

# PAVERS

## INSTALLATION GUIDE

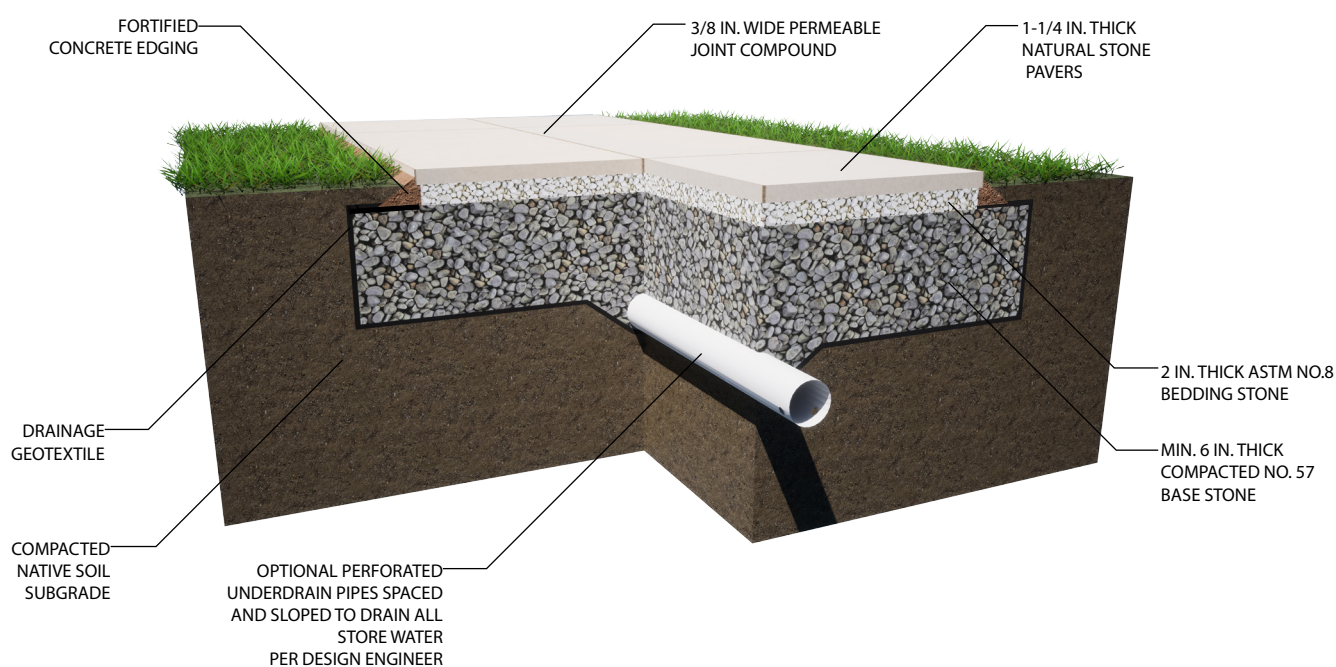


**INDIANA LIMESTONE - FULL COLOR BLEND™**  
Limestone - Pavers

### STEP-BY-STEP INSTRUCTIONS

#### NOTE

This installation guide describes the construction of a pedestrian paved surface with natural stone pavers placed on a permeable, open-graded crushed stone bedding layer and over an open-graded base.



#### JOB PLANNING

Before undertaking any paver installation work, the location of underground utilities must first be determined on the job site, prior to excavation, by contacting local utility companies to mark locations on site. Identify the area to be excavated and mark out with spray paint. Calculate the total coverage area and allow for a percentage of wastage when ordering materials. As a result of cutting wastage, consider ordering up to an additional 10% of materials to complete the project.

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### DELIVERY, STORAGE, AND HANDLING

Comply with ordering instructions and lead-time requirements to avoid construction delays. Store materials in protected area such so that they are kept free from mud, dirt, and other foreign materials. All products must be inspected on arrival. In the unlikely event that material is delivered in less than satisfactory condition, please refer to your dealer immediately, allowing time for faulty material to be replaced.

### SOIL CONSIDERATIONS

Gradation of soil on site is an important consideration when determining the performance criteria required for paving. The size and distribution of the particles greatly influence its performance. Soils range from coarse to fine-grained, with sandy soils being coarse and clay soils having the smallest or finest particles, thereby making them less permeable. Perform soil tests to guide base compositions and preparations. ASTM D422, Standard Test method for Particle Size Analysis of Soil Fines is commonly used for sieve analysis of soils. ASTM C136, Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates is common for aggregates.

### LAYOUT AND SITE PREPARATION

Excavate unsuitable, unstable, or unconsolidated subgrade material as dictated by soil classification on jobsite and compact the cleared area using fill. Level with densely graded crushed stone aggregate suitable for subbase material, or as otherwise directed by Specifying Authority.

### EXCAVATION

Always call any local utilities to ensure your work area is clear of any underground cables or wires before you dig. Consult with local utilities about options for moving services, if necessary. Begin excavating down to a depth of 8 to 10 inches. For a walkway or patio, it is recommended to have a base of at least 6 to 8 inches minimum thickness to ensure stability and durability. Ensure that a  $\frac{3}{16}$ -inch slope per foot is maintained away from the foundation during excavation away from the foundation for proper drainage. This slope will be used throughout the whole installation. Extend the excavation beyond the paver edge by the thickness of the base. Ensure proper compaction of the soil. Cover the bottom of the excavation with a geotextile membrane to keep the subsoil and the stone layer separated.

### BASE

Open-graded base, typically ASTM No. 57 stone ( $\frac{3}{4}$ -inch clean, washed stone) that is at least 6 inches or 150mm thick. Moisten, spread, and compact the No. 57 base layer in 4 inch lifts. This aggregate base uses angular and symmetrical aggregates with no fine particles. When compacting an open-graded base, it's important to make sure that the aggregates are tightly locked together. In low infiltration soils or installations with impermeable liners, some or all drainage is directed to an outlet via perforated underdrain pipes put in place per the drawings prior to or during placement of the base, depending on their location. Care must be taken not to damage underdrain pipes during compaction and paving.

### SETTING BED

Open-graded crushed stone bedding layer, typically ASTM No. 8 stone or No. 9 ( $\frac{3}{4}$ -inch to  $\frac{1}{4}$ -inch clean, washed stone) that is 2 inches or 50mm thick. Moisten, spread, compact and screed the No. 8 stone

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bedding material maintaining a consistent 2-inch thickness. Fill voids left by removed screed rails with No. 8 stone. Do not subject screeded bedding material to any pedestrian traffic before the installation of the paving unit.

### LAYING PAVERS

There are different variations and colors with natural stone providing a unique range that you just can't get with an engineered product. Work out of multiple pallets to blend the stones effectively in the installation.

Lay the paving units in the patterns dictated by the design. Use  $\frac{3}{8}$ -inch spacers between paver edges to maintain straight pattern lines. Fill gaps at the edges of the paved area with cut units. Cut natural stone pavers with a masonry saw using a diamond blade. Always make sure to use safety glasses and hearing protection. Ensure that the blade used on the saw has sufficient depth of cut for your application. After the pavers are laid, remove excess aggregate on the surface by sweeping pavers clean. Check final elevations for conformance to the drawings. We do not recommend using a vibratory plate compactor on any natural stone pavers.

### JOINT COMPOUND

Fill the opening and joints with a permeable joint compound following the manufacturer's application process and guidelines. Please note that some jointing compounds can retain moisture, damage, or stain natural stone pavers if they are not used correctly. Always seek specialist advice from your Polycor sales representative if you are in doubt. It is your responsibility to determine if the permeable joint compound you selected can be used for the intended purpose. When in doubt, test in an inconspicuous area beforehand to determine if there is any change to the stone's appearance.

### EDGE RESTRAINTS

Permeable projects require special edge restraints. To complete the project, use a permeable fortified concrete bonded edging. Fortified concrete edging can be applied just under the pavers, then hand-troweled to the wedge shape for a successful edge on permeable base projects. Please note that some concrete edging can retain moisture, damage, or stain natural stone pavers if they are not used correctly, and you should always seek specialist advice from your Polycor sales representative if you are in doubt.

### SEALERS

To maintain the aesthetic beauty of the original installation, applying an impregnating sealer coating to the paved surface might be required. While it is not a requirement to seal natural stone, an impregnating sealer application may aid in cleaning the surface should it become dirty. Please note that some topical sealers and other materials can damage or stain natural stone pavers if they are not used correctly. Always seek specialist advice from your Polycor sales representative if you are in doubt. You are responsible for determining if the sealer you selected is suitable for natural stone. Test in an inconspicuous area first before applying and using per the accordance with the manufacturer's recommendations.

### EFFLORESCENCE

Some natural stone pavers may experience efflorescence when in contact with joint compounds, bedding and fortified concrete edging. Efflorescence will naturally disappear over time if the moisture source is eliminated or controlled. For additional information, consult our Care and Maintenance guide.