

## A Guide for Paver Labyrinth Kit Projects

### A. Select & Purchase Your Kit

1. Select the paver labyrinth kit which will best fit your space, and meet your aesthetic and budget requirements.

We can make recommendations based on our many hundreds of completed paver projects. We often provide photos of completed installations, sets of paver samples for color selection, freight quotes, copies of installation manuals, and guidance on typical installation time-lines and productivity. We also discuss kit installations in detail with prospective installers to orient them to the simplicity of our paver labyrinth kit system so you get well-informed installation price offers.

2. Decide on any amenities which will use matching pavers, such as bench pads and access pathways.
3. Select your Field = path/majority color and the Line = minority colors from our four selections (Buff, Granite Gray, Rose Red and Charcoal). For best contrast we recommend one of your two colors be Charcoal.
4. Assess your receiving capabilities, which will determine the best shipping method and cost. The heaviest pallets in our paver labyrinth kits are 2860 pounds each, so plan accordingly. The delivery options are:
  - A. Delivery via 48' or 53' van trailer (18 wheeler). You are responsible for unloading. If not unloaded at a dock, unloading requires a forklift plus a 60' chain (or load straps) to pull pallets to the tail of the van for offloading. You will also need a hammer and pry bar to remove load cleats.
  - B. Delivery via 48' or 53' flatbed trailer. You are responsible for unloading using a forklift.
  - C. Delivery via partial van trailer load. Same unloading as A above. For kits 24' diameter and smaller this method may offer some savings.
  - D. Delivery via partial flatbed trailer load. Same unloading as B above. For kits 24' diameter and smaller this method may offer some savings.
  - E. LTL (less-than-truckload), generally for kits 19' diameter and under. You are responsible for unloading using a forklift.
  - F. LTL (less-than-truckload) with lift-gate service. For kits 19' diameter and under. The trucker will unload the kit pallets onto an easily accessible smooth and level concrete or asphalt paved surface.

Not all delivery options are available for all kit sizes. Some geographic considerations may make LTL shipments cost-prohibitive. We can provide you freight cost and option guidance.

4. Order your kit and extra pavers for amenities, select your delivery method, and arrange payment. We can supply you an invoice for check or wire transfer purchases, or you may use any major credit card.

For larger kits we may require a 50% deposit to start kit fabrication. We do require payment in full including freight charges prior to scheduling shipment.

5. After your kit is produced and ready for shipment, we will contact you and/or your designated receiver and schedule transport.

## B. Paver Labyrinth Kit Installation Steps

1. Plan for the base excavation. Excavated base needs to be 9" to 12" wider all around than the paver kit being installed. For a 30' diameter round kit this would mean a base diameter of 31.5' to 32'. Base must have a slope (we recommend 1/4" per foot of diameter) from side to side, top to bottom, top right to lower left - whatever works best with your site's surface levels. For the 30' example above with the 32' diameter base, the high edge would be 8" above the low edge. This will create a slope of about 1 degree in the finished paver surface to promote surface water runoff.

If your site has a lot of natural slope, you will need to cut into the high side and build up the low side. This is similar to the way a golf green is created. In very excessive situations you may need to install a retaining wall or walls.

If the original ground surface is nearly dead level, crown the center to create a pitch. If the 32' base example needed to be crowned, the center would be 4" higher than all the edges of the circular perimeter.

Plan final level to integrate with adjacent surface levels so that water will easily shed off the surface. It is usually better to install the paver surface a bit higher than existing ground levels. 1/2" is typical. Levels are most easily and accurately set using a laser level and measuring frequently.

Excess soil from excavation will need to be placed nearby or disposal arranged. A popular re-use for excess soil is bermed planting beds, which may provide a visual buffer around part of the labyrinth plaza.

2. Excavate and "level" base area, incorporating the final slope calculated. Compact the excavated subsoil using a vibrating plate compactor, resulting in a sloped surface at 7.25" below finished grade.
3. If subsoil issues exist, particularly clay soils or nearby trees, line the excavated area with landscape fabric (geotextile), overlapping the panels by 4" and bringing the fabric up the sides of the excavation to the surface.
4. Install and compact a minimum 4" of QP (quarry process), patio base, CR-6, 2A stone, or similar base aggregate materials used in your area, with a final level 3.25" below finished grade. [Install the aggregate 2" to 3" at a time, leveling, wetting and thoroughly compacting each layer.](#)

A 32' base requires about 10 cubic yards of base stone, calculated as follows:

Radius in feet \* Radius in feet \* Pi \* 4 inches thick / 12 inches to convert to feet / 27 to convert to cubic yards.

32' base of 4" thickness =  $16' * 16' * 3.14159 * .333 / 27 = 9.92$  cubic yards. Round up a yard or so when ordering.

In heavy freeze-thaw zones the base aggregate layer needs to be 6" or more deep - adjust your calculations accordingly.

5. Install 1" of course sand (concrete sand, not play sand) or stone dust bedding course over base aggregate.

A 32' base requires 2.5 cubic yards of bedding calculated in similar fashion. Round up to 3 cubic yards.

6. Install the selected paver labyrinth kit. Pavers are 2-3/8" thick. Establish a single route or two to bring the pavers into the space - this will minimize repairs to the bedding course as you build out.

All paver labyrinth kits build from the center out, following a step by step instruction booklet and using the included space-holding wooden forms.

In-fill blocks will need to be cut using a masonry saw. Mark the blocks on their sides so that the cut-off waste (the cull) may be used to fill another hole, conserving material.

7. Install edge restraint below grade around the paved perimeter. Edge restraint can be paver edge or brick edge, a plastic "L" bracket structure anchored into the base using 12" spikes. Note: this is NOT lawn edging. Paver edge restraint is a specially designed structural element specifically meant to keep the pavers in place permanently.

Alternatives to brick edge are a concrete sidewalk or curb, or a mortar ring with rebar reinforcement. Or use whatever method your local paver installers or masons recommend based on their experience.

8. Plate compact the pavers into the bedding course to level the pavers. Start at the perimeter and work your way towards the center in rings.
9. Calculate the polymeric joint sand required using the surface area of the pavement. For the 30' kit example, this is  $15' \times 15' \times \pi = 707$  sq.ft. Divide 707 by 45 and round up = 16 bags of polymeric joint sand. Select the polymeric sand color which will look best for your color combination. Charcoal field or path kits should have charcoal or gray polymeric sand joints. Other field colors usually look best with the more common beige or tan polymeric sand.

Install self-sealing polymeric joint sand between the pavers, following the manufacturer's instructions carefully. Polymeric sand should only be installed on perfectly dry pavers. Plate compact the surface a second time to make certain the joints are uniformly filled with sand, again working in rings from the outer edge towards the center.

Excess dust must be swept off the surface. Joint sand should come to the tops of the sand indicators - the line where the "pillow top" of the paver meets the straight side wall. The "v" shaped channel between the pillow tops should not contain sand. Blow off remaining excess polymeric dust at an oblique angle. Avoid blowing the sand out of the joints.

Activate the polymeric sand using a light water mist per directions on the bag. Limit traffic during the cure process.

10. Cleanup and debris removal. Dress the site to integrate the new surface into the surroundings and eliminate any trip points.

### **C. Common Paver Labyrinth Project Approaches**

1. Turnkey Project: hire a professional to handle the build from bare ground to completed and dressed plaza.
2. Partial Volunteer Build: hire a professional to build the base, install the paver kit using your volunteer group, and have the professional come back to do the finishing steps.
3. All Volunteer Build: can work IF you have a member with experience installing pavers or patios.