



Deconstruction of the Original Champlain Bridge

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Presenters

- **Nathalie Lessard**
Director, Communications, JCCBI
- **Sandra Martel**
Chief Executive Officer, JCCBI
- **Dominique Blouin**
Director, Champlain Bridge Deconstruction Project, JCCBI
- **Simon Hébert**
Assistant Project Director, Nouvel Horizon Saint-Laurent

Outline

- + Follow-up on the project
- + The Project's Components
 - a. Environment protection and sustainable development
 - b. Material Reuse
 - c. Research and Development
 - d. Héritage Champlain
- + General Timetable
- + Deconstruction Methods
- + Work Updates
 - a. Update of Work on Ile des Soeurs
 - b. Ongoing Work
 - c. Resident's Quality of Life
- + To follow our progress





Follow-up on the project

Sandra Martel

Chief Executive Officer, JCCBI

Deconstruction Project



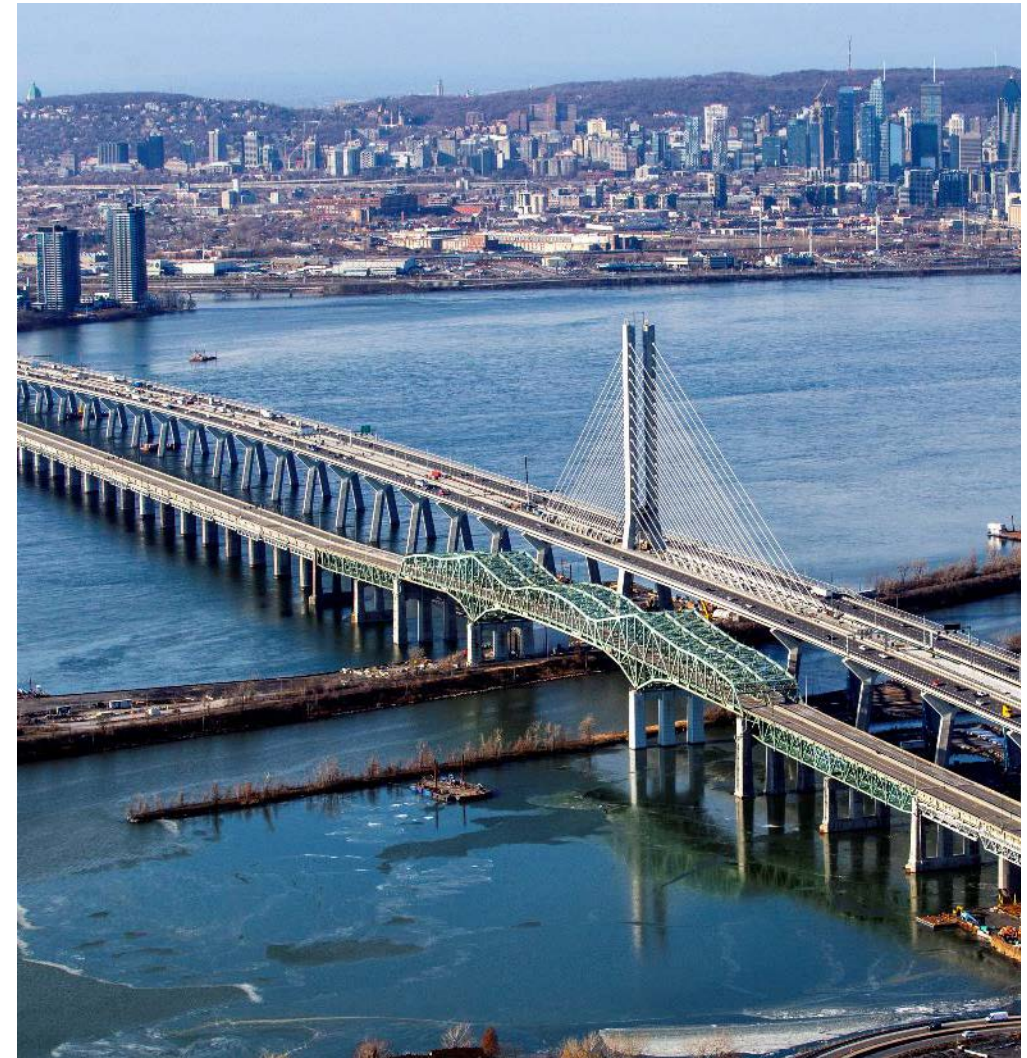
The project includes:

1. Deconstruction work
2. Environmental protection measures
3. Material reuse
4. 10 Research and Development projects
5. Héritage Champlain (shoreline redevelopment)

Duration of the deconstruction: **43 months**

Design-build method:

- + Nouvel Horizon Saint-Laurent (NHSL) is responsible for carrying out the work
- + JCCBI is responsible for liaising with the public, partners and the media



Our Goals for this Project



- + Safely deconstruct a 3.4-kilometre bridge
- + Minimize the environmental footprint of the project
- + Ensure the health and safety of all workers on site and nearby residents
- + Redevelop the shorelines at the end of the project
- + Include the public and stakeholders as early as possible to build trust and gain their support

Project For and With the Public



- + Public and stakeholder involvement in the past 18 months
- + Public interest and participation:
 - **800 people went on guided tours** of the bridge
 - **5000 people** participated in the public consultations
 - Several **shoreline redevelopment scenarios** are being studied



JCCBI recognized nationwide!

- + **Honourable Mention – IAP2 Excellence in Public Participation Awards:**
Award for advancing the practice of public participation – creativity, inclusion and innovation
- + JCCBI's participatory approach for the Champlain Bridge deconstruction



Project Programs

Dominique Blouin

Director, Champlain Bridge Deconstruction Project, JCCBI



Sustainable Development Approach



Minimize impacts on the environment and people's quality of life

The goal is to achieve Envision certification for the deconstruction

- + Keep some components in place for redevelopment and heritage purposes
- + Reuse and recycle materials
- + Dispose of materials in accordance with standards
- + Make the project carbon-neutral





Fish habitat compensation project

Redevelop farmland in Saint-Ignace-de-Loyola (Saint-Pierre Lake archipelago) into a floodplain.

- + Allow fish to spawn and populate the River
- + Help protect biodiversity in this region
- + Permanent positive effects → compensation in 6 of the project's 7.2 hectares

Research project on efficacy of fish migration corridors (with the INRS)

Material Reuse



+ **287,000 tonnes of materials to be reused**

- 250,000 tonnes of concrete
- 25,000 tonnes of steel
- 12,000 tonnes of asphalt

+ **How?**

- Maximize material re-use and recycling
- Use facilities in the Montreal area

+ **A traceability system will be set up**

Details of this program to come

Research and Development



10 Research and Development projects

- + 7 Canadian research bodies
- + Projects involving structural elements from the bridge (concrete, steel and reinforcements)
- + Recovery of some bridge components for the program has started
- + Evolution of R&D projects planned as per NHSL's schedule



Shoreline redevelopment project (after the deconstruction)



- + Sector: Estacade and three shoreline sites
- + Preliminary studies and public consultations (information days, online consultations, co-creation workshops, design charrette)
- + Several scenarios are being studied to develop a “master concept”



General Timetable

Simon Hébert, Assistant Project Director, NHSL



Échéancier global



Section 5: St. Lawrence River | Summer 2020 – Winter 2024



Section 6: Seaway | Spring 2021 – Winter 2024



Shoreline Redevelopment:
2024-2025

Section 7: Brossard | Spring 2022 – Winter 2024



2020

2021

2022

2023

2024

2025



Deconstruction Methods



Main Work Areas



Video



<https://youtu.be/yW7oLe7UJWE>

Deconstruction from the Shoreline



Île des Sœurs and Brossard

Method: Mechanical deconstruction with standard equipment from jetties

- + Preparatory work
 - Dismantling of components (overhead signage, lights, etc.)
 - Removal of R&D components
 - Removal of permanent reinforcements
- + Installation of temporary supports
- + Deconstruction of spans and piers
- + Disposal and removal of debris for reuse
- + Restoration of the area



Deconstruction from the River



65% of the project: Away from residences

Method: System of platforms attached to lifting towers installed on a catamaran barge

- + Preparatory work
 - Dismantling of components
 - Removal of R&D components
 - Removal of permanent reinforcements
- + Span taken down using the platform system
- + Deconstruction of the span on the catamaran barge
- + Barge-based mechanical deconstruction of the piers and footings above and below the water level
- + Debris disposal by barge



Steel Structure – Seaway



Methods: Strand jack system, crane on the jetty and dike, and high-capacity excavators

- + **For the suspended span:** Removal and lowering of the suspended span (2,200 tonnes) onto a barge using strand jacks and deconstruction piece by piece on the barge
- + **For the cantilever sections and anchor spans:** Taken apart piece by piece using a crane on the jetties and the dike
- + Mechanically deconstructed with high-capacity excavators
- + Restriction of work during the Seaway period



An aerial photograph of a large bridge spanning a wide river. The bridge features a long trestle section on the left and a cable-stayed section on the right. The image is overlaid with a teal color scheme and orange decorative elements. In the top right corner, there is a stylized white logo consisting of a vertical line and three horizontal lines. In the bottom left, there is a thick orange curved line and a series of vertical orange bars of varying heights. The text "Work Updates" is written in white, bold, sans-serif font in the center-left area.

Work Updates

Update of Work on Île des Sœurs



Deconstruction of the abutment and two spans: Mid-August to the end of September

On-site measures

- Sound level meters, air quality measuring stations and foggers
- Shuttle set up to maintain a pedestrian and cycling corridor

Status:

- No complaints
- Closure of René-Lévesque Blvd. with moderate impact on traffic (15 days)



Ongoing Work – Jetties



Construction of temporary jetties: Île des Sœurs (IDS) and Brossard

- + IDS duration: 4 months
- + Brossard duration: 2 periods of 4 months
- + Measures in place:
 - Trucking: tarps, cleaning and spraying
 - Fish habitat: fishway, turbidity monitoring
 - Boaters: maritime signalling and communications
- + Status:
 - No environmental monitoring criteria have been exceeded (dust, water quality and vibrations)



Residents' Quality of Life



On-site measures in place

- + Marked transportation routes
- + Restricted travel hours
- + Trucking : approx. 20 trucs/day
- + Dust control (foggers, surfacing of roads, windbreaks, road maintenance, etc.)
- + Sound level meters
- + Air-quality measuring stations
- + Real-time monitoring of the site with the contractor





To follow our progress

Nathalie Lessard
Director, Communications, JCCBI



Communication Tools



People can follow the project on our different platforms:

- + Website: champlaindeconstruction.ca
 - Details about all aspects of the project
 - Cameras with live images from the site
 - Work advisories
- + [Newsletter](#)
- + Work advisories for residents who live near the site
- + Two public meetings a year (2 in Brossard and 2 on IDS)
- + Questions and complaints: communications@pjcci.ca
- + Social networks





Question Period





DÉCONSTRUCTION **PONT CHAMPLAIN** **CHAMPLAIN BRIDGE** DECONSTRUCTION

Participez à la conversation / Join the conversation

JacquesCartierChamplain.ca

