ADVANCED GEOSOLUTIONS INC

AGI FOUNDATION CONTRACTORS, ULC (Canada Subsidiary)





The premier design-build ground improvement contractor ™

AGI / WITH YOU FROM CONCEPT-TO-COMPLETION

AGI is the premier design-build ground improvement and specialty piling contractor, by virtue of experience, quality of work, and commitment to clients. AGI specializes in challenging sites and difficult soil conditions. Partnering with AGI makes dealing with such problems on the west coast easy.

From Concept-to-Completion (C-to-C), AGI works closely with the project's engineers, architect, and construction managers to develop the most cost-effective and proven solutions for Foundation Support and/or Seismic Liquefaction, and Lateral Spreading Mitigation.

For over 25 years, the principals and key team members at AGI have been recognized as leaders in the engineering, research, and construction industries. AGI's design-build services represent true value-added.

EVERY PROJECT IS A CUSTOM PROJECT.

AGI looks at all projects as custom jobs, whether design-build or design-bid-build. The ground demands it. While many sites are similar, no two are identical. Decades of concentrated west coast experience tells AGI what works best. The ground doesn't care about your plans, but AGI does.



We consider Advanced Geosolutions to be a ground improvement industry leader, providing a truly unique and valuable service.

SCOTT M. ANDERSON, VICE PRESIDENT Charles Pankow Builders, LTD.

GOOD GROUND IS SCARCE AND DENSELY POPULATED

The scarcity of sites suitable for development is especially a problem in coastal areas. All the good sites have either been built on, or are too far from where they need to be. Worse yet, siting requirements may force structures to be built on the area's poorest quality ground. Engineers face challenges coming from soft clays with low bearing capacity to seismically driven liquefiable soils. AGI has the expertise, technology, tools, and experience to overcome these issues and build solid foundations that meet the strictest building codes. AGI believes the first thing built on a site, the foundation, is the last thing an owner should have to worry about.

Owners and developers are left asking: "Who can provide the best design-build solution?"

AGI IS THE ANSWER

How does AGI provide the best design-build solution? During the design stage, AGI combines state-of-the-art design capabilities with expertise in proven ground improvement techniques. This allows the engineering of an economical and technically sound solution. During the construction stage, adoption of the most unique and cutting-edge practices ensures the highest quality product and performance.



AGI provided a quick turnaround for a design build proposal. They were willing to help in every way they could and worked with us on the schedule and sequencing of the project. Our team was very pleased with AGI and would definitely use them on another project.

JD Crans, Project ManageR | BENCHMARK CONTRACTORS, INC

AGI / SOLUTIONS

AGI's design expertise allows any geotechnical problem to be solved economically and effectively. The design performance is fully demonstrable.

Finite element analysis modeling is performed with PLAXIS 2D FE software for 2-dimensional analysis, and OPENSEES FE for 3-dimensional problems. AGI's approach includes accounting for all site and project specific conditions, which adds to the design's reliability.

AGI excels at design efficiency, preventing over-design, which maximizes cost savings. AGI can also evaluate existing designs by others to optimize them for proven value engineered solutions.





AGI presented the most economical and reasonable design for the problematic soil conditions - AGI was the right choice for the project.



AGI / TOOLS



STATE-OF-THE-ART **COMPUTER MODELING** SOFTWARE

AGI starts projects with rigorous analytical tools. AGI uses computer modeling to its fullest potential to create the best designs.



VIBRATOR TECHNOLOGIES AGI's patented twin tube bottom

feed system increases the quality and production rate of stone column construction when compared to traditional single

tube systems. This is a significant improvement to an already trusted technique with a 50-year track record.

VIBRO-REPLACEMENT

The original "Stone Column" method used to densify and strengthen soils. No other tool for compacting stone densifies the surrounding soil better than the depth vibrator. The "Gold Standard" in liquefaction mitigation, it has densified foundation soils for the most critical structures built on liquefiable ground.

AGIPIERS™

AGIpiers[™] are AGI's aggregate pier technique for intermediate foundation applications. It produces as stiff a column as any other patented method. Its real advantage is in densifying granular soil when present. Installation above or below the water table is practical.





VIBRO-COMPACTION

The original method used to densify clean sands. It is still the world-wide preferred method.



DEEP SOIL MIXING

Deep soil mixing strengthens and stiffens soil by blending it in place with cementitious binder. The resulting soil-cement columns increase bearing capacity,

decrease settlement, and solve seismic issues. They can also form walls for excavation support, erosion control, or contamination barriers.

WICK DRAINS



tion, thereby allowing for faster verification of the ground improvement.



COMPACTION GROUTING

Compaction grouting densifies, strengthens, and stiffens soil, displacing it with expanded bulbs. The technology increases bearing capacity, decreases,

arrests, or reverses settlement, stabilizes subsurface voids, and reduces seismic hazards.



MICROPILES



Micropiles are small-diameter drilled piles for high-capacity deep foundations in open or restricted sites. The drilling technology can penetrate any

subsurface profile.



HIGH CAPACITY HELICAL PILES (HCHPS)

These are an excellent, high capacity (over 1,000 kips) deep foundation element. Installation is fast and can be performed in

limited access and low headroom conditions. The pile is advanced by rotation and crowd forces only, without vibration. The process generates virtually no spoils. AGI has installed and tested piles to capacity. Great for contaminated sites!







SHEET PILING: TRADITIONAL VIBRATED AND NON-VIBRATORY SILENT

AGI has capability to install silent press-in non-vibratory, and traditional vibratory sheet

pile installation technology. Installation adjacent to sensitive structures is possible.



CORRUGATED PRESSURE GROUTED COLUMNS (CPGC)

Corrugated Pressure Grouted Columns (CPGC) give you ground improvement and high

capacity in a single deep foundation element. These piles achieve higher capacity than augercast or large-diameter bored piles, and without all the spoil. Installation imparts no impulse or vibration.



RAPID IMPACT COMPACTION (RIC)

Rapid impact compaction instantly consolidates shallow soils with a high-energy tamper. This technology is very

economical and ideal for compaction of uncertified fills, and liquefiable soils with depths up to 20ft. The cooperation and patience shown by AGI staff to complete the SFPR Expressway project in a timely manner, despite an adverse schedule and other difficulties, is truly commendable.

Ed Sanders, Project Manager BRITISH COLUMBIA MINISTRY OF TRANSPORTATION





AGI / CONSTRUCTION SECTORS

AGI works across diverse sectors of the construction industry, including industrial, commercial, residential, transportation, hotels, medical, schools, and parking structures. AGI's vast experience in each of these sectors, allows them to offer our clients tailored solutions to meet their unique needs at the lowest possible cost.



AGI delivered a quality product on time within budget to meet an aggressive schedule.

GENE WILSON, DBA SENIOR PROJECT MANAGER Slater Builders, Inc.

PARKING STRUCTURES







INDUSTRIAL



AGI's responsiveness, experience and reputation was instrumental in obtaining prompt OSHPD approvals for this project.

CASEN PERMAN

Jeff Russell, Project Executive RUDOLPH AND SLETTEN

WAREHOUSE BUILDINGS

MEDICAL

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