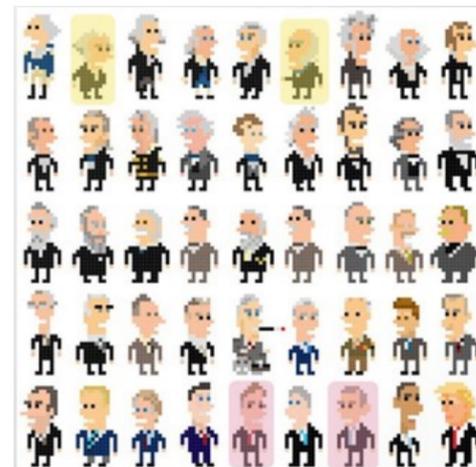


FALL PUZZLE

So for the Fall 2018 brain teaser, we decided to go with a topical picture puzzle. Below is an array of pixelated figures. You may well notice that two pairs have been highlighted – one pair in yellow, and the second pair in a pale red. Your task is to identify what the special relationship that exists within each highlighted pair. Email your answer to marketing@geodcorp.com by midnight Friday 30th November, 2018. A random winner will be drawn from all of the correct entries received and will win a \$200 Amazon gift card. As always 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! Of course, the decision of the judges is final.



For our **Spring 2018** newsletter, you were asked to provide a combination to the padlock based on information from five clues.
The answer was 718

Kuldip Singh of WSP was drawn at random from the correct responses received. Congratulations Kuldip!
 Thanks to everyone who participated!



INNOVATOR

FALL FLYING SEASON



Fall colors, cooler weather, football season, and best of all - FALL FLYING SEASON here at GEOD. This is the time when a Project Manager's attention turns to Aerial Photography once again.

The flying season begins around early November for the New England states and late November for the Mid-Atlantic states. For areas south of Albany, NY and in New Jersey, the time for aerials begins in late November. To get optimal photographic coverage, arrange to have your project flown after the leaves have fallen and before the snow descends upon us.

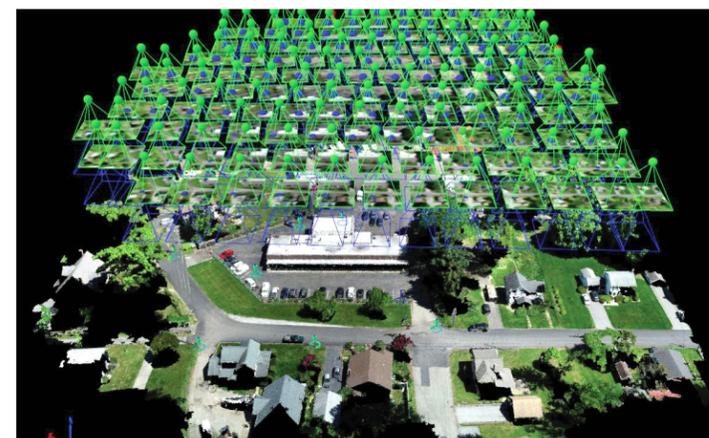
Call GEOD Project Managers now to assist in your project planning and aerial mapping needs, (973) 697-2122.

GEOD ANNOUNCES DRONE SURVEYING CAPABILITIES

GEOD HAS EXPANDED ITS SERVICES TO INCLUDE THE USE OF DRONE SURVEYING

GEOD now has FAA Part 107 certified Remote Pilots on staff and government registered sUAS's which allow us to legally perform commercial drone operations. Traditional aerial mapping, orthophotography, digital surface modeling, construction site monitoring, volumetric surveys, aerial 3D building modeling, infrastructure inspection, and natural disaster site documentation are just some of the services available using drone captured imagery and video.

Contact us to see how we can align our drone services to your current and future projects! (973) 697-2122 / info@geodcorp.com



GEOD Provides:

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

FROM THE FIELD

Recent Contract Awards



NYS Thruway Term Agreement for Statewide Aerial Photography and Photogrammetric Mapping Services for the entire Thruway from NYC (Yonkers/Bronx) to Ripley, NY

GEOD was awarded a 4 year contract with the NYS Thruway Authority to provide statewide aerial photography and photogrammetric mapping services covering the entire length of the Thruway from NYC (Yonkers/Bronx) to the Pennsylvania border at Ripley, NY to assist the Authority on an as-needed basis.



NYPA Land Surveying Services for the Subterranean Power Transmission Lines, Phase II, Tuckahoe, NY

GEOD was awarded a 5 year On Call Land Surveying contract to provide surveying on an as needed basis to the NY Power Authority. For this assignment GEOD was asked to provide survey and utility mark out services to locate an easement prior to a new gas main being installed. Horizontal and vertical control was established in the field by GPS. Field crews located the new trench for the gas main, cables, manholes, hand holes visible for cable, fiber lines and associated utilities in, near or crossing easement area and any pavement cuts crossing facilities and easement. All detected utilities were marked on the ground with color-coded marker paint and/or flags and added to the mapping. Mapping was provided in AutoCAD Civil 3D.



Topographic Mapping of the Ravenswood Generating Station, Long Island City, NY

GEOD was recently contracted by LS Power Development to provide detailed topographic mapping and rectified ortho photography of the Ravenswood Power Generating Plant located on the banks of the East River in Queens, New York. The services provided include setting aerial targets; acquiring Low Altitude Digital Aerial Imagery at a Ground Sampling Distance (GSD) of 2.0cm; performing the fully analytical aero triangulation on the imagery; and photogrammetrically compiling the topographic mapping at 1"=20' and creating a Digital Terrain Model (DTM) to generate 1ft contours of the site. Due to the array of tall buildings down the middle of the site, 2 flight lines were flown for the Aerial Imagery, 1 line on each side of the buildings. This eliminates any obscured areas due to building lean. The 100 and 500 year flood plains were also depicted based upon record documents. All mapping was delivered in AutoCAD Civil 3D format, with the ortho photography in GeoTIFF at a 3" pixel.

Aerial Mapping and Land Surveying Services to support Preliminary Engineering Phase for the NJDOT Resurfacing Project - Route 80 WB, MP 55.9 to MP 66.4 (McBride Avenue to Polifly Road), Bergen & Passaic Counties, NJ

GEOD has contracted to provide the survey and mapping support for the NJDOT Resurfacing Project at Route 80 in Passaic & Bergen Counties, MP55.9 to MP 66.4. Project area includes the mainline, ramps and cross roads plus a 500 foot buffer at the beginning and end of the project for the mainline and 100 foot beyond the limits of resurfacing areas of all ramps and cross roads. GEOD obtained new low altitude aerial photography of the project site, recovered the existing control, and set additional control. Topographic mapping of the site limits were provided utilizing aerial photogrammetry methods. Multiple crews working simultaneously performed a comprehensive field edit survey including inverts of all drainage systems and bridge/overpass clearances within the project limits. Additional field work included obtaining roadway cross sections, establishing the ROW and property boundaries in accordance with the NJ Map Filing Law for ROW Mapping and property acquisitions. Field crews also reestablished the baseline and roadway geometry, including updating the DTM for the project area. All survey and mapping was in accordance with NJDOT standards, policies and procedures including Article 44 and 51, 2014 NJDOT Survey Manual and NJDOT CADD Manual.



FROM THE FIELD



Aerial Mapping of Garden State Parkway & NJ Turnpike and MPT Plan Support for the Roadway Resurfacing Program

GEOD was recently contracted by the NJ Turnpike Authority, through their Program Manager to perform photogrammetric mapping of the entire 172 miles of the Garden State Parkway and the 134 miles of the New Jersey Turnpike. The purpose of the mapping is to enable the NJTA to plan and prioritize future paving projects, and for asset management within their right-of-way. The project involves acquiring new digital aerial imagery at 12.5 cm GSD (1,236 exposures over 33 flight lines), doing the GNSS photo control survey of approximately 400 photo identifiable points, performing the aero triangulation on the imagery, and then photogrammetrically compiling all of the basic planimetric features for both roadway networks. The mapping is being delivered at 1"=50' without any DTM or contours in MicroStation V8i formatted to NJTA specifications.



Laurel Hill Park Improvements – Phase IV, Secaucus, NJ

GEOD was contracted to provide a boundary survey and topographic mapping to support the preliminary and final design for park improvements. GEOD obtained new aerial photography and utilizing the control network previously established, GEOD field surveyors performed supplemental observations as required, utilizing a combination of RTK GPS, conventional total station, and high definition laser scanning. This effort included identification of existing features in areas not visible in the aerial photography. GEOD field crews obtained elevations at key locations (i.e. catch basin grates, manhole rims, etc.) and located surface evidence of underground utilities (i.e. manholes, valves, etc.) within the project limits. GEOD also located 100 wetland flags. The survey and work performed was in accordance with NJDEP Green Acres Program "Scope of Survey Services and Standard Detail Requirements", dated July 1, 2017 as well as 2016 ALTA/NSPS Land Title Survey standards. Mapping was provided in AutoCAD Civil 3D.

Steam line As-built Mapping to Support Preliminary Design for Infrastructure Updating, Manhattan NY



GEOD was requested to provide accurate test pit locations and plan and profiles test pit as-built plans at multiple locations on Manhattan's East side. This is in support of design efforts for infrastructure updating. Field crews recovered and set control as necessary. Locations were obtained utilizing 3D laser scanning and conventional robotic total stations. Field crews took detailed measurements to prepare test pit drawings reflecting precise depth, location, cover material, size type of piping and designation. Mapping was delivered in AutoCAD.



NYC DDC / Preliminary and Final Design Services for Complex Pedestrian Ramps, Brooklyn and Queens, NY

GEOD was contracted to provide topographic surveying and mapping to support design of complex pedestrian ramps adjacent to Transit Authority facilities within the boroughs of Brooklyn and Queens to comply with applicable Federal ADA requirements. GEOD is using a combination of conventional surveying and 3D laser scanning to collect the data required to create the basemapping. Horizontal and vertical control was established by GPS. The limits of survey for the quadrant are from adjacent building line or back of sidewalk to the centerline of the roadway, and 100 feet from the corner of the building lines or back of sidewalk along each side of corner curb. Storm drain and sanitary sewer rim elevations and inverts are being collected in the sidewalk within the project limits, or within 5 feet of the curb line within the project limits. Property and ROW lines are being shown within the project limits. The mapping is being prepared in accordance with NYCDDC General Requirements Section 4.2 at 1"= 10' and delivered in digital format compatible with AutoCAD Civil 3D software to meet or exceed the National Map Accuracy Standards (NMAS). Tie sketches for control points prepared in 2015 AutoCAD format.

