

Shamrock Dirt Work
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Roads & Driveways

All roads and driveways have a unique set of challenges. Use this simple worksheet to answer some questions and concerns that apply to your project.

Before beginning any project, remember to first check city ordinance or HOA regulations.

❖ Size of road/driveway

➤ Calculating amount of material needed

- Length x width x thickness of road (all units are in feet)
- For a driveway we recommend 10-12 feet wide. 22 feet is common for a 2 lane road.
- We recommend a thickness of at least 6 inches (0.5 feet) for new road construction.
- Divide this amount by 27 (27cubic feet per cubic yard) to find the volume of material needed
- Gravel is approx. 1.35 tons per cubic yard
- Multiply the volume of material by 1.35 tons. This will give you pre compaction volume. Gravel will compact 10-15% (This is based on you having a stable compacted base first. If you are putting the gravel on top of top soil you will lose more to compaction.) We recommend using the higher number to determine your total material needed.

_____ feet length x _____ feet width x _____ feet thick = _____ cubic feet

_____ cubic feet divided by 27 cubic feet = _____ cubic yards

_____ cubic yards x 1.35 tons = _____ total tons

_____ total tons x 1.15 = _____ estimated total tons of material
(15% added for compaction and settling)

Curves in the road/driveway will increase the estimated total material.

- ❖ Now that we have a ballpark figure of how much gravel you might need, the next thing to consider is crown and drainage.
 - Adequate drainage and a crowned road is critical to the longevity of the road. Tin horns may need to be installed to minimize water from crossing the road. A properly crowned road sheds water to the drainage ditch. This minimizes water from settling on the road and creating potholes and ruts. This is why routine maintenance is important to any road/driveway.

- ❖ There are several types of gravel material to consider.
 - Crushed rock (crusher run)
 - Low dust
 - very durable,
 - compacts well
 - Several different sizes to choose
 - Recycled concrete
 - Good base material
 - High dust generating
 - Good compaction
 - Cheaper than crusher run on average
 - Crushed asphalt
 - Low dust
 - Darker finish
 - Good compaction
 - Price similar to crushed concrete

- ❖ Road base
 - Type of existing soil has a huge impact on which gravel material to choose for road construction.
 - Clay soils - good material for road building, holds shape well, binds with gravel to form a hard surface, sheds water easily. Works well with all types of gravel.
 - Sandy soils - does not maintain road shape well, requires larger diameter rock for a base, can wash out easier in heavy rains. Adding clay based soil can help stabilize sandy soils.

This is not a comprehensive list of all situations. This is just general information to aid you with determining your needs and budget. For questions, please give us a call.