

PRESERVING HISTORY WITH PRECISION: BELLEVUE HOTEL FAÇADE RESTORATION BALANCES HISTORIC INTEGRITY AND MODERN DEMANDS

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Philadelphia, PA — A century-old architectural landmark is undergoing a comprehensive restoration, with expert support from Armor Masonry Restoration and Superior Scaffold. The project at the iconic Bellevue Hotel is a case study in balancing the complexities of historical preservation with the rigorous demands of modern construction.

Project Scope: Adaptive Reuse of a Philadelphia Landmark

Built in 1904, the Bellevue Hotel spans two city blocks along Broad Street between Walnut and Locust Streets. The current project reimagines the structure as a dynamic mixed-use development comprising 155 residential units, hotel accommodations, office space, retail, event facilities, and a high-end fitness center.

Navigating Structural and Logistical Challenges

One of the most technically challenging aspects of the restoration was gaining full access to the ornate and expansive exterior façade. Suspended scaffolding proved unfeasible due to the building's elaborate rooftop architecture. Cantilevering from interior spaces was also ruled out, as it would have required floor-wide room closures for shoring and rigging—untenable for the operational hotel.

The solution? **Erect what is arguably the largest supported scaffold system in Philadelphia's recent history.** Superior Scaffold engineered and deployed a massive ground-supported scaffold that allowed teams to work incrementally across the structure's full height and width. To expedite the schedule, crews began work on one or two elevations at a time, erecting and dismantling in stages to maintain progress.

To ensure the sidewalk above the Broad Street Subway could bear the scaffold's load, structural

engineers conducted extensive load calculations. With shoring installed beneath the sidewalk, the design was approved, and erection commenced.

To support vertical transportation, a materials hoist was installed—an essential addition given the scaffold's 38-story reach. Load limits were strictly enforced: only eight decked scaffold levels could be in place at a time to avoid structural overload. This necessitated a phased vertical workflow, with



crews progressing in a leapfrog manner—completing five-story sections before relocating decks to lower tiers.

Space constraints led to creative staging solutions. Ground-level shanties and the penthouse mechanical room were repurposed for material storage and equipment access. Meanwhile, a decorative street-level façade preserved a guest-friendly atmosphere during construction.

As each section of the Broad Street façade was completed, scaffold components were carefully disassembled and repositioned on adjacent elevations to maintain workflow continuity and eliminate the need for off-site storage.

Comprehensive Repairs and Historic Preservation

Restoration efforts began at the roof, which had suffered from leaks, rips, and widespread delamination. The EPDM membrane was thoroughly cleaned and coated with Sika products to seal and protect the surface. Roof mansards were repainted with Sika 305 and refastened to prevent future water intrusion.

Terra cotta and limestone repairs and pointing were carried out across the entire façade by the Armor team. A particular challenge came in the form of varying stone types and textures, especially when rebuilding ornamental elements such as statue heads. Balconies that had deteriorated were demolished and repoured, and existing railings were restored, modified, and supplemented with new components. All ironwork was ground, primed, and painted to restore its original aesthetic and structural integrity.

Where water tables were causing ponding and interior leaks, the Armor team re-sloped surfaces to ensure proper drainage. Repairs were also made to leaking awnings at the building's front entrance, and a new ADA-compliant ramp is being added to improve accessibility for all guests.

Before work began, Armor Masonry collaborated closely with the Philadelphia Historical Commission. Extensive testing, mockups, and material probes were conducted to ensure the new materials matched the original façade as closely as possible. In many cases, full stone replacements were avoided by using color-matched patching materials, which preserved the visual integrity of the building and significantly reduced costs and timeline.

Throughout the 12-month project for Phase 1 (the Broad Street façade), engineers and preservation specialists met on-site every Friday to review completed work, document repairs, and track material usage. Upon completing all restoration work, the façade was meticulously cleaned to bring out the original beauty of the building.

A New Era for a Historic Icon

With the restoration of the Broad Street façade now complete, the Bellevue Hotel is poised to enter a new era while honoring its legacy. This ambitious project demonstrates how thoughtful planning, expert craftsmanship, and a commitment to historical integrity can breathe new life into one of Philadelphia's most treasured architectural landmarks.

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