



## Union Tower West Project Overview

Adding to the Union Station Development plan to facilitate the construction of buildings with easy access to the new train rail system, Union Tower West, a \$56.7M, 300,000-SF mixed-use project features a 180-room Hotel Indigo boutique-style hotel (the state's first), 1,188 SF of meeting and event space, a Colorado gold rush-inspired rustic American restaurant and modern saloon (Hearth and Dram), a 208-stall parking garage, and four floors of AA office space. Union Tower West project overcame complexities from building on a tight, urban construction site, collaborating with neighboring construction sites for all parties to be successful with their project schedule, and adding on a premier restaurant mid-way through the project. The downtown Denver project's communication to all parties was unparalleled to achieve the additions in their location to further enhance the Union Station Development with Hensel Phelps' tried and tested processes in quality, safety, and technology.

## Solutions of Special Projects

This project is special due to the complexities of the construction site and added scope. Located on a constrained, irregularly-shaped site on the Northeast corner of 18th Street and Wewatta Street, the tight site required careful coordination, site logistics, and efficient planning due to the limited nature of the space combined with the size and stacking requirements of the building. With the tight site, only one crane was allowed and created challenges for the schedule with the limited workhours. This fostered close coordination and collaboration with the subcontractors on a weekly basis to discuss the crane schedule and determine activity prioritization. On top of a constrained site, there were multiple neighboring construction sites and an active 100 year old steam plant. Prior to construction start, Hensel Phelps met with the contractors for the two immediately-adjacent sites that would be under construction concurrently to coordinate each jobsite's plan. Instead of working independently, we coordinated tower crane heights and swings, traffic control plans, pedestrian access routes, lane closures, etc. to ensure minimal conflict between the active construction sites. Hensel Phelps held meetings bi-weekly to keep coordination flowing throughout construction and address changing conditions.



The greatest accomplishment and attestation of a quality result borne from the entire team was the restaurant addition to the project. Late in the project, the owner saw an opportunity to expand the limited hotel food service and build a full-scale restaurant. This required taking over a portion of the future retail space, design of kitchen, bar, and restaurant from concept to completion, permitting, and construction – all while the rest of the project had to maintain pace. With limited budget and very limited schedule to complete a restaurant buildout in time for the building opening, the team produced one of the most highly rated new restaurants in Denver. Through Hensel Phelps' processes, extensive use of technology, and an integrated and collaborative team, the add-on of a restaurant in the defined timeframe was successful.

## **Excellence in Project Execution and Management/Team Approach**

From the earliest preconstruction efforts to the final product, the design and construction teams worked together to maximize the design and construction quality through integration, constructability reviews, material selection, and custom products melding the designer's vision with the expertise of specialty subcontractors. This project site, though highly desirable for its location and proximity in the city, was less than desirable for spatial efficiency. John Portman and Associates and Hensel Phelps worked together from the earliest preconstruction efforts to determine how best to use the site and to elicit the best from its positive attributes. There was a high degree of involvement and input by subcontractors, starting with MEP design-build subcontractors to lend expertise in designing and constructing a multi-use facility that served all functions well. Trade subcontractors assisted the designers in customizing exterior façade elements of garage screening, exterior trellis, and curtain wall for specialty touches.

Due to market factors and beneficial financing terms for the project, early turnover for both the hotel and the office portions of the building was required. We employed a phased construction permitting strategy and aggressive structure and exterior closure schedule to speed the hotel opening and allow office level tenants access for their own fit out. The building foundations and structure were completed with phased permitting prior to receiving the full building permit, and early procurement of the long-lead curtain wall ensured timely delivery and installation. Hotel plumbing



pre-fabrication, off-hours material stocking, and dedicated jurisdictional inspections were additional construction strategies that minimized storage of excess material on-site, increased jobsite productivity, and reduced scheduled durations for the fastest completion.

### ***Value Engineering***

Specific Value Engineering savings accomplished on this project included while adhering to the project's objective to fit in with the Mile High City aesthetics and 24/7 city:

- Exterior closure revision - change Pavilion wood system to aluminum system Savings (\$799,000)
- Redesign trellis to exposed galvanized steel from wood-clad. Savings (\$368,000)
- Change precast concrete property demising wall to CMU. Savings (\$212,000)
- Remove glass at trellis columns for street façade minimums to incorporate restaurant. Savings (\$197,000)

## **Construction Innovations/State-of-the-Art Advancement**

Innovative façade technology optimizes energy usage and comfort through high-performance glazing that also serves to enhance views from the project. Increasing the building's glazed area maximizes daylight into the office spaces, minimizing the need for artificial illumination. Additional sustainable design concepts employed, such as smart controls, high-performance equipment, and use of local material, helped this project achieve its LEED certification.

### ***Matterport***

A new use of technology comes as a result of our pioneering efforts in laser scanning for construction modeling and quality control. Though laser scanning can provide useful modeling information and was used for quality control inspections of concrete tolerances on the project, it is also relatively time consuming for an active construction site. We looked for ways to speed up the process and found that through the use of Matterport® 3D photographic scanning we could provide a useful imaging tool to achieve not only quality control inspections, but accurate photographic as-



built information and photographic documentation purposes in a fraction of the time. This aided our efforts on the jobsite and aids facilities management with accurate photographic as-built of concealed conditions especially when completing the hotel rooms, restaurant, and lobby space.

## **Environmental/Safety**

On Union Tower West, Hensel Phelps implemented our proprietary SAFE program, which we do on every single jobsite in a systematic fashion. The SAFE program is a comprehensive safety training and observation system that enforces Hensel Phelps' zero accident culture by holding every individual accountable for safety. The Union Tower West team completed 406,264 total manhour with zero lost-time accidents. The backbone of the SAFE program was a continuous safety presence in the field and regular daily safety audits performed by jobsite staff. The current Hensel Phelps safety "Experience Modification Rate" or EMR of 0.49 is significantly below the industry benchmark standard of 1.0, which provides the owner with significant savings through reduced worker's compensation insurance rates for every work-hour of labor performed on a project.

Safety is paramount on every job, but it was especially crucial to this project due its location on a bounded site in downtown Denver, with heavy pedestrian and vehicular traffic as well as neighboring contractors and residents. Coordination and planning for lane and sidewalk closures, wayfinding, and signage were important and any work that was impactful to traffic was performed on the weekends. Communicating with neighbors and the public was also key in maintaining safety so that others knew well ahead of time about major deliveries or lane closures, for example, and could plan accordingly.

Based on the Owner's intent to market the office and hotel space, a LEED Certified Certification was highly sought after. Hensel Phelps approached this project with the importance of understanding the Owner's emphasis on achieving LEED Certification, which permitted the landmark building's characteristic of integrating seamlessly with their neighbors along with securing the long-term benefits of LEED Certification.



## **Excellence in Client Service and/or Contribution to Community**

The building offers views of both the Rocky Mountains and downtown and is walkable yet offers easy access to Interstate 25, mass transit, and Denver International Airport (DEN). Union Tower West is a landmark building in one of the Denver's most sought after neighborhoods that both complements and emphasizes the wide-ranging qualities of the neighborhood in a combination of both public and private appeal. The project embodies the ideals of a walkable, livable, vital urban environment reinforcing the street life of the city. From the owner's perspective, Charles Pinkham III stated "Having all of these disciplines at the table, with well-established relationships in place and no individual groups holding cards close to the chest, pushes the group to the height of their collective potential. In this way, the whole is definitely greater than the sum of its parts."



**2017 AGCACE Awards**

**Element:** Best Building Project – General Contractor (\$40-\$70 Million)  
September 15, 2017



**2017 AGCACE Awards**  
**Element:** Best Building Project – General Contractor (\$40-\$70 Million)  
September 15, 2017



**2017 AGCACE Awards**  
**Element:** Best Building Project – General Contractor (\$40-\$70 Million)  
September 15, 2017



**2017 AGCACE Awards**

**Element:** Best Building Project – General Contractor (\$40-\$70 Million)  
September 15, 2017



**2017 AGC ACE Awards**  
**Element:** Best Building Project – General Contractor (\$40-\$70 Million)  
September 15, 2017