



INNOVATOR

Certified SBE & ESBE

Spring 2021



GEOD Provides:

- ◆ Aerial Photography / Photogrammetric & LiDAR Mapping
- ◆ Land Surveying
- ◆ Laser Scanning
- ◆ Subsurface Utility Mark-outs
- ◆ Drone Surveying

Now is the time for Spring Flying

Spring is here! The snow has finally all melted. It's time to do Spring cleanups and get the gardens ready for planting.

GEOD's Project Managers are ready for Spring Flying Season and making aerial photography the top item on their list. To get optimal photographic coverage, arrange to have your project flown just before the foliage begins to appear. Now is the time to schedule your flight!

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



FROM THE FIELD

NJDOT / Intersection Improvements, Route 130, Georges Road/Wheeling Road (CR 679), South Brunswick, Middlesex County, NJ (TP-323)

GEOD was contracted to provide land surveying, aerial mapping and right-of-way services to support the preliminary engineering and final design phase of the intersection improvements at the Route 130 and Georges Road/Wheeling Road intersection in South Brunswick, Middlesex County, NJ. Services include: obtaining new low level digital aerial imagery, establishing primary and secondary survey control and verify the existing ROW and roadway alignments. Topographic surveys to supplement the aerial mapping will be provided including establishing the right of way. Subsurface utility investigation and markout will be performed, located and added to the mapping. Topographic mapping will be compiled directly at 1"=30'. The right of way acquisition maps will be prepared, including ETM, GPPM & IPPM with parcel descriptions, in accordance with the NJ Map Filing Law for ROW Mapping. All survey and mapping will be completed in accordance with NJDOT Survey and Procedures Manuals and Standard Articles 44 and 51 to meet or exceed the National Map Accuracy Standards.



New York City Transit On-Call Surveyor 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:

Jamaica Yard, Queens, NY

GEOD will provide a topographic survey of a portion of the Jamaica Yard located in Queens NY. The survey will include utilizing the existing survey control GEOD established for the boundary phase of the project. The topographic survey will include observations of all of the railroad rails, at a maximum of 10' intervals, in addition to all other rail road track components (points & heels of switches, frogs, insulated joints, signal equipment, track drains, etc.) In addition, structures adjacent to the tracks (inlets, fences, columns, beams, etc.) will be observed to establish clearances. Mapping will be provided in Microstation V8 in accordance with NYCTA standards.

Fresh Pond Yard, Queens, NY

GEOD provided a boundary survey of the Fresh Pond Yard to support yard fencing upgrades. GEOD's field crews established primary GNSS and secondary survey control in accordance with NYCTA survey control standards. Field crews obtained field locations to establish property lines and located all planimetric features (bldgs., fences, walks, utilities, tracks, signals, etc.) within 5' of the property, both on and off site as well as trees within 5' of the outbound portion of properties. Mapping will be provided in MicroStation V8 in accordance with NYCTA standards.

Local Preliminary Engineering Study, Garden State Parkway Interchange 83, Toms River, NJ

GEOD was contracted to provide base mapping to support the preliminary engineering phase of the Garden State Parkway Interchange 83 Improvements project including the completion of the existing partial interchange which includes a southbound exit ramp from the Garden State Parkway to reduce congestion at Interchange 83 and the surrounding area.

GEOD will utilize low level digital aerial imagery to provide high accuracy mapping and perform a field edit survey of the mapping at the proposed improvement areas. GEOD will establish the roadway alignments and right of way for the proposed improvement areas and a survey of the wetland delineation flags will also be performed. Proposed borings (6 total) for the relocation of the noise wall and 4 sign structures will be located and an "As Built" survey of the borings will be provided. GEOD will also perform sub-surface utility investigations at areas which may have utility impacts. Topographic mapping will be provided along with the Digital Terrain Model (DTM). All data will be formatted in MicroStation V8 in accordance with Ocean County standards and will conform to the requirements of the NJDOT's Photogrammetric Guidelines, and Article 51.



FROM THE FIELD

Preliminary and Final Design Services for Complex Pedestrian Ramps (33 sites) Boroughs of Brooklyn and Manhattan, NY

GEOD was contracted to provide topographic surveying and mapping to support design of complex pedestrian ramps at 33 sites throughout the boroughs of Brooklyn and Manhattan to comply with applicable Federal ADA requirements. GEOD used a combination of conventional surveying and 3D laser scanning to collect the data required to create the basemapping. GEOD field crews established horizontal and vertical control by GPS in the appropriate New York State Plane Coordinate system zone, NAD83/NAVD88 with a local borough vertical datum conversion shown on the plans. The limits of survey for the quadrant were 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 were collected and property and ROW of lines were shown within the project limits. The mapping was 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 AutoCAD format.



New York Power Authority On-Call Surveying Project Assignments

Charles Poletti Power Plant

Horizontal and vertical control was established and tied to the Plant Grid and NAVD1988. GEOD technicians utilized a combination of ground penetrating radar and M-scoping as well as as-built utility plans to identify, locate and demarcate found utilities. Using control points previously established by GEOD, field surveyors performed a topographic survey of each of the 2 sites. Field crews located all above ground, visible improvements within this work area, and observed topographic features such as breaks in grade and top and bottom of slopes, crown of driveways and roads, etc. and observed random spot elevations in each area. Field crews also located surface evidence of underground utilities (i.e. manholes, valves, etc.) & any painted marks placed by GEOD during the mark out investigation. Mapping was delivered in AutoCAD.



Brentwood Power Plant

GEOD was contracted to provide a property line stakeout survey at the Brentwood Facility in Islip, NY. GEOD will attempt to recover survey control or establish new control at the site. Primary control will be established utilizing GNSS RTN. Secondary control will be established "As Needed" to perform the survey. New control will be tied to NAD 83(2011) NYLI 3104 horizontal datum. GEOD field crews will set two (southeast & southwest) property corners. In addition, GEOD will set a lath with ribbon (at +/-50' interval) along the back line of the parcel along the two side lines of the property beginning at the back corners and extending approximately 100'. Mapping will be provided in AutoCAD.

Photogrammetric Mapping and Surveying Services for Queens County Community College, Queens, NY

GEOD was contracted to provide photogrammetric mapping and surveying services of the Queens College Campus amounting to approximately 95 acres to address numerous ADA compliance issues. GEOD obtained new aerial photography. Horizontal and vertical control was established in the field by GPS. Horizontal control was tied to the New York Long Island State Plane Coordinate System NAD83. The vertical control was tied to the North American Vertical Datum NAVD 1988. Photography was processed through Fully Analytical Aero Triangulation procedures. Mapping was compiled directly at 1"=20'. All visible features were shown. Break lines and spot elevations were digitized and combined with the ground level plan to create a DTM in AutoCAD Civil 3D from which 1/2' contours were generated. Utilizing a combination of 3D terrestrial scanning and conventional survey methods, field crews performed a field edit survey of the mapping at the exterior areas in violation. Topographic features were observed (i.e. top/bottom curbs, top/bottom curb cuts, ramps, walkways, painted parking/cross walk lines, etc.) in specific areas. All survey information was incorporated into the aerial planimetric mapping and Digital Terrain Model (DTM). All data was formatted in AutoCAD Civil 3D.





GEOD CORPORATION

AERIAL MAPPING · LAND SURVEYING · UTILITY MARKOUTS

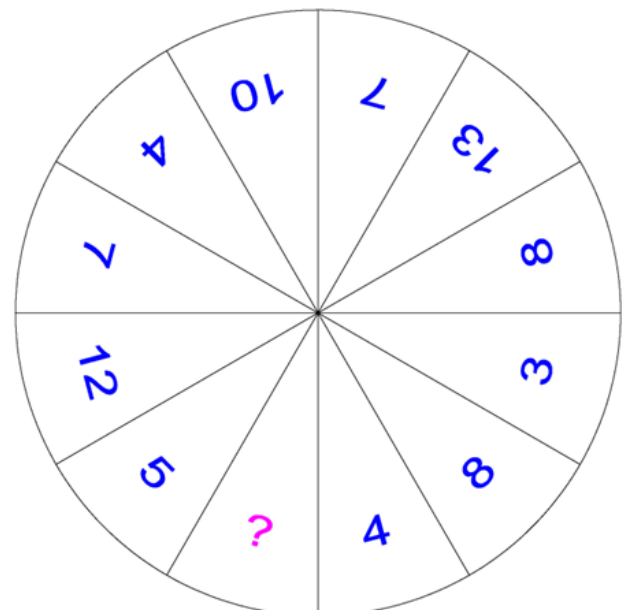
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SPRING PUZZLE

For the spring 2021 puzzle, we have gone with yet another nice image based puzzle. To enter simply deduce the numerical value of the magenta question mark. A careful perusal of the numbers by you should reveal a pattern that will then enable a quick solve. Email your answer to marketing@geodcorp.com by midnight Friday 30th April, 2021. 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 the Spring 2020 puzzle you were asked to deduce how far back Clock #5 has gone, and **what time it should be displaying**.

Solution:

Take the difference in time between each clock and the next:

Clock 1 to Clock 2 = -70 mins

Clock 2 to Clock 2 = -80 mins

Clock 3 to Clock 4 = -90 mins

Therefore Clock 4 to Clock 5 = -100 mins so 7:15 minus 100 minutes = 5:35

Bruce Easterly, from Taylor, Wiseman Taylor was drawn at random from the responses received and received a \$200 Amazon Gift Card.

Congratulations Bruce and thanks to everyone who participated!