



Bachelor of Science in
Architectural Engineering Technology, and

Bachelor of Science in
Renewable Energy

Joint Capstone Senior Design Projects
(2026)

- **“Elliot Pratt Center Transformation”**
- **“Vermont Law & Graduate School Geothermal System”**

The following summaries describe team project being undertaken by students from the degree programs noted. The summaries will be updated near the end of the semester when the design work is substantially complete.

Elliot Pratt Center Transformation

The Creative Campus at Goddard

ARE4720 – Vermont State University

Andries Morin, Ayden LaPoint, Dominic Mazzilli



Goddard College was a private University primarily located in Plainfield, VT. With a focus on liberal arts, Goddard fostered a more independent learning style and still holds a deep historical presence in Vermont academics. In August of 2024, Goddard College was permanently closed as a result of financial insolvency and a decline in enrollment. This closure opened an opportunity for investors to transform the campus into something new. Mike Davidson, owner of the New Hampshire-based property redevelopment firm Execusuite, purchased the property in October of 2024 which brought *The Creative Campus at Goddard* to life bringing plans to transform the campus into a hub for performing arts while preserving historical significance.

Built in 1969, the Pratt Center stands as the centerpiece of the Plainfield campus. The brutalist architecture consists of an entirely concrete structure with waffle-slab levels, fostering plentiful natural lighting due to exterior window walls and broad skylights. Planned and designed for more than five years, this building is a marvel of historic architecture and 20th century innovation. With little to no access for parking or planned vehicle arrival, the purpose of the Pratt Center was to be the creative hub of Goddard and a walkable safe space where students could perform their studies, socialize with classmates, and plan university events.

The Pratt Center Transformation project is an in-depth plan to remodel the Pratt Center for an entirely different purpose. Rather than keeping it as a library and radio station, Execusuite wants to renovate the building with the goal of future residential usage. The market for these potential apartments targets older, more established people with interests in the fine arts and possible history with the community or Goddard itself. With no more than two dozen apartments planned for the Pratt Center, each one comes with a piece of history that a price cannot be placed on.

With tall, brutalist ceilings and unique natural lighting, the future residential architecture of the Pratt Center will bring an unmatched ambiance.

The goals of this project (all with a focus on historical preservation):

- Complete remodeling of the building's interior layout and aesthetics (as needed)
- HVAC system renovations
- Electrical and lighting renovations
- Parking and accessibility renovations
- Plumbing renovations
- Solar planning and installation potential



Contingencies: Load calculations for all planned changes, civil/site issues, public policy and regulation, sustainability, and economic analysis.

ARE-4720

Vermont Law & Graduate School Geothermal System

Max Roberts

Alton Bell

Ryan Conant

Project Overview:

Our project is a collaboration with the Vermont Law and Graduate School in South Royalton. The goal is to design a geothermal heating system for their campus to replace the current fossil fuel heating system. Ground loop and bore hole systems will both be analyzed to see which is a better fit for the campus. Heat pumps will be used to reject or transfer heat to and from the ground into the buildings. We will do a building EQ analysis to determine which buildings should have their envelope updated, and make it more efficient, to reduce heating and cooling loss. In addition to the geothermal heating system, we will also design a solar PV system to offset the electrical usage of the heat pumps and get the campus as close to net zero as possible.

Currently our team is working to calculate all the load parameters for the Geothermal system and PV systems to include bore hole siting, wiring, inverters, heat pumps, etc. We look forward to showing our work as it progresses.



Figure 1, Initial Borehole Layout

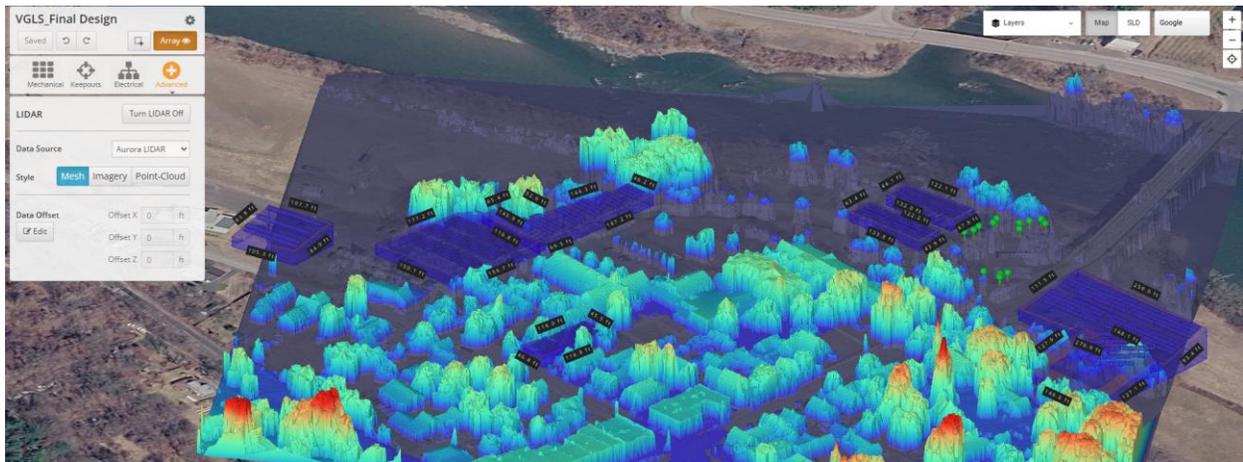


Figure 2, PV Design Layout