Driveways, is There More to Know?

We drive on them, some folks play basketball on them, some use them as a chalk board. But how does a surface that is subjected to all kinds of stress survive? What if It is just gravel? What if asphalt is not the way I want to go? Read on....

Driveway surfaces typically found are : Dirt, Gravel, Tar & Chip, Asphalt, Cement, Pavers, and the more exotic Permeable Pavers/surfaces. Is one better than another. Yes an No. Yes, in that dirt is just a dry form of mud. No because cement and asphalt are popular relatively easy to maintain. The others, well they require a bit more attention. Other than dirt, the initial construction, and the creation of a sound substrate, will affect the aesthetics, and ultimately the durability of the surface.

How is the area Landscaped?, How is the natural drainage and what additional drainage will be required? What kind of exposure to weather will it be exposed to? What kind of traffic will it have to bear? What aesthetic was



the client looking for?

What's the Difference? Concrete vs. Asphalt Driveways

By Michelle Ullman (Heavily edited)

• Asphalt can suffer in the high heat, while concrete performs poorly in extreme cold. - The cycle of softening in high heat, then re-hardening once things cool down, can cause asphalt to crack or sag. On the flip side, concrete can buckle, heave, or crack in the coldest winters. Plus, the salt used to melt ice can pit, stain, or blotch concrete, leaving ugly marks.

• Asphalt requires sealing every few years, but concrete stains more easily. - A few months after installation to allow for full curing, your asphalt driveway will need to be sealed to protect the surface and lengthen its lifespan. You'll then need to reseal it every three to five years thereafter.

• Asphalt is easier to repair than concrete but needs it more frequently. - While both asphalt and concrete crack, asphalt tends to deteriorate

faster due to its softer consistency.

- **Concrete driveways normally last longer than asphalt.** In general, if installed properly in a suitable climate and maintained regularly, your concrete driveway should last 30 to 40 years, while an asphalt driveway is generally good for 20 to 30 years. Neglect to install without an even, stable substrate of gravel—or be careless about proper maintenance—and either type of driveway can fail within a few years.
- **Concrete costs a lot more than asphalt.** As a rough rule of thumb, a concrete driveway costs around 45 to 50 percent more than an asphalt driveway.

Chip Sealing uses the same ingredients as **asphalt** concrete paving, but the construction method is **different**. With **chip seals**, a thin film of heated **asphalt** liquid is sprayed on the road surface, followed by the placement of small aggregates ("**chips**").

A tar and chip driveway won't last long. Depending on vehicle traffic, you might expect a tar and chip driveway to last a maximum of 7 to 10 years before it's time for a fresh layer of sealant and new stones or aggregate.

Types of Pervious Concrete

There are multiple types of permeable concrete, all of which are used for different purposes:

- **Porous Asphalt** is used on highways to remove excess water.
- Single-Sized Aggregate contains no binder and is commonly known as loose gravel. It can commonly be seen in very low-speed applications such as driveways or pathways.
- **Plastic Grids** allow for a 100% porous system and are growing in popularity due to LEED project requirements. These grids help reinforce gravel driveways, parking lots, and fire lanes. Plastic grids can also be planted with grass.
- **Porous Turf** can be used for areas with occasional parking, such as stadiums or churches.
- Permeable Interlocking Concrete Pavers are individual units that can be laid out in an interlocking grid pattern, with in-between spaces commonly filled with grass or small stones. This type of paving is popular in public areas due to its architectural appeal.
- Permeable Clay Brick Pavers are similar to interlocking pavers but are composed of fired clay.
- **Resin-Bound Paving** is a mixture of a clear resin and aggregate, used for areas with pedestrian and vehicular traffic, including walkways, driveways, and parking lots.
- **Bound Recycled Glass Porous Pavement** is a mixture of post-consumer glass with resins and binding agents. Made by FilterPave Products, this colorful pavement prevents glass waste from ending up in a landfill. Recycled glass pavement is appropriate for both pedestrian and vehicular traffic.





The Grid Approach

Here is a grid product (not an endorsement, just an idea) called TRUEGRIP (this is a registered name) by the Trugridpaver company. Their solution is to allow water to get absorbed into the earth (as it is meant to be) and provide a durable and permeable surface. Again, not an endorsement, but certainly a consideration. Just remember the application needs to fit the climate.







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