

TRANSPORTATION

LARGE COMMUNITY

City & County of Denver - University/Josephine Improvement Project



DENVER
THE MILE HIGH CITY

Project Accomplishment

The University/Josephine Improvement Project impacted the largest arterial-arterial connection in the Cherry Creek Shopping District. Located in the heart of Denver about three miles from Downtown Denver, Cherry Creek Shopping District is the Rocky Mountain region's premier shopping destination with over 160 shops, including 40 stores exclusive to the area. The combination of Cherry Creek North (299 Milwaukee St.) and the Cherry Creek Shopping Center (3000 E. 1st Ave.) makes this neighborhood the largest and most varied shopping destination between Chicago and San Francisco, and a major regional tourist attraction. Due to the urban center location of the Project and the important retail nature of the adjacent Cherry Creek Shopping District, the Project team had to work creatively to schedule the construction work for the University/Josephine Improvement Project to take place during a time period that would least interrupt the all-important holiday shopping season.

The project, funded in part by the 2007 Better Denver Bond initiative, included two components. The first was a street reconstruction project, which replaced some of the most deteriorated road surfaces in Denver. The reconstruction area, University Boulevard and Josephine Street from Cherry Creek North Drive to 6th Avenue, replaced deteriorated asphalt surfaces with new concrete. In total, 8,087 feet, or 1½ miles, of curb and gutter were constructed including 29 new manholes, inlets and other special structures. The project also included new 91 pedestrian ramps replaced to ADA standards, seven fully rebuilt traffic signals with increased lens sizes, and an upgraded median on University Boulevard that now serves as an improved gateway entrance into the Cherry Creek commercial area. In all, 1,175 truckloads (or 2,538 tons) of concrete were poured onto the site.

The second component was a storm drainage improvement project designed to introduce new capacity to the existing system and reduce the frequency and impact of recurrent localized flooding in the Cherry Creek area. The storm drainage improvements were identified as a critical need in both the Citywide Storm Drainage Master Plan and the Cherry Creek Neighborhood Drainage Study completed by the Denver Public Works Wastewater Management Division. The project installed 2,476ft. of storm sewer pipe (the equivalent of 8.25 football fields) – with the largest portions of pipe up to 90in in diameter (or 7.5ft.). To lay a portion of the pipe, the project team hand tunneled more than 150ft under 1st Avenue to avoid additional impacts to the eastbound and westbound vehicle and transit traffic moving overhead. The comprehensive project (including a Phase 2 pipe extension completed in Summer 2015) represents a total investment of \$15 million dollars into the Cherry Creek area.



Criteria Participation

Innovation: A unique aspect of the project was the full closure of the 1st Avenue and University intersection for 57 hours from Saturday, September 20th at 10pm through Tuesday, September 23rd at 7am. This full closure allowed the project team to complete the work three weeks ahead of schedule, by November 1, 2014, which was identified by the area's retail community as an important date by which construction impacts on University and Josephine should be removed in order to support a healthy holiday shopping season. Commuters accustomed to traveling through the 1st Ave. and University intersection were required to find alternative routes for both weekend and Monday morning commuting travel needs. Media partners and prolific signage worked in tandem to inform commuters and shoppers of the detours in place for the weekend and help travelers understand what to expect throughout the closure period. This planning helped to manage the levels of commuting traffic through the area while still preserving access to residences, businesses,



and the Cherry Creek Shopping Center for those who wanted to patronize the Cherry Creek shops, restaurants and businesses during the closure period. Crews completed the assigned work within the 57-hour closure period, and reopened the intersection from all approaches on time, despite several rain/weather events. Crews were also able to complete additional, out-of-scope work (80 additional cubic yards paved), which allowed crews to re-establish southbound traffic on University by Tuesday AM – a milestone that was not anticipated as part of the full closure. No incidents or accidents were reported as a direct result of the closure and no additional delays to RTD transit operations were experienced due to the extensive pre-planning. The incredible amount of work achieved during the full closure was displayed in a time lapse video capturing over the 57 hours of work.

Achievement: In addition to the tremendous amount of work accomplished during the project, the full-closure period avoided 2-3 additional heavy work phases that had been originally scheduled (each with significant traffic impacts for 1-3 days each), thus minimizing disruption to the traveling public and shoppers. Consequently, the University/Josephine project completed all major goals by November 1, 2014 - three weeks ahead of the goal schedule.

Transferable: Once funding for both the street reconstruction and storm drainage projects was identified and designs were finalized, the project team had a very small window of time to bid the project, identify a contractor, and execute the contract – a process that typically requires anywhere from 4-6 months. In order to ensure that the project could be initiated quickly in January 2014 and then cleared out of the Cherry Creek Shopping District area before Thanksgiving, the team utilized the established Denver Public Works Integrated Construction Program (PWIC), a unique project delivery method that could ensure project initiation by the date necessary. This method was deemed successful and is certainly a transferable model for other time-sensitive scenarios.

Cooperation: An operations team made up of representatives from the project management and contractor teams, City and County of Denver including Public Works staff — Project Engineers and Inspectors, Traffic Management Center, and the Policy, Planning and Sustainability group; the Denver Police Department Traffic Division; media teams (Public Works Communications, Public Works Transportation, and contractor teams); Denver 911 Dispatch and Emergency Services; the Denver Office of Emergency Management and Homeland Security (OEMHS); and Denver’s Regional Transportation District (RTD) gathered together for several intensive work sessions prior to the closure. Ongoing coordination meetings were also held with representatives of the Cherry Creek North Business Improvement District, the Cherry Creek Shopping Center, local retailers, business owners, and the Cherry Creek Business Alliance to ensure that retail and business groups were fully informed about the project progress and potential impacts. The operations team and public outreach model created for the University/Josephine project, as well as the full-closure period, is certainly a cooperative approach that can be replicated on other projects in any jurisdiction.

Nomination Summary

The University/Josephine Improvement replaced deteriorated asphalt surfaces with 2,538 tons of new concrete and installed 2,476 ft. of storm sewer pipe up to 90-inches in diameter to address some of the worst pavement and flooding conditions within the City and County of Denver. The project initiated an unprecedented 57-hour full closure of the University and 1st Avenue intersection, one of the highest volume intersections within the City limits, in order to complete the project three weeks ahead of schedule. The total storm pipe and street reconstruction project represents \$15 million in infrastructure investments for the Cherry Creek area.