#### Who We are

Krypton Engineering is a Licensed Professional Engineering firm specializing in civil engineering and building monitoring. We're a small but efficient & thorough firm with offices in Midtown Manhattan and North Florida.

#### What We Do

#### Civil Engineering

- Site Layout / Site Design
- Topography & Site Grading
- Subdivisions
- Hydrologic Engineering
- Drainage & Storm Water Management Systems
- NYC DEP Site Connection & Detention
- DOT Builders Pavement Plans
- Drainage Mapping & Dye Testing

#### **Building Monitoring**

- Vibration Monitoring During Construction
- Optical / Displacement Monitoring
- Telltale Crack Gauge Installation and Measurement
- Remote 24/7 Monitoring
- Pre-Construction Condition Assessments

#### How We Do It

Krypton Engineering offers competetive rates balanced with fast, thorough, reliable, costeffective, responsive, and professional service!

We maintain the latest versions of all CAD software for efficient coordination with project



### KE KRYPTON ENGINEERING



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# Civil Engineering and Building Monitoring

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### NYC DEP - Building Sewer, Site Connection, and SD1&2 Certifications

Krypton Engineering specializes in fast, thorough design of Site Connections (formerly SD1&2) and their certifications through the NYC DEP.

Stormwater management in NYC is of particular importance due to the City's combined sewer system and the population density. In order to mitigate Combined Sewer Overflows, the DEP

has instituted strict stormwater detention criteria for new construction.



Krypton Engineering offers design of stormwater management systems that not only achieve the requirements of the DEP, but do so in a cost-effective way with minimal impact to the design intent of the development. Underground and roof detention systems are typically selected over basement and cellar storage tanks. Infiltration systems are carefully designed in order to minimize effects of potential Foundation water infiltration.

KE will provide a fast design for your on-site retention, detention, or restricted-release-rate design needs.



## Monitoring During Building Construction



Krypton Engineering provides settlement/ displacement and vibration monitoring services for new construction and major renovations. Work is performed as per the City of New York Support of Excavation (SOE) unit, Landmarks Preservation Commission (LPC), Technical Policy and Procedure Notice TPPN 10/88, and as required by the NYC Department of Buildings. Monitoring is provided to ensure that

no negative effects are caused by the construction process. Vibration and Displacement Monitoring are particularly critical when performing underpinning activities, site excavation, or other soil work as part of the foundation construction and design. KE provides a comprehensive monitoring protocol plan which includes the identification of areas to be instrumented, establishment of a monitoring schedule, criteria, and frequency. We provide an overall pre-construction observed condition assessment that includes hi-resolution photo documentation of potential separation/cracking locations and all existing deficiencies. Telltale crack gauges are typically installed during this step. Remote Displacement Gauges are often incorporated to provide real-time monitoring of any particularly critical cracking/separation that is identified.

Data analysis and evaluation are performed immediately following data collection in order to calculate displacements. Vibration peak particle velocity is

constantly monitored to immediately determine extents of movement and displacement relative to the predetermined criteria. The project team is notified immediately of any exceedance outside of the predetermined limits. Ultimately, KE provides the



client and the project team with the information necessary to conduct the project work in a safe, efficient, and cost-effective manner with minimized impacts to neighboring properties.

# Site/Civil, Sewer, and Drainage Design

Krypton Engineering provides comprehensive site civil development, grading, erosion control, and design of sanitary and storm water management systems.

The designs adhere to all municipal and State regulations, such as The New York State DEP, Soil and Water Conservation, and regional standards



for the design of Stormwater Management Practices. All designs are prepared with attention toward best management practices and industry standards.

KE provides designs specifically for Stormwater Pollution Prevention Plans (SWPPP) for New York State.

Sedimentation and erosion control are a specific design focus. We are familiar with the hydrology, hydraulics, and runoff and watershed computations needed for more comprehensive designs.

