



CASE STUDY SLAB LIFT

Rapid Interior Rescue with AP Lift 440

A single-story office building settled over organic soils beneath a post-tensioned slab; interior-only access required a fast, clean fix.

Initial Assessment

Borings showed dense to very loose strata and differential movement under interior columns and slab zones; uniform densification and code-level lift tolerance were required. Traditional underpinning inside an occupied shell would extend schedules and raise costs versus targeted polyurethane injection.



Proposed Solution

The contractor selected AP Lift 440 for hydro-insensitivity, rapid reaction, and ~80 psi compressive strength. This material was ideal to permeate, densify, and lift with minimal downtime.

Procedures

1. Inject 30,000 lbs over 635 interior points per geotech layout.
2. Apply tight grid spacing, pressure/volume control, and real-time elevation checks.
3. Coordinate QA/QC with the Engineer of Record for sign-offs.

Results

- Restored slab support and column bearing
- Zero exterior disruption; interior-only access.
- Approximately 97% cost savings vs interior underpinning/piering, with faster completion.

About Alchatek

Alchatek is an international leader in the manufacture and supply of chemical grouts and construction products for Geotechnical, Leak Seal, and Seawall Repair applications. Providing solutions from its headquarters in Tucker, Georgia and its manufacturing facility in Reno, Nevada, Alchatek specializes in advanced construction technologies for sealing leaks, stabilizing soils, lifting concrete, and protecting infrastructure and seawall structures. To best serve its customers, Alchatek is organized onto three divisions:

The Leak Seal Division combines a full system offering of polymer chemical grouts and equipment with perhaps the most experienced technical team in the industry. It specializes in preventing water ingress through concrete infrastructure including parking garages, culverts, basements and foundations, and sewer manholes.

The Geotechnical Division offers a complete line of single component products for soil stabilization as well as two component polyurethane foams for concrete lifting, void filling, and stabilization of infrastructure. This includes lifting sunken structures such as warehouse floors, back into place.

Seawall Repair Network® is the only national network of certified contractors in the repair, preservation, and protection of Seawalls waterfront barriers. Its proprietary methods and materials are environmentally friendly and safe for use in all marine environments and provide a non-destructive solution for seawall repair at 80% less than the cost of replacement.

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