| CASE STUDY |



with modern times and amenities

In this part of the world, where the locals avoid most modern services and amenities such as grid power, air conditioning and automobiles, a 24-hour health and rehabilitation center stands out. It's a high-tech resource for modern-day health care.

The city of Hudson, in Ohio, is known for its large Amish population. Though they've chosen to turn away from the great majority of contemporary services, health care is an exception.

At the newly-constructed Heritage of Hudson Health and Rehabilitation Center (or, simply, Heritage Center), Amish mingle with "English" folk when it comes to health care. The Heritage Center is a short-term and outpatient facility for patients that have undergone orthopedic reconstruction and joint replacements.

"Our task was to provide all of the plumbing work that the rehab center required," explained Joe Hochstetler, owner of Berlin Plumbing, in Berlin, Ohio.

Hochstetler and his crew were tapped to provide mechanical systems for the \$3 million, 36,500-square-foot facility, to the tune of about \$250,000.

Before the blueprints were drawn and the heat load calculations were

definitive, Hochstetler had already determined the means for the facility's domestic hot water.

"With a capacity of 45 patients, and with 130 hot water fixtures in the building, we arrived at a tight domestic hot water calculation of 600,000 BTUs an hour," Hochstetler said. "And, because it's a health care facility, we knew there'd be no tolerance for water heating equipment with slow recovery, or downtime."

Three months after Hochstetler presented the plan, one of Berlin's two-man crews was hard at work on the job. The team of technicians was there from April to November 2012, installing three 100-gallon, 199 MBH natural gas eF Bradford White water heaters. The equipment now heats domestic water for 45 private rooms, a large kitchen, public restrooms and a few other common areas.

"Even though the facility uses about 1,000 gallons of hot water each day, the water heaters easily keep pace with the need," explained Alan Hershberger, plumbing technician at Berlin Plumbing.

"It's pretty amazing when, after what seems like a flawless installation, you're rewarded with a quick response from the appliance," Hochstetler added. "We activated the unit and very quickly had 100 gallons of hot water ready to go."



Alan Hershberger, project foreman, left, and Joe Hochstetler, owner of Berlin Plumbing, right, test gas supply pressure for one of the Bradford White eF water heaters.

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The water heaters are piped in a manner to equally draw from all three heaters so as not to over-exert one of them.

According to Hochstetler, he prefers the parallel piping arrangement. By design, Hochstetler sets the heaters to produce 140°F water which actually leaves the heaters at that temperature, bound for the kitchen – assuring the availability of water temps for proper cleaning. Downstream from the kitchen, a tempering valve sees to it that water is reduced to 120°F to serve the rest of the facility's hot water needs.

The higher internal set-temp also assures that Legionella bacteria and other unwanted microorganisms can't survive or multiply.

"They may enter the incoming domestic water stream, but they won't survive the internal temperature," Hochstetler said.

They also installed a hot water recirculating pump with an insulated, dedicated return line to maintain consistent temperatures within the facility at all times.

"I like the efficiency and the design of the eF water heaters. Having the burner on top of the heater and for the heat itself to make three passes through the heat exchanger is a smart way to wring-out BTUs efficiently. The water heaters achieve 98 percent thermal efficiency, and those are the sort of numbers our clients are happy to pay for," he said.

Berlin Plumbing has standardized on Bradford White. They've installed them consistently over the past fifteen years and have been using the commercial eFs since their introduction over ten years ago.

'We always install Bradford White water heaters. They're among the few manufacturers whose products we stand by," Hochstetler said. "We need products we can trust; after all, it's our name at the top of the warranty. It's our reputation that we must protect within the communities we serve.

The Heritage of Hudson installations proved to be a typical Berlin Plumbing project. Seventy percent of the firm's jobs are

commercial installations; 20 percent are residential installations; and the remaining 10 percent of the firm's business stems from residential service work.

Managers at Berlin Plumbing have found that after many successful installations, an eF water heater install similar to that used for Heritage of Hudson's is a recipe they've adapted to.

"Our scope of work rarely strays from designing and installing the complete plumbing system," Hochstetler explained. "We specialize in plumbing systems for both commercial and residential buildings.'

Although most broad construction trades throughout the country are experiencing a down economy, Hochstetler is profiting from a flourishing one in his region.

"The residential construction market is slowly climbing back, but the commercial side is phenomenal. Most of our work stems from the owner of a hotel company that believes in building aggressively, especially now when the economy is

> softer. Then, when there's a resurgence, he knows he'll be well positioned for business among travelers," Hochstetler explained.

With a focus on commercial work, and with a burgeoning hotel market with steady development among Hampton Inn, Holiday Inn Express and to Red Roof Inn, among others - there's been a steady flow of work for Berlin Plumbing

Berlin Plumbing got started 10 years ago when Hochstetler and a fellow employee at a construction framing company decided to pursue their interest in plumbing work. Starting off with small remodel jobs, they eventually morphed into a plumbing retail store which escalated to their own, three million dollar professional plumbing company.

Hochstetler says his territory is on dependent where their largest client's projects are. They have, in the past, traveled up to 150 each way for a hotel installation, and they've had the luxury of a few jobs right in their hometown.

