

## Porous Pavement: Cost Compared to Hard Pavements Fact Check

Overall Costs to Construct & Maintain Porous Pavements are Lower.



### Does a porous pavement solution cost more?

Porous pavements actually are less expensive to install than impervious concrete or asphalt when total project costs are considered. When evaluating parking lot construction costs for porous vs. impervious alternatives, the following cost “buckets” must be considered.



**Myth Busted:** With all of the costs factored in, Porous Pavements are actually lower to install and maintain than traditional hard-surface pavements!

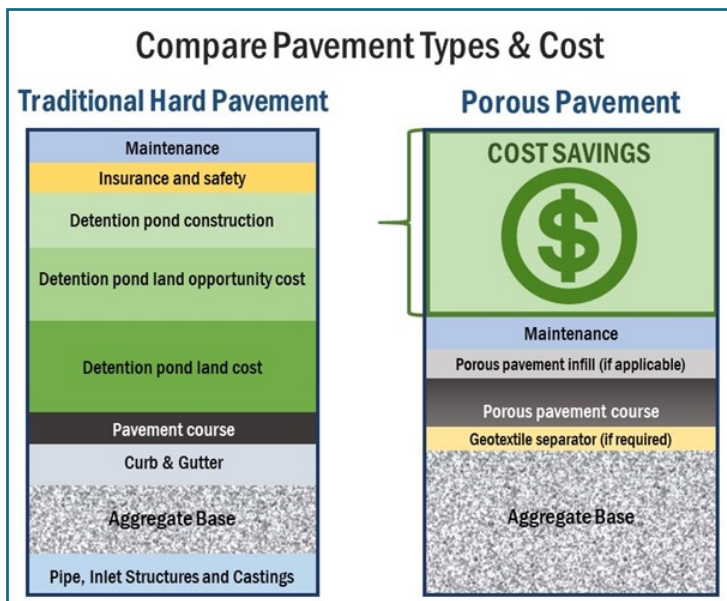
### The Components of Traditional Hard Pavements

Most everything else about traditional parking lot construction is far more expensive than the porous pavement alternative. Traditional hard-surface pavements require inlet structures, castings and covers for inlets and manholes, underground pipe, outfall structures, and detention ponds.



### Detention Ponds Construction, Liability & Land Cost

Detention ponds have 3 major cost drivers. Land costs to locate a pond can vary wildly depending upon commercial real estate values, but it is not unusual for land to be upwards of \$250,000/acre even in small markets. But the impact of the land utilized for detention ponds doesn't end there. There is the lost opportunity cost for the unrealized rental or income value lost when a commercial building cannot be located where a pond is required. This represents a continual annual and growing cost. Finally, there is the detention pond construction cost and higher liability costs.



Traditional pavements such as bituminous asphalt or Portland cement concrete enjoy low cost and ubiquitous installation contractors. This may lead one to think that choosing a porous pavement would lead to higher overall project costs... **But that is a myth.**

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### Detention Ponds Safety & Aesthetics

An additional consideration is safety and aesthetics. The word pond evokes a pleasant image of fish jumping and ducks paddling. But there are 2 types of ponds for stormwater purposes and neither is all that attractive from a safety and aesthetic standpoint.

### Retention Ponds

A **retention pond** retains water with most of the water expected to percolate into the soil below. Retention ponds are an attractive nuisance to children and can be dangerous in wet conditions as the slopes make it very difficult in rain and snow to escape once a child slides down the pitch. It is difficult to mow close to the edge and as a result tall grass and weeds end up collecting blowing trash. Fences placed for safety create garbage traps too--and the cyclone fence does not make for a

### Detention Ponds

A **detention pond** primarily slows water down from leaving the site and has similar challenges. Either type of pond is as likely to host floating garbage as floating wildlife and sedimentation quickly builds on the bottom of the pond reducing capacity and choking off infiltration.



### Economical Advantages of Porous Pavements

Plenty of research and analysis has been done with porous pavements to prove the overall reduction in expense, as well as the danger reduction and improved aesthetics. With porous pavements, stormwater detention is built right into the open-graded base course to a depth required for the site—so runoff is captured at the source. The University of New Hampshire stormwater center has put together a [case study](#) showing the economic advantage of porous pavements. The concepts in this case study are valid for a wide range of porous pavements including modular pavers such as GEOPAVE aggregate pavers and GEOBLOCK grass pavers.

So when you are comparing porous pavements to traditional pavements, make sure you are considering all of the costs and safety implications that come with traditional pavement.

**Choosing a green solution doesn't have to cost more.**



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