

August 2007

Bioengineering Group Designed Facilities Named "Public Project of the Year"

The New England Regional Chapter of the Construction Management Association of America has designated the new Border Patrol Stations constructed in Jackman and Calais, ME as their "2007 Public Project of the Year" in the \$10- \$25 Million category. The Bioengineering Group, Inc. designed these two state-of-the-art facilities for the U.S. Army Corps of Engineers, New England District and Department of Homeland Security (DHS) to support the current and future needs of the Border Patrol as they work to enhance the security of our borders. Construction was provided by JCN Construction of Manchester, NH.



To save time and money on these priority border security facilities, one common building was designed and site adapted to each site. A design charrette involving all stakeholders was convened to establish the core programming for the building and to obtain the Department of Homeland Security's approval of the conceptual layout and overall design approach. These 19,567 sq. ft. facilities located on 10-acre sites are designed to operate 24/7 and include support facilities such as on-site fueling stations, helipads, storage and maintenance facilities for watercraft, an emergency power generation system, and a garage with integrated maintenance facilities. The patrol stations are designed as secure facilities with limited access via card readers, full coverage surveillance cameras, and threat alarms since they serve as booking, interrogation, and detention facilities as well as the base of operations for patrol agents. Total construction cost of the facilities was \$17.6 million. Construction was completed within 25 months of contract award and the Border Patrol moved into the new facility in February 2007.

Sustainable design principles based on the United States Green Building Council's Leadership in Energy and Environmental Design (LEED) Silver standards were incorporated in both site and building design, as were DHS security standards for such facilities. Fuel systems were provided with inventory control and integrated into the nationwide fuel management program. To manage stormwater on the site, Low Impact Development (LID) approaches adapted to cold climate conditions such as frost depths that exceeded six feet were employed. Fuel storage and underground piping was equipped with double containment plus integral leak detection and alarm systems. Site drainage was also designed to provide tertiary containment of spills. LID features include bioinfiltration basins, bioswales, and treatment wetlands. Bioengineering Group staff also provided permitting services and prepared the submittals required to obtain all permits, submittals that were accepted as complete on submittal and promptly approved, a critical element in maintaining a tight schedule.

In presenting the award the Commander of the New England District, Col. Curtis L. Thalken, complimented the Bioengineering Group for its design excellence noting that the clarity of the drawings and specifications were a key factor in minimizing change orders and in keeping the

project, constructed at remote locations, on both schedule and budget. At the Grand Opening Ceremony held on June 28 in Jackman, ME, the Chief Patrol Agent – Houlton Sector, Joseph Mellia, noted that the new facility exceeded expectations and Patrol Agent in Charge of the Jackman Station, Wade A. Laughman, commented that the new facility is already providing the hoped for improvement in operational efficiency and was well liked by all users.

The Bioengineering Group, Inc. is a woman-owned small 8(a) business headquartered in Salem, Massachusetts providing a full range of planning, engineering, and landscape architecture services with the goal of providing sustainable development built upon a strong ecological foundation. The firm and its joint venture partner are also supporting the planning and design of improved storm damage infrastructure rebuilding and upgrading of hurricane protection for New Orleans and surrounding parishes under a \$150 million dollar prime contract with the U.S. Army Corps of Engineers – New Orleans District, Hurricane Protection Office.