



Innovative Construction & Design Solutions, LLC

Geo-Exchange Services

WHO WE ARE

ICDS is a design and construction engineering firm committed to quality professional design and engineering services as well as efficient and comprehensive construction technical and commissioning services. Four dedicated individuals founded *ICDS* in 2003, to provide a level of services above and beyond the industry standard. With our combined experience of over 50 years in the building construction field, we can ensure project success and, most importantly, client satisfaction.



OUR COMMITMENT

Responsive: As a small firm, we are focused on cross-disciplinary training, which allows any principal to be responsive to the needs of our clients. Being a firm of only principals, you will get the highest quality of service with engineers having greater expertise than other firms and with individuals who have a vested interest in the success of our business.

Creative & Adaptive: With our decade plus of experience as individuals, we understand the complexities of modern construction needs. Some of these needs today include energy conservation and sustainable design, fast-track projects, interoperability of building/energy management systems, and indoor air quality.

Cost Effective: As a small firm with little overhead, we are capable of minimizing costs to our clients while maintaining the highest level of engineering standards and design detail without compromise.

WHAT IS GEO-EXCHANGE?

Geo-Exchange is a reliable and proven technology utilizing the earth's renewable energy to provide efficient heating and cooling. During heating, the process draws heat from the ground and transfers it to the space being heated. Likewise, in cooling it extracts heat from the space being cooled and rejects it to the ground. By employing the design of different types of wells and boreholes, the transferred heat provides the engine for an efficient and easily maintained physical plant. Due to the nature of its effectiveness, the geo-exchange process has earned the endorsements of the US Department of Energy (DOE) and the Environmental Protection Agency (EPA).

OUR SERVICES

ICDS provides the client a broad range of services in the field of geo-exchange engineering. Whether acting in a design-build or design-bid-build environment or as a specific geo-exchange consultant to the design team, we can provide all the necessary components to ensure a successful geo-exchange installation (including but not limited to):

- Feasibility and Conceptual Design
- Well Detail and Drilling Specifications
- Drilling and Plant Installation Oversight
- Central Plant Chilled / Hot Water Design
- Heat Pump Loop Design
- Hybrid systems (Geo/Tower/Boiler)
- Energy Use and Cost Comparison Analysis
- Geo-exchange, Heating, and Cooling Plant Automation
- Back-up heating systems design

Whether your intent is to install a "Green" technology to reduce your "carbon footprint" or to utilize a proven and reliable heating/cooling system, *ICDS* will guide you through the geo-exchange process in a manner which is both understandable and in your best interest. For more on our automation and control services, see our "System Integration Brochure".