

Inspiring sustainable thinking



2016 CCE AWARDS SUBMISSION

Bowness Park Redevelopment Project

Categories: Technical: Buildings

Client/Owner: The City of Calgary

Consultants: IBI Landplan
Simpson Roberts Architecture

Contractors: Graham Construction

April 2016







A Modern Approach to History

BACKGROUND

Created in 1911, Bowness Park is a 30 hectare (74 acres) urban park on the Bow River in the northwest quadrant of the City of Calgary. It is popular for picnics, boating and ice skating on the lagoon and the canal which feeds it.

In their September 2009 report, IBI Landplan describes the park as a significant cultural landscape, "It has evolved from a wilderness resort to an amusement and pleasure ground, to a natural retreat surrounded by urban development. The park is cherished as a place for family recreation in a perceived natural environment; this has historically been, and continues to be, Bowness Park's most fundamental and defining characteristics."

In May 2008, to celebrate nearly 100 years of history in the park, the City of Calgary Parks department asked a team of consultants to establish a framework for its conservation and refurbishment. During this time the consultant held public open houses to understand what the public loved about the park and what they thought could be done better.

In 2009, a plan and phasing strategy was developed and shared with the public.

SCOPE OF THE WORK

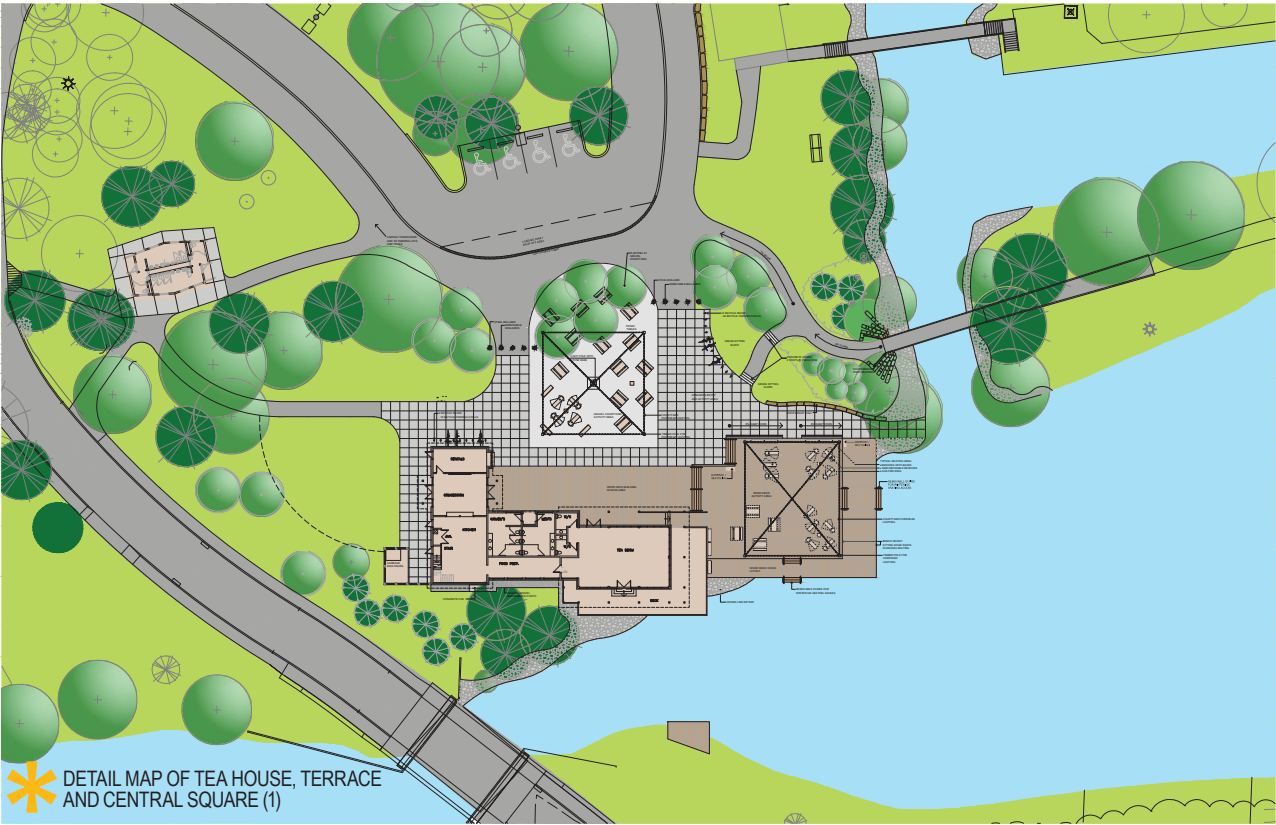
The subsequent development plan was intended to reverse the decline of amenities, refurbish and redevelop existing features and ensure the longevity of the park.

In April 2012, prime consultant IBI Landplan put together a team to meet plan objectives. The team consisted of IBI Landplan, Simpson Roberts Architecture, Graham Construction and ISL Engineering and Land Services.

ISL Engineering and Land Services undertook Structural Engineering for the redesign and refurbishment of the major park buildings and structures, which included;

1. The Teahouse and New Concession Pavilion, New Expansive Wood Framed Courtyard
2. The New Wading Pool and Building
3. Orthophonic Building
4. Recreated Boat Rental Building
5. Pumphouse Building
6. Two Pedestrian Bridges
7. Maintenance Building
8. Washroom Building
9. Sun Shelters







REINTERPRETING HISTORY

The historical significance of the park to Calgarians was identified as a theme to be maintained during re-development.

Critical to the design was ensuring the historical feel and uniqueness of the park was retained in the design and refurbishment of the various building that remained in the park, but also incumbent to this design was the knowledge that the park has suffered from weather events such as flooding and severe winter storms that have over the years caused numerous amounts of damage to the existing buildings.

ISL developed the concept of reinterpreting and re-envisioning the historical elements of the park utilizing modern engineered wood products, in conjunction with hand cut heavy timber posts, beams and trusses. The use of these wood design elements allowed ISL to emulate the historical elements and aesthetic, while ensuring longevity to the structures.

Structure	Highlights
The Teahouse and New Concession Pavilion	The concession building incorporates both traditional and modern framing, showcasing hand cut timber bents in the teahouse.
New Expansive Wood Framed Courtyard	Timber decking and light poles were used to create a massive courtyard deck, giving recreational skaters plenty of space to enjoy the frozen lagoon for years to come.
The New Wading Pool and Building	Currently under construction
Orthophonic Building	This new building was designed to emulate the original structure in the middle of the lagoon. It is currently under construction.
Recreated Boat Rental Building	Added to scope after the flood, the remaining existing portion of the building was reinforced for new flood levels and incorporated into the overall look of the park.
Pumphouse Building	Added to the scope after the flood.
Pedestrian Bridges	Two new precast pedestrian bridges.
Maintenance Building	Now completed, the building utilizes modern framing methods allowing for the maintenance of the parks.
Washroom Building and Sun Shelters	New roofs and timber elements on existing washroom structures. Sun shelters are a new modern take on the original cabins that were part of Bowness Park history.



DELIVERY CHALLENGES

In 2013, as site preparations for the park were being completed, flood waters as high as five feet heavily damaged the existing infrastructure and set back the long range restoration work that was started in 2012.

It was originally determined that the extent of the flood damage would delay opening the park until the end of 2014, but a concerted effort by all the consultant teams and park crews, areas of the park were re-opened in the summer of 2014. On Christmas Eve 2014, over 3000 Calgarians were skating on the lagoon and enjoying the new courtyard, reaffirming the immense popularity of Bowness Park.

Additional Scope Added

The flood had two effects on the park's redevelopment. Damaged buildings and structures were added to the redevelopment project and existing 100 year flood elevations were increased 300 mm.

Client Satisfaction

The approach to design for the structures at Bowness Park was in line with the City of Calgary's Cultural Landscape Strategic Plan. The design team honoured the special heritage of the park, which was important to the people of Calgary.

From the beginning, the project was phased to meet budget requirements. In response to the flood damage, the phases were changed to incorporate damaged buildings, but overall budget phases were maintained.



News article from July 2013



News article from November 2014



BOWNESS PARK REDEVELOPMENT — AT A GLANCE!

Innovation	<ul style="list-style-type: none"> • Concept of reinterpreting the historical elements using modern engineered wood products in conjunction with hand-hewn heavy timber posts, beams and trusses.
Complexity	<ul style="list-style-type: none"> • In 2013, halfway through redevelopment, flood waters as high as five feet put the park and its structures under water. Two buildings were added to the scope of work after the flood – the pumphouse and the boat house and surrounding deck.
Social/ Economic Benefits	<ul style="list-style-type: none"> • Reinterpreted and re-envisioned the historical elements of the park using modern engineered wood products, in conjunction with hand cut heavy timber posts, beams and trusses. This allowed ISL to emulate the historical elements and aesthetic while ensuring longevity to the structures even in the face of severe winter weather. • Reintroduced the wading pool element to the park to meet contemporary needs. • Designed the orthophonic building to emulate the original structure in the middle of the lagoon so that park visitors can enjoy piped-in music in the same fashion as was experienced in the 1920s.
Environmental Benefits	<ul style="list-style-type: none"> • Supports an increased number of park visitors, enhances park visitors' experiences, boosts the park's environmental health and completes much needed lifecycle upgrades and replacements. • The incorporation of timber into the building designs decreases the environmental impacts of the structures. • The design was intended to maintain as many of the large trees and as much of the river's edge as possible.
Meeting the Client's Need	<ul style="list-style-type: none"> • The project was completed in phases to meet the client's budget requirements. Even after the flooding, the overall budget phases were maintained. • Helped the City balance the old and new by using modern engineering to re-envision key historical elements in the Park. • The approach to design for the structures in the Park was in line with the City's Cultural Landscape Strategic Plan. • Honoured the special heritage of the Park.

