

Recent Commissioning Projects

UMMC Roslyn & Len Stoler
Center for Advanced Medicine

EDGE Engineers was awarded the new 260,000 SF addition to the University of Maryland Medical Center's downtown campus for new and renovated inpatient and outpatient care facilities. The new building will provide for support space spread over the ten floors for Inpatient Bone Marrow Transplant, Outpatient Bone Marrow Transplant, Inpatient Oncology Units, ETC/Short Stay/Oncology Clinic Apheresis, Cell Lab, Infusion Pharmacy Phlebotomy, Conference Center, Lobby, Registration/Security, Healing Gardens, Main Drop Off, and Mechanical Penthouse Offices. The building will be designed to support a future three story vertical expansion.

This project will be designed to meet or exceed LEED Silver v4 NC.

Does your project require quality commissioning expertise?

Contact Jules Willinger at (443) 250-8340 or jwillinger@edge-engineers.com



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EDGE Expertise: Animal Laboratory Design & Engineering

EDGE Engineers was contracted to design and engineer the renovation and modernization of approximately 33,000 square feet of animal holding and research space for a confidential client. The existing research facility is approximately 30 years old. Purchase by a developer, the large campus is being converted into a multi-tenant life sciences research space. Our scope of work consisted of:

- Renovation of existing holding rooms
- Conversion of existing holding rooms into research space
- New cage wash facilities
- Modernization of surgery facilities
- Replacement of custom air handling units and exhaust fans
- Support for new biosafety cabinets, fume hoods, and surgical tables

EDGE Engineers worked with the researchers and owner to re-engineer the surgery suites to **increase the air change rate and improve the airflow** across the surgical surface, while also **decreasing the energy usage** to allow the existing central plant services to support the renovation without any utility upgrades.

Project Update: CentraState 3rd Floor East Oncology

EDGE Engineers continues to develop the plans for CentraState Medical Center's proposed 10,000 SF fourteen bed inpatient oncology unit, which will have capacity to expand the floor to create a modern 30 bed unit, including airborne infection isolation and protective environment rooms.

The East Building at CentraState was constructed in 1984 utilizing two-pipe wall-mounted fan coil units to condition the rooms. With increasing demands for **improved ventilation and filtration**, our project features a new roof-mounted semi-custom air handling unit with MERV 16 and higher outside air capabilities that exceed code minimums while using a fixed plate heat exchanger to **lower energy usage** within ASHRAE 90.1 requirements.

The completion of this project will allow CentraState to phase out their two-pipe fan coil unit systems for future air handling unit improvements.



Balancing HVAC Options in a Pandemic World

The COVID-19 pandemic has owners and facilities management scrambling to implement new HVAC measures to help contain or reduce the spread of this virus as well as any future pandemic level threats. Requests for 100% outside air operations, ultraviolet lights, bi-polar ionization, higher air filtration, and increased air changes are rising as owners try to adapt to the latest recommendations, like ASHRAE's "Epidemic Conditions in Place" advisory.

"Ultraviolet light" and "bi-polar ionization" are the current buzz words in the war against pathogens. Ultraviolet light (UV-C) requires time and exposure to render a pathogen inert, which might not be suitable for existing air handling units or higher velocity ductwork. Whereas, bi-polar ionization creates negatively and positively charged ions that are attracted to opposite charged particles in the air like viruses and volatile organic compounds (VOCs), causing these larger particles to drop out of the breathable airstream. While the science behind both technologies is solid, their effectiveness against a threat of this level has not been fully vetted.

EDGE Engineers can help owners find the perfect blend of effectiveness and energy to match the systems, functions, and budgets of their operations. Together, we can develop a customized proactive approach to deal with the current pandemic and any more that follow.

Client Highlights: Silvi Cement Terminal



Located on the banks of the Delaware River, the Silvi Cement Terminal is the world's largest distribution center for concrete powder. The concrete powder is stored in large, pressurized domes.

The concrete powder is loaded onto tractor trailers and delivered to 19 local concrete mixing plants for delivery to various construction sites.

Concrete powder is also delivered via barges that float up the Delaware River to the concrete terminal. Large air compressors are used to move the powder from the barges to the domes. Compressors are also used to load the concrete powder onto the trucks.

The truck loading process is automated and available 24 hours a day, 7 days a week. Due to the continuous demand by the construction industry for Silvi Cement's product, **power disruptions cannot be tolerated**.

EDGE Engineers was contracted to evaluate the loading operations and worked with the utility company to design and engineer a **new 2.8 megawatt generator plant** to sustain production during power outages.

For more information about this project or any project listed in this newsletter, please feel free to contact Dan Williams at (610) 310-1328 or dwilliams@edge-engineers.com.

About EDGE Engineers



EDGE Engineers is a consulting engineering firm providing Mechanical, Electrical, Plumbing, and Fire Protection design services for New Construction, Renovations, Infrastructure, PEER Review, SCCS and Arc Flash Analysis, Design Build, Commissioning, and Condition Assessments to public and private clients. Our recent projects have been based in Virginia, Washington DC, Maryland, Delaware, New Jersey, Pennsylvania, and New York.

EDGE Engineers has partnered with local colleges and universities in Baltimore City and surrounding counties to mentor and train a diverse group of young engineers and designers while providing an ownership path for minority engineering students in the Baltimore area.

EDGE Engineers leadership has more than twenty-five years of experience each in Healthcare, Higher Education, Infrastructure, and Mission Critical projects in design and commissioning. Our goal is to provide **Exceptional Project Delivery** to our clients, focused on budgets and schedules to ensure that the project deliverables have been met by all stakeholders.



MBE Certifications

EDGE Engineers is currently MBE certified with the Maryland Department of Transportation (MDOT) and Baltimore City, Maryland. As a responsible MBE certified company, we are dedicated in bringing in talented minority candidates and can assist your project with MBE compliance.