

Benefits of hiring a Professional Geotechnical Engineering Firm for your upcoming pavement project.

Here is some helpful information that will explain to you the benefits of hiring a professional geotechnical engineering firm to oversee your upcoming pavement project. A geotechnical engineering firm usually charges a lot less money than a civil engineering firm, but it will still give you similar results and help ensure that you are getting what you pay for when it comes to your new asphalt pavement project. Most geotechnical engineering firms will perform their part of the work in two phases which are as follows:

Phase 1 - Asphalt Assessment

The first step is to establish the current condition of the existing asphalt pavement. A geotechnical engineer can do this by sending out experienced asphalt technicians to perform the following field tests:

- Take vertical core samples of the asphalt and Baserock to establish the thickness of your existing asphalt pavement, check the bond between the different asphalt layers, check the thickness of the existing Baserock and classify the Baserock material.
- Perform several soil boring tests to check the condition of the subgrade and underlying soils to determine that there are no issues that are currently affecting your pavement or that will affect your new pavement in the near future.
- Take several Nuclear Asphalt Backscatter Density tests which will show the voids and level of compaction of the current pavement surface. This will ensure that there do not need to be additional preparations for the new pavement.

Once all this field data is collected it is turned over to the company's chief engineer who will come up with a custom engineering report that will include the following:

- Materials Analysis of Existing Roadways
- Review of Field Tests and Findings
- Explanation of Issues with Pavement and Structures
- Repair Recommendations
- Complete Project Specifications for Repair Work and Surface Treatments



Phase 2 - Pavement Monitoring

Once the initial project specifications have been established and all the bidding pavement contractors have submitted their bids based upon the same specifications, you can choose your contractor. Next you should hire the same geotechnical engineering firm to oversee the pavement process to ensure the pavement contractor is following the set specifications. The engineer will have a certified asphalt technician monitor and perform the following duties:

- Act as the owner's representative for the field work
- Monitoring the Pavement Process
- Verifying that the contractor follows the project specifications
- Measure the thickness of new asphalt pavement
- Track the truck tickets and the temperature of the fresh asphalt

By having a professional geotechnical engineer involved you will have a third party that will report any problems directly to you and will help eliminate the trust issues that any of the board members, the managers or the residents could possibly have towards the contractor. Doing this will ensure that you will get the excellent product that you were promised at the beginning of the job and will save your association money from possible costly lawsuits after the completion of the job.

