

BROCK
PaverBase
For all Patios and Walkways

HOW TO INSTALL PATIOS AND WALKWAYS

New Project – (replacing grass/dirt)

The base is the most important step in your patio and walkway projects.

STEP 1

PREPARING YOUR PROJECT AREA

Determine how much to excavate using the example below. Remove the grass to desired depth (skim rather than dig deep) and a few inches wider than your project area.



MATERIAL REMOVAL GUIDE

How deep you need to dig is determined by adding the thickness of the following components:

EXAMPLE	Thickness
Leveling Sand	1/2 Inch
Paver Thickness*	+ 1 3/4 Inches
Brock PaverBase	+ Approx. 3/4 Inch
Dig out this many inches below your current level	= Approx. 3 Inches

*will depend on the paver you select.

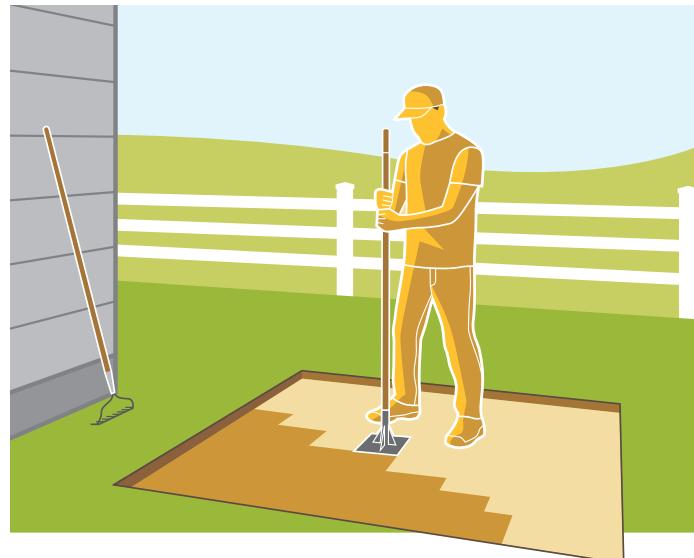


STEP 2

LEVEL AND COMPACT THE BASE

Using a hard rake and/or shovel, compact and level the area with appropriate slope. The ground should be tightly compacted using a hand tamper or plate compactor. The slope should be about 1/4" per one foot of distance. It is helpful to pull a string line so you can check your slope. To run a string line, attach a string to a fixed point on the house side about 3" above the surface of the patio, and pull it tight toward the outside edge of your new patio area. Attach the other end to a landscape stake in the ground making sure the string is tight. Use a level and ruler to create the desired slope. For example, the patio should slope 2.5" over a 10 foot distance (Diagram below). This will ensure that the patio moves water away from the house.

The area should be as smooth as possible, making sure to get rid of high and low spots to within +/- 1/4". This is now your compacted base. Congratulations, the hard part is over!



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HOW TO INSTALL PATIOS AND WALKWAYS

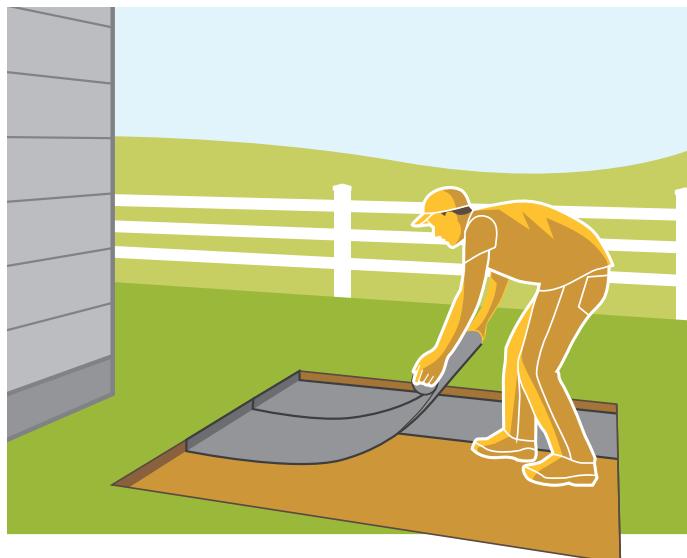
New Project – (replacing grass/dirt)

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STEP 3

ADD A LONG LASTING LANDSCAPE FABRIC

Next install long lasting landscape fabric (20-30 years) over the excavated and compacted area. Overlap the edges of the fabric by 4-6".



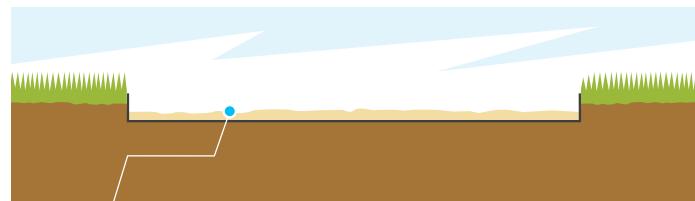
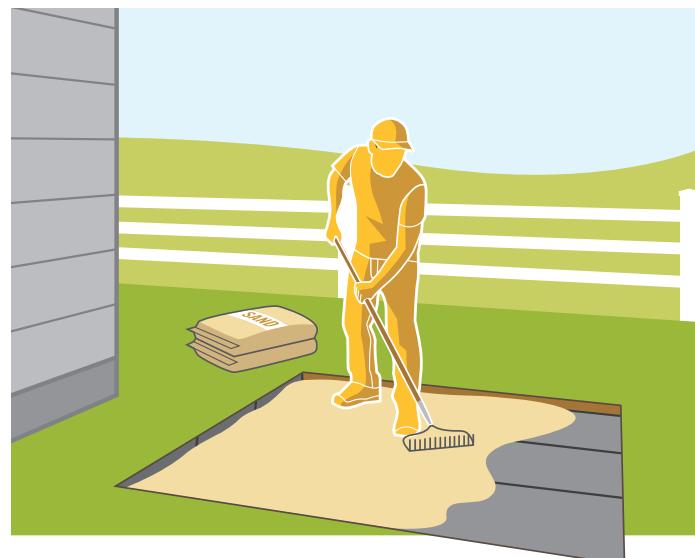
LANDSCAPE WEED FABRIC (BARRIER)

NOTE: Fabric holds in the sand, not for weeds.

STEP 4

SPREAD A 1/2" LAYER OF LEVELING SAND

Lay two 1/2" pipes (or rebar) on top of the fabric over the ground in the same direction as your slope, high to low end. Spread an even layer of sand over the pipes in your project area.



1/2" ALL PURPOSE LEVELING PAVER SAND



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STEP 5

SCREED THE SAND USING A BOARD

Using a standard 2x4 that is 6 feet long, screed the sand using the board along the pipe or rebar, maintaining your slope so watch your string line. Make sure the board you use is straight and true! Hand tamp the sand and recheck to make sure you do not have any high or low spots. Do not use a plate compactor to compact the sand. Do not use a plate compactor to compact the sand.



1/2" LEVELING SAND SCREED

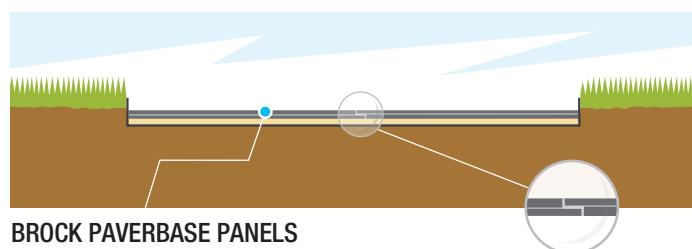
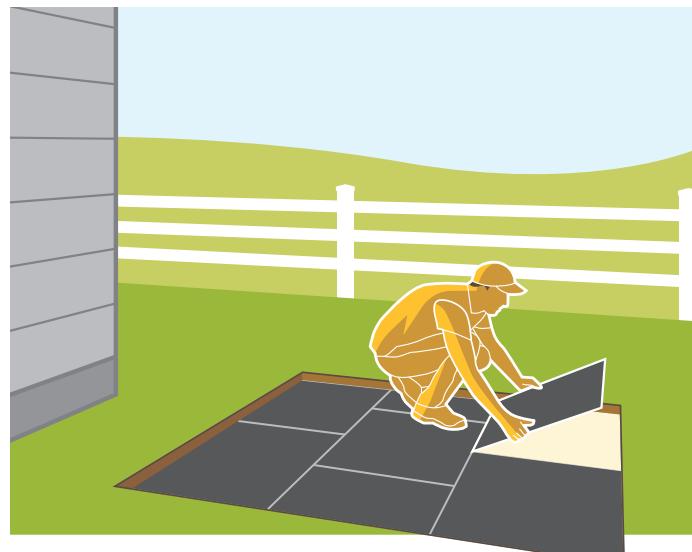


STEP 6

INSTALL BROCK PAVERBASE PANELS

Starting against a straight edge of the patio, lay the Brock panels, ensuring that the side flanges overlap. Ideally, lay them in a “brick-like” pattern (illustration below). This will ensure stability of the panels when you lay the pavers. To offset the panels (for the second row), cut a panel in half, using a utility knife, and start with top piece of the panel so the flange can be used. Use bottom half to finish the next row.

Trim any curves or along edges using a utility knife. Place any extra scrap pieces of Brock PaverBase in your recycling bin.



BROCK PAVERBASE PANELS



HOW TO INSTALL PATIOS AND WALKWAYS

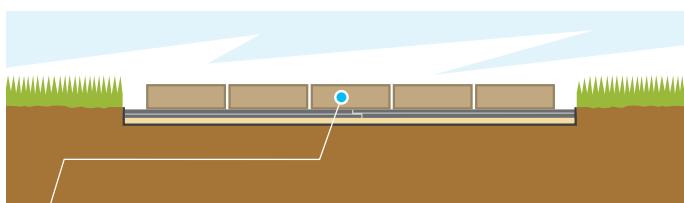
New Project – (replacing grass/dirt)

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STEP 7

INSTALL THE PATIO PAVERS

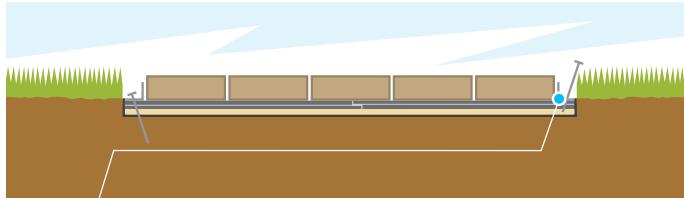
Now the fun really begins! Lay the pavers directly on the Brock PaverBase panels. Yes you can walk on the panels. You can slide the pavers into place. If you are trying to do a straight line, and the line gets crooked, hammer the row back in place using a rubber mallet. Do not use the edges of the panels or the pattern on the panels to try to line up your pavers. Use a string line to ensure straightness.



PAVERS OR PATIO STONES

INSTALL EDGE RESTRAINT

Once your patio is complete and the pavers are tightly together you will want to hold the perimeter in place to keep it from moving. To do this simply lay pieces of edge restraint directly on top of the Brock panels. Then hammer 8-10" landscape spikes through the Brock PaverBase panel making sure to keep the edge restraint tight against the pavers.



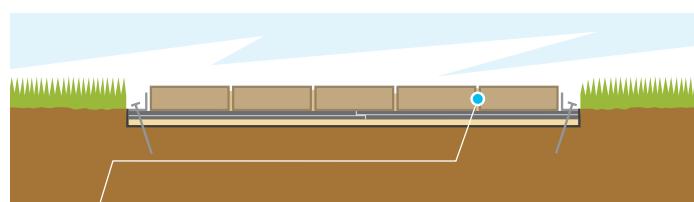
EDGE RESTRAINTS

STEP 8

SWEEP IN REGULAR OR POLYMERIC SAND

Using a broom, spread sand over the patio and into the gaps between the pavers. Spread over small areas before moving onto the next one. Go back and forth over the gaps until no more sand will fit. Once you have swept the sand into the paver joints, a hand tamper should be used over the entire paver area in order to "vibrate" the sand further into the joints.

This tamping procedure will insure that the maximum amount of sand is holding the pavers in place. (DO NOT USE A PLATE COMPACTOR TO VIBRATE THE PAVERS!) Continue to add sand until the joints are full.



POLYMERIC SAND

NOTE: There are two types of joint sand you can use. Polymeric joint sand will essentially harden like concrete between your paving stones so it is permanent. Polymeric sand has several advantages: It is stable, so the sand won't end up on the top of your pavers; it allows you to power wash your patio without displacing the joint sand; it gives the patio a cleaner, more finished look. Alternatively you can use traditional joint sand, but you will need to re apply it each year. For the purposes of these instructions we will refer to Polymeric sand since it requires a few extra steps than plain joint sand.



For all Patios and Walkways

HOW TO INSTALL PATIOS AND WALKWAYS

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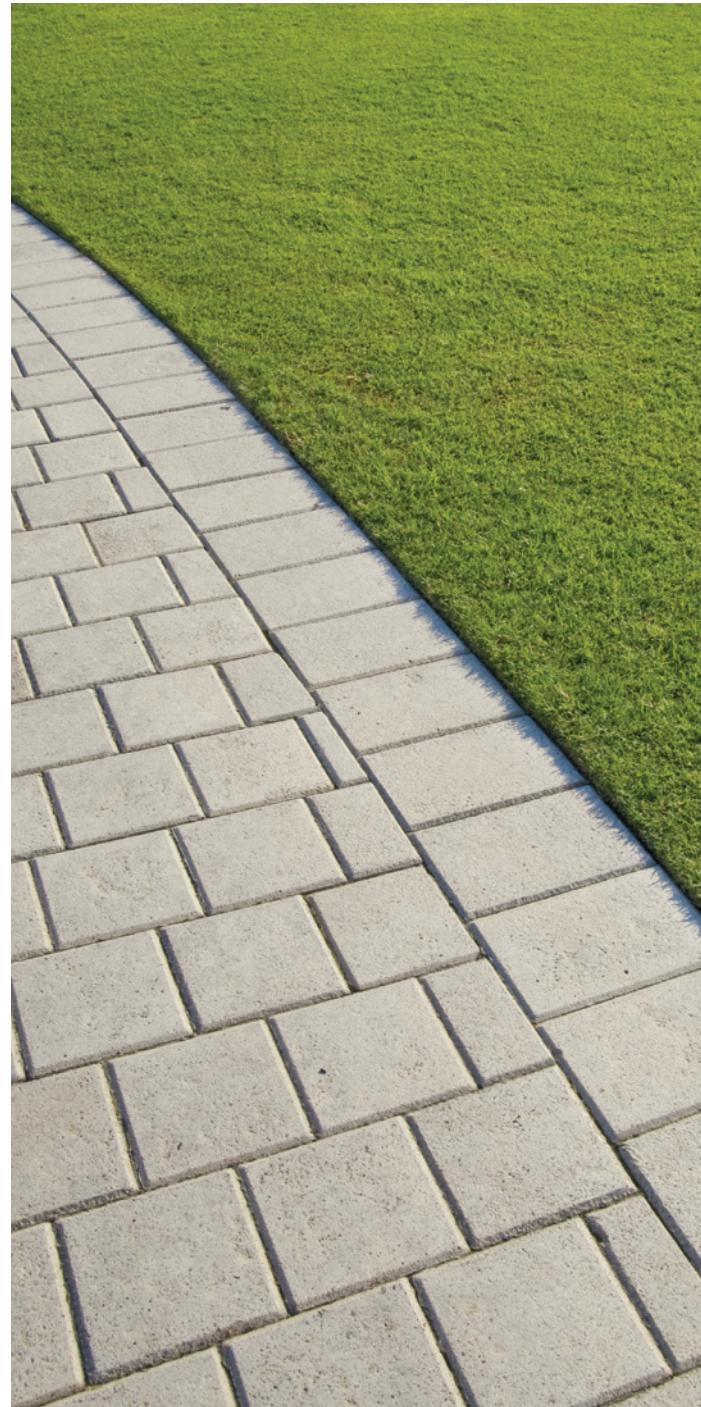
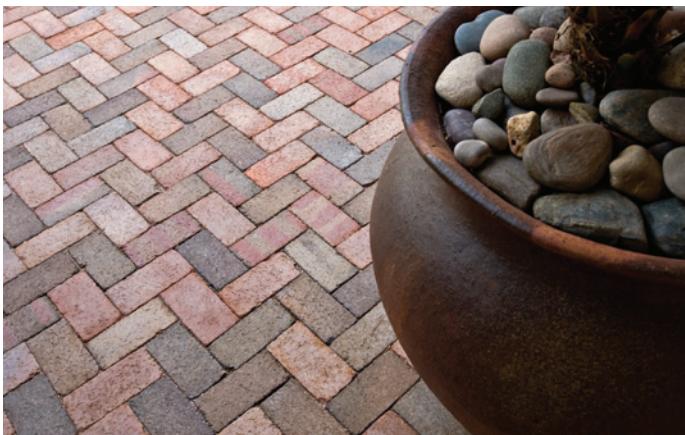
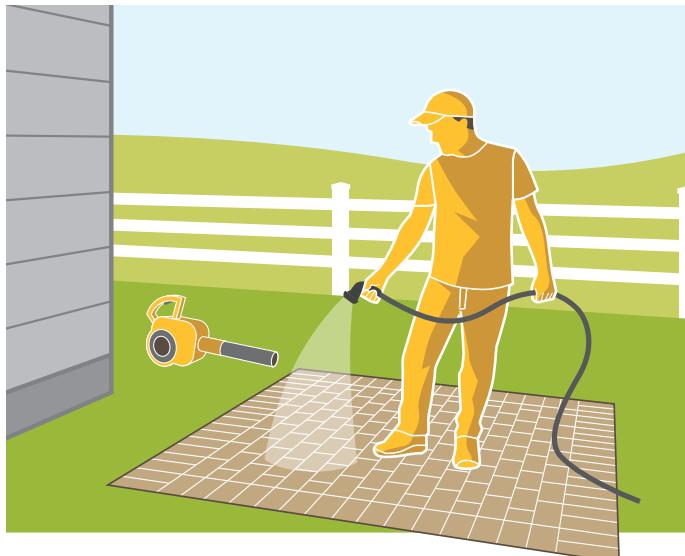
The base is the most important step in your patio and walkway projects.

STEP 9

CLEAN THE SURFACE OF THE PAVERS

Once you are done spreading the polymeric sand into the gaps, use a leaf blower to blow the fine dust off the surface of your patio. (You want to make sure you sweep it off well first or you will generate a large dust cloud!) DO NOT WASH IT OFF WITH WATER! THAT COMES LATER. If the patio is not free of polymeric sand on the surface of the pavers, you may see a film/haze on the pavers once you follow step 9.

Once the surface of the patio is completely clean, follow the instructions for wetting on the packaging of the polymeric sand. This will entail lightly spraying the joint sand with water several times which will activate the polymer that hardens the sand.



Now you can enjoy your new project!

PROJECT QUESTIONS?

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HOW TO INSTALL PATIOS AND WALKWAYS

Concrete Overlay – (with or without expanding project size)

The base is the most important step in your patio and walkway projects.

STEP 1

PREPARING YOUR CONCRETE OVERLAY WITH EXPANDED PROJECT AREA

Most commonly this is removing a grass area that is around your current concrete patio. Determine how much to excavate using the example below. Remove the grass to desired depth (skim rather than dig deep) from the surface of your current concrete slab for the area of your extended patio.



MATERIAL REMOVAL GUIDE

How deep you need to dig is determined by adding the thickness of the following components:

EXAMPLE	Thickness
Leveling Sand	1/2 Inch
Paver Thickness*	+ 1 3/4 Inches
Brock PaverBase	+ Approx. 3/4 Inch
Dig out this many inches below your current level	= Approx. 3 Inches

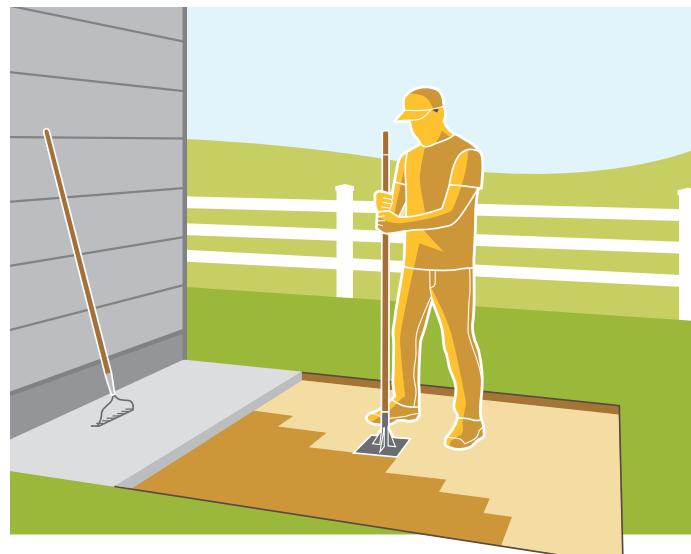
*will depend on the paver you select.

STEP 2

LEVEL AND COMPACT THE BASE

Using a hard rake and/or shovel, compact and level the area and make sure it follows the slope of the concrete pad. The ground should be tightly compacted using a hand tamper or plate compactor. The slope should be about 1/4" per one foot of distance. It is helpful to pull a string line so you can check your slope. To run a string line, attach a string to a fixed point on the house side about 3" above the surface of the patio, and pull it tight toward the outside edge of your new patio area. Attach the other end to a landscape stake in the ground making sure the string is tight. Use a level and ruler to create the desired slope. For example, the patio should slope 2.5" over a 10 foot distance (Diagram below). This will ensure that the patio moves water away from the house.

The area should be as smooth as possible, making sure to get rid of high and low spots to within +/- 1/4". This is now your compacted base. Congratulations, the hard part is over!



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HOW TO INSTALL PATIOS AND WALKWAYS

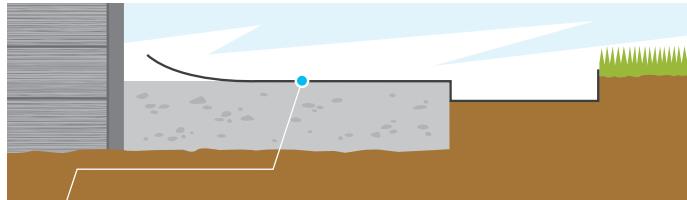
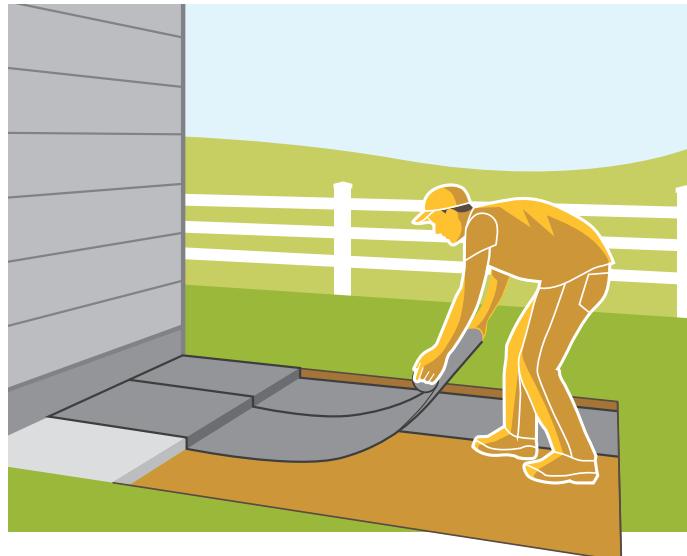
Concrete Overlay – (with or without expanding project size)

The base is the most important step in your patio and walkway projects.

STEP 3

ADD A LONG LASTING LANDSCAPE FABRIC

Next install long lasting landscape fabric (20-30 years) over the excavated and compacted area. Make sure the weed barrier fabric overlaps the concrete pad by at least 12 inches. Overlap the edges of the fabric by 4-6".



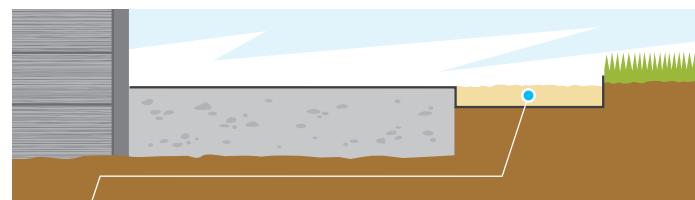
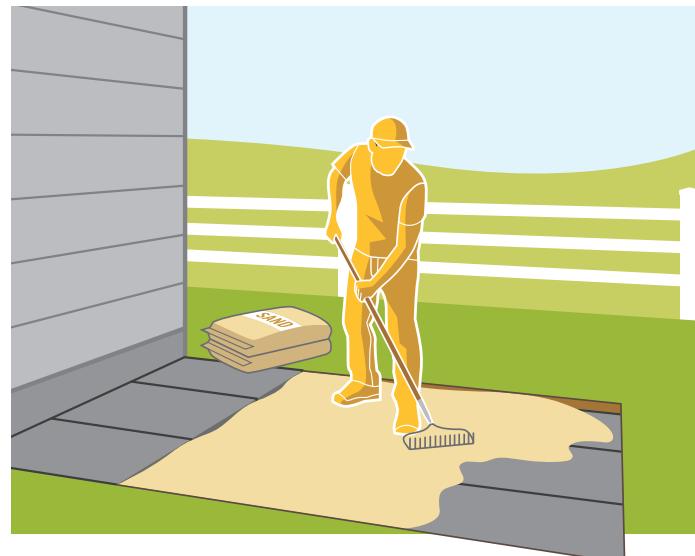
LANDSCAPE WEED FABRIC (BARRIER)

NOTE: Fabric holds in the sand, not for weeds.

STEP 4

SPREAD A 1/2" LAYER OF LEVELING SAND

Lay two 1/2" pipes (or rebar) on top of the fabric over the ground in the same direction as your slope, high to low end (not on the concrete). Spread an even layer of sand over the pipes in your project area.



1/2" ALL PURPOSE LEVELING PAVER SAND



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HOW TO INSTALL PATIOS AND WALKWAYS

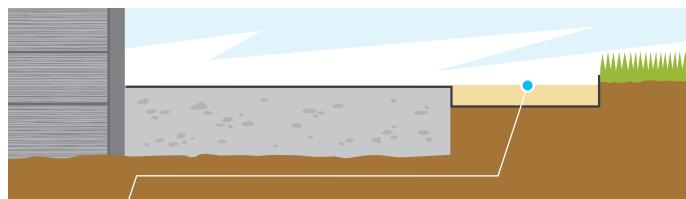
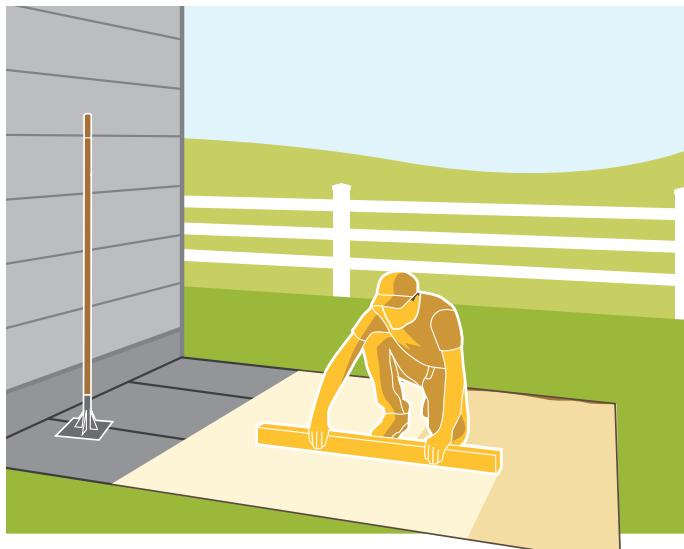
Concrete Overlay – (with or without expanding project size)

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STEP 5

SCREED THE SAND USING A BOARD

Using a standard 2x4 that is 6 feet long, screed the sand using the board along the pipe or reba, maintaining your slope so watch your string line. Make sure the board you use is straight and true! Hand tamp the sand and recheck to make sure you do not have any high or low spots. Make sure that the sand is even with the top of the concrete. Do not use a plate compactor to compact the sand.



LEVELING SAND SCREED

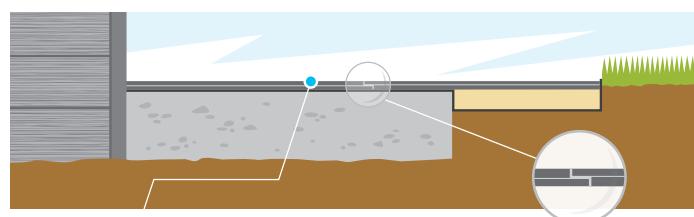
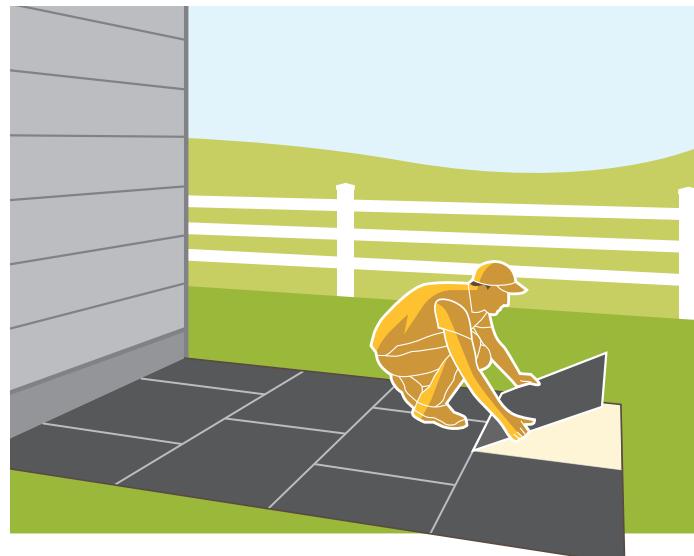


STEP 6

INSTALL BROCK PAVERBASE PANELS

Starting against a straight edge of the patio, lay the Brock panels, ensuring that the side flanges overlap. Ideally, lay them in a “brick-like” pattern (illustration below). This will ensure stability of the panels when you lay the pavers. To off set the panels (for the second row), cut a panel in half, using a utility knife, and start with top piece of the panel so the flange can be used. Use bottom half to finish the next row.

Trim any curves or along edges using a utility knife. Place any extra scrap pieces of Brock PaverBase in your recycling bin.



BROCK PAVERBASE PANELS



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HOW TO INSTALL PATIOS AND WALKWAYS

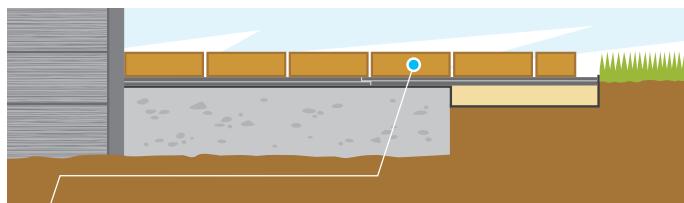
Concrete Overlay – (with or without expanding project size)

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STEP 7

INSTALL THE PATIO PAVERS

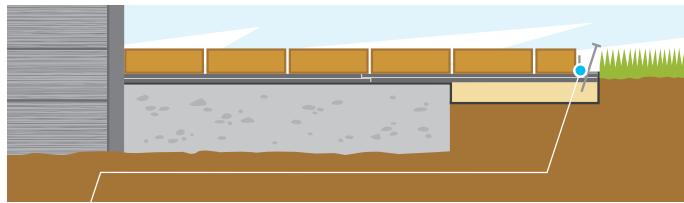
Now the fun really begins! Lay the pavers directly on the Brock PaverBase panels. Yes you can walk on the panels. You can slide pavers into place. Do not worry if you make a mistake with your pattern, you can correct without ruining your base. If you are trying to do a straight line, and the line gets crooked, hammer the row back in place using a rubber mallet. Do not use the edges of the panels or the pattern on the panels to try to line up your pavers. Use a string line to ensure straightness.



PAVERS OR PATIO STONES

INSTALL EDGE RESTRAINT

Once your patio is complete and the pavers are tightly together you will want to hold the perimeter in place to keep it from moving. To do this simply lay pieces of edge restraint directly on top of the Brock panels. Then hammer 8-10" landscape spikes through the Brock PaverBase panel making sure to keep the edge restraint tight against the pavers.



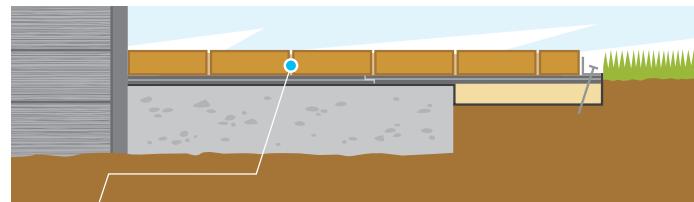
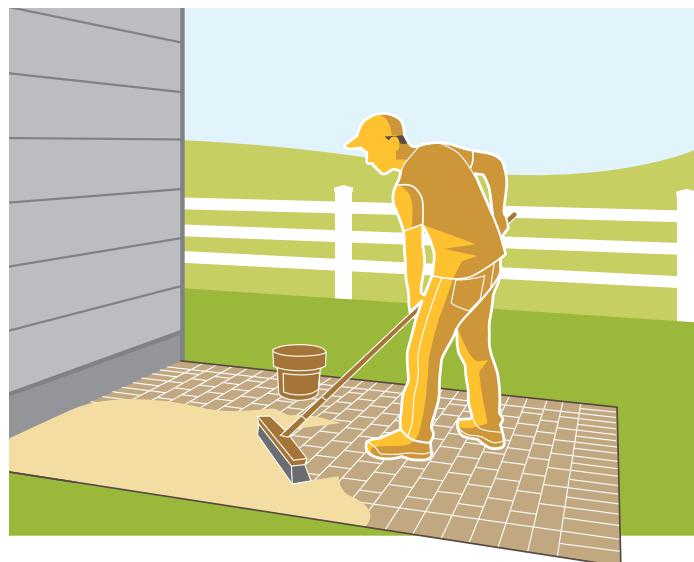
EDGE RESTRAINT

STEP 8

SWEEP IN REGULAR OR POLYMERIC SAND

Using a broom, spread sand over the patio and into the gaps between the pavers. Spread over small areas before moving onto the next one. Go back and forth over the gaps until no more sand will fit. Once you have swept the sand into the paver joints, a hand tamper should be used over the entire paver area in order to "vibrate" the sand further into the joints.

This tamping procedure will insure that the maximum amount of sand is holding the pavers in place. (DO NOT USE A PLATE COMPACTER TO VIBRATE THE PAVERS!) Continue to add sand until the joints are full.



POLYMERIC SAND

NOTE: There are two types of joint sand you can use. Polymeric joint sand will essentially harden like concrete between your paving stones so it is permanent. Polymeric sand has several advantages: It is stable, so the sand won't end up on the top of your pavers; it allows you to power wash your patio without displacing the joint sand; it gives the patio a cleaner, more finished look. Alternatively you can use traditional joint sand, but you will need to reapply it each year. For the purposes of these instructions we will refer to Polymeric sand since it requires a few extra steps than plain joint sand.

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HOW TO INSTALL PATIOS AND WALKWAYS

Concrete Overlay – (with or without expanding project size)

The base is the most important step in your patio and walkway projects.

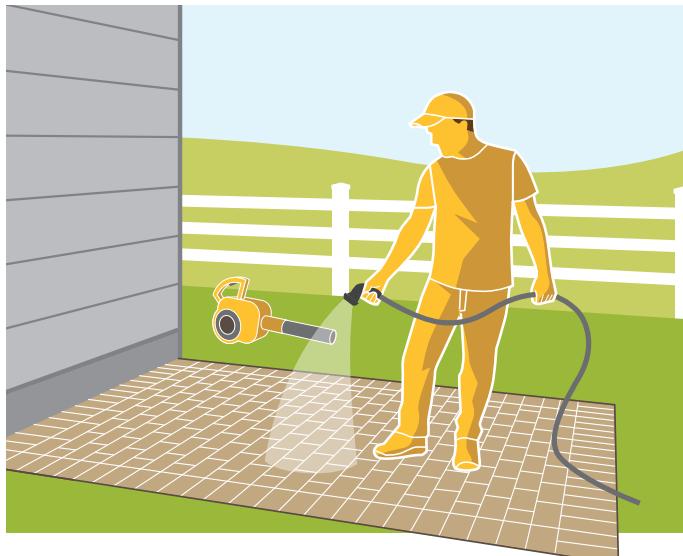
STEP 9

CLEAN THE SURFACE OF THE PAVERS

MAKE SURE THE SURFACE OF THE PAVERS IS CLEAN!

Once you are done spreading the polymeric sand into the gaps, use a leaf blower to blow the fine dust off the surface of your patio. (You want to make sure you sweep it off well first or you will generate a large dust cloud!) DO NOT WASH IT OFF WITH WATER! THAT COMES LATER. If the patio is not free of polymeric sand on the surface of the pavers, you may see a film/haze on the pavers once you follow step 9.

Once the surface of the patio is completely clean, follow the instructions for wetting on the packaging of the polymeric sand. This will entail lightly spraying the joint sand with water several times which will activate the polymer that hardens the sand.



Now you can enjoy your new project!

PROJECT QUESTIONS?

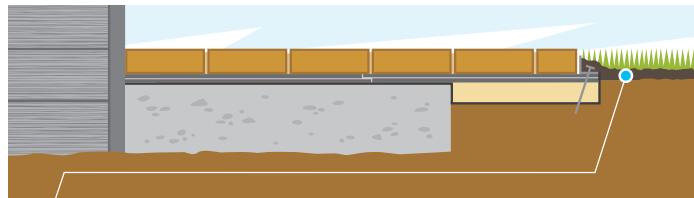
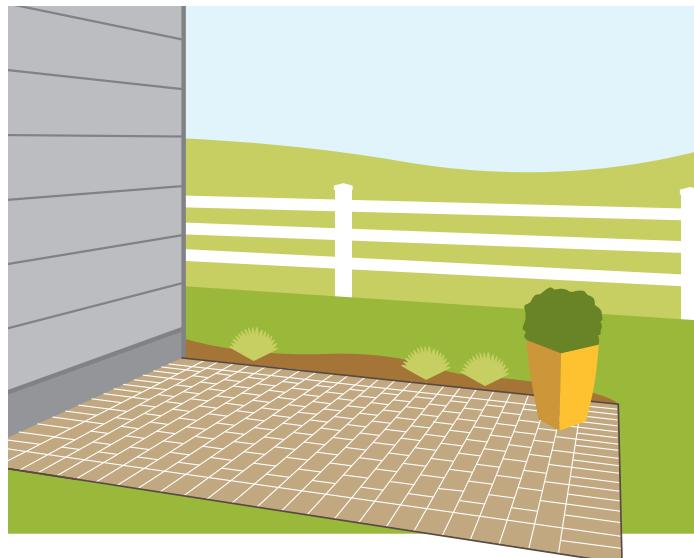
CALL TIM NEWTON ANYTIME AT: 813.431.8259

STEP 10

BACKFILL & FINISH NEW PATIO DESIGN

Since your new patio is by nature of a higher elevation than your old concrete slab you must address the now exposed edge. There are a few ways to do so.

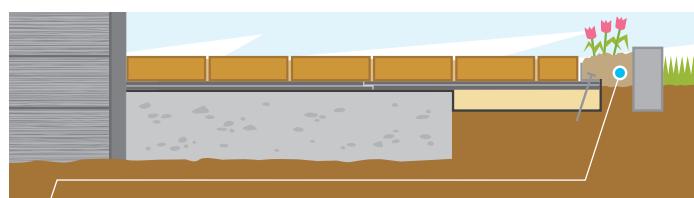
The first is to back fill the area with topsoil that slowly tapers away from the patio. You can then plant grass seed in the top soil and have a finished yard right up to your new patio.



TOP SOIL OR GARDEN SOIL

The second option is to install a short retaining or edger stone some distance from the edge of your patio and install mulch in the area in-between to use as a planting bed to further enhance your project.

FINAL IMAGE SHOWING THE EXPANDED PATIO WITH ALL THE COMPONENTS OF PATIO PAVERS OVER A CONCRETE SLAB.



MULCH OR LANDSCAPE ROCK

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HOW TO INSTALL PATIOS AND WALKWAYS

Natural Flagstone – (different thickness stones)

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STEP 1

PREPARING YOUR PROJECT AREA

Most commonly this is removing a grass area that is around your current concrete patio. You will incorporate this area into your new larger outdoor patio design. You will need to excavate about 1" deep from the surface of your current concrete slab for the area of your extended patio.



MATERIAL REMOVAL GUIDE

How deep you need to dig is determined by adding the thickness of the following components:

EXAMPLE	Thickness
Leveling Sand	1/2 Inch
Stone Thickness*	+ 1 3/4 Inches
Leveling Sand	1/2 Inch
Brock PaverBase	+ Approx. 3/4 Inch
Dig out this many inches below your current level	= Approx. 3 1/2 Inches

*will depend on the paver you select.

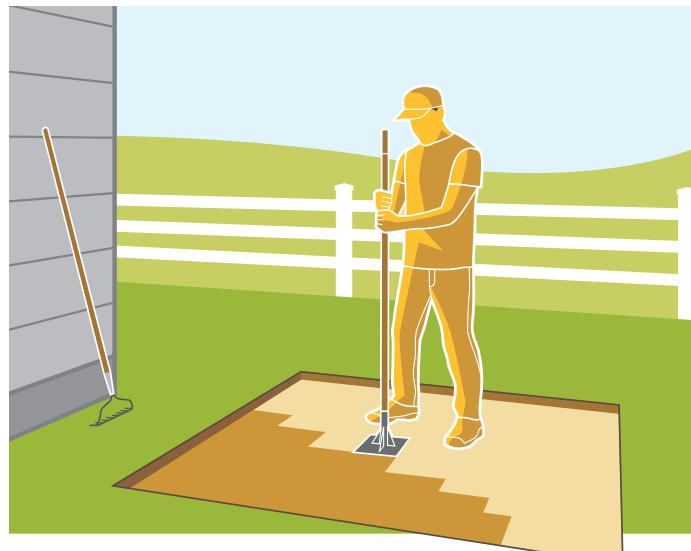
STEP 2

LEVEL AND COMPACT THE BASE

If you are building a patio close to or attached to the house, use a hard rake and/or shovel, compact and level the area with appropriate slope. The base material (most commonly the ground) should be tightly compacted using a hand tamper or plate compactor. The slope of a patio should be about 1/4" per one foot of distance in order to let water flow off the surface but keep furniture stable and level. It is helpful to pull a string line so you can check your slope.

To run a string line, put two landscape stakes in the ground. Tie a piece of string to one of them, and then pull it tight to the other. Use a level and ruler to create the desired slope. For example, the patio should slope 2.5" over a 10 foot distance. This will ensure that rainfall flows off the patio.

The area should be properly compacted and as smooth as possible, making sure to get rid of high and low spots to within +/- 1/4". This is now your compacted base. Congratulations, the hard part is over!



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Natural Flagstone – (different thickness stones)

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STEP 3

ADD A LONG LASTING LANDSCAPE FABRIC

Next install long lasting landscape fabric (20-30 years) over the excavated and compacted area. Overlap the edges of the fabric by 4-6".



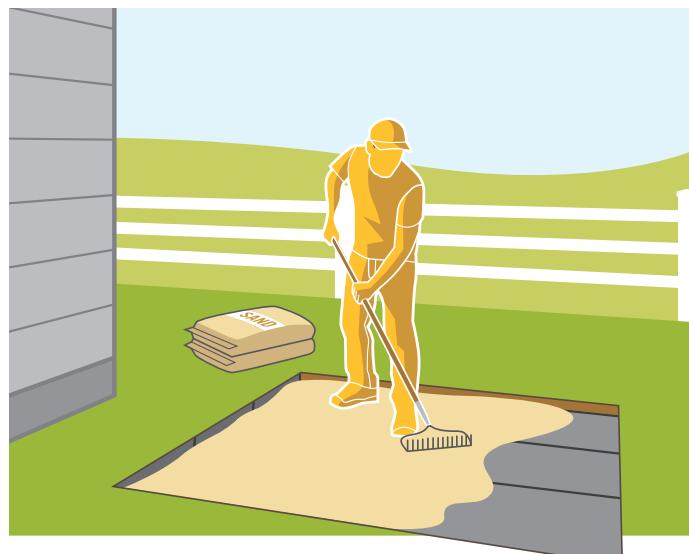
LANDSCAPE WEED FABRIC (BARRIER)

NOTE: Fabric holds in the sand, not for weeds.

STEP 4

SPREAD A 1/2" LAYER OF LEVELING SAND

Lay two 1/2" pipes (or rebar) on top of the fabric over the ground in the same direction as your slope, high to low end. Spread an even layer of sand over the pipes in your project area.



1/2" ALL PURPOSE LEVELING PAVER SAND



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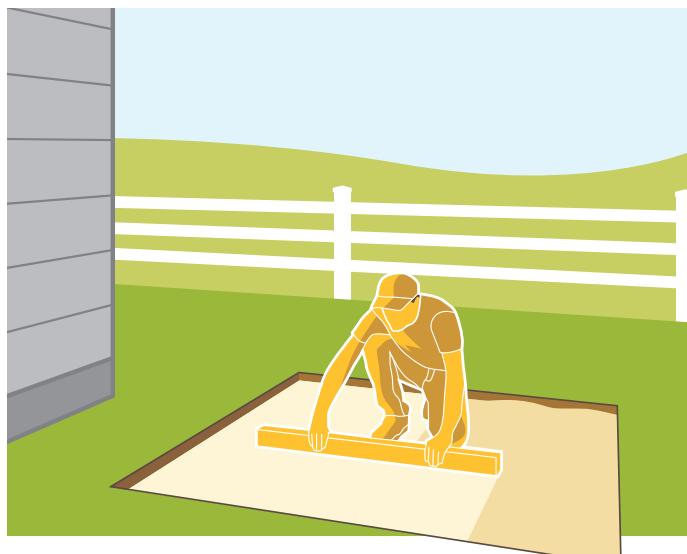
Natural Flagstone – (different thickness stones)

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STEP 5

SCREED THE SAND USING A BOARD

Using a standard 2x4 that is 6 feet long, screed the sand using the board along the pipe or rebar, maintaining your slope so watch your string line. Make sure the board you use is straight and true! Hand tamp the sand and recheck to make sure you do not have any high or low spots. Do not use a plate compactor to compact the sand.



1/2" LEVELING SAND SCREED

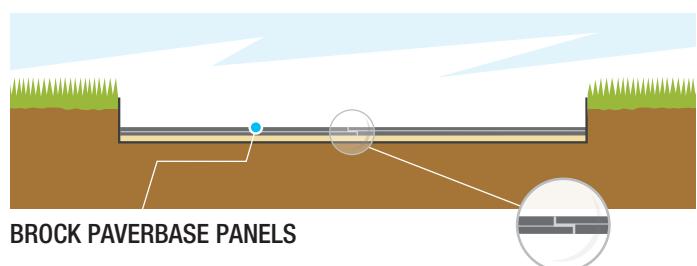
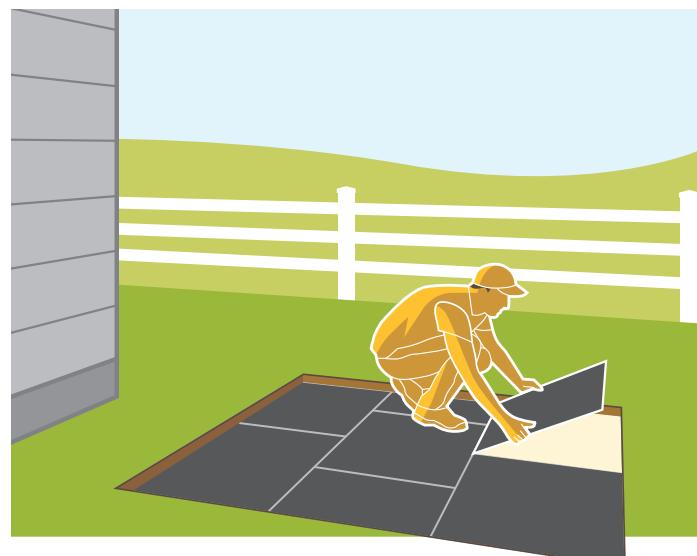


STEP 6

INSTALL BROCK PAVERBASE PANELS

Starting against a straight edge of the patio, lay the Brock panels, ensuring that the side flanges overlap. Ideally, lay them in a “brick-like” pattern (illustration below). This will ensure stability of the panels when you lay the pavers. To off set the panels (for the second row), cut a panel in half, using a utility knife, and start with top piece of the panel so the flange can be used. Use bottom half to finish the next row.

Trim any curves or along edges using a utility knife. Place any extra scrap pieces of Brock PaverBase in your recycling bin.



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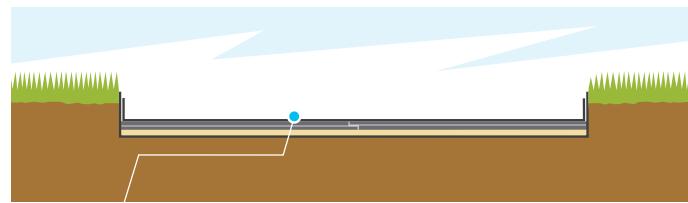
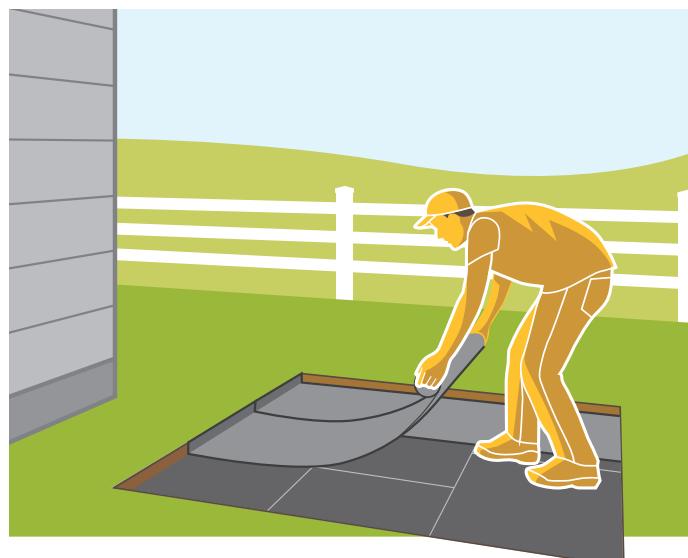
Natural Flagstone – (different thickness stones)

The base is the most important step in your patio and walkway projects.

STEP 7

ADD 2ND LAYER OF LONG LASTING LANDSCAPE FABRIC

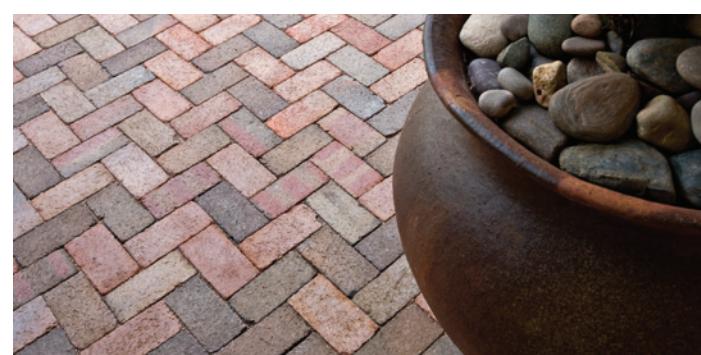
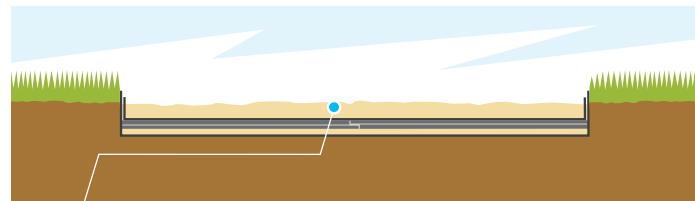
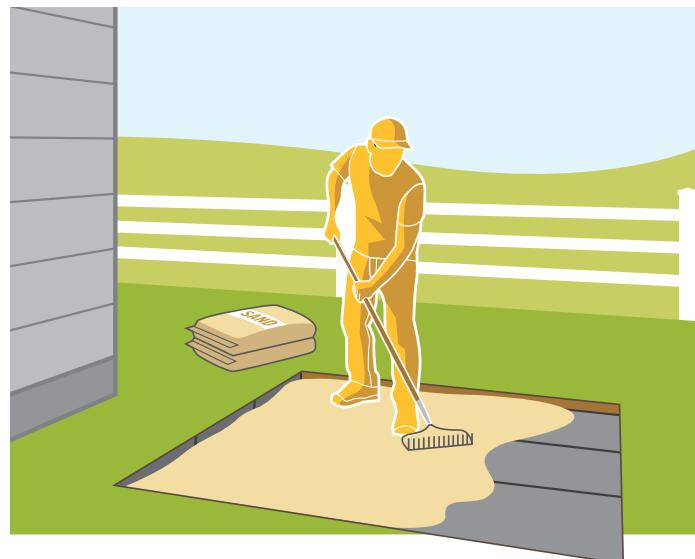
Once the Brock PaverBase is installed, place a second layer of weed barrier fabric on top of the panels to stop any sand migration. Yes you can walk on the panels. Overlap the edges of the fabric by 4-6".



STEP 8

SPREAD A LAYER OF LEVELING SAND

Then add a 1/2" thick layer of bedding sand on top of the fabric. This is the layer of sand that will make up any differences in thickness that your stones may have, and allow you to get the stones to sit level, as they may not be perfectly flat on the bottom. More sand will be needed to raise the thinner stones up to the thicker stones.



 **PaverBase**
For all Patios and Walkways

HOW TO INSTALL PATIOS AND WALKWAYS

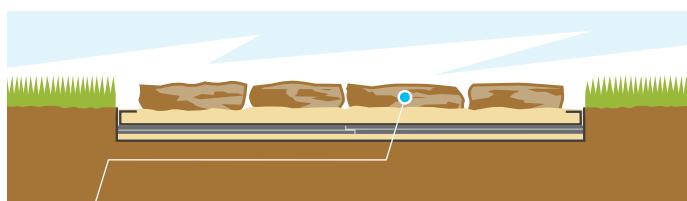
Natural Flagstone – (different thickness stones)

The base is the most important step in your patio and walkway projects.

STEP 9

INSTALL THE NATURAL STONE

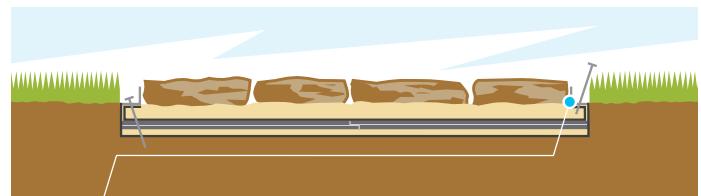
This is the fun part! Laying natural stone is very simple. Before putting the stone onto the project lay them out in the yard and try to find the pieces that fit well together with the size joint you like. There is a slight art to figuring out which stone fits best where, but that is what makes no two patios the same. Once you have an idea of where you want them. Take the ends of the geotextile that you let long and simply fold them over on top of the sand to make the whole system sealed so you are sure nothing will move. Then install the stones into the bedding sand. If you find an area with a stone that is very thin and there is not enough bedding sand, simply add more underneath it until it is level and positioned where you want it. The same holds true for a stone that is slightly too thick. Simply brush some of the sand away until it lays as you want it. Try to keep the bedding sand on the bottom of the stones and don't let it work its way up between them as we will be filling the joints with a special sand later to hold it all together. Make sure to leave 2-3" of exposed sand around the outside of your project to later add edge restraint.



NATURAL STONES OR FLAGSTONES

INSTALL EDGE RESTRAINT

Once your stones are installed it is important to hold the perimeter of your project in place. Simply place edge restraint on top of the sand and the geotextile fabric that we folded over earlier. Then install using 8-10" landscape spikes. You may feel free to bend the edge restraint to follow the natural outline of the stones to give your patio a more natural feeling.



EDGE RESTRAINTS



BROCK
PaverBase
For all Patios and Walkways

HOW TO INSTALL PATIOS AND WALKWAYS

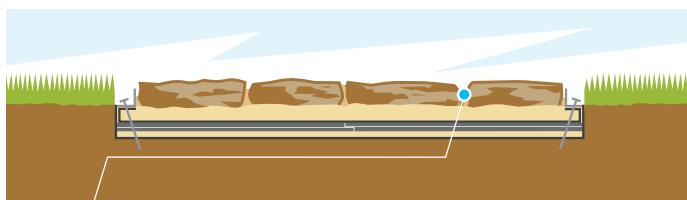
Natural Flagstone – (different thickness stones)

The base is the most important step in your patio and walkway projects.

STEP 10

FINISH WITH REGULAR OR POLYMERIC JOINT SAND

Using a broom, spread sand over the patio and into the gaps between the pavers. Spread over small areas before moving onto the next one. Go back and forth over the gaps until no more sand will fit.



POLYMERIC SAND

NOTE:

There are two types of joint sand. Use Polymeric Sand that far exceeds your stones gaps. Polymeric sand will essentially harden like concrete between your paving stones so it is permanent. Polymeric sand has several advantages: It is stable, so the sand won't end up on the top of your pavers; It allows you to power wash your patio without displacing the joint sand; It gives the patio a cleaner, more finished look. Be sure to use a Polymeric sand or even a sandy soil that will allow you to plant ground cover between the stones that is rated for the widest joint on your project. Poly sand is an alternative to traditional joint sand. For the purposes of these instructions we will refer to Polymeric sand since it requires a few extra steps than plain joint sand.



STEP 11

CLEAN SURFACE OF THE NATURAL STONE

Once you are done spreading the polymeric sand into the gaps, use a leaf blower to blow the fine dust off the surface of your patio. (You want to make sure you sweep it off well first or you will generate a large dust cloud!).



NOTE:

DO NOT WASH IT OFF WITH WATER! THAT COMES LATER. If the natural stone is not free of polymeric sand on the surface, you may see a film/haze on the stones once you follow step the next step.

PROPER WETTING WHEN USING POLYMERIC SAND.

Once the surface of the patio is completely clean, follow the instructions for wetting on the packaging of the polymeric sand. This will entail lightly spraying the joint sand with water, which will activate the polymer that hardens the sand.



Now you can enjoy your new project!

PROJECT QUESTIONS?

CALL TIM NEWTON ANYTIME AT: 813.431.8259