The Best Paving System
Quality concrete pavers create a surface that can last for generations. When installed to Interlocking Concrete Pavement Institute (ICPI) guidelines and placed on a well-prepared base, pavers require very little maintenance.

For further information about concrete pavers, installation and contractors, contact your local ICPI member.

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Concrete Paver Ideas
Concrete pavers are used in many different home projects. Whether for a driveway, raised patio, pool deck, water feature or walkway, concrete pavers will make them beautiful. Visit www.icpi.org to get ideas for your next project.

Permeable Driveways

Patios

Sitting Areas

Pool Decks

Concrete Pavers Ideas

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Peak Performance from Concrete Pavers

A Maintenance Guide for Consumers

www.icpi.org

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Efflorescence

Most paver producers put chemical additives in the concrete to reduce the likelihood of efflorescence occurring. In most cases the additives prevent efflorescence. However, completely eliminating the chance of efflorescence isn't possible because it's a natural byproduct of hardened concrete.

Efflorescence is a white haze that may appear on the surface of pavers sometime after installation. It forms as a result of a natural chemical reaction that occurs when the lime or water soluble calcium oxide produced by the cement contained in the pavers reacts with water. When the water enters the microscopic capillaries in the pavers calcium hydroxide is formed. The calcium hydroxide rises to the surface of the paver, reacts with the carbon dioxide in the air, and forms a white haze of calcium carbonate when the moisture on the surface of the pavers evaporates. The appearance of efflorescence will stop when there isn’t any more calcium hydroxide available to move to the surface.

Since efflorescence brings out salts that are not ordinarily part of the concrete to reduce the likelihood of efflorescence occurring. In most cases the additives prevent efflorescence. However, completely eliminating the chance of efflorescence isn't possible because it's a natural byproduct of hardened concrete. If efflorescence does occur it can be removed with cleaners specially made for concrete pavers. Careless or improper cleaning can result in damage and disoloration to the surface of the concrete pavers. Contact your paver supplier for further information about the chemistry of efflorescence and appropriate commercially available cleaners. ICPI Tech Spec 5-Cleaning and Sealing Interlocking Concrete Pavement-A Maintenance and Protection Guide provides additional details.

Preventing Weeds and Ants

Weeds can germinate between pavers from windblown seeds lodged in the joints; they don't grow from the bedding sand, base or soil. Weeds can be removed by hand or with herbicides. Take care in using herbicides so that adjacent vegetated areas are not damaged. Use biodegradable products that won't damage other vegetation or pollute water supplies when washed from the pavement surface. Besides stabilizing the joint sand, sealers can prevent seeds from germinating, and prevent ants from entering.

Color and Wear

Color in concrete pavers is achieved by adding pigment to the concrete mix during production. The cement in the concrete mix holds the pigments in place. Normal wear from traffic or weather gradually erodes the cement and pigment particles, causing a color change over time.

Like all pavements, concrete pavers receive dirt from footprint or tire traffic which changes the surface color.

Cleaning and sealing the surface of the concrete pavers can moderate the rate of color change. Besides enhancing the pavers' color, sealers can prevent dirt from lodging in their surface.

Settlement and Utility Repairs

Settlement is often caused by inadequate soil or base compaction. Other factors can be water in the base or soil, too thick a layer of bedding sand, or washed out bedding and joint sand. Loose or inadequate edge restraints will cause pavers to move apart. Pavers in uneven areas can be removed, the settlement adjusted, and the units reinstated with no wasted paving materials or unsightly patches. If the base or soil has settled and is stable, remove the pavers and bedding sand, place and compact additional base material to the correct thickness. Concrete pavers can be removed for access to underground utilities, and reinstalled after repairs. When utility repairs are complete, fill the trench with base material and compact it. Remove about 18 in. (0.5 m) of pavers on either side of the opening, level the bedding sand and replenish as necessary. Reinstall the pavers, compact, fill the joints with sand and compact the surface again, filling joints as needed. ICPI Tech Spec 6-Reinstatement of Interlocking Concrete Pavements, provides step-by-step guidelines on removal and replacement of concrete pavers.

Cleaning and Sealing the surface of the concrete pavers can moderate the rate of color change. Besides enhancing the pavers' color, sealers can prevent dirt from lodging in their surface.

Removing Oil Stains

Concrete pavers aren't damaged by petroleum products, but driveway oil leak stains from cars can be difficult to remove. Stains should be treated as soon as possible. The longer they remain on the surface, the deeper they penetrate and are harder to remove.

First, wipe excess oil from the surface and apply liquid detergent. Allow it to soak for several minutes and wash the pavers with hot water. Several treatments may be necessary to remove particularly stubborn stains. For best results use cleaners specially made for removing oil stains from concrete pavers. Keep in mind that due to their modular nature and ease of replacement it is simple to replace severely stained or damaged pavers when needed.

Cleaning and sealing concrete pavers early in their life can make removing stains easier, since sealers prevent stains from soaking into the surface. The sealers may need to be reapplied from time to time due to wear and weather. Concrete pavers should be cleaned prior to sealer application to obtain the best performance and appearance.

Removing oil and many other stains is discussed in Tech Spec 5-Cleaning and Sealing Interlocking Concrete Pavement-A Maintenance and Protection Guide. A thorough review of stain removal is also addressed in the booklet, Removing Stains from Concrete, The Aberdeen Group.

Paver supplier can provide information on cleaners and sealers specifically made for concrete pavers.