



Golder Associates Inc. – Redmond

Geotechnical Consulting

Jim Johnson manages geotechnical development projects for clients in the Northwest providing consulting on project feasibility, geotechnical and environmental site investigations, site planning, geotechnical design, and construction monitoring and testing. Jim is the Geology Group Manager for the Redmond Office. In addition to developing his technical skills, Jim has developed strong project management and client development skills using innovation, creativity, and common sense to meet the needs of his clients.

Employment History

Golder Associates Inc. – Redmond, Washington

Principal Engineering Geologist (1987 to Present)

Jim's engineering geology career began with learning the properties of soil, rock, and construction materials while working in Golder's A2LA accredited laboratory and conducting field inspection and investigations. His understanding of the engineering properties of soil and rock was further developed through years of conducting field investigations using multiple field techniques, such as drilling, test pits, mapping, in-situ testing, instrumentation, and geophysics. His client and project experience have grown during his 25 years of local experience. Jim has managed a wide variety of environmental and geotechnical projects for private and public land development and infrastructure clients over his career. He has provided forensic geotechnical expertise on legal claims and for insurance companies. He currently specializes in land development and geologic hazards. He scopes projects, prepares proposals, manages project budgets, and provides technical review on project deliverables. Jim has served as the engineering group leader in the Redmond office and is currently the Geology Group Manager.

Hong Consulting Engineers (HWA Geosciences) – Lynnwood, Washington

Geologist/Construction Inspector (1986 to 1987)

Jim was trained as a soil and construction materials laboratory technician during his year at HWA. He also trained under senior field inspectors and geologists in performing construction materials inspection on large municipal projects, and field investigation methods for land development projects. He completed laboratory and field testing and inspection services for soil, asphalt, concrete, and masonry. Jim was one of two field inspectors for a large roller-compacted concrete (RCC) spillway construction at the Cedar Falls Dam in Washington. He was the senior field inspector for soils and concrete during the University of Washington Husky Stadium Expansion project. He performed the field inspection of pile driving for the Port of Seattle's Pier 28/30 Expansion and was the senior construction inspector for soils, concrete, asphalt, masonry, and welding during construction of the Pierce County Transit Bus Terminal.

Education

B.S. Geology, Western Washington University, Bellingham, Washington, 1985

Certifications

Professional Engineering Geologist, Washington, 2002

Professional Geologist, Washington, 2002

Certified Erosion Control Lead, 2007

Nuclear Densometer Certification, 1985



PROJECT EXPERIENCE – EMBANKMENTS

Office of Surface Management Permitted Embankments, Centralia Mining Company (now TransAlta)

Centralia, Washington

Over the course of eight years, participated or was the project manager for construction observation and testing, monitoring and reporting during the construction of the 3D embankment. Jim managed the contract for construction monitoring and testing as well as reporting to OSM for four years.

Verdana Project, DOE DS Permitted Embankment, Yarrow Bay Group

Kent Washington

Project manager in charge of the geotechnical investigation and report for a DOE Dam Safety regulated stormwater pond at the Verdana project in Kent, Washington. Jim managed the investigation, geotechnical report, construction observation and testing and final report to DOE DS.

Talus Development, Intracorp

Issaquah, Washington

Project manager in charge of the geotechnical investigation and report for a DOE Dam Safety regulated stormwater pond at the Talus project in Issaquah, Wa. Jim managed the investigation, geotechnical report (including breach analysis), construction observation and testing and final report to DOE DS. This embankment was constructed over soft alluvial soils requiring permanent dewatering of the foundation soils. This embankment was later modified by WSDOT during the widening of SR-900.

PROJECT EXPERIENCE – LAND DEVELOPMENT

Talus Master-planned Development; Intracorp

Issaquah, Washington

The Talus Development is a 300-acre, master-planned community consisting of 18 development parcels and planned open space. The site is situated on the east side of Cougar Mountain in challenging geologic terrain. Project manager and engineering geologist for this large, master-planned office and residential community in Issaquah from 1999 to 2007. Managed geotechnical investigations, geologic characterization, and geotechnical design efforts for site infrastructure improvements. The Golder team completed numerous geotechnical designs, including a curved, permanent soil-nailed wall for a 1.4-million-gallon water reservoir; a curvilinear permanent soldier pile/tieback wall; pavement designs; culvert/bridge foundation designs, and cut slopes in weak rock. Sculpted soil nail walls were used in high visibility areas. Geotechnical and steep slope critical areas studies were carried out on each development parcel. Landslide risks were mitigated. Off-site improvements included the design and construction of a replacement bridge/box culvert under Newport Way on soft silt/clay; a permanent soldier pile wall design for widening of SR-900 south of Newport Way, geotechnical support for utility installation, including boring under streams; and widening of SR-900 between Newport Way and I-90. Supervised the ongoing construction monitoring of all infrastructure and parcel development within the Talus development from the summer of 2000 to 2007.



**Lawson Hills Master-planned Development;
Yarrow Bay Group**
Black Diamond,
Washington

Lawson Hills is a 376-acre, master-planned community project located just east of downtown Black Diamond, Washington. Project manager for this multi-disciplinary effort that includes project feasibility studies for environmental, surface and groundwater, geology, and mine hazards. The site consists of three large parcels with the largest situated on Lawson Hill. The geotechnical challenges include extensive abandoned underground coal mines, a reclaimed surface mine, and shallow bedrock. Golder completed baseline environmental, geotechnical and mine hazard assessments of the site. Installed instrumentation to monitor surface and groundwater quality and prepared regular monitoring data reports. Mine waste rock stockpiles were present on site. Golder provided the technical evaluation to support permitting of the relocation of the largest stockpile to an abandoned strip mine site in King County. Presently providing permitting and technical support for the remediation of two recognized environmental conditions. Prepared the technical report on geology, soils and groundwater for the environmental impact statement; and currently providing continuing support of project master planning.

**Villages Master-planned Development;
Yarrow Bay Group**
Black Diamond,
Washington

The Villages is a 1,450-acre, master-planned community project located east and south of downtown Black Diamond. Managed the early project site feasibility and later geotechnical design for the client. The site consists of largely lowland topography with several lakes, wetlands, and streams. The scope of work consisted of feasibility-level geology, surface and groundwater assessment, and mine hazard assessment; geotechnical design recommendations for Phase IA construction including stormwater infiltration assessment and low impact development. Golder staff continue to monitor surface and groundwater at over 30 wells and monitoring stations and provide regular data reports.

**Verdana Project;
Yarrow Bay Group**
Kent, Washington

The Verdana Project is a 160-acre, single-family home development located in the Kent city limits. The site consisted of undeveloped property containing a central wetland complex and the headwaters of Olsen Creek. Project manager for the developer, Yarrow Bay Group. The scope of work included the geotechnical site characterization, geotechnical design and construction recommendations for a Washington State Department of Ecology Dam Safety-rated stormwater pond, sewage pump station, and scores of retaining walls. Also supervised geotechnical construction monitoring and testing.

Snoqualmie Casino
Snoqualmie, Washington

The Snoqualmie Casino project consists of a 170,000-square-foot casino and a five-story parking garage located on a steep hillside overlooking the Snoqualmie Valley. Geotechnical project manager from the start of site feasibility in 2001 to the projects successful opening in November 2008. Scope of services included geotechnical site characterization, geotechnical design and construction recommendations, and geotechnical construction observation and testing. Golder also drilled and tested the site water supply well. Other project designs included a 40-foot-high permanent soldier pile shoring wall, numerous mechanically-stabilized earth (MSE) walls, and a Washington State Department of Ecology Dam Safety-rated stormwater pond. Golder field staff also monitored stormwater quality and erosion control compliance during construction.



BRE Properties
Bothell/Juanita,
Washington

Managed multiple projects for this housing and office developer. The scope of services included field geologic investigation, design recommendations, and construction observation and testing for two large multifamily residential developments, and an office building. The residential developments were on sloping sites with significant stability and foundation issues. The office park included a below grade foundation and removal of contaminated soils. Construction recommendations included recommendations for use of soil drying admixtures for wet weather construction and providing erosion control inspections and recommendations.

Legacy Properties
Seattle/Mukilteo/Bothell,
Washington

Client manager in charge of numerous projects in Washington, including recent the Legacy Tower, a downtown residential high-rise building; Providence, a multi-family residential apartment complex in Bothell; and the Harbour Pointe Village project in Mukilteo. Work included geotechnical investigations, recommendations, and construction observation and testing services.

Yarrow Bay Group
Puget Sound,
Washington

Client manager in charge of geotechnical services for seven land development projects for Yarrow Bay Group in the Puget Sound region of Washington. The projects have included the development of medium to large residential developments. Typical geotechnical services include site investigations, geotechnical recommendations for site development, construction recommendations, and design services for retaining walls and stormwater infiltration ponds.

Archstone Communities
Washington

Client manager in charge of the geotechnical services for all Archstone Communities residential projects in Washington. Provided due diligence geotechnical evaluation of site selection for numerous candidate properties. Provided value engineering of foundations, earthworks, construction season risks, and pavement designs. Scope of services included geotechnical investigations, design recommendations, and construction observation and testing services for all six Archstone residential apartment projects constructed in the Seattle area in the late 1990s.

PROJECT EXPERIENCE – GEOLOGIC HAZARD EVALUATION AND MITIGATION

Woodmont Landslide
Des Moines, Washington

Managed this emergency mitigation project for 10 private landowners whose homes on Puget Sound were being damaged by a large active landslide. Provided an emergency assessment of the situation and rapid remediation response consisting of the installation of emergency groundwater dewatering wells to stabilize the landslide mass. Developed a long-term groundwater dewatering and monitoring program that the newly-formed homeowners association could implement and maintain. The landslide movement ceased and has been maintained without causing any further damage to the homes.



Landslide Investigation and Remediation

Puget Sound, Washington

Managed scores of landslide investigation projects throughout the Seattle area. Scope of services included a geotechnical investigation, remediation recommendations, and construction observation. Fast tracked the investigation and remediation of three residential house landslides in Everett damaged in the 1996/97 winter storm. Provided consulting services to the City of Issaquah on numerous landslide projects, including the Sewer, Foothills, Cedar Road, and Goode Place landslides.

Abandoned Coal Mine Hazards

Puget Sound, Washington

Several of the principal underground coal mining regions of Washington State are located in or adjacent to urban centers, including Issaquah, Black Diamond, and Newcastle. Risks from abandoned coal mines include collapse, sinkholes, trough subsidence, coal waste debris piles, and soil and groundwater contamination. Managed numerous coal mine hazard investigations in accordance with appropriate Critical Areas Ordinances. Experienced in researching mine history and map locations, and conducting filed reconnaissance. Uses several exploration methods to locate mine hazards including test pits, borings, borehole cameras, microgravity, and radar. Provided mitigation recommendations for identified mine hazards and works with clients to mitigate the impacts of mine hazards on site development.

PROJECT EXPERIENCE – TRANSPORTATION

Bigelow Gulch 1 Slope Remediation and Bigelow 4 Geotechnical Investigation

Spokane County, Washington

Project Director for the Bigelow Gulch 1 slope remediation and the Bigelow Gulch 4 geotechnical investigation. Reviewed proposal and technical reports and consulted with Golder’s project manager on aspects of the investigation, analysis, and report.

Issaquah Bridges

Puget Sound, Washington

Over the span of several years, the City of Issaquah replaced three vehicle bridges and one pedestrian bridge crossing Issaquah Creek. Managed the geotechnical investigation and design recommendations for all four projects. Planned and managed the field investigations and report preparation. The bridges were founded in loose alluvium and consisted of a combination of deep pile foundations and conventional foundation abutments. The reports provided pile foundation recommendations, roadway embankment design and construction recommendations, and pavement design.

Goldenrod Bridge

Burlington, Washington

Project manager for the geotechnical investigation and design recommendations for roadway bridge in Skagit County. Managed the field investigation and report preparation for approach roads and a roadway bridge adjacent to I-5 crossing Gauges Slough. The report provided pile foundation recommendations for the bridge foundation, roadway embankment design and construction, and pavement design.

Three Lakes Road Bridge

Snohomish County, Washington

The Three Lakes Road Bridge is located in Snohomish County crossing the Pilchuck River. Managed and completed the field investigation for this two-lane concrete bridge built to replace a wood trestle bridge.



WSDOT Highway Projects
Washington

Project manager or task manager for a number of WSDOT projects, including a geotechnical study of I-405 from Sunset Boulevard to Coal Creek Parkway for high-occupancy vehicle (HOV) lane construction. The I-405 investigation included geotechnical explorations and engineering recommendations for walls and road fills. Managed the investigation and report for five overpass bridge replacements on I-5 in Vancouver, Washington; including the site investigation, engineering, and report preparation. Managed the investigation and geotechnical report for the I-405, Bellevue SE 8th flyover ramp, and the NE 4th and NE 8th interchange improvement projects.

PROJECT EXPERIENCE – FORENSIC INVESTIGATIONS

Pemco Insurance Company
Washington

Manager in charge of conducting over 60 geotechnical investigations for claims adjusters. Investigated and evaluated damage claims, determined damage causation, and prepared written reports for claims adjusters. Damages investigated included landslides, debris flows, foundation settlement, floor slab settlement, retaining wall failure, water intrusion, and other earthquake-related damage.

Chubb Insurance Company
Washington

Manager in charge of conducting geotechnical claims investigations for insurance adjusters. Conducted field investigations of damage claims, made causations determinations, and drafted reports. Typical damage included foundation and pavement slab settlement, retaining wall failures, slope movement, and earthquake damage.

USAA Insurance Company
Washington

Manager in charge of conducting geotechnical claims investigations for insurance adjusters. Responsibilities included investigation of reported damage, determination of damage cause and report preparation. Types of damages investigated included foundation settlement, floor slab cracks, landslides and retaining wall failures.

PROFESSIONAL AFFILIATIONS

Association of Engineering & Environmental Geologists