

Beyond Expectations

Incorporated in 1945, Cherry Hills Village, CO recently celebrated its 75th anniversary on a community green of tranquil splendor in newly invigorated John Meade Park. Despite being among the United States' most affluent municipalities, until now Cherry Hills Village's civic core was nothing to be proud of. Village governance, police, fire, and administration operated out of funky, ugly structures huddled around an unhospitable, swampy landscape. Recently the Village has invested significantly in reimagining itself. First, they built a joint fire/police services center, then a city hall, and in this project, they now resolve a series of civil engineering challenges rendering the messy landscape inaccessible.

HPM Contracting was awarded the project through a low-bid process, understanding though that success would be about more than the bottom line. In a delivery that was more design-build than bid-build, HPM tenaciously maximized communications, coordination, and collaboration to compel winning solutions to situations of unforeseeable complexity. Engaging a wide range of expertise across 14 divisions, HPM phased work around communal activities to limit public impact and field-engineered critical path components that lacked detail in design documentation.

“Good communication is a top priority. HPM exceeded our expectations, communicating effectively throughout the project and offering effective and low-cost solutions to any issues that came up during construction.”

Emily Black, Cherry Hills Village

Making it Special

Placemaking is a process of purpose, performance, and pride. In its previous condition, John Meade Park was all but useable. A non-ADA compliant eyesore without public drinking water or restroom facilities, aged, wooden play structures saw little action, and the wetland and ponds were choked with cattails and sediment.

Today the park is a meaningful meander through classic Colorado. The new dual-pond system is connected by a fully ADA-accessible wetland encounter over a boardwalk of bespoke expectations. Boulders and river rock line the banks, and fishing piers jut out over stocked ponds. A climbing net over the ecosphere allows curious kids to get face-to-face with their environment. A modern play structure hewn from Black Locust features a shaky approach and cleverly concealed craftsmanship in structural supports. Public restrooms were economically added via a prefabricated building solution, beautifully redressed as a modern pole barn.

The scope included removing the old firehouse, completely draining, mucking, and regrading both ponds and the wetland, installing a new turf landscape, playscape, a stage, and adding electrical infrastructure.

Approach to Excellence

HPM aims to nurture long-lasting relationships with every client who hires us. Going above and beyond is fundamental to our approach.

Bid-Build to Design-Build

Owners establish expectations for a contractor's performance when they decide on the method by which they procure services. Though awarded as Bid-Build, the lack of detail around several components made building the work as designed unfeasible. Specifically related to the boardwalk and the playground's treehouse and bridge apparatus, the design was more of a sketch than a buildable set of plans. HPM independently hired the structural engineering services of DH Glade to develop shop drawings for these elements.

Moving Water

The most significant challenge was hydrology. Water is relentless and though it can be controlled, doing so in a natural environment isn't simple. The Village's ponds and wetland are part of a complex flow stream that is adjoined by water-rights holders, Glenmoore Country Club, on one end and, Cherry Hills Country Club, on the other. Though the ponds were filled with many decades of accumulated sediment that needed to be drained, dried, and removed, even during construction natural flows could not be interrupted but rather only rerouted. HPM established open lines of communication with facility managers at both country clubs to sequence planned upstream water releases with construction activities and keep the downstream user apprised of containment and flow strategies as they evolved.

Earthwork

While there was a lack of detail in some elements of the design, when it came to the precision required to achieve the land contours, expectations could not have been higher. Three grading channels were established through the wetland to meet FEMA permitting requirements for the 100-year flood plain. These extremely tight contours were graded to ¼' intervals in a soft, soggy site within no tolerance for variance and limited predictability of natural water flows flooding the site during construction.

Community Context

The site is surrounded by community concerns. From the newly created Village Center, the nearby elementary school, the multi-million-dollar homes, and the road bisecting the site, situationally despite being much needed, construction activities had great potential to be a nuisance. HPM held an open house at the start of construction to establish direct communication with residents and set the stage for safe, trouble-free execution.

Innovation

Unphased by obstacles, HPM Contracting pushed past project barriers with a can-do attitude and plain old hard work.

Water Circulation

Task one was to dry out the wetland, which proved to be difficult. Bid documents provided no information on flow rates and visually the upstream water source seemed to be little more than a trickle. The first plan of creating a catch basin and pumping the water past the wetland in pipes was working until nature intervened. The first time it rained, the catch basin was quickly overtaken, stopping work. Surprisingly, it took two full days for the bulk of the upstream water to arrive at the site and when it did the entire wetland was reflooded. A large diesel pump was brought in to dewater everything a second time and remained operational continuously for eight months while the wetland was dried, mucked, and restored.

Wetland Restoration

Difficult to dry out and clogged with cattails 20 feet high, the wetland area was approximately 80,000-SF of soft, peanut-buttery mud several feet thick. A plan to treat and kill the cattails held environmental concerns and channeling the wetland to direct water out proved unworkable when the water table was discovered just four feet below grade. Ultimately, after removing the cattails, the sun began to dry out and harden the surface. The edges were mucked first, and layers of fresh dry dirt were added to stabilize the lip enough to use a low-ground pressure dozer with extra wide tracks to move out toward the center. Using a grading model and working from outside-in, the process was repeated until the wetland was scraped clean and restored.

Design Intent

While civil engineering around earthwork and hydrology was exacting, designs for the boardwalk and playscape were more intentions than instructions. The 340'-boardwalk includes one straight length and three long spans on 100- to 200-foot radius curves. HPM calculated elevations for each of the 110 piers and precisely placed more than 900-individually cut-in-place planks using a piano wire guide system to align edges and corresponding screw patterns.

In another field-engineered solution, steel columns were embedded into the base of each playscape timber and completely concealed for a natural-looking result.

“Constructing a boardwalk through the wetland led to some surprising discoveries and the original building plan turned out to be unfeasible. HPM smoothly transitioned to a new plan, working with the engineer to field design a spread footer based on actual soil conditions, completing the work with no cost increase.”

Emily Black, Cherry Hills Village

Unusual Building Materials

Elevated expectations meant nothing but the best in materials. Boardwalk planks were sourced from a Malaysian Mahogany. At the import cost, there was little room for waste on the mahogany, which had to be climatized to local humidity levels in a special tent on site before installation. Treehouse and bridges are made of Black Locust, one of the world's densest, most difficult woods to work with.

Safety

Safety is always a top concern. Stretch and flex toolbox talks were the essential start to every day on the site. Discussions around the day's work and potential hazards set the stage for vigilant awareness and no time lost time or recordables on this project. When COVID came into play at the tail end of the work, the standard OAC meeting was moved outside as a Walk-n-Talk.

The park connects to several residential properties and adjoins with the Village's civil service buildings to form the community core. Securing the site with covered fencing kept residents safe and daily street sweeping kept errant gravel from accumulating and scratching the paint on cars worth as much as houses. Disruptive activities involving trucks like hauling and deliveries were coordinated with the elementary school's schedule to eliminate construction-related congestion.

Excellence

Community is the cornerstone of HPM Contracting and everything we hope to achieve for ourselves and others. At John Meade Park, a nuisance has been reimagined as a celebration of community; a civil and civic resource rescued from inaccessibility, and a landscape rejuvenated as a point of pride for the city and citizens of Cherry Hills Village.

“The most significant part of the project involved dredging ponds and wetland, meticulously regrading, and replanting with native plants. HPM went above and beyond. Their sensitivity to the park’s riparian areas and wildlife habitat helped us maintain positive relationships with residents and surrounding communities.”

Emily Black, Cherry Hills Village









