PAVER INSTALLATION INSTRUCTIONS

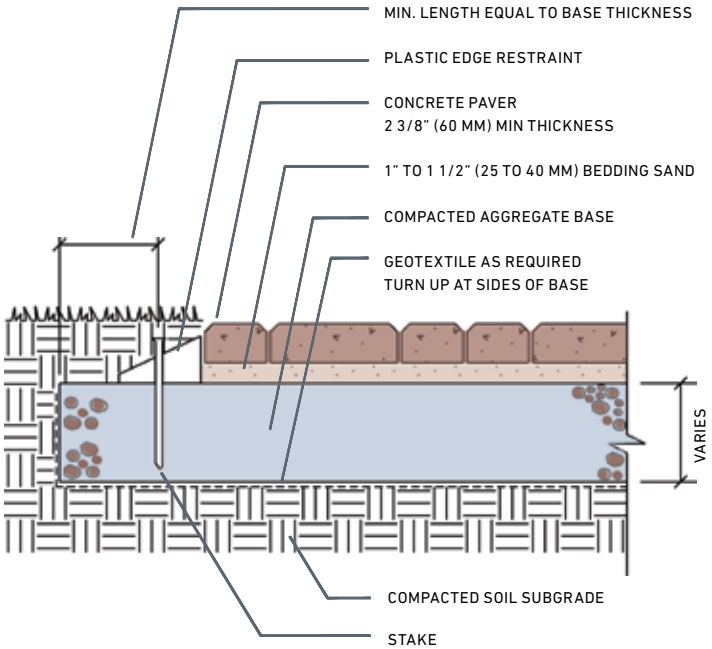
BELGARD
PAVES THE WAY

HOW TO INSTALL A PATIO USING CONCRETE PAVERS

If you want to expand your indoor rooms to the great outdoors – where you can enjoy space to dine, entertain or just relax, consider installing a patio. Anyone can install a patio, but because there is lifting, hauling, digging and cutting involved, it is important to wear work gloves, knee pads, a back support belt, safety glasses and ear plugs as well as practice proper lifting techniques.

Designing and installing your own patio can be completed in four steps:

- Paver selection
- Site analysis and preparation
- Project estimation
- Layout and installation



NOTE: THICKNESS OF AGGREGATE BASE WILL VARY WITH SUBGRADE CONDITIONS AND CLIMATE. COLDER CLIMATES MAY REQUIRE THICKER BASES.

1 Determine the area to be paved and how much materials will be needed. Choose paver shape and pattern. Estimate quantity for paved area.

2 Have utilities marked and excavate area to be paved. The heavier the surface load, the deeper the base excavation. Be sure you have plans for relocating the soil and sod. Compact exposed base area.

3 Install geotextile and base aggregates. Turn cloth up at sides of base. Place aggregates over cloth to required depth and compact to 95% solid. Set posts and stringlines for final base grades and finished paver elevations.

4 Install C-33 concrete bedding sand and screed smooth for setting pavers to finished elevation. Allow 1/4" high for paver settling during placement.

5 Place pavers on screeded sand setting bed. Use stringlines to keep pattern straight. Set hand-tight joints. Cut pavers in areas as needed to complete pattern.

6 Set plastic edging tight against all exposed paver edges and spike firmly every 24" for walkways and 12" for driveways and curves. Edging works best if set on aggregate base after trimming sand setting bed flush with outside edge of pavers.

7 Sweep dry C-33 concrete sand or other selected joint material into all joints and compact to complete interlock process. Refill to desired level after early weathering. Sweep up, clean up and enjoy your new paver installation.

For more detailed instructions, you may want to review patio-installation instructions online, in home-improvement books or in brochures at sand and gravel yards. Once you have your materials and tools ready, you can begin your project.

WALL INSTALLATION INSTRUCTIONS

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HOW TO INSTALL A RETAINING WALL

QUICK COURSE ON COURSES.

To complete your project, you will need the following hand tools: shovel, tape measure, hammer, chisel, carpenter's level, stakes, string line, garden hose, safety glasses, gloves, pencil, square. You may also need a skid loader, compactor, wheel-barrow and a circular cut-off saw with a masonry blade. Other requirements include a 4" diameter flexible polypropylene pipe (drain tile), a supply of sand and gravel (3/4" or smaller aggregate with fines) for the base, and gravel (3/4" free-draining aggregate without fines) to use a backfill.

FIGURE A

FIGURE B

FIGURE C

FIGURE D

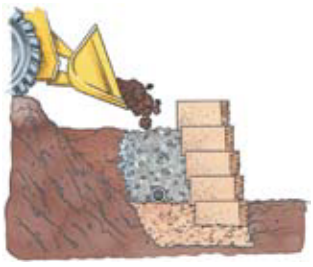

FIGURE E

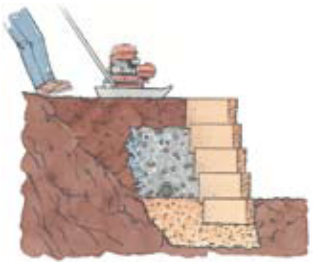

FIGURE F

1 Using a shovel or a skid loader, dig a trench about 24" wide and deep enough to fit the required amount of buried block and compacted base. For walls 4' high and under, bury one course of units. For walls taller than 4', consult a qualified engineer for design information. Total wall height includes the height of any buried courses.

2 Firmly compact the soil in the bottom of the trench. Lay 6" of compactible base (sand and gravel) in the bottom of the trench and compact (Fig. A).

3 Place the first layer of Anchor units without lips on the prepared base (lips must be manually knocked off units before placement) (Fig. B). Position the units side by side in full contact with the base. Level in both directions using your carpenter's level. Backfill with free-draining aggregate.

4 Continue assembling additional courses by placing units in a staggered relationship to the course beneath (running bond), pulling each unit forward until secure (Fig. C). *NOTE: Use gravel (free-draining aggregate) to backfill each additional course as it is installed.*

5 Place drain tile behind the wall at grade to allow water to drain from the backfill (Fig. D). Outlet the drain tile through the wall at every low point or every 50' of wall length and around the ends of the wall. Backfill with free-draining gravel 12" behind the wall. Fill in the voids. Organic soil or clay-type soil is not recommended for backfill material.

6 Fill any remaining areas behind the wall with soil (Fig. E). Compact every 8". Repeat steps 4, 5, 6 until the wall reaches the desired height. For walls taller than 4', consult a qualified engineer for information concerning proper design, backfill and geosynthetic reinforcement.

7 Firmly compact native soil behind the wall (Fig. F). Do not compact directly on top of the units.

8 You may need partial blocks. To split a block, use a hammer and chisel to score the block on all sides. Pound the chisel on the score line until the block splits. If the block does not split easily, you may need to use a circular cut-off saw with a masonry blade. Read and understand the operating manual before using a saw. Always wear eye protection when splitting blocks.

Refer to the Estimating and Installation Manual for instructions on installing jumper units, free standing walls and special applications. Copies available at authorized Belgard dealers.