Information Session

Proposed improvements to the 315-25kV Saint-Jean substation project and its 315-kV supply line resulting from the work of the DDO/HQ Liaison Committee

October 15, 2018

Overview

1. **Mayor's address,** Alex Bottausci
2. **Creation of the Liaison Committee**, by Jack Benzaquen
3. **Liaison Committee's process**, by Jacques Bénard
4. **Recommendations regarding the construction of the substation,** by Louis-Philippe Bérubé
5. **Recommendations on the type and location of pylons,** by Michele Asmar and Anna Polito
6. **Landscaping,** by Pierre Vaillancourt
7. **Timetable**, by Pierre Vaillancourt

Break

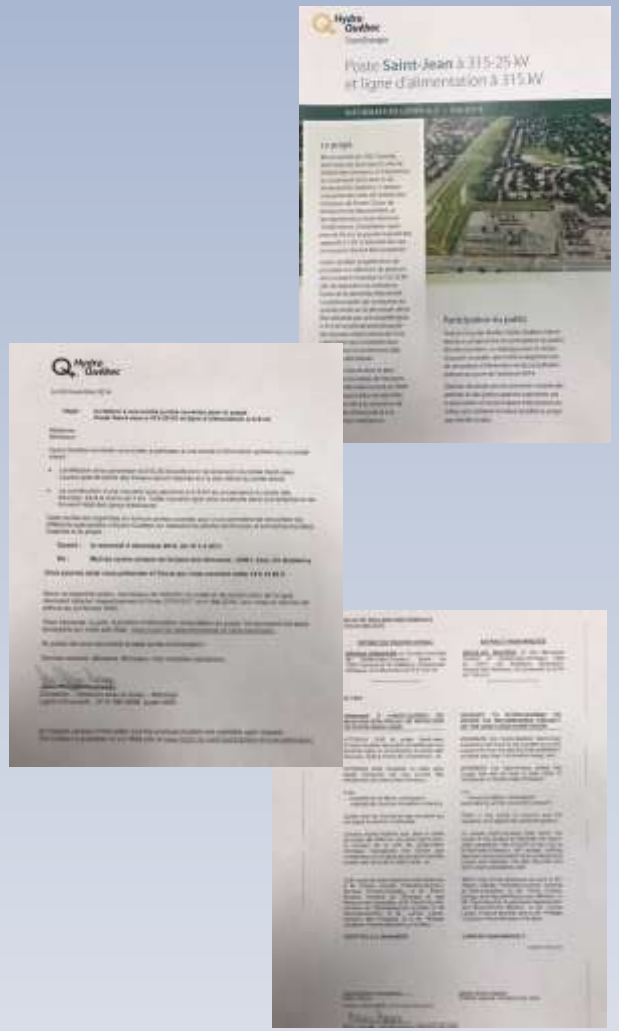
Question period

1. Mayor's address

2. Creation of Liaison Committee

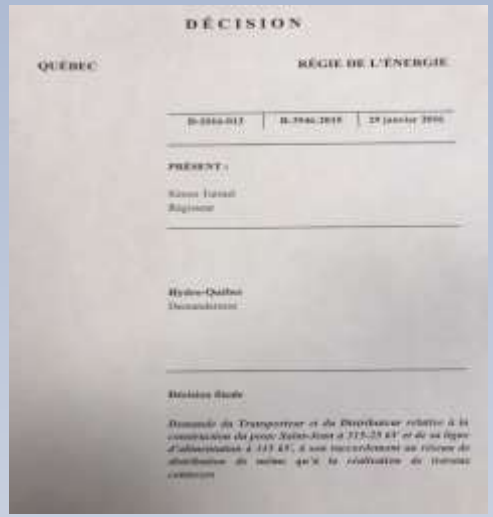
Phase 1 – Preliminary steps

2013	Hydro-Québec informs the City of the project
November 11, 2014	Project is presented to City Council
December 3, 2014	Hydro-Québec organized an open house information meeting at the Civic Centre
December 9, 2014	Resolution 14 1202 adopted: The City requests an underground solution



Phase 2 – Régie de l’énergie

October 8, 2015	Hydro-Québec submitted their project, for approval, to the Régie de l’énergie
January 29, 2016	Régie de l‘énergie renders its decision


DÉCISION

QUÉBEC

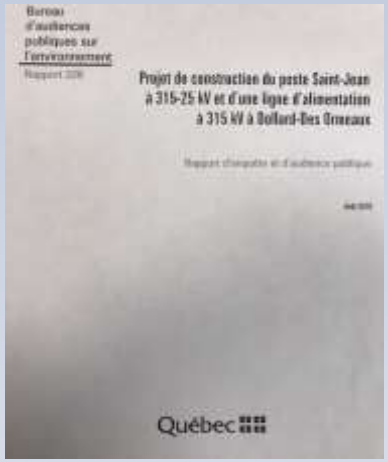
RÉGIE DE L'ÉNERGIE

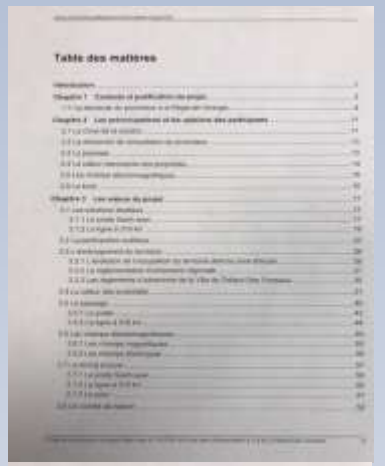
PRÉSENT :

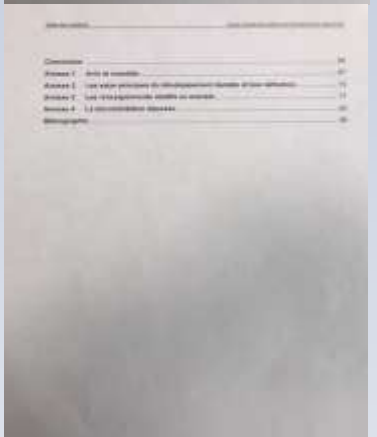
Hydro-Québec

Phase 3 – Bureau d'audiences publiques sur l'environnement (BAPE)

April 2016	Beginning of the inquiry mandate and public hearings
April 20–21, 2016	First part of public hearings
May 17, 2016	Second part of public hearings
September 29, 2016	BAPE report made public

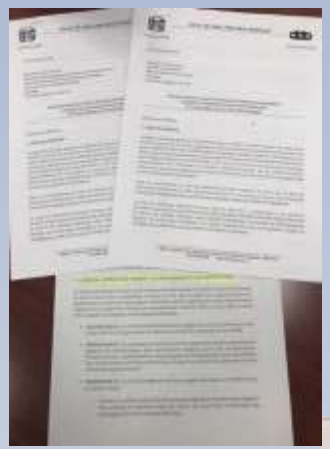






Phase 4: Government Decree and creation of the Liaison Committee

October 2016	Letters from the City of Dollard-des-Ormeaux to the Finance and Environment Ministers
January 14, 2017	Informal meeting – City/Political attachés/HQ
February 8, 2017	Decree 77-2017 : creation of the DDO/HQ Liaison Committee
May 2, 2017	Meeting with mediator : sensitization / awareness
May 10, 2017	First meeting of the Liaison Committee



Why create the Liaison Committee?

In compliance with the decree, make recommendations to carry out the best project while:

- maximizing the benefits for both the City and its residents
- Limiting, as much as possible, the impacts on the City and its residents.

Phase 5: Liaison Committee work

3. Liaison Committee's Process

Committee members

Jack Benzaquen – City Manager, City of DDO

Anna Polito – Director, Urban Planning and Engineering, City of DDO

Michele Asmar – DDO resident (meetings 8–12)

Ed Janizewski – Former mayor of DDO (meetings 1–7)

Louis-Philippe Bérubé – Projects Manager, HQ

Jean-Philippe Rousseau – Advisor – Community Relations, HQ

Pierre Vaillancourt – Environmental Projects Manager, HQ

Committee mandate

Within the parameters of the Decree authorizing the project, make recommendations to the City of DDO and HQ on how to improve the project with respect to:

- Number, type, height and location of pylons
- Landscaping within the servitude and around the Saint-Jean substation
- Integration of non-technical aspects within the environment (wall, landscaping, fence, mitigation measures during construction, etc.)

Ground Rules

- Six members: three DDO, three HQ
- Mediator: neutral, impartial third party
- Sharing of information and transparency between members
- Consideration for all parties
- Decision making by consensus
- Communications

Process summary

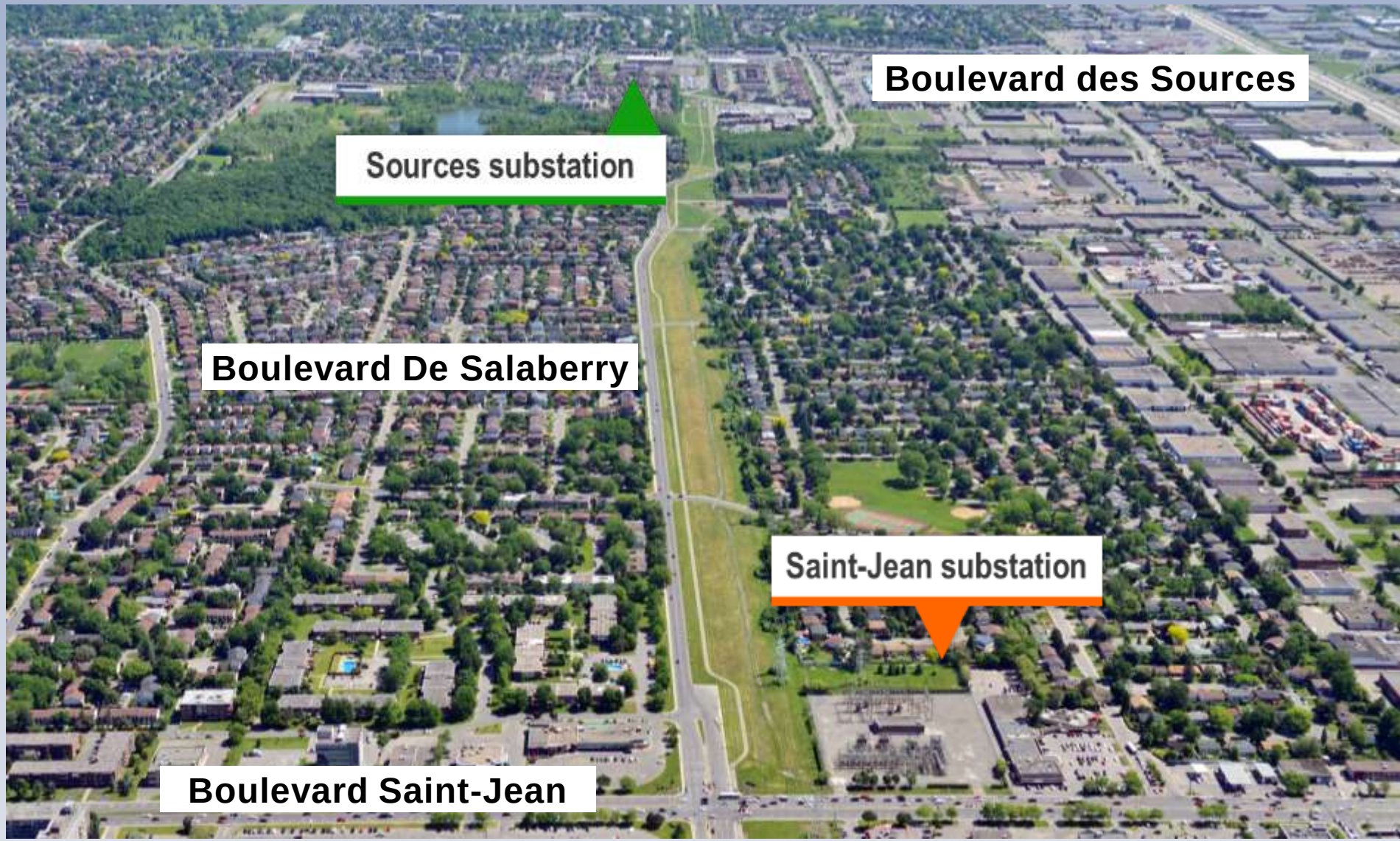
	Meetings											
Subjects discussed	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
Ground rules	√							√				
Project – Common understanding	√	√										
Substation layout		√	√	√	√	√	√					
Types of pylon structures					√	√	√	√				
Pylon locations						√	√	√	√	√	√	√
Landscaping n the servitude							√	√	√	√	√	
Public presentation											√	√

May 2017 — 2018

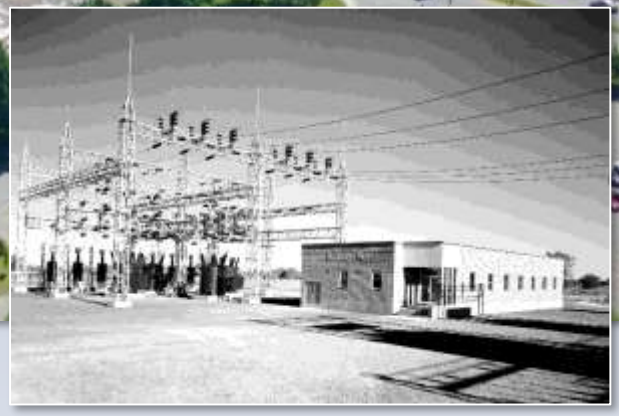
Site visit

4. Recommendations regarding the construction of the substation

Project location



Existing substation: built in 1957



Project submitted to BAPE
(Visual simulation, substation in 2020)

Revised project by DDO-HQ Liaison Committee

Main improvements

- Unconventional layout of substation to keep architectural wall and equipment away from properties
- 18 m landscaped green space
- Mitigation measures:
  - reduction of sound emissions
  - elimination of shadows on residential properties
  - extension of the architectural wall on the south side

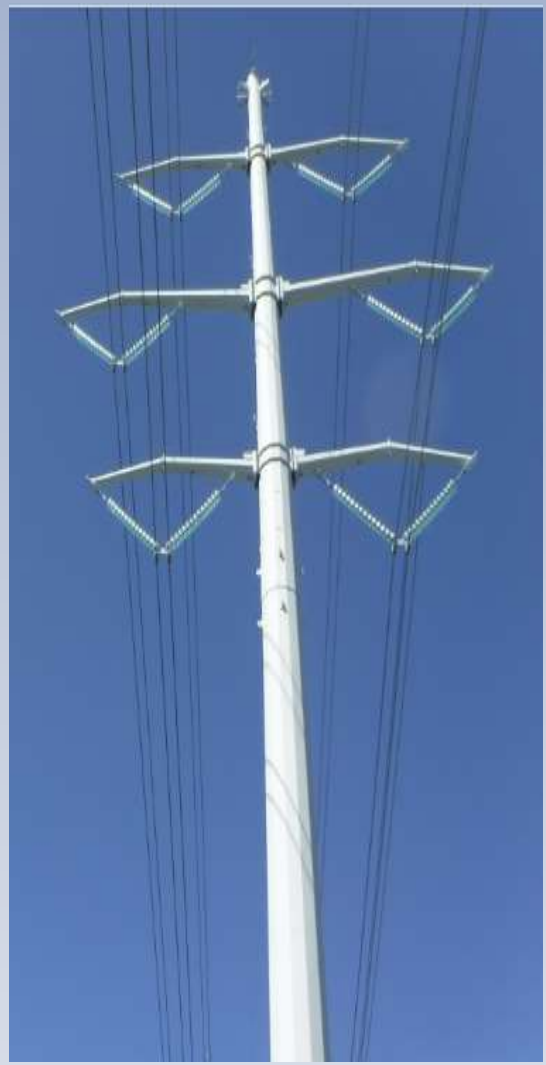
5. Recommendations on the type and location of pylons

Selection criteria for new pylons

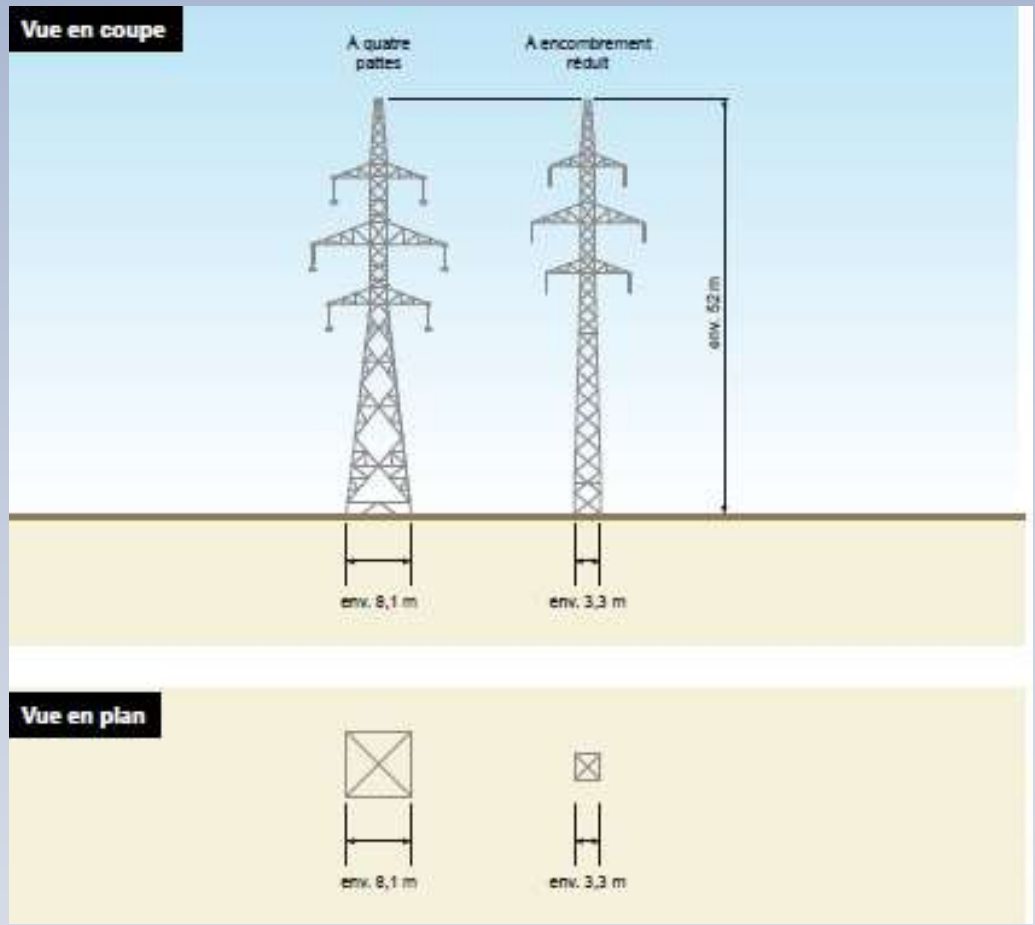
Visual interest (look of pylon)	Size impact (presence of pylon in the environment)	Visual integration (integration of pylons within the servitude)
1. Appearance	1. Height of pylon	1. Visual integration with existing 120-kV pylons
2. Transparency	2. Diameter of pylon base or footprint	2. Visual integration with existing 315-kV supply line (east of Sources Boulevard)
3. Susceptible to graffiti, so needs more maintenance	3. Volume of structure	

Tubular steel pylon

- More contemporary design
- Simple, compact structure, relatively smaller (height, volume and footprint)
- Opaque, solid mass that you cannot see through
- Susceptible to graffiti, so needs more maintenance



Lattice pylon



- Reduced-footprint lattice structure
- Transparent: lets light through
- Lattice design reduces the apparent size
- Visual integration with the existing 120-kV pylons and also with the existing 315-kV lattice structures located east of Sources Boulevard within the servitude

Option selected

Reduced footprint pylon (selected) next to large footprint pylon

DDO – Current situation in right-of-way east of Sources

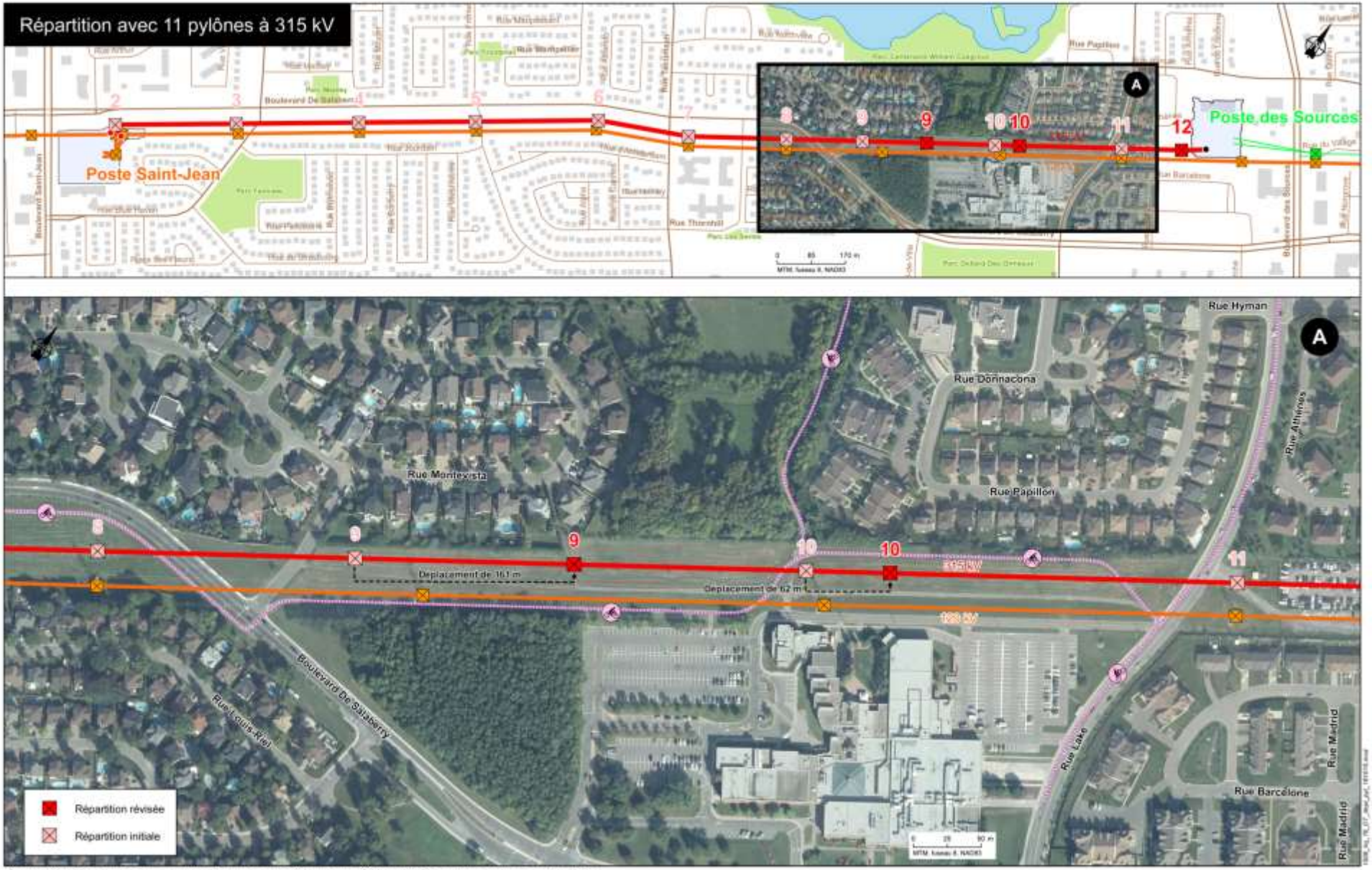
Pylon location

Goal: Minimize visual impact of the pylons on homes directly on the servitude
Steps taken:
• Determine the criteria for positionning pylons
• Analyze each pylon location and determine the options that could minimize visual impact for affected residents
• Determine feasibility of each option (by HQ)
• Visualize various options for pylon locations:
• Use specialized software (e.g., Google Maps, Autocad, etc.)
• Use scaled versions of paper plans of the proposed locations in each option
• Install markers on site of the proposed pylon locations, based on their georeferenced global positioning
• Analyse each option; committee chose the one that minimized the visual impacts for the affected residents (5 meetings needed)
• Submit to City for approval

Criteria used to determine pylon locations

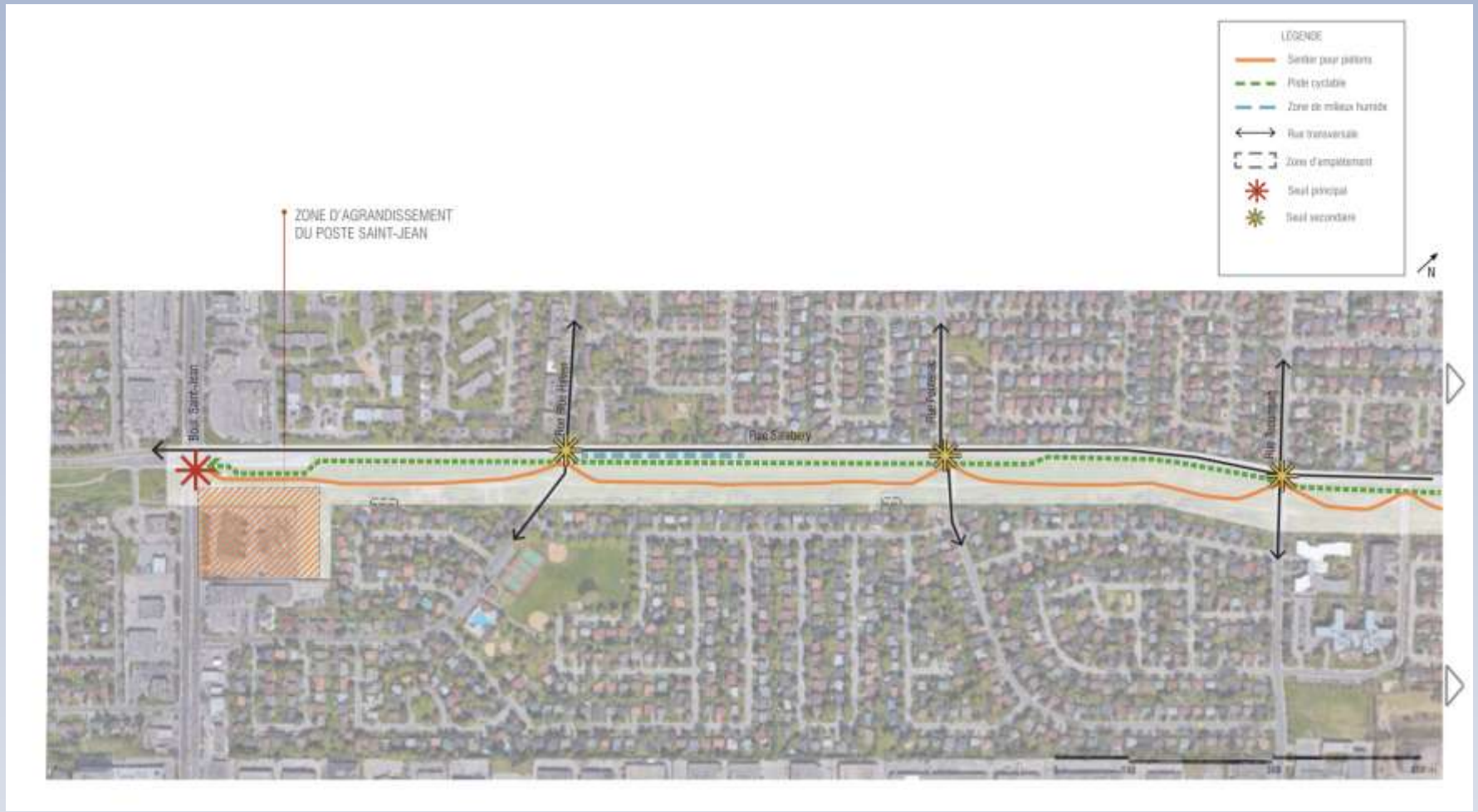
Criteria: tower locations
• Technical limitations on locations (angle tower, underground infrastructure, etc.) – Determining factor
• Juxtaposition with existing towers on 120-kV line – Preferred
• In line with property lines – Preferred
• Near street corners – Preferred
• Oblique view from properties – To be avoided
• Pylon height (depends on spacing) – To be limited

Revised locations of pylons



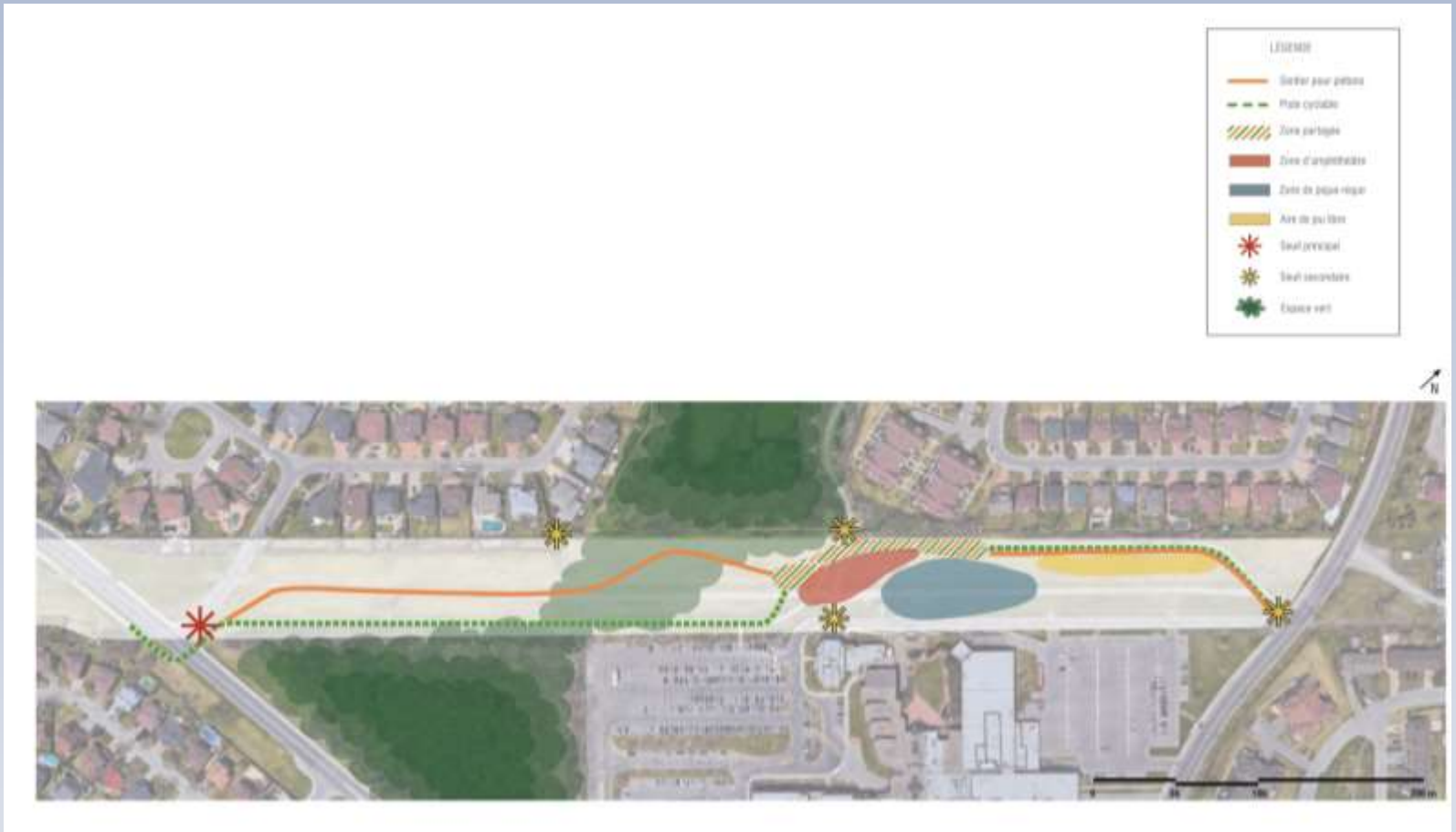
6. Landscaping

Concept diagram
Sector around the Saint-Jean substation



Concept diagram
City Hall and Centennial Park sector

Concept diagram
City Hall and Centennial Park sector
An urban park at the heart of the area



Planning design
Around the Saint-Jean substation

Planning design – Around the Saint-Jean substation

Landscape Details along De Salaberry Boulevard

Inspirations

Visual simulation

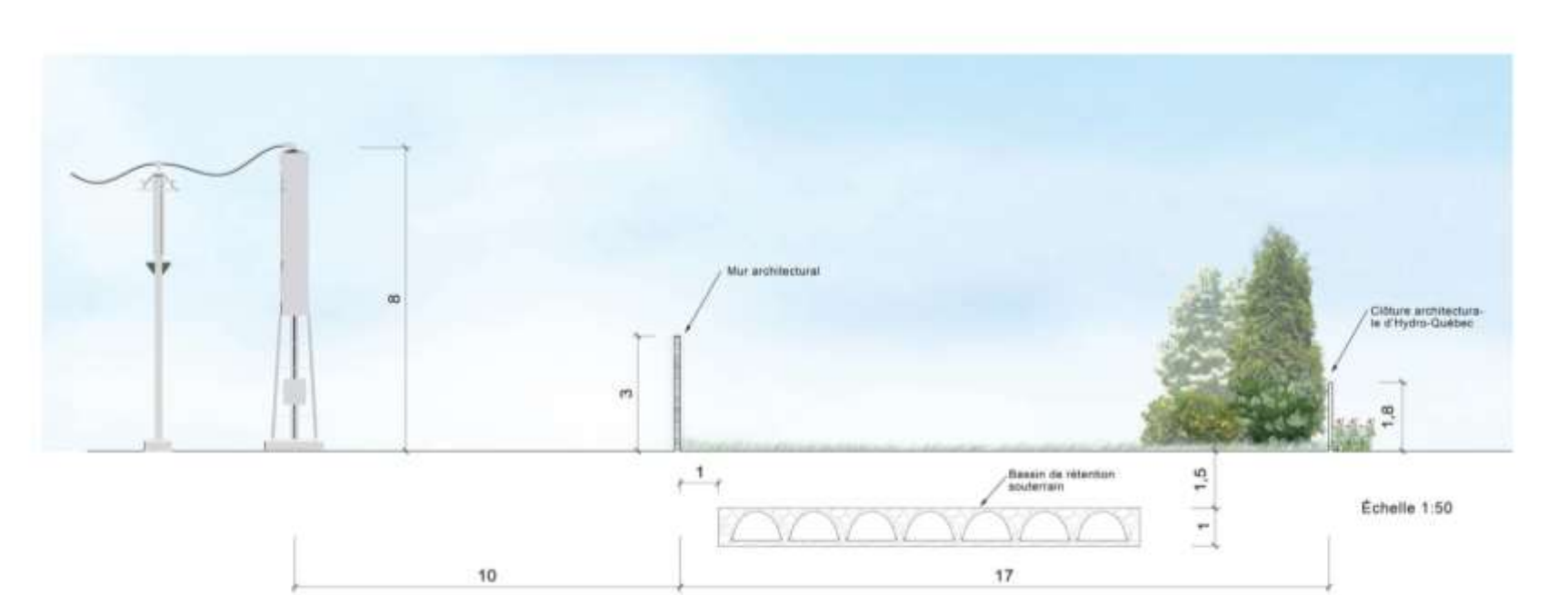
Intersection of Saint-Jean and De Salaberry Boulevards

Visual simulation

Overview of the Saint-Jean substation with the improvements proposed by the Liaison Committee

Planning design

Cross-section of the buffer zone between the Saint-Jean substation and the homes on Place des Pins



Planning design

Typical intersection

Planning design
Frontenac Street

Planning design

Tecumseh and Thornhill Streets

Planning design
Des Sources substation

7. Timetable

Project timetable

Substation

• Start of work	Spring 2018
• Moving 120-kV lines	Summer 2018
• Construction of control building	Fall 2018
• Electrical equipment	Fall-winter 2018–2019
• Landscaping around the substation	Spring-summer 2020

Line

• Tower foundations	Fall 2019
• Assembling and raising towers	Winter 2019–2020
• Unreeling and installing lines	Spring 2020
• Landscaping in the servitude	Summer-fall 2020

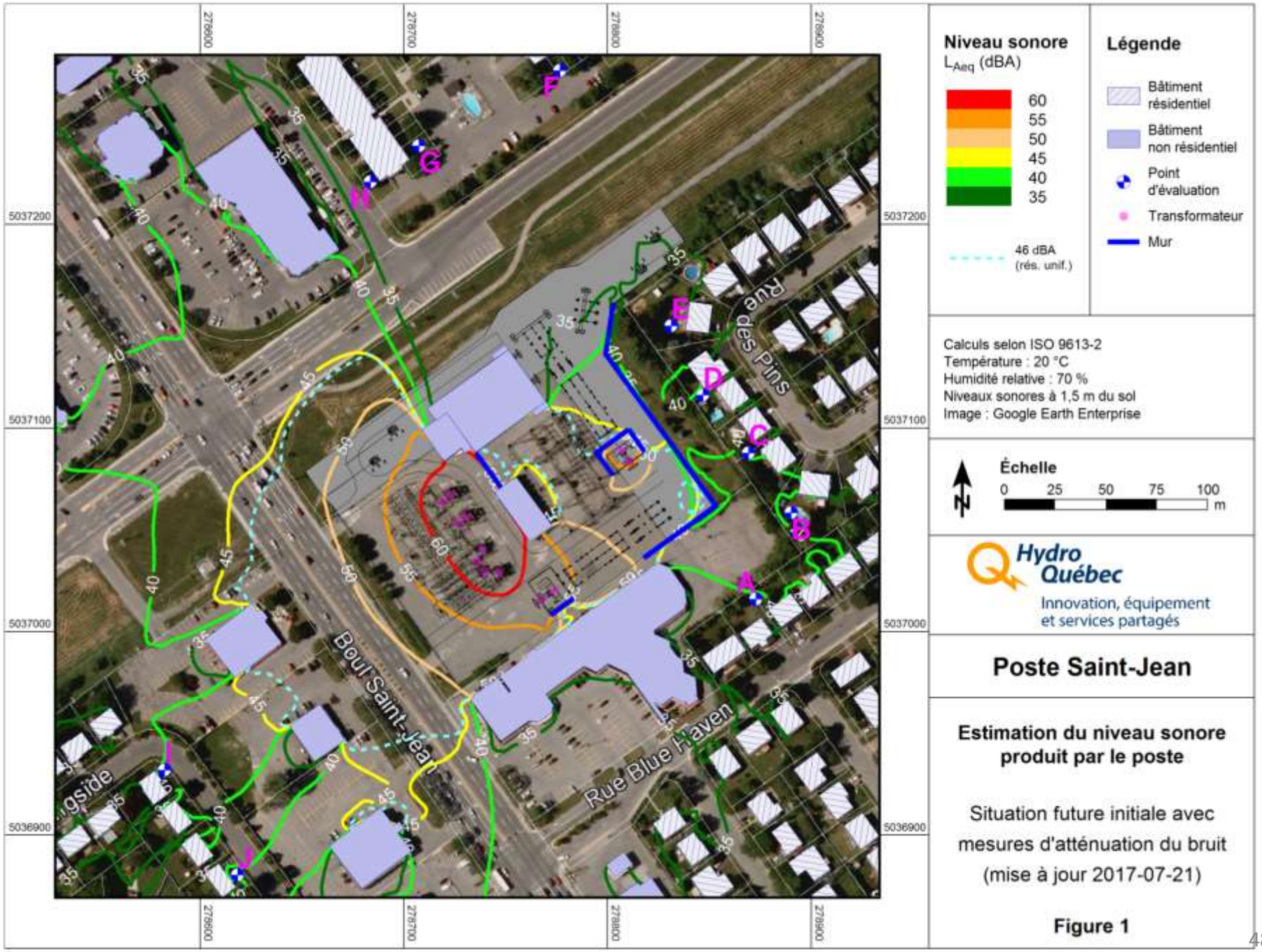
Commissioning facilities Late 2020

Break

Sign up for question period

Question Period

Closing Remarks

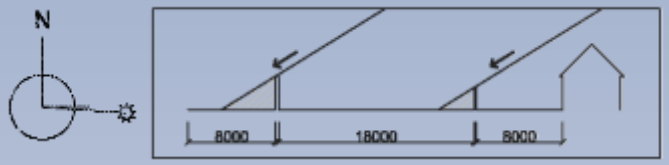

Niveau sonore
L_{Aeq} (dBA)
60
55
50
45
40
35
46 dBA
(rés. unif.)
Légende
Bâtiment résidentiel
Bâtiment non résidentiel
Point d'évaluation
Transformateur
Mur
Calculs selon ISO 9613-2
Température : 20 °C
Humidité relative : 70 %
Niveaux sonores à 1,5 m du sol
Image : Google Earth Enterprise
Échelle
0 25 50 75 100 m
Hydro Québec
Innovation, équipement et services partagés
Poste Saint-Jean
Estimation du niveau sonore produit par le poste
Situation future initiale avec mesures d'atténuation du bruit
(mise à jour 2017-07-21)
Figure 1
Rue des Pins
Boul Saint-Jean
Rue Blue Haven
276600
276700
276800
276900
5037200
5037100
5037000
5036900
A
B
C
D
E
F
G
H
I
J

Shadow Study

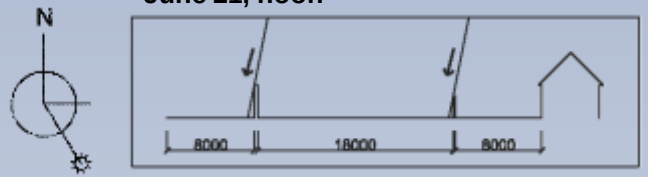
3-m architectural wall

June 21, 2017, 8 p.m.

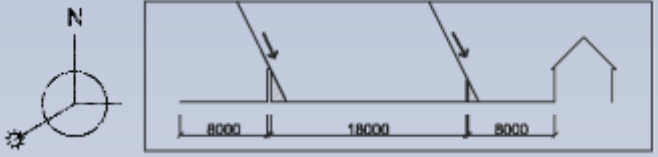
June 21, 9 p.m.



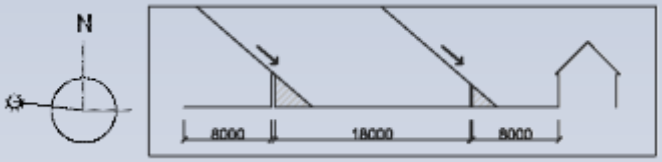
June 21, noon



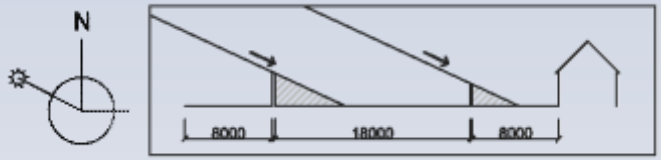
June 21, 3 p.m.

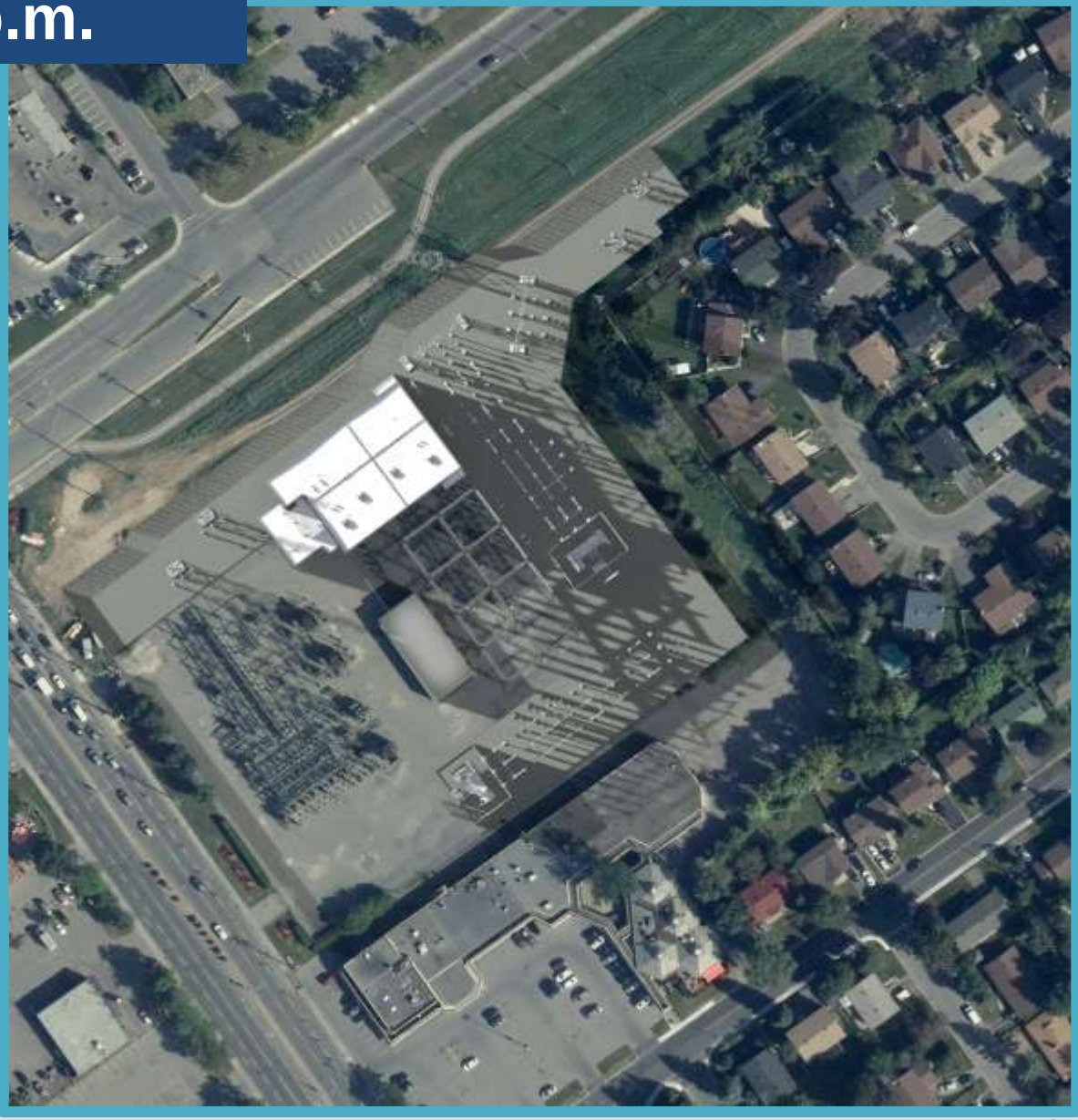


June 21, 3 p.m.



June 21, 8 p.m.





Planning design

Perspective of the buffer zone between the Saint-Jean substation and the homes on Place des Pins

Information on electromagnetic fields

315/25-kV Saint-Jean substation and 315-kV supply line construction project in Dollard-Des Ormeaux

Report 326

Bureau d'audiences publiques sur l'environnement (BAPE)

August 2016, p. 50 to 56

www.bape.gouv.qc.ca