

# ASSET MANAGEMENT SERVICES



## Improving the longevity and ...

Since our founding over 20 years ago, TEC has provided clients around the world with the information and the tools required to find the most cost-effective path to sustainability.

We offer the kind of big-picture perspective that encompasses the life cycle of your built or natural asset. Whatever your goals—to reduce energy consumption, maximize the productivity of a space, upgrade aging infrastructure, or comply with government requirements—we have the expertise to identify the best strategies for enhancing your overall performance.

## productivity of your assets.

The scope of our capabilities is extensive. Our multifaceted professional teams include architects, engineers, planners, data managers, LEED-accredited professionals, and Certified Energy Managers. Operating from offices across the continental United States, the Pacific Rim, and Europe—and working in more than 50 countries—we serve clients in higher education, healthcare, government, the military, and the private sector. With this broad experience and a comprehensive vision, we can develop robust solutions for your most complex challenges.

The services described in this brochure include

Facility Assessments and Engineering  
Energy Services  
Architect-Engineer Services  
Planning

Please go to [www.tecinc.com](http://www.tecinc.com) for more information.



## Facility Assessments and Engineering

Investments in facilities and infrastructure directly impact the ability of an organization to perform its core functions. With aging capital assets, you need to direct your resources wisely to maximize their impact.

TEC specializes in conducting facility assessments to provide you with accurate, defensible data to inform your funding decisions. Our professional engineers, architects, planners, and facility managers take an inclusive view of asset performance that links your organization's goals, current conditions, personnel, and bottom line.

### Areas of Expertise

Facility Assessments (Inventory, Condition, Capability, Functionality, AT/FP)

Historic Building Surveys

Compliance with Executive Orders 13327, 13423, and 13514

Mission Risk Analysis

Americans with Disabilities Act (ADA) Compliance

Real Property Portfolio Management

Performance Metrics, Benchmarking, and Process Change Management

Operations and Maintenance Audits

Budget Programming

Project Prioritization and Bundling

Cost Analysis and Forecasting

Long-range Maintenance Planning

Life Cycle Assessments

Capital Reserve Studies

Natural Infrastructure Inventory and Assessments

Decision Support Tools

### Client

National Park Service

### Project

Facility Assessments, Various National Parks, Nationwide

### Situation

The National Park Service needed comprehensive facility assessments for buildings, many with historic and cultural significance, at a number of sites—Death Valley National Monument, Olympic National Park, Lake Mead National Recreation Area, and Sequoia/Kings Canyon National Park—to inform maintenance and replacement decisions for new concession contracts.

### Solution

For each site, TEC conducted a real property analysis, developed a multiyear maintenance work plan, determined replacement values, analyzed life cycle requirements, reviewed ADA compliance, and performed structural analysis for seismic requirements. We also verified and revised the complete list of assets provided by the National Park Service.





### **Client**

National Naval Medical Center, Bethesda, Maryland

### **Project**

Facility Energy Audit, Naval Medical Information Management Center (NMIMC)

### **Situation**

Facing extremely high energy bills, temperature complaints, and inadequate lighting, the NMIMC facility manager needed to understand the problems, develop a range of solutions with costs and return on investment prioritization, and choose a course of action.

### **Solution**

As part of our Energy Audit and Assessment, we conducted a field investigation; met with maintenance staff; and reviewed operating programs, occupancy surveys, data logging, as-built plans, energy bills, and meter information.

We then identified opportunities for savings across the facility's life cycle: two significant operation and maintenance measures; electric utility meter reading errors that had caused significant overbilling; and five important energy cost savings measures, including installation of variable-speed motor controls, lighting replacements, and ventilation system modifications.



## **Energy Services**

Buildings consume staggering amounts of energy—39 percent of total energy and 68 percent of the electricity in the United States. With an energy-reduction strategy that addresses the entire life cycle of your facility, you can lower your costs while decreasing carbon emissions and fossil fuel dependency.

Many of our employees have firsthand experience managing the energy programs and budgets of facilities in both the private and public sectors. With skills that include building design, engineering, facility assessment, information management, and environmental management, we offer a broad range of services, from planning and policy to engineering studies and systems testing.

### **Areas of Expertise**

Sustainability Planning, Policy Development, and Implementation Support

Energy and Water Efficiency Audits and Studies

Financial Studies, Energy and Utility Studies

Carbon Footprint/Greenhouse Gas Reduction

Building Envelope Studies

Energy Project Development, Design, Review, and Oversight

Energy Star™ Program Support

LEED™ Existing Buildings and Operation Management Planning/Administration

Alternative Energy Feasibility Studies and Permitting Support

Compliance with Executive Orders 13327, 13423, and 13514

Advanced Metering



## Architect and Engineering Services

TEC's design group believes that the physical environment, when programmed thoughtfully and designed appropriately, can provide positive social and economic impact for our clients. Using an approach that integrates knowledge, experience, research, and design, we deliver aesthetically pleasing solutions that use space more productively, enhance organizational or operational performance, and inspire the individuals who occupy them.

Our professional staff allows us to assemble an appropriate team for the particular project, whether large or small. Our skills have application across a range of sectors—commercial workplaces, institutional workplaces, learning and healthcare environments—and in both new work and renovations.

### Areas of Expertise

Architectural Design

Mechanical and Electrical Design

Building Information Modeling (BIM)

Space Needs Analysis

Programming

Interior Design

Furnishing Inventories

Construction Management

LEED Sustainable Design and Analysis

Engineering Evaluation

Design Documents

Performance Work Statements

Design Build Specifications

### Client

University of Virginia

### Project

Information Technology Center Data Center

### Situation

The University of Virginia needed a state-of-the-art data center to meet present and anticipated computing system requirements. A modern, high-function building introduced at the boundary line of a World Heritage site, the data center had to have a low visual impact and yet be consistent with the aesthetic standards of its surroundings. Another unique challenge of the project was to double the IT capacity, power, and cooling of the entire data center with no disruption of service.

### Solution

TEC collaborated in the initial design concept, providing options for multiple buildings and three-dimensional massing, after which we were hired to complete the schematic.

This project has been registered with the U.S. Green Building Council for LEED certification, a particularly challenging process given the extreme energy requirements inherent in a data center. All energy draws, including power and cooling, are being closely scrutinized.





**Client**

Headquarters U.S. Marine Corps

**Project**

Community Integrated Master Plan  
Marine Barracks Washington, D.C.

**Situation**

Marine Barracks Washington provides special security and ceremonial duties for the Nation's capital and the world. The Main Post includes the Marine Corps Commandant's primary residence, which is the oldest building in continual use in Washington, D.C. (built in 1806). Marine Barracks Washington has a number of facility needs that cannot be accommodated within its campus. To sustain the Marine Barracks Washington mission for the long term, options for meeting critical space and security deficiencies need to be identified and addressed. The primary need (a 150,000-square-foot bachelor housing complex), is particularly challenging as siting options are located in the midst of a diverse and growing urban neighborhood.

**Solution**

TEC supported the Marine Corps in reaching into a new area of military-community planning by developing the first Community Integrated Master Plan. TEC services during Phase I of the process included communications training and planning, facilitation of an advisory community leadership group, stakeholder interviews, project website administration, and numerous and varied meetings and workshops to solicit input from stakeholders. Phase II addresses follow-on planning, the real estate process, and other services in support of special legislation needed to implement the outcome of the process.

**Planning**

TEC provides clients with a wide range of planning services specifically focused on optimizing capital assets in the following areas.

**MILITARY INSTALLATIONS** We have provided comprehensive plans and studies for military installations worldwide, from relocations responding to geopolitical concerns to new missions in existing locales.

**HIGHER EDUCATION FACILITIES** TEC specializes in developing intelligent planning solutions for higher education clients, especially those with historic or otherwise protected infrastructure, as they face growth, enrollment challenges, and cost-control pressures.

**FEDERAL BUILDINGS** We perform campus wide audits, condition assessments, and prioritized investment planning for federal agencies. We develop energy and water master plans based on the principles of sustainability, environmental stewardship, and savings reflected in Executive Order 13514 and other government requirements.

**COMMERCIAL AND COMMUNITY DEVELOPMENTS** Whether it is the redevelopment of city blocks in Washington, D.C., or a small commercial/residential 10-acre greenfield project, our experts guide each project through conceptual development, governmental reviews, public involvement, and final approval.

**Areas of Expertise**

- Master Planning
- Sustainability Management Plans
- Asset Valuation
- DD Form 1391 Preparation
- Construction Inspection and Management

- Facilities Requirements Analysis
- Configuration Management
- Space Utilization
- Planning Charrettes



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Financial Studies, Energy and Utility Studies

Carbon Footprint/Greenhouse Gas Reduction

Building Envelope Studies

Energy Project Development, Design, Review, and Oversight

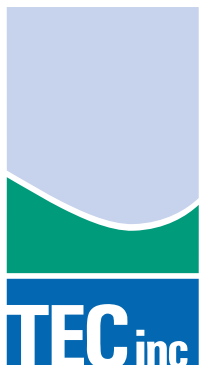
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Advanced Metering



Headquarters:  
2496 Old Ivy Rd, Suite 300  
Charlottesville, VA 22903  
434.295.4446  
434.295.5535 Fax  
[www.tecinc.com](http://www.tecinc.com)  
Offices located throughout the world.

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Sustainability Analysis and Design

Configuration Management

Asset Valuation

Space Utilization

DD Form 1391 Preparation

Planning Charrettes

Construction Inspection and Management

## Decision Support

Web-based Asset Management Tools

Engineering Management Systems and Software

Computerized Maintenance Management Systems

Legacy Information Systems Integration

Commercial Off-the-Shelf (COTS) Integration

Geographic Information Systems (GIS)

