Public Information Session

Elgar Community Centre, Nuns' Island, Verdun

June 8, 2015

Purpose of the meeting

To provide information about the
new Champlain Bridge early works on Nuns' Island,
particularly with respect to expected impacts
and mitigation measures,
and to answer any questions you may have.

Agenda

- Call to order
- Welcome by Verdun Borough Mayor
- Team
- General project overview
- Summary of early works:
  - Description
  - Environmental considerations
  - Construction
  - Expected impacts
  - Mitigation measures
- Communication
- Question Period
- Closing

JEAN-FRANÇOIS PARENTEAU

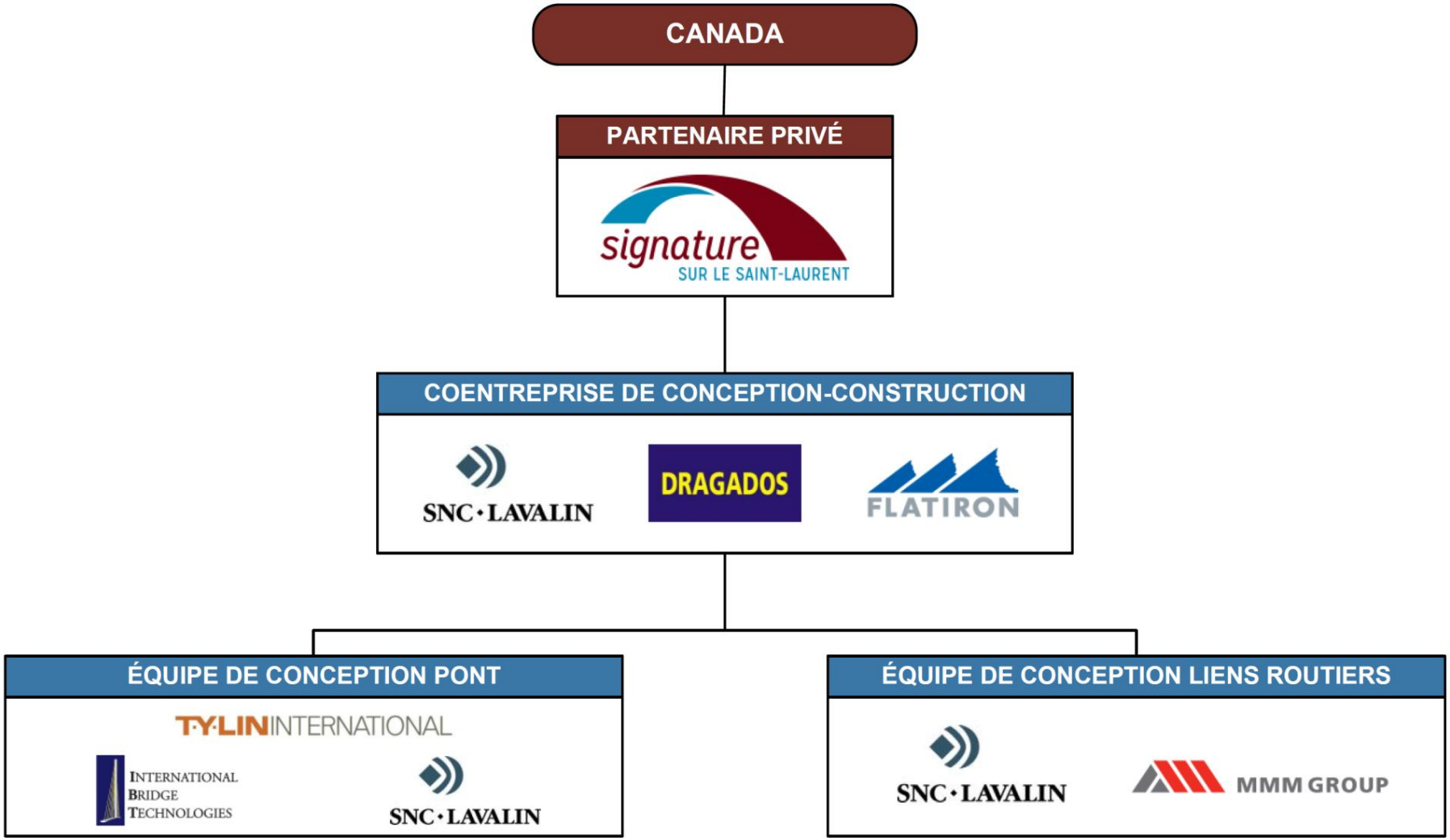
VERDUN BOROUGH MAYOR

Welcome

WALID ASHA, ENG.
PROJECT DIRECTOR
SIGNATURE ON THE ST. LAWRENCE

Team

Partners


CANADA
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SUR LE SAINT-LAURENT
COENTREPRISE DE CONCEPTION-CONSTRUCTION
SNC·LAVALIN
DRAGADOS
FLATIRON
ÉQUIPE DE CONCEPTION PONT
T·Y LIN INTERNATIONAL
INTERNATIONAL BRIDGE TECHNOLOGIES
SNC·LAVALIN
ÉQUIPE DE CONCEPTION LIENS ROUTIERS
SNC·LAVALIN
MMM GROUP

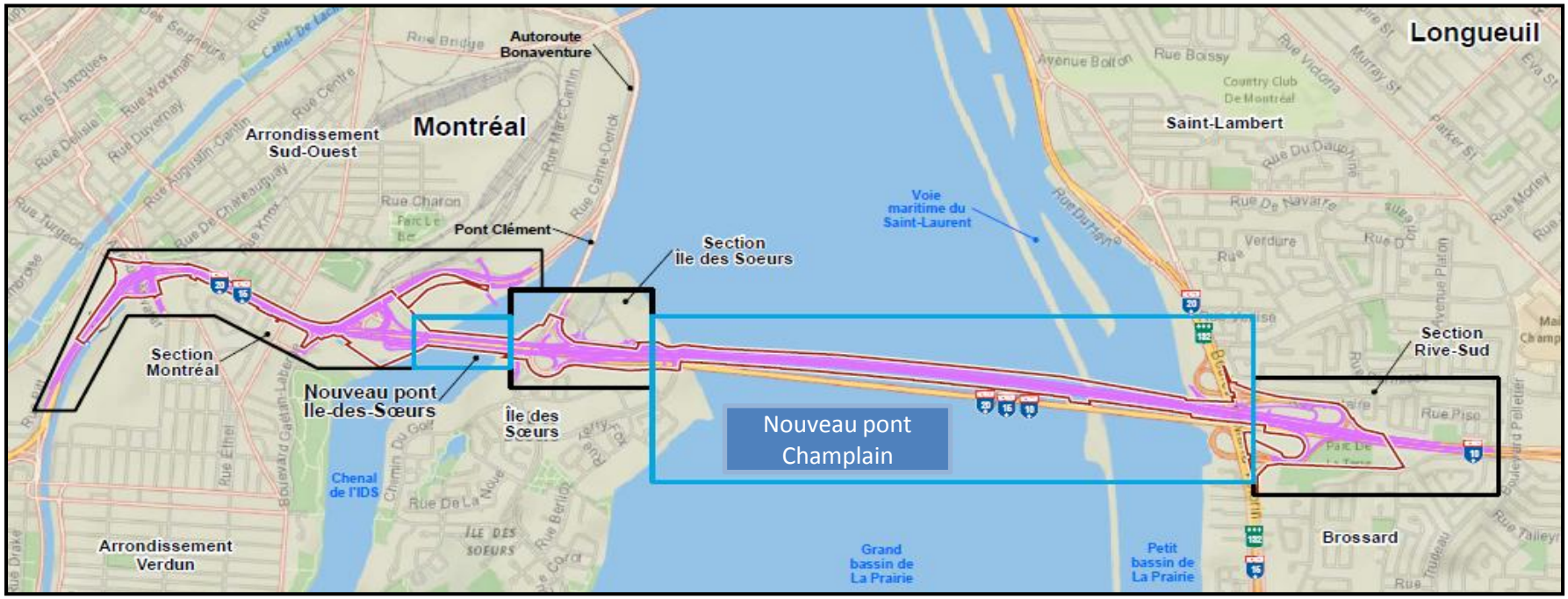
DANIEL GENEST
COORDINATION MANAGER
SIGNATURE ON THE ST. LAWRENCE

MARTHE ROBITAILLE
ENVIRONMENT MANAGER
SIGNATURE ON THE ST. LAWRENCE

Overview of the project, early works, expected impacts, mitigation measures and communications.

Project Overview

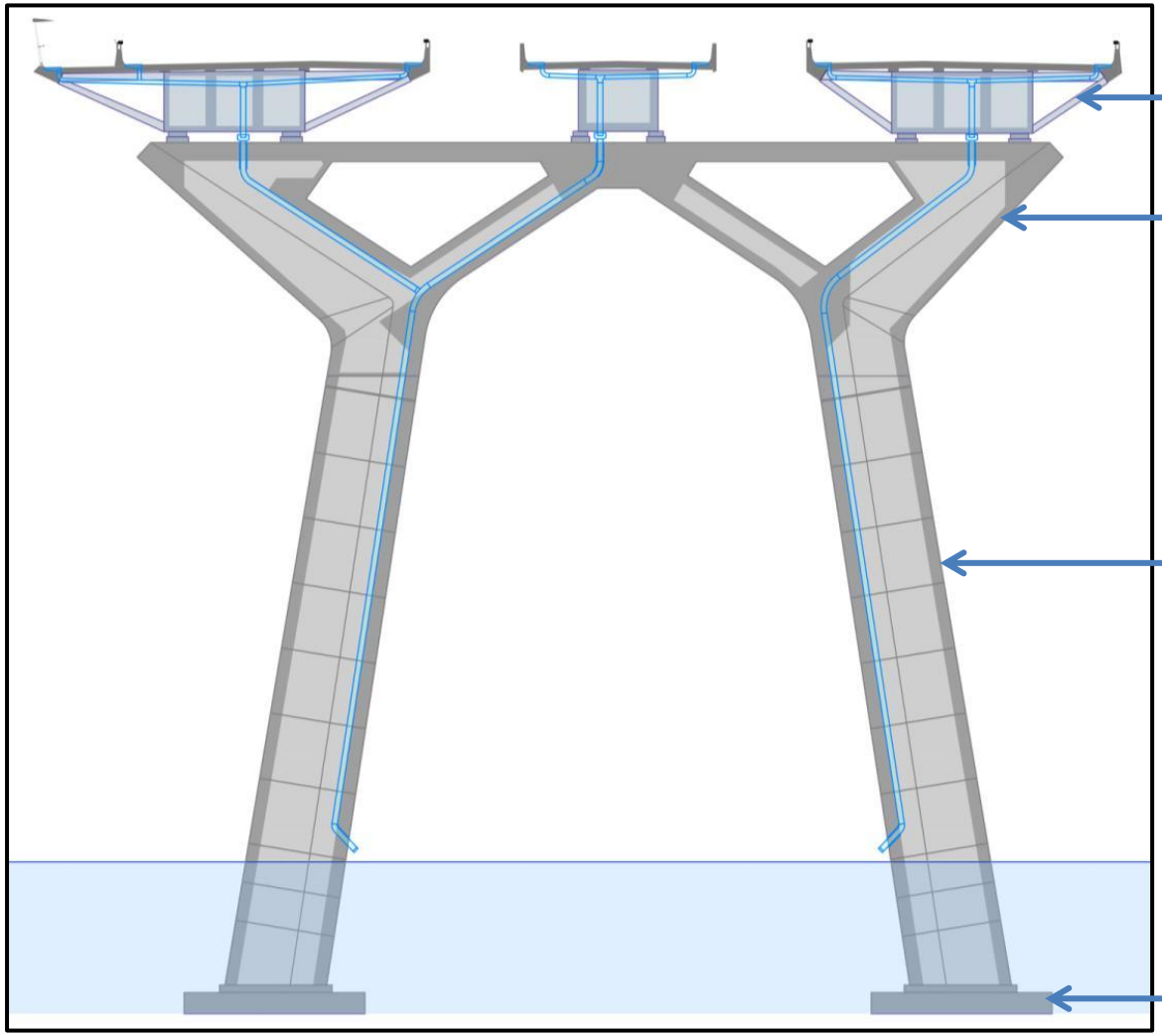
- One of the **largest infrastructure projects** in North America
- The project involves:
  - New Champlain Bridge of 3.4 km
  - New Nuns' Island bridge of 500 m
  - New approaches (Hwy 15 in Montréal and Hwy 10 in Brossard) of 4.5 km



Project Overview

- Bridge to open in late 2018, with all road work completed in fall 2019.

Bridge Components



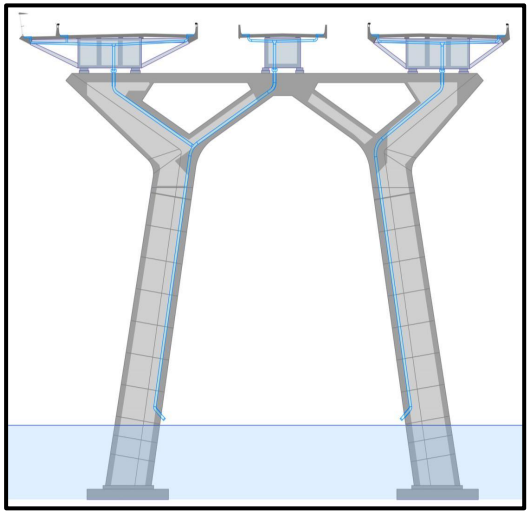
Project Challenges

- Complex large scale worksite
  - Urban setting
  - Close to residents
  - Over water
- Numerous stakeholders and partners: early information will ensure effective collaboration and coordination
- Champlain Bridge construction: 42 months

Selected Approach

- Many solutions examined

- Three important considerations
  - Demanding schedule
  - Limit our dependance on the road network
  - Minimize our dependance on maritime deliveries that use the St-Lawrence River : strong current and limited depth of water



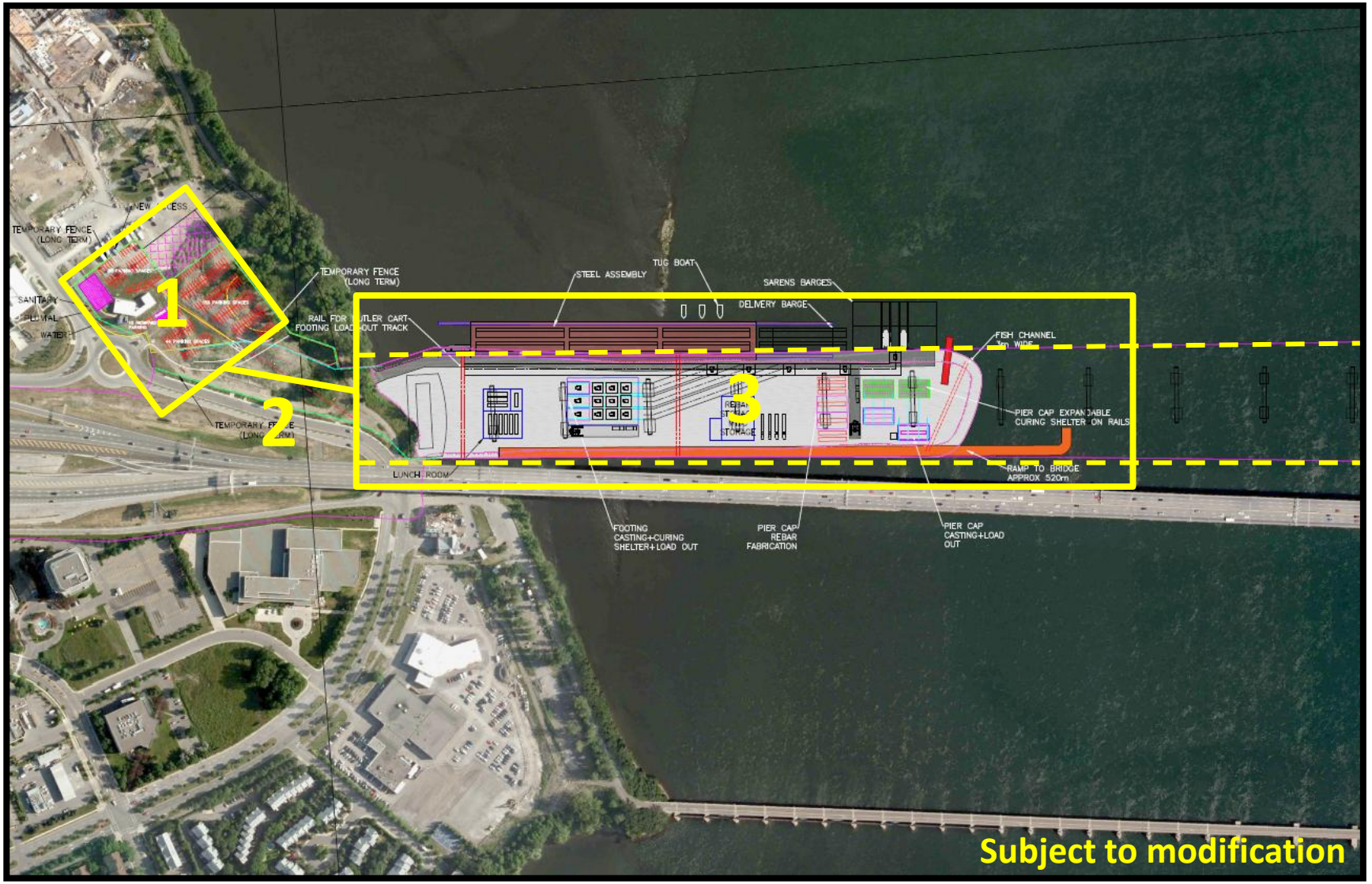
- Selected approach :
  - Maximize precast of concrete components and fabrication of steel components, on site and off site
  - Assemble pieces on site

Environmental Considerations

- Environmental evaluation (2013)
- Infrastructure Canada contractual requirements
- Fisheries and Oceans Canada requirements
  - Respect restricted periods with respect to fish habitat (April 15 to June 15)
  - Maintain migration corridors
  - Minimize sediment suspension
- Permits: Fisheries and Oceans Canada, Transport Canada, City of Montreal and Verdun Borough

Schematic Overview of Early Works

Scale Overview of Early Works



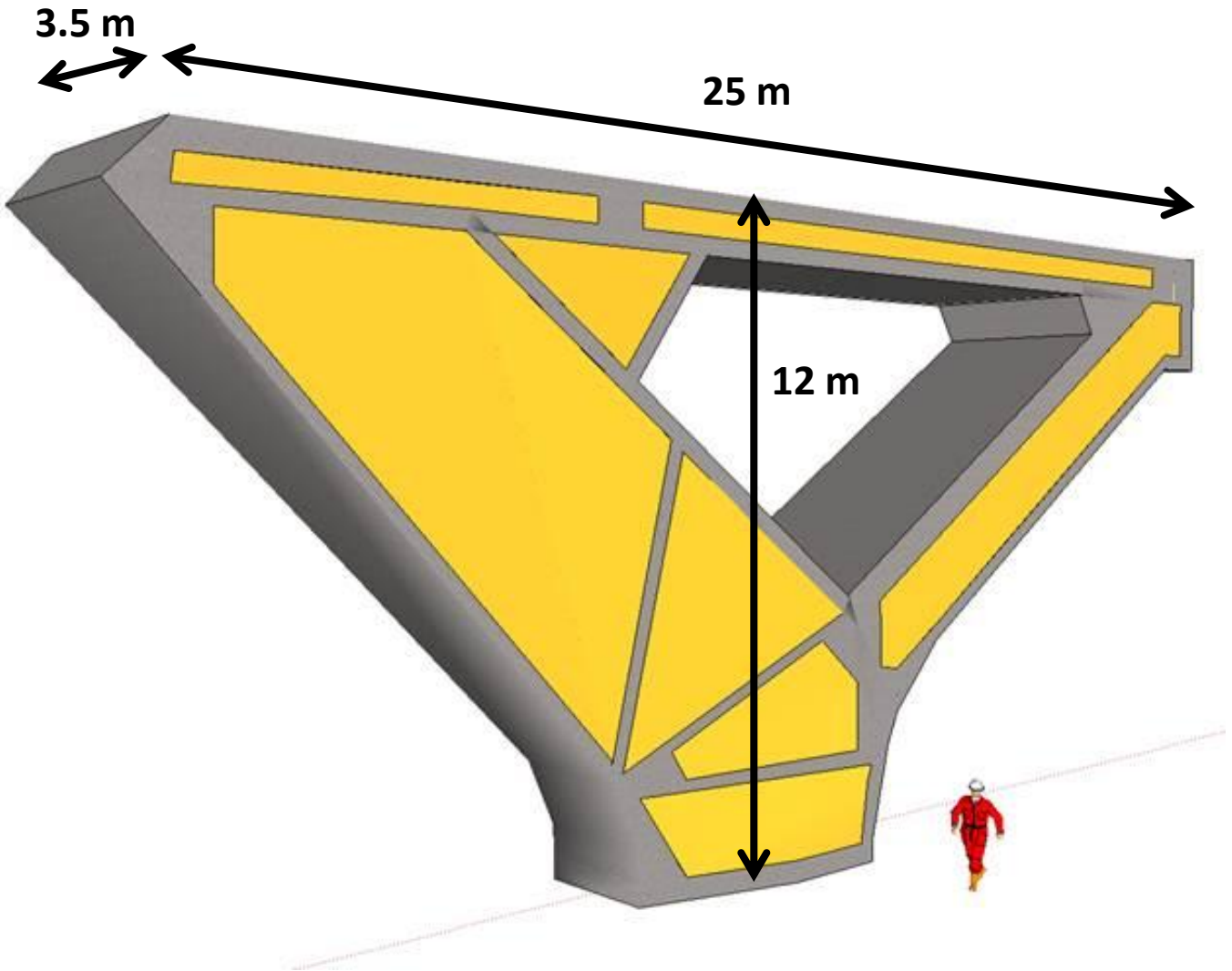
Why a Jetty?

- Allows the set up of a **precast yard** for the concrete components (foundations and pier caps) that are too heavy to be transported by road

- Serves as a **dock** for boats that will transport the components to where they will be installed

- Allows for the **“dry” construction of the western portion** of the new Champlain Bridge

Large Component : Pier Cap



West Jetty : Construction

- **Construction Schedule:** June 16 to September 2015
- **Hours**: 8 am to 6 pm and 7 pm to 5 am
- **Truck traffic:** On average, 350 trips per day to dump stone (one truck every three to four minutes)
- **Equipment:**
  - 2 bulldozers
  - 2 excavators
  - 1 roller
  - Transport tractor-trailers

Site Facilities and Access Road

- **Site offices for the various teams**
- **Worker parking**
- **Access road to West Jetty**
- **Storage area**

Worksite Facilities and Access Road : Construction

- **Construction schedule:** June 8 to 12, 2015
- **Hours:** 7 am to 5 pm
- **Truck traffic:** On average, 50 trips per day to dump stone
- **Equipment**
  - 1 bulldozer
  - 1 excavator
  - 1 roller
  - Dump trucks

Expected Impacts and Mitigation Measures : Early Works Phase

1. Road traffic
2. Bicycle path detour
3. Noise
4. Air quality

Guiding Principles : Road Traffic

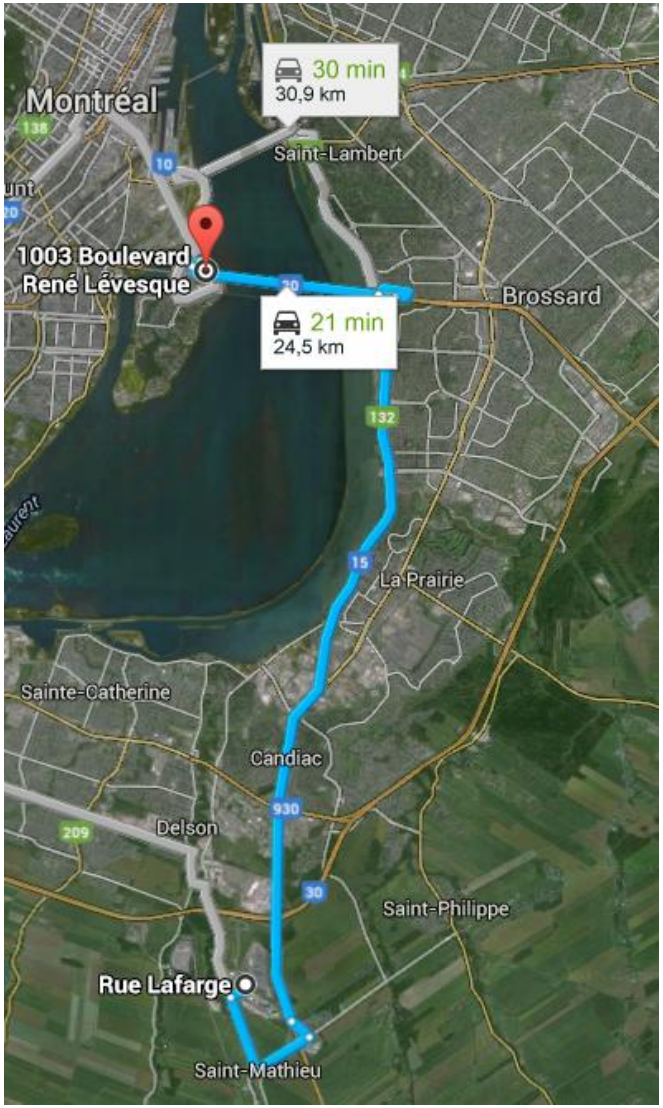
1. Create and maintain safe conditions for all road network users, cyclists and pedestrians

2. Minimize impacts on the road network users, cyclists and residents

Transport of Aggregates

Trucks will be coming from the Lafarge quarry in St-Constant.

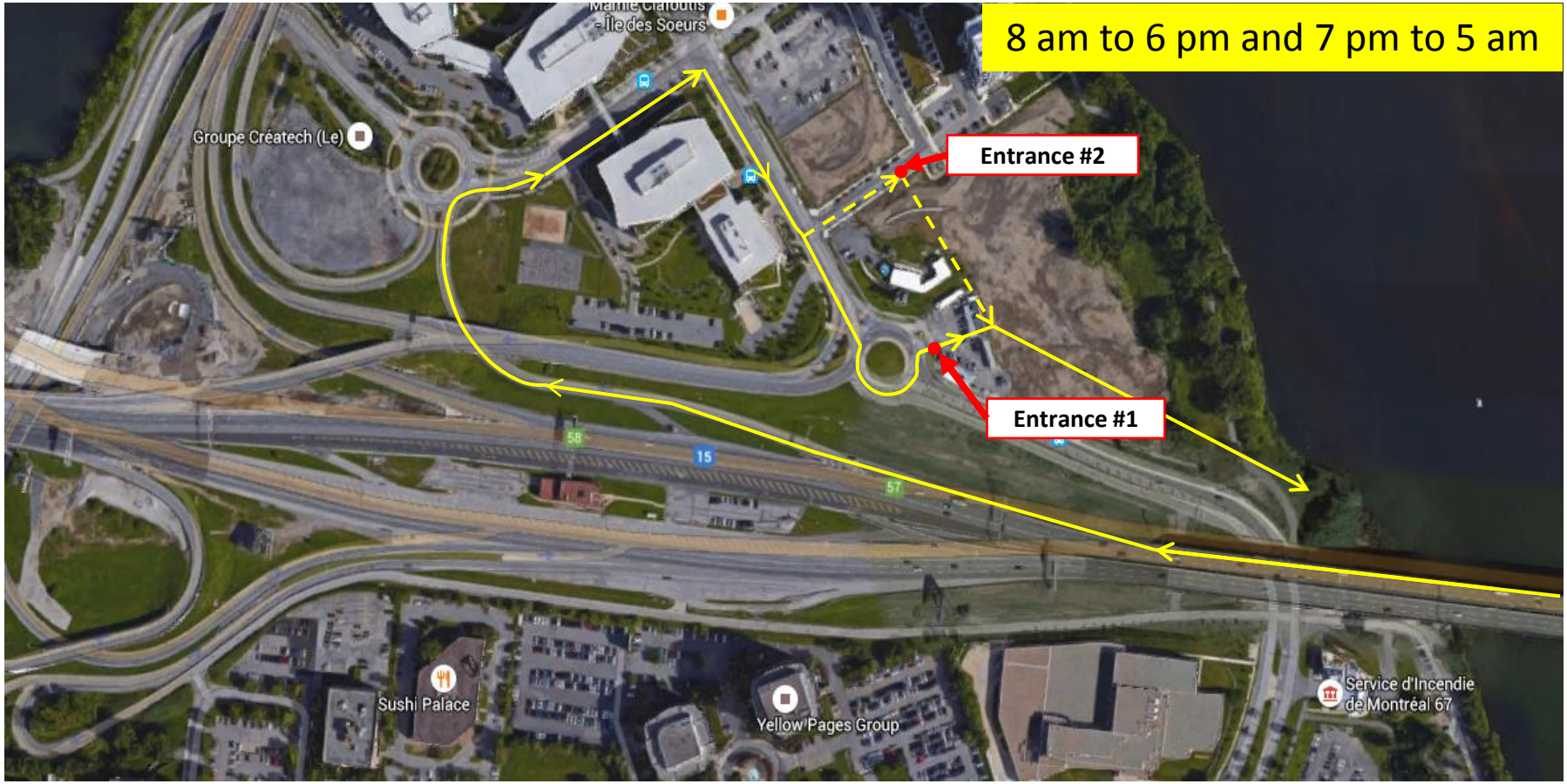
They will take the Champlain Bridge to Nuns' Island.



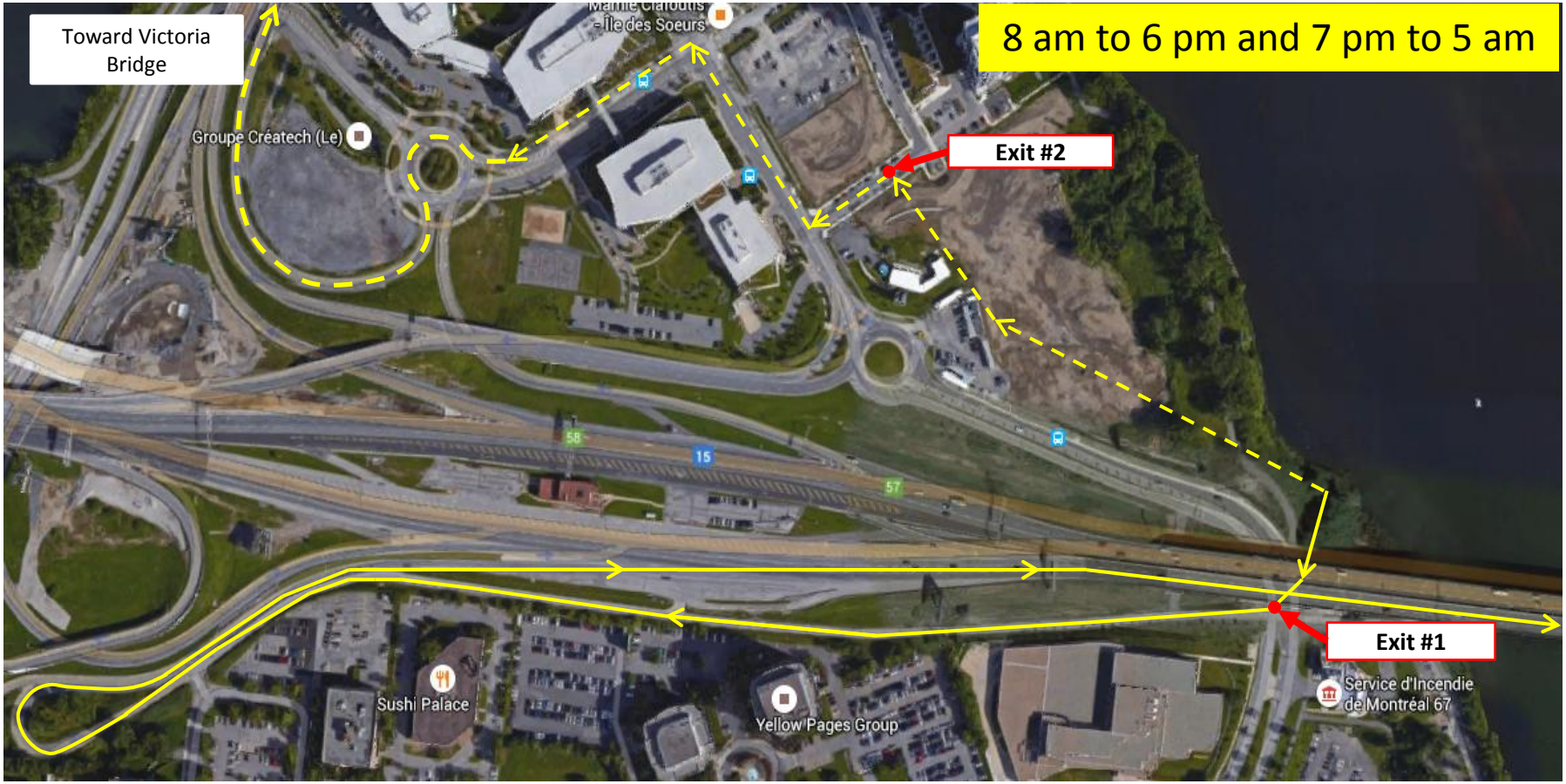
Road Traffic on Champlain Bridge

	Average weekday	Average Saturday	Average Sunday
Average traffic flow (24 hours)	100,000	82,000	78,000
% transport trucks (number of trucks)	10% (10,000)	9% (7,380)	8% (6,240)
Number of additional trucks	350		
% transport trucks, including for work on west jetty	10.35%	9.43%	8.45%
Increase	0.35%	0.43%	0.45%

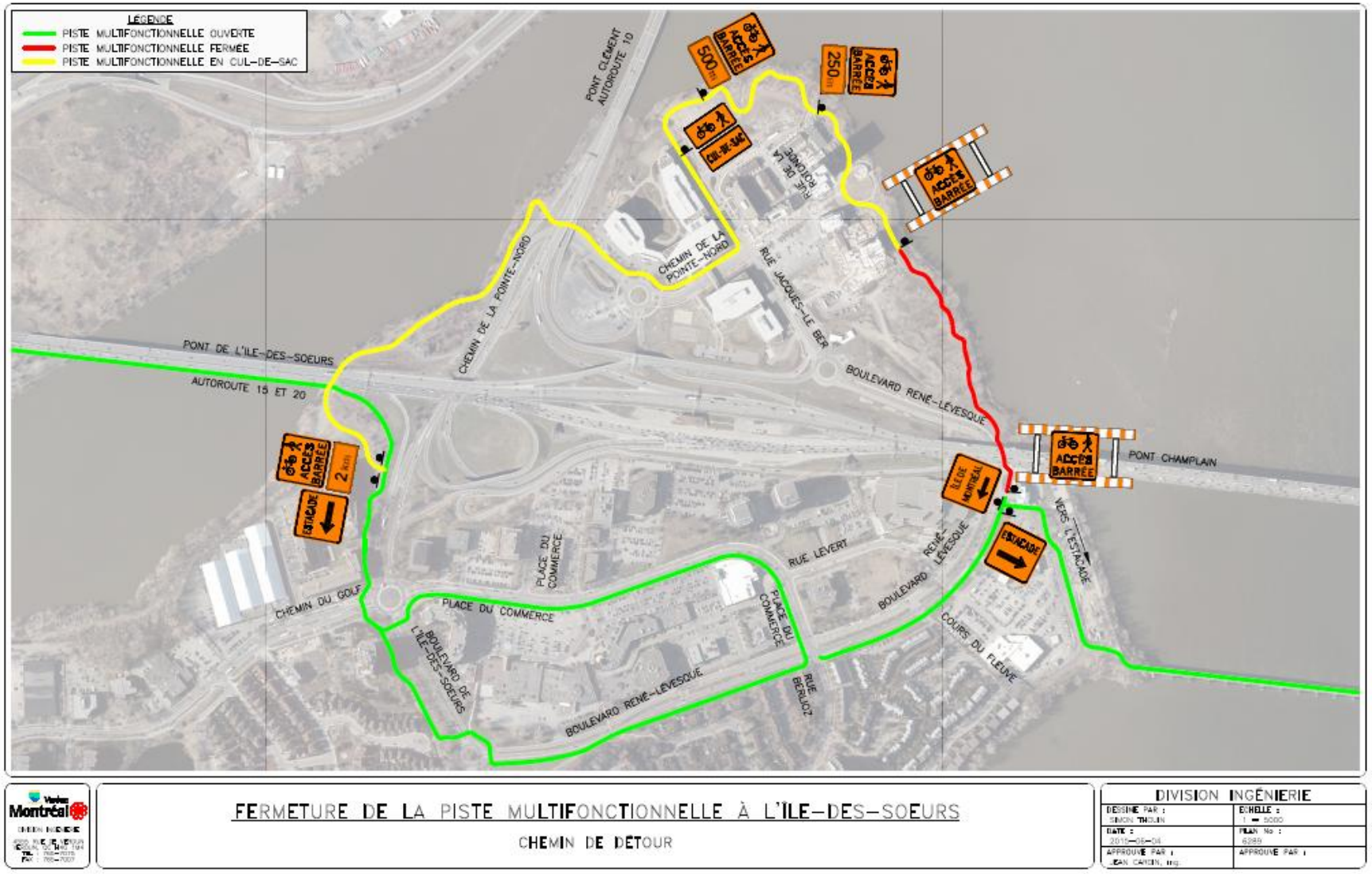
Worksite Entrance



Worksite Exit



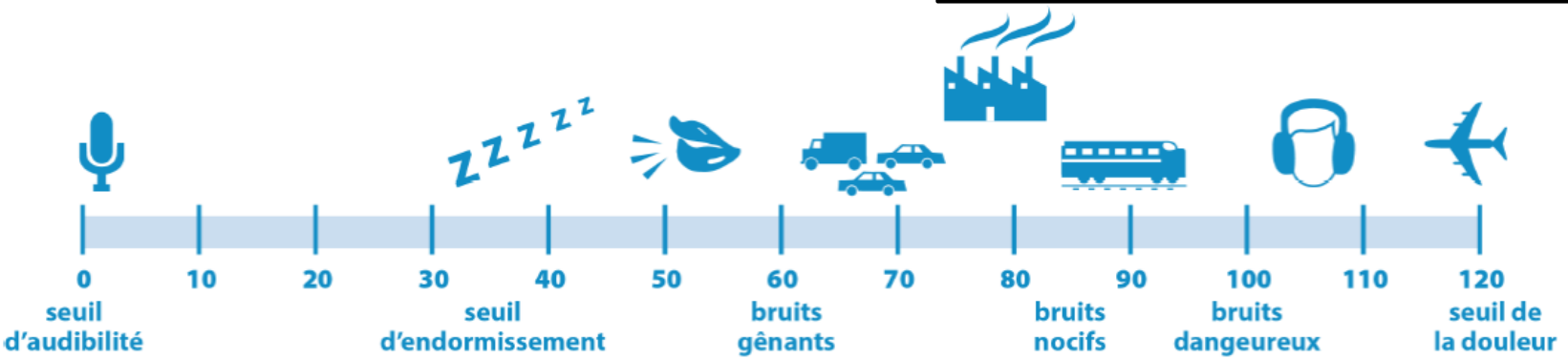
Bike Path Detour



Noise Management

- **Day (7 am to 7 pm) : 75 decibels or 5 decibels above ambient noise**
- **Night (7 pm to 7 am) : 5 decibels above ambient noise**

Quelques notions de base



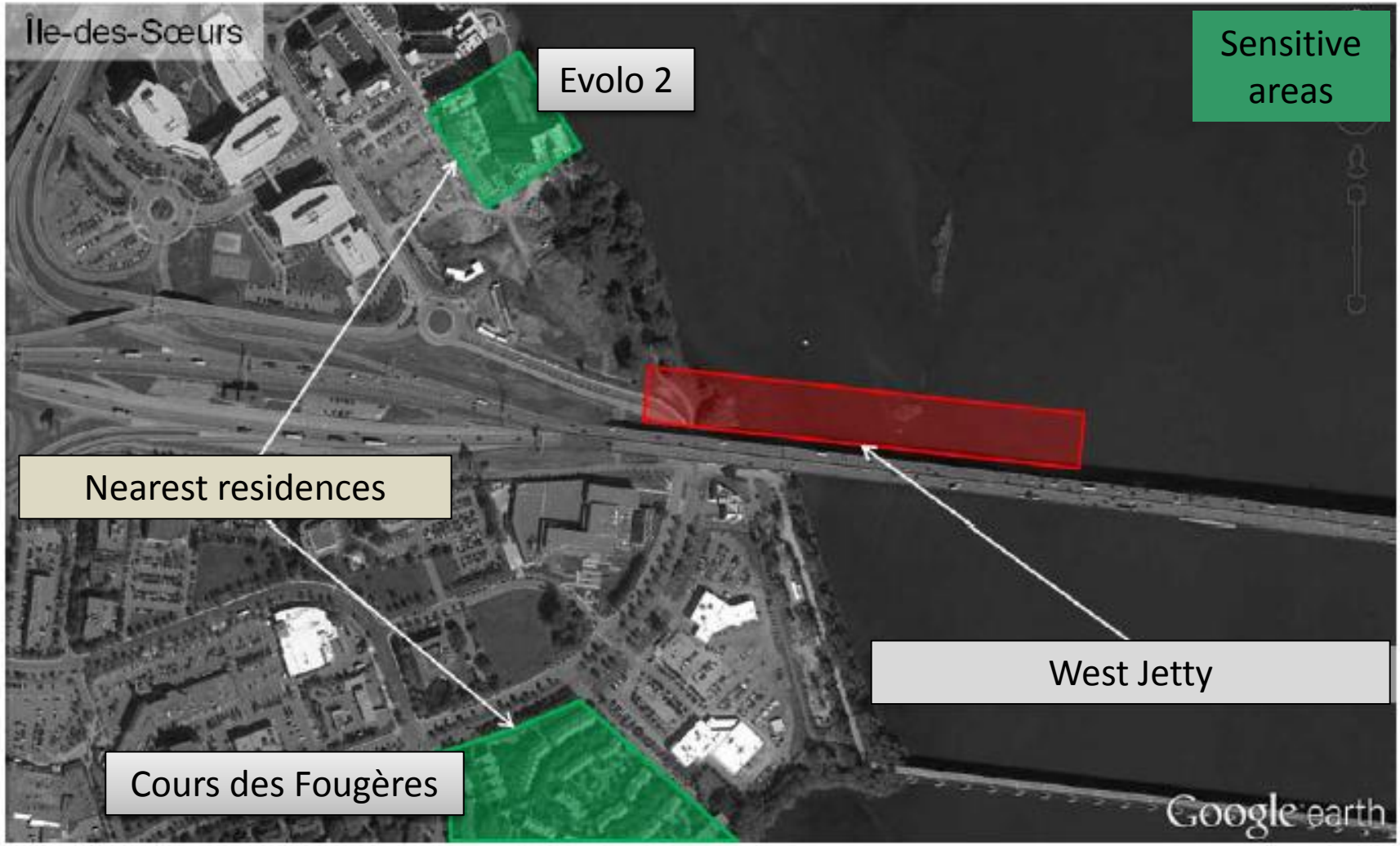
3 dBA	→	variation à peine perceptible
5 dBA	→	variation perceptible
10 dBA	→	double ou diminue par deux l'intensité sonore
55 dBA et -	→	reconnu comme étant un niveau sonore acceptable

Les niveaux sonores ne s'additionnent pas de façon linéaire

Doubler les sources de bruit ≠ doubler le niveau de bruit

Source: MTQ Presentation Turcot Project 18 November 2014

Acoustic Study



Ambient and Expected Noise Levels

Sensitive area	Daytime ambient	Criteria	Expected noise level
Evolo 2	54	75	64
Cours des Fougères	60	75	65

Sensitive area	Night time ambient	Criteria	Expected noise level
Evolo 2	51 (presented) 56 (revised May '15)	56 (presented) 61 (revised May '15)	64
Cours des Fougères	57 (presented) 52 (revised May '15)	62 (presented) 57 (revised May '15)	64

Note: The ambiant noise levels presented at the Public Information Meeting were taken from a 2013 study. Those levels were updated last May 2015. At night, at Evolo 2, the ambiant level is 5 dBA higher than the measurments taken in 2013. At les Cours des Fougères, the updated ambiant noise levels is 5 dBA inferior to those presented.

Noise Management

Mitigation measures for **work done at night** :

- Use variable intensity backup alarm signals
- Organize traffic so as to minimize the need for trucks to back up
- Control production of impact noise (rear doors of trucks)
- Make site superintendents and workers aware of the importance of respecting noise mitigation measures

Specific mitigation measures :

- Installation of a temporary noise barrier along the north side of the jetty during construction
- Monitor noise levels during construction

Air Quality Management

- No impact expected on sensitive areas more than 200 m (Evolo 2) and 300 m (Cours des Fougères) away

- Main mitigation measures :
  - Materials to be transported by dump trucks covered with tarps
  - Appropriate maximum speed for vehicles, to reduce dust emissions on access roads and on the jetty
  - Use of clean stone (very low percentage of fine particles) for the edges of the jetty embankment
  - Surfaces to be watered down
  - Streets used by vehicles and heavy machinery to be cleaned regularly to remove accumulated loose materials and other debris
  - If necessary, a dust-control product will be used

Communication with Residents

We care about the well-being
of residents and merchants,
and will provide regular communication
in order to ensure
positive collaboration and coordination.

Communication with Residents

- **Neighbour Relations Committee : CINPA** --- first meeting in September 2015
- Our **website** is under development. In the interim, please visit the Infrastructure Canada and Verdun Borough websites
  - Notices
  - Photos
  - Live stream video
- **Email :** info@sslc.ca
- **Telephone number :** (514) 876-1020
- **Site visits** in the fall

Next Steps in the Fall

- Set-up of prefabrication area on the West Jetty

- Construction of jetty in the Nuns' Island channel to facilitate the demolition of the current Nuns' Island Bridge

Question Period