

# COLGATE UNIVERSITY

## OFFICE OF CAPITAL PROJECTS

Attn: Assessment Review Team: Innovation Credit Submission

From: From: Robert Dwyer, project manager, Colgate University

Re: Geothermal heat pump system at Colgate University's Chapel House

Date: 24 February 2016

I have been working as a project manager at Colgate University since 2000. The Chapel House is a unique space on campus and the renovation project is special and challenging. As highlighted in Colgate University's 2011 Sustainability and Climate Action Plan, utilizing geothermal heat pumps as an energy source for the building helps not only to meet our sustainability and climate neutrality goals but also helps to meet the programmatic needs of the building. This is Colgate's first geothermal installation on campus representing a historic moment in our long and illustrious history.

Installation of the geothermal system is currently underway and includes 12 closed loop vertical wells. The system will save the university an estimated \$28,000 annually in energy costs with a seven-year payback while reducing our campus carbon footprint by around 50 tons.

Since the mission of Chapel House is to provide space for rejuvenating and quiet reflection, the new renewable energy system will help to meet that goal through reduced operational noise, cleaner air, and improved all-around comfort.

This project has been personally rewarding for me and I rank this as one of the most important projects I have worked on as a project manager at Colgate University.

Altogether, this project will help Colgate achieve climate neutrality and provides a rationale for consideration of geothermal heat pumps in all future renovation and new construction projects. Ultimately, this renewable energy project can serve as a model here on campus and for other institutions.

