



Owner:
City of Lebanon, NH

Contractor:
Penta Corporation

Engineer:
Underwood Engineers



Project Highlights

As this was an existing, operational plant, close working relationships were essential to making this project a success.

The City of Lebanon, NH owns and operates a 3.1 MGD wastewater treatment plant that was constructed in 1976. The facility recently upgraded from a conventional activated sludge system to a Modified Ludzack-Ettinger process. Planning for the upgrade took place over several years prior to final design and construction. Substantial completion was issued to Penta Corporation in January 2016. Highlights of the upgrade include a new energy efficient administration and laboratory building; new headworks screen and raw sewage pumps; new chemical storage and feed systems; new primary clarifier equipment; retrofit of their existing aeration tanks to include two trains, each with two anoxic tanks, a nitrifying aerobic tank, a nitrate recycle system and fine bubble diffusers with APG-Neuros turbo-

blower aeration equipment; new secondary clarifier equipment with enhanced flocculation and energy dissipating inlet (LA EDI) and outlet Stamford baffles. A new SCADA system provides data collection and system control. Solids are handled with two new Huber inclined screw dewatering units for disposal at the City's landfill.

EII was responsible for designing custom control panels, a fiber-optic cable network, plant-wide instrumentation and extensive custom programming to facilitate the new improvements. As this was an existing, operational plant, a close working relationship with City personnel, as well as the General Contractor and their many subcontractors, was essential to making the project a success.