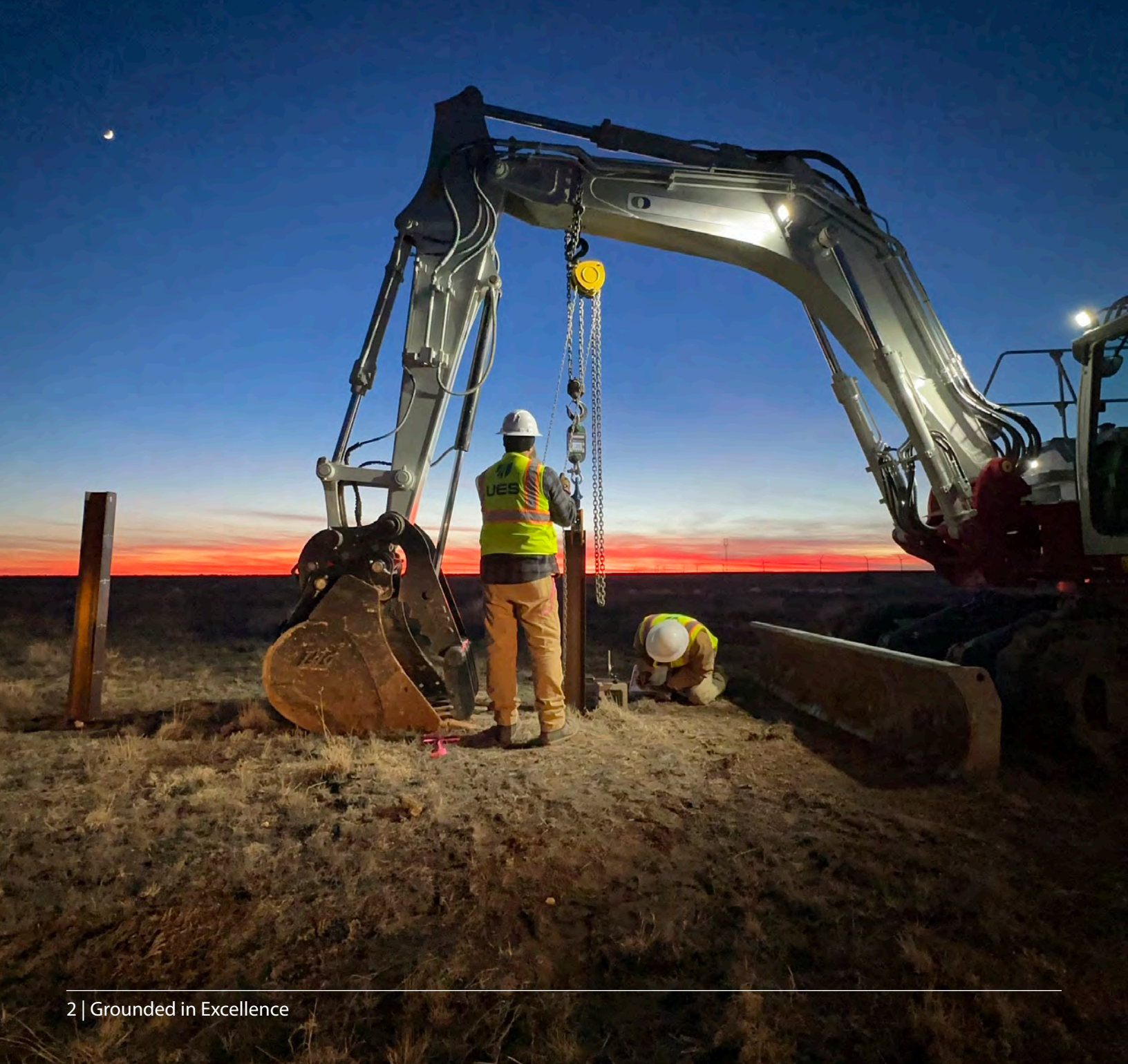


STATEMENT OF QUALIFICATIONS



Grounded in Excellence

With more than 4,000 professionals and 100 national branches, UES hosts a broad range of services including **Environmental, Geotechnical Engineering, Materials Testing, Field Inspections and Code Compliance** and **Geophysical Technologies**.



WHAT WE DO

Our experts identify and solve complex engineering and construction challenges by providing clients with innovative, technology-based solutions. Our goal is to support the design and construction of sustainable infrastructure solutions from development to redevelopment.

WHO WE SERVE

UES consults on projects of all sizes for public and private clients in industries such as transportation, infrastructure, water and wastewater, technology, power transition, healthcare, education, industrial, and residential.

OUR PROJECTS

We've successfully completed hundreds of thousands of projects across the country including work on solar farms, electric battery plants, data centers, roadways, bridges, water reservoirs, hospitals, schools, stadiums, airports, hotels and resorts, residential homes, and more.

With more than 4,000 professionals and 100 national branches, UES hosts a broad range of services including **Environmental, Geotechnical Engineering, Materials Testing, Field Inspections and Code Compliance** and **Geophysical Technologies**.

100+

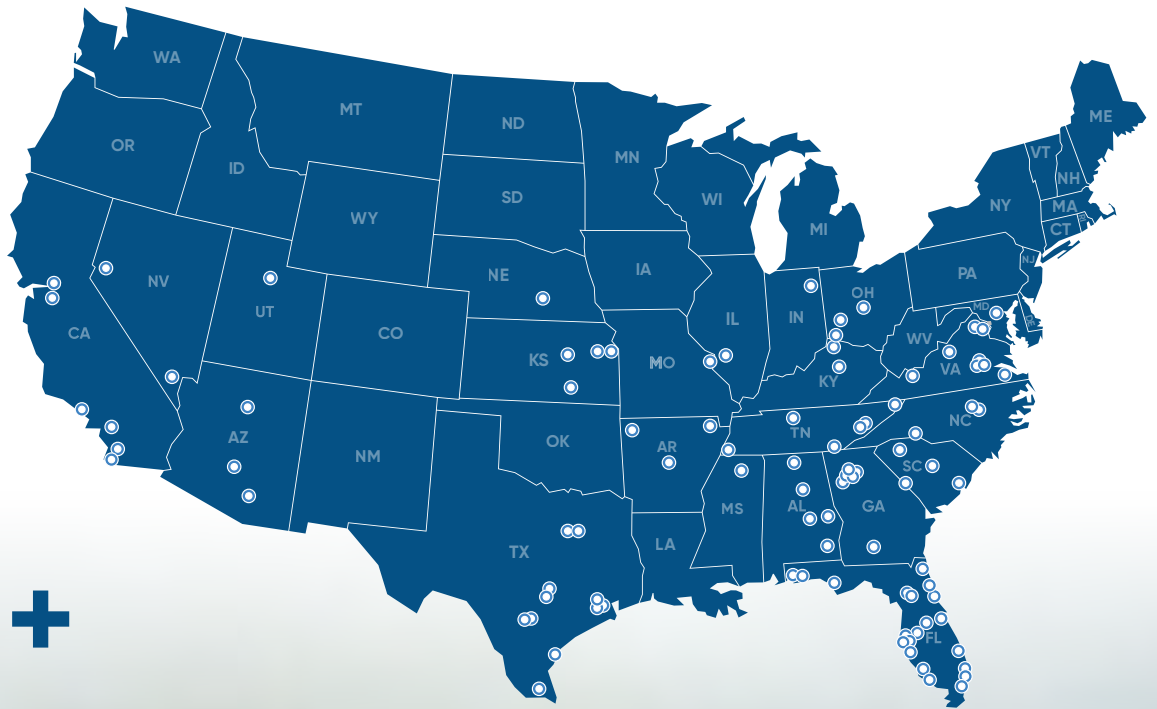
National
Branches

80+

Accredited
Laboratories

4000+

Professionals



At UES, we provide personalized engineering services to clients across the United States. Our engineers are experts in their fields and have extensive experience in providing guidance and solutions to overcome any construction challenge, while also providing an exceptional level of customer service.



ENVIRONMENTAL SERVICES

- Phase I & II Environmental Site Assessments
- Asbestos & Lead testing
- Threatened & endangered species review
- Wetlands delineation/mitigation
- Historic properties/archaeological resources review
- NEPA/CEQA
- Water quality permitting
- Storm water pollution & prevention plans (BMPs and NPDES)
- Air corrosivity testing



GEOTECHNICAL SERVICES

- Geotechnical drilling, testing, evaluation, & design
- Peer review of existing reports & analysis
- Finite Element (FE) analysis for foundation optimization
- Pre-check permitting, fiber, power & water supply
- Shallow foundation design
- Slope stability analysis
- Retaining structures design
- Deep foundation designs
- Ground improvement recommendations
- Rock coring/lab testing – unconfined compression, rock quality designation
- Load testing
- Infiltration testing



BUILDING SCIENCES

- Architectural plan reviews & consulting
- Shop drawing & submittal reviews
- QA/QC roof & building envelope inspections
- Infrared surveys
- Roof moisture surveys/electrical impedance scans



SPECIAL INSPECTIONS

- Footing & foundations
- Structural reinforced concrete
- Tilt-up concrete inspection and testing
- Structural steel – certified welding inspections
- Retaining walls
- Fire stopping inspections
- Spray applied fireproofing testing



MATERIALS TESTING

- Soils & density testing
- Concrete & resistivity testing
- Aggregates testing
- Mortar, grout & asphalt testing
- Thermal & electrical resistivity testing
- Seismic Cone Penetration Testing (SCPTU)
- Vane Shear Testing (VST)
- Flat Plate Dilatometer (DMT)



STRUCTURAL EVALUATIONS

- Half cell testing
- Rebar detection
- Relative humidity of concrete
- Concrete coring & post construction compressive strength testing



GEOPHYSICAL TECHNOLOGIES

- Subsurface Utility Engineering
- Subsurface Utility Mapping
- Subsurface Information Modeling
- Geophysical Investigations
- Reality Capture & Scan-to-BIM
- BIM Consulting & Clash Detection
- Geotechnical Risk Assessments
- Structural Condition Assessments
- Virtual Design Consulting



Visit TeamUES.com for more information on our services.

SOUTHERN COMPANY COAL COMBUSTION POWER PLANT

Georgia & Alabama

Scope of Services:

- Geotechnical Engineering
- Construction Materials Testing

UES solved challenges related to deep fills utilizing conditioned low-permeability soils, recognition and remediation of localized sinkholes by preparing detailed final subgrade surfaces to receive geomembrane liner systems. CMT services included over 1,600 in-situ moisture density determinations and over 250 in-situ laboratory tested hydraulic conductivity determinations. Laboratory services included borrow source evaluation and characterization, Atterberg limit determinations, hydrometer analysis, and proctor curve generation.



RAGINGWIRE/NTT GLOBAL DATA CENTER

Mesa, Arizona

Scope of Services:

- Environmental
- Geotechnical Engineering
- Construction Materials Testing

UES provided geotechnical, environmental and construction for this 76.3-acre property located at E. Elliot Rd and S. Signal Butte Rd. This data center will be developed in phases and phase I is a 100,000 SF building. At full build, the facility will deliver a total of 240,00kW critical load for customer use. Velocity Testing (UPV) of embedded anchor bolts.



IRON MOUNTAIN DATA CENTER

Phoenix, Arizona

Scope of Services:

- Construction Materials Testing

Just 10 minutes east of downtown Phoenix, Iron Mountain's AZP-1 and AZP-2 data centers offer an unbeatable range of power and interconnection opportunities tailored for enterprises, service providers and hyperscale clouds. A third Phoenix data center, AZP-3, is currently in development. The 48-megawatt, 550,000 SF data center will double the size of the Phoenix campus with a 9-acre expansion to support customer demand. A two-phase development plan is underway, with an initial delivery of 24 megawatts. UES provided construction material testing services for this data center.



TERRELL SOLAR

Dawson, Georgia

Scope of Services:

- Construction Materials Testing

In the construction of the 74-megawatt facility, encompassing over 750 acres, UES provided technicians to implement appropriate field monitoring and testing programs for quality assurance in Earthwork Compaction Testing. Our technicians obtained samples and performed laboratory analyses to determine moisture-density relationship as well as performed appropriate field testing to determine in-place moisture/density conditions. We collected samples of ready-mix concrete and provided ACI certified field technicians to verify mix properties as well as cast cylinders to determine compressive strength. Additionally, we supplied a Certified Welding Inspector(CWI) to visually inspect all required welds.



U.S. HIGHWAY 380 TRANSMISSION MAINS

Denton, Texas

Scope of Services:

- Geotechnical Engineering
- Construction Materials Testing

UES provided geotechnical engineering for U.S. Highway 380 Transmission Mains and performed geotechnical drilling at two (2) transmission line locations on the south side of U.S. Highway 380 and on the east and west sides of I-35E in Denton, TX. Laboratory tests were performed on selected samples retrieved from the borings. The scope of work consisted of drilling and laboratory testing.



MOHAVE SUNRISE SOLAR PHASE II

Mohave County, Arizona

Scope of Services:

- Geotechnical Engineering
- Subsurface Exploration Drilling

The Mohave Sunrise Solar Phase II project sits on the northern third, about 80 acres, of a single parcel totaling approximately 220 acres developed with a photovoltaic electric generation facility. UES provided information and geotechnical engineering recommendations relative to subsurface soil conditions, general geology of the area, foundation design and construction, retaining wall design and construction, floor slab design and construction, pavement design and construction, and earthwork. The scope of UES's services for this project included a subsurface exploration program. The subsurface exploration program consisted of drilling twelve borings to approximately 20 feet below existing site grades.



LOGAN CITY WASTEWATER TREATMENT PLANT

Logan, Utah

Scope of Services:

- Geotechnical Engineering
- Construction Materials Testing

Logan City engaged the design-build team of Malcolm Drilling Contractors, Inc. and UES to provide a value-engineering foundation design-build solution for 12 new structures that were required to comply with new phosphorous and effluent ammonia limits imposed by the Utah Division of Water Quality. The foundation design consisted of 2,340 augered, cast-in-place piles.



BARTON CHAPEL WIND FARM

Jacksboro, Texas

Scope of Services:

- Subsurface Exploration Drilling
- Laboratory Analysis
- Engineering Design Recommendations
- Construction Materials Testing

UES provided geotechnical engineering and construction materials testing services through Global Energy Services for Barton Chapel Wind Farm in Jacksboro, TX. Geotechnical engineering services included subsurface explorations (drilling), laboratory analysis, and engineering design recommendations. Construction Materials Testing services consisted of four (4) grout cores from Turbine #15.



AMWAY CENTER

Orlando, Florida

Scope of Services:

- Construction Materials Testing

This project consisted of the construction of a 7-level, multi-purpose facility/arena with approximately 750,000 square feet, approximately 20,000 seats and at least 40 suites. The Amway Center occupies 8.75 acres in downtown Orlando, and is now home to the Orlando Magic. The arena includes an NBA basketball capacity of 18,500 and 20,000 NCAA basketball seating. It also features four concourses with 56 suites and 66 sky boxes with seating for 316. The project included construction of an attached parking garage connected to the Center complex by a pedestrian sky bridge.

(UES) provided all threshold inspection services for this multi-purpose civic construction project and exceeded the City's "blueprint" goals of 24% minority firm participation. Inspections included all structural elements, walls, stairs, window and door framing, concrete slabs, rebar, structural steel and welds, and masonry.



ALLEGiant STADIUM

Las Vegas, Nevada

Scope of Services:

- Construction Materials Testing
- Geophysical Technologies

Construction of the \$1.8 billion stadium was completed in July of 2020. UES' services were to provide geotechnical engineering recommendations relative to subsurface soil conditions, general geology of the area, the foundation, retaining wall, floor slab, pavement, earthwork, and utility trench backfill. Our team provided a Geotechnical Data Report (GDR) to the design team. In addition, UES provided a series of non-destructive Sonic Echo/Impulse Response test (SE/IR) in the field to evaluate the integrity of the existing communication towers foundation system. These foundations were Cast-in-drilled-hole (CIDH) systems and were approximately 24 inches to 30 inches in diameter and 8-15 feet in depth. Our evaluation consisted of six low-strain Pile Integrity Tests (PIT), Ground Penetration Radar as well as Ultrasonic Pulse Velocity Testing (UPV) of embedded anchor bolts.



SIGNATURE BRIDGE

Miami, Florida

Scope of Services:

- Geotechnical Engineering
- Construction Materials Testing

The I-395/SR-836/I-95 Reconstruction and Signature Bridge Project includes construction of viaduct, segmental, and signature bridges in downtown Miami leading into Miami Beach and the Port of Miami. This project includes construction of 36 ramps and bridges, including the I-395 Signature Bridge of Miami (pictured). The Signature Bridge is founded on over 1,200 auger-cast piles, which is the first major bridge founded on Auger Cast Piles in the USA. The other ramps and bridges on this project are founded on 800 auger-cast piles, 950 driven concrete and steel H and pipe piles, and 68 drilled shafts. The sign structures and overhead lights are founded on 118 drilled shafts and the sound walls are founded on 228 auger cast piles. Universal Engineering Sciences (UES) is providing geotechnical design, inspection, Load Testing, CSL, TIP, PIT, MiniSID, and coring services for each foundation element on this project.



CANNELTON HYDROELECTRIC

Hawesville, Kentucky

Scope of Services:

- Geotechnical Engineering
- Construction Materials Testing

UES was retained as the Materials Testing Consultant for this project. Due to the size and magnitude of this project, Geotechnology established on-site laboratory testing facilities (construction trailers). These trailers were retro-fitted to accommodate aggregate, cement, concrete and soil testing applications. Additional laboratory testing assisted the owner's Engineer (MWH Americas, Inc.) in monitoring and confirming the powerhouse contractor's (Walsh) Quality Assurance and Quality Control Programs during the construction of this three year project. Various types of testing services were performed, in both field and on and off-site laboratory applications, for soils, cement, aggregates, concrete placement, soil-cement applications and other miscellaneous construction materials.



FREDERICK DOUGLAS MEMORIAL BRIDGE

Washington, DC

Scope of Services:

- Construction Materials Testing

UES was hired by South Capitol Bridge Builders to perform a Ground Penetrating Radar on Concrete Bridge Structural Element to determine location, spacing and size of reinforcing bars and conduit located within the structure on a new bridge construction concrete pour — post construction. The purpose of the study was to determine if any movement of the reinforcing or conduit had taken place during the concrete pour. Linear/ Area scanning of concrete member to determine location, spacing and approximate size of reinforcing utilizing a Proceq GPR Live Device was also performed. UES completed its site related investigation and reporting in accordance with the scheduling requirements as set forth in the project agreement.



BRIGHTLINE

Orlando-Miami, Florida

Scope of Services:

- Geotechnical Engineering
- Construction Materials Testing

Universal holds multiple contracts valued at over \$4.5M, we provided over \$2.5M in services to our client, Granite Construction to date, with services ongoing through 2022. UES' Contractor Quality Control services include performing construction materials testing and sampling, inspection services and site management for the rail alignment. The project scope for the Orlando to Cocoa section with Granite construction consists of 35 miles of new rail alignment. The project includes 18 new rail bridges, a conveyor system over SR 528 for embankment backfill, the arch tunnel under I-95, and the installation of two unique jack-driven box tunnel for the Brightline Trains route being constructed at Goldenrod Road in Orlando and under SR 528 in Cocoa. The pre-cast, box-jack system is only the third of its kind used in the U.S. and reduces construction time from nearly a year to just a few weeks.



MIAMI MARLINS PARK

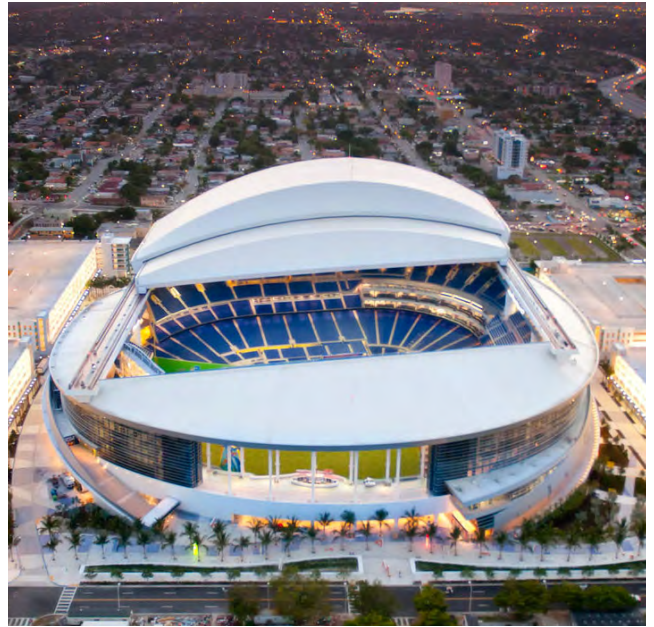
Miami, Florida

Scope of Services:

- Construction Materials Testing

The 928,000 SF Miami Marlins Ballpark is located on 17 acres of land at the site of the former Orange Bowl. The facility seats 37,442 and is owned by Miami-Dade County.

The facility was constructed with reinforced concrete and structural steel supported on pile foundations, as well as windows designed and built to withstand hurricane forces. The park achieved LEED certification in 2012, as the greenest MLB park. Permitting was accomplished through Miami-Dade County. UES worked closely with the County Building Department to ensure requirements were met regarding testing and inspections.



HERBERT HOOVER DIKE REHABILITATION

Moore Haven, Florida

Scope of Services:

- Construction Materials Testing

This project consists of the construction of cutoff walls along the alignment of the HHD levee and Jet Grout tie-ins to the S-77, Moore Haven Lock structures. This project entails the installation of a work platform at each work area, a jet grout cutoff wall adjacent to the structures, and a conventional cutoff wall extending between the jet grout cutoff wall and existing cutoff wall. UES performed Pre-Construction Structural Conditioning Surveys of all adjacent structures, provided Vibration Monitoring Services, and completed and inspected verification core borings for the cutoff wall.





GEOTECHNICAL ENGINEERING

UES offers a full range of geotechnical engineering services designed to help architects, engineers, and developers meet local, state, national, and international environmental regulations.

Our world-class geotechnical team works in multiple sectors throughout the United States, including theme parks, hospitality, transportation, residential, higher education, healthcare, and retail.

UES' specialists are supported by a comprehensive set of resources, including one of the largest fleets of energy-efficient field vehicles, high-capacity drill rigs,

and state-of-the-art laboratories performing accredited testing on soils, rock cores, and water samples.

We are pre-qualified with different departments of transportation allowing us to conduct geotechnical and materials testing work related to highway design and construction in those states. Additionally, our engineers have worked on projects ranging from high-rise buildings, industrial developments, and commercial facilities, to solid and hazardous waste landfills and stormwater management systems.

LABORATORY SERVICES

Due to the nature of materials testing and inspection, and threshold services, many of our project assignments are short-term in nature, typically ranging from one day to two weeks. As such, we have the ability to handle new projects to replace our assignments being completed on a weekly basis. We pride ourselves in being able to complete assignments on time with the appropriate resources.

All of our sample results are uploaded by the laboratory managers to track the progress of samples during all steps of sampling, testing and reporting. Utilizing our company-wide server will allow the UES Contract Manager to perform real-time oversight of laboratory testing flow for any sample delivered to our laboratories. Each of our laboratories follows the Quality Systems Manuals and have Quality Assurance oversight by our Quality Systems Manager.

With this type of in-house support, UES provides its clients with a multitude of capabilities ranging from preliminary investigations through to final design.



EFFICIENT BY DESIGN

Field Data Collection (FDC) is proprietary software used by UES technicians to gather testing data. Following a client's request for service, a work order will immediately be created, and a UES field technician will be scheduled and dispatched to the test site. With the use of remote devices in the field, the information gathered by the technicians is saved and transmitted to our office where, in conjunction with samples taken from the field, lab tests are performed and recorded. The resulting data is uploaded to our dispatch and

scheduling application where reports are generated and reviewed by a project manager for quality. Once approved, the reports are then sent electronically to the client.

Using soil and groundwater test results, UES' geotechnical engineers can analyze existing site conditions and provide our clients with safe, cost-effective construction solutions. Our dedication to value engineering techniques, state-of-the-art site exploration, and our extensive exploration database consistently proves to be invaluable in both pre-design and pre-construction planning. The evaluation of the subsurface soils and groundwater conditions is important to the development and design of construction projects as these evaluations confirm the allowable capacities of foundations, settlement potential and groundwater conditions. Also, it is extremely important that the subsurface exploration program evaluates potential site development and long-term performance problems. That way, we can identify cost-effective remediation alternatives for use by other members of the design team.

We also provide post-construction settlement investigations. These studies involve the determination of the cause(s) of settlement followed by remedial recommendations. Examples include sinkhole evaluation of commercial and residential structures, and consolidation of organic or soft clay deposits.

CIVIL DESIGN SUPPORT SERVICES

Quite often, civil engineering design requires special considerations for proper performance and economical construction. A few of the services that UES provides in this area are as follows:

- Exfiltration/Recovery Analysis and
- Permeability Evaluations
- Underdrain Evaluation and Design
- Pavement Design
- Borrow Pit Studies
- Dewatering Permitting
- Vibration and Noise Monitoring
- Pile Driving Analysis
- Structural Failure Analysis



DEVELOPMENT ACTIVITIES

The development of a new site requires several studies to ensure that the site is compatible with the intended use. These studies include characterizing soil and groundwater conditions, evaluating the potential for sinkhole activity on the site, and location of muck on the site that could adversely affect performance and construction costs of structure and pavement areas.

DEVELOPMENT ACTIVITY SERVICES

UES routinely performs soil investigations and geotechnical design services for construction projects where cost-effective design is essential to the successful performance of foundations, walls, dams and other structures that rely upon proper characterization of subsurface soil and groundwater conditions. A list of our capabilities in this area is as follows:

- Site Feasibility and Due Diligence Studies
- Soil Mapping and Classification
- Sinkhole Evaluation
- Landfill Site Selection and Assessment
- Muck Probes and Mapping
- Subsurface Investigations
- Standard Penetration Testing (SPT)
- Cone Penetrometer Soundings
- Shallow and Deep Foundation Recommendations and Design
- Settlement and Stability Analysis
- Subsurface Improvement Recommendations
- Retaining Wall Design
- Seepage Analysis
- Sinkhole Remediation Design
- Value Engineering Analysis

GEOPHYSICAL SURVEYS

As part of the broad range of engineering services provided to clients, UES uses geophysics as a cost-effective, non-intrusive means to rapidly characterize subsurface conditions and man-made structures. Our experience spans from engineering investigations involving pre-design and pre-build geologic characterizations to forensic assessments of distressed property, and “cause of subsidence” evaluations.

Geophysical surveys are used to optimize drilling and sampling programs and to measure bulk physical properties that are complementary to conventional engineering sampling methods.



WHAT LIES BENEATH

Underground utilities can pose a variety of difficulties for construction and facilities management if their locations and depths are not accurately known. Drawings and utility maps are often inaccurate, or in many cases, utilities are not documented at all. In addition to geotechnical applications, geophysical surveys are cost-effective means to map underground utilities in the design phase or prior to start of new and remedial construction activities.

UES' geophysicists, geologists and engineers draw from their experience to provide clients with optimal solutions to the most challenging of engineering problems. UES continually strives to research new techniques and methods which may further increase our ability to provide our clients with the most prompt and up-to-date services.



BUILDING CODE COMPLIANCE

With the ever-evolving complexities and constant reform of building codes, our knowledgeable inspectors and building officials diligently serve to maintain our client's understanding of the latest regulatory statutes, thereby reducing liability and increasing the navigability of the permitting and construction process.

By simplifying this process and providing alternative professional inspection services in-lieu of municipalities, our team can consistently achieve rapid turnarounds on plan reviews and inspections, which represents a significant savings to developers, owners, and contractors.

Our Building Code Compliance team can seamlessly integrate themselves into your work-flow effectively becoming an extension of your staff.

PRIVATE PROVIDER INSPECTIONS AND THE LAW

Florida Statute 553.791 was signed into law by Governor Jeb Bush on June 1, 2002 (revised June 28, 2019) and became effective October 1, 2002. Known as "Private Provider Inspections" (PPI) it states that building departments must now allow private provider inspections and plans review on residential and commercial construction projects.

DID YOU KNOW?

UES can provide building, mechanical, electrical, and plumbing (MEP) inspections and expert plan review in lieu of local building departments.

- Private inspections can be used on rehabilitation, repairs, alterations or additions.
- Private plan review can save significant time, reduce costs and prevent technical delays in permitting.
- Private inspections are a reliable, cost-effective, legally sound alternative to county or city inspections.

PRIVATE PROVIDER INSPECTION ADVANTAGES

Cost Reduction. By communicating and coordinating with your subcontractors, we can expedite the inspection process, saving time and avoiding re-inspection fees.

Easy Scheduling. If you schedule before 1pm, we can usually provide a next-business day inspection.

Extra Quality Control. You gain an additional level of oversight through our licensed inspectors. Full Compliance. All inspections are conducted in compliance with Florida Statute 553.791.

PRIVATE PROVIDER PLAN REVIEW ADVANTAGES

Efficiency. We will review your plans and submit them to the appropriate building department.

Save Time. By law, a building department has 30 business days to respond. If you do not use a licensed

private provider, government response often takes much longer in some areas of Florida.

It's Right the First Time. Because we review your plans, you enjoy professional quality control and avoid costly building mistakes.

UES has become a leader in conducting these services which now provides our clients the confidence of having a Top 500 Engineering Firm as a code compliance partner on construction projects. Small or large, we provide the expertise to ensure compliance with building, plumbing, mechanical, electrical, gas, energy, and accessibility codes as required by state law.

We have our own state certified building code administrator on staff which gives our firm the unique ability to know the issues that effect the operations of each building department, the delivery of services and quality control.

Our inspectors can be counted on to increase the manageability of the permitting and construction process, and to handle the complexities of code compliance in a professional manner.



Due diligence and property condition evaluations for property acquisitions are a necessity in today's real estate environment. UES can help!

In the new era of the statewide Florida Building Code, we understand that rapid turn-around time on plan review and inspections represents a significant cost savings to developers, owners and contractors.

UES provides fully-insured coverage for all inspections completed, as required by Florida law.

OUR INSPECTION CREDENTIALS

- Master Code Professional
(International Code Council)
- Certified Building Official
(International Code Council)
- Certified Building Official
(Council of American Building Officials)
- Code Enforcement and
- Administration Professional
(Southern Building Code Congress International)

QUALITY ASSURANCE SERVICES

With subcontractor shortages, budget constraints, general lack of adequate job skills, and waning pride in workmanship, your construction project often feels the pressures of poor quality construction as much as it feels the pressures of construction scheduling and budget management. Often your construction management staff feels stretched to the limit, then something has to give— usually, product quality.

UES can help you get your overall project expenses back on track by providing technical assistance in controlling construction quality assurance. Our team of professional engineers, construction professionals, and building code inspectors takes charge of the quality assurance issues for you, freeing up your construction staff to tackle the ever consuming job of making sure your project is completed on time, and within budget. Working with your team of professionals, UES provides on-site monitoring of critical construction methods and materials employed on your project.

Our reports identify deficiencies not in conformance with supplied construction plans, specifications, and documentation to your staff. Your construction

management personnel can efficiently, cost-effectively, and in a timely manner manage and control all subcontracted construction activities.

PUNCH-LIST ORIGATION SERVICES

UES can perform high quality, cost-effective, accurate punch-list inspections of your completed project, in accordance with industry standards, providing a fast, written listing of visible construction abnormalities, incomplete work, and defects of the structure's systems, components and cosmetic finishes for prompt remedy by on-site construction personnel saving time, raising finished product quality, and minimizing warranty service callbacks and expenses. All critical aspects of the structure's construction, as applicable to building type, construction, and access, are reviewed.

HANDRAIL/BALCONY INSPECTIONS

If a public lodging establishment has three or more stories, the Florida Administrative Code for Public Lodging Establishments (Section 509.2112) requires that it must have a Certificate of Balcony Inspection every three years submitted to Florida officials. UES can help! You will be provided a detailed report indicating our findings and recommendations for repair, if necessary, along with your official Certificate of Inspection ready for submittal to Florida state officials.

DUE DILIGENCE/PROPERTY CONDITION

Pre-purchase due diligence and property condition evaluations for property acquisitions are required in today's real estate environment. UES' team of professionals conduct a thorough analysis of the property in question to provide the potential buyer with the critical decision-making information necessary for sound business and financial decisions. Whether the property consists of a simple single-family residence or more complex structures and/or facilities such as multi-building apartment complexes, commercial buildings, high-rise structures, manufacturing or industrial facilities, or large assembly complexes, UES can handle them all.

CONSTRUCTION MATERIALS TESTING & INSPECTION

UES has been a leader in providing Construction Materials Testing and Inspection Services in Florida and southeast United States since our inception in 1964. We strive to ensure that every project (no matter the size) has the right people, resources, and tools to perform our services to the highest standard for our clients. We are known for providing quality service on a variety of projects—from large roadway construction, parking lots and multi-story buildings to single residential communities. A willingness to serve our clients with on-demand, part-time, and full-time staffing demonstrates our approach in meeting the specific needs of our clients.

Clients who choose to use UES for their construction services benefit from:

- Certified, Qualified, and Trained Technicians
- Reliable and Accurate Test Results
- Accredited and Full-Service Laboratories
- Timely and Quick Responsiveness

IN-HOUSE LABORATORIES

UES maintains full-service laboratory testing capabilities from each of our offices and performs testing services in the following fields of construction materials:

- Aggregate
- Asphalt and Bituminous Materials
- Corrosion Testing of Soil and Water
- Concrete and Cement
- Earthwork Soils Material
- Masonry Units
- Non-Destructive Testing

Well-trained and experienced field and laboratory technicians perform materials testing in accordance with local, state, and national test methods such as:

- American Association of State Highway and Transportation Officials (AASHTO)



- American Society for Testing and Materials (ASTM)
- American National Standards Institute (ANSI)
- Florida Department of Transportation (FM)
- Portland Cement Association (PCA)
- Underwriters Laboratories, Inc. (UL)

We have a Corporate Quality Systems Group (in-house) responsible for keeping our equipment calibrated and checked for accuracy. Also, our laboratories are qualified and accredited through outside agencies such as:

- AASHTO Materials Reference Laboratory
- Accreditation (AMRL)
- Cement/Concrete Reference Laboratory Accreditation (CCRL)
- Construction Materials Engineering Council (CMEC)
- Florida Department of Transportation (FDOT)
- US Army Corps of Engineers (USACE)

FIELD SERVICES

Soils

By conducting on-site tests and monitoring, UES can analyze the suitability of soils for structural fill, determine the need for moisture adjustment, and provide an overview of earthwork activities.

Concrete

Our inspection services also include sampling concrete for air content, slump, temperature and unit weight; making cylinders for compressive strength tests; and observing concrete placement.

Asphalt

Our asphaltic concrete inspection services are designed to ensure that our client's asphalt pavement system is constructed per project requirements. UES can provide field quality control to determine and monitor temperature, lift thickness, and compaction using core samples, as well as verification of aggregate gradation, asphalt content, bulk specific gravity, stability and flow.

THRESHOLD INSPECTION

In order to assure structural component conformance of larger structures, the State of Florida Building Construction Standards enacted Chapter 553, which defines a threshold building as: "Any building which is greater than three stories or 50-feet in height, or which has an assembly occupancy classification that exceeds 5,000 square-feet in area and an occupant capacity of greater than 500 persons." This standard also specifies that a building of this size must have threshold inspector services.

On a typical threshold project, an agent of the licensed Special Threshold Inspector conducts a majority of the inspections. This agent is specially trained and qualified to perform structural element inspection. They perform their duties under the supervision and authority of the Special Inspector.



When construction schedule dictates that the agent of the Special Inspector is needed for threshold inspection services, we are capable of supplying additional engineering technicians to perform the materials testing in coordination with the agent of the Special Inspector. We have the staff ready and available.



PROJECT APPROACH

UES strives to maintain focus on the following objectives for each project. First, we establish a clear understanding of a client's needs, goals, and contractual requirements. Then, we seek to gain a clear understanding of a client's work philosophy and operational procedures. UES maintains an extensive amount of equipment and has a large resource pool of technicians readily available.

We also have a document control/record keeping system which allows expedited report preparation and retrieval of archived reports, drawings, and critical documentation related to the project. There is an integral Quality Assurance/Quality Control (QA/QC) system in place which helps UES maintain its level of quality.

A financial management system has been established with an invoicing system designed exclusively to service the client, enabling seamless processing of project costs. Finally, UES has an advanced level of detailed knowledge pertaining to regulatory agency mandates and guidelines governing a particular task or scope of work. UES has found this integrated project approach to be an important tool for accomplishing the objectives of a given project for a client.



ENVIRONMENTAL SERVICES

UES offers a wide range of environmental services. These services include many services for property transfers including environmental site assessments, property condition assessments, wetlands and threatened and endangered species assessments for due diligence. We also offer contamination assessments, site remediation, indoor air quality, septic tank and drainfield design, and asbestos and lead-based paint services. We provide economical solutions for regulatory compliance for many types of projects and industries including condominium conversions, underground storage tanks, land development, building renovation and demolition, and evaluating indoor building environments.

Our environmental staff includes professional geologists, environmental engineers, environmental scientists and biologists to assist you with your environmental issues.

The data we gather assists the purchaser and lender in deciding whether or not to proceed with a given transaction based on the environmental condition of the site or potential risks that may be associated with the property.

PRE-PURCHASE SITE ASSESSMENTS

Using common industry standards of care (ASTM), our environmental assessment personnel review the

historical land use activities of a given property for the purpose of evaluating the possibility that the property has been environmentally impacted by past uses. Recognized environmental conditions (REC's) associated with the current or planned use of a parcel are key determining factors which can impact a property investment. We directly assist any client with business environmental risks. This category of potential risk can have an unexpected material cost impact on a business enterprise. The most common pre-purchase environmental assessment tasks are:

- Phase I Environmental Site Assessments (ESA's) assess for Recognized Environmental Conditions
- Phase II Environmental Site Assessments – assess soil and groundwater quality
- Transaction Screen Process (TSP)
- Water Resource Investigations, Aquifer Performance Tests

BUSINESS ENVIRONMENTAL RISK SERVICES

These risks typically fall outside of the normal scope of business transactions and pre-purchase environmental assessments yet they can be a significant cost factor in a decision making process. UES can perform all of the environmental business risk assessment tasks that commonly include:

- Phase Asbestos Surveys, Demolition and Abatement Plans
- Lead-Based Paint Surveys, Demolition and Abatement Plans
- Regulatory Compliance Audits
- Lead in Drinking Water
- Radon Gas Evaluations
- Wetlands Evaluation, Threatened and Endangered Species
- Cultural and Historic Resources
- Groundwater Modeling and Monitoring Plans
- Spill Prevention, Control and Countermeasure Plan (SPCC)
- Stormwater Pollution Prevention Plans (SWPPP)
- Best Management Practices (BMP)
- Vapor Intrusion Assessment and Abatement Design

ADVANCED ENVIRONMENTAL SERVICES

After a pre-purchase assessment is completed and evidence of an environmental impact is discovered, it is sometimes necessary to perform advanced environmental services.

UES' staff has accumulated a very diverse experience and skill base. We offer excellent in-house, "turn-key" capabilities which can take an environmental problem from the initial discovery to final remediation using minimal outside resources. A few examples of our advanced capabilities are:

- Storage Tank Assessment & Management (UST/AST)
- Site Assessment Reports (SAR)
- Source Removal Reports (SRR) – In-house excavation services
- Remedial Action Plans & Site Remediation and Monitoring
- Remediation System Design, Construction, and Installation
- Remediation System Operation and Maintenance
- Specification and Bid Package Development

PETROLEUM CONTAMINATION & OTHER CONTAMINANT WASTE

UES specializes in petroleum storage tank management services. This includes storage tank assessment,

removal, abandonment, and post assessment remediation tactics for petroleum and mixed chemical storage vessels.

SPECIALTY ENVIRONMENTAL REMEDIATION SERVICES

UES' remediation group has advanced experience and capabilities to initiate, follow through, and complete groundwater and/or soil remediation projects. Remediation can be expensive; however, we have a distinct advantage because we have in-house technical equipment to facilitate the process and reduce the overall cost of remediation for our clients. We own and maintain a mobile remediation trailer housing a large ozone sparge unit which can be deployed rapidly after the final design and regulatory approvals are obtained. In addition, we own and maintain a fleet of drill rigs and competent crews, a large mobile vacuum unit for SVE, a smaller footprint ozone generator, and numerous compressors and blowers that are used to construct many types of remediation systems. Some of our more advanced experience includes:

- Chemical Oxidation (permanganate, peroxide and/or ozone)
- Soil Vapor Extraction (SVE)
- Air Sparge (air and/or ozone)
- Biosparge
- Bioremediation (with microbes, oxygen enhancers, hydrogen release)
- Dual Phase Extraction
- Granulated Activated Carbon Treatment (organics)
- Activated Alumina Treatment or Ion Exchange (uses include arsenic and heavy metals)
- Groundwater Treatment via Dewatering of Large Tracts
- Other Technologies to Suit
- Client Specific Situations

SERVICE LINES BROWNFIELDS ASSESSMENT

UES has completed hundreds of environmental restoration projects under a variety of public and private sector relationships. We supported redevelopment of abandoned commercial/industrial corridors long before formal EPA Brownfields Grant

Program and state-level equivalents. Further, we possess recent and relevant Brownfields Assessment experience spanning all levels of government from EPA Region 7, to the Kansas and Missouri Brownfields Programs, to a current portfolio of environmental projects under municipal programs. UES has successfully completed countless Brownfields Assessments, site characterization, and similar projects for the State of Kansas Brownfields Program alone since 2001.



BROWNFIELDS & LAND USE PLANNING

UES professionals interpret and report environmental data and brownfield findings on daily basis. UES quality assurance plans have been approved by EPA Region 7 under the EPA Superfund, Brownfields, and state equivalent programs. These standards allow UES to seamlessly integrate our designs into complex, multi-phase projects.

Our staff has experience writing successful Brownfields Grants and managing those grants, including reporting to the EPA.

UES has an impressive history managing Brownfields projects through defined state and local environmental programs. Specifically, we have direct experience managing large environmental programs and site portfolios through detailed financial tracking systems, EPA Property Profile Updates, Brownfields Inventories, and EPA Assessment, Cleanup and Redevelopment Exchange System (ACRES). Typical elements of a Brownfield Assessment include:

- Assist Client with Filing for Brownfield Status
- Develop Various Types of Assessment Plans and Documentation for DEP Review and Approval
- Perform Soil and Groundwater Assessments
- Contaminated Soil Excavation and Disposal
- Innovative Use of Groundwater Cleanup Technology

PROPERTY CONDITION SURVEYS

We can help a client decide if the cost to renovate and replace building appurtenances is feasible. We are capable of completing the following tasks to assist in the decision making process:

- Complete Structural, Mechanical and Electrical Inspection
- Roofing Assessment
- Drainage Evaluations
- Building Envelope Evaluation
- Moisture Intrusion Assessment
- Field Verification of Civil Works
- Remediation, Retrofit, Rebuild Cost Estimates
- Remediation Oversight
- Punchlist Review and Bank Draw Services
- Air Quality

Many of UES' professionals perform Air Quality testing in a number of settings. Residential and commercial facilities are common venues for the performance of our work.

AIR QUALITY

Many of UES' professionals perform Air Quality testing in a number of settings. Residential and commercial facilities are common venues for the performance of our work.

- Air Pollution Source Permitting (Title V)
- Indoor Air Quality and Industrial Hygiene
- Air Sampling (mold)
- HVAC Analysis (temperature, relative humidity, carbon dioxide, carbon monoxide)
- Filtration Assessment
- Post "Water Event" Moisture Mapping, Air Sampling, Remediation Management



BUILDING ENVELOPE

BUILDING ENVELOPE CONSULTING & PROPERTY CONDITION ASSESSMENTS

UES can provide building owners and property managers with a comprehensive assessment of the condition of an existing building or that of a building that is currently being constructed. Our subject matter expert, Greg Kinton, AIA, a 30-year veteran of this specialized and vital service is leading UES' efforts to provide superior Property Condition Assessments and Building Envelope services.

The benefits and insights that Facilities Consulting provides to our clients are tremendous and commonly results in more efficient building maintenance programs and fewer repairs while mitigating excessive and uninformed budgets.

Our specialists are knowledgeable of both past and present construction techniques as well as local and national codes, regulations, and current A/E design practices. Their extensive knowledge enables them to provide thorough assessments in many areas of a

building including structural, civil, mechanical/electrical and plumbing (MEP), roofing, paving, health/life safety, and coatings and finishes.

SITE SELECTION & DUE DILIGENCE

UES provides a variety of comprehensive solutions that help our clients make confident, informed decisions during site selection. Our specialists can assess virtually every aspect of an existing location or assist in navigating complicated real estate transactions. Our assessments are conducted by experts familiar with both historic and modern building codes and whose commitment to excellence and unmatched knowledge best serves our clients investments.

- Property Condition Assessments (PCAs)
 - ASTM E 2018-08
 - HUD/Federal Housing
 - Lender Based (Tailored to site-specific needs)/Equity Based
 - Enhanced HVAC System Investigations

- Reserve Studies
 - Annual Condominium
 - Multi-Family
 - Conversion Assessments
- Compliance Audits
 - Americans with Disabilities Act (ADA) Audits
 - Fair Housing Act (FHA) Audits



DESIGN AND PLANNING PHASES

UES' architects are accustomed to working with A/E teams on significantly complex elements of a building's design such as the facade or roof. Our team understands the products being used and how those products are applied to the building and therefore how to design high-performance systems.

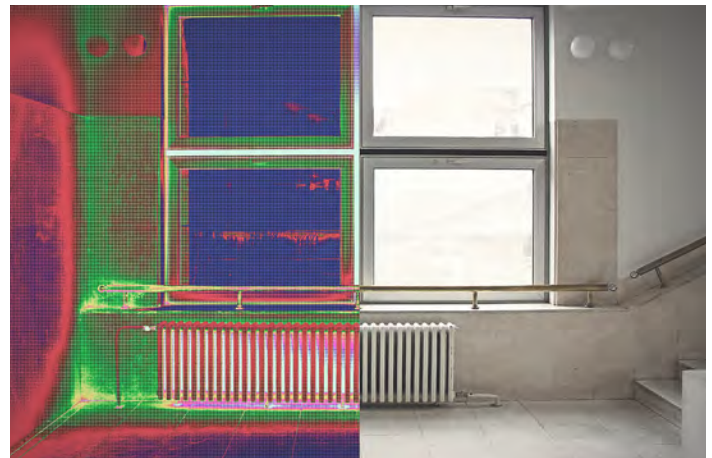
As well-experienced specialists, our architects can provide expert and knowledgeable guidance throughout a project's design phase or serve as the architect of record.

- Roof Consulting
 - Investigative Condition Surveys
 - Pre-Design Surveys
 - Design Services
 - Peer Review
- Building Envelope Consulting
 - Investigative Condition Surveys
 - Moisture Survey
 - Uplift Testing
 - Membrane Testing
- Accessibility/Compliance
 - Americans with Disabilities Act

CONSTRUCTION & RENOVATION PHASES

Construction and renovation projects are inherently complicated with tight schedules and budgets governing the activities of multiple contractors and trades. UES's professionals can serve on our client's behalf with QA/QC monitoring which ensures that work is being conducted according to current specification and code requirements. UES also provides inspection and testing services for existing facilities thereby granting our clients with expert assessments and comprehensive reports.

- Q/A and Q/C Monitoring
- Construction Administration
- Payment/Draw Request Services
- Building Envelope
 - AAMA 501.2 – Water Spray Nozzle
 - ASTM E 783 – Air Leakage (Chamber)
 - ASTM E 1105 – Water Penetration (Chamber)
 - WUFI Software Analysis
 - Infrared Thermography (IR)
- Building Commissioning
- Air Barrier Testing
 - ASTM E 779 – Building Air Leakage Rate/Door Blower
 - ASTM E 1186 – Air Leakage Identification
 - ASTM E 2178 – Assembly Air Leakage Rate
- Moisture Transmission Testing
 - ASTM F 1869 – Calcium Chloride
 - ASTM F 2170 – Protimeter



- Roof System Testing
 - Wind Uplift (ASTM/FM)
 - Nuclear Moisture Survey
 - Infrared Thermography
- Structural Testing/Investigation
 - ASTM E 196 – Load Test
 - General Bond Strength/Pull Testing
 - ASTM C 1028 – Coefficient of Friction
 - ASTM E 1155 – Floor Flatness
- Video Pre-construction Surveys

PROPERTY MANAGEMENT PLANS

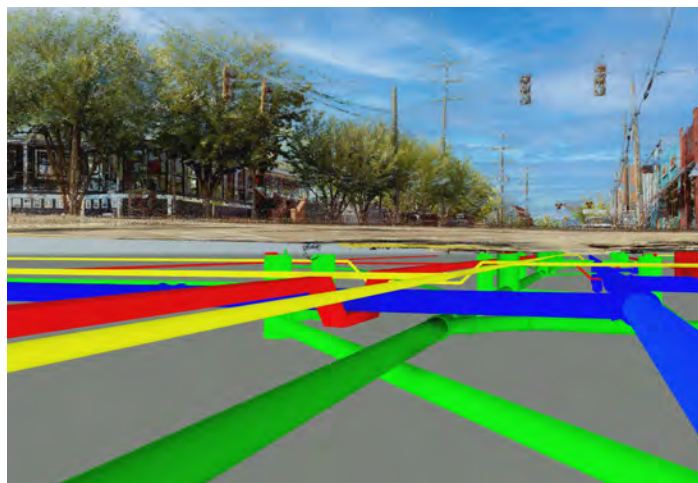
UES can help extend the life of our client's facilities and assets by conducting inclusive property condition assessments which are then used to develop reserve studies. These studies are in turn are used to provide an overall understanding of the state of a facility's systems and to plan for the costs of remediation, repair, and replacement.

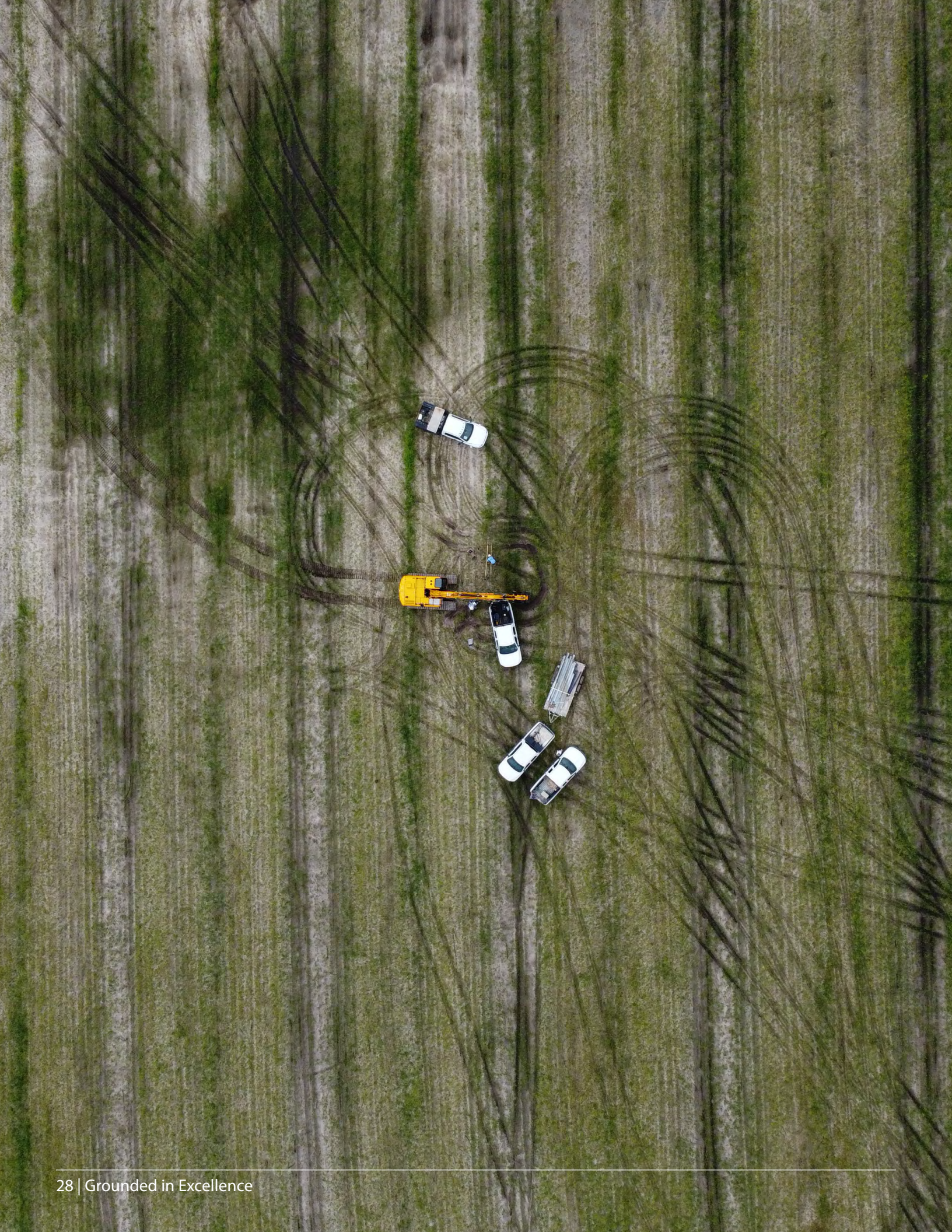
- Property Condition Assessments
- Reserve Studies
- Compliance Audits
- Roof Surveys and Consulting
- Building Envelope Consulting
- Roof Management Programs
 - RoofPro
 - Roofer
 - Builder
- Property Management Programs
 - Axserion
 - Que Centre
 - Builder
 - Paver
- Non-Destructive Investigation
 - GPR Surveys
 - Infrared
 - Boroscope
 - Sanitary Smoke Testing
 - Air Flow Measurement
 - Coefficient of Friction Testing
 - Crack Monitoring
- Pre and Post Construction Surveys
- Pavement Surveys

GEOPHYSICAL TECHNOLOGIES

Unlock the potential of your projects with our integrated approach to subsurface analysis and virtual design consulting. Our geophysical services utilize advanced techniques, including gravity, magnetics, seismic refraction/reflection, and more, providing a cost-effective, non-destructive alternative to traditional methods. Simultaneously, our virtual design consulting team collaborates with architects and engineers, integrating subsurface information models with building designs. From comprehensive subsurface analysis to accurate BIM integration, we deliver cutting-edge solutions for informed decision-making in design-construction projects. Deliverables can be presented as a standalone subsurface information model or combined with our client's BIM product using Civil 3D, Navisworks or Revit.

- Subsurface Utility Engineering
- Subsurface Utility Mapping
- Subsurface Information Modeling
- Geophysical Investigations
- Reality Capture & Scan-to-BIM
- BIM Consulting & Clash Detection
- Geotechnical Risk Assessments
- Structural Condition Assessments
- Virtual Design Consulting
- Vibration & Noise Monitoring







Grounded in Excellence | Learn more at TeamUES.com