

PORT

Report 2022-59
Appendix A

GOLBORNE

MARINA DISTRICT

REVITALIZATION

PLAN

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**ACTIVE
TRANSPORTATION**

**GREEN
INFRASTRUCTURE**

**WATERFRONT
CENTRE**

**WATERFRONT
ASSETS**

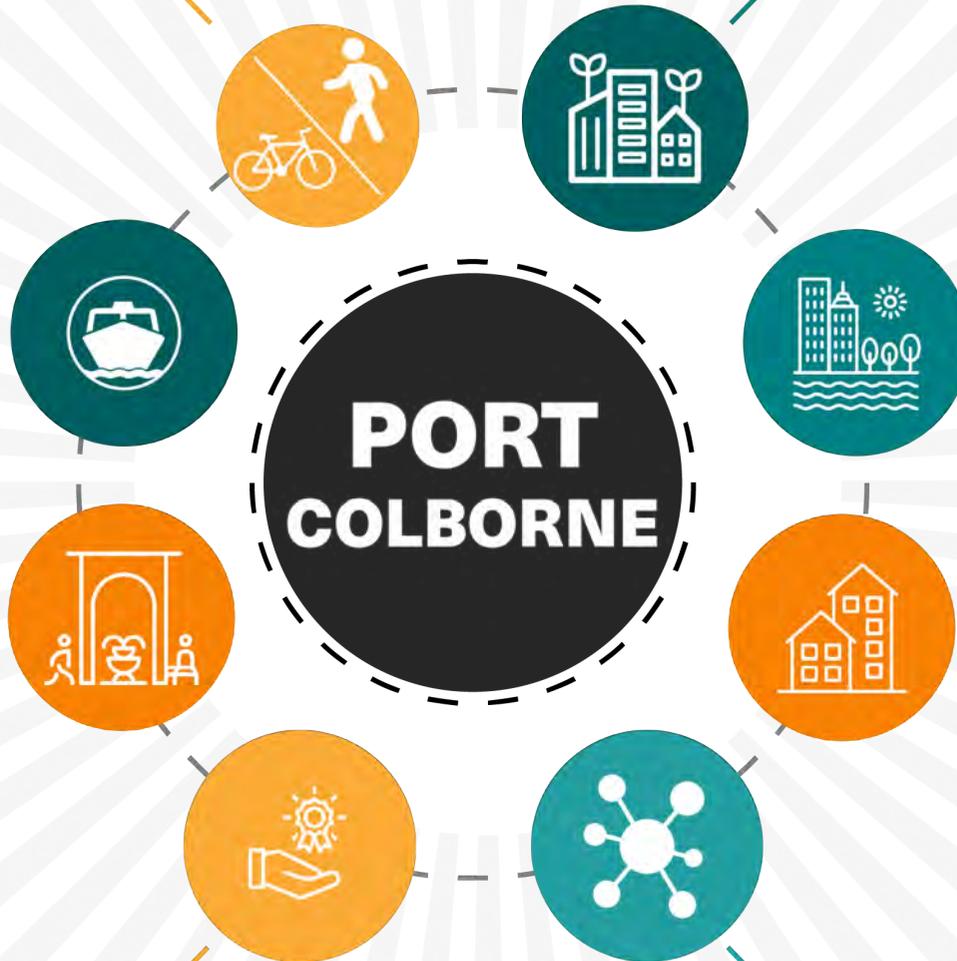
**ACTIVE
PLACEMAKING**

**HOUSING
SUPPLY**

**EXCELLENCE IN
DESIGN**

CONNECTIVITY

**PORT
COLBORNE**





PARK & PUBLIC SPACE



RESIDENTIAL



MARINA/ CRUISE SHIP



ACTIVE USES
(RETAIL, RESTAURANTS & OTHER COMMERCIAL USES)



MULTIPURPOSE PARKING STRUCTURE



EXISTING TRAIL/ ACTIVE TRANSPORTATION NETWORK



PROPOSED TRAIL/ ACTIVE TRANSPORTATION NETWORK



POINTS OF INTERESTS

Gravelly Bay

GRAIN TERMINAL

Welland Canal

Towards Clarence Street

KING STREET

WEST STREET

SUGARLOAF STREET

Promenade

</



Gravelly Bay

H.H. Knoll
Lakeview Park

SUGARLOAF STREET

TOWARDS
CLARENCE STREET

KING STREET

WEST STREET

INTERPRETIVE
PANEL

ICE RINK/
SPLASH PAD

SAIL SHADE

FOOD TRUCKS

Waterfront
Centre

ROOFTOP PARK

BOAT PARKING
STRUCTURES

Sugarloaf
Marina

FLOOD MITIGATION
MEASURES

GRAVEL BEACH

RESTAURANT

Promenade

PROMENADE PROGRAMMING

ROOFTOP PARK

FLEX SPACE
SEASONAL TENTS

MARINA TRAIL

BOAT PARKING

FUEL DOCK

GRAIN TERMINAL

Welland Canal



Subject to the decommissioning of the Grain Terminal and a portion of the rail line track

Implementing Principles

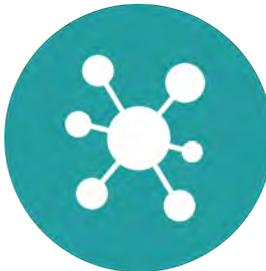


ACTIVE TRANSPORTATION



- 2-way Bike Lane
- Bike Share & E-scooter Station
- Running Track, Benches & Sidewalk

CONNECTIVITY



- Linking Parks & Open Space
- Connection to Waterfront & Sugarloaf Marina
- Smart City: Wi-Fi connectivity & CCTV cameras for safety
- Kinetic Pavements & Solar powered paths

ACTIVE PLACEMAKING



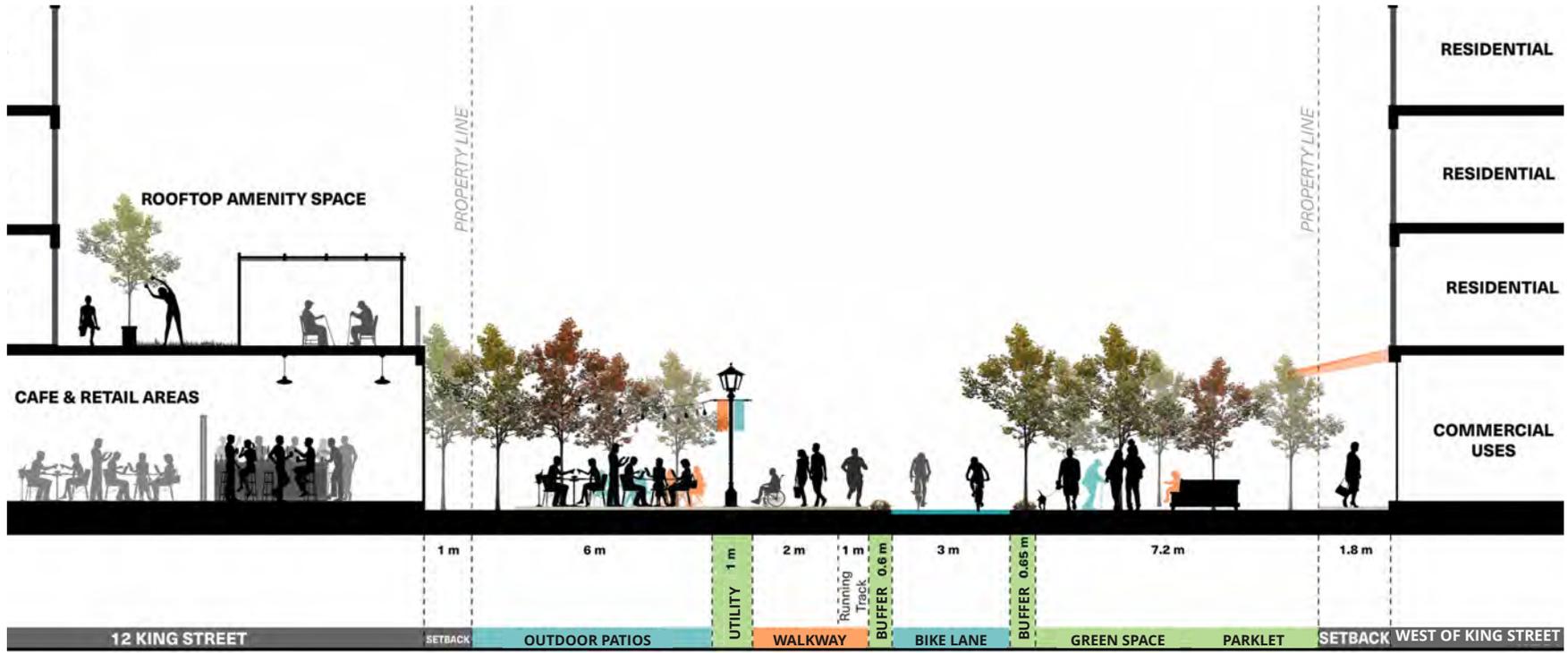
- Active Uses interfacing with Trails & Green Spaces

GREEN INFRASTRUCTURE



- Expand tree canopy cover
- Increase green and permeable surface

CROSS SECTION A-A

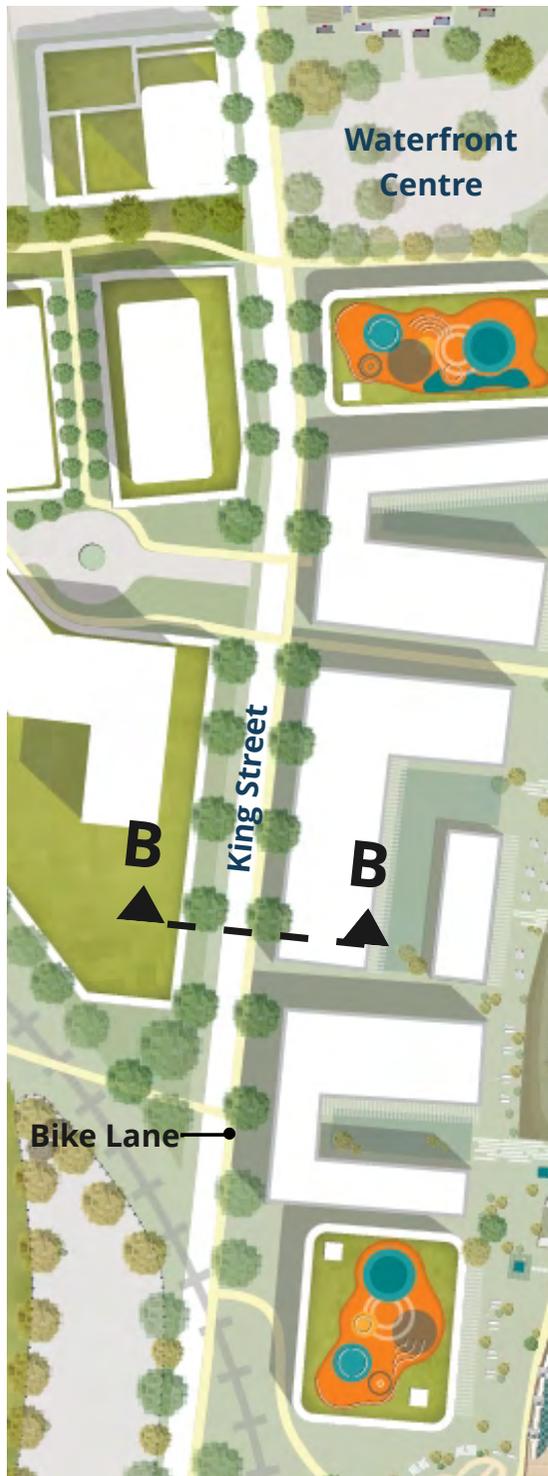


CAFE/ RESTAURANT OUTDOOR PATIO



RETAIL OVERLOOKING MULTI-USE TRAIL





Implementing Principles

ACTIVE TRANSPORTATION

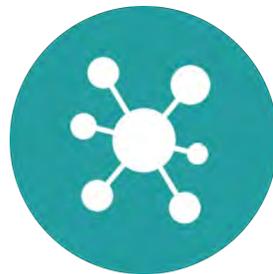


2-way Bike Lane

Bike Share & E-scooter Station

Transit Station

Benches & Sidewalk



CONNECTIVITY

Connecting Port Colborne Downtown to Waterfront, Sugarloaf Marina and H. H. Knoll Lakeview Park

Smart City: Wi-Fi connectivity, Interactive information boards & CCTV cameras for safety



ACTIVE PLACEMAKING

Complete Street with Active Uses

Enhanced Public Realm Design

Wayfinding

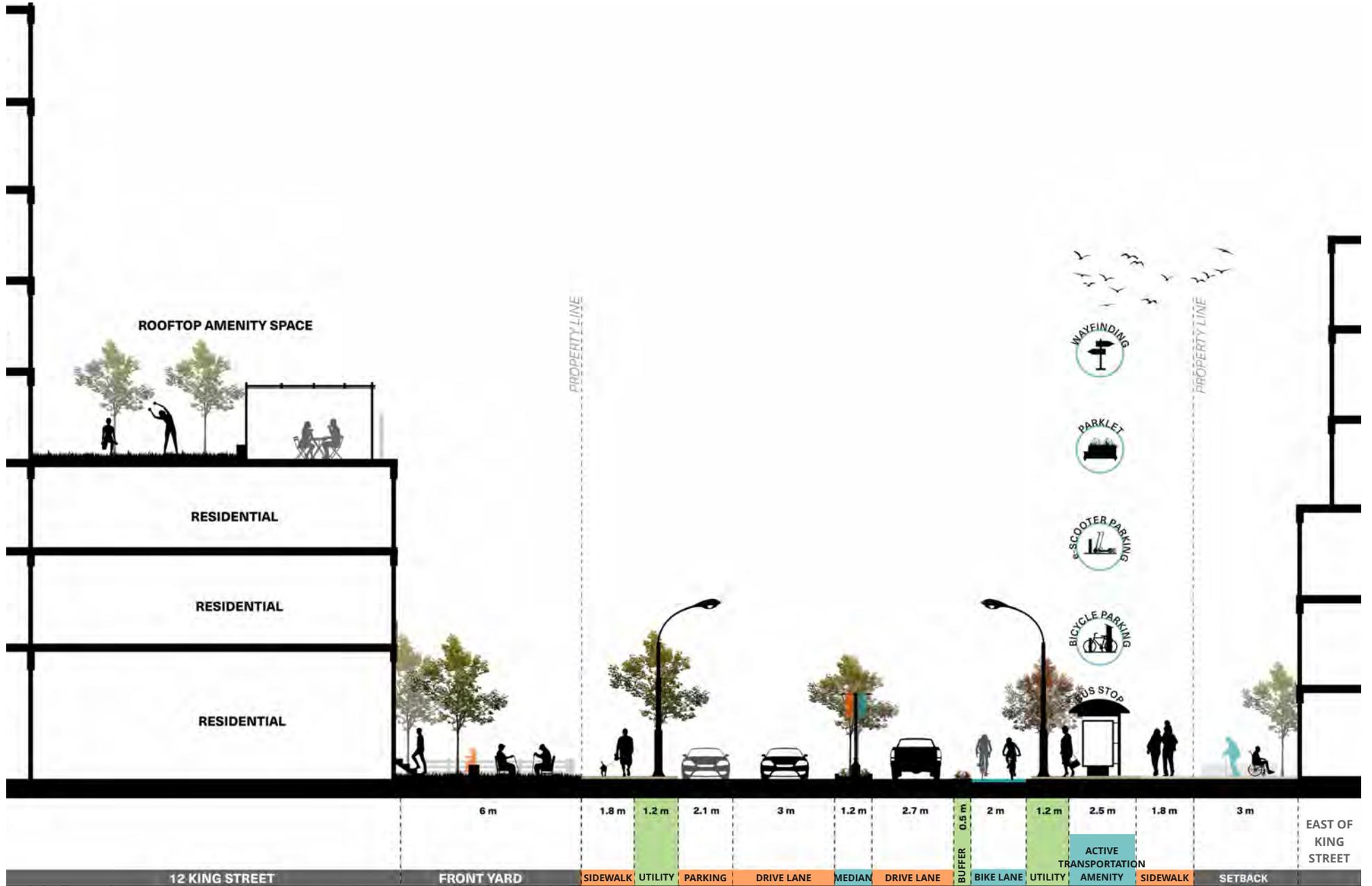


GREEN INFRASTRUCTURE

Expand tree canopy cover

Increase green and permeable surface

CROSS SECTION B-B

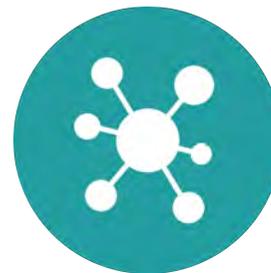


Implementing Principles



ACTIVE TRANSPORTATION

- Multi-Use Marina Trail
- Bike Share & E-scooter Station
- Benches & Sidewalk



CONNECTIVITY

- Linking Sugarloaf Marina with the Parks & Open Space Network
- Smart City: Wi-Fi connectivity, Interactive information boards & CCTV cameras for safety



WATERFRONT ASSET

- Leverage Sugarloaf Marina as a destination for recreation and active transportation



Implementing Principles



GREEN INFRASTRUCTURE

Repurpose boat parking area as part of the Marina Trail

Expand tree canopy cover

Increase green and permeable surface



ACTIVE PLACEMAKING

Interactive Features

Boat Parking Container

Flexible outdoor space for events and community building functions

Boat Parking Container



Repurposed Shipping Containers

Murals and arts by local artists

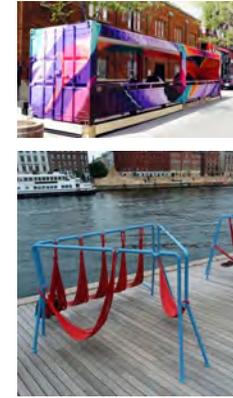


Marina Trail



Trails

Interactive Activities



Seating

Implementing Principles



HOUSING SUPPLY

Supplying approximately 1,100 multi-unit residential units



WATERFRONT ASSET

Creating waterfront housing and commercial spaces



ACTIVE PLACEMAKING

4,000 sqm. of at-grade active uses

Communal courtyards/ green space

Rooftop Park



Implementing Principles



GREEN INFRASTRUCTURE

Integrate green roof in tall buildings

Expand tree canopy cover and permeable surface within the private realm, including parking lots



EXCELLENCE IN DESIGN

Foster a sense of place through unique waterfront architecture



WATERFRONT CENTRE

At-grade commercial uses complement Waterfront Centre tourist traffic



Mid rise buildings

Promenade

Mixed- use mid rise building





Implementing Principles

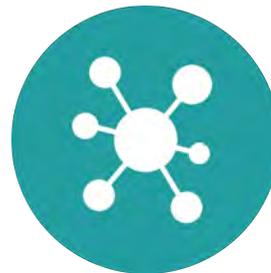


ACTIVE TRANSPORTATION

Multi-Use Trail

Bike Share & E-scooter Station

Benches & Sidewalk



CONNECTIVITY

Linking Waterfront Centre & Future Cruise Ship Docking Area to Waterfront, Parks & Open Space

Smart City: Wi-Fi connectivity, Interactive information boards & CCTV cameras for safety



GREEN INFRASTRUCTURE

Repurpose boat parking area as part of the Marina Trail

Expand tree canopy cover

Increase green and permeable surface



Implementing Principles



WATERFRONT CENTRE

Providing high quality public space within and in proximity to Waterfront Centre



ACTIVE PLACEMAKING

Interactive Urban Furniture
Multi- purpose Amenity
Year-round programming



WATERFRONT ASSET

Leverage Welland Canal as a destination for recreation and active uses

Tourism Planning through fishing infrastructure

Interactive Urban Furniture



Story Pods



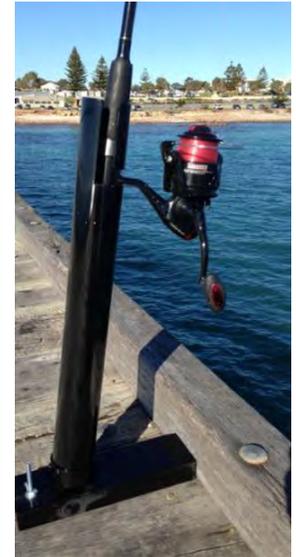
Exhibitions



Net Seating



Fishing Infrastructure



Multi-purpose Amenity



Splash Pad in Summer

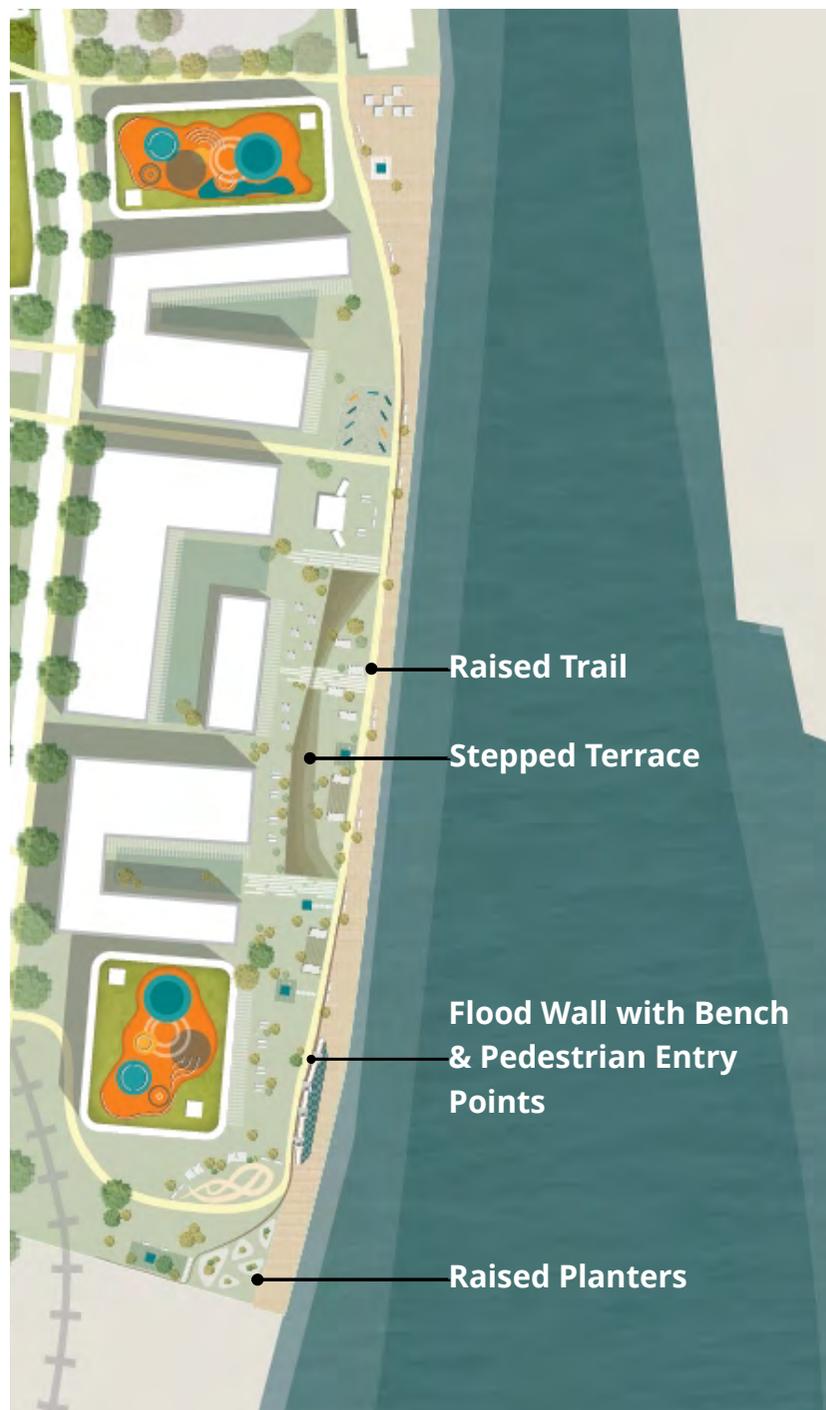


Ice Rink in Winter

Flood mitigation strategies

Various flood mitigation strategies could be incorporated into the design of the promenade, including a flood wall, raised multi-use trails, stepped terraces and raised planters.

The details of the proposed elements will need to be worked out once a topography analysis is conducted.



GREEN INFRASTRUCTURE

Leveraging green infrastructure such as planters and stepped terraces to improve resiliency against flooding



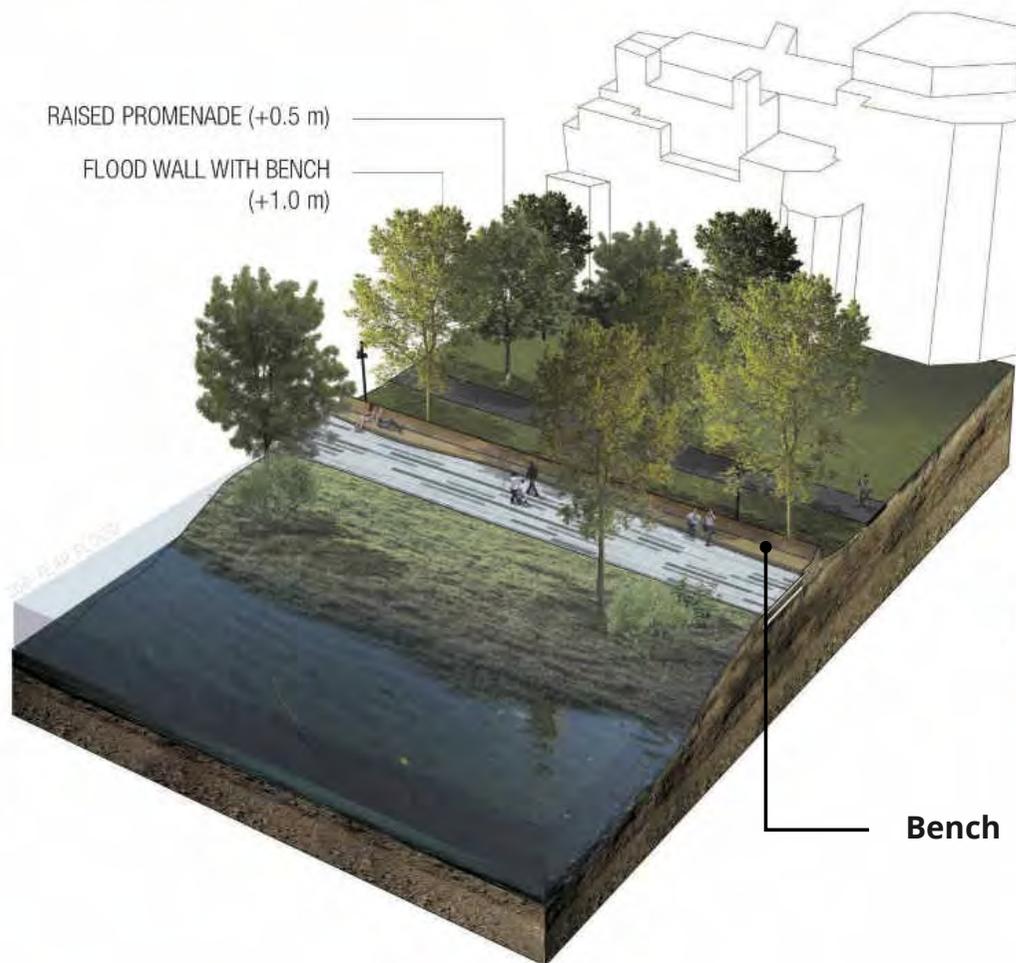
ACTIVE PLACEMAKING

Flood mitigation measures incorporated into public realm amenities such as bench and multi-use trail

Flood mitigation strategies

1. Flood Wall and Bench

Permanent on-site infrastructure, utilizing a raised wall system that incorporates public realm amenities such as bench seating, wayfinding signage, interpretive elements and art.



West Eau Claire, Calgary

Flood mitigation strategies



Pedestrian Entry Points in the Flood Wall

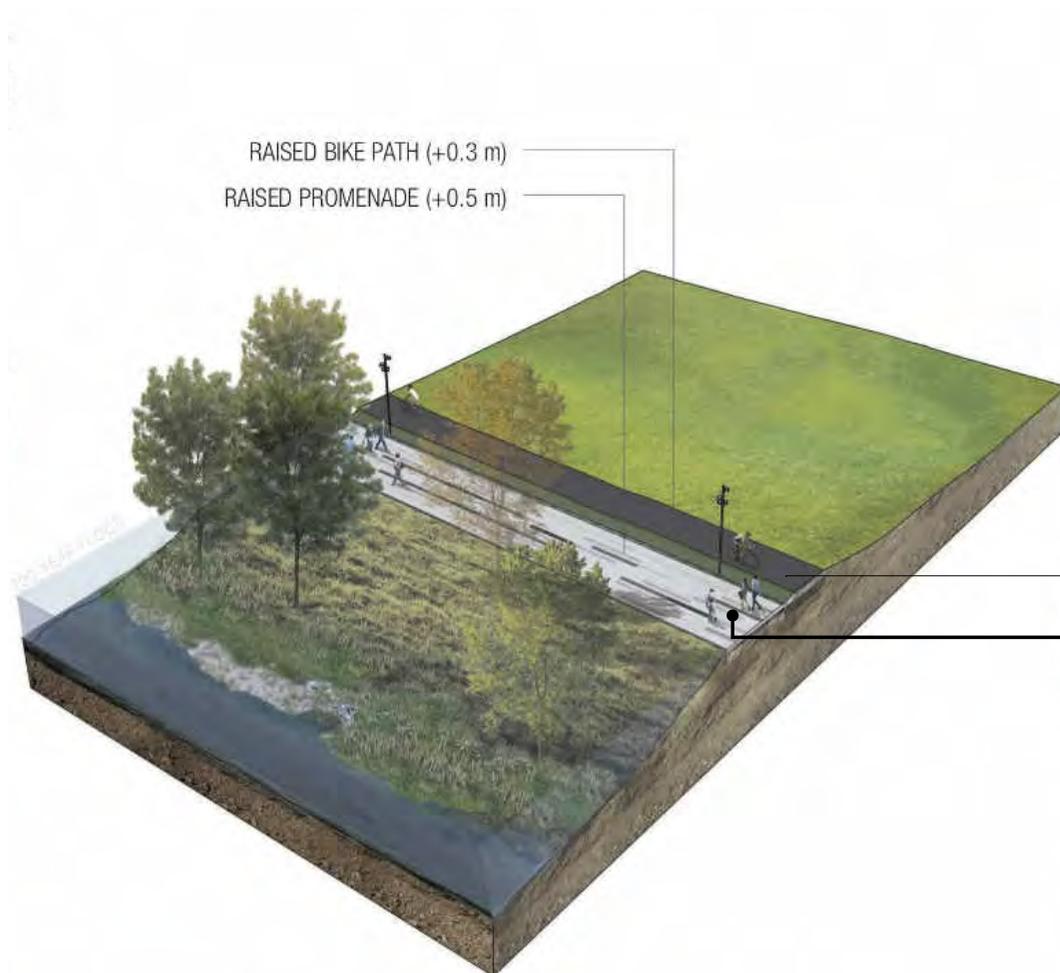
Pedestrian entry-points in the flood wall will be addressed with temporary aluminum stop-logs.

West Eau Claire, Calgary

Flood mitigation strategies

2. Raised Promenade and Bike Path

Permanent on-site infrastructure incorporating a multi-use pathway elevated above flood event levels



Bike Path

Raised Promenade

West Eau Claire, Calgary

Flood mitigation strategies

3. Stepped Terrace

Permanent on-site infrastructure, utilizing earthwork, berms and reinforced terraces to mitigate flooding events



Terraces

West Eau Claire, Calgary

Flood mitigation strategies

4. Raised Planters

Stone planters work as temporary flood barriers



Planters

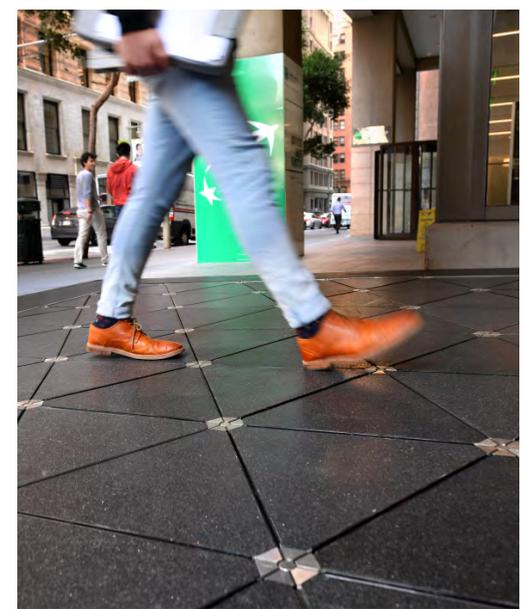
West Eau Claire, Calgary

Smart passive electricity generation



Solar powered glow in the dark paths

Kinetic pavement tiles that generate electricity



Smart technology



Wi-fi Kiosks with charging ports, Interactive information boards & other features



CCTV Cameras





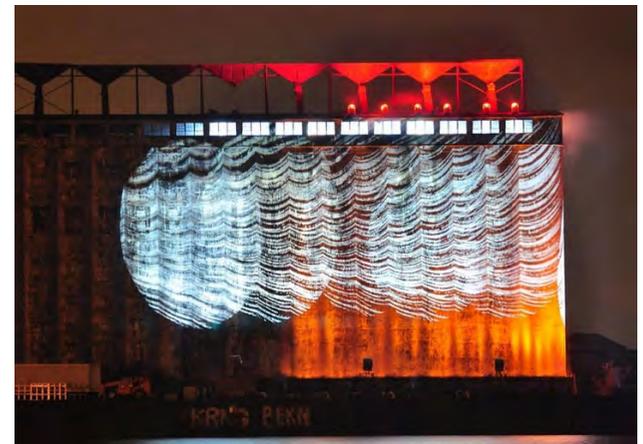
**ACTIVE
PLACEMAKING**



**WATERFRONT
ASSET**



Grain Terminal Facade Treatment/ Light Show



Potential Retrofitting of the Grain Terminal



Former Grain Silo at Inner Nordhavn (2012)



Grain Silo retrofitted for residential use (2020)

Potential Retrofitting of the Grain Terminal



The Silo, Nordhavn

Former grain silo transformed into residential complex and public facilities

Page 8

From left to right

Benugo. (n.d.). St James's Cafe. Retrieved from Benugo:

<https://www.benugo.com/partnerships/public-spaces/parks/st-jamess>

Architizer. (n.d.). Snow Beer Factory Redevelopment. Retrieved from Architizer:

<https://architizer.com/idea/3271104/>

Page 13

From left to right, top to bottom

WendellandCarolyn/istockphoto. (n.d.). Boat Storage. Retrieved from Cheapism:

<https://blog.cheapism.com/reasons-not-to-buy-a-boat/#slide=15>

Jodie Herrera. (2018). The Albuquerque Rail Yards. Retrieved from Mural Fest:

https://muralfest.com/jodie_herrera.html

SWA Group. (n.d.). Sava Promenada at the Belgrade Waterfront. Retrieved from SWA:

<https://www.swagroup.com/wp-content/uploads/2019/01/Belgrade-Waterfront-Tom-Fox-3728.jpg>

Jenna McKnight. (2015). Designers create winter installation for Montreal featuring 30 glowing seesaws. Retrieved from Dezeen:

<https://www.dezeen.com/2015/12/17/impulse-lateral-office-cs-design-installation-montreal-glowing-seesaws/>

Bin Lu. (2019). Bridgelifelife Neighborhood Park / Lab D+H. Retrieved from Archdaily:

https://images.adsttc.com/media/images/5dc8/05c1/3312/fd38/8700/00a2/slideshow/O3-Civic_Plaza-Bin_Lu.jpg?1573389733

Stoss. (n.d.). CityDeck. Retrieved from Stoss:

<https://www.stoss.net/projects/resiliency-waterfronts/citydeck>

(2014). Canadians use parklets to breathe new life into the streets

<https://catracalivre.com.br/criatividade/canadenses-usam-parklets-para-dar-vida-nova-as-ruas/>

Page 16

From left to right, top to bottom

Emma Reilly. (2020). Winning waterfront development bid to be revealed in June. Retrieved from The Hamilton Spectator:

<https://www.thespec.com/news/hamilton-region/2018/04/09/winning-waterfront-development-bid-to-be-revealed-in-june.html>

Bruce Damonte. (n.d.). 512 West 22nd Street. Retrieved from Archello:

<https://archello.com/story/72479/attachments/photos-videos/22>

Page 19

From left to right, top to bottom

Bob Gundu, Shai Gil. (n.d.). Story Pod. Retrieved from Akb Architects:

<https://akb.ca/projects/story-pod/>

(n.d.). Galleries - Velenje Slovenija. Retrieved from Pinterest:

<https://www.pinterest.com/pin/64528207148428158/>

Bernard Louis De Koven. (2017). The Bench – Visions of Art at Play. Retrieved from A Playful Path:

<https://www.aplayfulpath.com/relaxing-net-benches/>

Crafty Kaye. (2016). Retrieved from Facebook:

<https://www.facebook.com/457760011076606/posts/fishing-rod-holder-for-jetty-fishing-when-no-rails-are-on-the-jetty-to-rest-your/538702339649039/>

(n.d.). Newmarket Riverwalk Commons. Retrieved from Newmarket:
<https://www.newmarket.ca/LivingHere/Pages/Newmarket%20Facilities%20and%20Buildings/Newmarket%20Community%20Centre%20and%20Lions%20Hall/Newmarket-Riverwalk-Commons.aspx>

John Bkila. (2019). Burlington's Spencer's reopens, skating rink to open soon following water main break. Retrieved from The Hamilton Spectator: <https://www.thespec.com/news/hamilton-region/2019/12/18/burlington-s-spencer-s-reopens-skating-rink-to-open-soon-following-water-main-break.html>

Page 20-25

All images

(n.d.). City of Calgary. Retrieved from Flood Free Calgary:
<http://www.floodfreecalgary.com/west-eau-claire-park-completed/>

Page 26

From left to right, top to bottom, Image 1

Clinton Nguyen. (2016). A new glow-in-the-dark bike lane gets charged by the sun. Retrieved from Business Insider:
<https://www.businessinsider.com/poland-glowing-bike-lane-2016-10>

Image 2 & 3

Sarang Sheth. (2019). The pavement of the future turns your footsteps into electrical energy! Retrieved from Yanko Design:
<https://www.yankodesign.com/2019/02/06/the-pavement-of-the-future-turns-your-footsteps-into-electric-energy/>

Image 4 & 5

Stephanie Geler. (n.d.). The first of NYC's free wi-fi linknyc kiosks appear in Manhattan

Retrieved from untappedcities:

<https://untappedcities.com/2016/01/06/the-first-of-nycs-free-linknyc-wi-fi-kiosks-appear-in-the-east-village/>

LinkNYC. (n.d.). Key features. Retrieved from LinkNYC: <https://www.link.nyc/>

Mike Segar. (n.d.). Mass Surveillance Is Coming to a City Near You:

<https://www.theatlantic.com/ideas/archive/2019/06/mass-surveillance-tech/592117/>

Page 27

From left to right, top to bottom

Retrieved from Google Earth:

<https://earth.google.com/web/>

Aaron Muszalski. (n.d.). Proposed Pier 86 mural to brighten the Seattle waterfront. Retrieved from Seattle Globalist:

<https://seattleglobalist.com/2016/02/08/pier-86-mural-grain-silo-seattle-waterfront-public-art/46657>

Joe Cascio. (2015). 5 Ways to Explore Buffalo's Grain Elevators & Silos. Retrieved from Visit Buffalo Niagara:

<https://www.visitbuffaloniagara.com/4-ways-to-explore-buffalos-grain-elevators/>

Mark Boyer. (2013). Buffalo's Grain Elevators to Be Used in Large-Scale Narrative Lighting Display. Retrieved from In Habitat:

<https://inhabitat.com/buffalos-grain-elevators-to-be-used-in-large-scale-narrative-lighting-display/>

Page 28

From left to right

*Rasmus Hjortshøj. (2012). Inner Nordhavn. Retrieved from Cobe:
<https://cobe.dk/place/nordhavn>*

*Rasmus Hjortshøj. (2020). Inner Nordhavn. Retrieved from Cobe:
<https://cobe.dk/place/nordhavn>*

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*Rasmus Hjortshøj. (n.d.). The Silo. Retrieved from Cobe:
<https://cobe.dk/place/the-silo>*

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