



sθəqəlxenəm ts'exwts'áxwi7 Rainbow Park



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Vancouver's newest park.

project vision

PROJECT TEAM

DIALOG

Structural Engineering, Mechanical Engineering, Architecture, Landscape Architecture

VANCOUVER BOARD OF PARKS AND RECREATION

Owner/Client

AES ENGINEERING LTD.

Electrical Engineering

WSP CANADA INC.

Civil Engineering

DAVIES GEOTECHNICAL INC.

Geotechnical Engineering

EARTHSCAPE

Playground Designer

SMITH BROS AND WILSON

General Contractor

DIALOG worked with the Vancouver Parks Board to design Rainbow Park – a vibrant, dynamic, and inclusive space in the heart of downtown. Through effective public and stakeholder engagement, a dialogue between the client, design team, and the community was initiated, eliciting valuable insight from residents and local business owners, and their site-specific knowledge and community considerations. The program for this new park has been consciously assembled in anticipation of an emerging new Vancouver: Vancouver 2.0. The magnetic, multi-layered design is the direct result of strong creative collaboration between an interdisciplinary team and a spirited, forward-thinking client to deliver a new ‘community porch’ for everyone to enjoy.

As Downtown Vancouver’s first new park in over 10 years, Rainbow Park is the Park Board’s gift to its residents. It’s also the city’s first park gifted a name by the Musqueam, Squamish and Tsleil-Waututh Nations; s̓θəqəlxenəm ts’əxwts’áxwi7 meaning ‘rainbow’ as the site was once “a marsh where the sun and mist formed rainbows”.

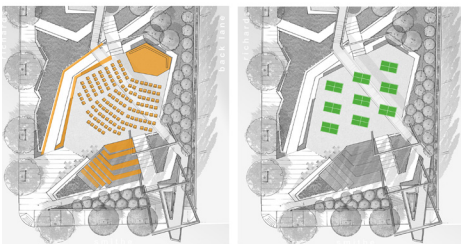
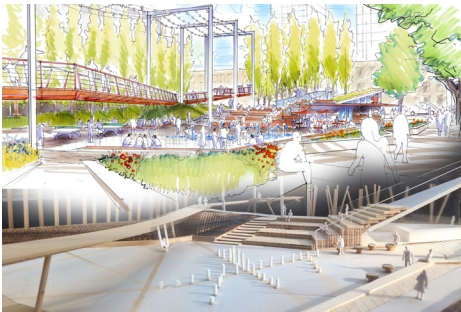
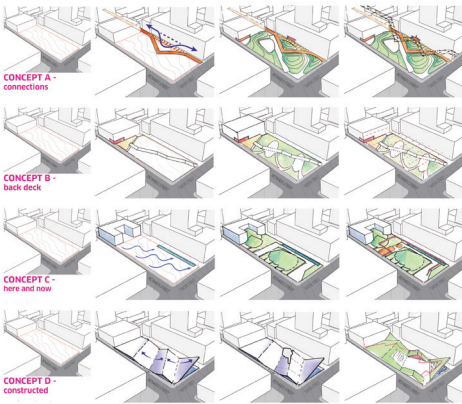
The design exemplifies inclusive and creative engagement tactics by an interdisciplinary design team through extensive research and applying the City’s policy guidelines. Bringing green space to the city center, it provides a place to gather, engage in social activities, enjoy an on-site café, and take in one’s environs from the pedestrian bridge.

The integrated project team blurred the lines between architecture, landscape architecture, and bridge engineering to create a vibrant new public space. A deeply integrated approach and a commitment to building a dynamic public realm were reflected through technical details and project decisions. Rainbow Park exemplifies the successful implementation of stakeholder and public engagement and demonstrates the exceptional breadth and depth of feedback, resulting in an award-winning design that continues to garner public acclaim since opening in Spring 2022.

“The rainbow is about sharing and being together, and because of the colours that it brings together, the whole concept of that neighbourhood in the sense of its diversity of people from all the different ethnic groups. The rainbow is a bridge: a vision that comes and goes but also brings us all together”

— Larry Grant, Musqueam Indian Band





communication

Stakeholder focus groups included members of Neighbourhood Business Improvement Associations (BIAs), the Vancouver Public Space Network, Vancouver City Planning Commission, the Contemporary Art Gallery, Vancouver Police Department, neighbourhood STRATAs, business owners, and the public. In addition to a series of meetings with the above stakeholders, the design team implemented a grassroots three-phased engagement process that generated over 1,000 surveyed responses. Additionally, the design team and Vancouver Park Board set out to capture community feedback with interactive engagement tools. The final design is not only a response to the site and its social context—an area new in and of itself and in need of definition and cultural enhancement—but also a precedent of an emerging Vancouver as a whole.

The design team worked collaboratively with the Vancouver Park Board to assess and respond to feedback, and to develop a communications plan demonstrating the ways in which the Park Board and the design team were listening to and incorporating that feedback into the development of the park's design.

The importance of utilizing the appropriate representational techniques at key stages in the process, and having the designs remain accessible and comprehensible to a diverse audience, became increasingly apparent. This led DIALOG to consider the most effective tools to convey the survey and analysis data and to represent the proposed conceptual designs; from rudimentary 3D working models and colourful, hand-drawn character sketches to more resolved diagrams and computer imaging. Keeping the public and future users of the park informed and engaged throughout the ongoing design process, not only established the most responsive and appropriate park design, but also helped in fostering civic pride and a community spirit that continues to inspire pride of ownership and a sense of stewardship long after the design team fulfilled its role.

a porch for the city

What emerged from the various consultations was the concept of a “community porch”: a place where many activities and interactions can unfold simultaneously all while providing access to nature and a place for respite. The park’s design incorporates a series of overlapping terraces with communal spaces and interactive elements, enhanced through three key components to the community porches concept.

The program was consciously assembled in anticipation of an emerging new Vancouver and delivers a community space developed by DIALOG’s team in tandem with a visionary, collaborative client. This concerted planning and analysis cultivated an iconic, memorable, and impactful design: a magnetic, multilayered, and effectively programmed ‘community porch’.

The community porch concept comprises three key elements: first, the café pavilion that feeds life and energy into the space. Secondly, the pedestrian bridge; an elevated structure that weaves over and across the park as both a lookout and a foil for the adjacent tall towers. Hammocks and art installations attached to the bridge further activate the space. And thirdly, “sky frames”; a series of structural steel arches aligned diagonally along the park’s spine, linking the three spaces. These functional armatures allow art pieces, banners, or custom lighting displays to be curated by local art institutions.

The park’s highly urban surrounding physical context creates constraints as well as opportunities for a successful civic space. The site slopes towards a back lane while the interface between the site and lane reveals parkade entrances and mechanical vents. The southern edge of the site is highly visible with more than 16,000 cars passing the park each day as people enter the downtown core. These issues were thoughtfully addressed in the design. The significant grade change across the site was cleverly incorporated by creating an extensive network of ramps, stairs, and retaining walls to accommodate and maintain safety and accessibility for all users. Furthermore, this created three distinct spaces in the new park; an upper terrace that provides opportunities for lunchtime or coffee hangouts; a middle terrace that serves as a children’s play area; and a civic plaza with decorative water feature in the lowest and largest terrace space.





landscape and play

A sandbox and chalkboard brought all ages together to shape ideas for a place that serves 30,000 residents within a 5-minute walk. Building upon these dreams, an integrated team of DIALOG landscape architects, engineers, and architects set out to deliver an innovative, high-capacity, three-dimensional community space that redefines 'park' by encouraging relationships between shared histories and land.

This is achieved through the creation of multilevel, multigenerational space; playful grading and experiential low-impact design; and careful selection of culturally relevant plants.

Host Nation artwork flying among high-rises signals your arrival. All generations coming together in cozy, open, energetic, and calm spaces. Tuck into the upper terrace and nestle into custom benches and upland plants before you skirt onto the walkway to do some people-watching. Or scoot down the rolling slide to land on the teal rubber terrace in a pile of laughs. Climb the custom play structure and hold your breath as you fly down the iconic twisting silver slide before bouncing on built-in trampolines and trying your hand at urban bouldering. Cool down in a multi-use plaza with a splash pad and locally-owned café pavilion before meandering the walkway and lounging in hammocks with new friends.

The topographic character – a 4.5m drop from north to south – is honoured with a set of three terraces that form the hydrological and social cycle of the site. As the land descends, a walkway rises to traverse the urban world somewhere over the bustle of the city below. The lower terrace folds upwards into an urban amphitheatre and café to cocoon the multi-use plaza and house the mechanical room.

Water is central to the cultural imaginary of Vancouver and is highly integrated here. Rainwater collects in a series of pocket wetlands along a berm and battered wall aligned with the laneway, showcasing the flow of water as it pours from weep holes while providing a visual and acoustic barrier between social spaces and working corridors. In the plaza, the push of a button sprays water up from inlaid spouts and sends laughter high before being recirculated to on-site flush fixtures and irrigation.

Weaving over the park, this transparent elevated structure appears as a dynamic and dramatic form that provides a curious and distinctive marquee within the predominantly grey surrounding concrete context. In the park, the bridge structure offers a much-needed foil against the adjacent tall towers while providing an elevated lookout down Smithe Street.

The design team chose structural steel to allow the trusses to be shop-fabricated and painted off-site prior to erection. The choice of steel continues to the V-piers and railing system to minimize the structural weight and resulting seismic loads. The walking surface consists of thick cut, treated Douglas fir planks supported by the bridge trusses, and the interior railing varies between an Ipe guardrail or steel handrail.

Parametric modelling was used to explore and define the complex geometry of the pedestrian bridge trusses, V-piers, and railing system. Advanced modelling techniques were used to optimize the structure and to define the logic for the variable-height railing that gives the bridge its character. Applying this approach meant that multiple design options could be considered very quickly, avoiding the early “anchoring” to a design concept that can sometimes happen when traditional modelling techniques are used that might impede the selection of the best design concept for the site. The resultant 3D model was then shared with the steel fabricator, reducing the risk of misinterpretation of 2D drawings, and improving the efficiency of the fabrication process.

pedestrian bridge

The elevated pedestrian bridge weaves over the park as a dynamic and dramatic form. The bridge structure has four spans, each up to 20 metres in length, and a stunning six-metre lookout that cantilevers over the sidewalk of Smithe Street below. The main spans consist of three-dimensional trusses built up from hollow steel structural sections with welded connections, supported on nine steel V-piers. The pier base connections form a pinned joint to accommodate structural movement and resist vertical and out-of-plane loads. Integrated railings wrap around the trusses and form a cladding that changes the aesthetic of the structure depending on the viewing angle. Hammocks are suspended from the underside of the bridge structure to support a City and community-based initiative to help further animate and activate the civic plaza.

Access onto the bridge is via one of two sloping ramps at either ends, or through one of two integrated feature stairs. The north stair adjacent to Richards Street is a continuation of a truss and features sliding stringers to accommodate bridge movement. The west stair connects users from the café and civic plaza to the eye-catching cantilever lookout that extends over the Smithe Street sidewalk.

The lookout is framed with jumbo round steel sections and was carefully analyzed and designed to reduce vibrations from pedestrians. The steel fabricator performed full-scale shop trial-fits to ensure the lookout and truss framing geometry would align once on site. The lookout also contains custom-built wood benches and a steel-reinforced polypropylene hammock where users can pause to take in their surroundings.

RGBW linear luminaires hidden from view illuminate the internal skeletal structure of the skybridge, accentuating its expanse and providing a layer of breathing room to the plaza and park amenities underneath. Meander upwards to different lookout points from the elevated walkways spanning the park from end to end, lit with marker luminaires recessed into the decking and stairs.





Food is a fundamental attribute that literally “feeds” life and energy into a public space. The café is regarded as a key component to the new park and is positioned at one of the primary entry points - the intersection of Smithe Street and Richards Street. As such, the café welcomes passers-by and contributes to the life and animation of the city streetscape with its striking angular structure and cantilevered green roof. While the café provides an inviting spot for people to relax and enjoy their surroundings, the urban plaza is designed to be adaptable to both formal and informal activities.

There was a concerted effort to reduce potable water usage in the park through an innovative approach to water conservation. The café and urban plaza water system represents a sustainable and responsible use of water that celebrates the joy it can bring. The water system was designed as a journey, starting at potable water used in the splash pad and rainwater collected from the green roof - both are collected in a large underground retention tank. The next step on the journey is through a series of filters. After filtration, the water is used on the final stage of the journey either as a grey water in the cafe's public washrooms, or in an extensive drip irrigation system for the park planting.

sky frames

The last layer to this park space is a series of structural steel frames that align diagonally down the spine of the park linking all three spaces. They create a ‘sky’ dimension to the site and respond to the urban scale of the surrounding built form. These frames primarily reside as functional armatures, designed to support the installation of art pieces or banners that can easily be curated by possible partners such as the City of Vancouver Public Art Commission or Vancouver Contemporary Art Gallery.

In addition to art pieces, the towering 15-metre sky frames are illuminated with architectural catenary lighting. RGBW projector and GOBO luminaries mounted onto the sky frames illuminate the plaza activities below, meaning users enjoy multi-level coverage that augments the park structures and assists with wayfinding. At night, animated, colour-shifting scenes and the feature catenary lighting extend the activation of the park, creating a festive, informal atmosphere, lengthening the park’s appeal into the evening hours.



honouring its roots



Originally named after the intersections it inhabits, Smithe and Richards Park is now known as sṮəqəlxenəm ts'exwts'áxwí7 in the hən̓q̓əmiñəm and Squamish languages, meaning “Rainbow” park. This dedication was unveiled during a special ceremony in June 2022 further to the Vancouver Park Board working with the Musqueam, Squamish, and Tsleil-Waututh Nations to establish a new name. Rainbow Park was selected because the site was previously “a marsh where the sun and mist would form rainbows”. The name is also a nod to the area’s LGBTQ history.

“The rainbow is about sharing and being together, and because of the colours that it brings together, the whole concept of that neighbourhood in the sense of its diversity of people from all the different ethnic groups. The rainbow is a bridge: a vision that comes and goes but also brings us all together,” said Larry Grant, an Elder and the interim manager of language and culture for the Musqueam Indian Band.

The design is not just a response to the site and its social context, it also establishes a precedent for an emerging Vancouver as a whole. The city and the downtown community have a world-class space activated through communal porches for area residents, office workers, and tourists alike. Since opening in Spring 2022, sṮəqəlxenəm ts'exwts'áxwí7 Rainbow Park has been celebrated by the community as a truly unique, multidimensional space in the heart of Downtown Vancouver.



