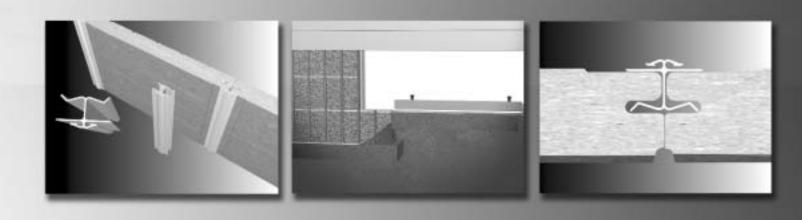
STONESMITT

"The Ultimate Skirting"



Complete Instructions for Stone Skirt Assembly

Steps for Installation:

- Determine Home Design
- **2** Understand Stone*Skirt*[™] Components
- **3** Perform Stone*Skirt*[™] Installation

Tools Needed

- Rubber mallet (2 lb. or heavier)
- Cordless drill with at least a 2 inch extension and 1/4" hex head bit
- Masonry saw or circular saw with diamond blade
- Levels 24" to 48" (one of each is best)
- Brick chisel
- Hammer or small hand sledgehammer (3 lb.)
- Shovel(s) pointed/flat
- Tape measure
- Concrete adhesive (e.g. Super-Stik adhesive)
- Caulk gun (for concrete adhesive)
- Leather gloves and kneepads
- Sawzall or similar reciprocating saw for cutting angle iron or I-Beam
- 30' extension cord



■ Determine the Home Design

The design of the bottom of the manufactured home will determine how StoneSkirt is assembled at the home site. There are three design elements to consider: outriggers, hitch plate, and siding.

A. Outrigger and hitch plate configurations:

- 1. If the outriggers and the hitch plate are both recessed, StoneSkirt columns should be installed underneath the floor joist of the home. (Fig. 1 & 3)
- 2. If the outriggers and hitch plate are both flush, all StoneSkirt columns should be installed outside the home. (Fig. 2 & 4)
- 3. If the outriggers are flush and the hitch plate is recessed, install all StoneSkirt columns outside the home. (Fig. 2 & 3)

B. Choose the StoneSkirt Finish to Be Used

- 1. Drop down siding: If the house has drop-down siding extending more than 2 inches below the floor joist, no trim is needed. (Fig. 5)
- 2. Non-drop down siding: If the house does not have drop down siding and StoneSkirt is installed underneath the floor joist, L-trim is required. (Fig. 6)

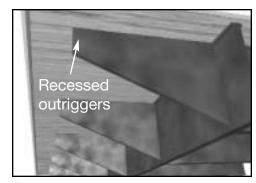


Fig. 1

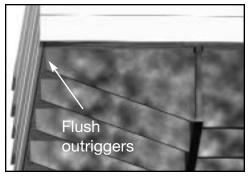


Fig. 2

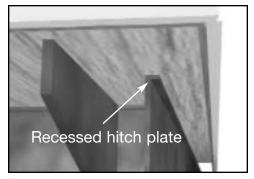


Fig. 3

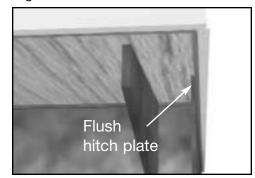


Fig. 4

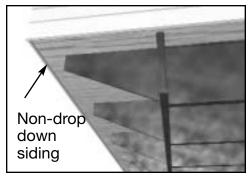




Fig. 5 Fig. 6

2. Understand StoneSkirt Components:

A. StoneSkirt Units

StoneSkirt is manufactured in two widths: 16" and 24", depending upon the local manufacturer. Each StoneSkirt unit is 8" in height. (Fig. 1)

B. Standard I-Beam

The StoneSkirt I-Beam fits into the side of each StoneSkirt unit. The I-Beam joins the StoneSkirt units into a column. (Fig. 2)

C. Angle Iron

Angle iron is utilized in the foundation, creating a level pad for StoneSkirt unit placement. (Fig. 3)

D. Brackets

Brackets allow StoneSkirt columns to move up and down, and prevents horizontal movement. This ability to move gives the columns the flexibility they need to survive freeze-thaw conditions. There are many different types of brackets available. Choosing the right one depends on the installation situation you are facing.

- Frame Bracket used when installing StoneSkirt
 underneath the home: The Frame bracket is attached to the
 floor joist of the home. It is placed in front of the I-Beam in the
 completed column. This bracket may require L-Trim if the siding
 is not drop down. (Fig. 4)
- 2. Sill Joist Bracket used when installing StoneSkirt on the outside of the home: The Sill Joist bracket can also be used on outside installations. It is attached underneath the home on the floor joist. There is a slot in the Sill bracket that allows it to slide up and down on the backside of the I-Beam. This bracket should only be used in conjunction with the concrete sill. (Fig. 5)
- 3. Sill Joist Bracket used when installing StoneSkirt on the outside of the home: It is attached to the side of the home and is screwed into the floor joist. There is a slot in the Sill bracket

that allows it to slide up and down on the backside of the I-Beam. Like the Sill Joist bracket, you will need to use the concrete sill in this application. (Fig. 6)

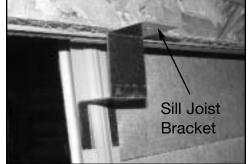


Fig. 5



Fig. 1

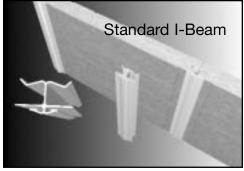


Fig. 2

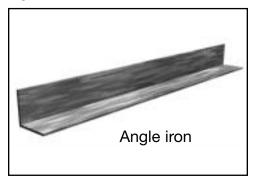


Fig. 3

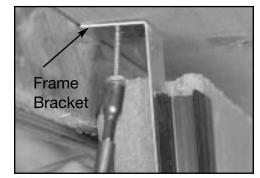


Fig. 4

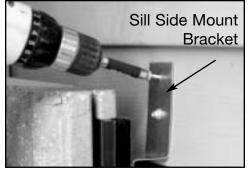


Fig. 6

E. StoneSkirt Accessories

- **1. Vent:** Permits air circulation underneath the home. (Fig. 1)
- 2. Access Panel: Allows general access underneath the home. (Fig. 2)
- 3. Utility Panel: Permits access for utilities. (Fig. 3)
- **4. L-Trim:** Attached underneath the home on non-drop down siding applications and covers the frost heave gap between the home and the StoneSkirt columns. (Fig. 4)
- **5. StoneSkirt Sill:** Installed when StoneSkirt is used on an outside installation and adds a finished look to the StoneSkirt columns. (Fig. 5)
- **6. Sill Gasket:** Installed between the StoneSkirt Sill and the home and prevents water from getting behind the StoneSkirt columns. (Fig. 6)



Fig. 1



Fig. 2

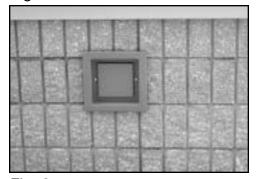


Fig. 3

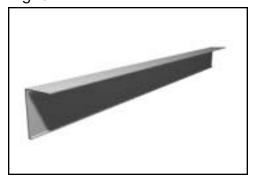


Fig. 4

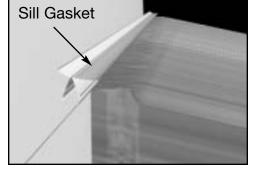


Fig. 6

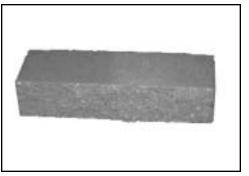


Fig. 5

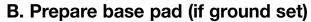


3. Perform Stone Skirt Installation

Step 1: Setting the Base

A. Determine StoneSkirt column height

The distance between the angle iron and floor joist must be in multiples of 8", with an additional 2" to account for frost heave in areas deemed necessary. Thus, examples of the distance between the floor joist and the angle iron are 18", 26", 34", 42", 50", etc. (Fig. 1)

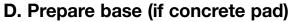


Once the column height is determined, dig a trench and fill it with gravel or other suitable material.

- **1.** The base pad should measure a minimum of 4" deep and 10" wide.
- **2.** Compact the gravel or other material with a hand tamper.



- 1. Level and align the angle iron on the base pad.
- 2. Secure angle iron into position with stakes. This will prevent the angle iron from shifting during and after the installation. (Fig. 2 & 3)



- 1. Place a wooden 2x4 where you want the back of the columns to be. Nail the 2x4 into the cement slab. This will prevent the StoneSkirt units from being pushed under the home. (Fig. 4)
- **2.** Install the StoneSkirt units so the back of the units press against the 2x4. (Fig. 4)



Install L-trim if the siding is not drop down and the StoneSkirt column is going to be placed underneath the floor joist of the home. (Fig. 5)



Fia. 1

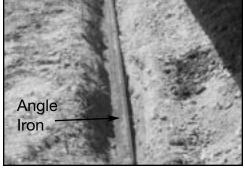


Fig. 2

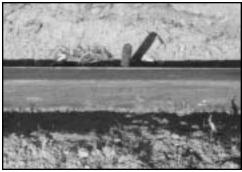


Fig. 3



Fig. 4

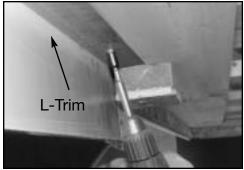


Fig. 5

A. Install first corner

- 1. Start at the lowest corner of the home. (Fig. 1)
- Measure to ensure you have achieved the proper distance between the floor joist and the angle iron or concrete pad. (Fig. 1)
- 3. If this is a ground set, place two pieces of angle iron perpendicular to each other. The angle iron should be directly underneath the corner of the home and on top of the compacted base pad. (Fig. 1)
- **4.** Split two panels, or 8", from each Stone Skirt unit that will form one side of the corner. (Fig. 2 & 3)
- **5.** Place a complete Stone Skirt unit and a split Stone Skirt unit on the angle iron so the end of the split unit is exposed. The end of the complete Stone Skirt unit should touch the back of the split unit. (Fig. 4 & 5)
- **6.** Apply Super-Stik adhesive to secure the split and non-split units as you are building the column. (Fig. 7)

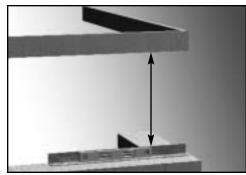


Fig. 1



Fig. 2

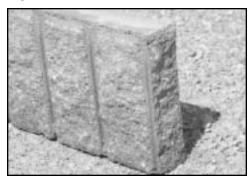


Fig. 3

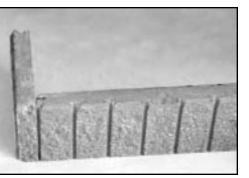


Fig. 4

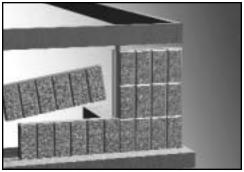


Fig. 6

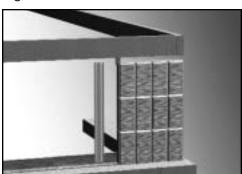


Fig. 5



Fig. 7

B. Connect StoneSkirt units with I-beam

- **1.** Cut the I-beam to the proper length (about 3" shorter than the height of the Stone *Skirt* column).
- 2. Press the I-beam into position along the side of the completed StoneSkirt column. The flat part of the I-beam should be along the back of the column. (Fig. 1 & 2)
- **3.** Continue to build Stone Skirt columns by placing Stone Skirt units into the I-beam. (Fig. 3)

Step 3: Installing Brackets

A. Frame Brackets

1. Place the frame bracket in front of the I-beam in the completed column, and screw the Frame bracket into the floor joist. (Fig. 4)

B. Sill Joist Brackets with Concrete Sill

- 1. Slide the Sill Joist bracket down the groove on the back of the I-Beam. Attach the bracket by screwing it into the floor joist. (Fig. 5)
- **2.** When the home is finished, apply Super-Stik adhesive to the top of the StoneSkirt units. Place the sill into position on top of the StoneSkirt columns. Allow 24 hours for the Super-Stik adhesive to properly cure. (Fig. 6)
- 3. Press the Sill Gasket firmly into position between the home

and the back of the sill units. (the Sill Gasket prevents water from getting behind the units). (Fig. 7)



Fig. 4



Fig. 6

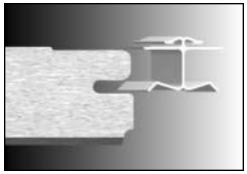


Fig. 1

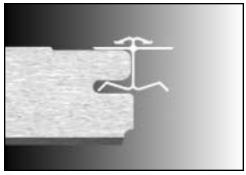


Fig. 2

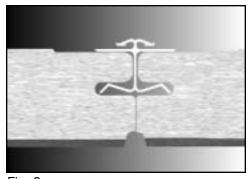


Fig. 3



Fig. 5

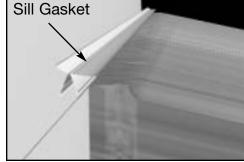


Fig. 7

C. Sill Side Mount Brackets with Concrete Sill

- 1. Slide the Sill Side Mount bracket down the groove on the back of the I-Beam. Attach the bracket by screwing it into the siding through the floor joist. (Fig. 1)
- When the home is finished, apply Super-Stik adhesive to the top of the StoneSkirt units and place the sill into position.
 Allow 24 hours for the Super-Stik adhesive to properly cure. (Fig. 2)
- Press the Sill Gasket firmly into position between the home and the back of the sill units, and secure with adhesive. (Fig. 3)



A. Step up or step down the column in 8" sections

- 1. Prepare the foundation for the step. (Fig. 4)
- 2. Install the last column before the step. (Fig. 4)
- 3. The step unit should extend at least 8" into the grade. (Fig. 5)
- 4. Place the angle iron on the stepped footing. (Fig. 5)
- 5. Install full length units on top of a step unit and finish your column. (Fig. 6 & 7)

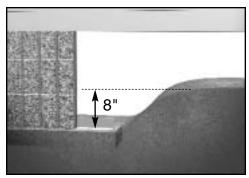


Fig. 4

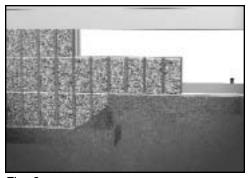


Fig. 6



Fig. 1

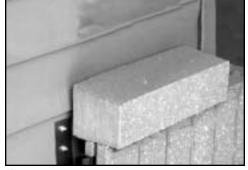


Fig. 2

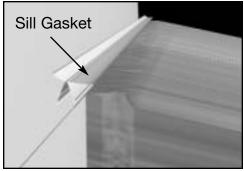


Fig. 3

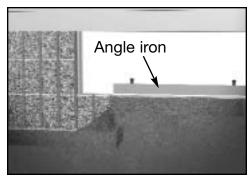


Fig. 5

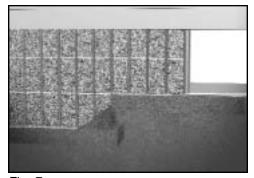


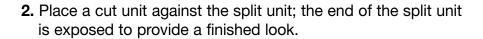
Fig. 7

Step 5: Corners

A. First Corner (see Step 2 a)

B. Outside Corners

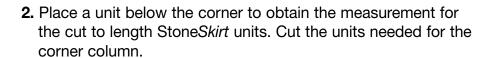
1. Corners require two columns, one of non-split StoneSkirt units and one column of split units. If the distance from the last completed full column and the back of the split units is less than a full StoneSkirt unit, the units in the column will need to be cut. (Fig. 1 & 2)

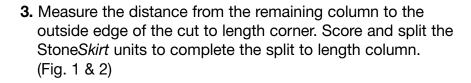


3. Glue the corner using Super-Stik adhesive. (Fig. 3)



1. The final corner consists of a column of units cut to length and a column units split to length.





4. Glue the corner using Super-Stik adhesive. (Fig. 3)

D. Inside Corners

- **1.** Inside corners are assembled with cut and regular StoneSkirt units.
- **2.** Use regular StoneSkirt units to extend into the corner.
- **3.** Cut the adjacent column to length and butt it against the regular column as shown. (Fig. 4)
- **4.** Glue the corner with Super-Stik adhesive.

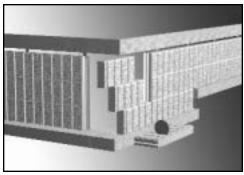


Fig. 1

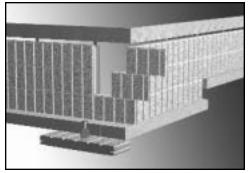


Fig. 2



Fig. 3

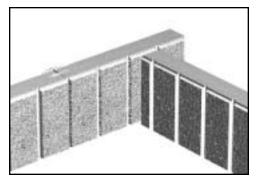


Fig. 4

Step 6: Installing Accessories:

A. Vents

- 1. Install the StoneSkirt units in a column up to the height where the vent will be located.
- 2. On 24" Stone Skirt units, cut 8" off and attach the 8" section with glue. For 16" StoneSkirt units, leave a unit out from the column. Install the I-Beam on each side of the column. (Fig. 1)
- **3.** Complete the column with StoneSkirt units. (Fig. 1)
- **4.** Place the vent clips on the top and bottom of the vent.
- **5.** Install the vent. (Fig. 2)

B. Access Panel

- 1. When building a column with an access panel, leave out two of the 24" StoneSkirt units. If building with 16" units, remove 8" from one side of an adjoining column. Glue with Super-Stik adhesive as necessary.
- 2. Install the unit support clips where the top of the access panel will be. (Fig. 3)
- **3.** Install a full StoneSkirt unit above the support clips. (Fig. 4)
- **4.** Follow the supplied instructions for installing the hardware on the access panel.
- **5.** Place the access panel into position and secure with the hardware. (Fig. 5)

C. Utility Panels

- 1. Install the Stone Skirt units in a column up to the height where the utility panel will be located.
- 2. On 24" units, cut 8" off. Secure the remaining 16" section with Super-Stik adhesive. For 16" units, cut 8" off. Secure the remaining 8" section with Super-Stik adhesive. (Fig. 6)
- **3.** Complete the column with StoneSkirt units.
- **4.** Follow the supplied instructions for installing the hardware on the utility panel.
- **5.** Install the utility panel. (Fig. 7)

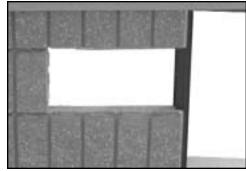


Fig. 1



Fig. 2

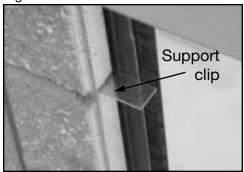


Fig. 3

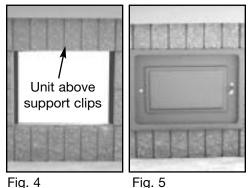


Fig. 4

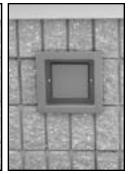


Fig. 6

Fig. 7





Alliance Concrete Concepts Inc.

325 Alliance Place NE Rochester, MN 55906-3975 Tel: 877-248-7456

Fax: 507-529-2879 web: www.stoneskirt.com e-mail: info@stoneskirt.com