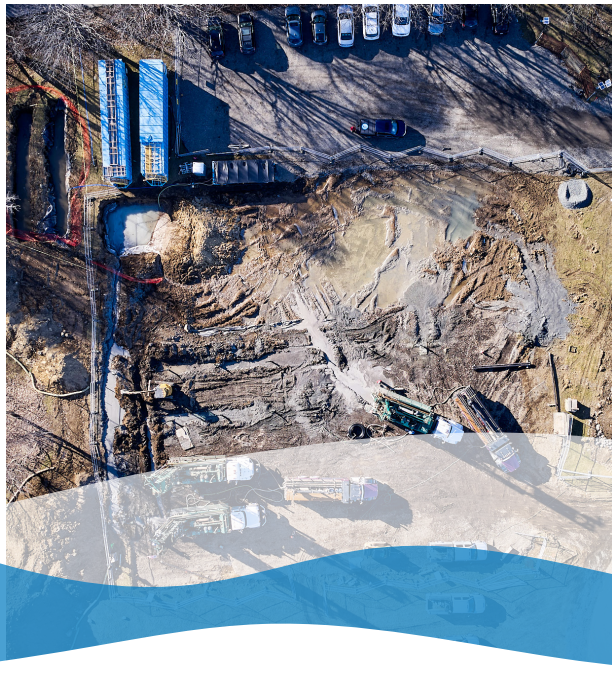
CASE STUDY

Campus Networked Geoexchange: Geothermal System for Expanded Four Building Campus

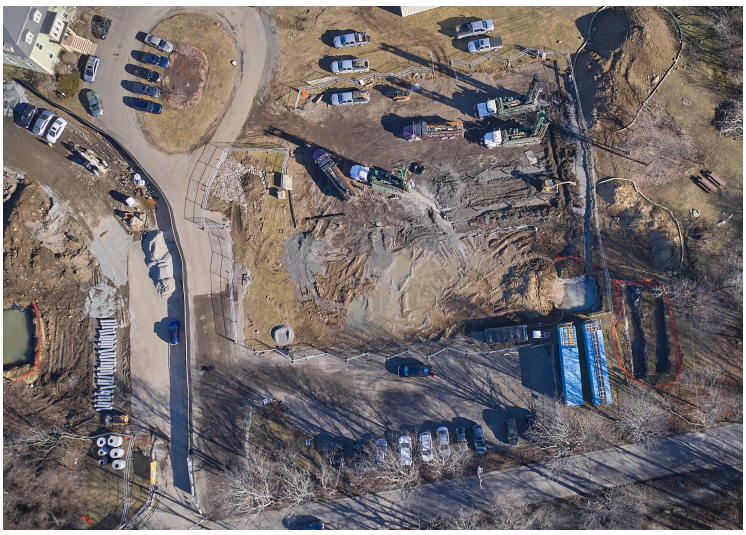
Salem, MA



THE PROJECT

A non-profit that has been doing good works for disadvantaged youth since before the Civil War was expanding their campus from one building to four. The expansion plan included building a new residential facility, renovating and existing 1855 building, and adding two new, multi-purpose buildings at the ocean-front campus.

The geothermal system installed supports the modernization and expansion is to allow the organization to expand capacity and services supporting their mission of helping youth while providing a modern heating, cooling, and hot water system with no on-site fuel use.



Achieve consulted with the non-profit and their design team regarding the feasibility of creating a campus-wide Geoexchange/ geothermal system. This consulting included explanation of the relevant technologies, discussion of site-specific approaches to installation, and explanation of the available financial incentives.

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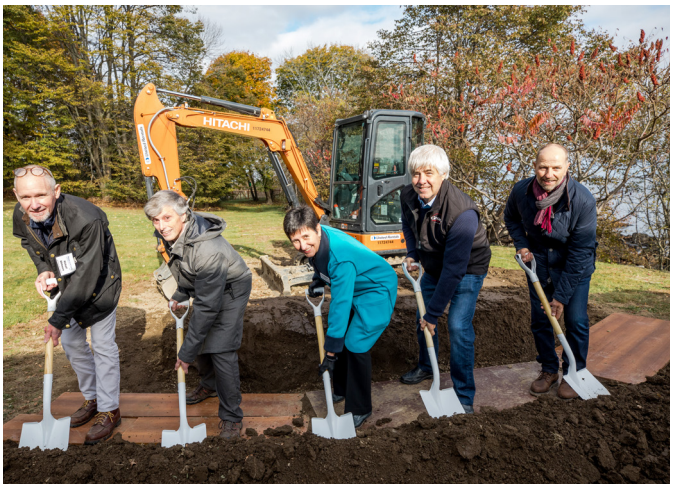
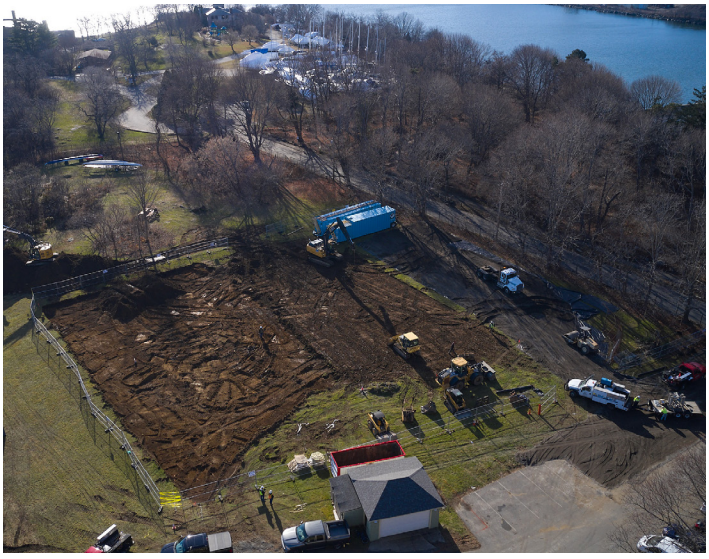
The Non-profit subsequently selected Achieve to design and build a central ground heat exchanger (GHEX) for the campus-wide heating, cooling, and hot water system. Achieve's design-build of the ground heat exchanger included 48 borings drilled to 380 feet below grade. The final GHEX consists of more than 8.6 miles of geothermal piping that is connected to a central pumping system allowing distribution to each of the four buildings. The GHEX was installed beneath a softball/recreation field that was returned to that use when we completed our work.

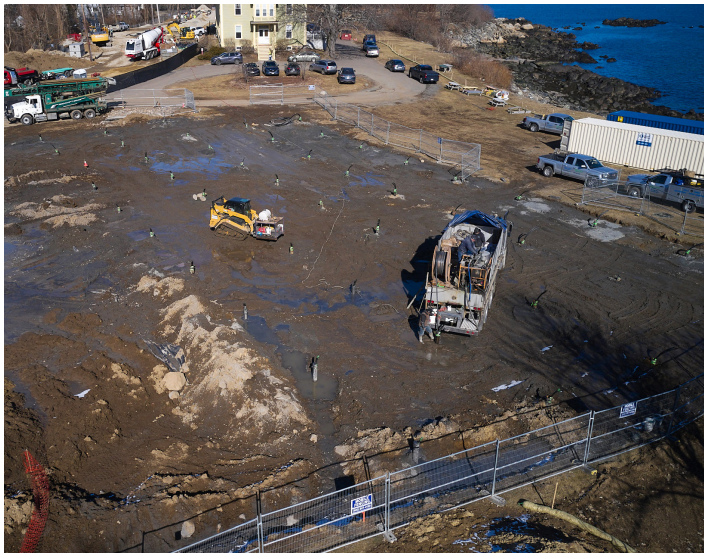


Ground-breaking ceremony prior to construction.

THE RESULTS

As of early 2025, the campus buildings remain under construction. As they are completed, connections for each to the GHEX will be activated. We anticipate updating this case study with operational data collected as buildings are activated.





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