

## Client

**Ichabod Crane School District**  
**Valatie, NY**



## Multi-Faceted Seamless Spray Foam Roofing Installation

### Existing Roof

***Proven Performance Since 1950***

Middle School (Spray Foam) – 120,000 SF  
Primary School (Tar & Gravel Built-Up) – 56,000SF  
Bus Garage (Metal) – 6,000 SF

### Problem

While performing exceptionally well since its original installation, the Middle School's 18-year-old spray foam system was beginning to show the effects of normal weathering, and the roof system's warranty had expired.

At their Primary School, the district had been contending with numerous leaks in its tar & gravel built-up roof, and with an eye towards energy conservation recognized the need to upgrade the roof's insulation value.

At their Bus Garage, the original corrugated metal roof was becoming increasingly problematic. Leaks were occurring at seams and fasteners, along with excessive heat loss due to insufficient insulation.

### Solution

Given their past experience with seamless spray-applied polyurethane foam roofing installed by S. D. Carruthers, the district decided to again specify SPF based on its track record, its energy savings properties and adaptability to all three roof types.

### Application

Middle School – Taking advantage of a major benefit of SPF roofing, namely "sustainability", the roof was rehabilitated through use of the manufacturer's approved "recoat" process, qualifying for a new 10 year warranty, while gaining many years of service life. See National Grid for an overview of a typical "recoat" project.

Primary School – While the existing tar & gravel built-up roof system had been compromised over the years, the new seamless SPF system could still be applied over the existing roof after removing isolated areas of wet insulation as identified by an infrared roof scan. See Manth-Brownell for an overview of a typical BUR reroof project with seamless spray foam.



Bus Garage – For over 30 years SPF has proven itself extremely effective in providing long-term solutions for problem metal roofs. After minor preparation work, including replacing loose or missing fasteners and priming of the metal panels, the new spray foam system was applied directly over the structure's metal roof. This provided an extremely energy-efficient, lightweight system, not requiring fasteners through the light gauge panels, while eliminating thermal movement and resulting problems.

See Vermont Circuits for overview of a typical metal reroof project with seamless spray foam.

## Results & Owners Comments

Having observed the performance of the Middle School's spray foam roof, Steve Marotta, the district's Director of Facilities offered the following:

***"Based on our first hand experience, and the experience of many of my peers, I was comfortable in recommending SPF roofing for this multi-faceted project. With proper design and maintenance, this system offers distinct life cycle cost advantages. Additionally, the system has less environmental impact due to its 'sustainability', minimizing landfill debris, while reducing energy consumption and associated emissions. I was particularly pleased that S. D. Carruthers was awarded the project based on their demonstrated quality of workmanship, level of professionalism and the high level of service they have provided our district. We look forward to a continued relationship with Carruthers and years of quality performance from these most recently completed installations."***

Steve Marotta, Director of Facilities Ichabod Crane School District

## BEFORE & AFTER



Old Tar & Gravel Built-Up roof at Primary School



New Seamless Spray-Foam roof at Primary School

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