

Office Building at 30 State Farm Road

Malta, New York



Project Timeline: 2008-2009

NCP Incentive: \$47,041

Novus Engineering, P.C. provided multiple services for the new construction of the office building at 30 State Farm Place in Malta, NY, including whole building modeling analysis for the NCP, documentation for multiple LEED® points to qualify for New Construction v2.2 certification, and Fundamental Commissioning to meet LEED® requirements. The office building is a 15,000 square foot single-story facility used as a disaster recovery center. The building contains a server room, several private offices, conference rooms, and a large open office area. The building is primarily heated and cooled with rooftop units, but with Novus' guidance and recommendation, a data center heat recovery system was installed to displace fuel use during the heating season. A dedicated 5-ton split air conditioning system was installed to cool the data center during the winter months. When the unit is enabled, waste heat from the data center is rejected to the surrounding office area, utilizing available heat for conditioning and avoiding the use of the rooftop unit furnaces.

Novus prepared a Whole Building model analysis using Carrier's HAP to evaluate multiple energy efficiency measures including high efficiency rooftop units, economizer control, enhanced envelope, and high performance lighting and controls.

In addition to developing a building model, Novus provided assistance and documentation for the following LEED® points:

- SSc8 – Light Pollution Reduction
- WEc3.1 – Water Use Reduction
- EAp1 – Fundamental Commissioning
- EAp2 – Minimum Energy Performance
- EAp3 – Fundamental Refrigerant Management
- EAc1 – Optimize Energy Performance
- EAc5 – Measurement and Verification
- EQp1 – Minimum IAQ Performance
- EQc2 – Increased IAQ Performance
- EQc7.1 – Thermal Comfort: Design
- EQc7.2 – Thermal Comfort: Verification
- EQc8.1 – Daylight and Views: 75% of Spaces

As the commissioning agent, Novus was active during the construction process, which began in the fall of 2008. While the main mechanical systems for the building were relatively simple, the building had multiple complications with the Energy Management System, which was not properly communicating with the rooftop units. Novus was persistent with the controls issues and did not finalize the commissioning process until the issues were resolved. The building was owner occupied in August 2009. Commissioning efforts extended until late October 2009 due to the ongoing controls coordination issues. Upon completion of commissioning activities, the project successfully earned LEED® certification.

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