

HOW-TO **BUILD**

PORCH AND STEP OVERLAY WITH PAVERS



HOW-TO BUILD

PORCH AND STEP OVERLAY

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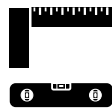
Tools and Equipment



Rubber Mallet



Tape Measure



Square and Level



Caulking Gun



Fluorescent String Line



Mortar Mixing Paddle



5 Gallon Bucket



2 Gallon Bucket



Hose and Water



Sponge



Masonry Brush



Masonry Trowel



Masonry/Tile Saw



Wheelbarrow

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Construction Supplies



Unilock Coping,
Accent Pavers
and Field Pavers



ARDEX™
Silicone Joint
Caulking



Concrete
Adhesive



Horizontal
concrete crack repair
compound such as
ARDEX ARDIFIX™



Modified
mortar such as
ARDEX AM 100™
(if required)



Polymeric Sand
(Impervious Min 95%)
GATOR MAXX G2™
or equivalent



Modified
mortar such as
ARDEX X 32™
or equivalent



Moisture
barrier such as
ARDEX SK 175™
or equivalent

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Before Starting

Covering an existing concrete porch is a great way to beautifully harmonize the hardscaping so that there is consistency in the walkway, the steps and the stoop or porch.

Existing problems with slope, elevation and awkward tread sizing can often be addressed with a porch overlay.

CHECKLIST

- Order Unilock main pavers and perimeter pavers (main pavers must be same thickness or thinner than perimeter pavers)
- Rent any equipment necessary for porch surface prep (washers, grinders or paint remover)
- Order accessories (Waterproofing membrane and thinset concrete)
- Order and install new root cellar venting grates (if required)
- Inspect porch to identify possible challenges or obstacles
- Establish jobsite layout and progression



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Planning

The product you choose will depend in part on the clearance you have between the existing porch surface and the door tread. Ensure that the product you choose will not impede the door once it is installed.

Mixing different pavers in your design is fine, but make sure they are the same thickness. When choosing perimeter coping, this can be thicker than the pavers, but NOT thinner.

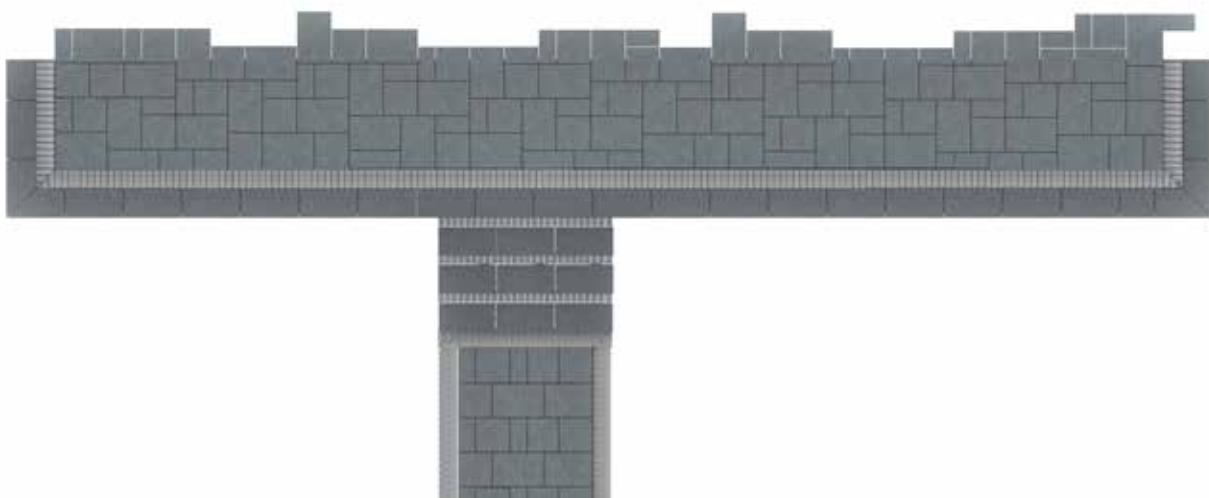
Always choose slip-resistant products.

STEP 01

Using the accurate dimensions for the products you have chosen, lay out the area in CAD software or on scaled graph paper. Use a main focal point to start your layout (usually the front door) and work out from there.

STEP 02

Test your layout plan by dry laying units on the surface to see how things will fit.



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Preparation

STEP 01

Remove any existing loose pieces of concrete from the surface with a chisel.

STEP 02

If necessary, remove post trim to reinstate later after slabs or tiles have been installed.

STEP 03

Oil or grease stains must be removed chemically or mechanically by grinder if the stain is not too deep.

STEP 04

Use a pressure washer to remove any final debris, paint or other stains. The concrete does not need to be completely dry before mortaring slabs into place.

STEP 05

Fill in any cracks using ARDEX ARDIFIX or equivalent.



Horizontal concrete crack repair compound such as ARDEX ARDIFIX™

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Concrete Preparation

Since the pavers will be sitting directly over the porch's concrete surface, it is important that the surface is flat and free of any dips.

STEP 01

Check the porch slope and surface flatness with a combination of long levels and/or straight screed bars.

STEP 02

Use a modified thinset mortar or modified ramping mortar to create the right pitch leveled with thinset mortar such as ARDEX AM 100 or equivalent.

STEP 03

Slope a minimum of 2% away from the house.



Modified mortar
such as ARDEX
AM 100 mortar
(if required)



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Waterproofing the Surface

➤ **IMPORTANT:** It is critical to waterproof a porch prior to installing pavers over it, particularly when there is a basement or root cellar below the porch. Waterproofing prevents water penetration through the surface into the space below. It also minimizes the wicking of potential efflorescence to the surface.

There are several brands of moisture barriers on the market. Products such as ARDEX SK 175, which is a physical membrane that can be applied to the surface, works well or paintable vapor barriers such as LATICRETE HYDRO-BARRIER also prevent bilateral moisture transference.

NOTE: Always follow manufacturer's application instructions.



Moisture barrier
such as ARDEX
SK 175 or
equivalent

IMPORTANT: Only use vapor barriers that meet or exceed ANSI A118.10.

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Gluing the Perimeter Coping

The perimeter of the porch must be clad with a coping or row of pavers that is glued to the surface. This will act as a restraint system to keep the pavers that are laid on the porch in place.

STEP 01

Dry fit and cut all pieces in advance for the entire perimeter.

STEP 02

Set-up string lines to maintain straightness.

STEP 03

Scarify the bottom of the coping units for optimal adhesion.

STEP 04

Install corners first.

STEP 05

Adhere the perimeter pavers or coping using a concrete adhesive (that is compatible with the waterproofing membrane you have chosen) or a modified mortar such as ARDEX X 32™ or equivalent.

STEP 06

Leave a 1/8" - 3/16" (3mm - 5mm) gap between each unit so that water can run freely through the joint.



Moisture barrier such as ARDEX SK 175 or equivalent



Modified mortar such as ARDEX X 32 mortar or equivalent

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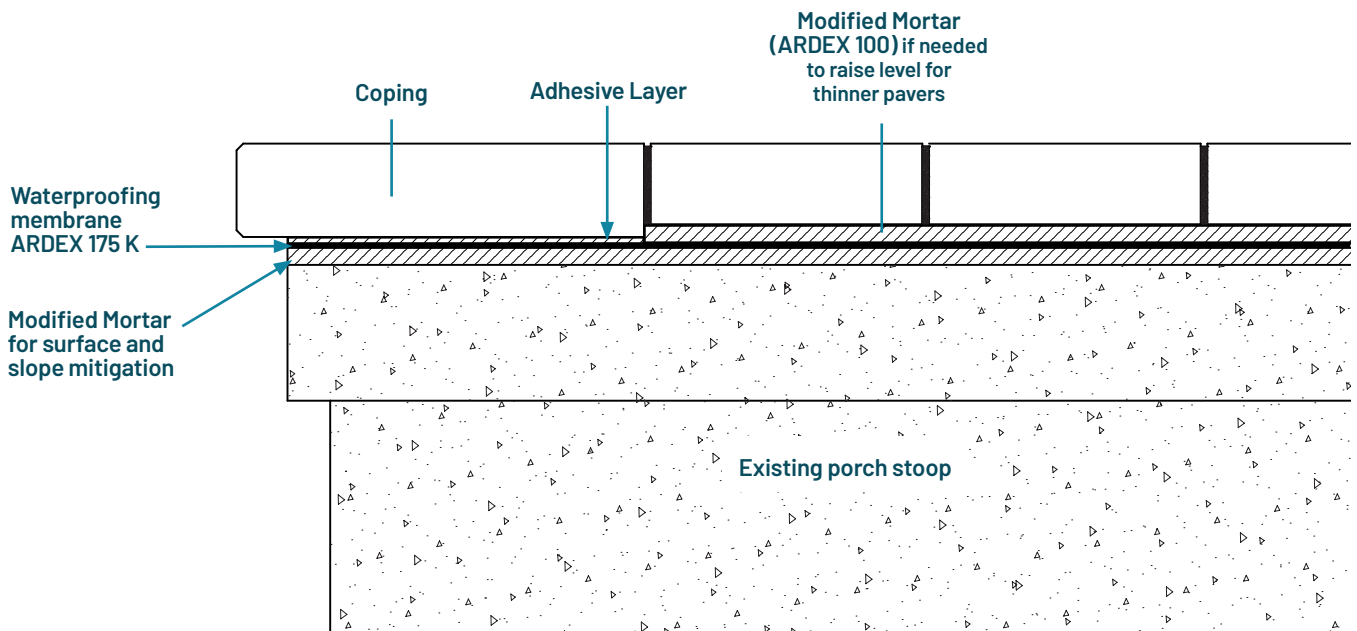
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Managing Paver Thickness

➤ If your perimeter coping is thicker than the interior pavers, it will be necessary to make up the difference on the inside area with an additional amount of modified mortar such as ARDEX AM 100™ or equivalent. This can be applied directly over the waterproof membrane. (See diagram below).



Modified mortar
such as ARDEX
AM 100 mortar
(if required)



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Installing the accent and field pavers

STEP 01

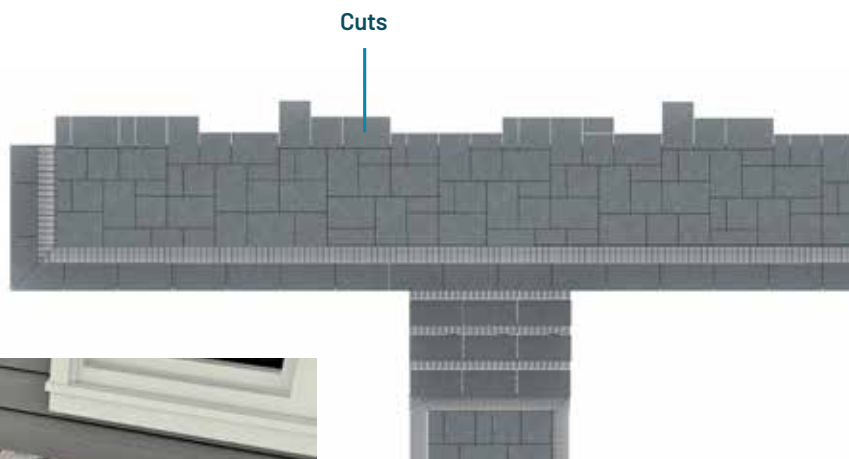
Start at the front of the porch and lay accent pavers first directly on top of the waterproofing membrane.

STEP 02

If the pavers you have selected are thinner than the accent row, make up the difference with a layer of thinset. Ensure that it is completely cured prior to laying pavers.

STEP 03

Begin laying pavers at the accent row and work towards the wall of the house. This way, cuts will be made at the wall where they are less noticeable.



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Cladding the Steps

Only clad steps that are structurally sound, and are the correct size to accommodate the coping and any accent paver you have planned.

STEP 01

Cut and dry fit all pieces in advance. Accent pavers can be used to extend the tread depth if needed.

STEP 02

Use a masonry saw to scarify the bottom side of the coping to ensure the adhesive will have a good grip. This is critically important to ensure the safety of steps.

STEP 03

Begin with the top step and move down, one step at a time. Use concrete adhesive to adhere the coping units to the concrete step, using a straight edge to maintain alignment. Level up when needed using additional adhesive and plastic shims.



Accent pavers

Coping

Thinset mortar
if required

STEP 04

If accent pavers are thinner than the coping, apply a layer of thinset mortar to make up the height difference. Allow the thinset to cure for 24 hours before using concrete adhesive to adhere the accent pavers.

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Caulking the Joints

Using an exterior grade silicone caulk such as ARDEX SX Silicone or equivalent to amend the joints will reduce the risk that water will get behind the coping and compromise its integrity.

STEP 01

Apply caulk **ONLY** to the top and front of the joints. Leave the back and bottom joints open so that water can escape if necessary.

STEP 02

Remove any residue with water and sponge immediately after application.



ARDEX™
Silicone Joint
caulking

IMPORTANT:

Clean with water and sponge immediately after application.

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Jointing Sand

It is important that water runs off the porch and not down between the pavers. Therefore, be sure to choose a joint material like GATOR MAXX G2 or equivalent, that will produce a joint that is at least 95% impervious.

IMPORTANT: Always follow manufacturer's directions for installation.

STEP 01

Caulk any open joints where joint sand may flow through.

STEP 02

Wait for it to cure before applying joint sand.

STEP 03

Apply polymeric sand at the top and work down.

STEP 04

Activate with water as per manufacturer's directions



Polymeric Sand
(Impervious Min 95%)
GATOR MAXX G2™
or equivalent

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Congratulations - your porch overlay is complete!

For more help designing and constructing paver projects, contact your local Unilock Territory Manager (1-800-UNILOCK) to arrange a phone consultation or site visit.



Completed Porch Overlay with Paver

Hardscape Education Center

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