

# Products and Services Guide

New Cadet Barracks, West Point, NY



Joint Base Lakehurst-Dix, AFB, NJ



Times Square Recruiting Station, NY



FUSRAP, Maywood, NJ



USMA Prep School, West Point, NY

Point of Contact: New York Deputy District Engineer  
Project Manager  
(917) 790 - 8209



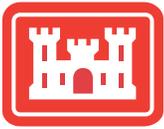
New York District  
US Army Corps of Engineers  
BUILDING STRONG®



**New York District  
US Army Corps of Engineers**

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**New York District  
US Army Corps of Engineers**

## **Introduction to the United States Army Corps of Engineers**

### **What is it?**

The United States Army Corps of Engineers (USACE) is a United States federal agency under the Department of Defense and a major Army command made up of civilian and military personnel, making it one of the world's largest public engineering, design and construction management agencies. Although generally associated with dams, canals and flooding issues in the United States, USACE is involved in a wide range of public works and military projects throughout the world. The USACE mission is to deliver vital public and military engineering services, partnering in peace and war to strengthen our Nation's security, energize the economy and reduce risks from disasters. USACE is organized geographically into multiple divisions reporting directly to Headquarters. Within each division, there are several districts. Districts are defined by watershed boundaries for civil works projects and by political boundaries for military projects. New York District is one such district within the North Atlantic Division (NAD). New York District's Products and Services Guide is a means to communicate to our customers the services that are available to them. Each page of the Products and Services Guide details the products and services that we offer for Military, Civil Works and Environmental, Interagency and International Services. If you need USACE expertise or assistance that is not available at New York District, we offer our customers seamless access to the services of the entire USACE. We will work with our Regional Business Center at NAD to find the optimum way to provide the Corps' support and arrange for assistance.

### **How does it work?**

Your request for service or help in identifying the USACE capabilities begins with contacting the office of the New York Deputy District Engineer Project Management at (917) 790 - 8209. A Project Manager, who will be the primary point of contact for the customer, will be assigned to survey the USACE districts, laboratories, and centers of expertise to develop a proposal tailored to meet your needs. We develop the scope of work, arrange Tour of Duty (TDY) support, and negotiate fees.

### **What assistance is available?**

Specialties include:

- Water resources capabilities
- Engineering Research and Development Center
- Huntsville Engineering and Support Training Center
- Army Range and Training Land Program (RTLTP)
- Intrusion detection systems
- Ordnance and Explosives Center
- Protective Design Center
- Transportation Systems Center (TSMCX)
- Utility Monitoring & Control System (UMCS)
- Aircraft hangar fire protection
- Mechanical energy systems





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## **Introduction to the United States Army Corps of Engineers (cont.)**

- Seismic mitigation and hazards reduction
- Preparation of Environmental Assessments
- Environmental Impact Statements
- Historic Structures Investigations
- Archaeological Investigations
- Underwater Archaeology
- Tribal Nation consultation
- Wetland Delineations
- Habitat Assessment
- Program and Project Management
- Coastal Management
- Planning

### **What does it cost?**

The USACE may provide reimbursable support to Federal Agencies, Indian Tribes, and State and Local Governments through the Support For Others (SFO) Program under various authorities. The most common authorities in the SFO program are the Economy in Government Act (Economy Act, or 31 USC 1535), the Intergovernmental Cooperation Act (Thomas Amendment, or 31 USC 6505) and the Chief's Economy Act (10 USC 3036(d)(2)). The Intergovernmental cooperation act authorizes federal agencies to provide support to State or Local governments. Services provided by the remaining authorities may include contracted or in-house services for all phases of project execution including study, design and construction. Projects may include any phase of regulatory compliance, restoration, reclamation or remediation. An Interagency Agreement (IAG) should be in effect prior to arranging SFO services.



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## **New York District Vision and Mission**

### **Mission**

Execute the District's diverse programs to deliver quality products on time and within budget.

### **Mission Essential Task List**

- Plan, design, construct, operate and maintain Civil Works projects
- Plan, design and construct projects for the Department of Defense
- Plan, design and construct projects in support of other Agencies
- Execute the Regulatory program
- Conduct environmental remediation and restoration
- Respond to emergencies and support contingency operations
- Execute the Real Estate program
- Provide administrative, legal, contracting and resource management for district programs and projects
- Engage partners, stakeholders, the media and teammates
- Program and Project Management

### **Vision**

A District that's *adaptable, modern, professional, capable* and known for *technical excellence*.

**Products and Services**



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## **Accessible Design**

### **What is it?**

The Department of Defense (DoD) established a policy in 1993 to comply with the Americans with Disabilities Act Accessibility Guidelines (ADAAG) in addition to the Uniform Federal Accessibility Standards (UFAS) in designing and constructing DoD facilities worldwide whenever the ADAAG provide equal or greater accessibility. The Architectural Barriers Act (ABA) and the newer Americans with Disabilities Act (ADA) are both federal laws under which the UFAS and the ADAAG were developed, respectively. Applying the ADAAG and the UFAS early in a project, such as at 1391 programming and/or the design charrette phase, will eliminate the confusion, difficulties, and lost design efforts when the necessary requirements are identified too late.

### **How does it work?**

We recommend consultation and perhaps a site visit prior to start of design, or at least a review of the concept design package, so that we can discuss your needs and provide the best advice on a course of action.

### **What assistance is available?**

Our professional architects and engineers are knowledgeable of the accessibility requirements, regulations, standards, and limitations for new construction and alteration of existing facilities. Expert advice will ensure compliance with the accessibility requirements with the lowest cost and impact on your project.

### **What are the limitations?**

Depending on the scope and complexity of the project, the review and/or design take from a few hours to several weeks; depending on the exact needs.

### **What does it cost?**

The cost depends on the complexity of the project and amount of effort required to satisfy the ADAAG and UFAS requirements. An estimate will be provided upon request. If less than a half man-day is estimated, there will be no charge for the fact-finding service.



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## **Biddability, Constructability, Operability and Environmental (BCOE) Review**

### **What is it?**

The Biddability, Constructability, Operability and Environmental (BCOE) review is defined as a process that ensures bidding, construction, operational and environmental issues are properly considered in the design and design-build process. Biddability and constructability are defined as the ease with which a designed project can be built, as well as the ease with which the contract documents can be understood, bid, administered, and executed. The BCOE review encompasses compatibility of the design with which a project can be operated and maintained. Environmental review addresses the protection of air, water, land, animals, plants, and other natural resources from the efforts or impacts from the construction and operation of the project, as stated in the Environmental Impact Statement or Environmental Assessment.

### **How does it work?**

The BCOE review is performed at concept and final design (typically 35 percent and 95 percent) by experienced construction engineers. It involves a review of the contract plans and specifications, a visit to the proposed job site to verify design drawings and general consistency with current construction trends. We perform a BCOE review on projects prior to awarding a construction contract except for those projects that are of minimal complexity and contract value.

### **What assistance is available?**

Our professional and experienced construction engineers are knowledgeable of current construction codes, quality construction means and methods and limitations for new construction and alteration of existing facilities. Expert advice will ensure compliance with local standards and your concerns with the lowest cost and least impact on your project.

### **What are the limitations?**

Depending on the scope and complexity of the project, the BCOE review can take from a few hours to several weeks, depending on the exact need.

### **What does it cost?**

The cost depends on the amount of effort required to accomplish the work. An estimate will be provided upon request. If less than a half man-day is estimated, there will be no charge.



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## **Coastal Engineering and Design**

### **What is it?**

The New York District Engineering Division has been actively involved with engineering and design of coastal projects since 1957. With over 40 miles of beach fill placement, 20 groins constructed and numerous rubble mound structure rehabilitations, and over 200 miles of shorelines which New York District has analyzed and designed in Post-Sandy Feasibility Studies. We have one of the largest active coastal programs in the Corps. Our team has over 100 years of coastal experience with three PhDs on staff. Expertise includes design of beachfill, groins and jetties, groin notching and other rubble mound structures, borrow area determination, sand bypassing and many other coastal related analysis.

### **How does it work?**

The New York District will formulate coastal storm risk management projects for flood risk management, from design through plans and specifications.

### **What assistance is available?**

#### **Coastal Engineering Services Provided:**

- Reconnaissance Study
- Feasibility Study
- Construction Plans and Specifications
- Construction Support
- Post Construction Monitoring

#### **Coastal Engineering Specialty Areas:**

- Coastal Planning
- Coastal Processes and Environmental Conditions
- Shore Protection Structures Design and Cost Estimates
- Regional Sediment Management
- Hydrodynamic, Surge, Wave Transformation, Navigation and Sediment Transport Numerical Modeling
- Port Planning and Layout
- Borrow Area Identification
- Construction Plans and Specifications
- Post Construction Monitoring and Analyses

### **What are the limitations? N/A**

**What does it cost?** Fees are negotiated based upon the scope and complexity of the work and the expertise required.



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## **Computer Aided Design and Drafting (CADD)/Building Information Modeling (BIM)**

### **What is it?**

The Computer Aided Design and Drafting (CADD) cell provides training, limited technical assistance, and special products on a reimbursable basis. We help you make more effective use of your CADD equipment and provide you with expert assistance locally.

### **How does it work?**

You identify your requirements (we can help you) and we customize our assistance to meet your needs.

### **What assistance is available?**

Our CADD experts offer formal classroom training (using your own data, if available) including:

- CADD for Executives
- Bentley Microstation 2D and 3D
- Microstation GIS Environment
- Advanced Microstation
- Autodesk 2D and 3D
- System administration and plotting
- GIS introduction
- Other customized classes

Other services provided include:

- Technical assistance
- Existing conditions mapping
- Map updating
- Specialized map overlays
- Software development for CADD-based facilities management
- Scanning / digitizing of engineering drawings
- GIS applications

### **What are the limitations?**

Current year funds must be utilized for training.

### **What does it cost?**

Cost of formal classroom training depends on the length of the course (normally \$600 - \$1,200, excluding TDY costs). Costs for the technical assistance and products are negotiable. Rates are negotiated based on the required services.



**BIM Design & Construction**



**Washington Headquarters Services - Mark Center**



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## **Construction Management Services**

### **What is it?**

If you have a construction or operations and maintenance (O&M) services contract but not enough in-house staff to manage the work, New York District may be able to help. We offer an array of construction management services depending on the availability of time and talent in our field offices. As another option, this work can be accomplished by utilizing an A/E Construction Management Services Contract.

### **How does it work?**

The New York District will perform the technical review with experienced in-house architects and engineers, solicit a private special consultant, or call on centers of expertise in other Corps of Engineers Districts and Divisions, if necessary.

### **What assistance is available?**

#### **You may select from a variety of services, including:**

- Award of construction contracts and task orders by Contracting Officers
- Contract administration on direct or indirect construction projects and O&M services
- Analyze review and monitor of construction schedules and budgets
- Review of construction specifications and drawings for constructability, biddability, operability, and environmental requirements (see also BCOE Review)
- Management of quality assurance and construction safety programs
- Material / system verification testing
- Review / approval of shop drawings and material submittals
- Change order development, estimates, negotiations, documentation
- Modification actions up to \$500,000 by field Administrative Contracting Officers (ACOs)
- Conduct technical analysis of construction claims
- Commissioning Support
- Post-completion lessons learned inspections
- Warranty implementation and follow up

### **What are the limitations? N/A**

### **What does it cost?**

Costs vary with the type of program (MILCON, OMA, Civil Works, Environmental, Interagency and International Services), the level of effort, and the complexity of the work. Costs to develop construction management services task orders are negotiable.



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## **Cost Engineering**

### **What is it?**

Cost engineering is the engineering practice devoted to the management of project cost, involving such activities as cost and control estimating (which is cost control and cost forecasting) investment appraisal, and risk analysis. Cost Engineering is performed to seek the optimum balance between costs, quality and time requirement.

Costs are a constant source of concern, but will be particularly to the fore when considering different technical options, in conducting cost/technical trade-offs, in establishing budgets, in the submission and evaluation of price proposals, in preparing for contract negotiations, and in assessing the cost impact of introducing changes to existing designs. Cost Engineers provide necessary information to the project manager, program manager and executive staff to make informed decisions at important milestones by tracking progress and budget of the assigned mission.

### **How does it work?**

A Cost Engineer is an integral part of the Project Delivery Team (PDT) who gets onboard at the concept level of a project and stays with the project until the project gets into the construction phase. Developing cost estimates based on PDT decisions, design changes, customer requirement and new regulations/Codes ensures the project & customers expectations are met without jeopardizing project integrity & scope.

### **What assistance is available?**

The New York District Cost Engineering Team consists of 8 highly qualified cost engineers with over 50 years of combined experience in MILCON, Civil Works and Environmental, Interagency and International Services (EIS) programs. We have prepared cost estimates for multimillion dollar projects for facilities such as Brigade Headquarters, Battalion Headquarters, Vehicle Maintenance Facilities, Child Developmental Centers, Hospitals, Aviation Facilities, Ranges, Ammunition Storage Facilities, Administration Facilities, Barracks, Academic Buildings, etc. Majority of our staff is Certified Cost professionals within USACE Cost Community of Practice. They keep up to date with construction industry trends, Current Market Conditions and contractor availability to ensure the customer receives most current & well informed cost information to make important project and program decisions.

New York District's Cost Engineering Team is capable of performing multiple functions. Some are listed below:

- Prepare Current Working Estimates using automated tools such as MII, PACES, PC Cost, On Screen Takeoff
- Develop Construction Schedules using P6
- Develop project contingencies for uncertainties through Cost and Schedule Risk Analysis
- Participate in negotiations with the contractors and develop variance report & price analysis of contractors proposal
- Provide modification estimates during construction for scope changes or different site conditions

### **What are the limitations? N/A**

**What does it cost?** Cost depends on the amount of effort required to accomplish the task. An estimate will be provided upon request.



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## **Design Charrettes**

### **What is it?**

A charrette is an intense collaborative effort that brings the stakeholders together with professional engineers and architects to define the project requirements, estimate costs, and accomplish the necessary coordination quickly. The process involves the gathering of information and the definition of project requirements both in written and visual form and the development of a charrette document that is briefed for approval to the appropriate installation level commander who owns the facility. This process maximizes the customer's access to the designer and the designer's access to both the site and the installation during initial planning and design development.

### **How does it work?**

Engineering and Construction (E and C) Bulletin No. 2002-13 dated Sept. 6, 2002, recommends design charrettes during the early design phase of all projects. The design charrette, utilizing an experienced facilitator and involving all stakeholders, will eliminate the misunderstanding common during this phase of a project. Both money and time are saved because the need for later changes is vastly diminished or eliminated altogether. Redesign is markedly reduced because all project requirements and criteria are identified up front and validated within a group setting. Communication between all parties involved begins at the start of a project and partnering patterns are established early. Within a short time, the project can be brought to completion and reviewed at 35 percent, which also includes the value engineering aspects. Because a team atmosphere has been created and lines of communication have been established between stakeholders, problem solving as the project progresses is also easier.

### **What assistance is available?**

The New York District engineering team possesses the expertise and staff to provide a variety of charrette services. The team pulls from experienced design professionals whose backgrounds include program/project management, design, teaching, training, group facilitation, as well as current charrette experience. Team members also support the planning team and Installation Support Branch, by providing technical expertise for DD Form 1391 planning charrettes. The team has developed a variety of charrette services, and team members are available to assist with your charrette-related needs from initial consultation through execution.

Typical services include:

- Facilitating
- Providing technical professionals in the appropriate disciplines (civil/structural/architectural/electrical/mechanical/etc.)
- Cost estimating, economic analysis and/or value engineering capability
- Providing sustainable design review and disability design analysis
- Providing drafting or production staff

### **What are the limitations? N/A**

**What does it cost?** Cost depends on the complexity of the project and the amount of effort required to produce the required end products, as well as travel. Estimates will include pre-charrette preparation time and follow up. Normally charrettes take from 4-10 days depending on project requirements.



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## Engineering and Design

### What is it?

Whether you need a new facility or want to repair or alter an old one, the New York District's engineering team and design staff offers a wide array of services and products. Our staff includes professional architects and engineers from all technical disciplines and can reach back to other experts throughout the USACE for special requirements.

### How does it work?

You identify your requirements and we can customize our assistance to meet your needs. You may also request an on-site meeting to establish the scope of work, the schedule, and the estimated cost for design and construction.

### What assistance is available?

- Barracks and family housing design and criteria management
- Complete Design and Construction (IDC) packages which incorporate design build methodology
- Design build construction document support
- Special or unique projects design solutions
- Electronic bid set documents
- Technical assessment and trouble shooting
- Reach back design in support of forward deployed contingency operations
- Sustainable design review and assessment
- Force protection plans, assessments, designs, and review
- Fire Protection analysis, plans, and review
- Disability design, assessment, and review
- Technical translation
- Topographic and Geographical Survey
- 2D and 3D modeling for both vertical and horizontal using Autodesk and Bentley platforms



Our goal is to accomplish what you want - providing a quality product at fair and reasonable costs within the time constraints that meet your needs. Depending on the scope and complexity of the work, the engineering and design can take from a few days to a few months.

**What are the limitations?** N/A

**What does it cost?** Costs depend on the scope and complexity of work.



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## **Environmental Services**

### **What is it?**

The New York District environmental expertise ranges from restoring degraded ecosystems, identifying, evaluating and managing natural and cultural resources, to cleaning up contaminated sites from past military activities. The District's Environmental Analysis Branch maintains expertise in environmental compliance, mitigation, and restoration as part of the National Environmental Policy Act (NEPA), the National Historic Preservation Act (NHPA), among other regulatory requirements. The Program and Project Management Division, Environmental, Interagency & International Services Branch manages and executes a full range of investigation, cleanup and protection activities under programs such as the Base Realignment and Closure Act (BRAC), Environmental Quality (EQ), Formerly Used Defense Sites (FUDS), Formerly Utilized Sites Remedial Action Programs (FUSRAP), Installation Restoration Program (IRP), Military Munitions Response Program, as well as supporting other Federal customers such as the US Environmental Protection Agency in the cleanup of Superfund sites and work under the Brownfields and Urban Waters program.

### **How does it work?**

You contact us with your request for service or help in identifying the USACE capabilities. We will access in-house capability, contractor support, other USACE districts, laboratories, and centers of expertise to develop a proposal tailored to meet the study or project needs.

### **What assistance is available?**

The Environmental Analysis Branch services include, but are not limited to:

- Environmental Baseline Studies to document the environmental condition, potential health hazards and natural and cultural resources
- Environmental Reviews to identify how a project could impact natural and cultural resources and identify mitigation techniques
- NEPA Environmental Assessments and Environmental Impact Statements
- Natural resources surveys, including wetland delineations, threatened and endangered species surveys
- National Historic Preservation Act, Sections 106 and 110 compliance, including Programmatic and Memorandum of Agreements Terrestrial and underwater archaeological investigations, architectural surveys, HABS/HAER documentation and data recovery
- Tribal consultation
- Environmental, Interagency & International Services Branch services include:
  - Emergency Spills Contingency Plans
  - Waste Stream Analysis
  - Radon and asbestos surveys, including testing, mitigation, remediation and air monitoring
  - Soil and ground water contamination investigation and remediation
  - Pollution prevention and compliance with environmental law





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## **Environmental Services (cont.)**

- Coordination and consultation with federal and state agencies
- Radon and asbestos surveys, including testing, mitigation, remediation and air monitoring
- Soil and ground water contamination investigation and remediation

**What does it cost?** Fees are negotiated based upon the scope and complexity of the work and the expertise required.



**Products and Services**



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## **Facility Condition Assessment**

### **What is it?**

Facility Condition Assessments (FCA) are an inspection and maintenance tool utilized to update property records, assess work that is needed for repairs, and plan for future costs needed to maintain assets. Assets can include buildings, structures, and land site improvements. The purpose of the assessments is to help the client prioritize their renovation, rehabilitation, and new construction projects over their entire portfolio of assets by providing a comprehensive, rated list of all assets.

### **How does it work?**

The first step is developing an asset list. Typically, asset lists are based upon funding or who owns and maintains a property. The intent is to create a list of buildings or structures that the client would like to compare for priority in renovation or maintenance funds. With an established asset list, a personalized assessment report format can be developed for the client to ensure they are provided the information they desire in a useable format. For the assessments, a team of assessors travel to each site and conduct a thorough inspection of the property and structures desired. The assessment team typically consists of a mechanical engineer, electrical engineer, structural engineer, architect, and civil engineer, but could be tailored based on the assets to be inspected. All of the findings are photographed and documented in a Facility Condition Assessment Report. The report typically includes a general description of each system present in the asset, a detailed description of deficiencies found including a preliminary cost estimate to repair the deficiency, an estimated replacement cost of the facility based on RS Means, and a forecast table of future renovation costs of the asset. A Facility Condition Index Number (FCI) can be developed for each building, structure, and site asset which would serve as the standardized means of prioritizing maintenance, repairs, and replacement for the asset portfolio. The FCI can be based on cost alone or can consider cost, age of structure, and severity of deficiencies.

### **What assistance is available?**

The assessment team is available to personalize the assessment reports to the clients' needs, and sample reports could be provided. The client would be provided draft reports for a comment period prior to a finalized assessment reports being produced. The New York District has in house assessors with experience in conducting field assessments for a variety of buildings, structures, and site assets.

### **What are the limitations?**

The Facility Condition Assessment Reports provide an approximation for renovation and repair costs based on RS Means. The costs are not equivalent to an estimate for the work from the District, a private designer, or a Contractor. The goal of the cost estimates is to get the quantities in a relative range for comparison.

### **What does it cost?**

The cost depends on the amount of effort required to accomplish the work. An estimate will be provided upon request.



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## **Fire Protection and Life Safety**

### **What is it?**

Various building codes, including the Unified Facilities Criteria 3-600-01 Design: Fire Protection Engineering for Facilities, the National Fire Code, and specifically, the National Fire Protection Association Life Safety Code, set minimum building criteria and standards essential to life safety. The codes apply to both new construction and existing buildings. Additionally, these codes must also be balanced and incorporated into construction governed by applicable standards and agreements where applicable.

### **How does it work?**

Customers can call the New York Deputy District Engineer Project Management for consultation with an assigned Project Manager if there is doubt that a facility does not fully comply with life safety code requirements. We will set up a site visit to evaluate the situation, or review the building drawing and specifications and provide the customer with a course of action. Life safety involves design, construction, building systems, protection, and other features necessary to minimize danger from fire, smoke, fumes, or panic. Minimum criteria for building size, height, exposure, distances, means of egress, number of exits, classification of occupancy, hazards of contents, fire barriers, fire escapes, door hardware, interior finishes, fire alarms, sprinklers, emergency lighting, ventilation and numerous other code requirements must be considered in every design.

### **What assistance is available?**

Our staff consists of one registered Fire Protection Engineer (F.P.E.), as well as trained and registered architects and engineers who will evaluate applicable fire protection and life safety requirements and provide a comprehensive recommendation or solution. These staff members can also provide construction support to projects already under contract. Depending on the scope and nature of the project, a review of life safety requirements takes a few hours to a few weeks. Depending on the need, designs or study documents will be provided. Base or facility Fire Protection surveys can be requested to determine adequacy of life safety / fire protection requirements.

### **What are the limitations? N/A**

### **What does it cost?**

Costs depend on the amount of effort required to accomplish the fire protection and life safety review or the complexity of the scope or design. An estimate of the requirements will be provided upon request.



**New York District  
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## **Flood Risk Management – Engineering and Design**

### **What is it?**

The New York District Engineering Division has been responsible for all Hydrologic and Hydraulic analyses necessary for the engineering and design of flood risk management projects covering portions of 5 states (NY, NJ, CT, MA and VT). Typical structural solutions have included channel improvement, levees and floodwalls, stormwater pumping stations, dams and detention basins, and diversion culverts. Non-structural solutions have included ring levees, wet and dry floodproofing and raising structures. Expertise includes hydrologic modeling, statistical analyses, hydraulic modeling, riprap analysis and design, interior drainage analysis and design, and pump station design.

### **How does it work?**

The New York District will formulate the projects for flood risk management, from alternative development through design and plans and specifications.

### **What assistance is available?**

Hydrologic and Hydraulic Services Provided for:

- Reconnaissance Study – Determination Cost Effective Measures
- Feasibility Level Studies – Development and Evaluation of Alternative Solutions for Flood Risk Management
- Detailed Design for the Selected Plan of Improvement
- Construction Support

Flood Risk Management Specialty Areas:

- Hydrologic Analyses
- HEC-HMS and Geo-HMS Modeling
- Statistical Analyses
- Hydraulic Analyses and Design
- HEC-RAS and Geo-RAS Modeling
- Floodplain Mapping
- Risk and Uncertainty Analyses
- Interior Drainage Analyses and Design
- Pump Station Design

### **What are the limitations? N/A**

**What does it cost?** Fees are negotiated based upon the scope and complexity of the work and the expertise required.



**New York District  
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## **Force Protection Assessment, Design and Surveys**

### **What is it?**

Force protection surveys identify physical steps to improve security by eliminating or reducing vulnerability to terrorism or hostile acts. Force Protection is a growing issue particularly for U.S. forces overseas. The New York District is prepared to assist this effort with field investigations and identification of vulnerabilities, culminating in the elimination of the vulnerabilities through specific design and construction.

### **How does it work?**

We will set up an on-site meeting to determine the scope of work, a time schedule and estimated costs for a force protection survey.

### **What assistance is available?**

New York District engineers who have assisted military personnel in joint field investigations concerning force protection are available to assist in conducting such surveys. Depending on the need, studies and designs can also be completed that will upgrade your facility as required.

### **What are the limitations?**

Depending on the physical scope of the work, engineering and design can take a few days to a few months.

### **What does it cost?**

Costs depend on the amount of effort required to accomplish the work. They vary significantly depending on the size and nature of the facility being protected.



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## Light Detection and Ranging (LiDAR)

### What is it?

LiDAR, is an acronym for light detection and ranging. It refers to a remote sensing technology that emits intense, focused beams of light and measures the time it takes for the reflections to be detected by the sensor. This information is used to compute ranges, or distances, to objects. In this manner, LiDAR is analogous to radar (radio detecting and ranging), except that it is based on discrete pulses of laser light.

### How does it work?

LiDAR technology measures the distance by illuminating a target, object, or feature with a laser and analyzing the reflected light using the speed of light as a constant. LiDAR, as a remote sensing technique, has several advantages. Chief among them are high accuracies, high point density, large coverage areas, and the ability of users to resample areas quickly and efficiently. This creates the ability to map discrete changes at a very high resolution, cover large areas uniformly and very accurately, and produce rapid results.

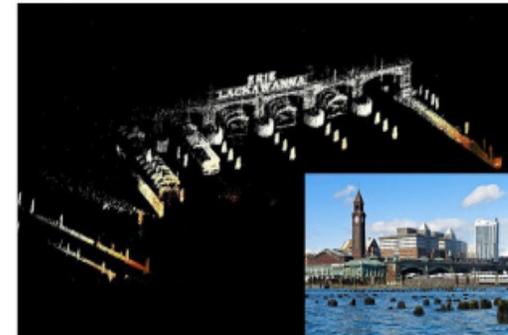
### What assistance is available?

- Coastal Management and Monitoring
- Post-Storm Damage Assessments
- Dune Monitoring
- Surface Mapping
- 3D Modeling
- Remote Sensing

### What are the limitations?

From an operational standpoint, LiDAR systems do have minor limitations. These include systematic, weather, and line of sight. The system has a 100-meter range from the unit which is affected by fog or moisture in the atmosphere. Since the system is GPS aided it is also affected by lack of open sky and or bad GPS constellation.

**What does it cost?** Fees are negotiated based on the scope and complexity of the work and expertise required.





**New York District  
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## **Indefinite Delivery Type Contracts**

### **What is it?**

There are three types of indefinite delivery type contracts. They are Definite Quantity, Requirements Contracts and Indefinite Quantity Contracts.

### **How does it work?**

Definite Quantity provides for delivery of a definite quantity specific supplies or services for a fixed period with deliveries or performances to be scheduled at designated locations upon order.

Requirements Contracts provide for filling all actual purchase requirements of designated Government activities for supplies or services during a specified contract period with deliveries or performance to be scheduled by placing orders with the contractor.

Indefinite Quantity Contracts provide for an indefinite quantity within stated limits of supplies or services during a fixed period. Orders are placed for individual requirements. Quantity limits may be stated as number of units or as dollar values.

### **What assistance is available?**

The New York District assists customers through the use of project management business process procedures. We help our customers define their requirements and expectations through the use of best practices. We assist with the project Scope of Work according to customer requirements and interpret definitions. We prepare an acquisition strategy and provide an independent Government estimate. In the execution phase we provide solicitation, advertisement, evaluation of offerors, negotiate and award of contracts.

### **What are the limitations?**

Contracts are bound by stated limits in the contract in accordance with FAR part 16.5 depending on type of Indefinite Delivery type used.

**What does it cost?** Rates are negotiated based on size, scope and complexity of work.



**New York District  
US Army Corps of Engineers**

## **Master Plans/Area Development Plans**

### **What is it?**

Great installations and facilities don't just happen. To be great, one must establish realistic goals and concentrate resources on achieving them. To do this, customers must have a well thought out and coordinated master plan. By doing so, one can maximize funding effectiveness and compete more successfully for limited dollars. Master planning is a continuous analytical process that involves evaluation of factors affecting the present and future physical development and operation of an installation. This evaluation forms the basis for determination of development objectives and planning proposals to solve current problems and meet future needs. Each step or element of the process builds upon the preceding step, providing a logical framework for the planning effort. This process provides a means for sustainable and energy-efficient installation development that supports mission requirements. New York District has the contract capability to prepare complete master plans or any of the supporting documents, including:

- Mission and visioning studies
- Land use maps and plans
- Area development plans
- Future development plans
- Existing condition and development constraints mapping
- Utility studies
- Facility utilization surveys
- Project and movement sequencing plans
- Traffic studies
- Installation design guides
- Housing community plans
- Real property master plan digests

### **How does it work?**

We will work with you to identify the master planning needs and to develop a cost effective strategy for achieving them.

### **What assistance is available?**

New York District has many years of experience conducting planning studies of all types. Our technical managers will work with and advise the customer. Based on the customer's needs, we prepare the statements of work and cost estimates, then negotiate and manage the master planning efforts.

### **What are the limitations?**

Scope and methods can be adjusted to meet specific needs and budgets.

**What does it cost?** Rates are negotiated based on size, scope and complexity of work.



**New York District  
US Army Corps of Engineers**

## **Multiple Award Task Orders Contract (MATOC)**

### **What is it?**

Two or more contracts awarded by an agency from one solicitation for comparable supplies and services where a single award would be impractical. It is more cost effective considering administrative cost..

### **How does it work?**

The customer identifies the requirement and requests a MATOC contract. We provide the project planning, execution and management for the requirement.

### **What assistance is available?**

Through the business process procedures, the New York District assists our customers define their requirements. We assist with the project Scope of Work, prepare an acquisition strategy and provide an independent Government estimate. In the execution phase we provide solicitation advertisement posting, receipt and evaluation of proposals and negotiation and award of contracts. We provide project management and A/E support internally or externally when needed.

### **What are the limitations?**

The limitations are the contractual limits established in awarded contracts.

**What does it cost?** Rates are negotiated based on size, scope and complexity of work.



**New York District  
US Army Corps of Engineers**

## **Planning Assistance and National Environmental Policy Act/National Historic Preservation Act Compliance**

### **What is it?**

The New York District works in partnership with local stakeholders, identify water resource problems, needs and opportunities, identify Federal interest, develop alternatives, and recommend implementable water resources solutions that are economically and environmentally sound. The Plan Formulation Branch includes professionals with the expertise in water resources planning and project development. The Environmental Analysis Branch provides National Environmental Policy Act and National Historic Preservation Act, as well as other regulatory compliance support to all water resources development projects. The Planning Division is a member of the USACE Planning Center of Expertise for Coastal Storm Risk Management.

### **How does it work?**

We will work with the customer to determine the project scope and necessary expertise to establish a project team to undertake the necessary studies.

### **What assistance is available?**

Planning services include:

- Flood Plain Management Services Program assists the public in the understanding of flood hazards, actions to reduce property damage and loss of life from flooding, and the use and management of flood plains
- Planning Assistance to States and Native American Indian Tribes to include water supply/demand, water conservation and water quality studies, as well as environmental conservation and restoration studies
- Hurricane Evacuation Studies
- Flood Warning/Preparedness Studies
- Flood Risk Management Studies
- Coastal Storm Risk Management Studies
- Flood Proofing Studies
- Inventory of Flood Prone Structures
- Economic Analyses
- NEPA Environmental Assessment and Environmental Impact Statements
- Natural resources surveys, including wetland delineations, threatened and endangered species surveys
- National Historic Preservation Act, Sections 106 and 110 compliance, including Programmatic and Memorandum of Agreements
- Terrestrial and underwater archaeological investigations, architectural surveys, HABS/HAER documentation, and data recovery
- Tribal consultation



New York District  
US Army Corps of Engineers

## Planning Assistance and National Environmental Policy Act/National Historic Preservation Act Compliance (cont.)

### What does it cost?

The Flood Plain Management Services Program are available, upon request, to state, regional and local governments, eligible Native American Indian Tribes and other non-federal public agencies without charge. Voluntary contributions toward requested services to expand the scope or accelerate the provision of those services is also an option.

Congress funds the Planning Assistance to States program annually and nationwide funds may not exceed \$10 million. Planning Assistance to States program studies are cost-shared 50% federal and 50% non-federal funds. Study sponsors or partners have the option of providing their share of the study cost in the form of cash or in-kind services.

For other specific Planning tasks, fees are negotiated based upon the actual services and experts required.





**New York District  
US Army Corps of Engineers**

## **Project Management**

### **What is it?**

Project management services are available to transform customer ideas into viable projects. This includes complete construction packages or any other design, investigation or study service required by a customer.

### **How does it work?**

The customer identifies the project's intent/requirements and requests design, investigation, study and/or construction services. A Project Manager will:

- Manage the preparation of a detailed scope of work for the design, investigation or study
- Coordinate the negotiation and award a contract with an Architect-Engineer firm or arrange for the services to be completed by a New York District design team
- Manage / execute the project through various phases and reviews
- Manage and maintain accountability of project funds
- Coordinate with stakeholders and regulatory agencies
- Perform reviews
- Coordinate biddability, constructability, operability and environmental reviews
- Develop a solicitation package for construction contract proposals
- Evaluate proposals with customer participation and award a construction contract
- Manage all aspects of construction - quality assurance, schedule, cost, etc.
- Conduct a joint final acceptance inspection with the customer
- Conduct warranty inspections

### **What assistance is available?**

Our experts offer:

- The Project Manager your advocate, spearheading your project through acquisition, investigation, design, construction, and closeout
- The Project Manager seeks your input and keeps you informed
- The Project Manager ensures focused teamwork to deliver a quality project to the customer

### **What are the limitations? N/A**

### **What does it cost?**

The total cost is dependent upon size and complexity of the design. The Project Manager will review scope and estimate details with the customer.



**New York District  
US Army Corps of Engineers**

## **Real Estate Services**

### **What is it?**

New York District's Real Estate Division operates as a team member within the North Atlantic Division Regional Business Center and employing the Project Management Business Process, supports through real estate the execution of water resource, military, and environmental programs; supports emergency response and contingency operations, all in support of the Nation. Our Portfolio consists of all Army and Air Force sites (Military) within the states of New York and New Jersey, assisting Non Federal Sponsors in the Civil Works Program, Civil sites for Operations and approximately 450 leaseholds for housing and recruiting missions.

### **How does it work?**

On behalf of our customers, we obtain (and issue) contracts and permissions to and from various public and private entities, including licenses, leases, easements and permits, as well as process transfers and disposals. Real Estate Division also promotes the Government's interests in environmental protection of real property, land use planning, and cost effective evaluation and action plans for project development in accordance with current and long range realty market forces and the goals of Army Corps of Engineers, the Air Force and the New York District's civil works partners and others. New York District's Real Estate Division tracks the real estate program from cradle to grave to ensure proper use of funds.

### **What Assistance is available?**

The New York District's Real Estate Division represents the Federal Government's real estate interest for the US Army, Army Reserves, Civil Works programs and others. GSA, the Department of Interior and the Army Corps of Engineers have specific delegated authority by law and regulation. With a warranted Real Estate Contracting capacity, we perform Federal Acquisition of land and infrastructure, management including leasing, licenses and permits, and disposals. With a full service realty and appraisal staff, we can fully support the reviewing, processing and administering the use and occupancy of civil, military and others real income property. In addition we provide payments for leasehold and other obligations, compliance and inspection of outgrants and develop and prepare real estate plans. We can assist with real property audits and utilization.

New York District's Real Estate Division has a full Appraisal staff to ensure Fair Market Value. Our special delegation covers our military portfolio for the Army. With a general delegation from GSA (for servicing urban office/commercial space) we supply leases for Department of Defense Joint Facilities Recruiting Command. In our Civil Works mission, we conduct real estate planning and acquisition assistance to the Non Federal Sponsor. We have authority by law and by regulation and are the office of real property record for the Army and Air Force. We have also supported the City of New York and others.

**What are the limitations?** We are a full service Real Estate Team of professionals with excellent legal support.

**What does it cost?** The cost depends on the amount of effort required to accomplish the work. We can help with the scope of work and furnish an estimated cost upon request.



**New York District  
US Army Corps of Engineers**

## **Structural Investigations**

### **What is it?**

The New York District has expertise to assess the structural condition of a variety of building and structure type. The District can access expertise to assess seismicity of structures as well.

### **How does it work?**

Call to set up a site visit to evaluate the situation and make recommendations. If a follow-on investigation is desired, we can prepare the scope of work and complete the investigation, testing, and analysis.

### **What assistance is available?**

Typically following an on-site visit and a review of any existing information, our structural engineers can provide an overall assessment of the analyzed structure. Our investigation can provide an analysis with respect to current usage and codes on structural stability, seismic, progressive collapse, and anti-terrorism/force protection. In addition to a site investigation, we have the ability to utilize consultants to perform non-destructive testing and laboratory testing if deemed necessary.

### **What are the limitations?**

Depending on the scope and condition of the facility, the investigation, testing, and analysis can take a few weeks or a few months. An estimate of the time requirements can be provided quickly upon request.

### **What does it cost?**

The cost depends on the amount of effort required to accomplish the investigation. It varies significantly depending on scope and condition of the facility.



**New York District  
US Army Corps of Engineers**

## **Sustainable Design and Development**

### **What is it?**

Sustainable Design and Development (SDD) is the holistic process of planning, designing, building, renovating, deconstructing, operating, and maintaining facilities while considering the impact on the environment, energy use, natural resources, the economy, and the overall quality of life. Sustainable Design and Development is needed to save energy and reduce emissions, to utilize renewable resources, to maximize facility performance and to improve indoor air quality, which increases employee health, safety, and productivity.

### **How does it work?**

The Army utilizes Leadership in Energy and Environmental Design (LEED) to quantify and measure the sustainability of its projects. LEED certification provides independent, third-party verification that a building, home or community was designed and built using strategies aimed at achieving high performance in key areas of human and environmental health: Sustainable site development, water savings, energy efficiency, material selection and indoor environmental quality.

### **What assistance is available?**

The engineering team possesses the expertise to provide assistance in understanding and utilizing the LEED rating tool. Team members are available to provide an overview of sustainable design and development as well as to train in-house experts on the use of LEED principles. Staff members are available to conduct awareness workshops as needed. We can do the LEED evaluation but are working it into the charrette process at either the DD Form 1391 planning or the design phase. The staff has developed a reference library of SDD information and examples of successful projects utilizing the principles of sustainable design.

### **What are the limitations? N/A**

### **What does it cost?**

The cost depends on the amount of effort required to accomplish the work. An estimate will be provided upon request.



**New York District  
US Army Corps of Engineers**

## **Technical Design Review**

### **What is it?**

It is good engineering practice to ensure all design packages have been reviewed by independent professional architects and engineers to ensure acceptable standards of quality are met so that the customer receives maximum value for the costs incurred. The customer simply lets us know what they would like to have reviewed to ensure technical excellence, whether it is the complete design package or specific areas of an engineering system. Review comments can be captured through Dr. Checks, a USACE web-based data system designed to facilitate technical reviews. This system allows reviewers and designers to easily collaborate and it provides a repository ensuring comments are documented and memorialized.

### **What assistance is available?**

It is good engineering practice to ensure all design packages have been reviewed by independent professional architects and engineers to ensure acceptable standards of quality are met so that the customer receives maximum value for the costs incurred. The customer simply lets us know what they would like to have reviewed to ensure technical excellence, whether it is the complete design package or specific areas of an engineering system. Review comments can be captured through Dr. Checks, a USACE web-based data system designed to facilitate technical reviews. This system allows reviewers and designers to easily collaborate and it provides a repository ensuring comments are documented and memorialized.

### **What are the limitations?**

The technical review of most projects or specific areas of design normally takes a few hours to a few days, depending on the nature and scope of the work.

### **What does it cost?**

Costs depend on the amount of time required to perform the technical review. We will be glad to provide an estimated cost upon request.



**New York District  
US Army Corps of Engineers**

## **Value Engineering**

### **What is it?**

Value Engineering (VE) is a science devoted to reducing costs and increasing efficiency. Not only does this make good engineering and design sense it is the law. The Office of Management and Budget Circular A-131 (1993) and Engineering Regulation (ER) 11-1-321 requires value engineering to be performed on all federal, military, civil works and non-federal projects with a cost of \$2 million or more. Projects between \$1 million and \$2 million may be included if cost effective.

The Value Engineering Study (VES) is an on-site group effort that analyzes the design and function of construction, equipment and materials to reduce life cycle cost without sacrificing quality, aesthetics or operations and maintenance capability. Recommendations for cost, time and system changes can result in avoidance of cost and increased functionality.

### **How does it work?**

The Value Engineering activity is usually programmed as an element within the Project Management Plan and is scheduled near the concept submittal. Often these studies can be accomplished as part of the initial design charrette or the 35% design review, depending upon the project size, resources and scheduling provisions. This saves both time and effort and captures the “teaming spirit” created in the charrette or the design review meeting. If a full Value Engineering Study is desired our technical experts will review all drawings, specifications and documentation associated with a project and analyze the high cost items and their functions; develop alternatives; select best alternatives; and present a cost savings proposal.

### **What assistance is available?**

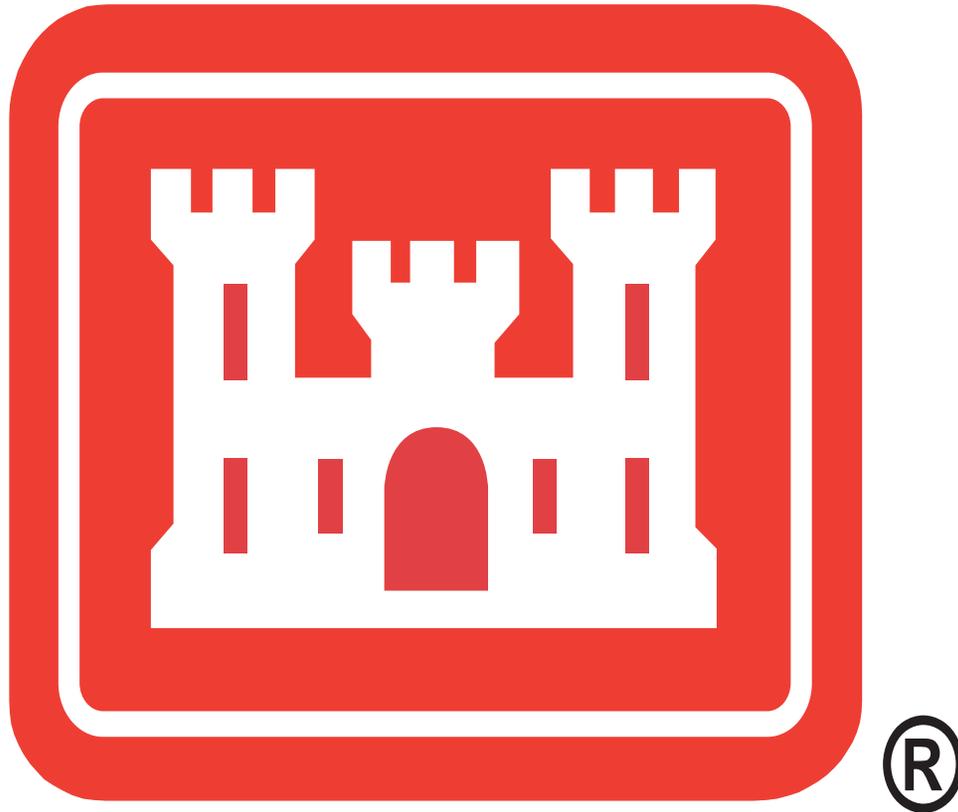
The New York District Value Engineering Officer, who is trained and experienced in VE, methodology organizes a multi-disciplinary engineer team to provide the customer with guidance and discuss the various alternatives available.

### **What are the limitations?**

Depending on the scope and nature of the project the Value Engineering Study can take up to one week to complete, an additional week is usually required for the final report.

### **What does it cost?**

Cost depends on the amount of effort required to accomplish the study and varies depending on the scope and complexity of the project being studied. Please contact the New York District Value Engineering Officer for more information.



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New York District**