NOVABSTONE INSTALLATION GUIDE

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This guide describes the steps required to install NovaBstone on a standard wood frame construction, it shows all the steps and typical cases of a standard installation. This guide does not claim to cover all situation that may occur.

Before any NovaBstone installation, please be sure to check and respect your local building code.

This guide is set for residential construction of two story or less; if more than two stories, please contact us or an engineer.

For more information on NovaBstone, contact us:

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514.354.1555
novabstone.com

TOOLS AND EQUIPEMENT

Measuring tape

String line for leveling

Level

Pencil, chalk

Square

Scaffolding

Chop saw with diamond blade

Hammer drill

Cordless drill

3/16" (for #8 screw) and/or 7/32"(for #10 screw) masonry drill bits

Drivers for drill to match screws

Rubber hammer

Utility knife

Work gloves

Protection goggles

Dust protection mask

MATERIALS

1"x 3" or 1"x 4" wood furring.

#10 - 2½" non corrosive screws (deck screws). Near coastal zones use stainless steel screws.

WALL PREPARATION

WALLS

NovaBstone is designed to be installed on wood frame structures with studs @16" c/c. For studs with longer distance between axes, an engineer must be consulted. Installation over concrete walls is also possible: use concrete screws to attach the furring to the building.

Before install NovaBstone, a house wrap need to be installed over the surface of the wall. Styrofoam insulation (maximum 2" thickness) can be added if needed, in this case, use 4" (or longer) screws.

Is important to mark the axes of the studs over the insulation because furring must be screwed to the structure of the building; screws must penetrate at least 1¼" the studs or building structure.

In all cases follow the installation instructions of the manufacturers of other third party products for improved efficiency.

OPENINGS

Seal all borders of windows and doors with a specific insulation tape.

Reinforce lintels of windows and doors replacing the furring with ¾" plywood; extend it 6" of each side of the opening, use the Lintel reinforcement table in the next page to calculate the height of this piece.

WALL PREPARATION

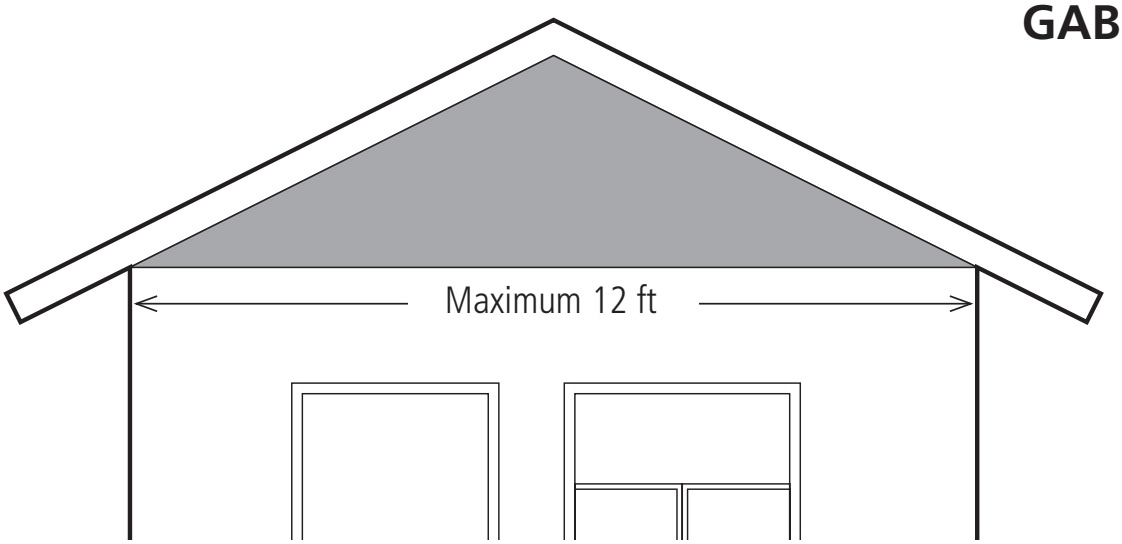
LINTEL REINFORCEMENT

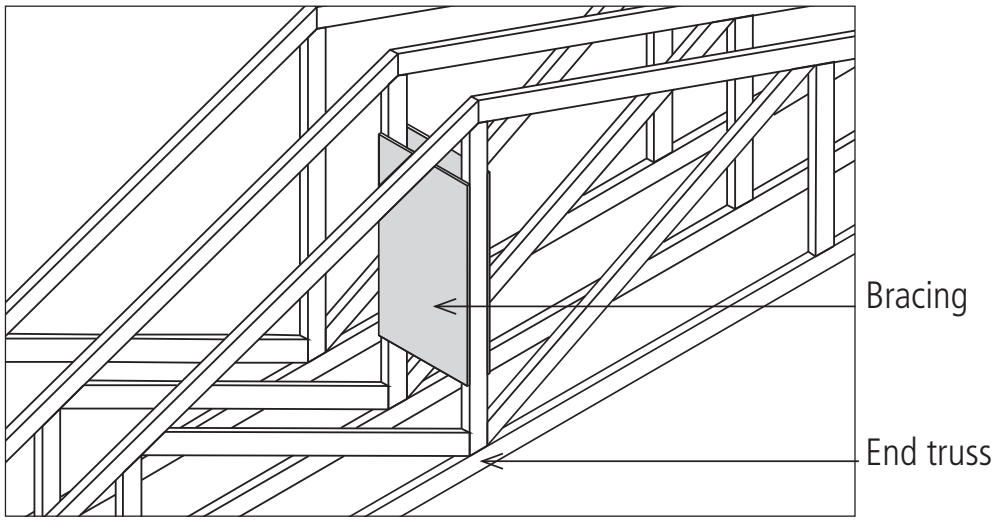
No Rows supported	WIDTH OF OPENING							
	1ft	2ft	3ft	4ft	5ft	6ft	7ft	8ft
1	12"	12"	12"	12"	12"	12"	12"	12"
2	12"	12"	12"	12"	12"	12"	11"	14"
3	12"	12"	12"	12"	12"	12"	12"	14"
4	12"	12"	12"	12"	12"	12"	14"	14"
5	12"	12"	12"	12"	12"	14"	14"	16"
6	12"	12"	12"	12"	12"	14"	14"	16"
7	12"	12"	12"	12"	12"	14"	16"	16"
8	12"	12"	12"	12"	14"	14"	16"	19"
9	12"	12"	12"	12"	14"	16"	16"	19"
10	12"	12"	12"	12"	14"	16"	19"	22"
11	12"	12"	12"	12"	14"	16"	19"	22"
15	12"	12"	12"	14"	16"	19"	22"	24"
19	12"	12"	12"	14"	19"	22"	24"	*
23	12"	12"	14"	16"	19"	24"	*	*
26	12"	12"	14"	16"	22"	24"	*	*
30	12"	12"	14"	19"	22"	*	*	*
34	12"	12"	14"	19"	24"	*	*	*
38	12"	12"	16"	19"	24"	*	*	*
41	12"	12"	16"	22"	*	*	*	*
45	12"	14"	19"	24"	*	*	*	*

* For such cases consult an engineer

WALL PREPARATION

GABLE



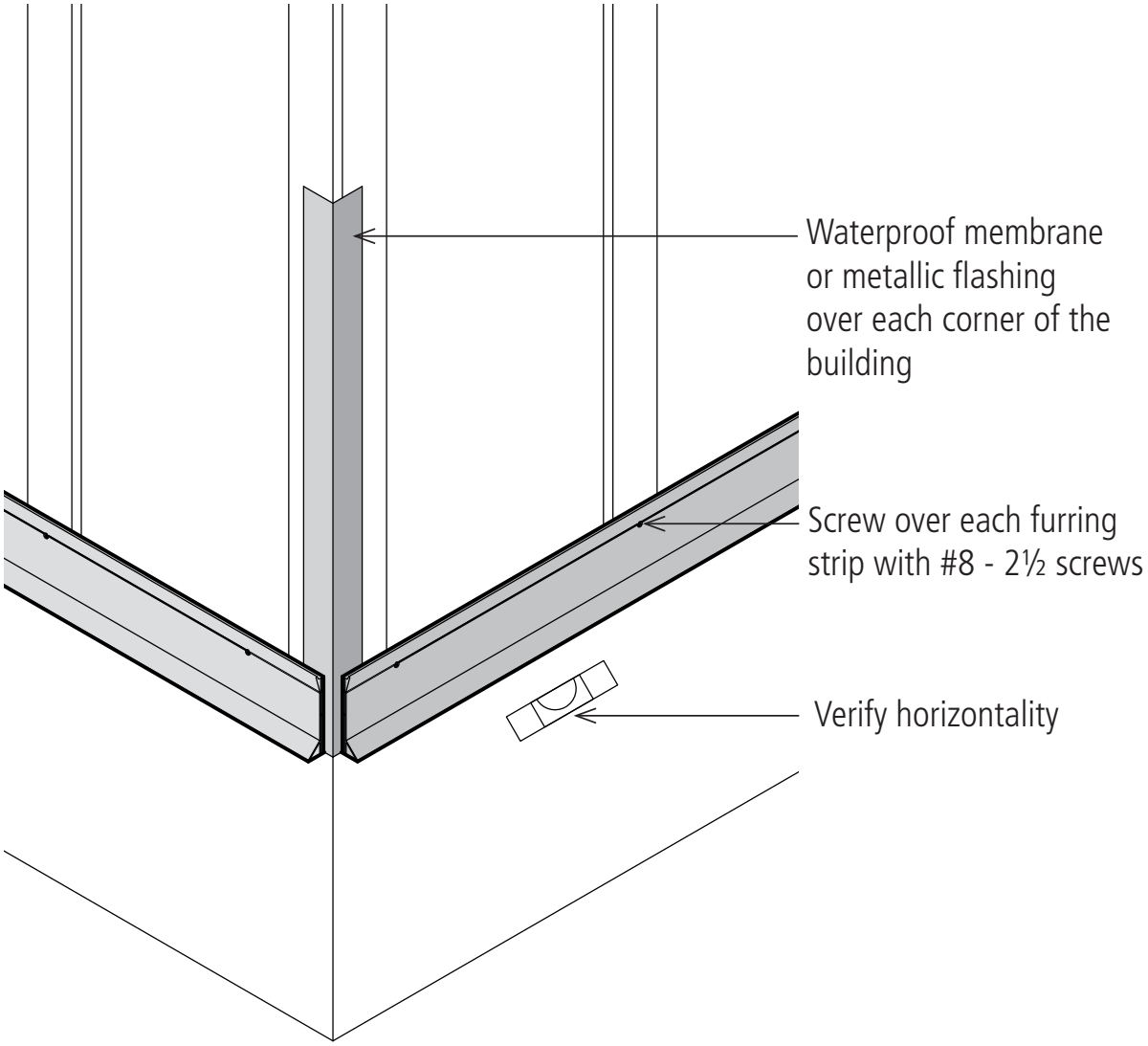


Gables smaller than 12' wide do not require reinforcement, screw the furring directly to the gable structure. On wider gables remove the existing sheathing and replace with plywood on the same thickness, cover with house wrap and install furring strips over the framing.

On large gables, add bracing between the first and the second truss in the attic space, this bracing must be at least a ½" plywood covering 2/3 the height of the gable.

INSTALLATION

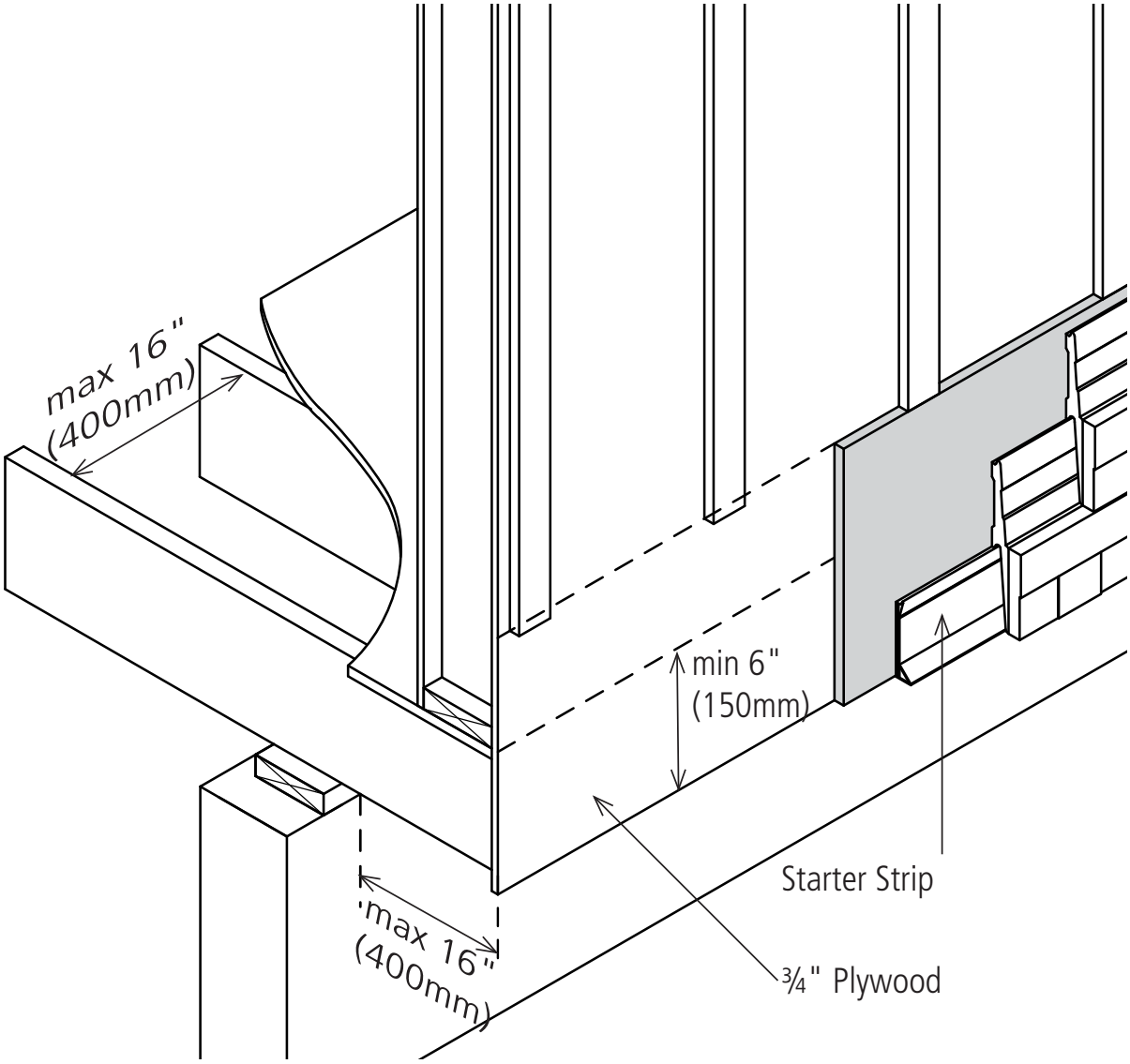
STARTER STRIP



Place a metallic flashing or a waterproof membrane on the corners of the building where the NovaBstone will be installed.
Trace a horizontal line where the NovaBstone siding will start, attach the furring strips over this line to the studs with #8 screws. The screws must penetrate at least 1¼" on the studs. Put the starter strip under the furring strips, screw only on one side, level and screw the other end, screw over each furring strip. Follow this procedure at the walls at the same level.

WALL PREPARATION

OVERHANG SECTION



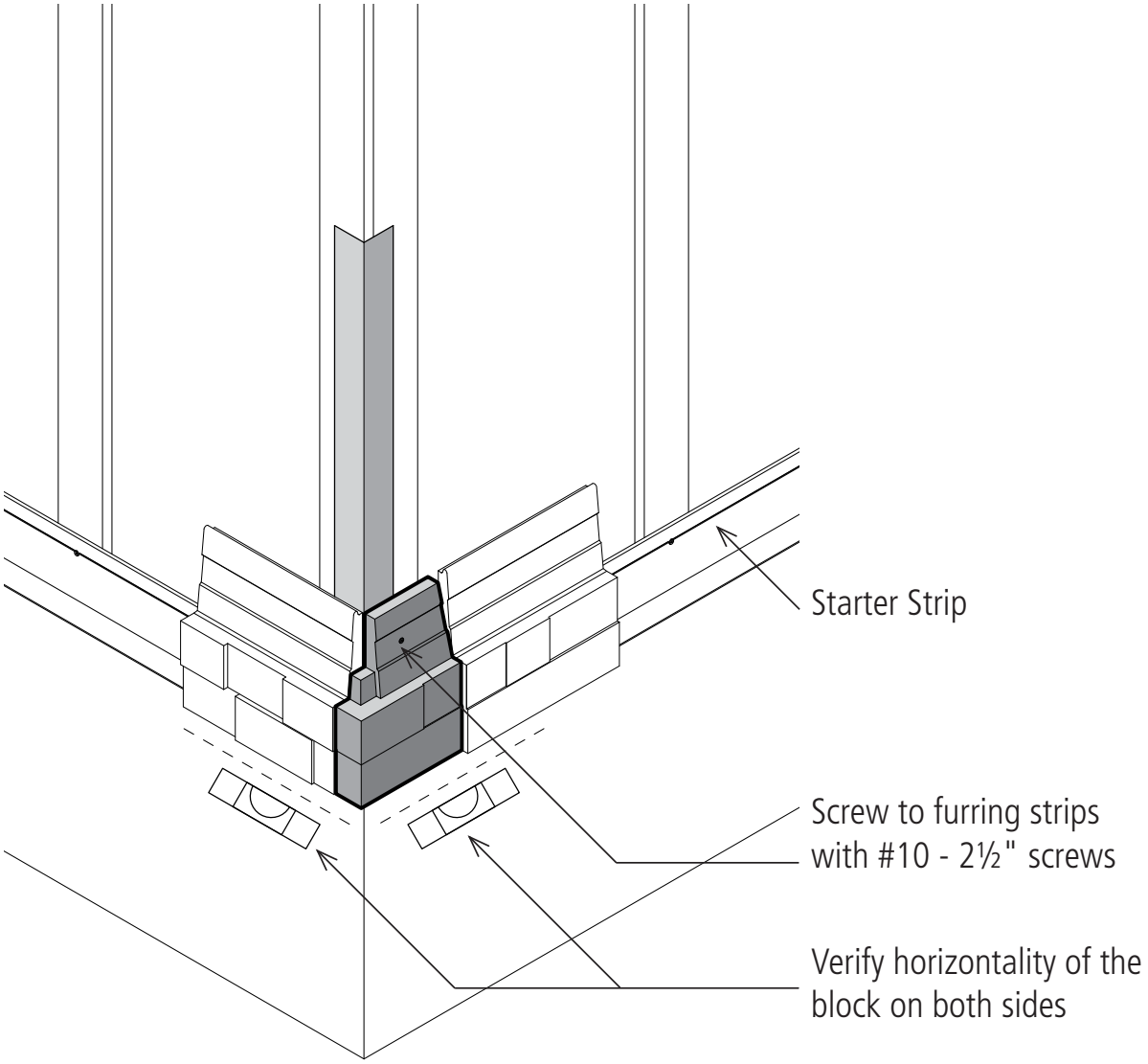
Verify that the floor joists have a maximum spacing of 16" (40 cm) between axes and that the overhang section does not extend more than 16" (40 cm). For longer dimensions, consult an engineer.

Install a ¾" plywood as a baseboard, extend plywood 6" (15 cm) above the floor level. Screw the plywood at both the sill plate and the studs.

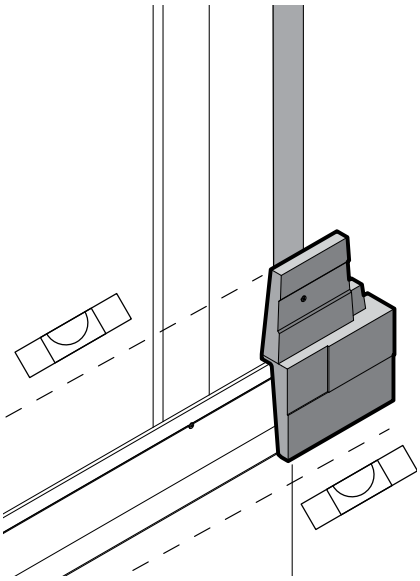
Install the starter strip, screw all the NovaBstones of the first and second row. Continue standard installation to the top of the wall

INSTALLATION

CORNERS

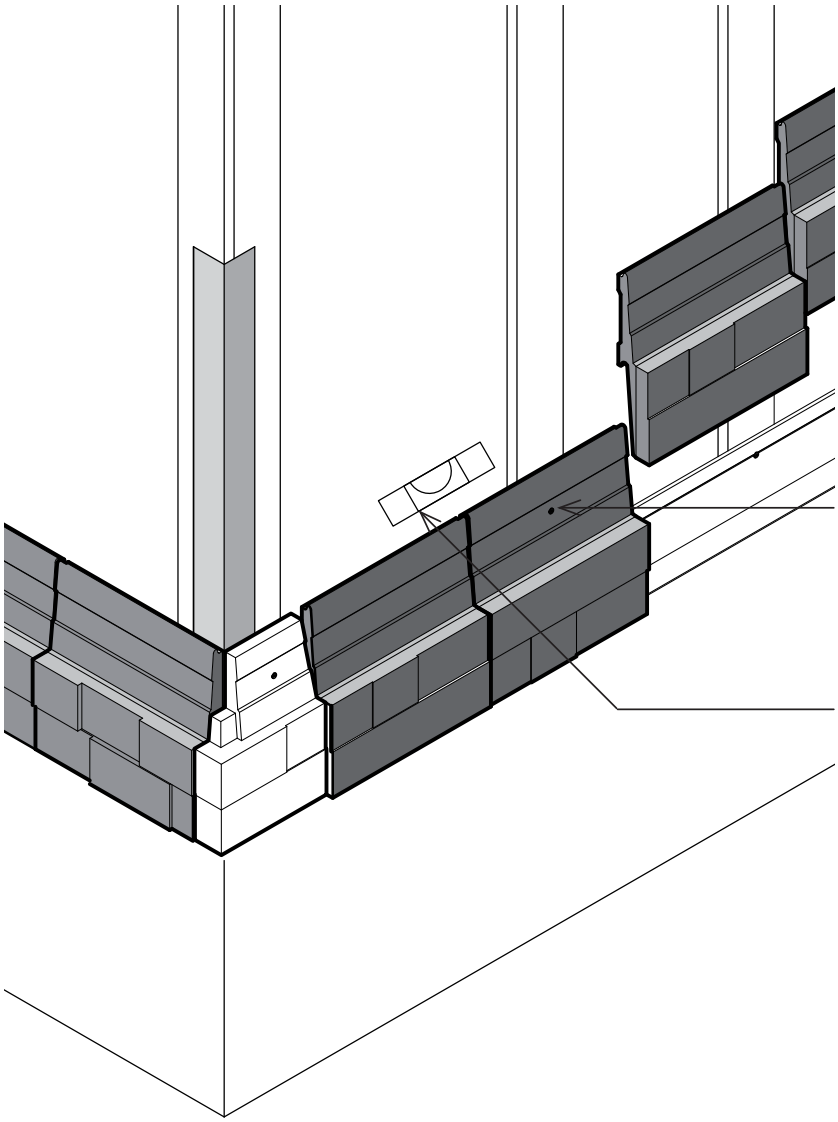


Drill a corner block and place it over the starter strip, place a stretcher on each side of the corner block and level the base of the corner to the base of the NovaBStones, screw the corner with two #10 - 2½" screws. Repeat the procedure on each external corner of the building



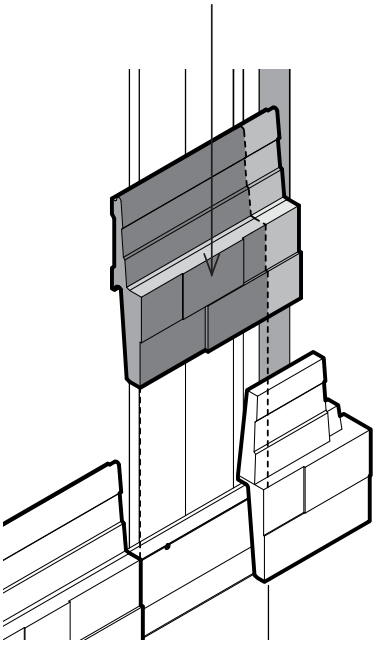
INSTALLATION

NOVABSTONE WALL



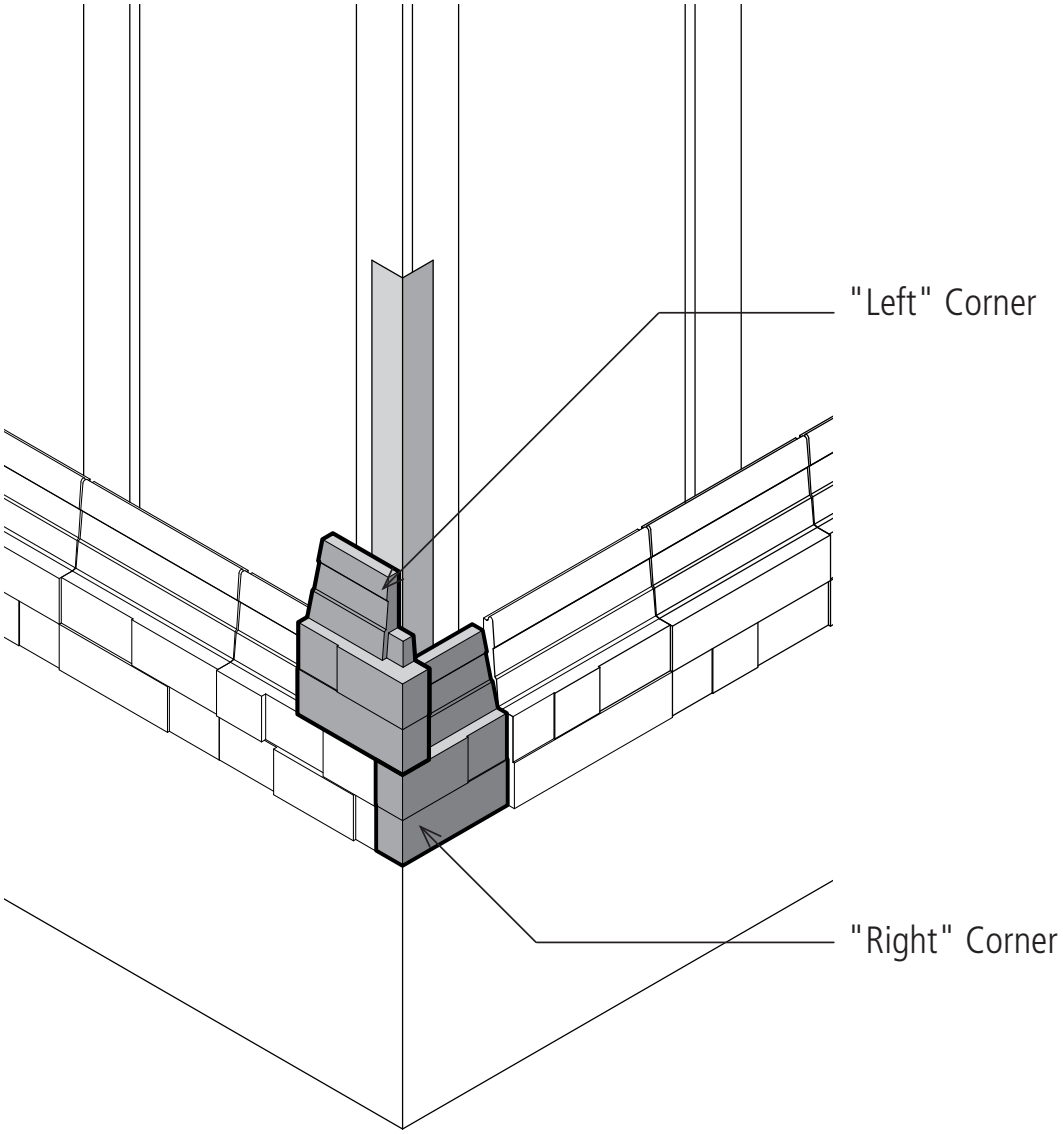
Once the corner attached on each side of a wall start setting the stretchers side by side over the starter strip, if the space for a last one is smaller than a NovaBstone, cut the piece to the required size.
Drill the NovaBstones on each furring, level if necessary with a rubber hammer and attach each with a #10 - 2½" screw.

Cut following required dimensions



INSTALLATION

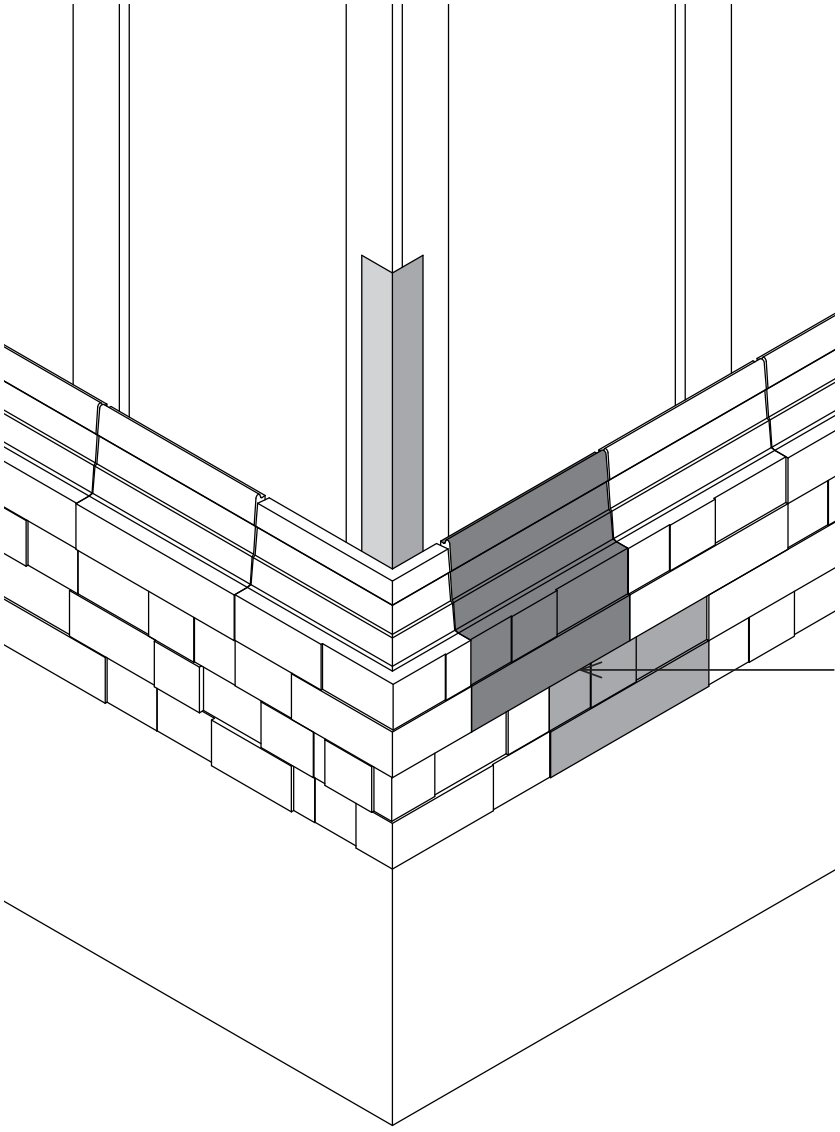
NOVABSTONE WALL



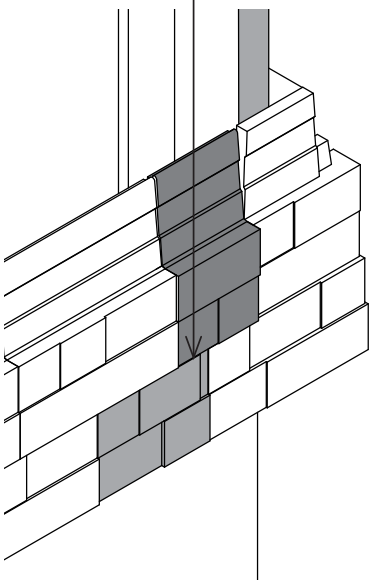
NovaBStone corners were designed in two models: Left and Right blocks. As the wall grows, in order to have a good assembly, use a Left corner over a Right corner and so on until the last row, attach each corner with two #10 - 2½" screws.

INSTALLATION

NOVABSTONE WALL

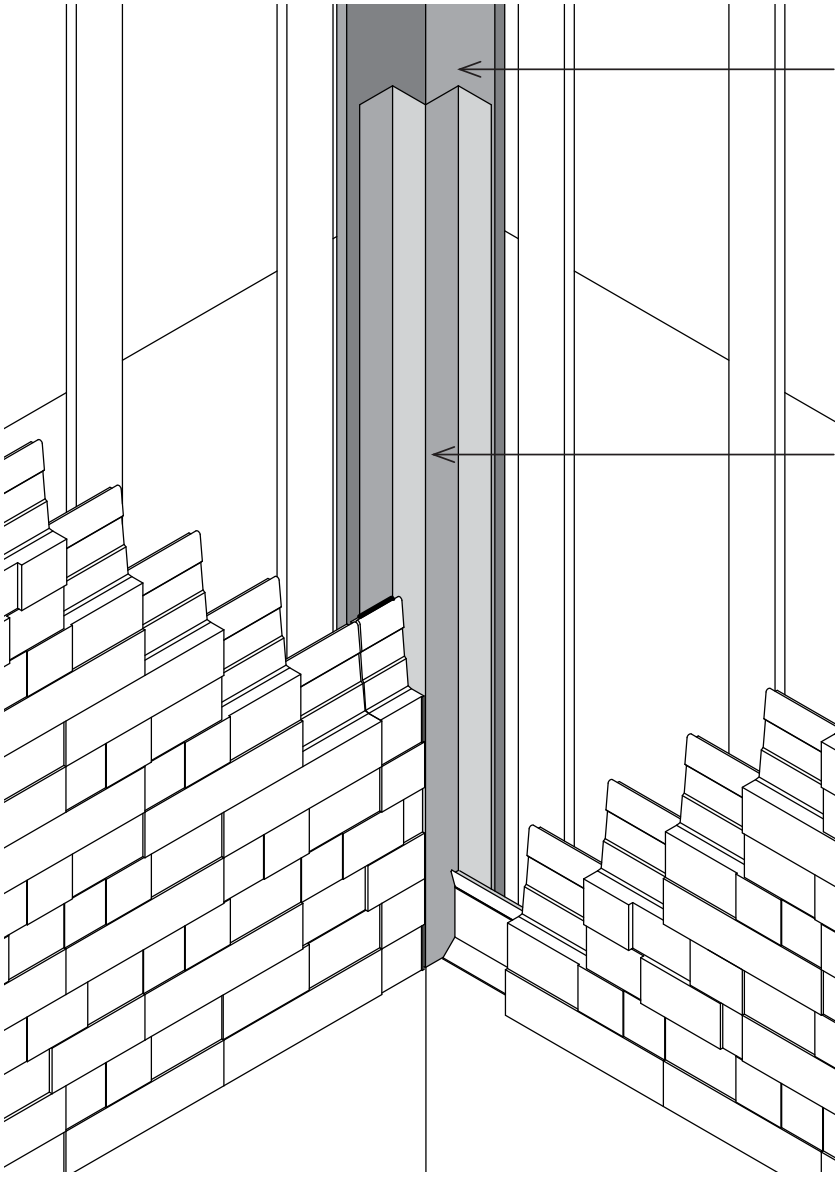


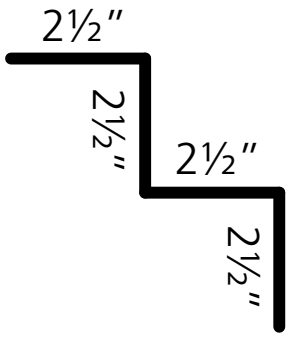
For the following rows, place the stretchers as any other brick system where the stones of one row cover the joints of the previous row. Drill and attach every second row each NovaBstone over a furring with a #10 - 2½" screw.
In all the cases a minimal overlapping of 2" is required to keep the tightness of the wall



INSTALLATION

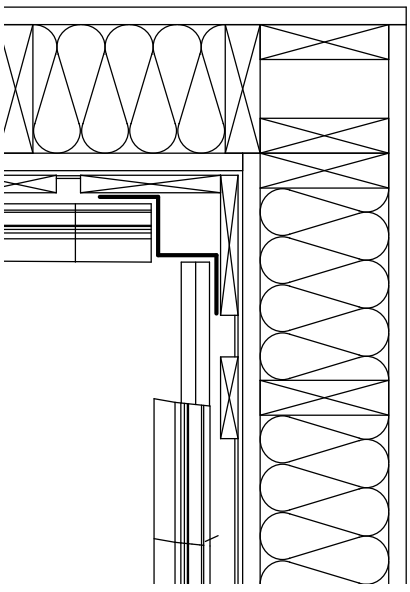
INTERIOR CORNER





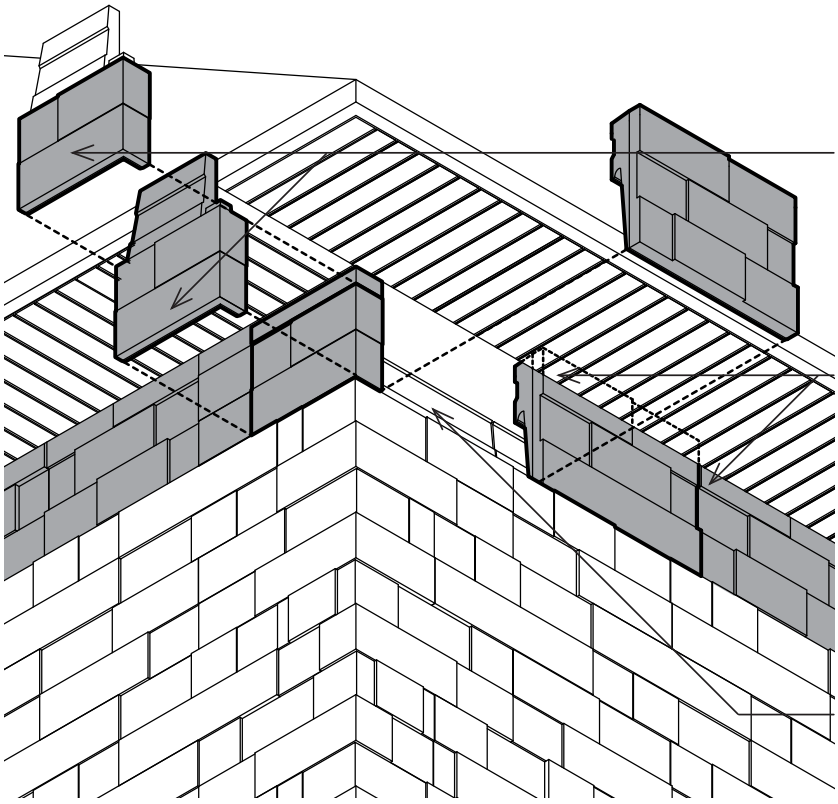
Aluminium flashing
schema

Install two 1" x 6" wood furring strips over the two sides of the corner and screw them to the wall.
Use an aluminium flashing as per the schema, attach it to the interior corner from the base to the top of the wall, fasten the starter strip and install the NovaBstone.

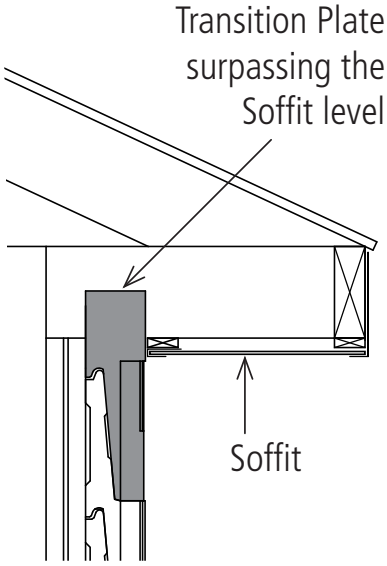


INSTALLATION

UNDER THE SOFFIT

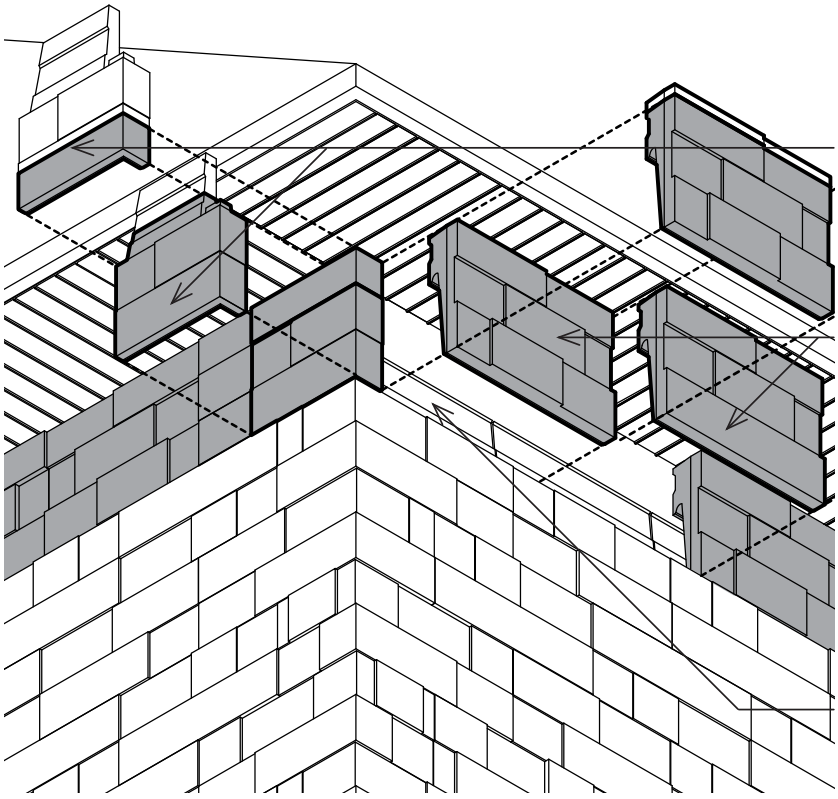


Installing the NovaBstone surpassing the soffit level: use the Transition Plate for the last row. Glue all the Transition Plates with construction glue.

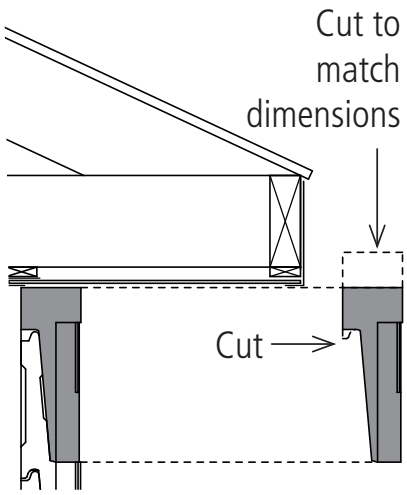


INSTALLATION

UNDER THE SOFFIT (2)

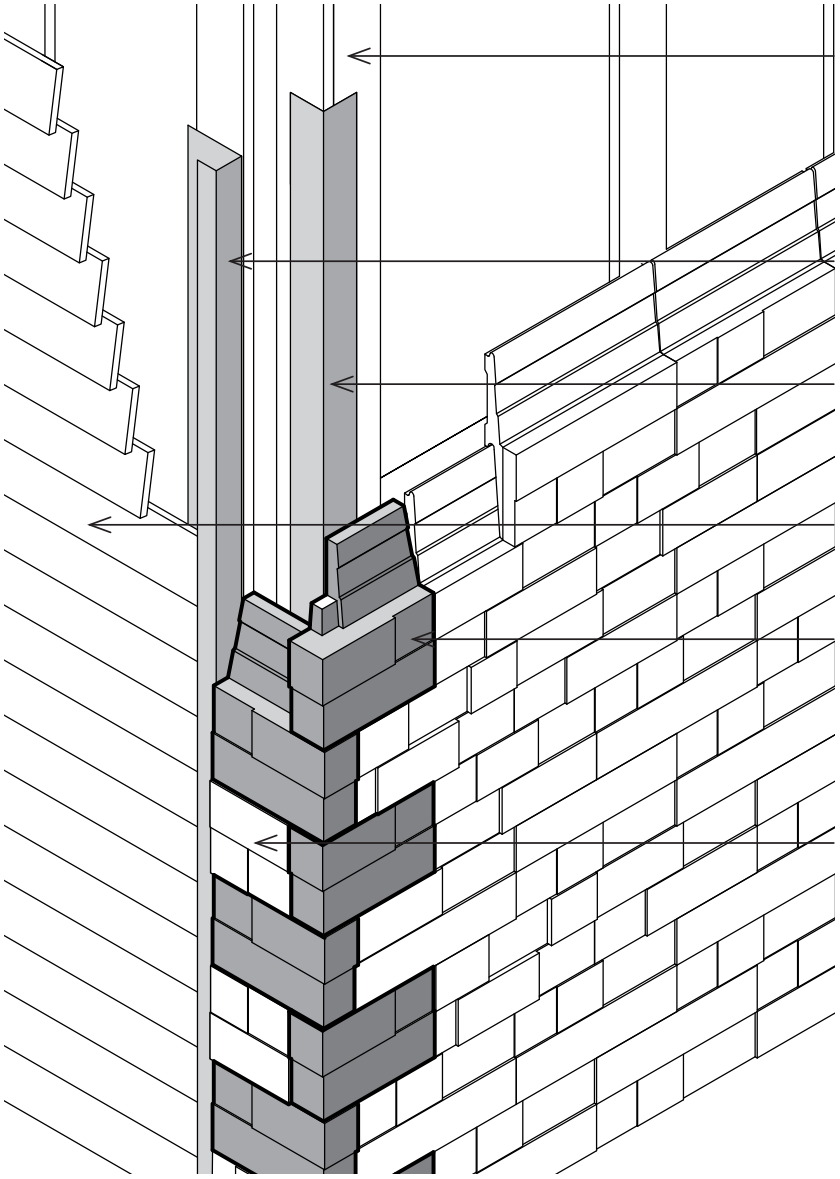


Use the Transition Plate to fill the remaining space between the last row of stretcheres and the soffit, depending of the dimension of the gap, Transition Plate could be cut or left as is. Important: the attaching hook on the back could need to be cut for easy insertion of the piece. All the pieces in this last row must be glued with construction adhesive.



INSTALLATION

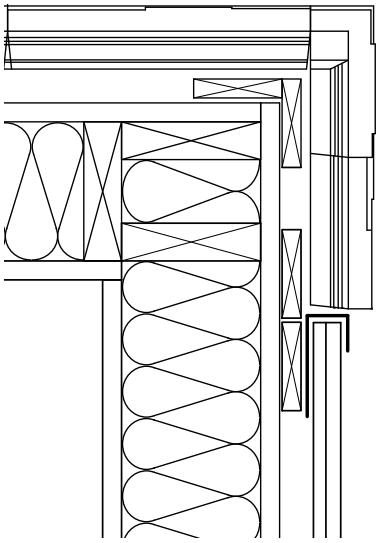
EDGE OF THE WALL (1)



Two solutions are proposed for the joint with other materials at the the edge of the wall:

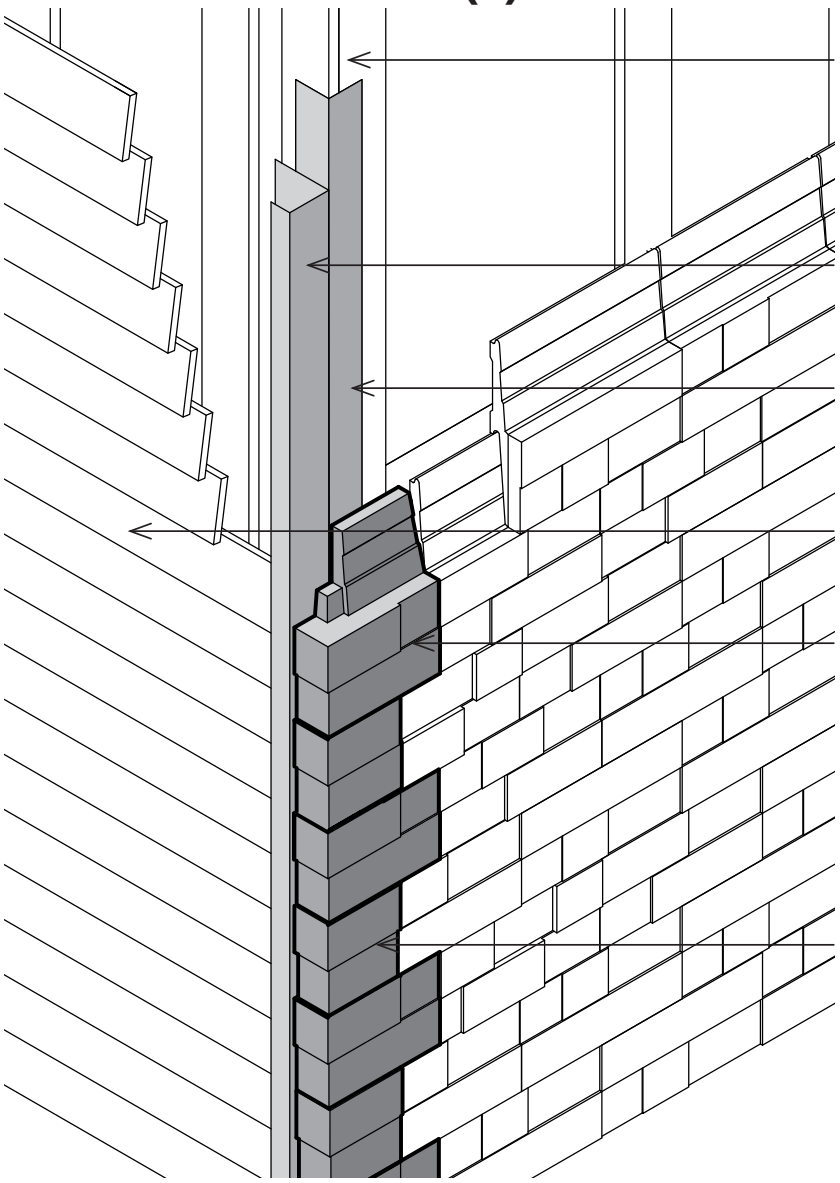
<u>With Right and Left corners</u>:

Attach a J channel at the edge of the corner block that turns around the edge of the wall (approximately 6" from the edge of the wall), install the corner blocks normally (one left over one right and so on) and half stretchers against the previous installed flashing. Screw all the units in this area.



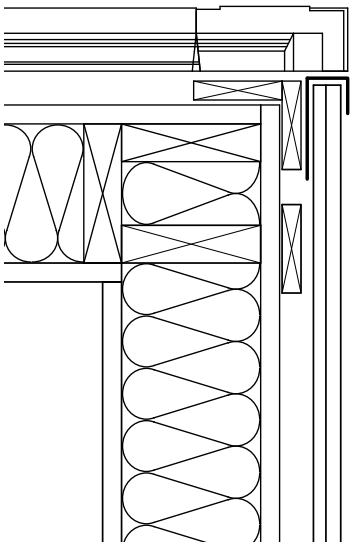
INSTALLATION

EDGE OF THE WALL (2)



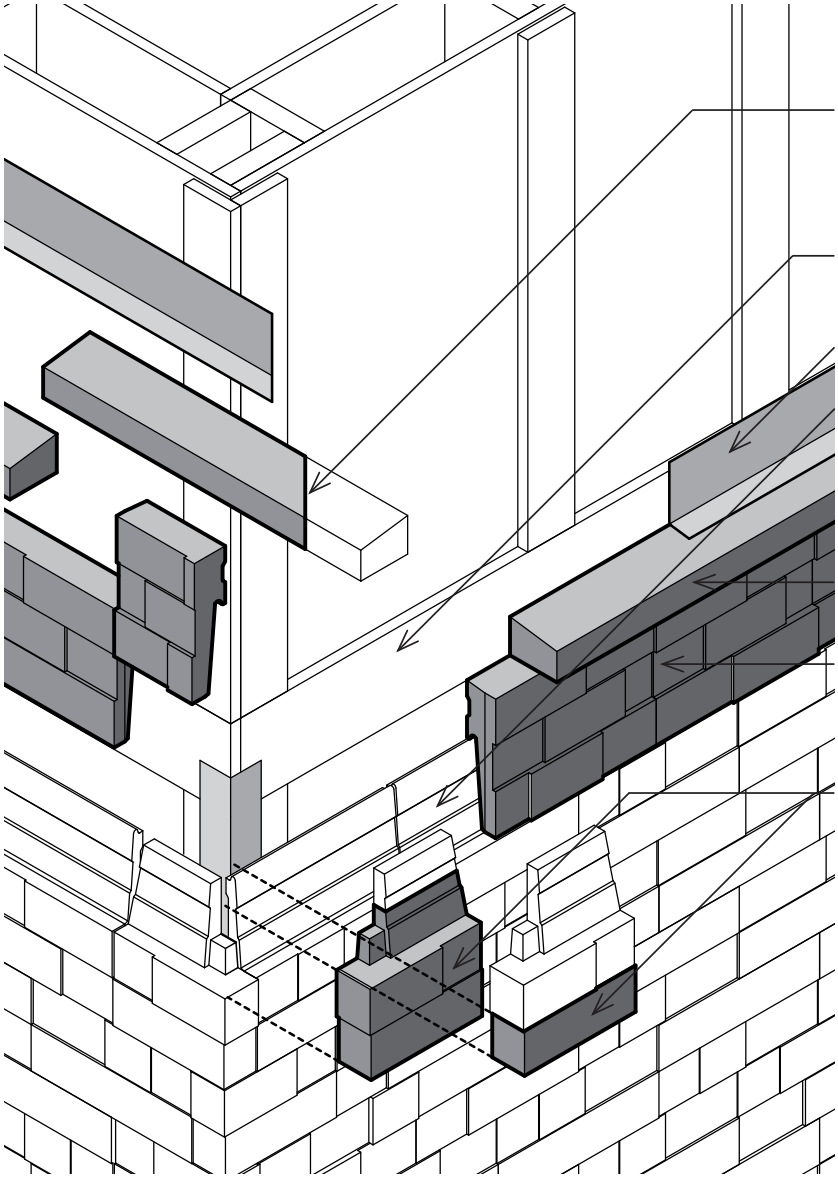
<u>With Right (or Left) corners only:</u>

Before installing the corner block; attach a metallic "J" channel at the edge where the other siding joins the NovaBstone wall. Install Right (or Left) corners only (depending on the side of the wall); use a half cut corner block every second row in order to keep the interlocking between the units. Screw all the corner blocks in this area.



INSTALLATION

HALF WALL SILL

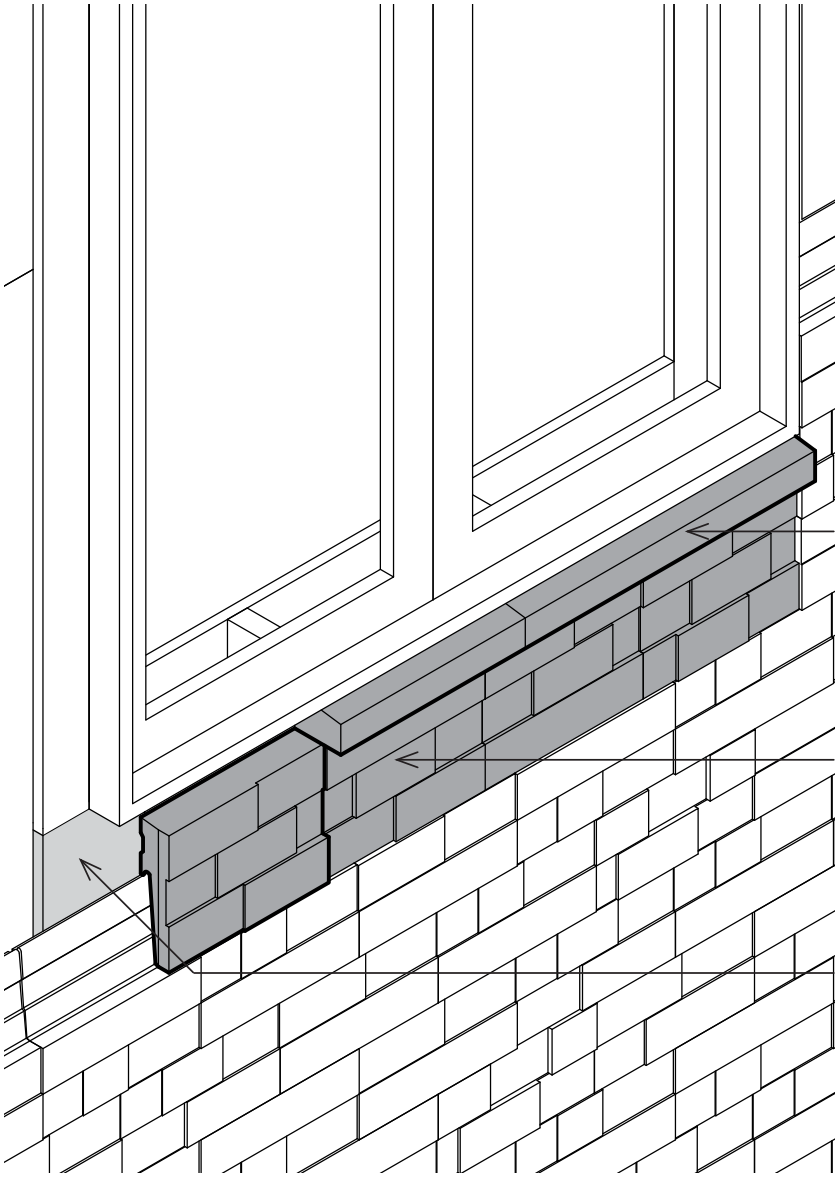


Install a ¾" x 9" plywood on the wall just over the last row of NovaBstone, spread construction glue on the top of the stretchers and place the Transition plates over it. For the corner use two corners of the same model, cut and glue as required.

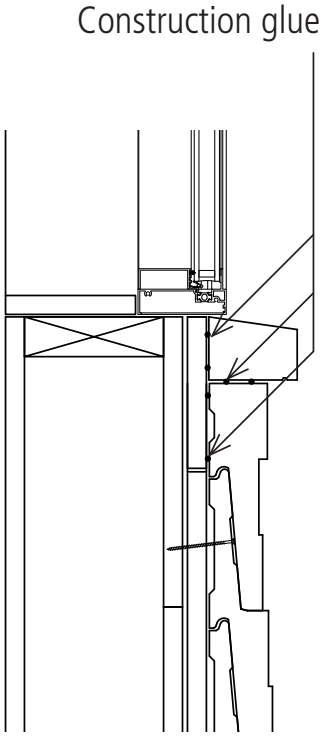
Apply construction glue on the top of the transition plates and on the plywood behind; place the sills, verify the horizontality before a definitive installation. Foresee an L shaped metallic flashing for the transition to other material.

INSTALLATION

WINDOW SILL

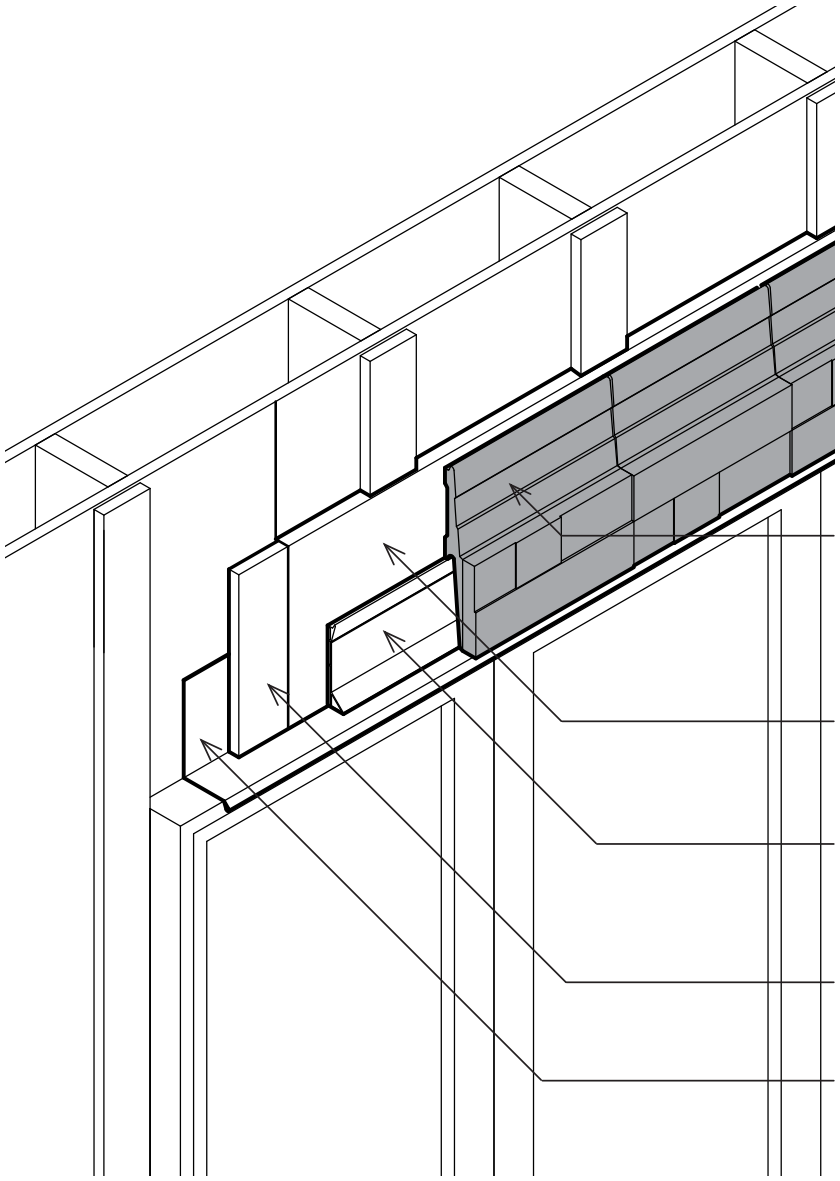


Attach ¾" x 6" under the bottom of the window, spread construction glue on it and over the last row of stretchers to place the Transition plates, spread another layer of glue over the top of these and over the plywood, insert the window sills and let dry.



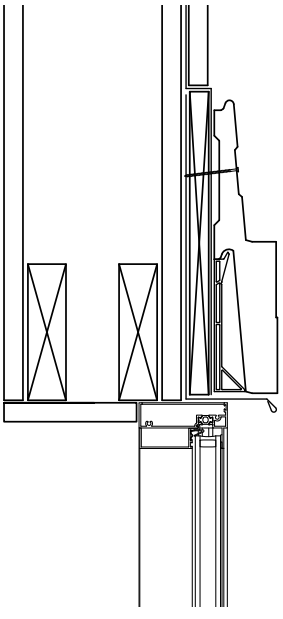
INSTALLATION

ABOVE OPENINGS



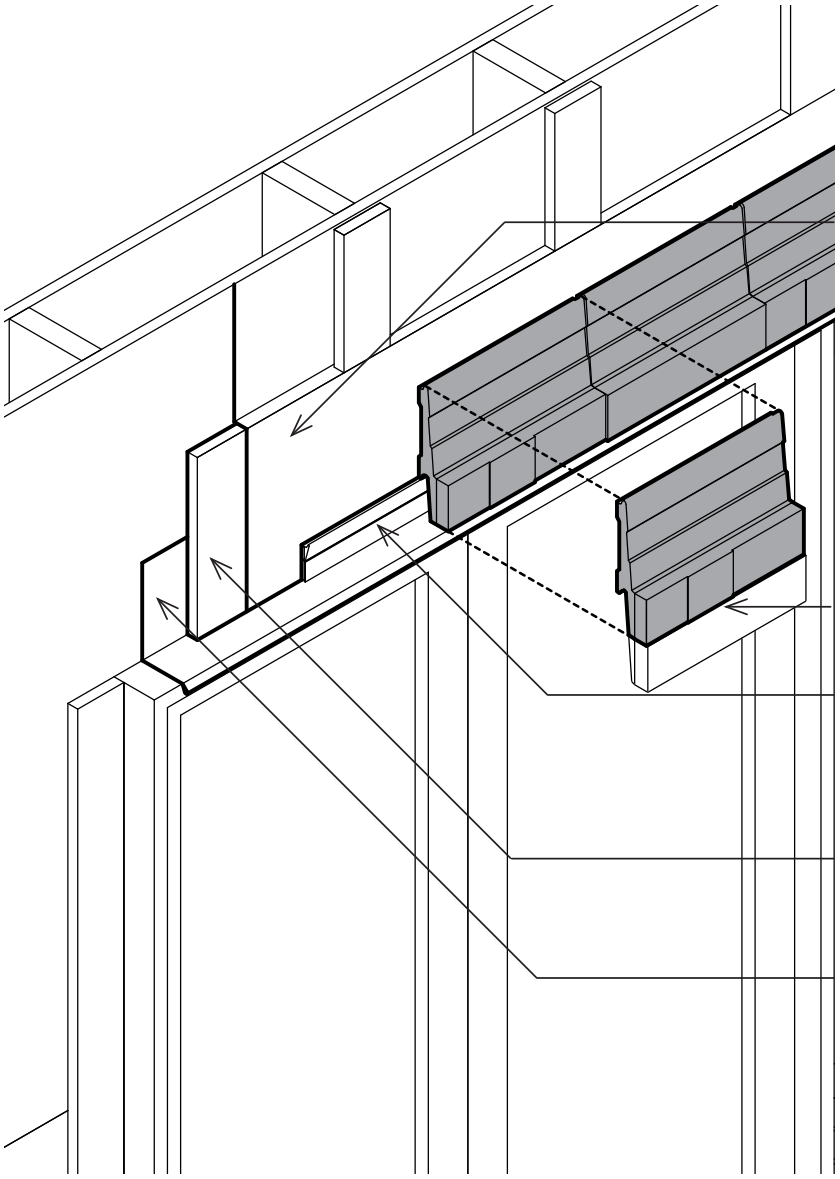
Take out the furring over the opening; install a metallic flashing and a plywood ¾" x 12" (or more depending on the lintel chart reinforcement on page 4), this piece must be 12" longer than the width of the opening.

Cover the whole with the house wrap. Install a starter strip (cut the flat part at the bottom with a knife). Screw all the stretchers on this row with #10 - 2½" screws. Continue with the standard installation.



INSTALLATION

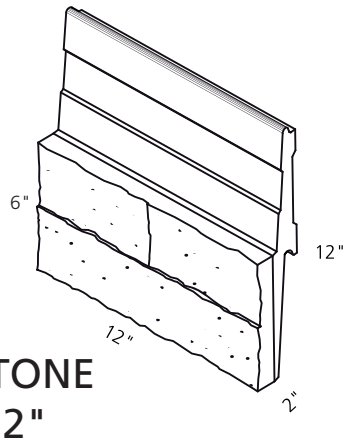
LINTEL



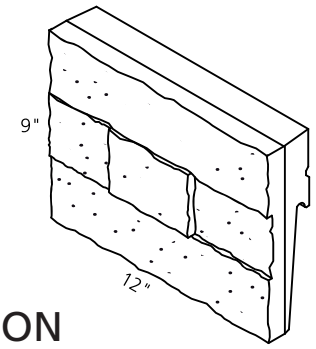
If the height of the row is not enough to hold an entire NovaBstone, cut the bottom part of the block; install all the stretchers over a lengthwise cut Starter strip. Fasten all the stretchers of this row with #10 - 2½" screws.

Note: the Starter Strip can be omitted if the dimensions are too small to cut.

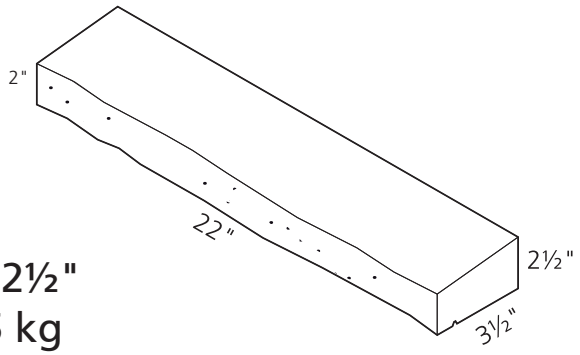
NOVABSTONE UNITS



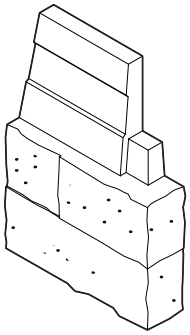
NOVABSTONE
12"x 6"x 2"
8 lb or 3.5 kg
2 per sqft

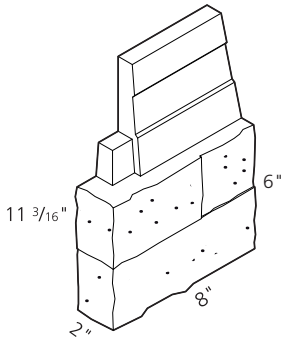


TRANSITION
12"x 9"x 2"
7 lb or 3 kg
1 per ft



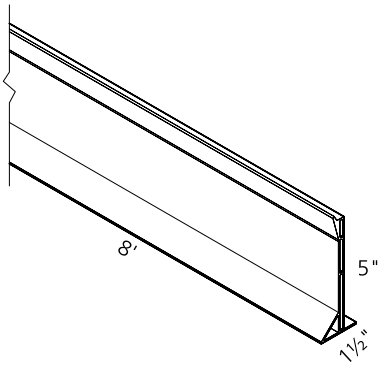
SILL
22"x 3½"x 2½"
10 lb or 4.5 kg
1 per 1'-10'





LEFT RIGHT

CORNERS
6"x 3"x 12"
7lb or 3kg
2 per ft



STARTER STRIP
6"x 1½"x 96"
5lb or 2kg
1 per 8 ft