ODOT GEOTECHNICAL CONSULTANT WORKSHOP

Presented by the Division of Planning,
Office of Geotechnical Engineering (OGE)

http://www.dot.state.oh.us/geotechnical/Default.htm
Then

- 1960s Interstate construction
  - ODOT did all the geotechnical work - Consistency
  - Everything tested
  - Large staff

- 1970s-1995:
  - Less Staff
  - More geotechnical work being performed by consultants – introduced variability
  - In a centralized organization, all plans received a geotechnical review by OGE - 100% review maintained plan consistency
Now

• 1995 – Present
  – ODOT runs 2 drill rigs and has 2 soil lab technicians
  – Geotechnical Consultants perform 80% of the geotechnical investigations.
  – Decentralization and manpower reduction lead to fewer plans being reviewed by OGE – introduces plan variability
  – Geotechnical Change orders steadily increasing.
Workload

- ODOT sells about 600 projects per year – number to increase due to increased funding (doesn’t include emergency work)
- Project Development Process (PDP) - 5% major projects + 45% minor projects = 300 geotechnical investigations per year
- 500 feet/project x 300 projects = 150,000 feet of drilling per year
- At 90% efficiency - 641 feet per working day
- 60 feet/rig day = 11 drill rigs >> 2 ODOT drill rigs
  \[\text{we need good consultants}\]
- ODOT = 20% (74 investigations in 2003)
- Consultants (21-54 offices) = 80%
Recent Trends

- **ODOT** - Number of projects increasing
- **OGE** - Performing proportionally fewer investigations and reviews
- Consultants - Performing proportionally more investigations between an increasing number of prequalified firms - variability of quality, range of recommendations, somewhat vague
- **Construction** - Geotechnical related change orders increasing
Projected Trends

- **ODOT** - Number of projects increasing
- **ODOT** - More geotechnical participation and review in the Districts. District and OGE combine for 100% project review
- **OGE** - More time spent on geotechnical Planning, Policy and Procedure and training - **Provide design direction**
- **Consultant** - Generate sound, cost effective designs that are comprehensive and well documented. Review plans to assure design is implemented - **Create a complete and consistent product**
- **Construction** - Geotechnical related change orders decreasing (less than 10% of bid quantity)
Keys to Successful Transition

- Communication (specifications, design manuals, scopes, proposals, reports, plans, etc.)
- Teamwork
- Do Your Part – Quality Leadership (ODOT) ↔ Quality Execution (Consultant)
- Interchangeable Parts
- Consistency
Purpose of Workshop

- Open dialogue about ODOT geotechnical design and construction. Introduce ODOT Central Office Geotechnical and related staff and their roles
  - Is ODOT providing clear and complete direction (scope) and guidance (specs and manuals)? If not, where are we lacking?
  - Are the consultants following directions and executing the program? If not, where are they failing? Why are they failing?

- Identify and discuss geotechnical roles and responsibilities on ODOT projects - Team Approach with an educated client

- Review ODOT Geotechnical investigation and design documents

- Identify expectations regarding consultant geotechnical investigations, reports, and proposals

- Present OGE Planning and Research activities
Audience

- 54 ODOT Prequalified Geotechnical Consultants (as of 11/14/03), including 21 test labs

- District representative (Future Geotechnical Liaison)

- Staff and audience introduction