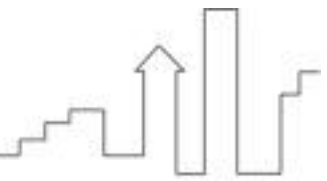


# Commissioning a Deep Renovation of a Historic Firehouse



## Net Zero Energy Assurance Through Commissioning

### Pittsburgh, PA

The City of Pittsburgh has publicly committed to becoming carbon neutral by 2050 and has also adopted a Net Zero Ready Building Ordinance for municipal buildings as part of that strategy. For Firehouse #8, building envelope commissioning played a critical role in helping align the project's design intent with its expected real-world performance.

By pursuing Zero Energy Ready outcomes in deep renovations, the City of Pittsburgh is connecting capital improvement decisions to long-term public goals.



For Illustrative Purposes Only

## Owner's Project Goals

The owner's project goals can be understood as both performance-driven and policy-driven.

First, the city sought to deliver a renovation that aligns with its municipal Zero Energy Ready requirements and larger climate commitments. Pittsburgh's carbon-neutral by 2050 goal, together with its adoption of net-zero-ready standards for municipal buildings, shows that the city is not treating building performance as optional

Second, the project aimed to create a building that performs better operationally by reducing energy demand through a high-performing enclosure. Building envelope commissioning helps ensure that critical enclosure systems are installed and performing in a way that supports the project's expected outcomes.

## Benefits of Zero Energy Ready

A Zero Energy Ready approach offers benefits that extend well beyond code compliance, reducing carbon emissions in existing buildings:

- 1. Lower energy demand and a more cost-effective path to decarbonization**  
Zero Energy Ready projects prioritize reducing loads before adding renewable energy systems.
- 2. Better comfort and indoor environmental quality**  
High-performance building enclosures help stabilize indoor temperatures, reduce drafts, and improve overall comfort.
- 3. Improved resilience**  
Zero Energy Ready buildings are inherently better positioned to protect occupants during extreme events because they rely on stronger enclosure performance.

### Existing Building

Historic Firehouse

### Project Team

AUROS Group

Ae7 Architects

### Project Reference

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