



MATRIX**NEW**WORLD

Engineering Progress

LAND SURVEYING, MAPPING & HD LASER SCANNING

Matrix means precision.

Matrix New World Engineering (Matrix) continues to expand on its strong land surveying reputation, continually raising the bar for existing conditions data acquisition. Using a range of mapping techniques and state-of-the-art equipment to produce survey-grade deliverables, Matrix delivers a highly accurate and efficient surveying process that helps keep projects on schedule and within budget.

Experienced in the preparation of surveys for transportation agencies, national and international corporations, developers, law firms, environmental firms, and A/E firms, Matrix has prepared surveys for both public and private sector clients, including roadway and railway transportation projects, land development, right of way location and acquisition, construction, and natural resource boundaries, including riparian, tidelands and wetlands locations. And, Matrix has special expertise in deformation monitoring surveys and in high accuracy geodetic control networks.

Projects

- NYC Transit Sutphin-Archer Station – NY, NY
- Homecrest Playground – NY, NY
- Hugh J. Grant Circle & Virginia Park – NY, NY
- Commodore Barry Park – Brooklyn, NY
- Red Hook Recreation Area – Brooklyn, NY
- Bronx River Long Term Control Plan – NY, NY
- Bypass Tunnel Construction – CDA – BT2 Tunnel, NYC, NY
- Lower Manhattan Coastal Resiliency, NYC
- Ferry Point Park (Bathymetric Survey), NYC
- West Side Yard, NYC
- Penn Station – LIRR/AMTRAK, NYC
- 92nd Street On-Ramp, NYC
- Statue of Liberty – Life & Safety Upgrades, NY



Services provided

- Boundary, Topographic & Utility Surveys
- ALTA/ACSM Land Title Surveys
- Right-of-Way (ROW) & Route Surveys
- Hydrographic/Bathymetric Surveys
- Construction Stakeout/Layout
- Engineering & Architectural Surveys
- GPS & Geodetic Surveys
- Environmental Surveys
- High Definition Laser Scanning (HDS)
- FEMA Flood Elevation Surveys & Certificates
- Green Acres Program & Farmland Preservation Surveys
- As-built Record Surveys
- Wetlands Location & Stream Surveys
- Roadway Cross Sections
- Tidelands & Riparian Surveys
- Hazardous Waste Site Surveys
- Aerial Photo Control
- Legal Descriptions
- Expert Testimony

Contact

Matrix New World Engineering

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MNWE.com

Certified WBE



Surveying & Topographic Mapping

Accurate survey and topographic mapping is the foundation for all successful design and construction projects. At Matrix, we respond to any challenge in real time, using the latest technologies, including 1-second robotic total stations, real time kinematic GPS, and high definition laser scanners. And, our extensive quality assurance and internal control measures help to ensure that our clients receive clear and precise data and mapping.

High Definition Laser Scanning

Compared to traditional methods, high definition laser scanning (HDS) provides a more complete data capture, reducing or eliminating return trips to the field for additional information and providing a safer way of collecting data. Using HDS, Matrix collects data by means of “reflector-less” technology, which limits the need for field personnel to enter dangerous or hazardous environments.

Used for numerous applications, including rail corridor, existing conditions roadway, building façade and elevation, plant, and pipeline surveys, Matrix integrates HDS technology with other surveying and measuring tools to provide clients with the most comprehensive and complete data possible. Experienced in using HDS for civil/survey design projects, Matrix uses point cloud data and Revit software to create 3D models for Building Information Models (BIM), 3D renderings, topographic surveys, and traditional 2D line drawings. Using HDS, Matrix has prepared models of physical plants, building exteriors, and process rooms for asset inventory and retrofitting.

