# **BUILD A TEAM**

RJC Mark Bowen Bridge Engineer & Team Lead

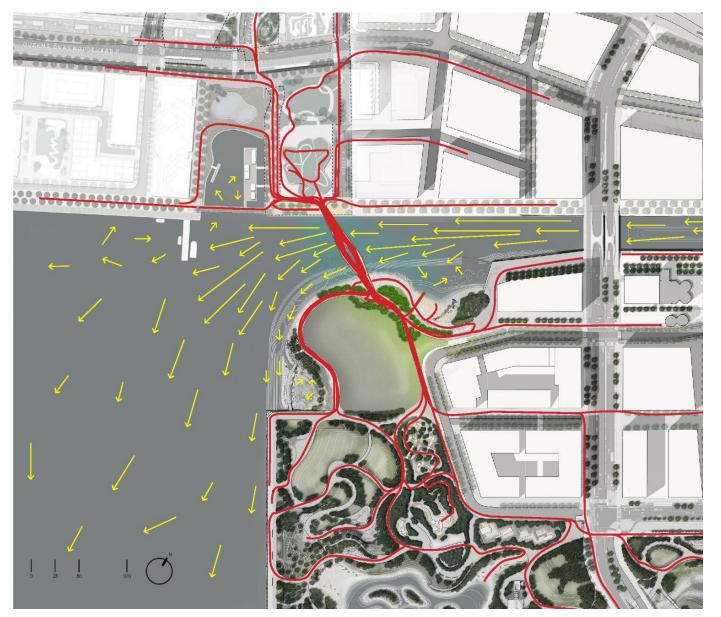


Smoke Architecture Jennifer Kinnunen Architect & Indigenous Engagement

MVVA Gullivar Shepard Landscape Architect & Design Integrator

> ANTA Mario Guisasola Bridge Designer

### HARNESS TWO FLOWS



### Life Ebbs In Two Directions With This Proposed Bridge

The surface-dwellers of the bridge flow between the hyper-urbanism of the Central Waterfront and the hyper-naturalism of the Port Lands project

The bridge sits at the transition between the higher velocity flows of the Keating Channel, and the open harbour waters that are deeper and more complex

**RESPOND TO THE DISTINCT GEOGRAPHY OF THIS LOCATION** 

### **BUILD A MOSAIC OF ECOLOGICAL NICHES**

H 10 100

the stepped plaza provides a robust accommodation for people to take in long vistas, watch boating in the harbour, and enjoy the wave activity washing through the pile field

HATCHLINGS

/ armour stone provide terrestrial and semiaquatic habitat

void spaces in

existing habitat stone creates freshwater reef conditions for spawning and hatchling growth

structural piers and pile field lined with ECOncrete promote microbial activity and biotic growth

wood pile field creates slow water shelter conditions outside of primary water channel

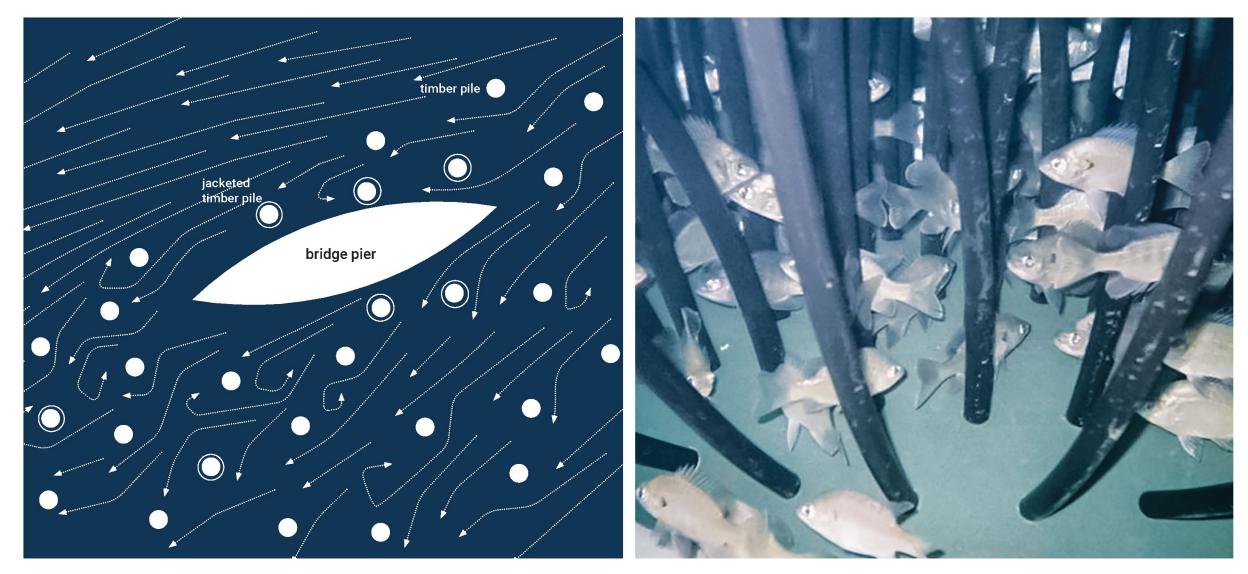
silty sediments conveyed by the heavily urbanized watershed of the Don River suffocate potential ecological niches on the bottom of the Keating Channel

**ADULT FISH** 

FRY +

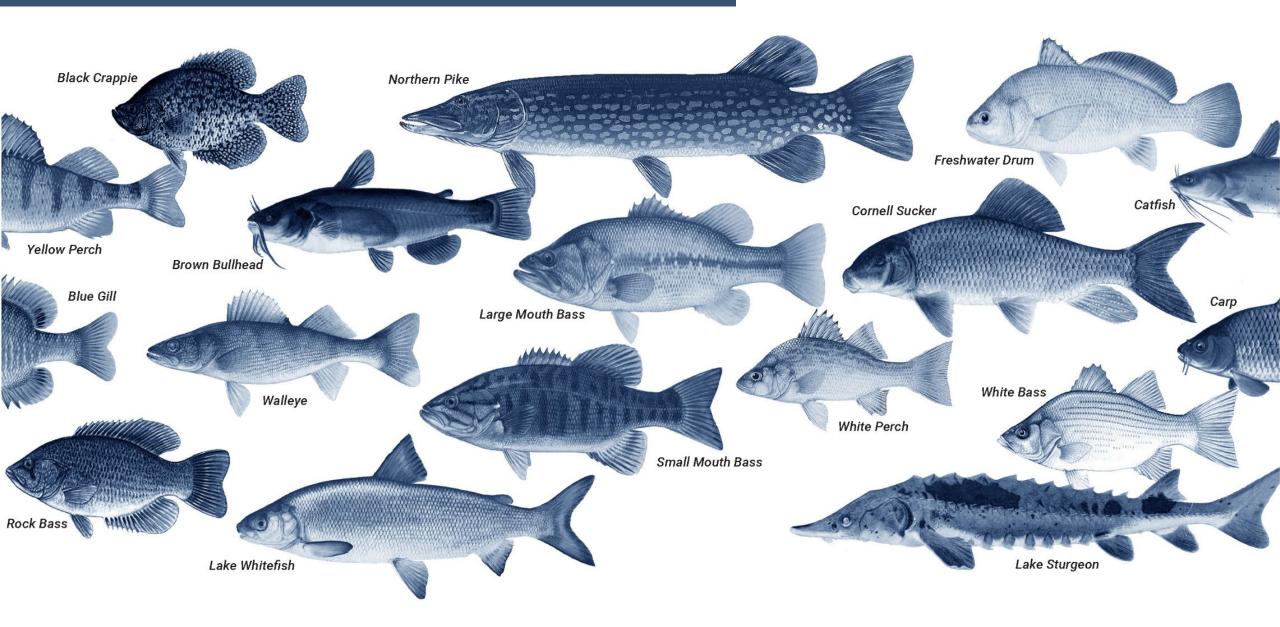
**ADULT FISH** 

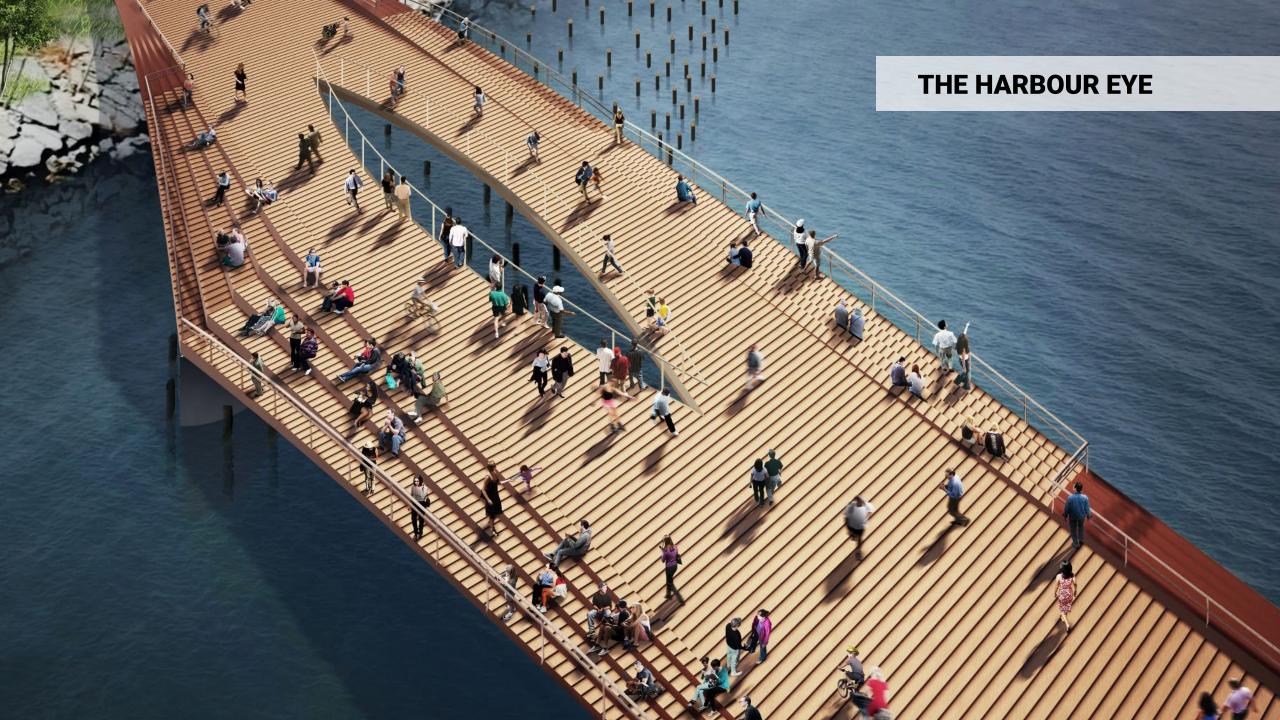
# **UNDERSTAND AQUATIC HABITATS**



Interference of Keating Channel flows in the wood pile field create a mosaic of pools, eddies, seams, and hydraulic cushions that provide a rich landscape for aquatic habitat

# **PROMOTE THE FISH HABITAT OF THE GREAT LAKES**





## THE HARBOUR EYE

The oculus connects the living world below the water's surface to the terrestrial and reflects the celestial landscape far above

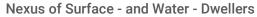
**Oculus - Day** 

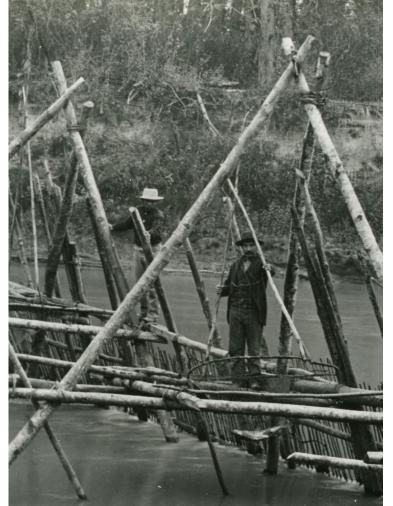
Fish friendly "blob" lights are immersed in the pile field and attract fish activity, highlighting the robust ecology below

K

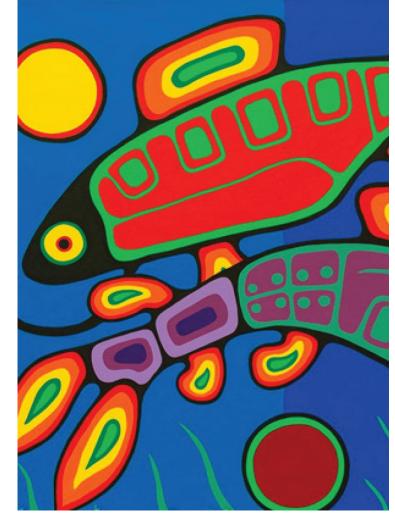
# THE INTERCONNECTEDNESS OF EVERYTHING







Historic Fishing Weir ca. 1885



'Changes' by Jim Oskineegish - Anishinaabe

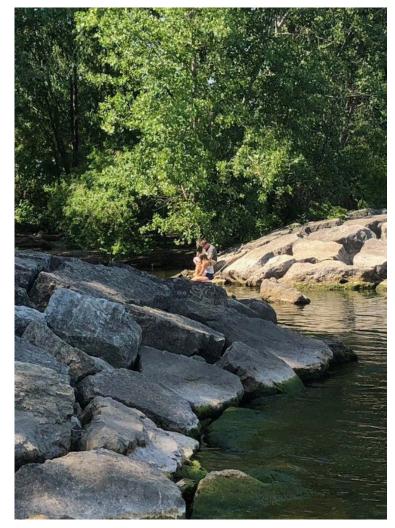
# **EXPLORE, PLAY, AND ENGAGE**



Traditional Fish Weir on the Koeye River, BC



Create Shelter and Places for Nature Play



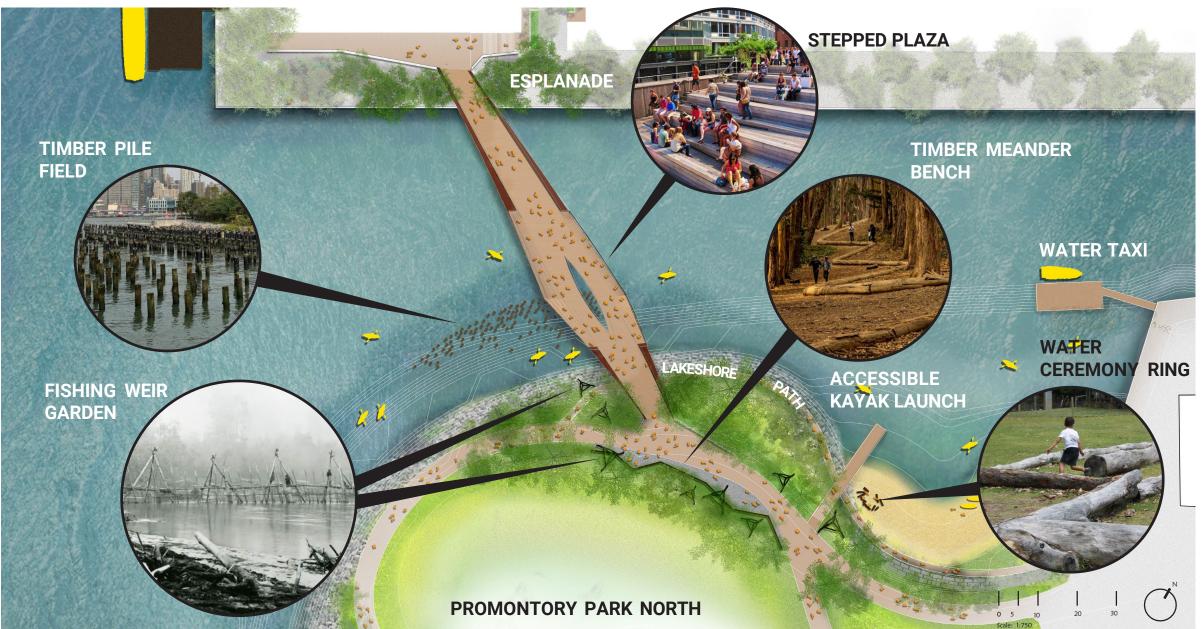
Invite Shoreline Exploration

### **PROJECT INDIGENOUS VALUES OVER THE WATER**



Stenciled chemical applications could stabilize the corrosion of the weathering steel as a strategy for integrating indigenous art on the vaulted undercroft of the bridge

### **CONNECT THE HYPER-URBAN TO THE HYPER-NATURAL**



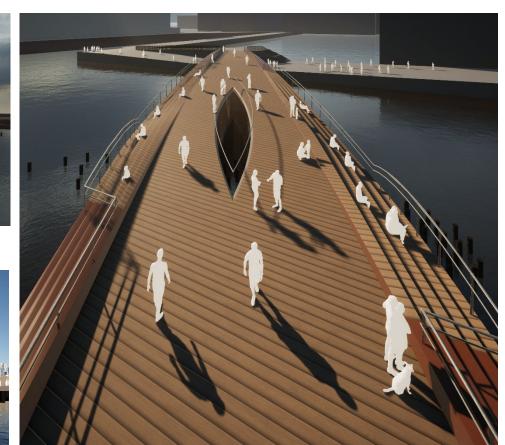
# **INNOVATE WITHIN A WELL-TESTED FABRICATION WORKFLOW**



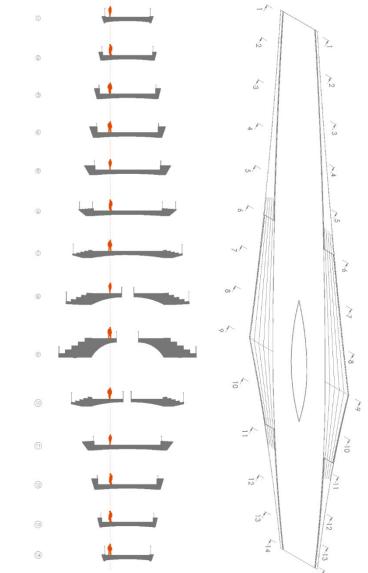
Varied Edge Plate Depth



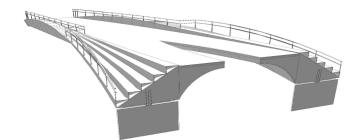
Vaulted Steel Undercroft



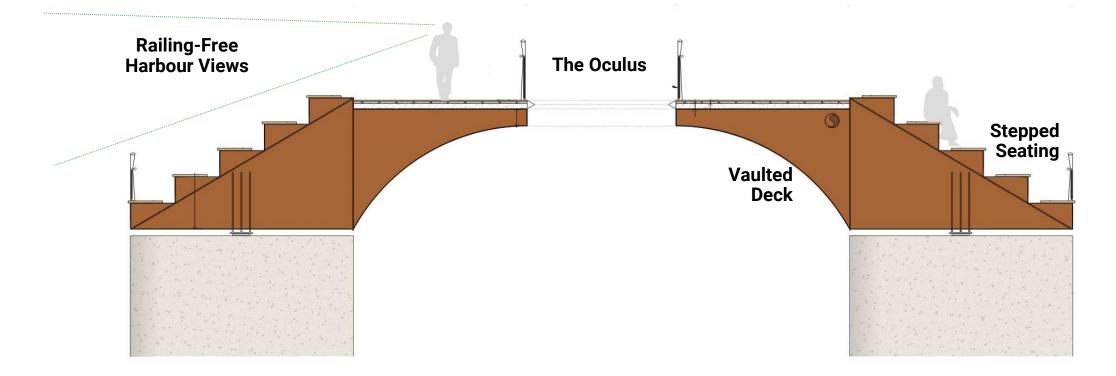
Oculus and Plaza Step-down



# SHAPE A PLACE FOR GETTING CLOSER TO THE WATER



"Simplicity is about subtracting the obvious and adding the meaningful." - John Maeda



# LEARN FROM THE LAWS OF NATURE

#### LANDSCAPE CONNECTION

The bridge grows out of the landscape in which it sits

#### SIMPLICITY

The bridge design provides only what is essential to appreciate the powerful context of its geographic position

#### STRUCTURAL SHAPE

The bridge form is a rational expression of the forces that flow within the structure



## THE HARBOUR EYE



Create a Beautiful and Distinctive Gateway to the Waterfront



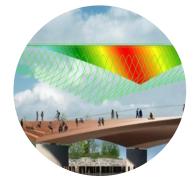
Connect the City to Nature



Incorporate a Living Landscape



Create with Indigenous Voice and Agency



Embody Sustainable Strategies and Innovation



Create A Place for All People