



**Elyria Foundry:** Learn how spray foam was used to divert water from 4 different directions

## PROJECT INFORMATION

**Project Year:** 2022

**Project Size:** 7,245 sq ft.

**Project Location:** Elyria, OH

**Days to Complete:** 10

**Project Overview:** Spray foam roofing over existing smooth modified bitumen and wood sheeting

**Manufacturer Used (Foam):** Carlisle

**Manufacturer Used (Coating):**

Progressive Materials

Elyria Foundry is a metal casting company. They melt aluminum to make custom parts for the US Military, HVAC companies, Power generator companies, and Construction equipment.

The building was built in 1905. Since then, additional buildings have been built on the campus. When they made the additions decades ago, they didn't do drainage calculations, flow rates, and project how much water would come onto these new roofs.

**This was the main problem of this project: The additional buildings created a "pit."** The pit was receiving water from four roof sections. With only two drains and the amount of sand that escaped through the building, the drains quickly clogged. This created standing water in the "feet," which allowed water to enter the building.

Adding drains was not feasible as there was no possible way to run piping in the building.

To eliminate this problem, we rerouted four waterways with new downspouts, new gutters, building a wall, and a dormer. To custom make a 12-foot wall, build a custom-fit dormer with custom sloping out of wood, and foam it all in is something innovative and creative.

The pit, surrounding walls, the new wall, and the dormer all received spray foam, coating, and granules.

The only water getting into the pit in the future is the rain coming directly to it from the sky.



Before



## Scope of Work

- Deck replacement in "the pit", hot permit needed to cut into metal.
- Redirect over 45 feet of downspouts to run away from the pit.
- 12 ft. wall built, dormer attached, 100% foamed and coated, seamless attachment to existing roof
- New metalwork was custom created to heighten the channels of existing gutters that backed up

The spray foam roofing product was the perfect solution. The way it can adhere to irregular shapes and be run vertically and horizontally without interruption is an unbelievable cost-savings that's passed onto building owners.



*\*\*\*This project was a finalist at SPFA23 for a Spray Foam Roof under 40,000 sq. ft.\*\*\**

