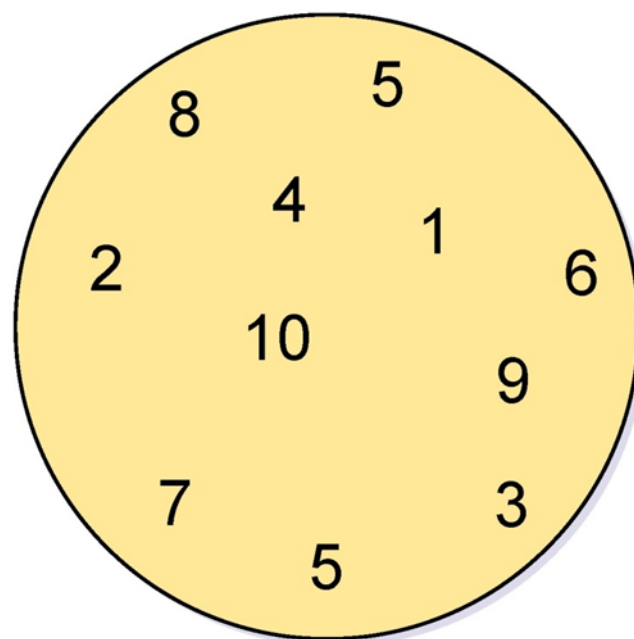


## SPRING PUZZLE

So for the spring puzzle, we decided to go with another frustratingly simple visual challenge: *With three straight lines divide the circle into several regions with equal sums of their numbers. Lines should begin and end on the circle's periphery. They may cross each other, but not the numbers. No empty regions are allowed.* We would suggest making copies on which to try out your various permutations. Once you're happy with your solution, scan it and email it to [marketing@geodcorp.com](mailto:marketing@geodcorp.com) by midnight April 15<sup>th</sup> 2017. A random winner will be drawn from all of the correct entries received and will win a \$200 Best Buy gift card. Of course, if you are precluded from accepting such a prize, we will be delighted to donate a check for \$200 to the charity of your choice. **Enjoy the puzzle and good luck!**



### In This Issue:

- ◆ Tax Map Maintenance
- ◆ NYS Thruway
- ◆ NYC Transit
- ◆ NJ DOT Aviation Multimodal
- ◆ NJDOT Rockfall Stabilization
- ◆ Route 40/322, Drainage Improvements
- ◆ NJDOT Intersection Safety Improvements
- ◆ Subsurface Utility Markout

### GEOD Provides:

- ◆ Photogrammetric Mapping
- ◆ Land & Engineering Surveying
- ◆ LIDAR Mapping
- ◆ Construction Surveys
- ◆ GIS Base Mapping
- ◆ Laser Scanning
- ◆ Subsurface Utility Markouts

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## Spring Flying Season is here...

We've been riding the roller coaster of weather this season. Even though Punxsutawney Phil predicted six more weeks of Winter, we've enjoyed some earlier than normal Spring-like weather and just when we thought we might get to see an early Spring, Old Man Winter dumped a monster storm on us! Even with all the ups and downs of the weather, GEOD Project Managers are gearing up for Spring Flying Season and making aerial photography the top item on their list once again. To get optimal photographic coverage, arrange to have your project flown just before the foliage begins to appear. Typically, the best time to schedule your flight is from mid-March to mid-April, when the trees have not yet begun to bloom and most of the snow has melted. **Call GEOD Project Managers now to assist in your project planning and aerial mapping needs, (973) 697-2122.**



## Spring Cleaning

Out with the old and in with the new. GEOD has recently made a large investment to upgrade and modernize our existing fleet of equipment with our purchase of ten Leica Viva TS15 robotic total stations. This renewed investment in robotics allows GEOD to continue to leverage one-person field crews on many projects, resulting in greater efficiency and cost savings for our clients.

The TS15 includes imaging functionality, can be used in conjunction with GEOD's existing Viva GPS receivers as an integrated system, and is one of the fastest and most accurate total stations available. Each total station purchased has a 1" horizontal accuracy, and GEOD utilizes a combination of Leica and Carlson 2 data collectors to record observations in the field. GEOD's capable field crews will utilize this new technology to continue to provide our clients with the dependable, accurate field observations that our clients have come to expect.





## FROM THE FIELD

GEOD has again been awarded contracts for 2017 Tax Map Maintenance with the following municipalities.

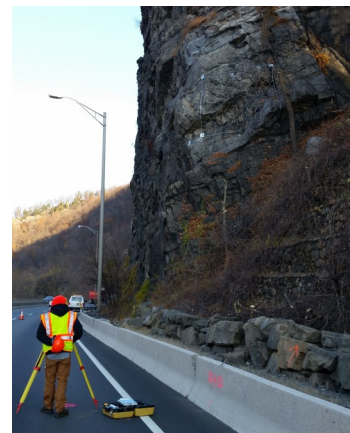
### Tax Map Maintenance Morris Twp., Florham Park and Millburn, NJ

Work conducted under these contracts consists of the review of all property transaction records for each transaction that occurred within each municipality. These records include filed maps, vesting deeds, easement records, subdivision and lot consolidation records for review by GEOD. These record documents are reviewed in detail and easements, subdivisions, condominiums and other changes would be updated in the digital tax map file on a continuous basis compliant with current state regulation and guidelines. New prints of the impacted maps are made and submitted to the assessor on a monthly basis, with a full set of tax maps submitted at the end of each calendar year.



### Aerial Mapping and Land Surveying Services - Route 23 MP 17.5 to MP 21.3, various areas NB & SB, West Milford Township, Passaic County, NJ (Rockfall Stabilization Concept Development)

This assignment was under GEOD's NJDOT 3-year On-Call Aerial Photogrammetric & Mapping Contract.



GEOD is providing surveying for this project to supplement the topographic mapping previously prepared by GEOD for this project. This project will be a combination of high definition laser scanning and aerial mapping with conventional survey methods for the purpose of rock cut remediation. Aerial Mapping will be utilized for mapping the non-vertical sections of the rock face for the entire length of the corridor. Selected rockfall areas within the overall mapping limits will be scanned and will supplement the aerial mapping. Final deliverables will be in MicroStation.dgn format with a corresponding InRoads DTM. All work is being performed in accordance with the NJDOT's current standards, policies, procedures, and directives covering the services to be performed. These include Standard Article 44, Article 51, the 2014 NJDOT Survey Manual, and current NJDOT CADD Manual.

### Route 40/322, Drainage Improvements, Atlantic County, NJ

GEOD is providing new topographic mapping, subsurface utility markout and test hole services to support a project for drainage improvements at Route 40 and 322 in Atlantic County, NJ. New aerial photography was obtained to complete the topographic basemapping and DTM. GEOD also conducted subsurface utility designating service is to compile a list of utilities within the project area, contact each for documentation and record information. GEOD provided subsurface utility locating and markout of utilities. Test pit surveys will also be completed to determine



the size, depth and bearing of certain utilities. All field survey information will be added to the basemapping. All mapping will be delivered in compliance with NJDOT standards and specifications to meet or exceed National Map Accuracy Standards.

### NYC Transit Project Assignments

GEOD continues to provide property boundary surveys, topographic surveys, easement and ROW surveys under our NYC Transit On-Call Survey Services Agreement. **Recent assignments include: metes and bounds survey for the Fan Plant on 44th Drive, Queens, NY; metes and bounds property survey Jamaica Avenue, Brooklyn, NY and metes and bounds property survey at Harrison Place and Maspeth Avenue, Brooklyn, NY,**



## FROM THE FIELD

### Subsurface Utility Markouts

GEOD continues to provide subsurface utility markout survey services. Recent projects include:



### Subsurface Utility Markout Services, North Bridge Street, Somerville, NJ

GEOD, under its contract with Somerset County to provide subsurface utility investigation services on an as-needed basis was asked to provide utility markout services at the Somerset County Courthouse. GEOD field crews utilized Ground Penetrating Radar and M-Scoping to scan the area delineated at the front of the County Courthouse. All detected utilities were marked out with colored paint and/or pin flags. GEOD updated basemap provided by County with located utilities. Mapping was provided in AutoCAD Civil 3D.

### NYS Thruway Authority NY Thruway MP 240.5-252.5 Verona, Oneida County, NY

This assignment under GEOD's "Term Agreement for Statewide Aerial Photography and Mapping" involves creating a DTM and mapping for multiple areas of the thruway which GEOD provided Aerial Photography, GPS control and ortho image files for previously. GEOD provided a DTM and 3D mapping in Microstation in accordance with all NYS Thruway Authority standards and specifications.



### NJDOT Aviation Multimodal/Obstruction Surveys Princeton & Linden Airports, Princeton & Linden, NJ



GEOD was recently contracted to perform an obstruction Survey of the various FAA defined approach surfaces and detailed runway profile surveys for both Princeton (39N) and Linden (KLDJ) Airports. For the project extents of 52 square miles at each airport, new digital color aerial imagery was obtained, controlled using a combination of Airborne GPS/IMU and GPS surveys of photo identifiable points. For the obstruction survey, a digital stereo model (DSM) was created and draped onto the various FAA surfaces. All work will be performed in accordance with FAA Circular 15-5300-18B.

### Land Surveying Services NJDOT State Route 30 & 130, Atlantic, Camden & Burlington Counties (NJDOT Intersection Safety Improvements)

GEOD recently contracted to provide surveying services that will include but not limited to topographic survey and mapping with right of way and alignment for four (4) separate intersections. GEOD crews will establish primary and secondary control with benchmarks all with field ties to prepare the survey control report. GEOD crews will conduct a field survey within the specific project limits at each of the four (4) locations utilizing a combination of conventional surveying and 3D laser scanning techniques. GEOD will provide the base mapping formatted in MicroStation V8i. All mapping will conform to the requirements of the NJDOT's Minimum Guidelines for Aerial Photogrammetric Mapping and NJDOT Standard Article 51.

