



Uponor

RADIANT HEATING SYSTEMS AMBULANCE FACILITY

CASE STUDY

Uponor Radiant Floor Heating Responds to Emergency Medical Service

When the Good Fellowship Ambulance Company (Good Fellowship) decided to build a new facility for their not-for-profit organization, radiant floor heating was the furthest thing from their minds. That is, until their heating contractor Bill Ronayne convinced them the new building would not be complete without it.

“I always recommend Uponor radiant floor heating systems for every project I do,” says Ronayne of Brandywine Valley Heating and Air Conditioning in West Chester, Penn. “The comfort and efficiency of an Uponor system are unmatched by any other heating system.”

The ambulance company provides emergency medical service to anyone in need, regardless of their ability to pay. Volunteers operate the ambulances, responding to an average of 12 dispatches per day.

Good Fellowship’s new building houses five ambulances and five garage doors, which open and close frequently for the vehicles.

“The Uponor radiant floor heating system is ideal for an application like ours,” says Tim Bossert, chief

operating officer of Good Fellowship. “The radiant floor heating system heats up the entire slab, keeping the engine bays warm even when the garage doors open and close on cold, winter days. The system also helps melt the snow and ice off the vehicles after they return to the garage.”

Uponor radiant floor heating systems circulate warm water through crosslinked polyethylene (PEX) tubing that is installed under the floor. In the case of Good Fellowship, the concrete floor was poured directly over the tubing.

The warm water circulating through the tubing turns the entire slab into a warm, mild radiator. Because the heat is kept near the floor where it is needed most, the Uponor system keeps people warm at a lower thermostat setting, potentially saving up to 30% on annual energy costs.

“I’ve been installing Uponor radiant floor heating systems for 20 years,” says Ronayne. “There is not another product on the market that can offer the quality, reliability, efficiency and comfort of an Uponor system. I think

it’s a shame to allow a concrete slab to be poured without first installing Uponor PEX tubing.”

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In the case of the Good Fellowship building, the architect was also in favor of changing the original engineer’s design to include radiant after Ronayne took the time to show everyone involved the benefits of the system, and how it would satisfy the customer. Bossert is glad he did.

“We just completed our first winter in our new building, and we’ve been exceptionally pleased with our Uponor system,” says Bossert. “I can’t think of a better way to heat our garage.”



Summary of Benefits

Comfort

Employees of Good Fellowship enjoy warm, cozy floors in their garage area, even on very cold days when the garage doors open and close frequently. Warm water circulates through Uponor's Wirsbo hePEX™ plus tubing installed in the slab, turning the floor into a warm, mild radiator.

Efficiency

Uponor radiant floor heating systems heat the floor and the objects in contact with the floor. When the floor and the objects around people are warm, bodies don't lose as much heat. This condition results in comfort at a lower thermostat setting, potentially saving up to 30% in energy costs.

Dry Vehicles and Floors

The Uponor radiant floor heating system at Good Fellowship helps melt snow and ice off the vehicles when they return from a call. It also dries the moisture off the floors quickly, keeping them clean and dry.

Consistency

Because the Uponor radiant floor heating system heats the entire slab, the garage stays at a consistent temperature, even when garage doors open and close on cold winter days. The concrete slab maintains the heat, reducing the temperature swings typically found by opening and closing doors.

The design information in this case study is provided for illustrative purposes only. The actual requirements of similar projects will depend on regional climatic conditions, project-specific heat loss, owner expectations, applicable building codes, etc. Please contact your Uponor representative for assistance in designing your specific projects.



Installers fasten Wirsbo hePEX™ plus to wire mesh and then pour concrete over the tubing to create the warm slab.

Project Data

Structure Size:	3,380 square feet
Construction Type:	Concrete slab
System Supply Temperature:	130°F
Tubing Type:	5/8" Wirsbo hePEX™ plus tubing
Number of Manifolds:	3
Number of Loops:	18 loops total on three manifolds
Tubing Spacing:	12" on center
Number of Zones:	1



Using Uponor PEX tubing speeds installation because the flexible tubing bends, eliminating the need for extra fittings and joints.