

# MCA

MARTINEZ COUCH & ASSOCIATES, LLC

CONSULTING ENGINEERS  
& SURVEYORS



Site/Civil Engineering  
Surveying and Mapping  
Water and Wastewater Engineering  
GIS & Asset Management Services  
Regulatory Compliance and Permitting  
Construction Phase Services  
Subsurface Utility Engineering (SUE)



Martinez Couch & Associates, LLC (MCA) is a multi-disciplinary firm that provides civil engineering, land and construction surveying, water and wastewater engineering, GIS and asset management, and construction phase services to public and private clients.

## PERSONNEL

- Designers
- Field Technicians
- Project Managers
- CADD/GIS Technicians
- Professional Engineers
- Construction Inspectors
- Professional Land Surveyors
- NASSCO PACP/MACP/LACP Certified Staff
- Amtrak Railroad Safety Trained & Certified Field Staff
- OSHA 40-Hour CFR 1910 (e) Certified & Trained Field Staff

We operate in numerous markets including, but not limited to, municipal, state, federal, public utility, transportation, education, commercial and residential.

## CERTIFICATIONS

- Disadvantaged Business Enterprise (DBE) Connecticut, Massachusetts, and Rhode Island
- Minority Business Enterprise (MBE) Connecticut, Massachusetts, and Rhode Island
- Small Disadvantaged Business Enterprise (SBA)
- Small, Local Business Enterprise (SLBE) -Metropolitan District Commission (MDC) Hartford, CT





## SERVICES

### SITE CIVIL ENGINEERING

Site Planning, Layout & Design  
Land Use Planning & Permitting  
Drainage and Sanitary Sewerage Design  
Design of Parking Facilities, Roadways and Driveways  
Stormwater Management  
Potable Water System Design  
Sediment & Erosion Control Plans  
ADA Compliance & Design

### WATER AND WASTEWATER ENGINEERING

Sewer Design & Rehabilitation  
Water Main and Connection Design  
Tools & Data Management with GIS  
Asset Management  
Hydraulic Modeling  
Program Management  
SSO and CSO Programs  
Infiltration/Inflow Studies (I/I)  
Sewer System Evaluation Surveys (SSES)

**GIS AND ASSET MANAGEMENT SERVICES**  
CCTV Review and Evaluation  
Collection of Location and Attribute Data  
Verification of Mapping  
Data Map Development

### SURVEYING AND MAPPING

Boundary Surveys  
Topographic Surveys  
GPS Surveys  
Utility Mapping  
As-Built Surveys  
3D Laser Scanning  
Construction Layout  
ELUR Surveys

### SUBSURFACE UTILITY ENGINEERING (SUE)

GPS Data Collection  
Ground Penetrating Radar (GPR)  
Electromagnetic Induction Services  
AutoCAD and MicroStation Mapping  
Vacuum Excavation for Utility Locating  
GIS-based Mapping with Attribute Data Collection

### CONSTRUCTION PHASE SERVICES

Quality Monitoring  
Field/Site Engineering  
Owner's Representative Oversight of Fieldwork  
Contract Closeout  
Change Order Cost Negotiations  
Review and Analysis of Contractor Bids  
Record Drawings (As-Built) Preparation  
Management of Contractor Progress Payments  
Review of Contractor Material Submittal



## SITE/CIVIL ENGINEERING

MCA engineers have experience in the planning, design and permitting process of land development and civil infrastructure projects. Our services include site analysis, conceptual and preliminary design, final design, regulatory approval, cost estimating, and consultation for renovation or new construction. We work with our clients throughout the design process to provide a comprehensive set of construction documents.



## SPECIALIZATIONS

- Site Planning, Layout & Design
- Site Grading and Drainage
- Roadway Design
- Parking Lot and Driveway Design
- Land Use Planning & Permitting
- Storm Drain and Sanitary Sewerage Design
- Stormwater Management
- Potable Water System Design
- Sediment & Erosion Control Plans
- ADA Compliance & Design
- Construction Documents



# WATER AND WASTEWATER ENGINEERING



MCA offers experience with a variety of water and wastewater projects from the study phase through the design and construction phases. Our seasoned staff has a comprehensive background in the design and evaluation of wastewater collection systems. We are versed in the latest product technologies, including trenchless rehabilitation, which allows us to offer cost effective and beneficial asset management solutions.



## SPECIALIZATIONS

- Sewer Design & Rehabilitation
- Water Main and Connection Design
- Tools & Data Management with GIS
- Asset Management
- Hydraulic Modeling
- Program Management
- SSO and CSO Programs
- Infiltration/Inflow Studies (I/I)
- Sewer System Evaluation Surveys (SSES)
- CCTV Review and Evaluation



## SURVEY AND MAPPING

MCA is a full-service land surveying company that partners with engineering firms, architects, developers, municipal, state and federal clients to provide services for a multitude of infrastructure and land development projects. We specialize in transportation, water/wastewater, telecommunication, land acquisition, residential and commercial development projects that range in size and complexity. When alternative survey methods are required, MCA assembles and leads teams of experienced survey consultants, contractors, and advisors to meet and satisfy project demands. These services include, but are not limited to, photogrammetric, bathymetric and laser scanning surveying services.

Our survey group includes field crews that are led by experienced Party Chiefs, a dedicated CAD team and Project Managers that all operate under the direction of Professionally Registered, Licensed Land Surveyors. Our depth of resources and level of experience allows us to better meet project schedule demands, while producing reliable results for our clients.



## SPECIALIZATIONS

- Boundary Surveys
- Topographic Surveys
- GPS Surveys
- Utility Mapping
- As-Built Surveys
- 3D Laser Scanning
- Construction Layout
- ALTA/ACSM Land Title Surveys
- Volumetric Calculations
- Control/Location Surveys
- Roadway & Highway Surveys
- Environmental/Hazmat ELUR Surveys
- GIS Development & Field Data Collection



## I/I AND SSES SERVICES



MCA provides Inflow/Infiltration (I/I) Study and Sewer System Evaluation Surveys (SSES) services to assist in the evaluation of sewer systems and to help clients create long-term plans for sewer infrastructure rehabilitation. Services include manhole inspections, sanitary smoke testing, dye testing, coordination of flow metering and monitoring, basement inspections and utility mapping.

We continue to improve our sewer evaluation services by incorporating tablets, pole cameras, UAVs, and GPS equipment into our workflows for activities such as manhole inspection and sewer smoke testing. These tools allow us to maximize the types and quality of data that we can collect with a minimum amount of time in the field.



### SPECIALIZATIONS

- Data Collection
- Manhole Inspections
- Sanitary Sewer Smoke Testing
- Dye Testing
- Basement Inspections
- Tools and Data Management with GIS
- Utility Mapping



# GIS AND ASSET MANAGEMENT SERVICES

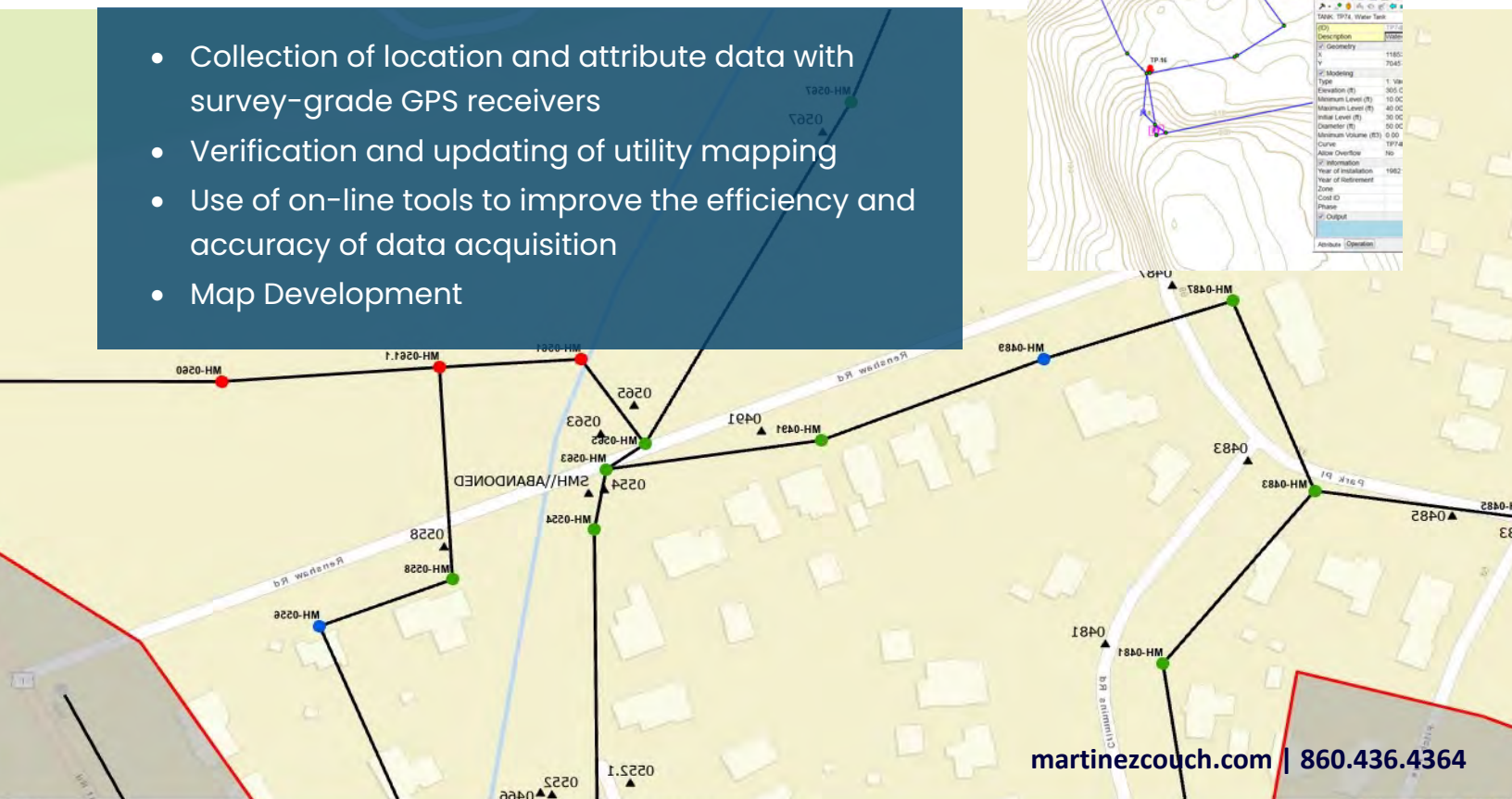
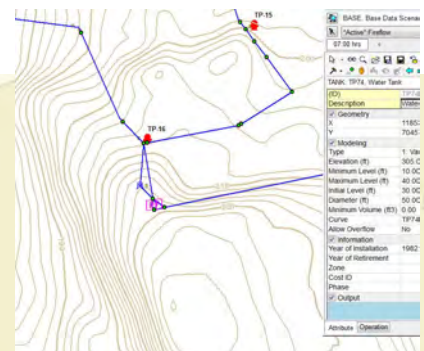
MCA works with clients to improve access to infrastructure asset information. This includes developing and updating location and attribute data for utility assets at facilities and within collection/distribution systems. The services we provide are an important part of compliance with programs such as CMOM, MS4, GASB34, and others.

Our field crews and technicians use a variety of tools and technologies including tablets, data collectors and GPS receivers to improve data collection methods. We also leverage the capabilities of web-based mapping tools that allow us to perform real-time quality control of the data acquisition process while our technicians are on site.



## SPECIALIZATIONS

- Collection of location and attribute data with survey-grade GPS receivers
- Verification and updating of utility mapping
- Use of on-line tools to improve the efficiency and accuracy of data acquisition
- Map Development



# REGULATORY COMPLIANCE AND PERMITTING



MCA provides local, state, and federal permitting for projects. As permitting specialists, we work to maintain an understanding of the changing regulatory environment. Our project experience includes, but is not limited to, bridges, roadway realignments, storm water detention system and treatment systems, alternative construction practices to minimize wetland encroachment, and water and wastewater conservation techniques.

Our engineers and permitting specialists are experienced with public outreach and presenting solutions in front of municipal, regulatory and community groups. Our experience gives us the knowledge to suggest modifications to designs to mitigate environmental impacts and reduce the intensity of the permitting effort, including the consequential time of permitting review.

## SPECIALIZATIONS

- Army Corp of Engineers Permitting (ACOE)
- State of Connecticut DEEP Permitting
- DOT Office of Environmental Planning Permit Need Determination Forms
- Flood Management Certifications (FMC)
- Office of the State Traffic Administration (OSTA) Permitting
- Connecticut Siting Council
- Department of Public Health Permitting
- Endangered Species Assessment
- Coast Guard Letter of Coordination
- Preparing Certificates of Permission
- Local Wetland & Conservation Commission Permitting
- Office of Long Island Sound Special Permits (OLISP)

# CONSTRUCTION PHASE SERVICES

MCA performs Construction Management and Inspection for projects designed in-house and as third-party consultants. Our team of Project Administrators, Engineers, and Inspectors, with diverse backgrounds and experience, work together with owners, designers, and contractors to provide a successful project with minimal delays or issues.



## SPECIALIZATIONS

- Quality Monitoring
- Field/Site Engineering
- Owner's Representative
- Oversight of Fieldwork
- Contract Closeout
- Change Order Cost Negotiations
- Review and Analysis of Contractor Bids
- Record Drawings (As-Built) Preparation
- Management of Contractor Progress Payments
- Review of Contractor Material Submittal



# SUBSURFACE UTILITY ENGINEERING (SUE)



MCA provides subsurface utility engineering services for asset management and design purposes, including utility location and mapping for Quality Levels A through D. MCA's trained staff utilize geophysical methods including electromagnetic transmitters and receivers, magnetic locators, duct rodders, ground penetrating radar (GPR) to obtain Quality Level B information. MCA also can mobilize vacuum excavation equipment to obtain Quality Level A information. MCA then utilizes survey-grade GPS equipment to collect location data and incorporate it into AutoCAD and GIS basemapping.

MCA has been providing these services to public agencies and other design firms for projects at a variety of locations including urban streets, public parks, and large military installations. Our clients are finding that accurate mapping of their existing subsurface infrastructure is an important tool for planning and design of future projects and the reduction of construction delays/claims caused by unforeseen conditions.

## SPECIALIZATIONS

- GPS Data Collection
- Ground Penetrating Radar (GPR)
- Electromagnetic Induction Services
- AutoCAD or MicroStation Mapping
- Vacuum Excavation for Utility Locating
- GIS-based Mapping with Attribute Data Collection



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