

FOUNDATIONS

Deep Foundations Erosion Control Ground Improvement Concrete Restoration Earth Retention Civil Construction Polyurethane Foam Technology

A GEOTECH CASE STUDY

Leveled Runway means Smoother Landings in Cleveland

Geotech uses HDP at Cleveland Hopkins International Airport



fficials at Cleveland Hopkins International Airport were receiving pilot complaints regarding a depression on a section of one of the main runways causing bumpy take offs and landings. The area was professionally surveyed and it was determined that the dip measured approximately 4 inches over a 150' x 150' area.

Engineers at the airport considered a variety of options to rectify the situation and eventually, Geotech Services, Inc. was called in to evaluate the problem and offer a solution to underseal, stabilize and level the pavement. Geotech recommended and used High Density Polyurethane (HDP) technology to correct the issue. HDP was used successfully by Geotech Services at Newark, John F. Kennedy and Pittsburgh International Airports to satisfy similar issues. This was a new process for engineers at Hopkins and Geotech's experience at the three other facilities gave them confidence in the solution and Geotech Services.

"We knew it would work. We had a history of successful applications to share. But, this was something very new to the engineers at Hopkins," said Steve Tartabini, Vice President at Geotech. "They were cautious but enthusiastic about the potential." The major advantages of HDP are cure time, its tensile and compressive strength, and minimally invasive construction.

Geotech was able to begin work at night, after the volume of air traffic had come and gone - and by 6 am the following morning, full operation of the

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runway was possible. "We scrutinized the operation very carefully from planning to execution," said Elie Zogheib, Hopkin's consulting engineer. "Our requirements and tolerances are very tight and we observed the HDP application, first hand," he said.

The setup was quick, too. Small holes were drilled through the pavement to inject the HDP so the entire process was far less disruptive. The speed of the entire operation was a significant benefit to Hopkins and a key decision point for their engineers. "It was almost hard to imagine how quickly Geotech was able to correct the situation using HDP. But we saw it with our own eyes and were impressed," said Zogheib. The project was completed in 5 evenings.

"We're using HDP throughout the region on local, county and state roadways all year round," said Tartabini. "But, the airport applications have become somewhat of a specialty of ours, now, as word about our success gets around the industry."





DIGGING DEEP

PRESIDENT'S MESSAGE

The construction season is in full swing now and Geotech is active in a wide variety of challenging and interesting projects.

One of our "Critical Success Factors" is technical expertise, which is why we added High Density Polyurethane (HDP) to our tool box.

As you read the article describing our project at Cleveland Hopkins International Airport, you will better understand our company's capabilities. I'm very proud of our technical expertise, professionalism, and the people who make it happen.

Sincerely,

Ray Tartabini

Ray Tartabini, President GEOTECH SERVICES, INC.

DEEP



IN THE TRENCHES

Meet Landon Paul, Superintendent

ou might wonder what someone with a master's degree in business administration is doing on a road crew pumping high density polyurethane (HDP), day after day. The answer is 'having a blast'! Landon Paul, Field Superintendent for Geotech Services loves what he does and says the lessons he learned in the classroom about management definitely translate in the field. "I love what I do and I like that I'm good at it," says Paul. "Out here, it's my show. Steve (Tartabini) gives me the assignment and turns me loose to get the job done. He trusts me and our crews deliver. Simple as that."

Landon has been with Geotech Services since 2002 when he started part-time to earn money for college. "Pat Lenczewski was a good coach. He not only taught me how to drill and pump HDP, he really gave me great inside scoop on the equipment and the technology," says Paul. He literally grew into the job, moving into a full time position right after he graduated college. Landon's long tenure as well as his leadership skills made him a logical choice to ultimately lead a crew of his own. "Landon earns the respect of not only the guys he works with but our customers as well," said Geotech Services' Vice President, Steve Tartabini. "He's a really intelligent guy who can communicate with top management, comfortably. He is also super accountable. He takes charge and takes responsibility. That's what we need in field supervision."

Paul is also very confident in the ability of the HDP crew at Geotech when it comes to challenging assignments. "For example, we've done a few airport jobs since I've been here - the most recent is (that) Cleveland Hopkins International Airport runway project. It required incredible precision and we were under very careful scrutiny because of the nature of the work. But, let's face it, we're talking about a runway that simply cannot have any bumps. Landings and take offs have to be smooth with a perfect surface. Lives depend on it. And, actually, I really loved having that responsibility. We did a heck of a job. They (airport engineers) were very impressed with the quality and speed of our work. It made me proud," says Paul.

While he's quick to brag on the efficiency of his crew, Landon also admits that it's hard work. "It can be exhausting, especially if we have a few crews running and we're pumping HDP day and night somewhere. Not much rest in those situations, but I thrive on them," he laughs. He added that it helps to be in good shape when called upon to log long hours. "I love weightlifting and body-building. It's my passion. It's how I relax and escape. And the great thing is, being fit helps me be more productive for the company. It's a win-win," he added.

Paul understands winning, too. He was a lineman on the 2002 Solon High School (Ohio) football team that reached the state finals with an undefeated regular season record. "Those were great days," he smiled, "But so are these." Today he lives in Northfield, Ohio with his wife, Jamie and their children, Haydn (5) and Jace (1).





Gerald Voigt President & CEO American Concrete Paving Association

Times have been challenging for many businesses and industries the past few years bringing on many changes. Change is afoot in the paving markets too, as asphalt price inflation has been dramatic and concrete pavement is now "first cost" competitive. Although our market has held up fairly well as a result, the struggle for fair government paving policies is as challenging as ever.

ACPA celebrates its 50th anniversary in 2013. We were founded to represent contractors who were busily constructing

the Interstate highway system. I am proud to say that today we are still focusing on our founding principles:

- Maintain and improve high standards of workmanship.
- Maintain the highest ethical and technical standards in our working relationships with the industry and public sector; and

• Fully use research and practical experiences to help create a larger market.

These principles have served our members with value and today our membership is growing!

While we remember what "brought us to the dance," our philosophy is to embrace technology. (See Figure 1.) Our activities center on mainline, airfield and street paving, but we also promote emerging technologies such as concrete overlays and roller compacted concrete.

Many of our new innovations are powered by the web to meet a goal of delivering real world solutions in real time. You'll find training; web apps, I-phone tools and soon an online encyclopedia. We're working hard and having fun. For companies that have a passion for concrete paving, come join us! Visit us at www.acpa.org, where you can also follow us on Twitter and Facebook.

On the Road

Geotech Services will be attending and exhibiting at a variety of industry conferences and trade shows in 2013. Look for us and stop by to say hello!



104th Annual Meeting of the Mid America Association of State Transportation Officials (MAASTO) July 16-19, 2013 Milwaukee, WI



Ohio Transportation Engineering Conference October 22-23, 2013 Columbus, OH



One More Thing...

Hopefully you have been receiving Foundations in the mail over the past year. If you'd like copies of previous issues, please feel free to call or write us. Or, if you prefer – you can find PDF versions of our newsletter online on our website (www.geotechservicesinc.com).



