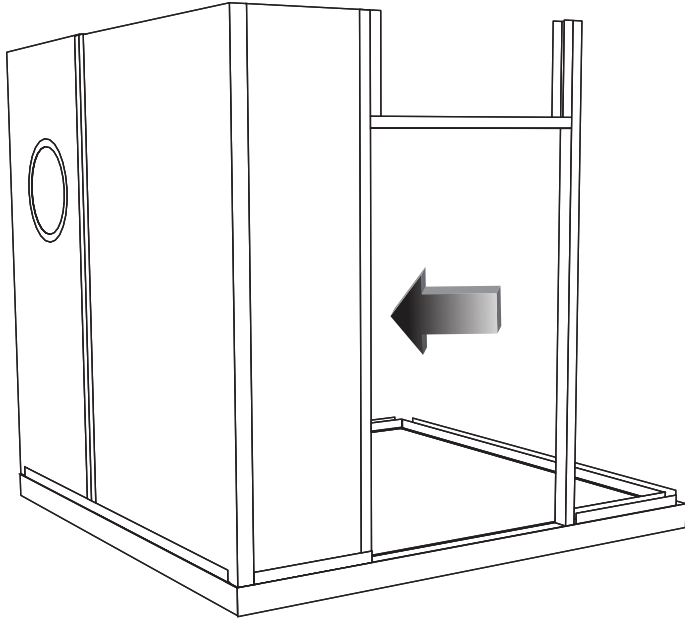
**10**    **Use level and angle to square up the door frame.**
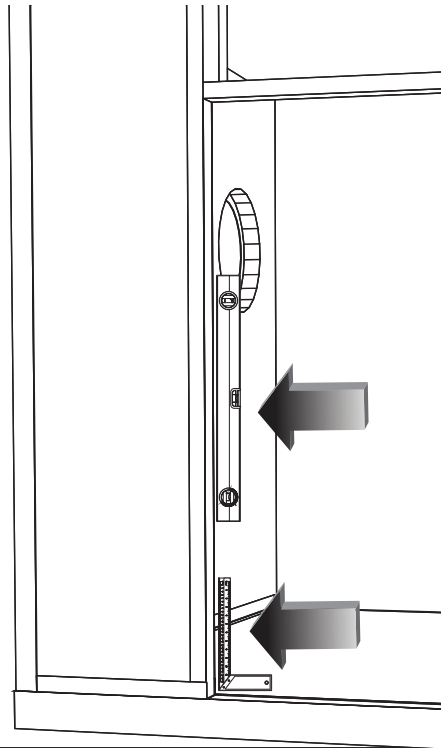
**11**    **Install Panel E (front right panel).**
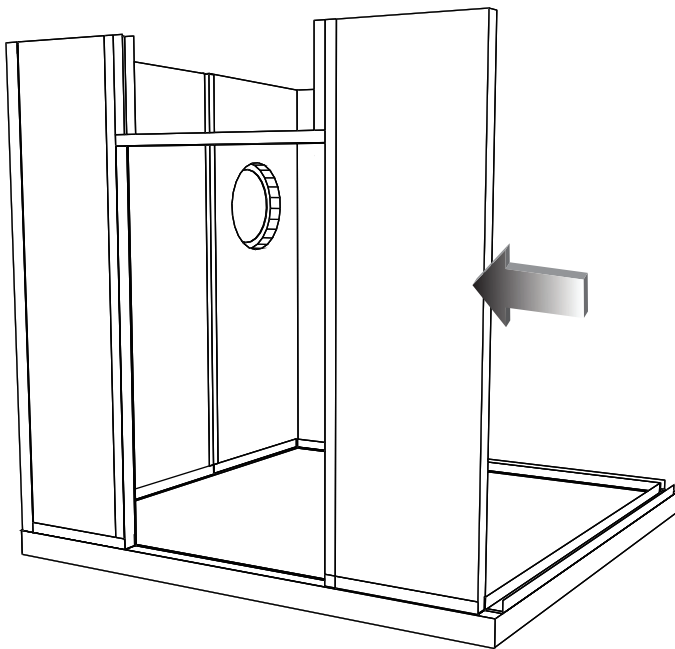
**12**    **Install the Header Panel F.**

# MagOx SIP Installation
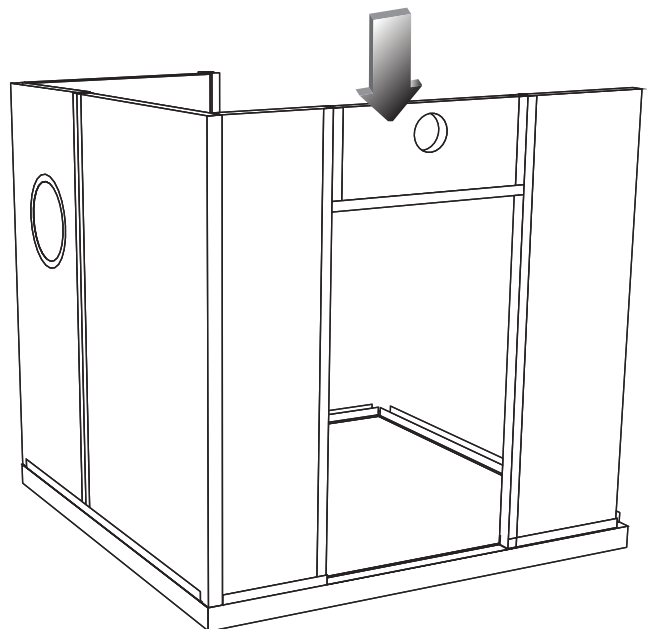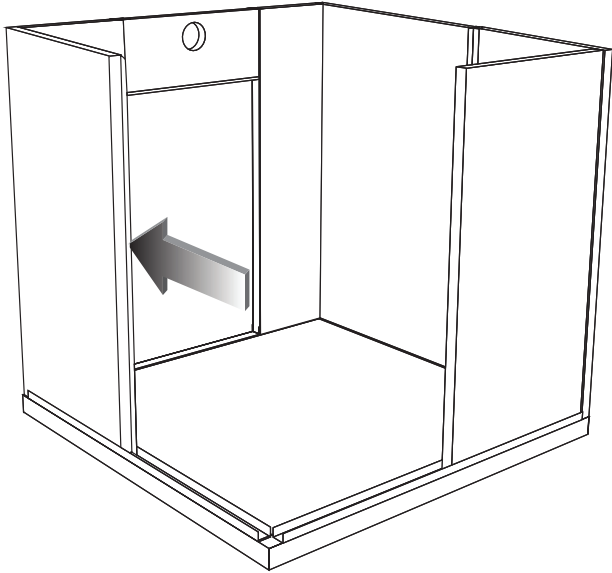
**13** Install Panel G.

**14** Secure Panel G to panel E.
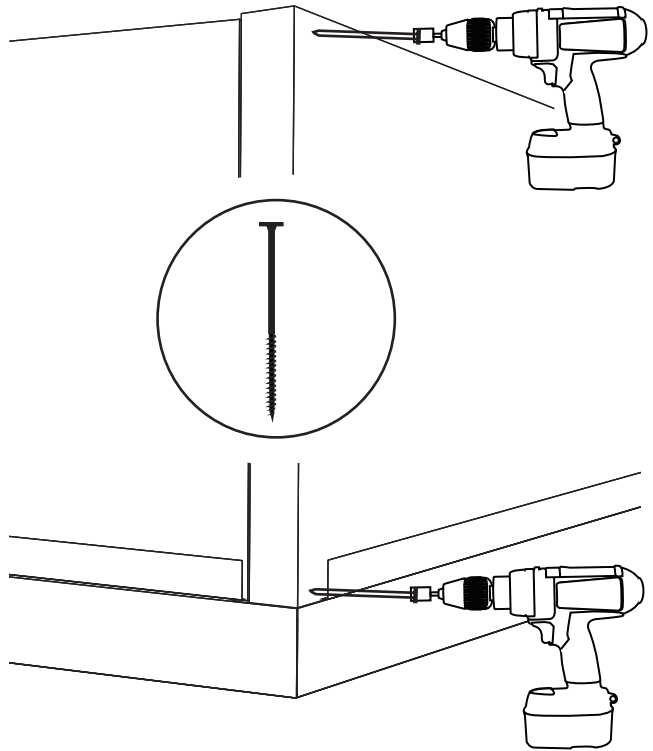
**15** Install right side H-Channel.

**16** Install Panel H.

**GreenOx**
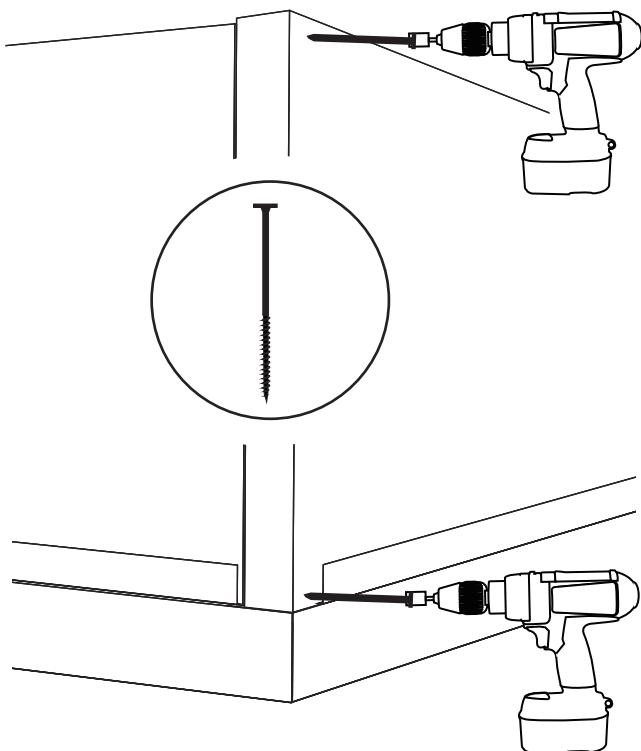THE WORLD'S MOST ADVANCED SHEDS
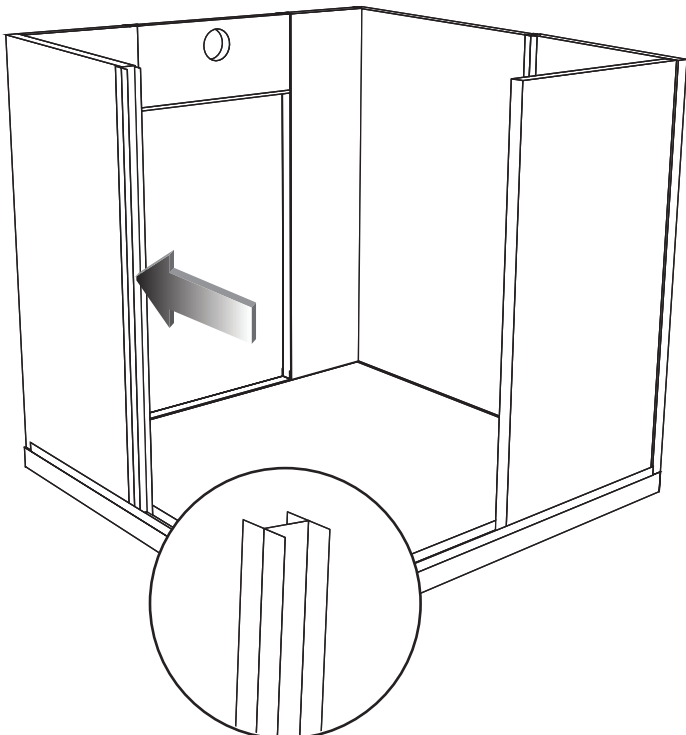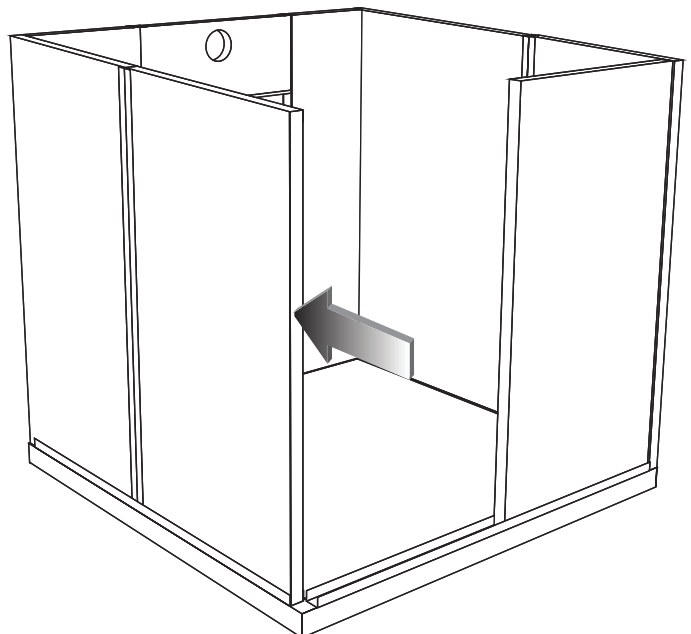
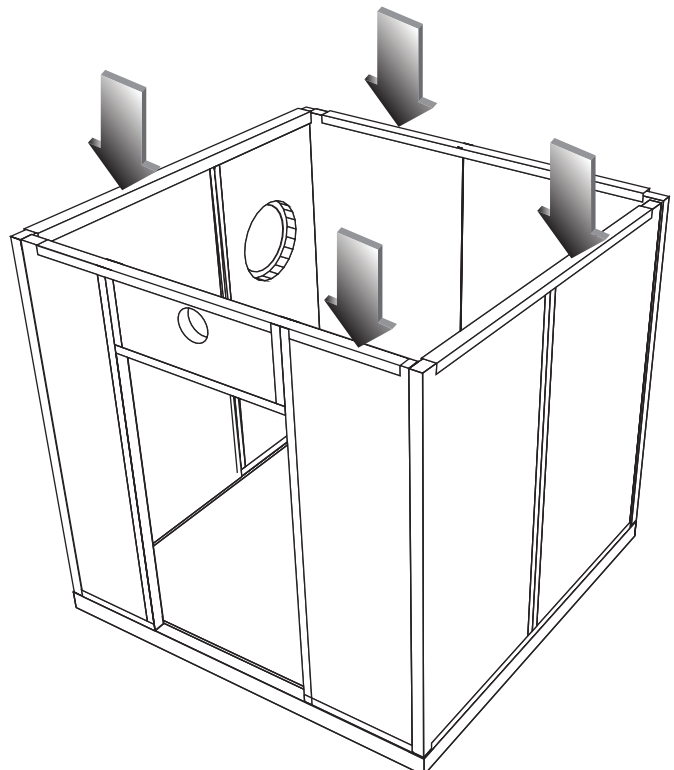**17** Install back side H-Channel.
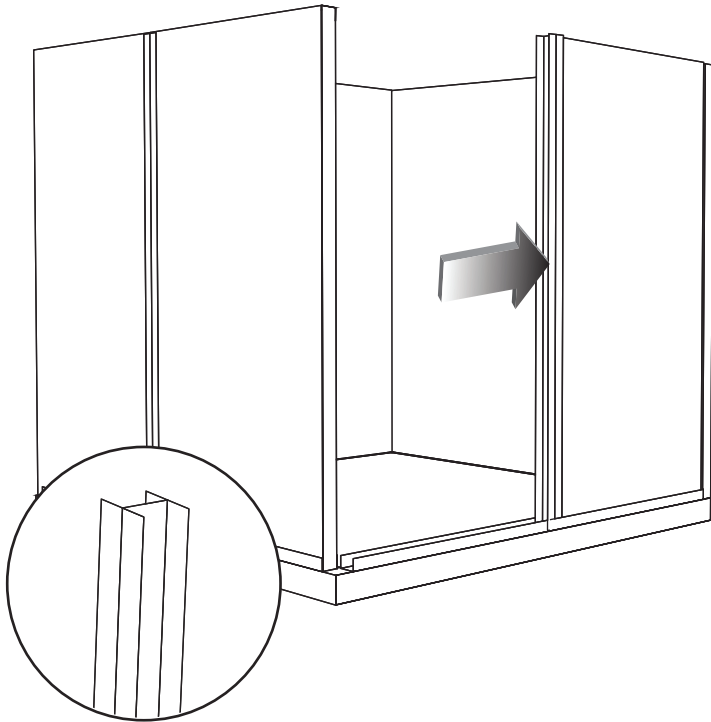
**18** Install Panel I.
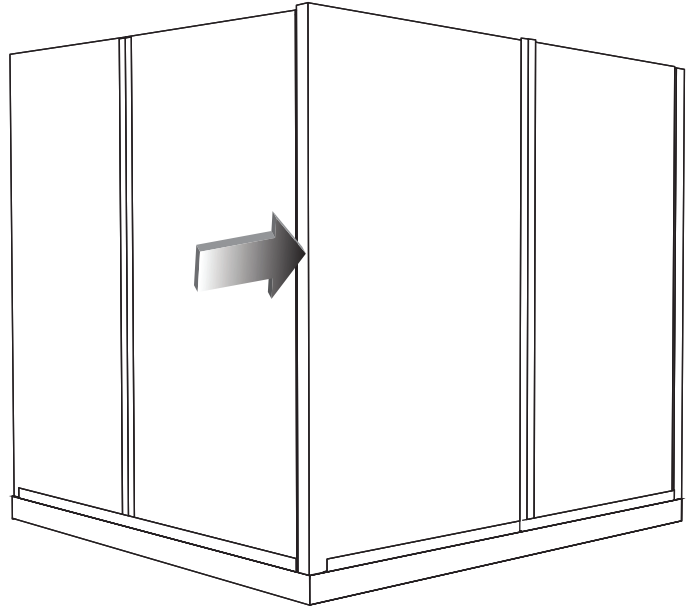
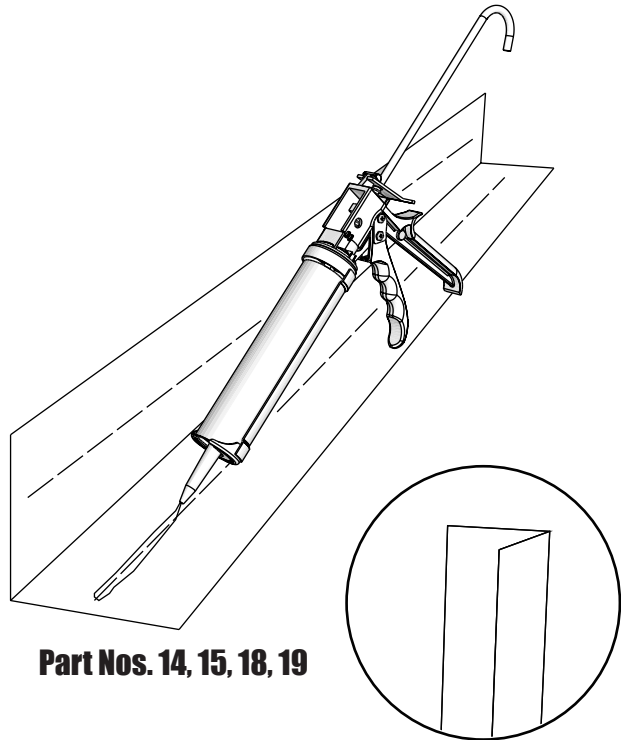**19** Secure Panel I to Panel H.

**20** Install the 4 Top Cap C-Channels.

# Installing the Corner Trim

## 1 Applying adhesive to Corner Trim

Part Nos. 14, 15, 18, 19
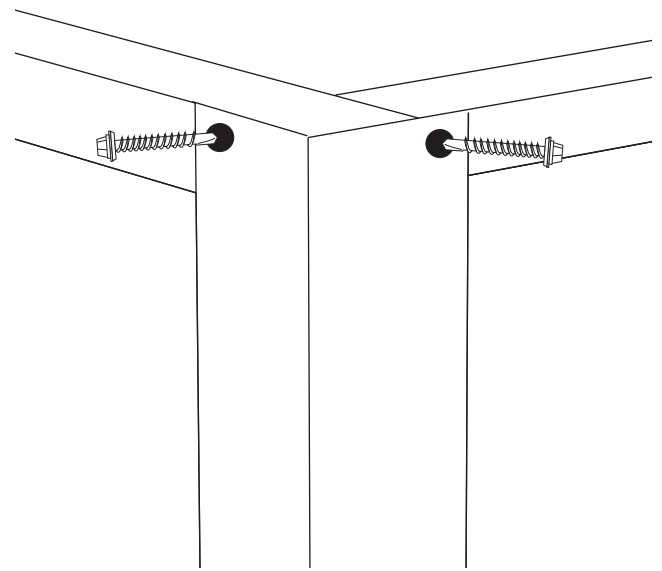
## 2 Installing the Outside Corner Trim
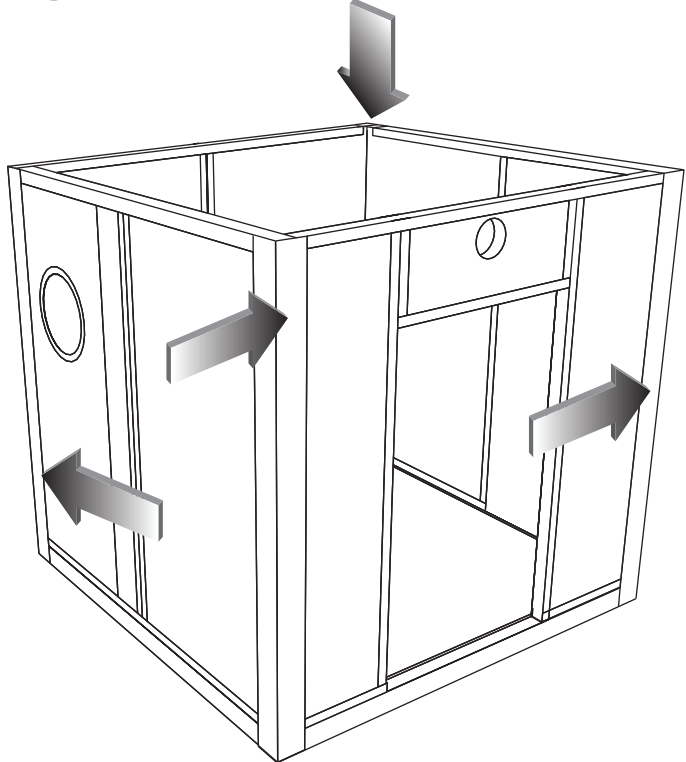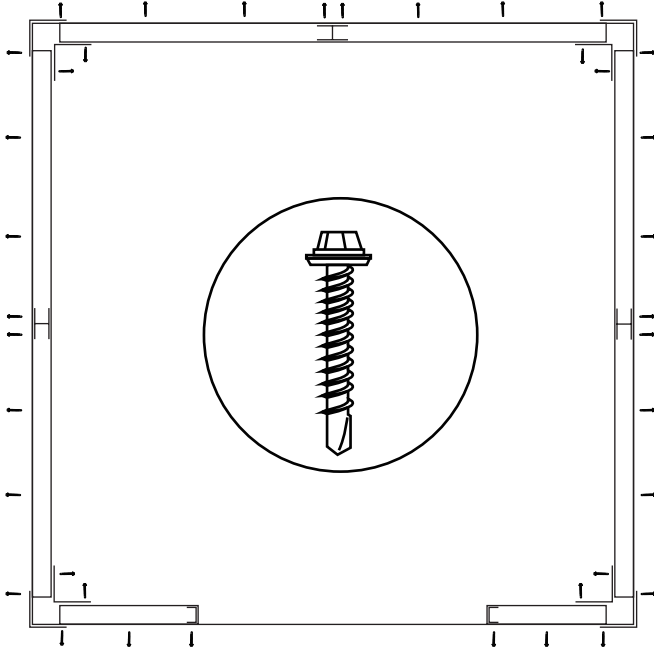
## 3 Secure Outside Corner Trim.
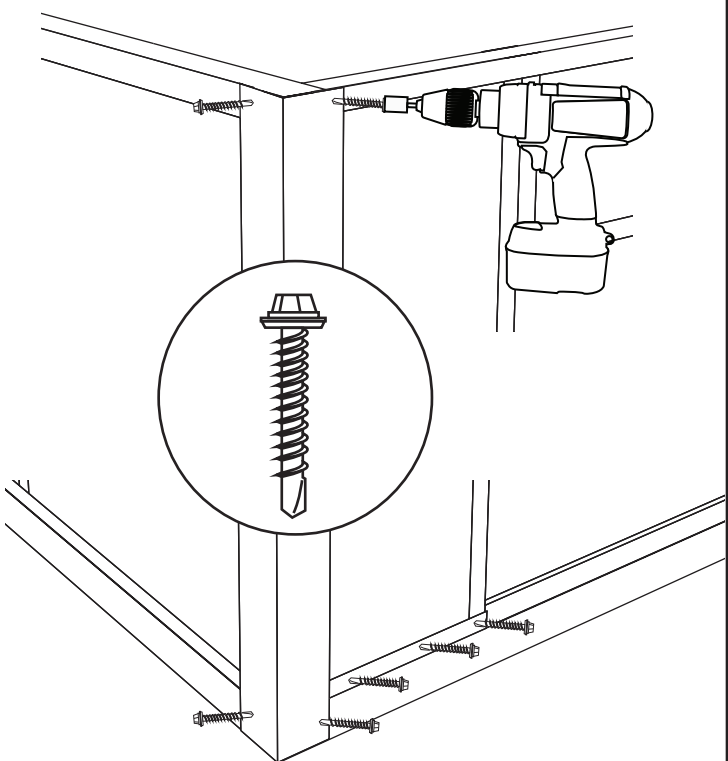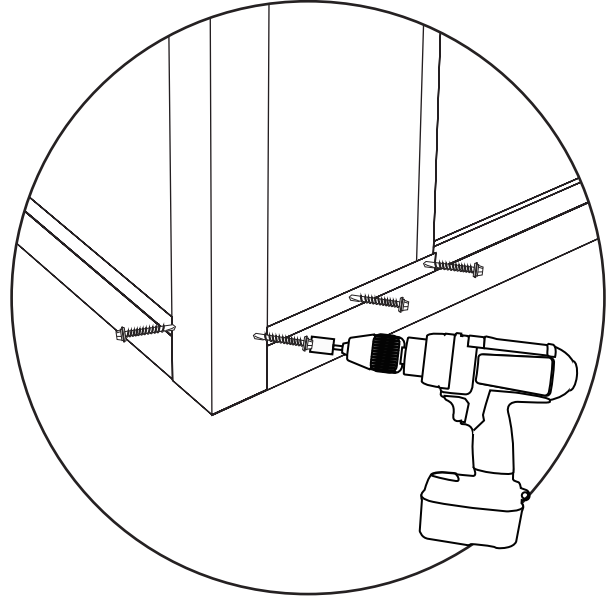
## 4 Screw Placement (top view outside).

# Installing the Corner Trim

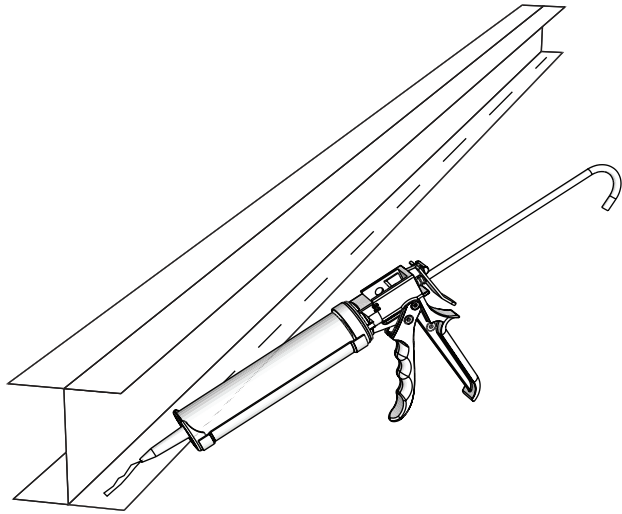**5** Screw pattern for securing Corner Trim, C-channels and H-channels.



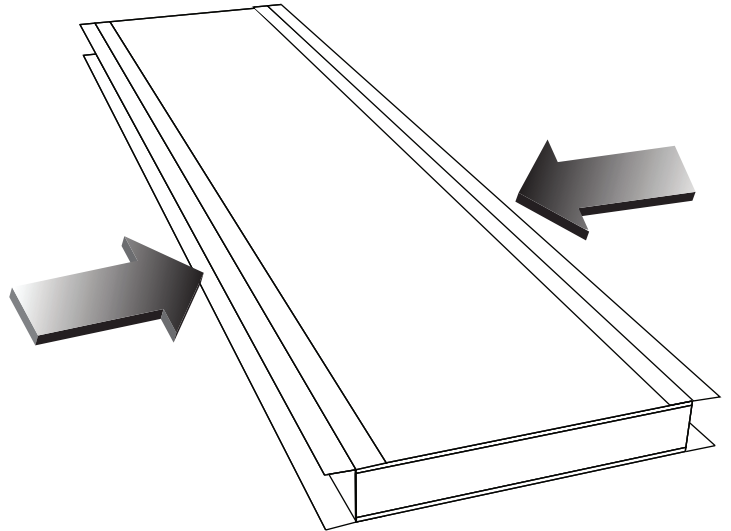**6** Close up of screw placement [front left corner view].
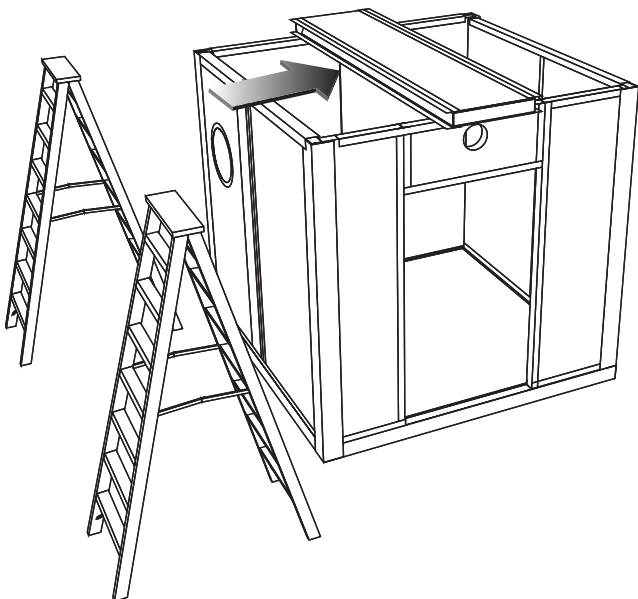
# Installing the Roof

**1**    Apply adhesive to the Roof H-Channel.

**2**    Apply H-Channels to 1st Roof Panel.

**3**    Place 1st Roof Panel on top of shed side walls (2 person job).

**4**    Place 2nd Roof Panel onto side walls and slide into H-Channel.
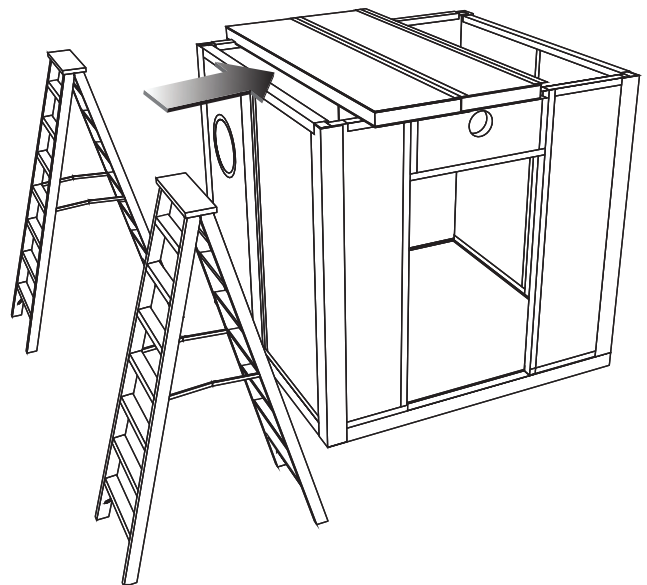
# Installing the Roof

**5**    Apply H-Channels to 2nd Roof Panel.



**6**    Place 3rd Roof Panel into H-Channel of right side of Roof Panel 1. Appy H-Channel with adhesive to 3rd Roof Panel.



**7**    Place 4th Roof Panel into H-Channel of 2nd Roof Panel.
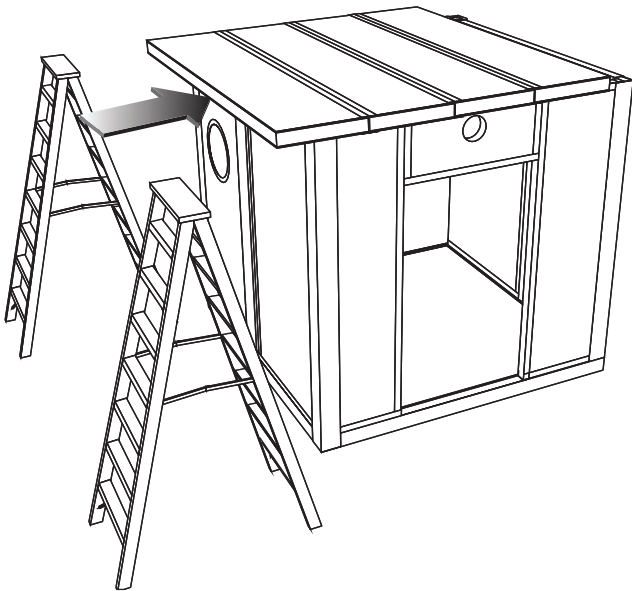


**8**    Place 5th Roof Panel into H-Channel of 3rd Roof Panel.
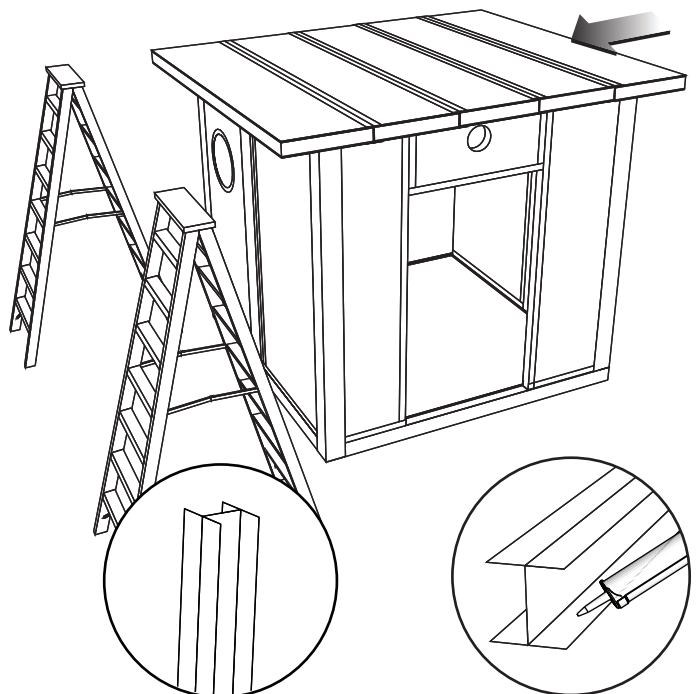
# Installing the Roof

**9** Place Corrugated Roofing Sheet 1 in the center of assembled roof panels.

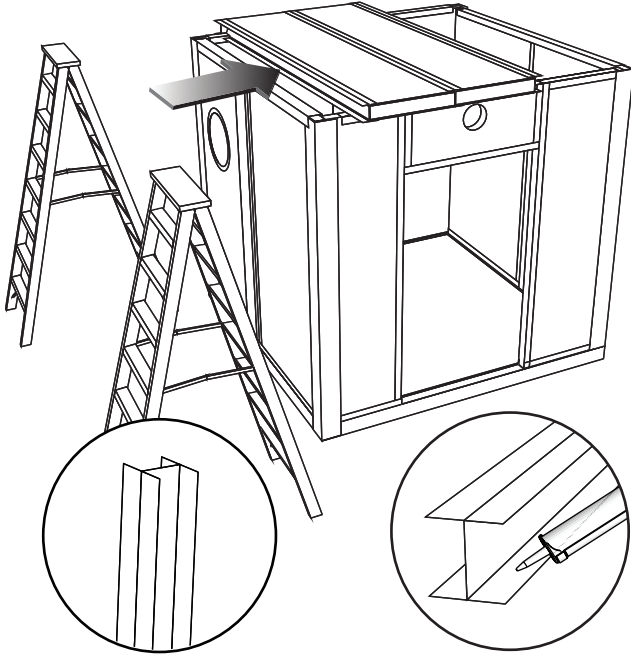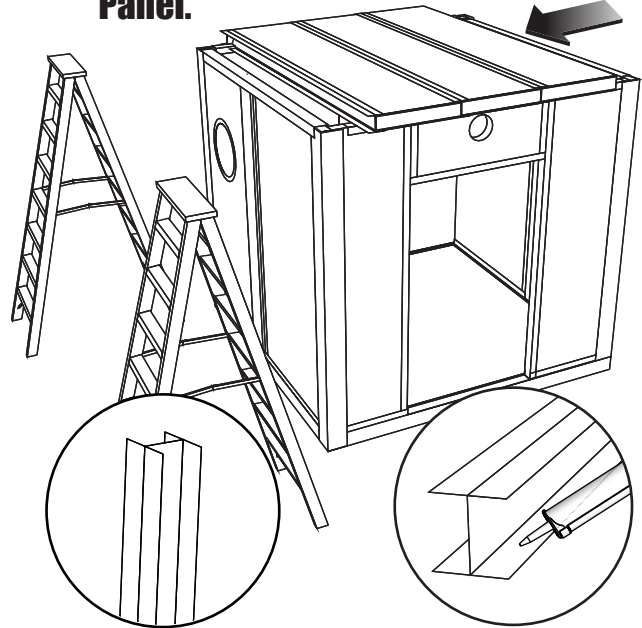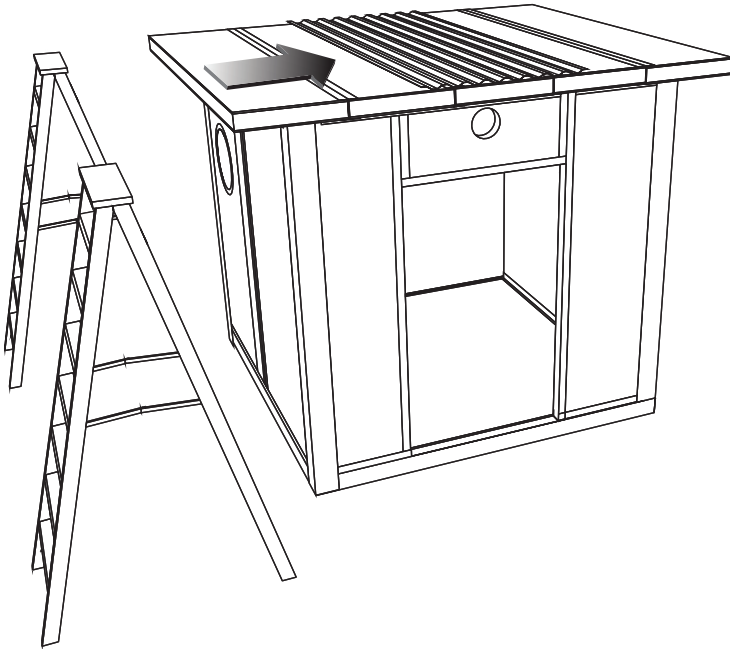**10** Place Corrugated Roofing Sheet 2 onto roof so that the leading edge overlaps left edge of roof sheet 1.
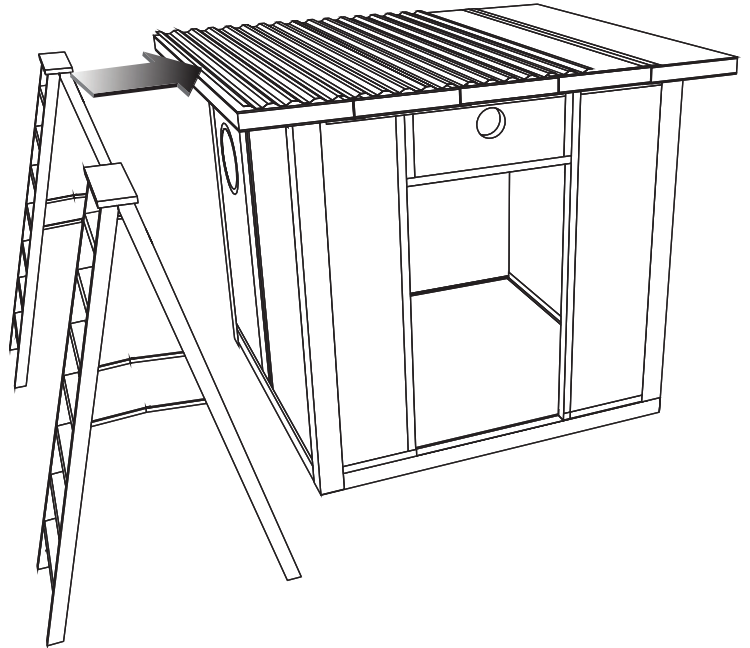
**11** Place Corrugared Roofing Sheet 3 onto roof so that the leading edge overlaps right edge of roof sheet 1.
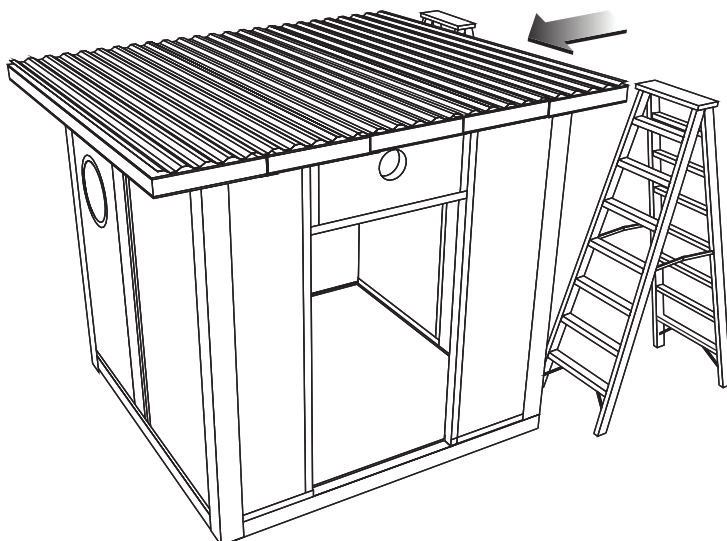
**12** Using a tape measure measure for the placement of the 4-1/2" screws through the corrugated roof sheets into the sidewall panels.

12"
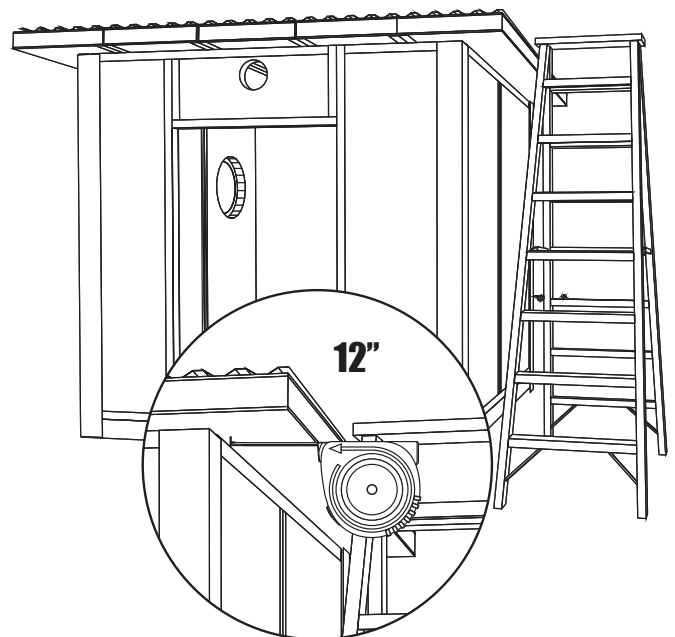
# Installing the Roof

**13** Apply the foam insert to roof sheet material at the front of the shed.
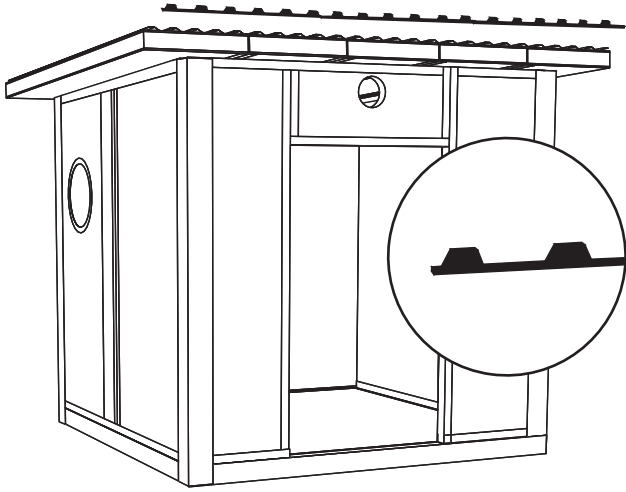


**14** Apply the foam insert to roof sheet material at the back of the shed.
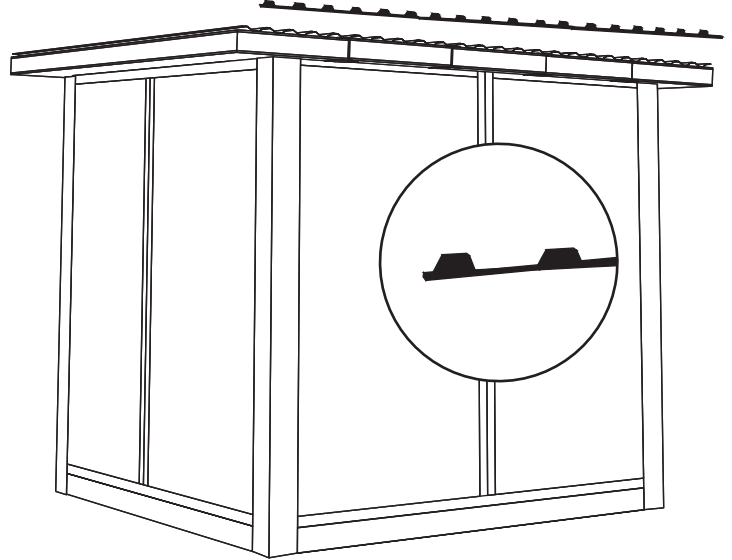


**15** Pattern for the 4-1/2" screws. (See Appendix B for details).
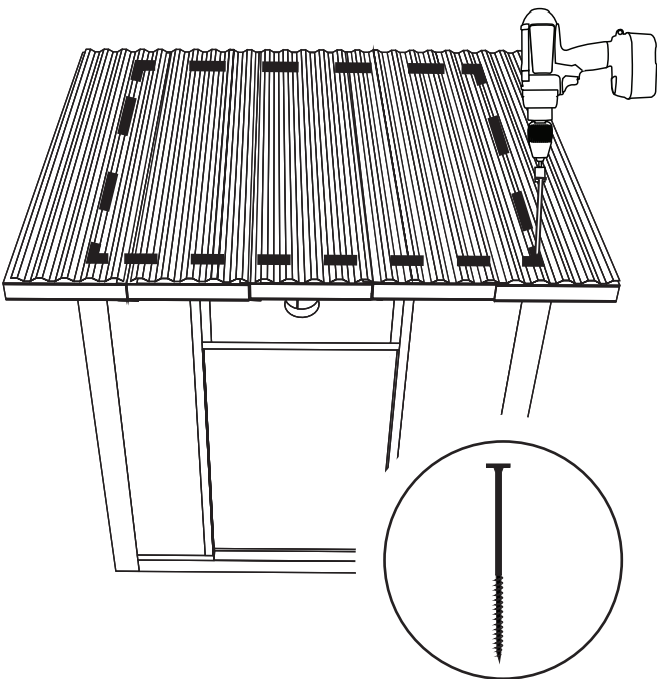


**16** Install the left roof trim over the edge of the corrugated sheet (roof trim is molded to fit.
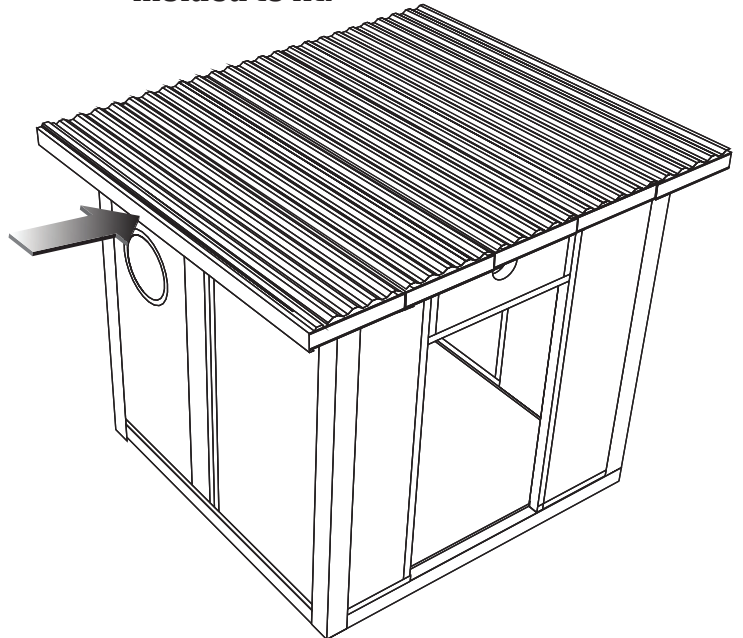
# Installing the Roof

**17** Install the right roof trim over the edge of the corrugated sheet (roof trim is molded to fit).
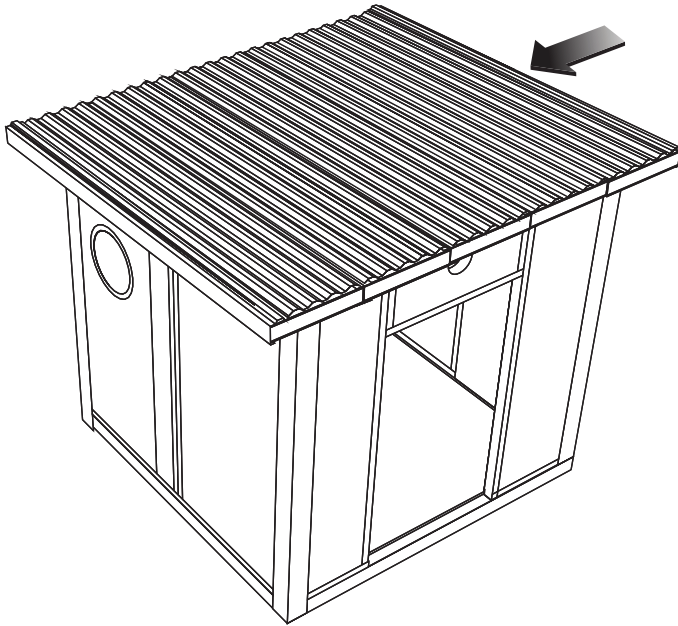
**18** Install Front Roof Trim.
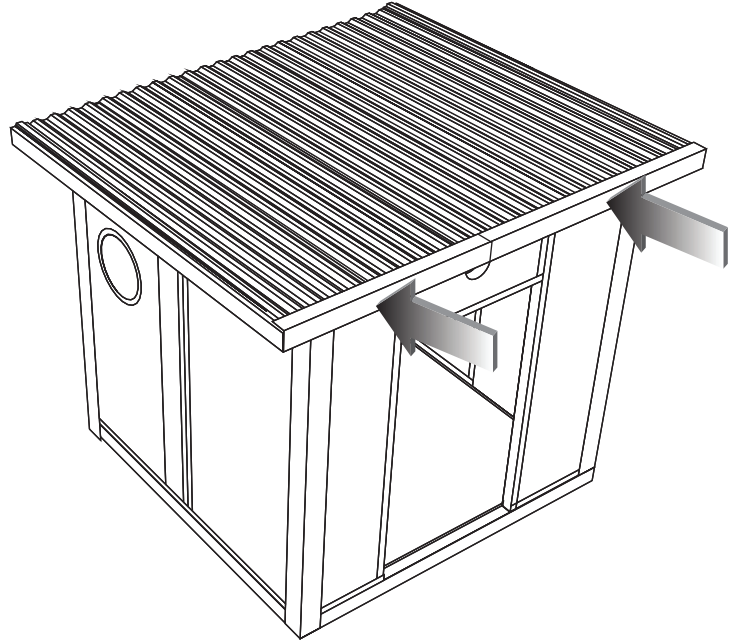
**19** Install Back Roof Trim.
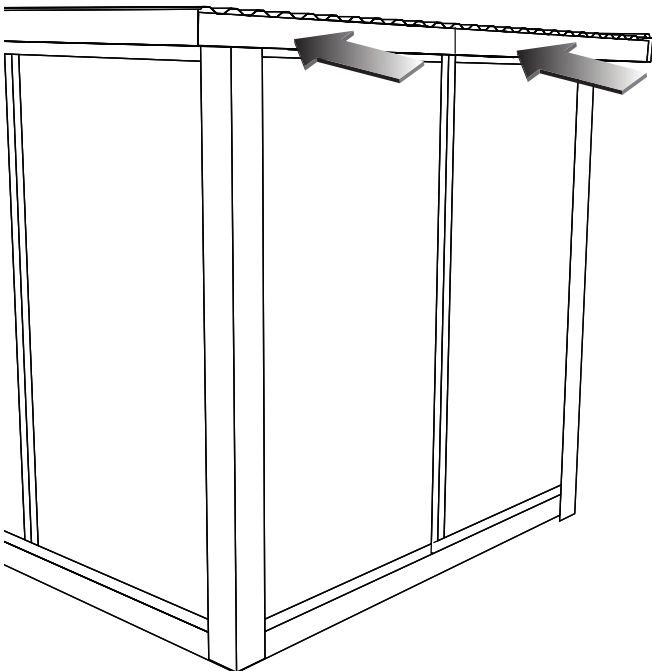
**20** Install the Indside Corner Trim (Front and back trim are different heights).
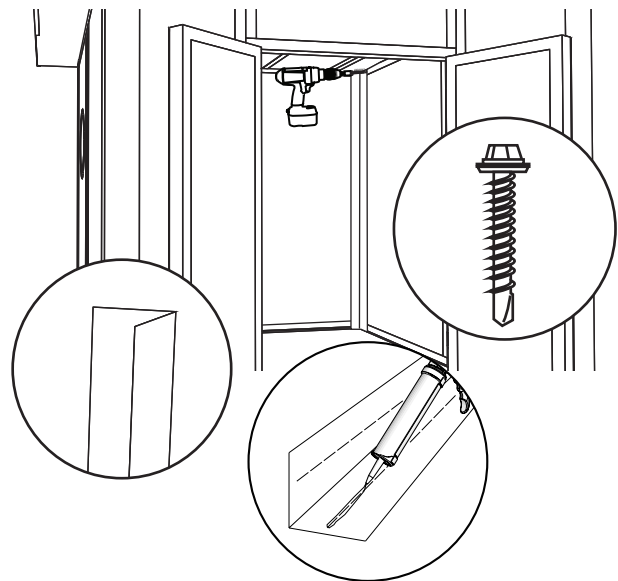
# Installing the Door

**1** Make sure door is square and level before securing hinges into the door frame into into recessed wood.
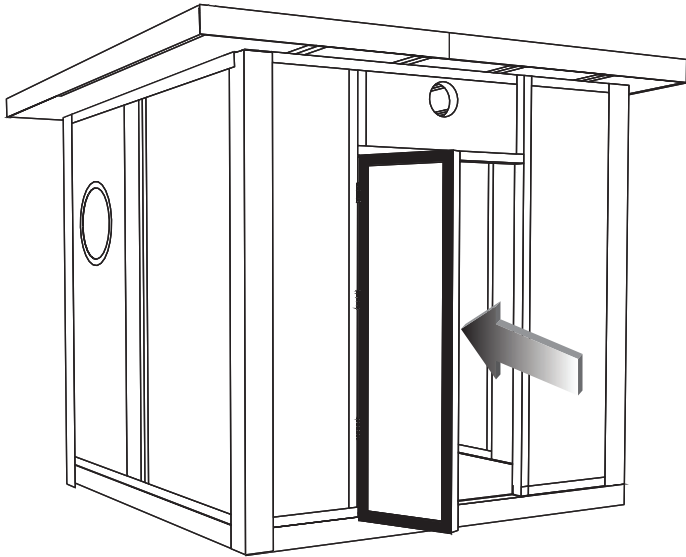
**2** One person holds the door in place while second secures the door with screws.
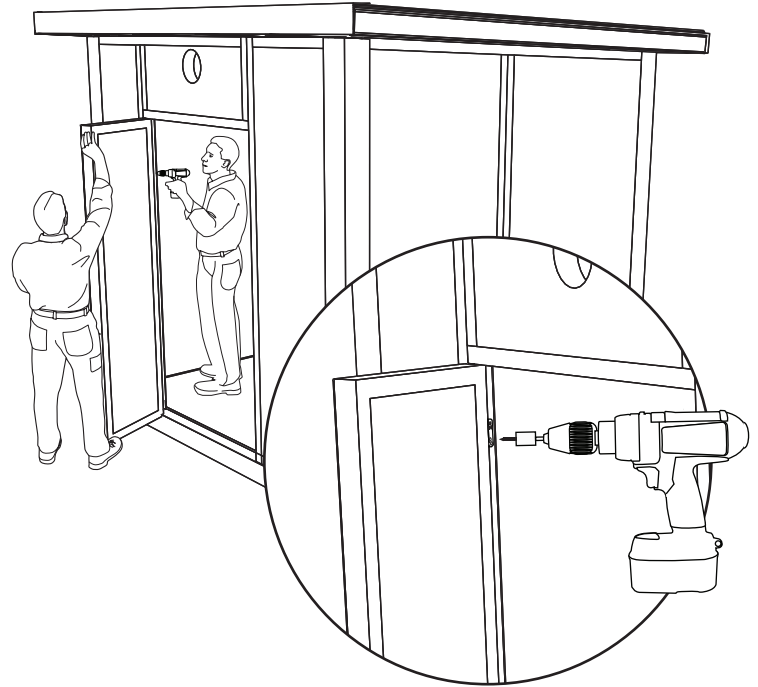
**3** Repeat step 2 for the right door.
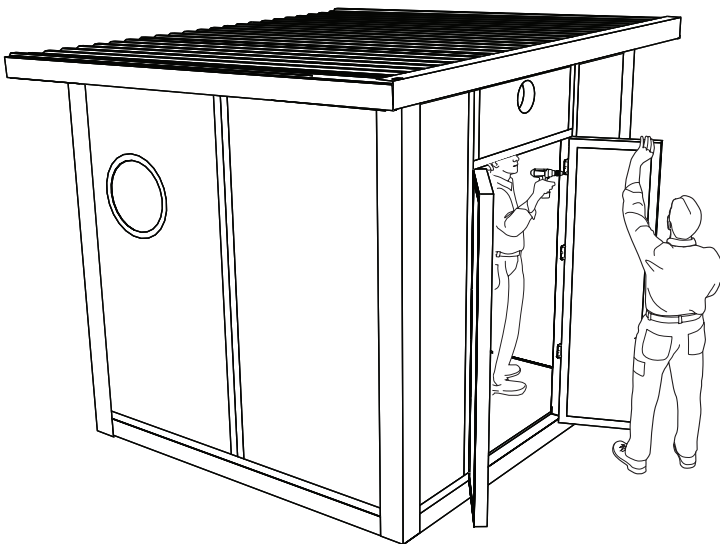
# Vent, Door Handle & Top Trim Plate

**4**    Attach door handle and vent.
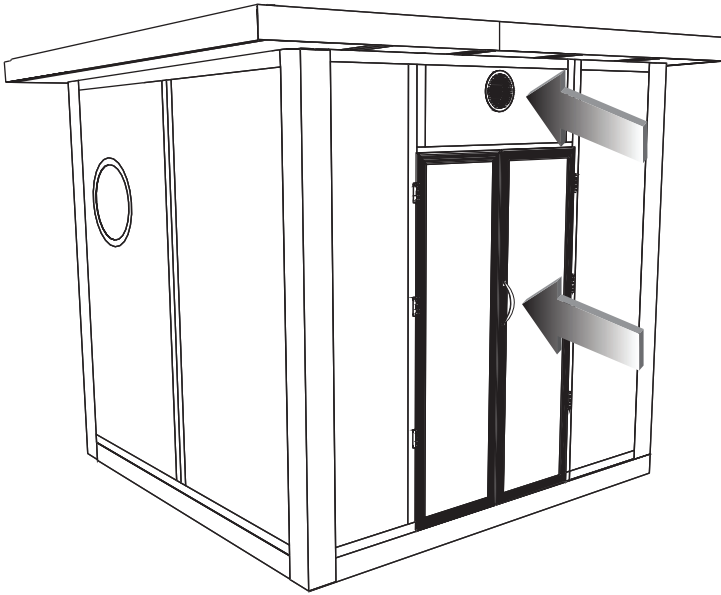
**5**    Attach Top Trim Plate
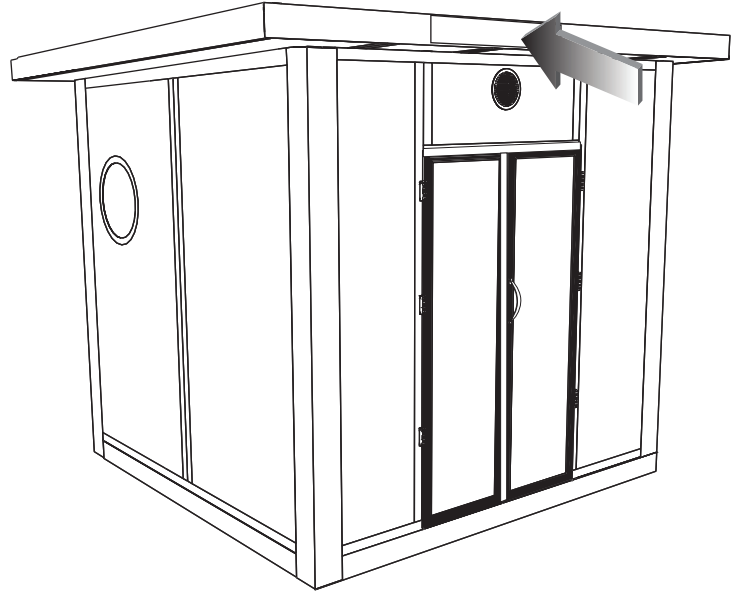
# Appendix A - Lowe's Material List

## Lowe's required item list for GreenOx shed assembly

1) Teks® roofing screws 1 ½" 300 count- item # 336881

2) 2" Stainless Steel screws for hanging doors- one box item # 225779

3) Lumber for floor panel assembly

## 8' x 8' Shed

- 2" x 4" x 8' pressure treated , total 10 pieces item # 46925

## 8' x 10' Shed

- 2" x 4" x 8' pressure treated, total 6 pieces item # 46925
- 2" x 4" x 10' pressure treated, total 4 pieces item # 76854

## 8' x 12' Shed

- 2" x 4" x 8' pressure treated, total 6 pieces item # 46925
- 2" x 4" x 12' pressure treated, total 4 pieces item # 77671

4) Nails for floor panel assembly

5) 10D- 5lb box item # 69932

6) Liquid Nails adhesive- total 6 pieces item # 90553
7) Adhesive gun 13"- one piece item # 41272

Recommended Paint- Valspar Duramax item # 91244 satin exterior paint and primer-5 gal.

# Appendix B - SIP Screws

Structural Insulated Panel (SIP) Screws (included in the GreenOx Shed package) are 4.5" long, Self Drilling SIP Screws. The Star drive bit is included in the package.

The SIP screws are used to  fasten the walls together where the wall panel corners come together at the top and bottom of the walls. The SIP screws are driven through the panel that ends at the corner and into the perpendicular panel penetrating the dimensional lumber inside the each wall panel at the top and bottom of each wall.

The SIP screws also fasten the roof panels to the wall panels. After the roof panels are set in place and the roofing material has been installed, the SIP screws are driven threw the roofing materials and into the top of the wall panels, which contain dimensional lumber. These screws should be placed every 12" and match the footprint of the walls under the roof panels (i.e. the 8'x 8' dimension of the walls relative to the 9' 10' dimension of the roof).

It is essential that the SIP screws penetrate all roof panels and tie into the dimensional top-of-wall lumber for maximum strength.

# Warranty

## GreenOx Sheds 5 year Limited Warranty

Vantem Outdoor Living, LLC (The manufacturer of the GreenOx™ shed) warrants to the original purchaser, that your GreenOx™ shed is free of defects in material and workmanship upon delivery, and will repair or replace any components that do not provide reasonable service under normal use, for a period of five (5) years from the date of purchase. Correction by repair or replacement of materials or workmanship in your GreenOx™ product, which our examination shall disclose to our satisfaction to be defective, shall constitute fulfillment of all liabilities of Vantem Outdoor Living, LLC under this warranty. In order for this warranty to be valid, all exposed surfaces must be painted per recommended procedure outlined in assembly guide (with proof of paint purchase required). Vantem Outdoor Living, LLC will not be held responsible for any labor costs incurred to assemble your GreenOx™ Shed.

The warranty printed above is the only warranty applicable to this purchase. ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY DISCLAIMED. VANTEM OUTDOOR LIVING, LLC SHALL HAVE NO LIABILITY FOR PUNITIVE, INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO DAMAGES TO CONTENTS OF YOUR GREENOX® SHED AND LOST PROFITS. THE TOTAL LIABILITY OF VANTEM OUTDOOR LIVING, LLC UNDER THIS WARRANTY, INCLUDING LABOR, IS LIMITED TO THE ORIGINAL PURCHASE PRICE OF YOUR GREENOX™ SHED. Vantem Outdoor Living does not assume and does not authorize any other person to assume for it any other liability in connection with the sale of this GreenOx™ product. This warranty shall not apply to any GreenOx™ product or any part thereof which has been damaged by fire, flood, water, earthquake, earth movement, hail, wind, adverse weather conditions, vandalism, theft, act of God, accident or other event, or a casualty which is customarily covered by homeowners' insurance. The warranty does not cover damage caused by abuse, misuse, alteration, neglect, or improper maintenance. Vantem Outdoor Living, LLC makes no warranties whatsoever with respect to accessories or parts incorporated into your Premier Series product where the supplier or manufacturer of those materials has warranties on such materials which exceed the warranty set forth above. Vantem Outdoor Living, LLC assumes no liability thereunder and the Buyer must assert any claim under such warranties against such supplier or manufacturer. The terms "Original Purchaser" and "Buyer", as used in this warranty, shall mean that person for whom the GreenOx™ product is originally assembled and installed. This warranty shall apply only within the boundaries of the Continental United States.

The Buyer acknowledges that no other representations or warranties were made to or relied upon by him or her with respect to the quality or function of the goods herein sold.

Claims under this warranty must be made prior to the expiration of the warranty and within sixty (60) days after the defect is discovered and must be made to Vantem Outdoor Living, LLC by calling 1-855-332-1111.

Some states do not allow limitations on how long an implied warranty lasts, and/or do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations may not apply to you. This warranty gives you specific legal rights, and you may also have other rights, that vary from state to state.