



PROPERTY RESTORATION

First Congregational United Church of Christ Vancouver, Washington

Loss Event: Arson Fire

CASE STUDY

The First Congregational United Church of Christ is a pillar in the Vancouver, Washington community. Built in 1961, the building is distinguished from others with its 105-foot tall steeple, sweeping roofline shaped like the bottom of a boat, intricate stained glass skylight, and an iconic cross that can be seen for miles.

An early morning fire believed to be set by an arsonist destroyed the inside of the church, including historic stained glass windows and the sanctuary. The community gathered in silent distress, sharing emotions of fear, sadness, and horror as the fire department battled the three-alarm fire. The reconstruction of this church was going to be a community-based effort, a collaborative undertaking, and a sensitive process of healing from grief and loss.



REBUILDING AND RESTORING FAITH

When the project began, BELFOR found large amounts of asbestos in the sanctuary and basement ceilings, basement flooring exterior soffits, and HVAC ducts, all of which had to be abated prior to any repairs. BELFOR teams were able to remove and save precious items from the most heavily affected areas, including documents dating back to the 1800's.

While the abatement process was underway, the congregation established a "Reimagining Committee," a group of church members who were tasked with defining what the new church would look like while preserving its rich history.

The Reimagining Committee decided it was time to consider a new design for the roof, one that would require less maintenance and have a longer lifespan. BELFOR recommended an architectural firm and, working together, a new sweeping convex roofline design was created. The design replaced the curved, concave, horizontal skylight that problematically gathered rain and had a high risk of water intrusion.

The committee also requested new features and enhancements including: a new commercial kitchen to replace the non-code compliant kitchen; open up the central area of worship to be more welcoming; add large windows to let more natural light into the sanctuary; and, move the entrance and create a new arched, suspended entry deck.

With a fixed budget, the Reimagining committee collaboratively decided on cost-saving areas. They decided to roll up their sleeves and do some of the work themselves, along with the guidance of BELFOR teams. Volunteers ran IT cabling throughout the building, giving the church the most up-to-date technology while saving approximately \$35,000 in costs.

BELFOR created a welded seam 60 mil membrane water catch pool on the sanctuary floor. This was plumbed into the rain drain system and allowed framing crews to work through the inclement weather to prevent delays.

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Demolition crews disassembled the roof structure. They preserved the original hardware and structural plates to be refinished and reused in preparation for the new, custom glulam beams.

BELFOR contacted the original company that fabricated the original beams in 1962. Not only was each roof glulam beam custom made, but every beam also had to be precisely cut at angles with tolerances of $\frac{1}{2}$ of 1 degree. Given that the radius of the rooflines are curved and arched, both the interior and exterior sides of each beam had to be beveled. This allowed the roof sheathing and furring strips to be bent and installed in a seamless, flowing manner.

With the new beams ready to go, BELFOR began the process of removing the damaged roofing and framing materials. The large beam assemblies had to be transported on semi-trailers and pre-assembled in the nearby parking lot. Using large forklifts, a hydraulic crane, and every inch of the 125-foot articulating lift, crews set each custom-built glulam beam and collar ties precisely as planned. Together with the congregation, BELFOR reinstalled the iconic cross back atop the peak of the roof. The congregation gathered ceremoniously to celebrate this symbolic event.

Given the curved and arched nature of the structure, BELFOR was tasked to bend the drywall into shapes not typically found. Because scaffolding prevented BELFOR from being able to bring in equipment, lifts, and machinery, these materials were all set in place by hand.

Acoustic designers worked with BELFOR to seamlessly incorporate acoustic panels into the curved ceiling system. Wood trim pieces were installed on edge along the ceiling lines to create a random grid pattern ceiling design. Hidden within these grid panels are acoustic sound treatments which help remove the echoing sound from the large room.

After two years of collaboration, innovation, and community participation, the re-dedication of the First Congregational United Church of Christ was celebrated. Though the rebuilding process was initiated by an act of intolerance, the congregation spoke of resilience, peace, and hope.

