

COMMUNITY CENTER AT CROSS PARK



APPLICATION FOR THE APWA 2022 PROJECT OF THE YEAR

FREDERICKSON

PIERCE COUNTY PARKS

RE-PURPOSING HISTORIC RESOURCES

INCREASING ACCESS TO SHARED SPACES





TRANSFORMING A HISTORIC DAIRY INTO A DESTINATION

COMMUNITY SPACES FOR THE SOUTH PUGET SOUND REGION

The vision of an American romantic ruin was evoked by the dilapidated roadside Mayflower Dairy barn and its accessories of utility. Built for a purpose and quintessential in form, but its purpose faded like the boards and bits of paint that remained. It served in recent decades as a backdrop for prom and wedding photos, but little else.

Recognizing its heritage and inherent value to both recall and actively preserve this tangible link to an agricultural history among burgeoning development, the Frederickson Community Center celebrates a remaining plot of open space. Nestled by Clover Creek wetlands, it inspires conservation ideals, and revitalizes the land and its structures, providing a needed venue for active play and gathering. With careful design and craft, the existing structures were shifted, stripped to reclaim and reinforce their skin, and reassembled with authentic, re-purposed features and finishes to accentuate their new use among the old frames.

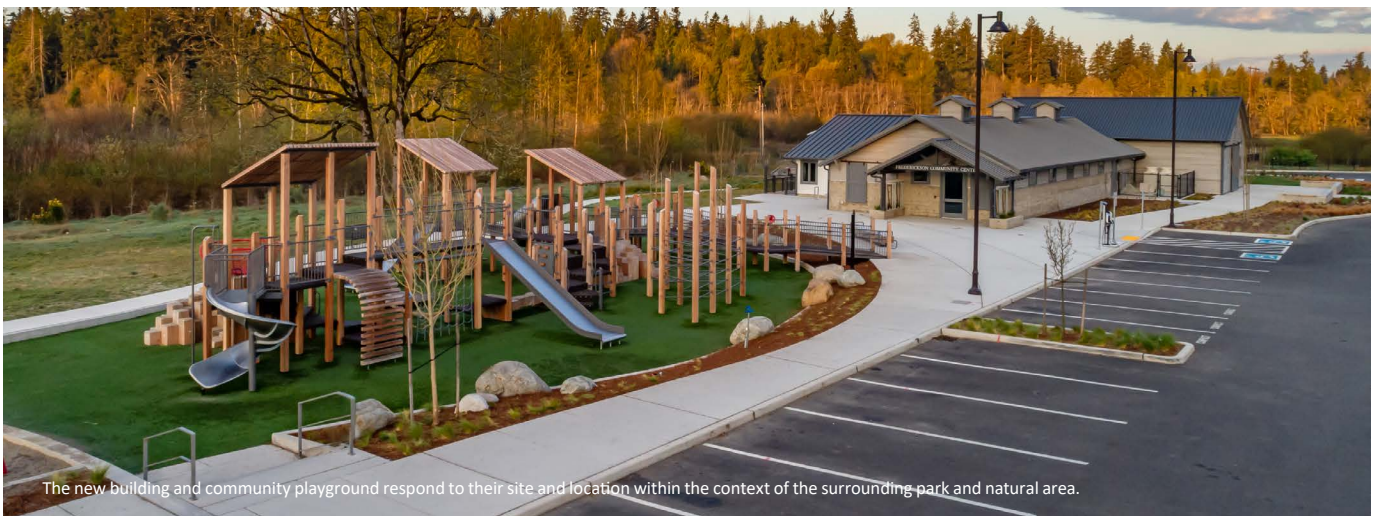
The project provides an adaptive reuse and rehabilitation of the disused 1920s-era Mayflower Dairy and Hay Barns for service as a community center, with a large gathering space, meeting rooms, commercial kitchen, office, storage, and public restrooms, in conjunction with development of the surrounding three-acre park, the first in the Frederickson community.

Preliminary development analysis for the park property was completed shortly after the property was acquired by Pierce County Parks, but lack of funding prevented design

and development of the park in earnest for several years. The Friends of Stan and Joan Cross Park formed a grassroots advocacy group to both promote and help fund the park, through spaghetti feed fundraisers, surveys and outreach to community members, and solicitation to state government officials to help support the project.

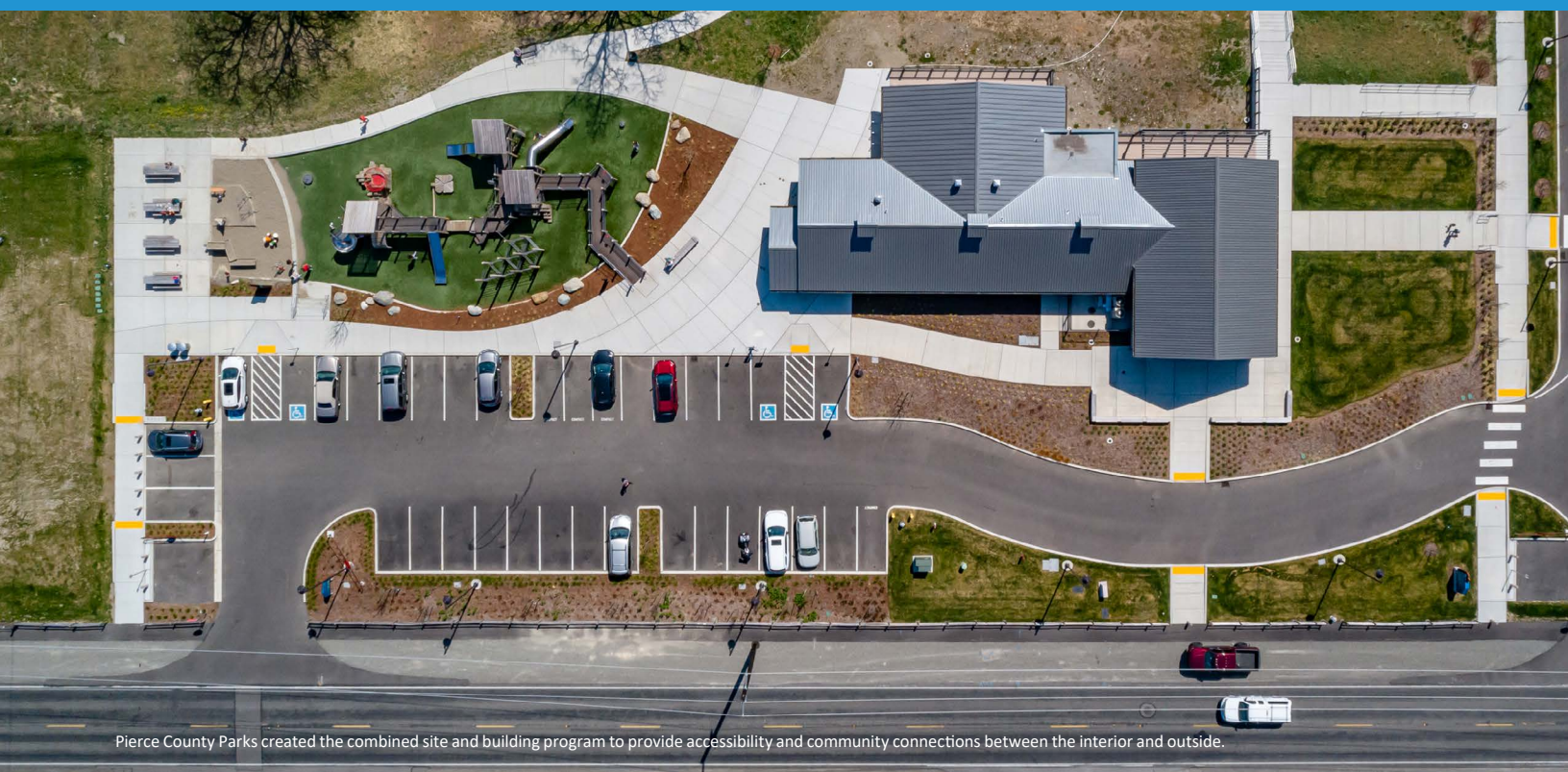
Pierce County Parks hired a consultant to produce a master plan for the entire 64-acre site, and several design workshops and open houses were conducted to solicit programming ideas and design input, providing community stewardship and investment. The overall master plan includes an area for active recreation, events, walking trails and an occasion center on the southern portion of the site, but efforts focused on Phase 1, the northern 4 acres, and development of a playground and picnic area, parking, and eventually, a decision on the disposition of the historic barns.

A feasibility study and cost evaluation to stabilize or raze and replace the vacant barns developed organically, with Pierce County Parks and the various team members, into rehabilitation plans for a much-needed community center. Extensive planning meetings and workshops were held with county planning and development reviewers, stakeholders, Parks program management, and Parks maintenance staff to ensure the project's goals were heard and addressed.



The new building and community playground respond to their site and location within the context of the surrounding park and natural area.

PARTNERSHIPS CREATED TO REALIZE A SHARED RESOURCE



Pierce County Parks created the combined site and building program to provide accessibility and community connections between the interior and outside.

PART 1. USE OF GOOD CONSTRUCTION MANAGEMENT TECHNIQUES AND COMPLETION OF THE PROJECT ON SCHEDULE.

Pierce County has a need for shared spaces in a community that continues to develop and grow at a high rate. By leveraging the existing and interpreting their past, the project provides a continuum for new memories, making this special place, once resigned to a single function, accessible to everyone and ready to host current and future generations of celebrations and community events.

Relocation and reconfiguration of the structures, in-street utility work, sensitive site conditions, and various county agencies' oversight required significant coordination and strong communication with Parks, designers, the construction team, agencies, utilities, and stakeholders. This process began with thorough and detailed construction documents to convey the complexities and intent, and extended to the pre-construction conference where owner's goals and design team's desire for a collaborative partnership with the contractor were conveyed.

Pierce County Parks utilized sound project management

techniques along with the thoughtful integration of technology to deliver the project on schedule and under budget. The project utilized a cloud-based project management software to facilitate the resolution of construction issues and processing of construction documentation. The County, also used on-site video, permitting inspections and meetings to accelerate the schedule. An aerial webcam was used throughout the project to provide snapshots of up-to-the-minute progress, while doubling as a security device. Weekly on-site and virtual meetings allowed for quick coordination which was key for a project with complex architectural and site improvements.

Specialty sub-teams were formed for coordinating the IT and security improvements, the natural area impacts and improvements, and the utilities connections. Ultimately, the project had enough budget saving to fund the addition of a new maintenance building and fenced maintenance yard.



Reconfiguring the barns, and demolishing and salvaging smaller outbuildings allowed for expanded as well as a more efficient use of the site.

PART 2. SAFETY PERFORMANCE AND DEMONSTRATED AWARENESS OF THE NEED FOR A GOOD OVERALL SAFETY PROGRAM DURING CONSTRUCTION.

Construction began in June 2019. Following approval of a site safety and fire prevention plan, the site was contained with security fencing, silt fencing, and tree protection for several historic Garry Oaks within the work area. Special consideration was given to building shoring, cribbing, and soil preparation associated with moving the two barns.

A unique requirement of the project included removal, salvaging, abatement, restoration, and re-installation of the historic exterior wood siding, and interior lead-painted wood finish. In order to avoid chemical treatment or off-site transport of the hazardous materials, the contractor created an isolation chamber in a Conex box, equipped with a special drum brush sanding machine purchased specifically for the project, which connected to a HEPA vacuum containment system to prepare the thousands of board feet of siding to be use on and within the building. The result was even better than anticipated, leaving a rich, weathered texture on the siding while effectively

mitigating the hazardous materials risk for workers, on the construction site, and for building occupants.

In early 2020, as concerns and impacts of the expanding COVID-19 pandemic began to mount, the project was deemed essential work and continued through November 2020. Pierce County Parks worked quickly coordinating messaging and methods with the State of Washington and Washington State Department of Transportation (WSDOT) to issue a letter authorizing the work to continue and identifying the criteria for an approved contractor provided safety plan. This enabled the project to be delivered on schedule even with the constraints of the COVID-19 pandemic.

The contractor prepared and posted CDC guidance documents at site access and gathering points, provided additional handwashing and sanitation stations throughout the site, required masks for inside and outside work, and modified subcontractor schedules to minimize contact and exposure time between trades. On-site construction meetings were reduced by using teleconference and emailed photos of site conditions for discussion.



UNDERSTANDING COMMUNITY NEEDS AND ACTIVITIES

PART 3. COMMUNITY RELATIONS AS EVIDENCED BY EFFORTS TO MINIMIZE PUBLIC INCONVENIENCE DUE TO CONSTRUCTION, SAFETY PRECAUTIONS TO PROTECT PUBLIC LIVES AND PROPERTY, PROVISION OF OBSERVATION AREAS, GUIDED TOURS, OR OTHER MEANS OF IMPROVING RELATIONS BETWEEN AGENCY AND THE PUBLIC.

Outreach during design included public workshops, open houses, and surveys to engage a wide variety of interests. It addresses the public's desires for a playground, trails for fitness and bird watching, picnic area, preserving the barns, and a community center. Stakeholder meetings discussed programs for fitness, cooking and life-long learning, meetings, parties, rentals, and use of the kitchen for community canning and food processing events. The playground structure exceeds universal access codes, welcoming more of the public to participate.

The design process also included securing agreement and approvals with the Pierce County Historical Commission and the Washington State Department of Archaeology and Historic Preservation (DAHP) on the proposed improvements. Both of those processes included several presentations and reviews during the design process. The DAHP approval required

thoughtful negotiations on proposed scope and provision of interpretive elements.

Construction fencing along the right-of-way was set back, and the gravel shoulder historically used for parking to access the old barns remained throughout construction. The area's residents regularly stopped by to take photos of the progress through the fencing to share on social media sites. Pierce County also provided regular updates and photos of construction progress on its website as well as email updates to interest parties.

The overall property includes a residence leased by the County, with an access drive that bisected the project site. Fencing, security, and traffic control were carefully coordinated to allow the residents access through the construction daily for their regular activities. At each weekly construction meeting, the project team addressed any and all neighbor or public use issues. This allowed the project to move smoothly through construction without any delays or additional processes due to public relations. Utility work and paving in the right-of-way was scheduled tightly together to minimize traffic disruption and re-work for temporary paving.



Envelope, structure, and systems improvements within the historic shell and new finishes provide occupant comfort and delight.



A focus on accessibility and community with connections to the outside was of paramount importance for the project.

PART 4. DEMONSTRATED AWARENESS FOR THE NEED TO PROTECT THE ENVIRONMENT DURING THE PROJECT. THIS INCLUDES ANY SPECIAL CONSIDERATIONS GIVEN TO PARTICULAR ENVIRONMENTAL CONCERNS RAISED DURING THE COURSE OF THE PROJECT.

The new community center features visual and physical connections to its surrounding environment within Stan and Joan Cross Park. Integration into the park guided the design's inclusion of elements that reinforced concepts of sustainability and sharing space with nature. Building on a previously developed site, observing the wetland buffer setbacks, employing temporary erosion control devices during construction, implementing prairie grass restoration along the fringes of the site, and providing 100% stormwater infiltration on-site are ways the project achieves dedicated environmental stewardship through its design and practices.

The project site abuts and included development of a parking lot on the adjacent Naches Trail Preserve. The Preserve is a natural area which includes a large Garry Oak Prairie. The prairie also extends onto the newly developed park site. The project coordinated with local environmental groups such as

Forterra, Pierce County Surface Water Management, local Garry Oak Prairie experts from Pacific Lutheran University, and the Puyallup Indian Tribe to set and maintain criteria for the extents of impacts to the adjacent prairies and the appropriate mitigations, including certified weed-free native prairie seed mixes, bioswales, and additional Garry Oak seedlings. The project funded the creation of walking trails through the Naches Trail Preserve to stop unprogrammed damage to the prairie ecosystem. It also provided funding for signage throughout the Naches Trail Preserve to inform the public of proper use of the natural area and to provide interpretive information about the endangered ecosystem.

During construction an unrecorded agricultural well and wellhouse was discovered on the property in the Clover Creek Wetland. The project team worked with the Department of Ecology to remove the structures, decommission the well, and restore the impacted wetland.

All of the storm water for the property is managed, cleaned, and released on site through infiltration to recharge the water table and neighboring wetland.



rehabilitated building, while the reuse and re-purposing of siding, framing members, and large sliding garage doors from outbuildings slated for demolition saved on material costs and embodied carbon, and provide authentic and tangible connection to the building’s heritage and pedigree. Old barn wood generally endures because it was cut from old growth or tight-grained lumber, and because it can breathe on all sides due to a typical lack of interior finishes. In spite of not having been painted in nearly 50 years, the sound condition of the 90+ year old siding allowed careful disassembly, light abrasive paint removal, restoration, back-priming, and re-installation at a rate of over 85%. It was re-assembled as a rain screen system, with a ventilated drain plane to give the wood the best chance of lasting another 90 years, while providing a robust layer for managing air and water concealed behind the cladding. The contractor’s technique of using a drum brush to remove remnants of lead paint from the siding created textural surfaces, and highlighted weathering patterns under a new high quality paint system.

PART 5. UNUSUAL ACCOMPLISHMENTS UNDER ADVERSE CONDITIONS INCLUDING, BUT NOT LIMITED TO AGE OR CONDITION OF THE FACILITY, ADVERSE WEATHER, SOIL OR OTHER SITE CONDITIONS OVER WHICH THERE IS NO CONTROL.

The new community center is built within the structures of the existing Dairy Barn and Hay Barn. This required those two structures to be stripped of their envelopes, lifted and moved, new foundations poured beneath them, and reset with new structural improvements. The refurbishment and relocation of the two existing structures required active and nimble coordination between the Parks Department, the general contractor, and the design team to respond to quickly evolving conditions presented by the historic structures. These included refining the foundation wall strategy when existing footings and reinforcement were found to be missing or inadequate, structural improvements to undersized and sagging roof framing with out of plumb walls, and roofing details collaboratively determined during construction.

The existing barn structures and siding have been leveraged, upgraded and re-employed in traditional use in the

Construction required specialized work, including structure moving, care with disassembly and restoration of historic materials, and addressing substandard conditions uncovered during selective removal. Storage spaces for tables and chairs were designed to serve as green rooms for events, when the furniture will be deployed. The commercial kitchen was designed to support cooking classes as well as events. As part of the kitchen equipment, a large rolling table could be fit with an overhead camera, to allow use of the adjacent meeting room and monitor for more participation.

The site provides a diverse range of experiences, both social and environmental, with opportunities to place oneself in the context of constructed and natural systems and a storyboard of history, from Native American and early settlement to modern restorative interventions, community investment, and stewardship of both land and the people that inhabit it.



Natural light and exposed trusses provide the community center's multi-purpose room with an open and inviting feel for the public.

PART 6. ADDITIONAL CONDITIONS DEEMED OF IMPORTANCE TO THE PUBLIC WORKS AGENCY, SUCH AS EXCEPTIONAL EFFORTS TO MAINTAIN QUALITY CONTROL AND, IF VALUE ENGINEERING IS USED, CONSTRUCTION INNOVATIONS AS EVIDENCED BY TIME AND/OR MONEY SAVING TECHNIQUES DEVELOPED AND/OR SUCCESSFULLY UTILIZED.

Retaining the historic character of the barns was critical to Parks and the community. Salvaged and re-purposed materials, including sliding barn doors, provide a tangible historic fabric with which people can directly interact. Original and custom elements create additional interpretive cues: Re-purposed milking stanchions at the entry with grass-filled planters mimic the old hay troughs and provide a children's photo op. Donor names embossed in bronze hoof prints in the paving lead the eye through the historic sliding cattle doors and into the interior. Sliding barn doors with recycled stained glass clover insets face out onto Clover Creek. Milk bottle light fixtures in the restrooms and prep/green rooms hark back to the building's original purpose, while also speaking to a sustainable future.

Providing daylighting into spaces formerly occupied by hay and cattle provided opportunities to respect the existing small,

high window openings in the dairy barn for use in service and restroom spaces, while larger openings were created for views and natural ventilation on the south and west facades. The large openings required further consideration for security, as the remote site is not regularly patrolled after hours, and vandalism and graffiti had been longstanding issues around the derelict barns. Large sliding doors were incorporated from the adjacent milk truck garage and re-purposed to provide daylight control and security when the building is not open.

Budget-driven modifications were made during design to adjust to current pricing and ensure a successful bid process, including reducing the size of meeting rooms and decks, omission of an accordion room divider in the meeting rooms, deferring procurement of commercial kitchen equipment, omitting native plantings and permeable hardscape for irrigated lawn, and eliminating the requirement to be photovoltaic-ready. While these were hard decisions, all were considered and planned to minimize impacts to the overall function and success of the project vision, and for their ability to be implemented with least disruption and added cost at a later date. The kitchen equipment was roughed-in to avoid later routing, the roof structure remains suitable for PV panels, and infrastructure is in place to expand decks, paving and plantings, and install the room divider.

The project employed a detailed list of review points and contractor provided details to ensure this complicated project's quality. The extent of the re-installation of historic materials necessitated a detailed process for quality control. The reuse of the materials themselves required well managed process to achieve a striking and lasting building, but the process also was designed to be nimble enough to respond to the changing condition of the historic materials encountered with on-site mock-ups and collaborative construction detail revisions.



Preserving and restoring original details was critical to the restoration of the historic barns on site.

PART 7. USE OF ALTERNATIVE MATERIALS, PRACTICES OR FUNDING THAT DEMONSTRATES A COMMITMENT TO SUSTAINABILITY AND/OR USE OF SUSTAINABLE INFRASTRUCTURE RATING SYSTEM OR THE EQUIVALENT.

In addition to capturing the embodied carbon by reusing the historic barns themselves, the project included demolition and selective salvage a four outbuildings for re-purposed finish materials. Historic use is echoed through the rich textures of original weathered wood and tall walls of board-formed concrete, conversion of historic dairy ventilators to daylight monitors, and reuse of the milk truck garage's grand sliding doors for security and daylight control.

The original east-west orientation and roof overhangs have been maintained to utilize passive solar strategies and are enhanced on the south-facing deck with a brise soleil trellis and sliding barn door operable shading devices on the south and west. A robust envelope with above-code insulation and air barrier minimizes infiltration and reduces heating and cooling loads. The building significantly exceeded the blower door test values for air infiltration required by the energy code.

The footprint of the buildings remains modest, and it does more with less by way of shared program spaces, including convertible storage and prep rooms, public restrooms, and areas to congregate. Storage spaces for tables and chairs were designed to serve as green rooms for events, when the furniture will be used. Exterior public restrooms are calculated as part of the building's fixture count, and flexible gathering spaces serve multiple groups simultaneously. The commercial kitchen was designed to support cooking classes as well as events. A large rolling table can be fit with an overhead camera, to allow use of the adjacent meeting room and monitor for additional community participation.

The project used low VOC paints and sealants. Durable, cleanable surfaces were selected for long-term maintenance and indoor air quality. Rapidly renewable materials such as sorghum board were used for wainscoting, while also interpreting the historic feeding layout in the milking barn hallway. Durable metal roofing with concealed fasteners and fiber cement siding will extend the replacement cycle.