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# Important: Read this Section Before You Start



## **Excessive Heat Warning**

Be aware of excessive heat on the surface of Aspire products from external sources, such as but not limited to, fire or reflection of sunlight from energy-efficient window products. Low-emissivity (Low-E) glass can potentially harm Aspire products. Low-E glass is designed to prevent passive heat gain within a structure and can cause unusual heat buildup on exterior surfaces. This extreme elevation of surface temperatures, which exceeds that of normal exposure, can possibly cause Aspire products to melt, sag, warp, discolor, increase expansion/contraction and accelerate weathering.

Current or potential Aspire customers who have concerns about possible damage by Low-E glass should contact the manufacturer of the product which contains Low-E glass for a solution to reduce or eliminate the effects of reflected sunlight.

Do not install for use as a fire pit. Grills and fire bowls may be used when placed over a fire mat to prevent any damage from burning embers. Pavers should be kept a minimum of 4 feet from any open flame.



### **Building Code Compliance**

Aspire Pavers should be installed in accordance with the local building codes and the installation guidelines included below. Aspire accepts no liability or responsibility for the improper installation of this product. Aspire Pavers may not be suitable for every application and it is the sole responsibility of the installer to be sure Aspire Pavers are a fit for the intended use. Since all installations are unique, it is also the installer's responsibility to determine specific

requirements for each application. Aspire recommends that all applications be reviewed by a licensed architect, engineer or local building official prior to installation. Failure to install Aspire Pavers in accordance with applicable building codes and this Installation Guide may lead to personal injury, affect product performance and void the product warranty.



# **Expansion and Contraction**

Aspire Pavers will expand and contract with temperature change (similar to other composite materials). Leave a minimum 1/2-inch gap between paver system and all walls or protrusions.

Cold Weather Installation (Below 50 F): Leave a 1/4-inch gap between grids to allow for expansion.

**Hot Weather Installation (Above 80 F):** Install grids with no spacing to allow for contraction.



### **Excessive Construction Debris**

It is important during construction, the Paver surface stay clear from excessive buildup of dirt, sand and dust from tile, concrete, landscape blocks or any other masonry products. If these materials are not removed immediately, the Paver surface may become difficult to clean and can potentially damage the Paver's surface finish.

If a buildup does occur please refer to the Care and Cleaning section in Aspire's Installation Guide or website, aspirepavers.com.

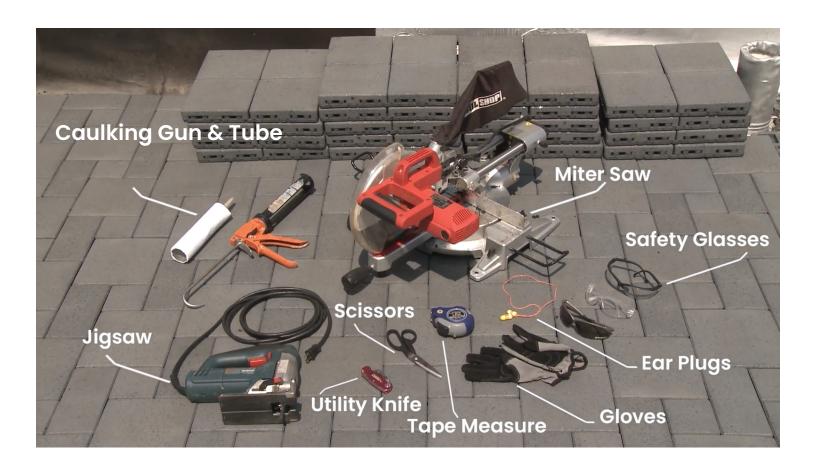
Do not use Aspire Pavers as a work surface.

Please call Aspire by Brava Customer Service at 844.290.4196 visit aspirepavers.com for information.

# **Installation & Tools**

- Miter Saw with low tooth count wood ripping blade
- Jig Saw with low tooth count wood ripping blade
- Safety Glasses
- Ear Plugs
- Caulk Gun
- Lexel Sealant, TiteBond ProVantage Landscape Adhesive, or comparable

- Blower and/or broom
- Marker (Sharpie or wax pen)
- Utility Knife
- Hand Dolly
- Scissors
- Gloves
- Tape Measure



# **Designing Your Project**

### Calculate Square Footage:

Measure the dimensions of the area where Aspire Pavers will be installed and calculate the total square footage. Be sure to add extra to the measured square footage to allow for scrap and to have a few extras on hand in case of future damage.

# Calculate Bullnose Pavers Required:

Bullnose pavers are typically used at railings to hide the grid below and form a rounded edge. Each Bullnose is 4 inches wide, so you will need three (3) for every linear foot where Bullnose is needed.

# Calculate Amount of Aspire Grids with Pavers:

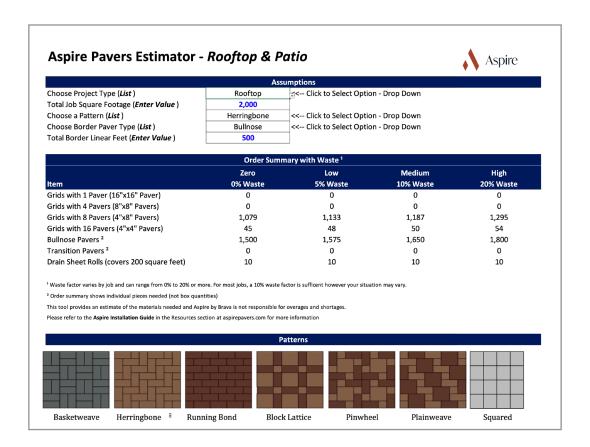
A full grid of Aspire Pavers includes a 16-inch by 16-inch grid filled with pavers (one to 16 pavers depending on their size). Each grid covers 1.78 square feet. To calculate how many grids are needed, divide the total square footage of the project by 1.78.

### Example of a 500 Sq. Ft. Project with 10% Waste Factor

**Step 1:** 500 sq. ft.  $\div$  1.78 = **281 Grids** 

**Step 2:** 281 Grids x 1.1 = **309 Grids Needed** 

A Paver Estimator is available at **aspirepavers.com** in the Resource Section. Below is an example. Then plug in 500 sq. ft. in the example so it matches above.





# **Installation Instructions for Flat Roofs**

A drainage mat is recommended for flat roof applications over waterproofing membranes. It serves to both protect the membrane from abrasion and allows a pathway for water to escape to the drains. Aspire Pavers recommends using Aspire Drain Mat or another comparable drain mat.

\*\*Helpful Hint: For small undulations in the flat roof surface, scrap pieces of membrane can be used as shims. This will help create a smoother top surface once the Aspire Paver system is installed.



- Clean the area of any loose debris.
- Start at the edge and install the drainage mat with the fabric flap facing the perimeter edge, and the length of the roll going with the slope of the roof.
- Cut it to length so there is a 1/2-inch gap between the material and all walls and protrusions.
- Apply a bead of construction adhesive 1/8 inch to 1/4 inch in a zigzag pattern along the edge of the strip of drainage mat without the fabric overlap.
   Install the next strip of drainage mat — overlapping and bonding the fabric flap onto the previous strip.
- Repeat procedure until entire plaza deck floor is covered.
- Remove excess material from last strip without eliminating the fabric overlap.
- Be sure to cut drainage mat around any drains or where water must escape.
- DO NOT adhere the material to the waterproofing membrane.





# **Grid & Paver Installation**

Aspire Pavers are a luxurious, low-maintenance covering that installs over an existing or new flat roof.

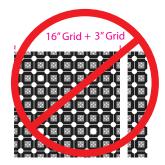
Aspire Pavers are not a structural replacement for flat roof surfaces and are not suited for all flat roof applications. Please consider wind-uplift and fire rating guidelines, along with the weight capacity of the roof when designing a project. Always consult your Aspire Representative for the recommended rooftop adhesion guidelines for your specific project.

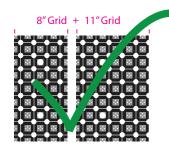
Aspire Pavers are designed to be a flat roof covering installed over a waterproofed, structural flat roof surface. Aspire Pavers are NOT a structural replacement for flat roof surfaces and therefore should NEVER be used as the structural element of the roof, as a ballast system or in pedestal applications. Prior to installing, be sure to verify that the flat roof can support the addition of Aspire Pavers.

### **Sub-Structure Requirements**

- The roof structure must meet all required codes.
- The system is designed for installation over a "low-sloped" roof (between 1/8 inch per foot and 1/2 inch slope per foot).
- The rooftop surface must have adequate drainage to meet local codes.
- The surface must be free from substantial undulations or "waves".
- Door and other thresholds must be able to accommodate the minimum added height.

### One example of cutting grids for optimal layout



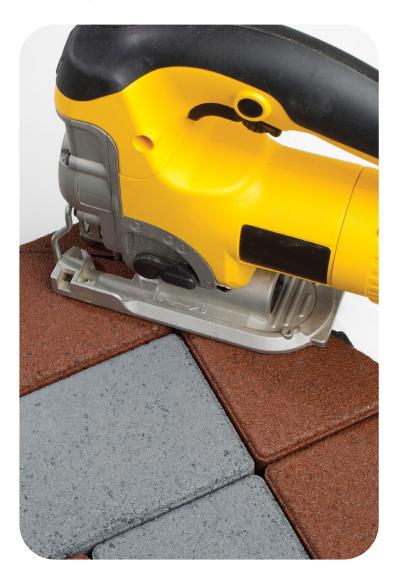


### **IMPORTANT:**

Always wear safety glasses and ear plugs when trimming pavers or grids. Obey all safety and operational instructions that came with the cutting equipment.

### **Cutting Pavers & Grids**

- Pavers can be cut to any shape using a jigsaw or miter saw and a low tooth count wood ripping blade.
- If using a miter saw, it works best to place the paver on a grid while cutting it. This allows the person cutting the product to both have more support holding the paver and keeps their fingers farther away from the blade. Short, quick motions with a miter saw also work better. Slow, continuous cuts may cause binding and warping of the blade.
- For pavers cut to dimensions smaller than half a paver, adhere the paver to the grid using a recommended adhesive.
- Use the recommended cutting equipment (see page 4).





# **Grid & Paver Installation (Continued)**

Aspire Pavers will expand and contract with temperature change (similar to other composite materials). Leave a minimum 1/2-inch gap between paver system and all walls or protrusions.

Cold Weather Installation (Below 50 F): Leave a 1/4-inch gap between grids to allow for expansion.

**Hot Weather Installation (Above 80 F):** Install grids with no spacing to allow for contraction

- Choose your starting point based on the project dimensions and desired look, keeping in mind any cutting that may need to happen.
- Bullnose Applications: When using the Bullnose with Legs, it is recommended to start at the railing and work back to the wall. When using Bullnose with Tabs, start at the wall and work out to the railing.
- Begin by laying a handful of Aspire's patented installation grids in the arrangement that matches your pattern to ensure pavers overlap grids in both directions.
- To increase installation speed, order extra installation grids to get started.
- Bring over grids full of pavers, dump them next to where they will be placed into the grid, and place the empty grids into place.
- If mixing colors, bring over the ratio of colors being used and dump them in front of the person laying pavers. For example, for a pattern using 40% Boardwalk, 40% Olive and 20% Waterwheel, the carrier would bring over two grids of Boardwalk, two grids of Olive and one grid of Waterwheel each time.
- Begin laying pavers in the desired pattern; ensuring pavers are overlapping grids in both directions.
- When the edge is reached, grids can be cut to fit using a jigsaw or miter saw and a low tooth count wood ripping blade.

- Continue laying pavers until all full pavers (i.e. not cut or trimmed) are installed.
- If the perimeter grid is less than 4 inches, cut 4 inches or 8 inches off of the interior adjacent grid to increase the size of the perimeter grid. See example below.



### **NOTE:**

Mix multiple pallets of the same color within an installation to disperse any potential slight variations in shade.

### **REMINDER:**

Installation grids must be oriented to allow the pattern of pavers to interlock grids in both directions.



### **IMPORTANT:**

Do not lay out all the grids and then install all the pavers. Instead, layout a few grids at a time up to a full row. Make sure the row is aligned and then add pavers. Installing pavers and grids as you go will help ensure proper grid spacing.

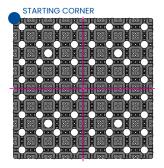
### System Height

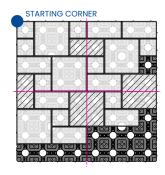
	PAVERS ONLY (Installed on Grids)	DRAINAGE MAT	COMBINED HEIGHT (Pavers & Drainage Mat)
RESURFACING PAVERS	1.75"	0.25"	2"

# Patterns (Using 4x4, 4x8, and 8x8 Sizes)

4x4, 4x8, and 8x8 Sizes

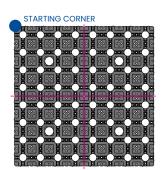
Aspire Pavers can also be installed in Plain Weave, Block Lattice and Soldiered patterns with different color combinations. Some example patterns are provided below: **IMPORTANT:** At least one paver must connect two grids in each direction. Here is how the grids must be oriented to assure overlap in all directions for other patterns:

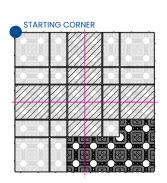




### **Plain Weave:**

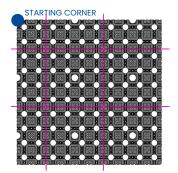
- 8x8 57.1%
- 4x8 28.6%
- 4x4 14.3%
- Lay the installation grids as illustrated at left.
- Start laying pavers at the starting corner.
- Compatible with 4-inch and 8-inch soldier course borders.

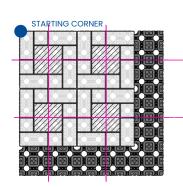




### **Block Lattice:**

- 8x8 44.4%
- 4x8 44.4%
- 4x4 11.1%
- Lay the installation grids as illustrated at left.
- Start laying pavers at the starting corner.
- Perimeter 8x8 pavers can be replaced with 4x8 pavers to create an 8-inch soldier course border.





### Pinwheel:

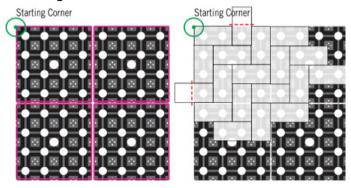
- 8x8 25%
- 4x8 50%
- 4x4 25%
- Trim Grids as illustrated at left.
- All parts of quarter Grids and half Grids can be used.
- Lay the installation grids as illustrated at left.
- Start laying pavers at the starting corner.
- Adding 4-inch or 8-inch soldier course would eliminate the need to cut grids.

# Patterns (Using 4x4 and 4x8 Pavers)

Aspire Pavers can be installed in a multitude of different patterns and combinations. Designs can include small and large repeating patterns. Some example patterns are provided below:

**IMPORTANT:** At least one paver must connect two grids in each direction. The herringbone pattern does this without needing to specially orient the grids. Here is how the grids must be oriented to assure overlap in all directions for other patterns:

### Herringbone

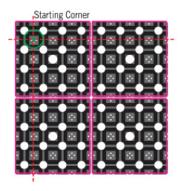


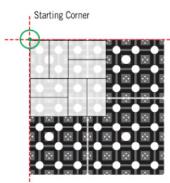
### **Herringbone:**

This is the most popular pattern. Pavers will interlock grids in both directions.

- Lay the installation grids as illustrated at left.
- Start laying pavers at the starting corner.
- Each half of the cut grid can be used.

### **Basketweave**



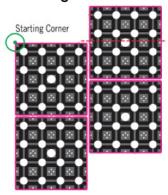


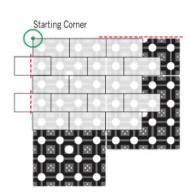
### **Basketweave:**

This is the simplest.

- The starting paver must be laid 4 inches down and 4 inches over from the top left corner of the grid. This will shift the pattern over and assure at least one paver will connect two grids in both directions.
- The leftover grid can either be trimmed off, or a 4-inch border can used to fill in the extra space.

### **Running Bond**





### **Running Bond:**

This pattern will require the staggering of grids to assure the pavers will connect them in both directions.

- The starting paver can be laid in the top left corner, but the next column of grids must be staggered halfway down the starting row.
   Every other column will need one half grid at the top.
- Each half of the cut grid can be used.

# **Bullnose Pavers**

### **Bullnose Paver Options**

Bullnose Pavers are typically used on rooftops under railings or on steps. They can also be used up against a parapet wall if the wall curves upward and round edge looks better than a flat edge. They are available in two types, with Legs and without Legs. There are advantages to both as listed below. If you have questions on which Bullnose to use, please consult with your Aspire Representative or contact via our website at aspirepavers.com.

### Bullnose Paver with Tabs (no Legs):

This is the original Aspire Bullnose with Tabs and no legs. The tabs enable screws to be installed to help secure them to the grid, however, we do not recommend screws in a rooftop application so just adhesive is recommended. This Bullnose is typically used when you start at the wall and work your way out to the balcony edge (where these are typically used).

### **Advantages**

- Legless design enables them to be attached where needed on the grid.
- Works best on irregular shaped roofs

### **Disadvantages**

• The Bullnose is shorter so the edge of the grid must be cut a minimum of 1 inch to fit up against the pavers in the grid.



Top view

### **Bullnose Paver with Legs**

This is the newest Bullnose and include legs, so it fits into the grid just like any paver size. We recommend adhering this paver to the grid with adhesive. This Bullnose is typically used when you start at the balcony edge and work your way back to the wall.

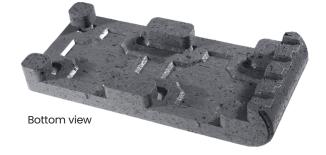
### **Advantages**

- Legs allow them to be installed like a normal paver.
- No need to cut I inch off the end of the grid.
- Elongated size meets perfectly with the pavers on the grid.

### **Disadvantages**

• If you do not use a full grid at the balcony edge, you may need to cut off the legs to install on the grid where needed.







# Perimeter & Adhering Pavers

### **Adhering Pavers to Grid**

In certain cases, pavers must be adhered to the grid for security (e.g. cut pavers, wind uplift conditions, around drains or where potential standing water could exist, stairs). Consult your Aspire Paver representative in all applications where wind uplift is a concern for recommendations.

- Using a recommended adhesive (see page 4)
   place a 1/4-inch bead across the top ribs of the grid.
- Place the paver in the grid and press down firmly.
- Let pavers sit undisturbed for duration of adhesive cure time.
- A 28 oz. tube of adhesive will cover approximately 25 square feet.



## **Securing Perimeter Pavers**

Each application is different, and the perimeter must be secured accordingly. Aspire Pavers recommends adhering 16 inches around the perimeter. For applications that do not end at a wall or parapet, Aspire Bullnose Pavers or Aspire Transition Pavers can be used to finish off the open perimeter. See pages 13 or 14 for installation details.





# **Installing Bullnose Pavers with Tabs**

### **Bullnose with Tabs**

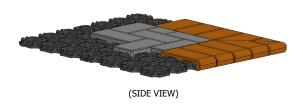
- Cut Grid to allow for adequate interaction of Grid and Paver and so the bottom of the Bullnose Paver is fully supported.
- Start project at the wall and work your way out to the balcony edge.
- Apply 1/4-inch bead of adhesive to the top ribs of the Grid. When applying adhesive, do not put the adhesive over top of the tabs, as this could cause the adhesive to squeeze up and out between pavers, making the adhesive visible.
- Place Bullnose Paver onto the Grid, pressing firmly.
- Slide adjacent Bullnose Pavers into place until finished (may need to cut off exterior tabs).
- Let cure for a minimum of 72 hours.



### **Bullnose with Tabs**

# CUT GRID TO LEAVE 6.5"-7" REMAINING SCREW TAB BULLNOSE PAVER WITH TABS CUT GRID TO LEAVE 6.5"-7" REMAINING CORNER ASSEMBLY MITER 4 PAVERS AS SHOWN. ADHERE WITH APPROVED CONSTRUCTION ADHESIVE

### **Corner Assembly**



NOTE: 1. BULLNOSE CORNERS WITH LEGS MUST BE APPLIED TO EITHER A FULL GRID, OR A GRID CUT IN 1/4 INCREMENTS (4", 8" OR 12")



# **Installing Bullnose Pavers with Legs**

### **Bullnose with Legs**

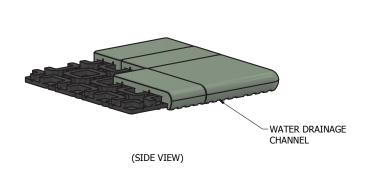
- Start project at the railing using full-size grids and work your way back to the wall.
- Apply 1/4-inch bead of adhesive to the top ribs of the Grid.
- Place Bullnose Paver onto the Grid, pressing firmly.
- Let cure for a minimum of 72 hours.



### **Bullnose with Legs**

# ADHERE BULLNOSE PAVERS TO TOP SURFACE OF GRID WITH APPROVED ADHESIVE BULLNOSE PAVER WITH LEGS BULLNOSE CORNER PAVER (WITH LEGS)

### **Corner Assembly**



NOTE: 1. BULLNOSE CORNERS WITH LEGS MUST BE APPLIED TO EITHER A FULL GRID, OR A GRID CUT IN 1/4 INCREMENTS (4", 8" OR 12")



# Maintenance & Cleaning

### Maintenance

 Aspire Pavers require virtually no maintenance other than necessary cleanup from spills or periodic cleaning as desired. No sealer is required.

### Cleaning

- Aspire Pavers are nonporous and therefore less likely to absorb stains. In most cases, they can be cleaned with a garden hose.
- For most stains, use household cleaner, soft brush and then hose off.
- Always check the compatibility of cleaning products with plastics and rubber prior to using on Aspire Pavers.
- Pressure washing is NOT recommended. If used, be sure to use from a distance with wide fan so as not to damage the surface of the pavers.









**Duro-Last** 525 W. Morley Dr. | Saginaw, MI 48601 For more information please visit duro-last.com or call 800.248.0280

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