

Little Road, Trinity, FL Sinkhole

COMPACTION GROUT, CHEMICAL GROUT PROJECT

Project

The project is a sinkhole that opened up off of Little Road in Trinity, FL.

Challenge

- Sinkhole was directly underneath an existing road and within close proximity to a commercial building.

Solution



Fill the voids, cracks, fractures, and cavities while stabilizing the granular material and improving the physical properties of the soil and limestone.

The engineer of record recommended a ground improvement plan that consisted of a combination of compaction grouting and chemical grouting points to remediate the sinkhole activity. Approximately 578+ cubic yards of compaction grout injected in 45 points at varying depths ranging from 22 feet to 150 feet below existing grade. A mixture of cement, fly ash, sand, water, and other admixtures were injected into the loose soils and voids in the limestone and overlying sand strata.

The chemical grouting densified and stabilized the interior shallow soils. A total of 6,523+ lbs. of chemical grout was injected through 116 chemical grout points. Each point was pumped at 12 feet to 6 feet below ground surface until lift of the slab/ground refusal was achieved.

All operations were performed under the observation of the engineer of record. Efficient planning & coordination was key to overcoming the challenges & limitations.

Engineer: Basic Engineering
Market: Commercial
Solution: Ground Improvement
Services: Compaction Grout, Chemical Grout

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