

# Mitchell-Rolf Residence

Rockport, ME

## Project Information

- Square Footage: 3,300 sf
- Completion Date: October 2006

## Design Engineering

- 750 foot standing column well.
- Variable frequency drive engaged for well water flow control and energy efficiency.
- Water to water ground source heat pumps utilized in the central plant providing two stages of heating or cooling, depending on the current HVAC mode.
- Industrial geo-exchange control system with an extremely easy to use interface.
- Instantaneous water heater provided emergency heat if needed.

## System Integration

- Control panel design and fabrication
- Controller programming
- Furnished all instrumentation
- Commissioning the geo-exchange system.

The Mitchell-Rolf Residence project commenced upon conducting a geothermal versus standard heat pump HVAC system cost comparison study. After determining that geothermal design offered the Owner justifiable economic benefit, **ICDS** provided a custom designed geo-exchange system, along with the controls design, controller programming and fabrication of the control panel. The user-friendly touchscreen on the face of the control panel allows the user to view and change system setpoints and operational information. The HVAC system centers on the ecologically friendly and economical geothermal heat exchange design principles, but further incorporates exhaust air heat reclaim and high-performance air filtration for added economy and occupant comfort.



# ICDS

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