Beverly Extends Airport Runway

Lawrence Lynch Corp. lengthens the runway, adds a taxiway and paves both

Photos by Al Fournier Story by Paul Fournier

ape Cod contractor Lawrence Lynch Corp. is making extensive improvements at the Beverly, Mass., municipal airport in a fast-paced undertaking that included a marathon paving effort.

Under the supervision of project manager Craig Trombly, Lawrence Lynch crews are extending one of the runways and building a taxiway. The Falmouth firm is adding about 300 feet to Runway 16-34, the airport's second largest, bringing the total length of the 100-foot-wide runway to nearly 5,000 feet. The contractor is also constructing a 1,000-foot by 35-foot taxiway, including the import of some 30,000 cubic yards of gravel fill, and performing the paving.

Beverly Municipal Airport is classified as a general utility, general aviation and reliever airport. This means it

can accommodate all small aircraft and larger corporate-type aircraft and is available to relieve Logan International Airport of small general aviation type aircraft during the Boston facility's peak traffic times. Beverly currently has about 150 aircraft based on the field and experiences about 120 aircraft operations daily.

The Beverly airport is just one of many municipally owned and privately



A CAT 345 excavator equipped with a Leica GPS system digs trench for a storm pipe at the Beverly, Mass., airport.

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owned airports in Massachusetts for which fourth-generation Lawrence Lynch – known primarily for its roadway construction and paving projects – has built and paved runways.

Such work requires precision grading, so the contractor is utilizing state-of-the-art equipment to do the work.

"We're using GPS and grade controls, because it's crucial when managing cuts and fills for the subgrade and the different gravel base materials," said Trombly.

Trombly said the new technology is useful both in site work grading and in excavation work, adding that the technology eliminates guesswork and also such time-consuming activities as staking and pulling string lines.

For the Beverly job, crews employed more than a dozen pieces of equipment, including a CAT D6 dozer, a CAT 345 excavator and a CAT 140 grader, all equipped with GPS technology. He said the D6 and 345 were outfitted with Leica Geosystems that provide operators with LCD screens indicating the elevations, while the CAT 140 grader has a completely automated Topcon grade control system. Both systems have boosted their production, said Trombly.

Other equipment used by the contractor for the excavation were CAT D8 dozer, CAT 966 loader, and two 35-ton articulated trucks – a Volvo and a CAT.

There was a substantial amount of rock that had to be removed in the "run-up" area of the runway. Subcontractor Maine Drilling & Blasting handled this part of the job, drilling and blasting some 5,000 cubic yards of rock.

Since Federal Aviation Administration compaction specifications are very stringent, Lynch operated a team of four different compactors for the gravel base and asphalt pavement. These consisted of two, 10-ton steel vibratory rollers – CAT and Ingersoll Rand – a Dynapac rubber-tired roller, and a 10-ton oscillating HAMM roller.

Four CAT pavers laid down the bituminous concrete pavement, consisting



Also equipped with a Leica GPS system is this CAT D6N. Note the red and white checkered flag required when working near an active runway.



A Dynapac 840C vibratory steel roller compacts gravel fill while a Volvo A35 off-highway truck delivers more gravel.

of a 1-1/2-inch base course and a 1-1/2-inch wearing course. This was a grueling, non-stop operation, said Trombly. And before they started production paving, they had to pave a test strip so

the FAA could check it and make sure the contractor could meet their specs.

"We had started this job back in August of this year, and by working 11-hour days for about seven weeks, we

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were ready for paving. And when we did start the paving, we paved day and night for two days, took a day off, then paved for two more days and nights." He added that they had to shut down both runways when they paved the intersection. "There was a lot of urgency to finish the intersection and get the runways opened up again."

Lawrence-Lynch Corp. is the Cape's largest family-owned site development, utility and paving company. The company is headquartered on a 24-acre tract in Falmouth and employs more than 100 people. The site is also home to Lawrence-Lynch Materials Corp.'s asphalt plant and its sand and gravel processing facility.

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Maine Drilling & Blasting employs an Atlas Copco ROC D3 drill to bore holes for the blasting of some 5,000 cubic yards of rock.