References

Uponor Annex



Uponor involvement

Project highlights

- 90,000-square-foot facility
- 34,000 gallons of water saved per year
- 84% of construction waste diverted from landfill to recycling streams

Products used

- Uponor AquaPEX for domestic water
- Uponor AquaPEX Reclaimed Water for graywater
- Wirsbo hePEX for radiant heating

Uponor Annex

The newest $18M manufacturing expansion for Uponor PEX pulls out all the stops with a highly efficient building incorporating the company's plumbing, radiant, and snow melt systems.

Project Facts:

Location	Completion
Apple Valley, MN, USA	2016

Building Type

Industrial

Raising the Bar with Efficiency in Manufacturing

In May 2016, Uponor North America held a ribbon-cutting ceremony with the community and local leaders to celebrate to celebrate the company's manufacturing expansion.

The Annex expansion added an additional 90,000 square feet for Lean manufacturing, office space, and additional manufacturing equipment for producing Uponor PEX pipe used in plumbing, radiant heating/cooling, and fire safety systems.

Once the project was complete, it brought the company's total Twin Cities footprint to 656,738 square feet on approximately 50 acres.

It was important to design a sustainable facility that would provide a superior environment for workers with respect to safety, work environment, and amenities.

The building uses innovative piping technologies with an Uponor AquaPEX® plumbing system in sizes up to 3", including a rainwater collection system for landscape irrigation and toilet-fixture flushing.

In the restrooms, there are waterless urinals, dual-flush, low-flow toilets, low-flow shower heads, automatic sensor-operated faucets. It's estimated that all these features reduce potable-water usage by up to 100% when collected rainwater is available, equating to 34,000 gallons of saved city water per year.

Building a complex facility with Uponor AquaPEX plumbing, Wirsbo hePEX™ radiant heating, and Uponor snow melt systems does not come without its challenges.

The project team had to creatively utilize and conserve as much of the existing 34,000-square-foot building as possible in order to drastically reduce what went into the landfill. Because of this engineering feat, 84% of potential waste was reused.

Another design win came from the radiant heating system. Minnesota Mechanical Code requires insulation with a minimum R-value of 5 below all slabs-on-grade with radiant piping.

With the help of Uponor Construction Services, the design team was able to provide calculations proving that insulating the perimeter 8 feet with an R-10 provided the same overall thermal transmittance. The city approved the engineered system, saving valuable time and expense placing the concrete slabs-on-grade.

Uponor's new Annex manufacturing facility was designed and constructed to the U.S. Green Building Council LEED criteria. Within that program, the Annex received LEED® Gold certification in August 2017.

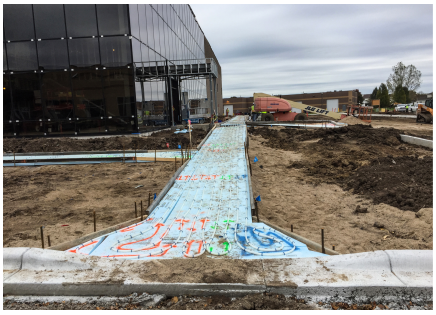
Uponor Annex

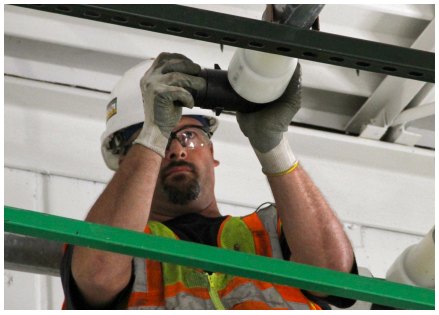


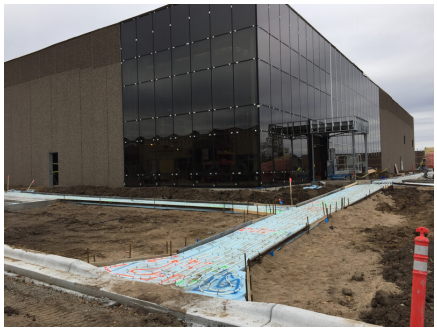














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