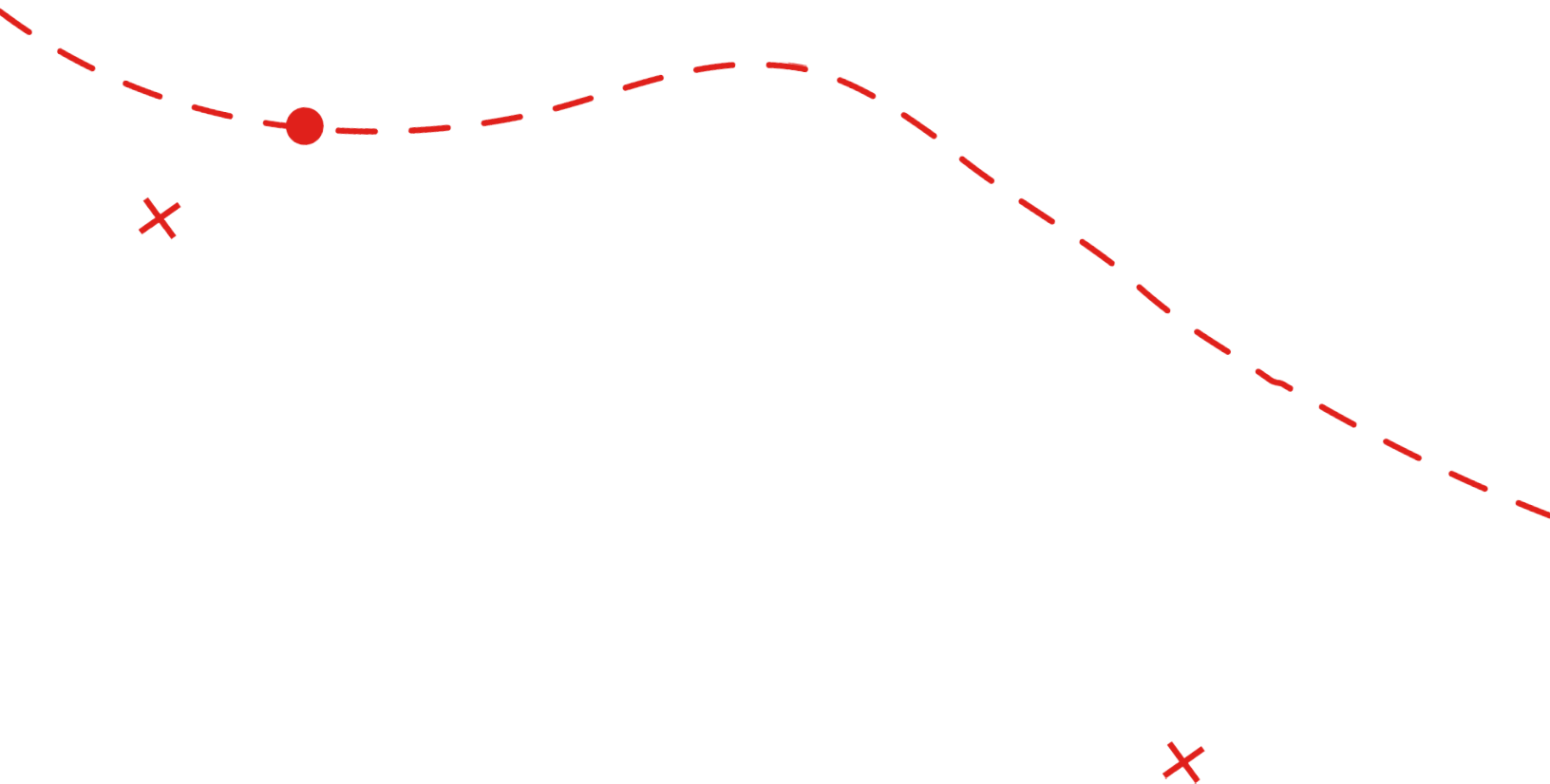


ABOUT US

Westwood Wisconsin

Madison | Appleton



Firm Overview

Established in 1972, **Westwood Professional Services, Inc.** (Westwood) is a full service, multi-discipline professional engineering firm providing services to public and private clients throughout the United States. With over 1,350 employees nationwide and registrations in most states, Westwood is recognized as one of the top engineering firms in the country.

Westwood’s survey team has over 50 years of experience providing services for Governmental agencies, municipalities, contractors, and the private sector. Our teams have completed surveys for all facets of boundary identification, topo graphic for design and construction staking. We are uniquely qualified based on our team’s extensive experience and our long history of successfully delivering projects on-time and on-budget to local municipal agencies.

Our team values relationships, innovation, dedication, initiative, and growth. Above all, we are problem solvers. Whether it be for our clients, communities, or each other — we help others succeed. Westwood’s mission is to provide solutions for your success.

What Sets Us Apart

At Westwood, we understand the quality of any project greatly impacts client satisfaction and the reputation of the firm, and we are dedicated to a company-wide commitment to quality control. Westwood offers the following benefits:

- Depth and availability in team and resources to ensure the project is completed on time and within budget
- Experts in government and regulatory collaboration, various external funding resources, and standard PS&E processing procedures
- Standardized QA/QC processes to ensure project compliance and expedite the overall review process
- Proactive and responsive communication, keeping all parties engaged and ensuring issues are addressed promptly.

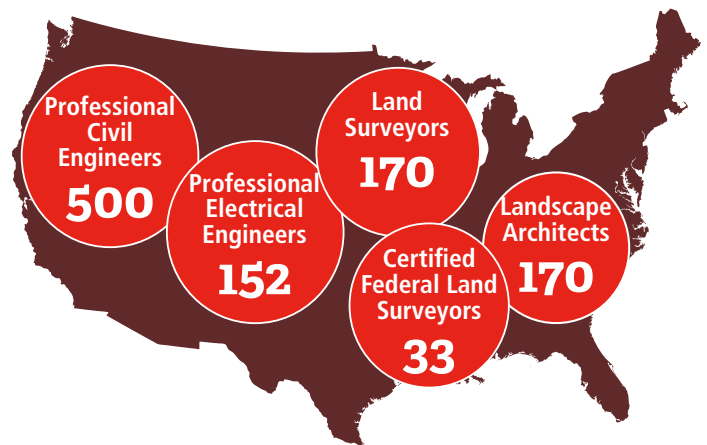


Our diverse range of experience and personnel allows us to perform numerous projects simultaneously while still delivering the product on schedule.

When you call, we will answer!



Westwood Personnel Resources



Wisconsin Personnel Resources



Firm Expertise

At Westwood, we recognize the complex needs of a thriving and growing City. From downtown revitalizations, regional water or wastewater systems and interstate highways, to local trails and neighborhood streets, utilities and parks, our commitment to design excellence remains constant. Our experience encompasses all aspects of civil design, land surveying, landscape architecture and planning projects, from overall design through construction administration and quality control initiatives. Having all of these services under one roof streamlines coordination and design efficiency.



Civil Engineering & Design

Our extensive knowledge base of industry best practices allows our engineers to work hand in hand with our surveyors, landscape architects, water resource professionals and traffic engineers to provide the best possible service to our clients. Frequent collaboration and teamwork allow our engineers to manage firm and client resources more effectively and efficiently at the outset of each project.



Roadway Improvement

Westwood provides roadway assessment and design, as well as develops capital improvement plans for a wide array of municipalities and government agencies. We tailor each assessment to the client's needs, whether they be a full-scale assessment or select areas within the jurisdiction. We evaluate existing conditions and provide recommendations for rehabilitation, including full roadway reconstruction, panel replacement for concrete roadways, appropriate types of pavement sealing, and spot repair and overlay.

Westwood is mindful of our clients' budgets and makes sure to provide realistic recommendations while outlining the pros and cons of each one. Westwood has provided detailed construction plans and construction administration support for roadways, both small and large, including residential streets to major thoroughfares with bridges.



Traffic/Transportation Engineering

From decades of experience on hundreds of projects, our traffic professionals bring a specialized, yet 'big picture', perspective to provide relevant and practical consultation in traffic engineering. For clients needing a traffic engineering study, design of traffic devices, parking analysis, or transportation planning services, Westwood is ready to put our expertise to work and help simplify the design experience.



Aviation Engineering

Westwood's aviation experience ranges from large hubs to small regional aviation facilities throughout Wisconsin. From designing runways and taxiways, perimeter fencing, apron expansions, and infrastructure to ILS relocations, stormwater drainage plans, and land acquisition services, our aviation team has been an integral part of the development process.



Land Surveying

Having an in-house surveying team is invaluable to our success. Our surveyors work on a daily basis with engineers. Therefore, they have a greater understanding of what is required for an adequate engineering survey than other surveying firms. Having in-house survey affords us, as engineers, greater control over how efficiently survey data is collected and integrated into our designs.



Water Resources

Our water resources professionals are experts in working with waters of the US, along with urban drainage and stormwater management. We understand the importance of providing tailored solutions that embrace the original vision of the communities in which we live. Our team uses the latest modeling software and analytical tools available so our clients can make informed decisions, helping them get the most out of every dollar during design, construction, and maintenance.



Utility Infrastructure

Our water and wastewater systems experience in Wisconsin includes civil engineering design and land surveying services for urban and rural lines ranging from 6 to 96 inches. Additionally, we are experienced in trenchless designs such as boring/tunneling, pipe bursting, cured-in-place pipe, pipe lining, swagelining, and horizontal directional drilling.



Environmental Engineering

Westwood provides a variety of environmental consulting services that can be tailored to specific needs. Our hydrogeologists and engineers have been extensively involved in environmental assessments and the investigation and remediation of contamination at a variety of sites. Westwood has the expertise to provide services ranging from the initial environmental assessment through site closure.



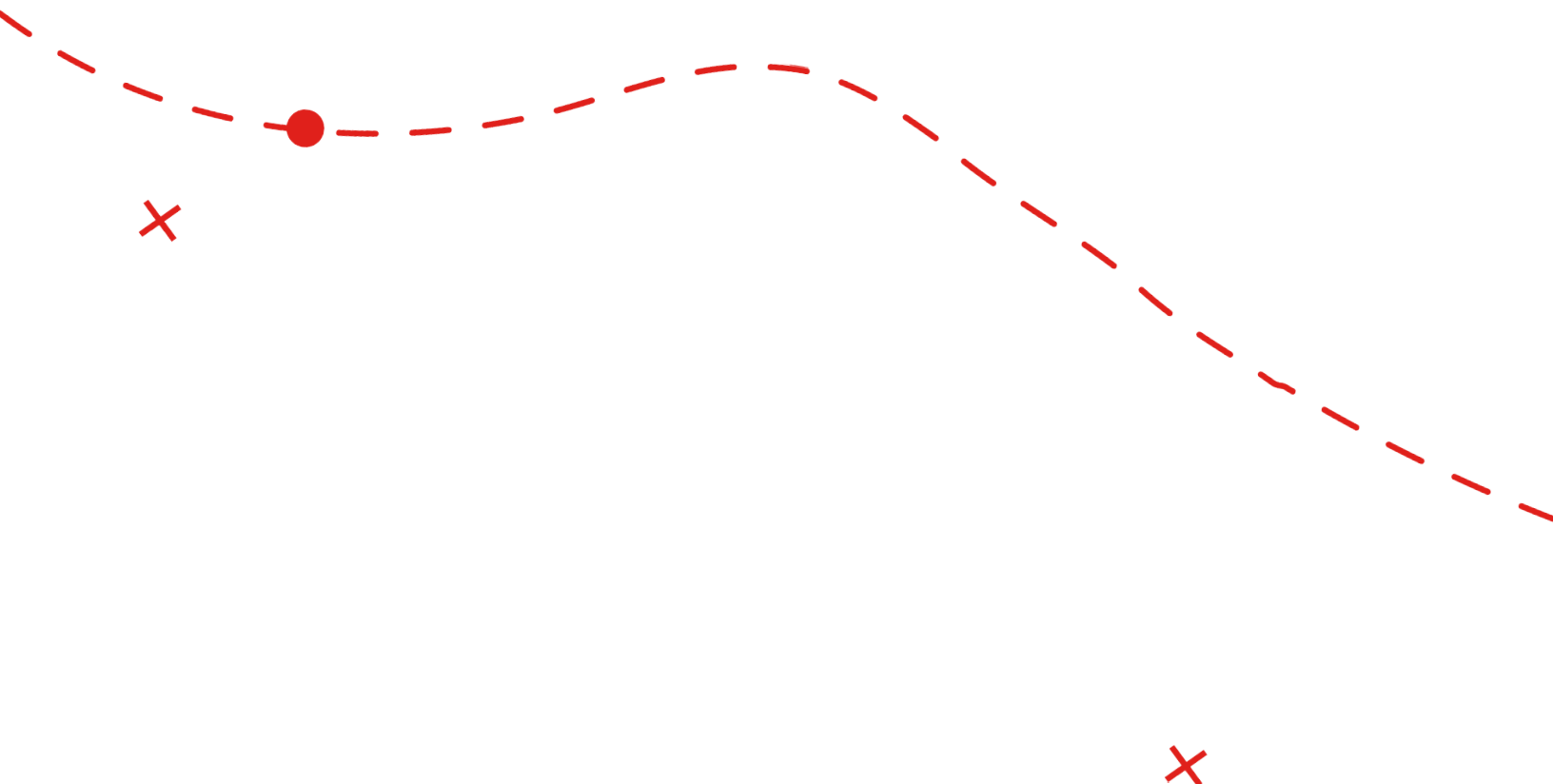
Geotechnical Engineering

Without proper geotechnical research, there is greater risk for fatal flaws on a project. By investigating the subsurface conditions through soil borings, cone penetration tests, and other tests, we can provide quality recommendations for the design and construction of project infrastructure.

OUR SERVICES

Westwood Wisconsin

Madison | Appleton



SERVICES



Westwood Civil Engineering

Roads, grading, streams, stormwater management, water systems, overall site planning, traffic, and creating a complete design package are just a tiny bit of what our talented civil engineering team can design. From a small substation upgrade to a large public infrastructure project, our team will create optimal solutions within your scope, budget, and regulatory requirements. Whatever challenges your project is facing – schedule, coordination, entitlements, grading constraints, available infrastructure, or utility connections – our engineering team has the expertise to guide you to the end.

- Due Diligence and Feasibility Studies
- Concept Layout, Site Optimization, and Cost Estimates
- LID Programming and LEED Scoping
- Site Constraint Analysis
- Road Use Agreement Support
- Infrastructure Master Planning
- Drainage Analysis
- Site Engineering Concepts
- Preliminary Plan Approval
- Site Grading and Earthwork Balance
- Stormwater Management
- Water and Sanitary Sewer System Design
- Parking Lot and Circulation Design
- Erosion Control Design/NPDES Permitting
- Utility District Creation, Bond Application Reports
- Site Feasibility/Zoning Analysis
- Integrating and Coordinating Permitting Requirements
- Roadway Design
- Bridge Analysis and Design
- Final Construction Plans and Bidding Support
- GIS and Field Support Integration



Westwood Survey Services

We conduct thousands of surveys each year, including some of the largest developmental projects across the country. Our surveyors are known for their responsiveness and high-quality service, regardless of project size or complexity. Whether it's renewable energy, land development, public infrastructure, or electric utilities, our survey crews can help make the best of your projects.

- ALTA/NSPS Land Title Survey
- Topographic Survey
- Boundary Survey
- Base Mapping
- ROW Acquisition and Lease Exhibits
- Easement Exhibits and Preparation
- Legal Descriptions
- High-Resolution Aerial Mapping and LiDAR Ground Control
- Utility Crossing Matrix
- Desktop Survey Constraint Map
- Corridor Route Survey
- Right-of-Way Platting and Mapping
- Construction Staking & Verification
- Control Survey
- Section Corner Recovery and Monumentation
- Subdivision Platting
- Condominium Survey
- Construction Impact Survey
- Record Survey
- 3D Laser Surveying and Imaging
- Municipal Design Survey
- Geodetic Control Networks
- Hydraulic and Hydrologic Surveys
- Real-time Collaboration and Technology



Westwood Transportation Engineering

Westwood is committed to bringing transportation projects of all sizes to life for our partners. From minor roadway maintenance projects to high-visibility full roadway reconstructions and expansions, our team of engineers have the expertise to make your project a success. This experience goes well beyond just designing projects, though, as our in-house experts understand the challenges local governments face related to budgets, schedules, stakeholder management, and regulation. We will work with you to identify state and federal grant programs that you may be eligible for, navigate applications and requirements, and develop a unique solution for your community; all while helping you capitalize on funding opportunities that make your budget go farther. Make your next project a success from idea through implementation by partnering with the team at Westwood.

- Detailed Plan Preparation
- Specification Development
- Cost Estimation
- Public Involvement Coordination
- Stakeholder Management
- Drainage Design
- Traffic Management Plans
- Utility Coordination
- Environmental Documentation
- Agency Coordination and Permitting
- Design Study Reporting
- Alternatives Analysis
- Bidding Support
- Funding Identification and Assistance
- Grant Compliance Guidance
- Roadway Preservation, Reconditioning, and Reconstruction Design
- Intersection, Interchange, and Roundabout Design
- Pavement Marking, Signage Plan, and Erosion Control Plan Preparation
- Traffic Safety Studies
- Roadway and Intersection Needs Analysis
- Pedestrian and Bicycle Accommodation Design



Westwood Traffic Engineering

Aging infrastructure, increasing traffic demands, and dense urban environments require unique transportation solutions. Our team combines traditional planning and traffic engineering services with state-of-the-art technologies to drive efficiency in the transportation system and improve mobility for all users. Our multi-disciplinary team of professionals can assess your needs through complex multi-modal planning and microsimulation evaluations and develop traffic signal and intelligent transportation systems, roadway, and intersection capacity enhancements to drive your operations and maintenance needs. We bring value through cost-effective solutions and services that are strategic yet practical.

- Transportation Planning
- Roadway Design
- Multimodal Transportation
- Traffic Impact Studies
- Traffic Signal Warrant Analysis
- Traffic Signal Design and Timing
- Intelligent Transportation Systems
- Parking Analysis and Design
- Traffic Control Planning
- Roundabout Design and Analysis
- Urban Mobility Planning
- Site Access Studies
- Master Thoroughfare Planning
- Micro and Macro Simulation Modeling
- Traffic Management Plans
- Parking Demand Studies
- Roadway Lighting Design
- Signage and Markings Plans
- Roundabout Design
- Corridor Studies
- Traffic Signal Performance Measures



Westwood Airport Engineering

Infrastructure needs, passenger demand, and advancing technology are some circumstances airports need to accommodate. Our team of aviation professionals has the expertise and experience to solve these circumstances by understanding the need to minimize impacts to the operation of the airport facility and deliver a successful project. We provide a full spectrum of professional services, which include navigating FAA and State agency requirements, planning, and design through construction administration services. Westwood's projects have involved both airside and landside improvements and expansions, many of which have won state and national awards for engineering excellence.

- Airfield Geometric Layout and Design
- Pavement Design
- Landside Improvements
- Airfield Lighting and NAVAIDs
- Fire Rescue Training Facility Design and Development
- Construction Administration
- Hanger Development
- Permitting and Spill Prevention Plans
- Boundary, Approach Obstructions, General Topography Survey
- Environmental Assessments and Impacts Statements
- Stormwater Management and Design
- Landscape Enhancement
- Land Acquisitions
- Net Zero Power Facilities



Westwood Structural Engineering

Our team optimizes structural designs while mitigating risk by using our combined expertise in applicable codes and standards while collaborating with our in-house civil, geotechnical, transportation, water resource, innovation, and aviation teams. Our design experience with steel, reinforced concrete, timber, masonry, unique building materials, and structural sections ensures we deliver the solutions our clients need.

- Steel Design
- Reinforced Concrete Design
- Timber Design
- Equipment and Building Foundation Design
- Foundation Analysis and Reinforcement
- Pile Cap Connection Design
- Anchorage Design
- Corrosion Evaluations
- Retaining and Blast Walls
- Steel and Aluminum Lattice Tower Analysis
- Steel and Concrete Pole Analysis
- Telecommunication Structure Design and Analysis
- Distribution Underground Manhole Design
- Structural Retrofitting and Reinforcement Design
- Substation Steel Structures and Foundations Design
- Owner's Engineer
- Inspection Requirements
- Building Structural Design – New or Alterations
- Equipment Supports and Access Platforms
- Material Handling, including Overhead Cranes
- Bridge Superstructure, Substructure, and Foundation Design
- Bridge Widening
- Prestressed/Post-tensioned Concrete Design
- Cut and Cover Structure Design
- Box Culvert Design
- Bridge and Culvert Evaluations
- Bridge and Culvert Rating Determination and Design
- Fall Protection and Walkability Analysis for Transmission Lattice Towerstem (NPDES)
- Spill Pollution Control and Countermeasures (SPCCs)



Westwood Water Resources

Our design philosophy is based on providing a holistic analysis to ensure new problems are not created or shifted somewhere else in the watershed. We find the sweet spot between protecting infrastructure and water quality while complying with permit regulations and staying in budget. As your advocate, we support you through studies, permitting, and development while integrating environmentally friendly solutions.

- Stormwater Master Planning
- Capital Improvement Design
- Funding / Grant Assistance
- Floodplain Analysis and Reclamation
- Stream Bank Stabilization and Restoration
- Permitting Assistance
- Erosion Management
- Stormwater Detention and Retention
- 2D Hydrodynamic Modeling
- Wetland Mitigation and Restoration
- Dam Breach Analysis
- Green Infrastructure Design
- Stormwater Quality Modeling and Design
- Stormwater Facilities Operations and Maintenance Design
- Stormwater Pollution Prevention Plans (SWPPPs)
- Spill Prevention, Control, and Countermeasure (SPCCs) Plans
- FEMA Flood Studies
- Hydrologic Modeling
- Hydrology Studies & Due Diligence Hydrology Review
- Conceptual and Technical Drainage Studies



Westwood Water Wastewater

Our design philosophy is based on providing a holistic analysis to ensure new problems are not created or shifted somewhere else in the watershed. We find the sweet spot between protecting infrastructure and water quality while complying with permit regulations and staying in budget. As your advocate, we support you through studies, permitting, and development while integrating environmentally friendly solutions.

- Water Network Analysis
- Sewer System Hydraulic Modeling
- Water Master Plan
- Sewer Master Plan
- Sewer Condition Assessment and Correction Design
- Sewer Bypass Plans
- Water Pump Station Design
- Water Storage Design
- Water Wells
- Sewer Lift Stations
- Construction Services
- Schedule Analysis
- Water Quality Modeling and Mitigation Plans
- Feasibility and Conceptual Studies
- Detailed Hydraulic Analyses of Systems
- Large Water Main and Sewer Interceptor Design
- Steel and Concrete Reservoir Design
- Reservoir Rehabilitation Design
- Pressure Reducing and Flow Control Station Design
- Pumping and Lift Station Design
- Low Pressure Sewer System Design
- Treatment Process Studies and Design
- Water and Sewer Network Analyses and Regional Master Planning
- Sewer Assessment Studies (NASSCO) and Rehabilitation Prioritization



Westwood Environmental Engineering

Environmental issues span wetlands, wildlife, plant ecology, cultural resources, visual issues, and more. The wide array of localities and regulatory requirements across the US require a partner with a broad range of environmental experience. If your project needs environmental services in the arid southwest or the complex water systems of the Mississippi River, you've come to the right place.

- Permitting
- Critical Issues Analysis
- Phase I and II Environmental Site Assessment (ESA)
- Waters of the US Support and Delineations
- Wetlands Studies
- Cultural Resource Survey
- Stormwater Pollution Prevention Plans (SWPPP)
- Wildlife Studies
- Threatened and Endangered Species Surveys
- Tree Surveys and Woodland Evaluations
- Bat Surveys
- Avian and Raptor Surveys
- Wind Resource Modeling
- Noise and Sound Studies
- Shadow Flicker
- Glare Studies
- Post-Construction Fatality Monitoring
- FAA Aviation Evaluations
- GIS Data Evaluation and Mapping
- Permit Monitoring and Reporting Services
- National Pollutant Discharge Elimination System (NPDES)
- Spill Pollution Control and Countermeasures (SPCCs)



Westwood Geotechnical Engineering

Without proper geotechnical research, there is greater risk for fatal flaws on a project. By investigating the subsurface conditions through soil borings, cone penetration tests, and other tests, we can provide quality recommendations for the design and construction of project infrastructure.

- Geotechnical Investigations
- Solar Foundation Design
- Structural Design
- Embankments and Retaining Walls
- Crane Pads and Crane Walks
- Road Studies and Design
- Slope Stability Analyses
- Soil Testing and Reports
- Pile Load Testing
- Ground Resistivity Testing