

NIMC erases \$38,000 change order and improves strength of it's new entrance road with Soil Stabilization.

The change order did not affect the over all cost of the project, addition costs were avoided to fix the problem

Saved 470 truckloads of materials hauled on and off the site

3,750 Tons of 3â€ aggregate

Accelerated the work schedule by eliminating extra undercutting

Increased the structural section of the roadway

#### BACKSTORY:

A busy and thriving medical facility needed improved accessibility by the addition of an additional entrance road. However, initial soil testing showed that the soil in certain sections of the proposed site was not structurally sufficient to support the anticipated loads.

#### PROBLEM:

Original plans called for undercutting several sections of the soil, up to 2 feet deep, and replacing it with aggregate base. Since the scope of the problem was not yet fully known, it was not possible to accurately estimate the extent to which undercutting would be necessary, meaning that final costs could vary widely, and in a worst-case scenario, possibly exceed original cost estimates for the project.

#### SOLUTION:

By utilizing soil stabilization as an alternative method, Rock Solid was able to produce a uniform subgrade for the entire road that cost no more than conservative estimates of the original proposal. Careful testing and analysis allowed them to design a fly ash stabilized soil mixture, improving the strength and reducing the shrink/swell potential of the on site soils.

In total, the subgrade stabilization eliminated 470 truck loads of material to be hauled to and from the site. Stabilization saved 3,000 CY of removal of unsuitable soils, eliminating the need to import 4,500 tons of 3" aggregate.

At its completion, the NIMC project was a resounding success. By implementing soil stabilization over a more traditional method, Rock Solid was able to build a structurally superior road on a controlled budget and within a time period that caused little to no disruption to the day to day operation of the hospital. The \$38,000 change order to utilize soil stabilization was mitigated by the reduction of 2 inches of bituminous base course from the initial design, resulting in no increased cost to the owner.

#### PHOTOS:



Aerial View of NIMC and new entrance road



Final grading to elevation



Initial compaction after tilling



Uniformly tilled material



Pneumatic bulker loading spreader truck