

**Project Name: Block 162**

**Category: 13 – Best Building Project – GC (\$70 Million)**

**Contractor: Swinerton**

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## **Creating a Crown Jewel in Downtown Denver**

Rare is the building that meaningfully impacts a skyline. In downtown Denver, after decades of stagnation, a series of office towers have staked a claim on the city’s silhouette. Newest among them, Block 162 rises elegantly 30 stories above 15th and California in a stylish unfolding of design brilliance and construction excellence. Bold, beautiful, and glimmering in azure, Block 162 will forever be distinctive from a distance for the dramatically divergent crown-like addition to the city’s skyline.

### ***Specialness***

Towering 452 feet above the intersection of commerce and culture, this Class A office building of one million square feet includes 12 levels of structured parking and 20 levels of offices starting on level 11. Developed by renowned real estate investment firm, Patrinely Group, Gensler designed Block 162 and pursued construction execution through a collaborative partnership with Swinerton several decades in the making.

Premium expectations set an undeniable standard that is hard to overlook - Block 162 is splendid in every way. From the strong angular features of the exterior recomunicated by the lobby’s columns and reception desk to the bespoke selection of Italian marble, literally, no stone was left unturned in the pursuit of perfection.

***“Block 162 is the crown jewel of the Patrinely portfolio - the largest, most important project we have developed in our 40-year history. An architecturally significant landmark in a major American skyline is no small feat. Swinerton and Gensler rose to the challenge, delivering unrivaled quality. We could not be prouder.”***

David Haltom, Vice President | Patrinely Group

### ***Excellence in Execution***

Excellence begins with teamwork. This project benefited from a long-laid foundation of remote collaboration in place before COVID, allowing coordination to progress unimpeded when the pandemic struck.

## **Scheduling**

Delivering a 30-story high rise as an urban in-fill on a constricted site requires critical path scheduling and incremental management of nearly obsessive proportions. A true team effort, scheduling solicited input and required accountability from the entire pool of subcontractors. Scheduling success manifested itself through the main project schedule, in conjunction with micro-schedules which managed the core/shell, amenity level 11, hardscaping, stair towers and elevators at a granular level to drive accountability.

As a schedule driver, quality remained the focus to deliver Patrinely's crown jewel. Each of the 25 subcontracting firms partook in thorough preconstruction meetings focusing singularly on quality. First-work quality inspections for every trade and unique installation involved participation by Gensler and Patrinely to validate design compliance while Swinerton's team managed an exceptionally robust coordination and documentation effort.

## **Marble Selection**

Among Patrinely's insistence on the very best, the project's pursuit of the ideal marble stands out as special. Building on brand tenants, Patrinely required a marble with veins specifically going in the same direction and coloration that was neither heavy nor light. The quarries of the Tuscan port town of Forte dei Marmi, Italy, provided perfection for the marble lobby floor and travertine placed on lobby walls and elevator cab walls.

## **Smoke Control**

Among technical challenges, smoke control is an example of intricate collaboration among many. A 15-person team representing the Denver fire department, city building inspectors, mechanical, electrical, air balancers, fire alarm contractors, and Swinerton tested smoke control systems for 20 consecutive nights to secure TCO. In a precisely choreographed ballet, the building must be completely closed, the system put into alarm mode, and the pressurized fans activated to test pressurization levels against doors on every floor. Fan speed adjustment on atypical levels 11 and 30 resolved air change discrepancies and enabled full building TCO.

## ***Innovation***

### **Mock-ups**

Patrinely's elaborate design vision and exacting expectations compelled Swinerton to mock-up several intricate interior components.

Full-scale mock-ups of the lobby's geometrically articulated structural columns were built early and remained in place throughout construction. As a core/shell building, after the lobby, the restrooms are the focal point for quality. Zooming from micro to macro, Gensler's design extends the lines of bathroom tile joints to the floor-to-ceiling stall partitions to the window joints in the envelope and beyond to exterior joints in sidewalk pavers with overwhelming precision. Swinerton assembled 20 different subcontractors to build full-scale restroom mock-ups in the below-grade parking levels to coordinate sequencing and secure approvals of the final assembly for a fraction of the cost of making changes on 30 floors.

The quest for perfection included the building's most visible element – glazing. Early in design, team members visited the glazing manufacturer's facility to select just the right color of glass. In a proactive move, Swinerton erected the glazing mock-up 100 feet in the air to ensure the appearance was what Patrinely envisioned. Sadly, it was not and warranted another visit to the manufacturer facility to select another color. This second time around, the glazing color was perfect. As this discovery and correction happened early in the project, there were no impacts to cost and schedule.

***“Everything was mocked up so we could see every inch as it would be. From the angular, multi-faceted columns in the lobby to actual men's and women's restrooms, every fixture, faucet, and grout line was placed and perfected in full-scale for approval and optimal sequencing.”***

David Haltom | Patrinely Group

## **Caisson Installation**

Swinerton self-performed the caissons, placing concrete for the 6-foot wide, up to 92-foot deep drilled foundation shafts. Invention became necessary in the caisson dewatering process when the typical method of sluffing off the top of caissons with a five-gallon bucket proved inefficient. During caisson placement, approximately 90% of them had ground water that was displaced to the top of the caissons once the concrete rose from the base to the top of the caisson. This introduced a water/muck combination in need of removal. Swinerton's superintendent team created a cone-shaped bucket (with engineer sign-off and hooked to a crane) that removed half a yard of concrete from the top of a caisson at a time.

Block 162 is composed of a massive concrete base rising from 3 levels below grade to 11 stories above, topped by 20 stories of structural steel. One unique scheduling challenge revolved around the building's 17 different elevator shafts, five of which traverse the concrete podium. As procurement and installation of high-rise elevators can lead to the downfall of the best laid scheduling efforts, Swinerton remained diligent ensuring each elevator was delivered, installed and inspected as scheduled to mitigate schedule impacts.

## ***Safety***

Safety is at the heart of Swinerton, informing every action taken on site. High-rise construction's overhead safety imperatives include tying off people and their tools, securing handrails, and netting, ladder safety, and constant risk reduction. A full-time safety manager and carpenter routinely walked the site, instantly addressing any safety issues, checking in with crews, and making a visible display of safety an everyday presence. Craning operations always necessitate heightened site awareness and communication, and the ultra-secure, 30-story site safely accommodated exterior pedestrian passage via covered walkways along two frontages.

Success in safety starts with establishing a culture, that flows from top to bottom and back up every day. When the glazing subcontractor was installing the crown, they noticed the structural

steel appeared to be rotating. Work on that section was stopped and cables were immediately secured to the concerning members. The structural engineer assessed the situation and determined that though the members hadn't reacted as expected, they were structurally sound, and work was resumed. Though the situation was never grave, it illustrates the effectiveness of a safety-first culture when anything is other than as anticipated.

### **COVID Response**

When COVID hit, Swinerton's Colorado leadership challenged every project team to develop a site-specific COVID response. The Block 162 team developed a 35-page response in three days; it proved so comprehensive that it became the Swinerton standard plan, used on every job site and shared with clients who implemented it on non-Swinerton projects.

The pandemic hit when Block 162 was 60% complete, with structural steel halfway up the 30-story building and 300 workers on a site just over an acre in size. Swinerton persevered and topped out the building during the pandemic. When other sites across the city shut down for weeks due to outbreaks, Swinerton shut down the job site just three times during the pandemic, all as precautionary measures and for short periods of time.

### ***Contribution to Community***

Block 162 makes striking impression on Denver's skyline that distinguishes this building as more than a monument but rather an undeniable moment. An interwoven partnership between Patrinely, Gensler, Swinerton and subcontractors put safety and quality at the epicenter of every decision to imbue Block 162 as a one-of-a-kind construction experience no one involved will forget. A celebration of purpose and possibility, Block 162 is the crown jewel of the Patrinely portfolio and a career accomplishment for all involved.

***“There have been many trying moments with the challenges COVID presented for safely executing such a significant investment in tight-site, vertical development. I have nothing but trust and admiration for Swinerton. Beyond a shadow of a doubt, they can get it done, no matter what.”*** David Haltom | Patrinely Group

















