

GEOTECHNICAL ENGINEERING SERVICES

Beyond Engineering & Testing, LLC is a TX/NM DBE/MBE/HUB geotechnical engineering firm headquartered in Round Rock, Texas. Our commitment begins with controlling all the resources to deliver any size geotechnical project utilizing our in-house field exploration, laboratory testing, and engineering study resources. Beyond delivers geotechnical projects on time and on budget.

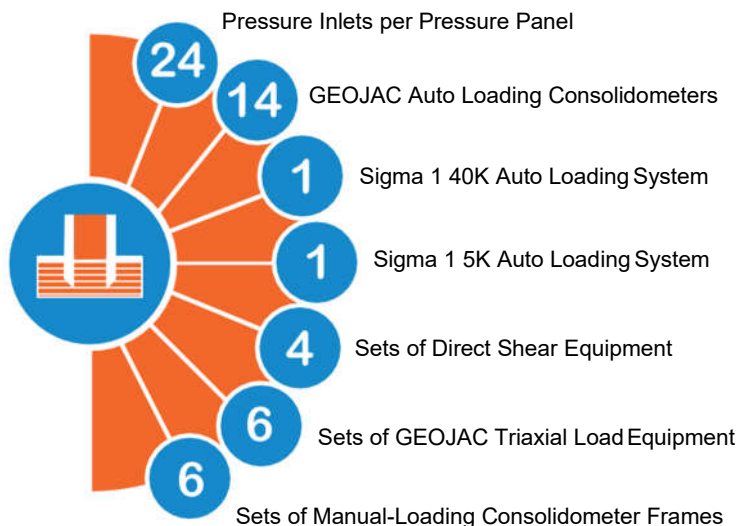
EXPLORATION CAPABILITIES

Beyond boasts a robust drilling operation including:

- TX/OK Licensed Well Drillers
- 5 – Drillers with 80+ Years' Combined Experience
- 5 – Drill Rigs, Continuous Flight Auger (CFA), Mud Rotary, Casing, Hollow Stem Auger, Air/Water Rock Coring, Texas Cone Penetrometer (TCP), Auto Hammer, and Shelby Tube Extruder on the:
 - Mobile B-53 Truck Mounted Rig
 - CME 55 Truck Mounted Rig
 - CME 55 Rubber Track Mounted Rig
 - Two CME 75 Truck Mounted Rigs

LABORATORY CAPABILITIES

- 4 Labs (Round Rock, Midland, Carrollton, TX and Carlsbad NM)
- Triaxial UU/CU/CD
- Direct Shear/CBR
- 1-D Consolidation
- Hydrometer
- Soil Classifications
- Electrical/Thermal Resistivity
- Swell/Collapse
- Permeability
- Unconfined Compression
- Rock Testing



GEOTECHNICAL CAPABILITIES

Beyond's engineering team consists of a team of professional engineers, geologist and engineers in training with extensive experience providing quality geotechnical engineering.

- 5 – Licensed Professional Engineers (PE)
- 6 – Engineers in Training (EIT) / Geologist
- 20+ Engineering Technicians

Beyond is pre-certified by TxDOT in all geotechnical related work categories: 12.4.1, 12.5.1, 14.1.1, 14.2.1, 14.3.1, 14.4.1 and 14.5.1.

FOUNDATIONS

- QC/QA Plan Review
- Site Selection and Feasibility Studies
- Deep Foundation Design/Recommendations
- Shallow Foundation Design/Recommendations
- Expansive Soil Engineering
- Drilled Shafts Axial/Lateral Capacity
- Drilled Shaft CSL and TIP Profiling
- Pile Drivability
- Pile Static Load Testing

RETAINING STRUCTURES

- MSE Wall Design
- Conventional Retaining Walls
- Slurry Walls
- Soil Nail Walls
- Ground Anchor Design
- Excavation Shoring

EMBANKMENT, EARTH DAMS, LEVEES

- Embankment Studies
- Materials Selection, Testing and Specification
- Slope Stability/Settlement Analysis
- Seepage Analysis
- Erosion Control

DOCKS AND BULKHEADS

- Sheet Pile Bulkhead
- Pile Supported Dock
- King Pile Walls
- Monopile Design/Recommendation
- Soil Ground Improvement
- Dredging and Slope Stability

ENGINEERING GEOLOGY

- Geologic Studies
- In-situ Geophysical Testing
- Karst Feature Assessment
- Fault Studies



SOIL CHEMICAL AND MECHANICAL STABILIZATION

- Project Selection and Assessment
- Material Selection Testing and Evaluation
- Lab Mix Design (Lime, Cement and Fly Ash)
- Sulfate-Induced Soil Heave Mitigation
- Organic Soil Treatment
- Moisture Treated Subgrade
- Chemical Injection
- Soil Stabilization Construction and Evaluation
- Soil Geogrid Stabilization

PAVEMENTS

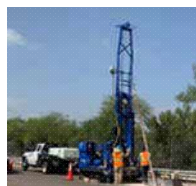
- Pavement Design – Highways, Streets, Parking Lots and Airports
- Pavement Distress Survey and Non-Destructive Evaluation (FWD/LWD, GPR, DCP)
- Subgrade and Base Evaluation and Improvement
- Base and Fill Selection and Specification
- Groundwater Control and Monitoring Well Installation
- Pavement Rehabilitation and Full Depth Reclamation
- Pavement Forensic Investigation

FIELD EXPORTATION/TESTING, INSTRUMENTATION

- Drilling - Continuous Flight Auger, Wash and Air Rotary, Casing, Hollow Stem Auger and Rock Coring
- Soil sampling - Shelby Tube, Auger and Split Spoon
- Standard Penetration Testing (SPT)
- Texas Cone Penetrometer (TCP)
- In-Situ/Hand-Held Van Shear Test (VST)
- Cone Penetration Testing (CPT)
- Inclinometers
- Piezometers
- Settlement Monitoring

REPRESENTATIVE PROJECTS

FM 676 CSJ 1064-01-027, Hidalgo County, TX:



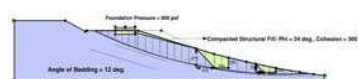
The project involved performing geotechnical investigation and geotechnical engineering analysis for improvements to the existing FM 676 in Hidalgo County from SH 107 to Taylor Road. Improvements included widening current two-lane roadway to a four-lane divided highway. Project consisted of performing geotechnical borings (800 ft of drilling and piezometer installation), laboratory testing and geotechnical engineering analysis for retaining wall, slope stability and embankment, and foundation investigations.

Fairgrounds Road Extension Phase II, Midland, TX:



Beyond performed geotechnical engineering investigation, pavement design, CMT, and construction inspection for this \$7 million, 2-mile roadway project. Beyond proactively coordinated with the owners of adjacent properties through the city for drilling in easement. Resulted in completion of field exploration on time and secured high-quality soil samples.

Slope Stability Evaluation, Texas Disposal System WAT Containment Area, Travis County, TX:



Beyond performed geotechnical field investigation, laboratory testing, and embankment/slope stability analyses for this facility. Included drilling 12 soil/rock borings to 30-85 feet below top of embankment/slope, NX wire-line rock coring into the native claystone bedrock, 5 direct shear tests, 18 triaxial UU/CU tests, 11 unconfined compression tests, and slope stability analysis along 10 profiles. Beyond completed geotechnical evaluation within 5 weeks of exploration enabling the client to expedite construction.

Reeves County Health District New Hospital, Pecos, TX:

Beyond performed geotechnical investigation for the 140,000 square feet, 3-story, new hospital building. Beyond provided recommendations for spread footings, drilled shafts, lateral earth pressure, floor slab subgrade stabilizations and cost-effective mitigation measures for high Chloride soil.



Double E Summit Pipeline Project, Eddy County, NM to Pecos County, TX:

This project consisted of 133 miles of underground 30 to 42-inch diameter pipelines, 6 compressor stations and 1 meter station. Beyond provided geotechnical recommendations for spread footings, mat foundation, and drilled shaft foundations for the compressor/meter station structures, design parameters for open-cut and HDD installation (below Pecos River) of the underground pipelines, and recommendations for pipeline bedding and backfill material. Project completed on schedule despite difficult rock drilling/coring conditions.



CONTACT US

Central Texas-Winter Yao, PE
WinterYao@beyondet.com

North Texas-Frank Yuan, PE
FrankYuan@beyondet.com

West Texas & New Mexico-Ken Sapien
KenSapien@beyondet.com