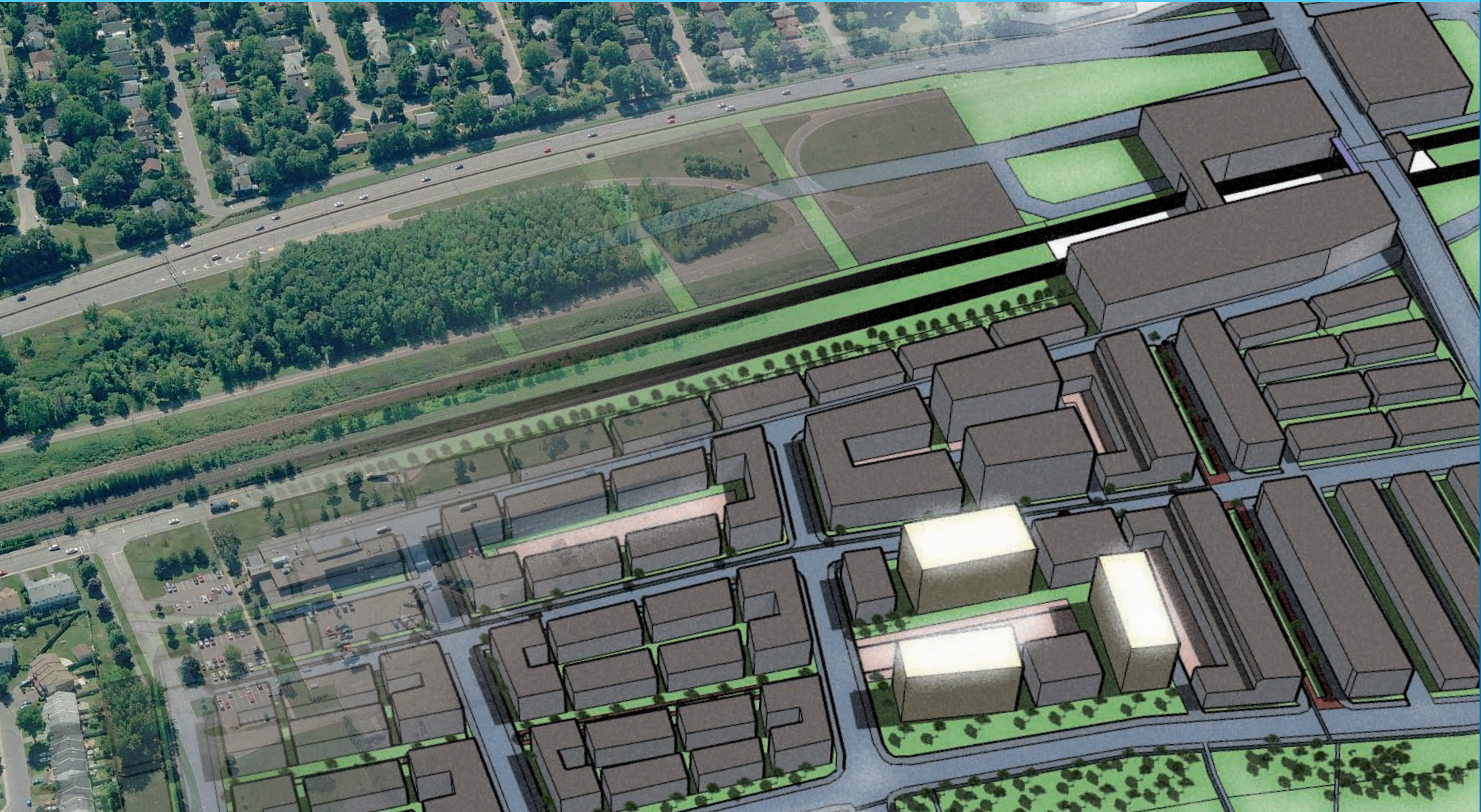


# POINTE-CLAIRE TOWNSHIP & INFRASTRUCTURE PROGRAM



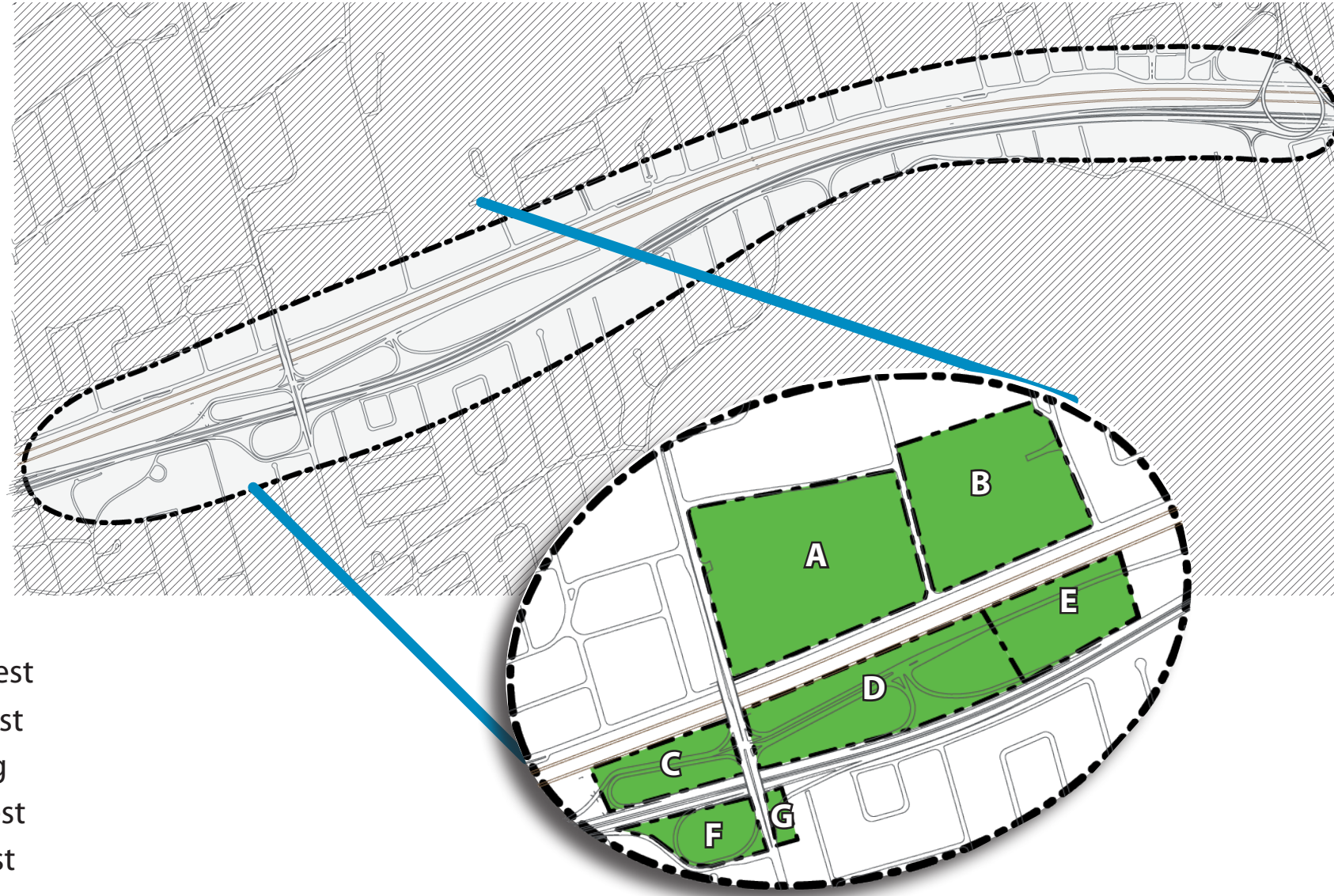
DAMIEN AUGER, SACHA BROMBOSZ, LILIAN CORBANI, ANDREW RANKIN



## Sites of intervention

The intervention sites are located in an area of 30.12 hectares. The sites include Pointe-Claire and Cedar Park train station, Highway 20, the St-Jean's interchange, Plaza Pointe-Claire, the public works building and lot, the strip of land between the highway and the rail lines, as well as various adjacent streets.

- A** Plaza Pointe-Claire
- B** Pointe-Claire Public Works
- C** Highway belt - 20 westbound - West
- D** Highway belt - 20 westbound - East
- E** Woods and access to AMT parking
- F** Highway belt - 20 eastbound - West
- G** Highway belt - 20 eastbound - East



## Goals:

- ◆ Increase accessibility and walkability to and from both sides of the corridor
- ◆ Foster a sense of place
- ◆ Recreate a sense of defined community within the boundaries of Pointe-Claire
- ◆ Reconfigure open spaces to enhance walkability
- ◆ Reduce disturbance from ground transportation vehicles while still enhancing connectivity

## Pointe-Claire as a City Centre for the West Island

Pointe-Claire possesses the potential to become a major city center for the west of the island of Montreal. Given that all STM bus service for the west island converges at the Fairview Pointe Claire terminal, public transit is already a major component integrated into the fabric of the municipality.

An improvement in access to Highway 20 as well as considerably improved commuter rail service would solidify Pointe-Claire's role as a regional sub-centre.

Pointe-Claire's City Centre will eventually be located at the north end of St-Jean Boulevard, linking the Trans-Canada Highway, the 20, and the railway to create a strip of commercial activity. The strip would unite the community and provide Pointe Claire with a unique axis allowing residents and people from elsewhere to relate and orient themselves with. These changes are the sum of our vision of Pointe Claire as a sub centre for the island.

- ◆ **Overcome obstacles to accessibility between areas of Pointe-Claire**
- ◆ **Reconcile mixed-use neighbourhoods and transportation infrastructures**
  - Creation of a mixed use community
  - Connection to a newly created transportation hub
  - Reduction of transportation infrastructure disturbance (reduction of noise and high speed traffic, traffic capacities downgraded at specific points)
- ◆ **Foster walkable and cyclable environments**
  - Enlargement of sidewalks on St-Jean Boulevard
  - Increase the attractiveness of the major pedestrian axis
  - Creation of a sheltered linkage from North to South of the corridor
  - Fix missing links of sidewalks and bike paths
  - Provide proximity amenities to the community to reduce car dependancy
- ◆ **Provision of recreational space**
  - Creation of a community park (and linkage to Civic centre)

## SPECIFIC REQUIREMENTS

### Preservation of Residential Heritage

The residential heritage is an important aspect of the character of the community, a crucial concern that will be adressed in the project. Despite all the changes that our plan aims to do, there will be no relocation of residents.

### Parking

Surface parking is major issue addressed by the planning program. Large surface lots cause heat islands, do not provide shelter from the elements, cost more to maintain, and misattribute their costs to those who may not necessarily use the spaces. Our concept minimizes surface parking in the area.

### Land-use conversion

The area surrounding the Pointe-Claire train station is to be converted to residential use. The activity node created by the adjacent commercial activity would disappear, leaving the Pointe-Claire station as the only remaining activity generator.

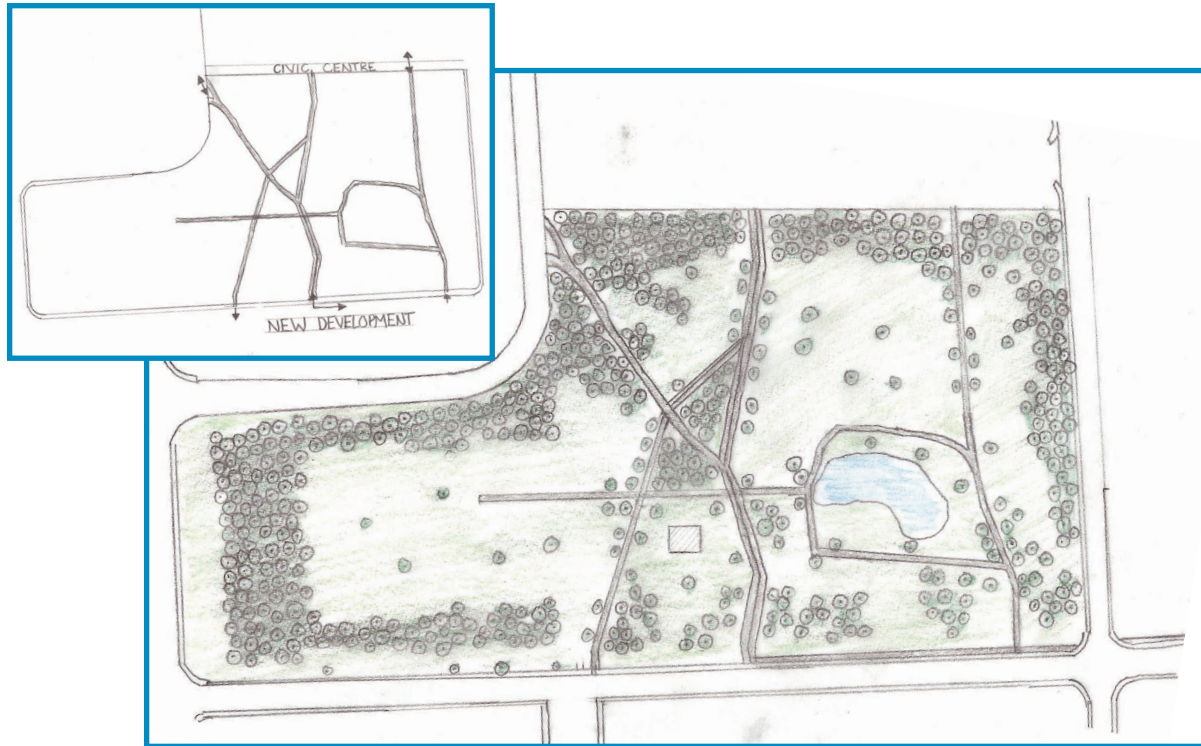
### Drake Avenue

Our new development will need Drake Avenue to connect with Belmont avenue. Belmont avenue is directly linked with Boulevard Des Source which is another main artery that links the South to the North of Pointe-Claire. Although the planning program states that Drake Avenue should be closed, our projects uses this infrastructure as a important link.



# Analysis of the Landscape

## From Forest to Community Park



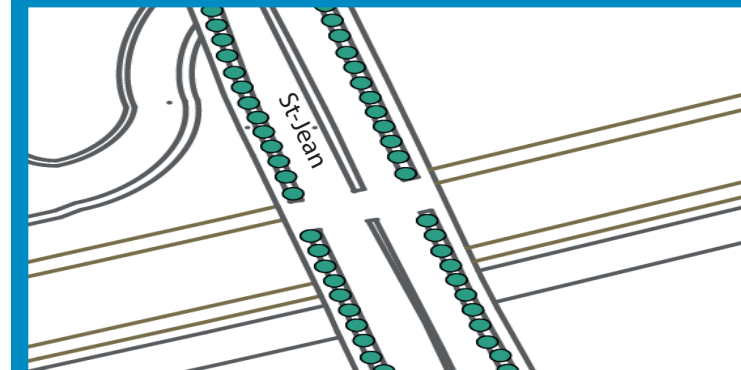
- The small forest has been restructured into a community park as part of the new mix-used development.
- The park was designed to allow an easy passage from the new train station to the Civic Centre.
- The park's main access points are located where people are most likely to arrive from and directly reach their desired destination, such as the Civic Centre, the high school, the library, the newly mixed-use development, the residential area, and the train station.
- A pond and open spaces were created for aesthetic reasons and to generate activity.
- Trees were added along all newly created streets for environmental and economical benefits. Environment benefits include shading, climate control, and increase oxygen and economical benefits include energy costs.
- Green spaces along highways were to act as natural sound barriers.

## Open Areas



- A road will bisect Terracotta park, linking the north part of Pointe-Claire to the south, creating a viable access to commuters coming to and from highway 20.
- One concern that has been expressed is that although Terracotta park is a major landmark for the community of Pointe-Claire, it is inaccessible given that it is mostly surrounded by private properties. The road created would therefore allow access to the park along its path.
- A road would also cut through Terracotta park to link the North part of Pointe-Claire to the south, as well as giving a viable access to car travelers coming to and from highway 20.
- One concern that has been expressed is that although Terracotta park is a major landmark for the community of Pointe-Claire, getting access to it is far from being an easy task as it is mostly boarded by private properties. The road created would therefore give access to the park on a full edge.

## Shrubs along St. Jean



These dividers will provide essentially the same benefit as trees however, they will primarily separate pedestrians from cars and will embellish the walking environment.

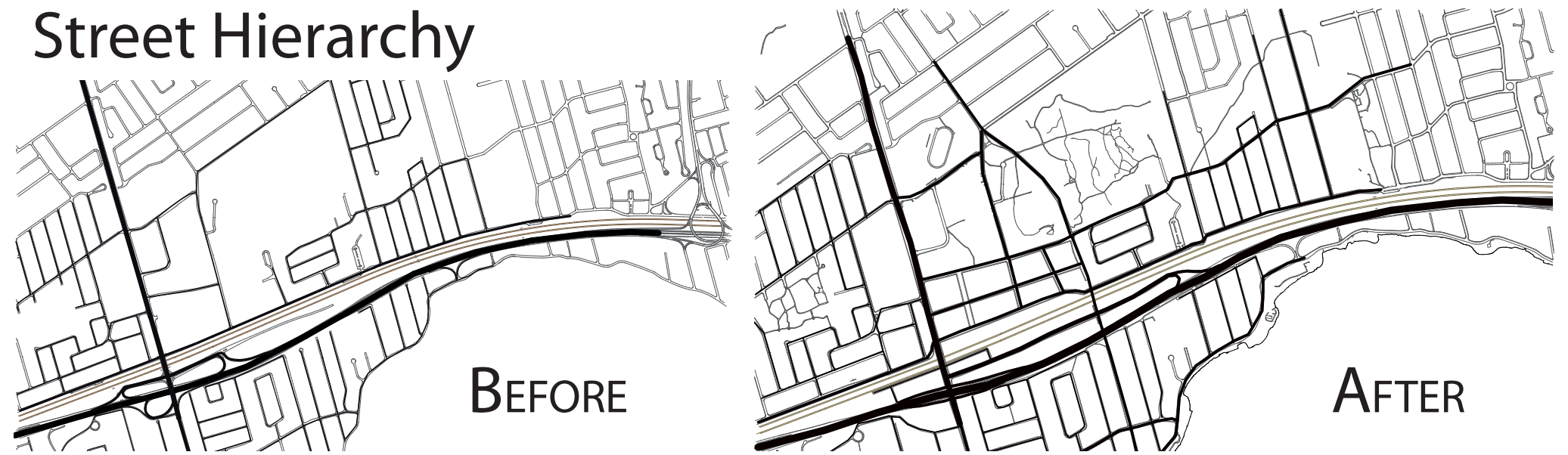
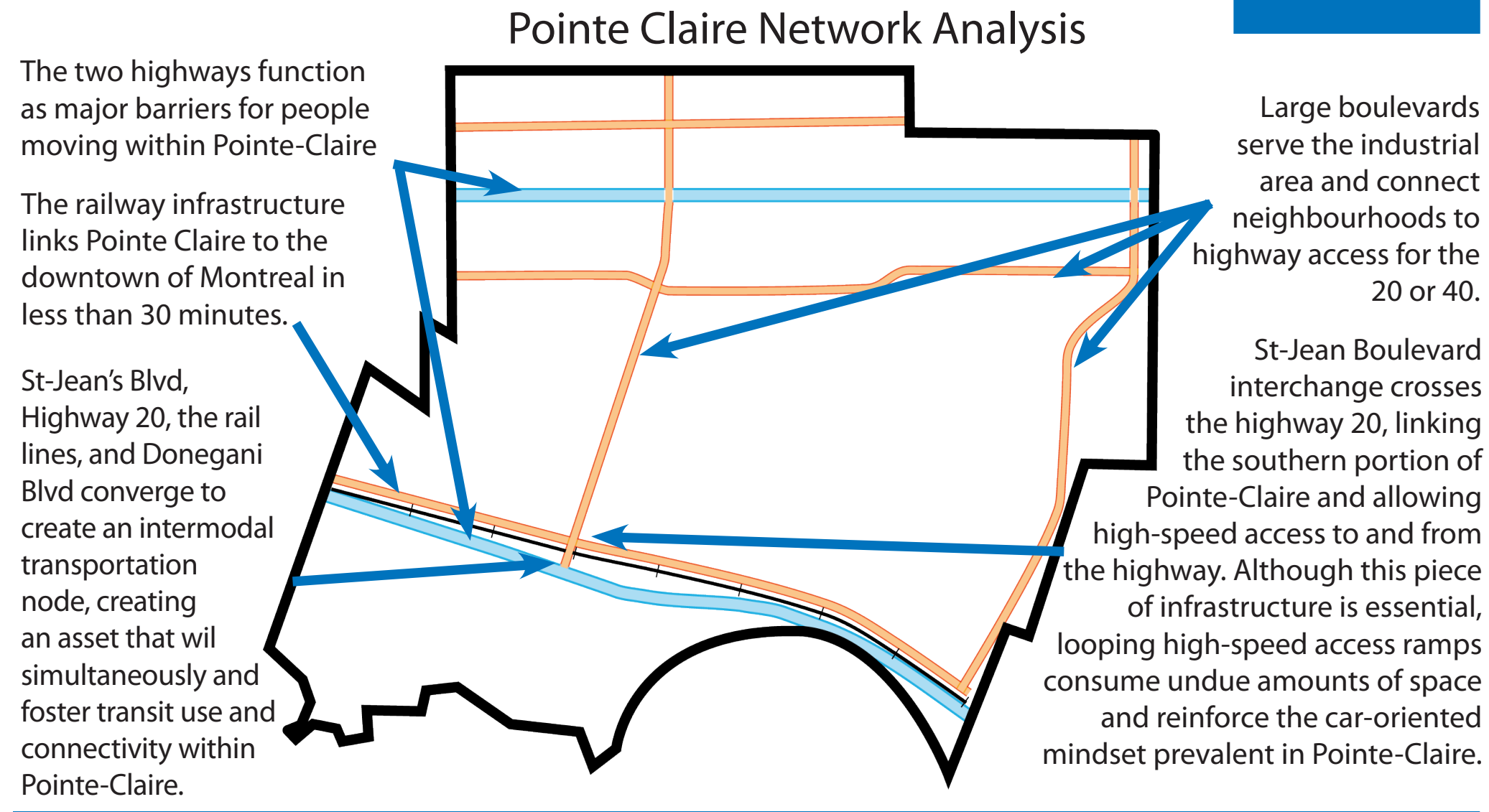
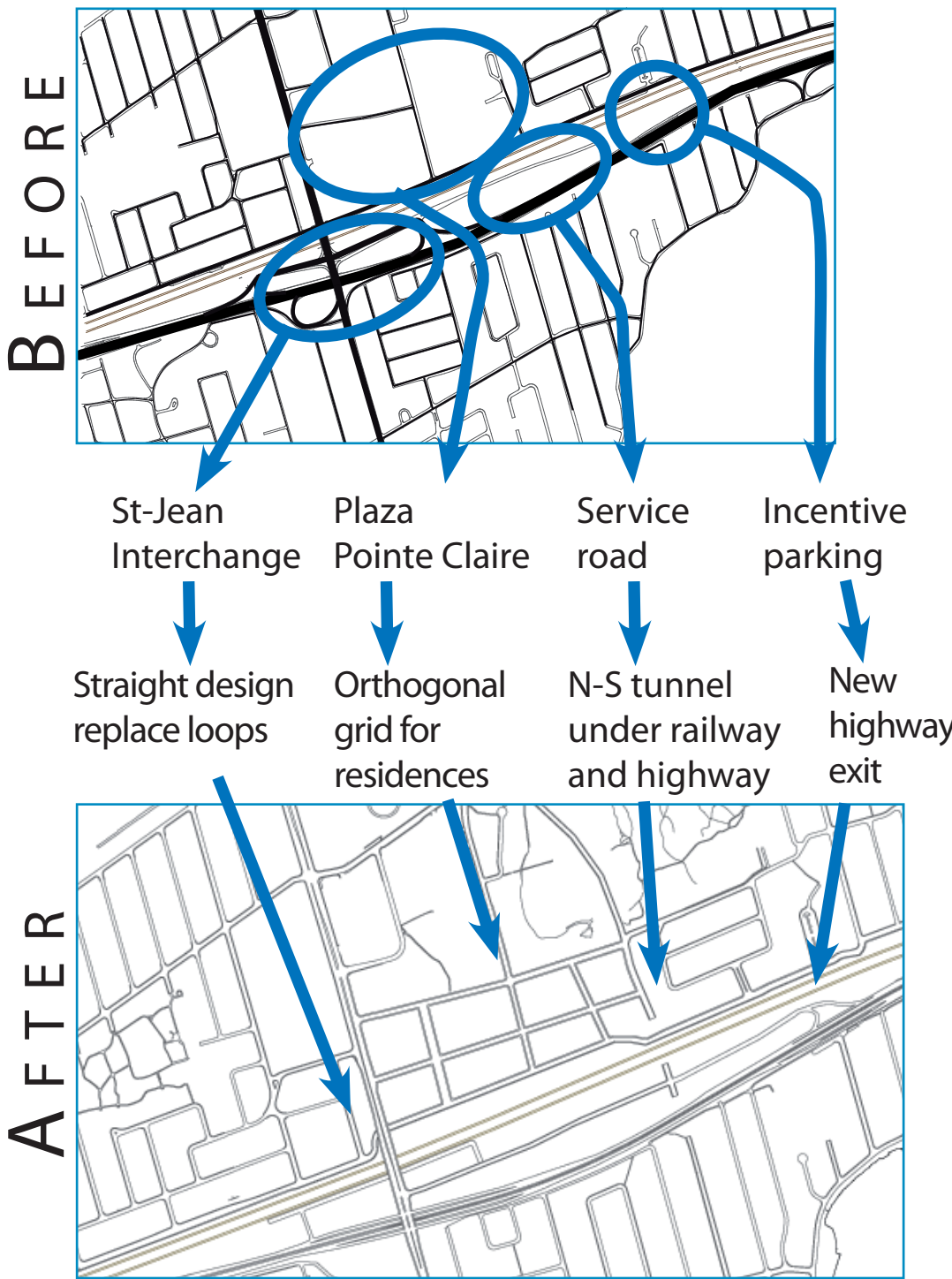
## Pedestrian Street



A pedestrian street will be created to allow people to walk and bike from the train station and commercial complex all the way to the Civic Centre without being exposed to the intense traffic on St-Jean Boulevard.



## Four Major Intervention on the Street Layout





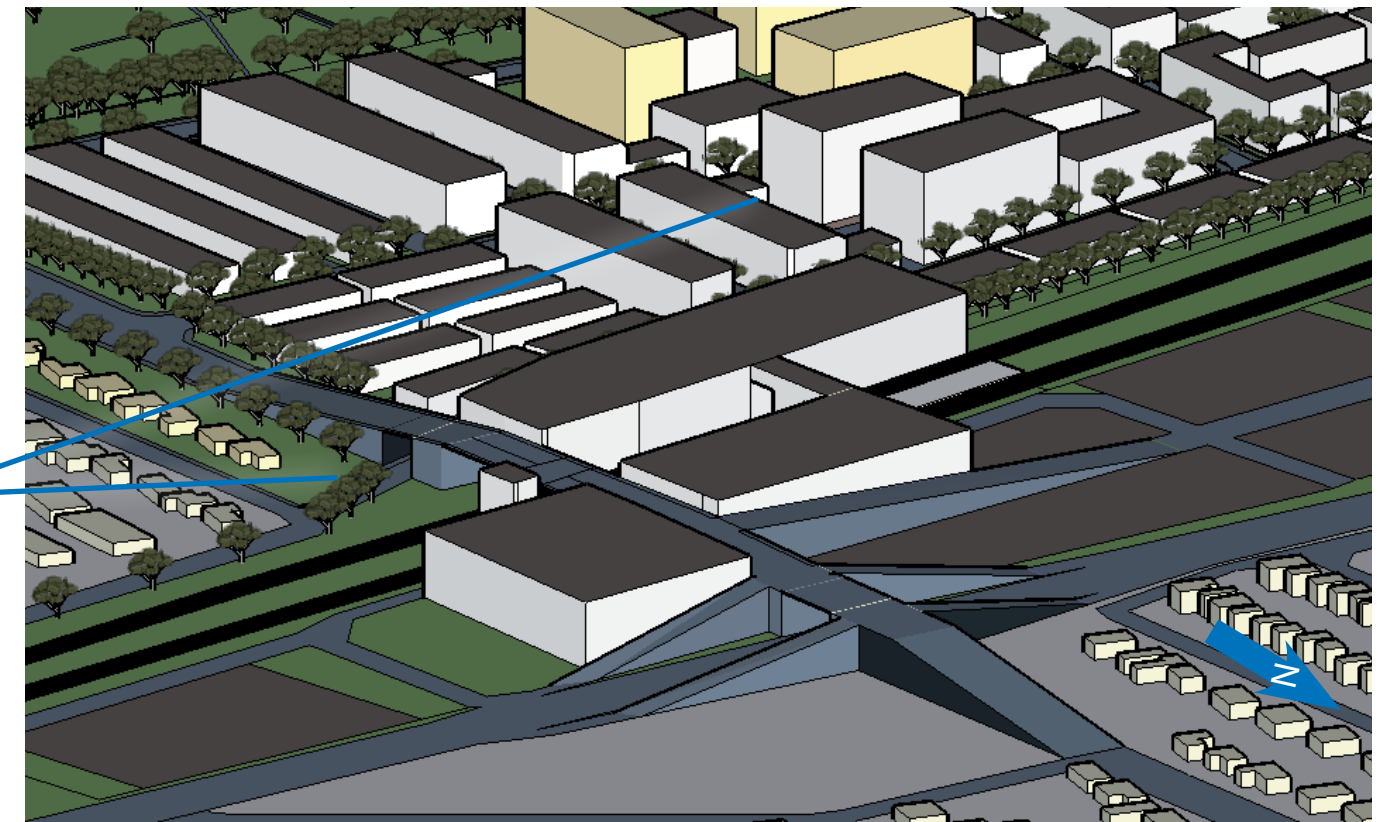
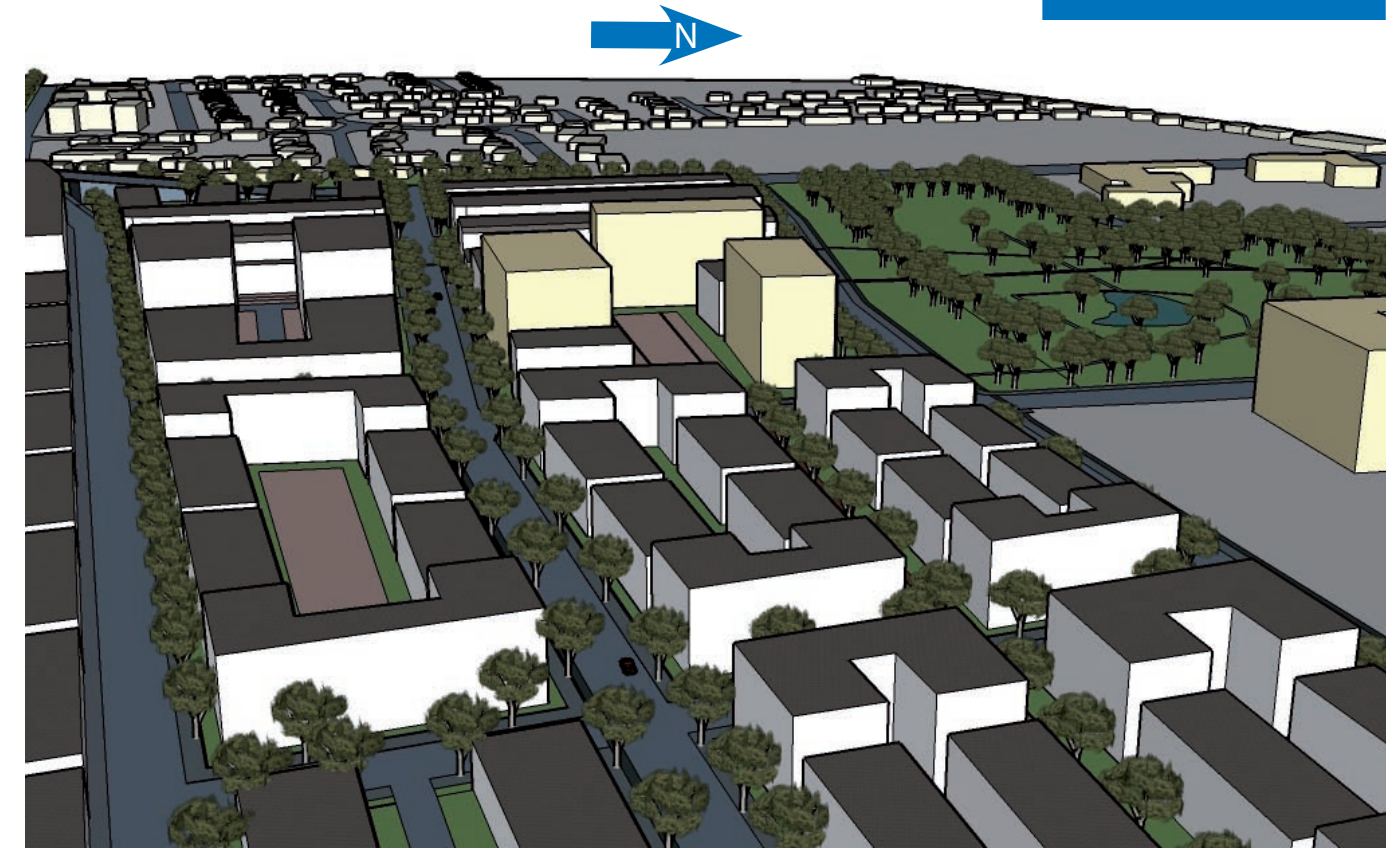
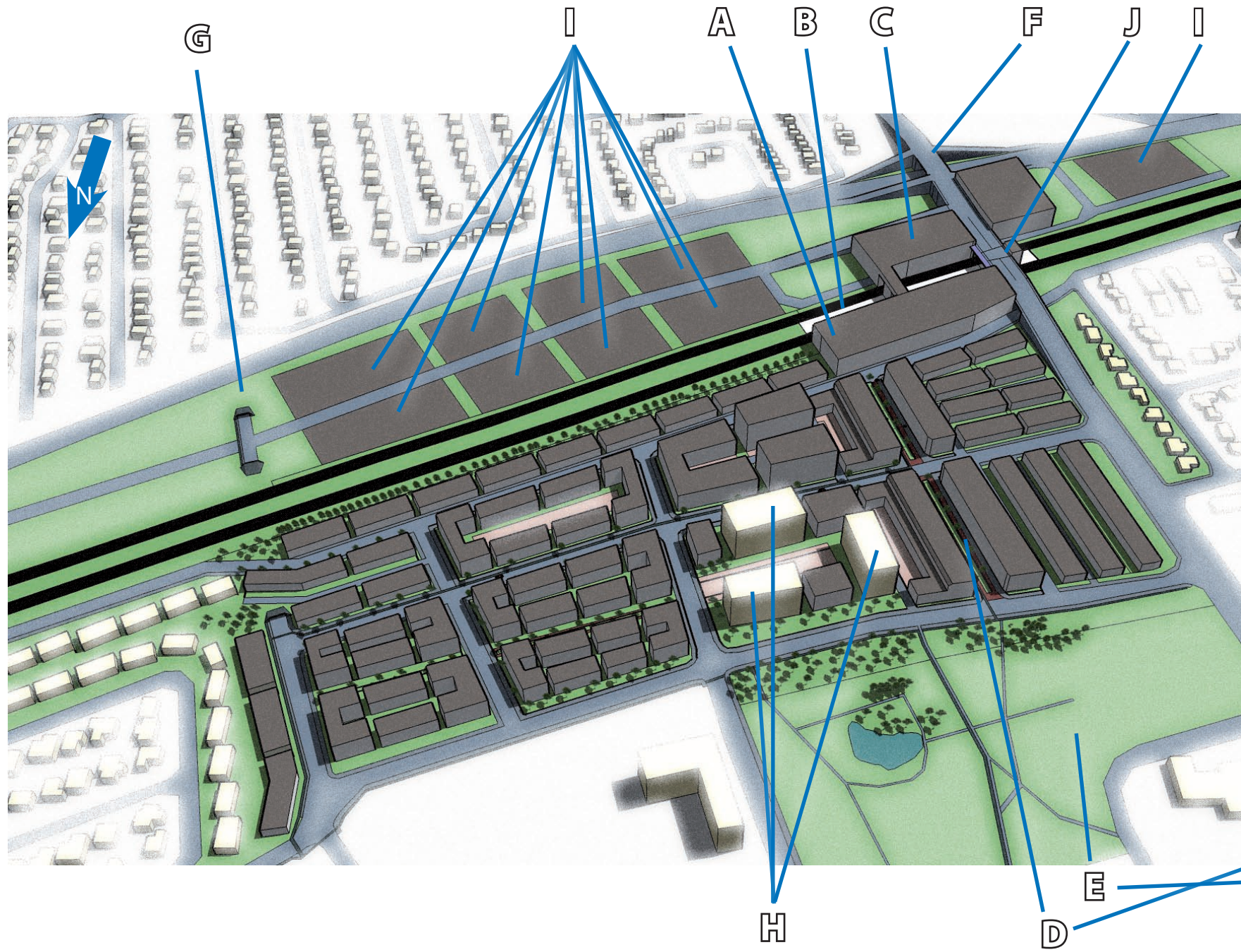


## Legend

- A** Shopping mall and train station
- B** Train platform
- C** Retail and parking
- D** Commercial pedestrian street (low density retail)
- E** Park
- F** St-Jean interchange
- G** 5th Avenue Tunnel
- H** Untouched existing buildings
- I** Empty lots for commercial use
- J** Bus stops and access to train platform
- K** New highway exit



# Concept





## Train Station Plan

These distances allow for a 7m large platform to be built between the two tracks that would be used at peak hours. The platform will be more than twice the size of the current train platforms found in those stations.

A single central platform implies access either from an upper level or an underground tunnel. The proximity to the St-Jean overpass allows for a single staircase to access the platform directly from the sidewalk. Buses can stop and drop passengers off right above the platform, reducing the time needed to transfer to and from modes of transportation. Our concept integrates an elevated pedestrian crossing that also provides an interior access to the platform. Passengers can wait for their train to arrive without being exposed to the



elements.

Incentive parking will be provided on the lower levels of the three buildings facing St-Jean Boulevard. The main concourse will be at the level of the overpass. The building will allow commuters or shoppers to park in an interior parking garage, reducing the heat island effect that occurs near large surface parking areas.

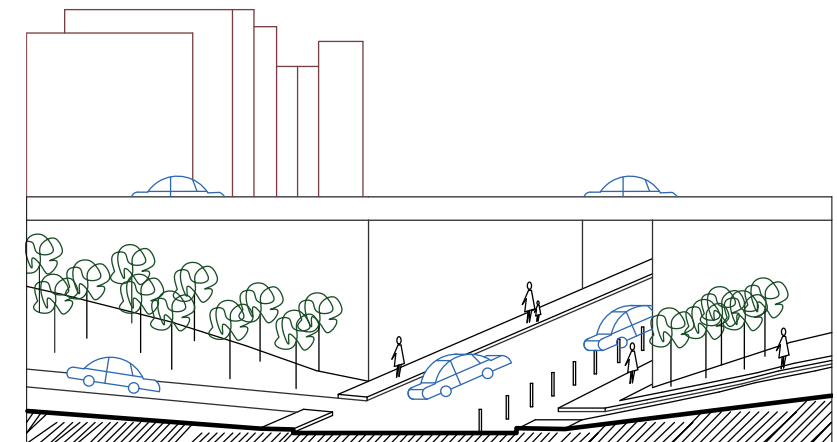
## Platform Access Elevation



Street perspective and block sample

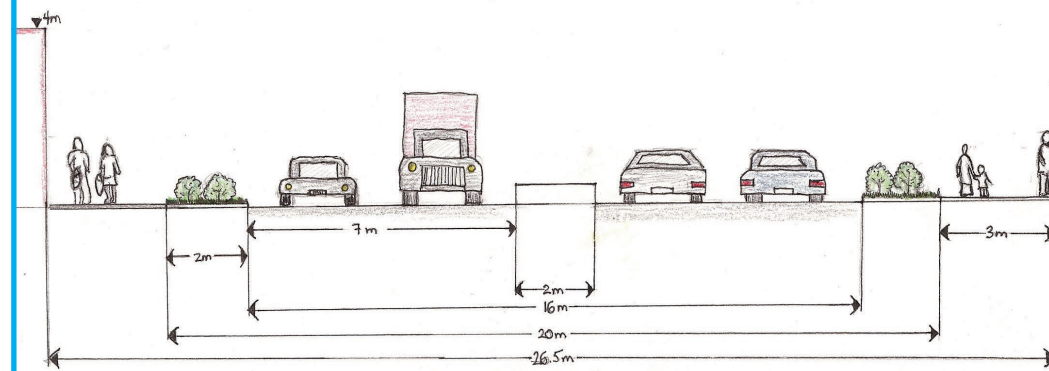


Tunnel under highway and train tracks.



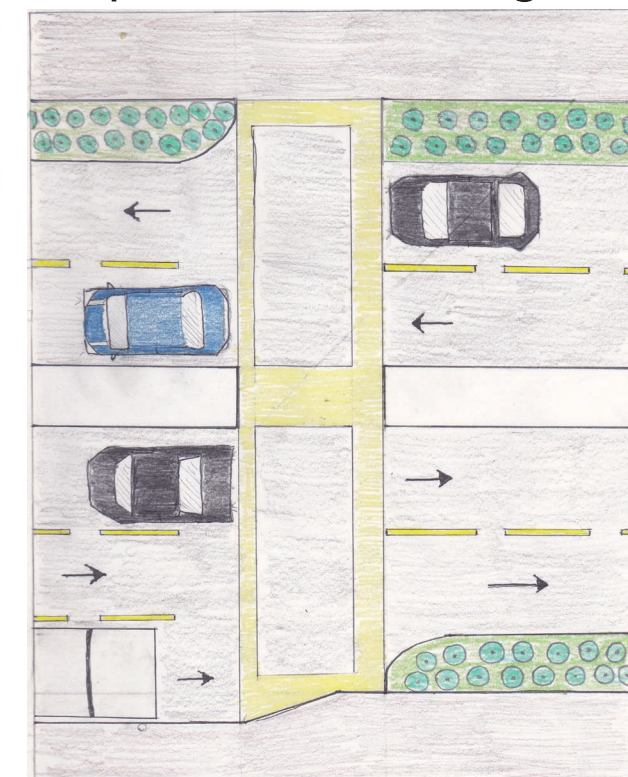
## Reconfiguration of St-Jean Boulevard

Section



St-Jean boulevard will have two lanes of automobile traffic in each direction on the overpass, with much of the reclaimed space dedicated to pedestrians. Since it is a major artery in Pointe Claire, special care should be taken such as a green barrier that would provide a feeling of safety and decrease the relative importance of the motorized transportation on this piece of infrastructure. A pedestrian crossing in the middle would also link the buildings on both sides of St-Jean while slowing down traffic. Depending on the time of day, a street light could switch from regular operation to blinking yellow, which then increases traffic speed. For such a major connection, versatility is very important to make sure that car and pedestrian traffic flow are unimpeded.

pedestrian crossing



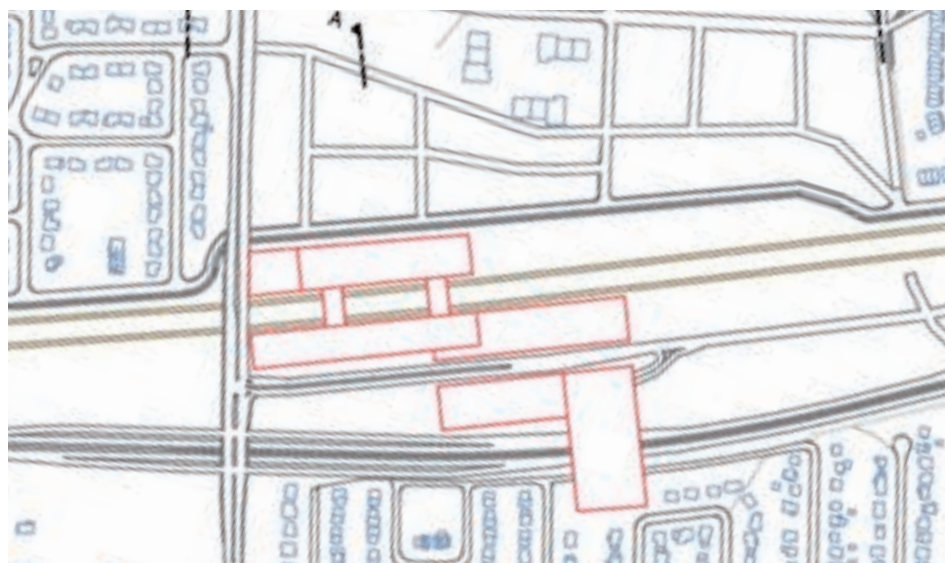


## Appendix A: Development of ideas

- The project began with a focus on the sum of the highway 20 corridor located south of Pointe-Claire. The main nodes associated with the corridor were Valois Village and Plaza Point-Claire. The major concern of the corridor was the lack of connection between its north and south. Throughout the analysis of the area, our focus eventually shifted to the St-Jean Boulevard intersection area for the simple reason that it is the most heavily used piece of infrastructure for crossing.

-An early concept consisted of a mixed-use structure covering the empty land between the train tracks and the highway. It was to include a new station (through a merger of Pointe-Claire station and Cedar Park station) and a large mall functioning as a replacement for Plaza Point-Claire, which today leases about 22,000 square meters of retail and office space. Its 25,500 square meters of parking spaces were also to be reconfigured (Figure 1). This concept later evolved to include the adjacent land to develop a new denser mixed-use district. This district enters in the vision of the Pointe-Claire planning program in terms of both positioning Pointe-Claire as a major sub-centre, and densification processes that are envisioned.

Figure 1: Early concept of the retail complex and commuter rail station



## Appendix B: Incompletion

The project began with a focus on the sum of the highway 20 corridor located south of Pointe-Claire. The main nodes associated with the corridor were Valois Village and Plaza Point-Claire. The major concern of the corridor was the lack of connection

Some complementing maps and diagrams such as the land-use map and the separate transportation map (Automobiles, Cyclists, Trucks, Pedestrians).

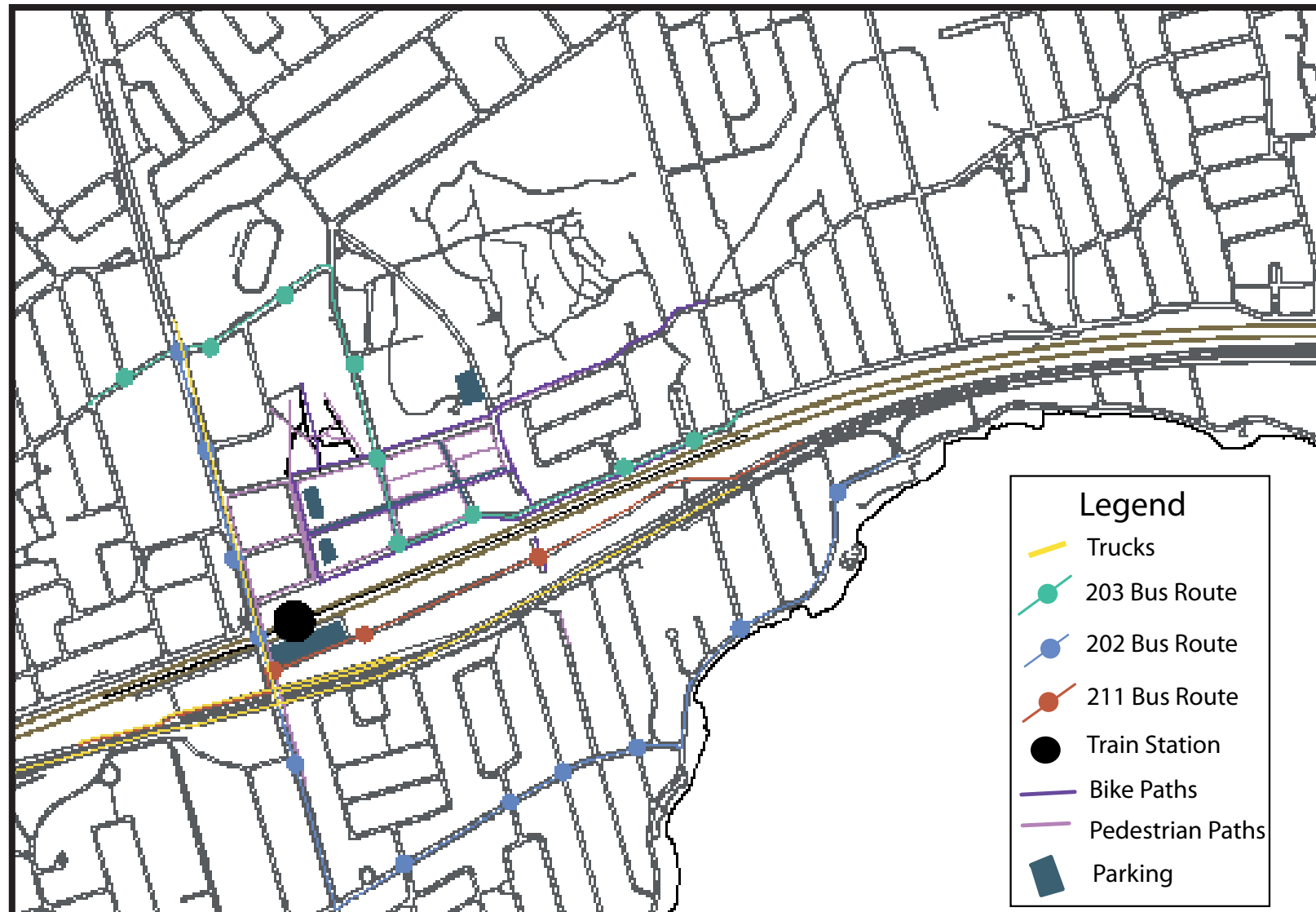
Figure 2: AMT commuter train ridership per station



(Average daily ridership. Data from AMT Annual report 2009. Stations from left to right: Cedar Park Station, Pointe-Claire Station and Valois Station)



Fig.3: Transportation map after intervention



This map show the different transportation systems that would be in place after our intervention.

Only the STM 211 bus line would be rerouted. It would then connect with the train station. All other bus routes would be kept as they are as they are.

Parking is now included in one single multi-level parking that would accomodate both the train station and the retail areas.

Bike paths and sidewalks would be connected to create an area where non-motorized modes of transportation are dominant.

Fig.4: Highway Collector Analysis

Analysis: **Automobile**

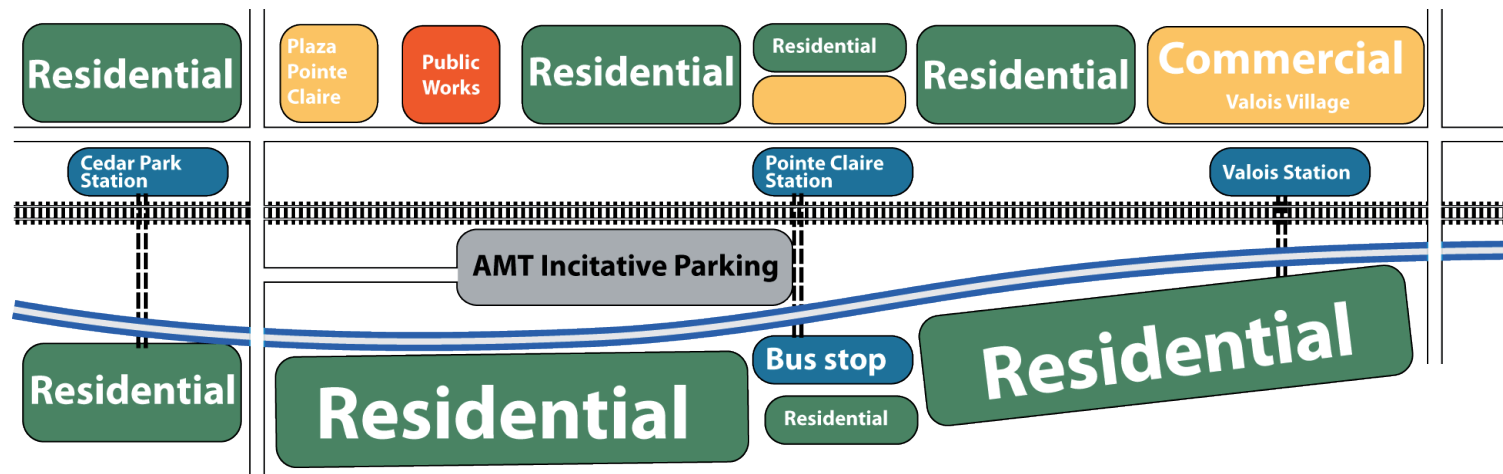
	St-Jean	Des Sources
Land use	Residential, institutional, commercial	Commercial /industrial
Connectivity	South of P.-C.	Highway 40
Activity	Civic centre, High school, 2 shopping malls, cemetary	1 Shopping mall, rest is mostly industrial

This table shows the activity types on the two access from the highway 20, namely St-Jean Interchange and Des Sources interchange. Des Sources, while being two lanes wide on most its lenght proves to be a much better exit for cars and especially for trucks for a few reasons:

- The circular design of the interchange create no stopping point and increase travel speed
- Activities on Des Sources is mainly commercial and industrial, creating less disturbance for residents
- The amount of intersections connecting on Des Sources is significantly lower meaning that travel is more efficient and more direct than on St-Jean



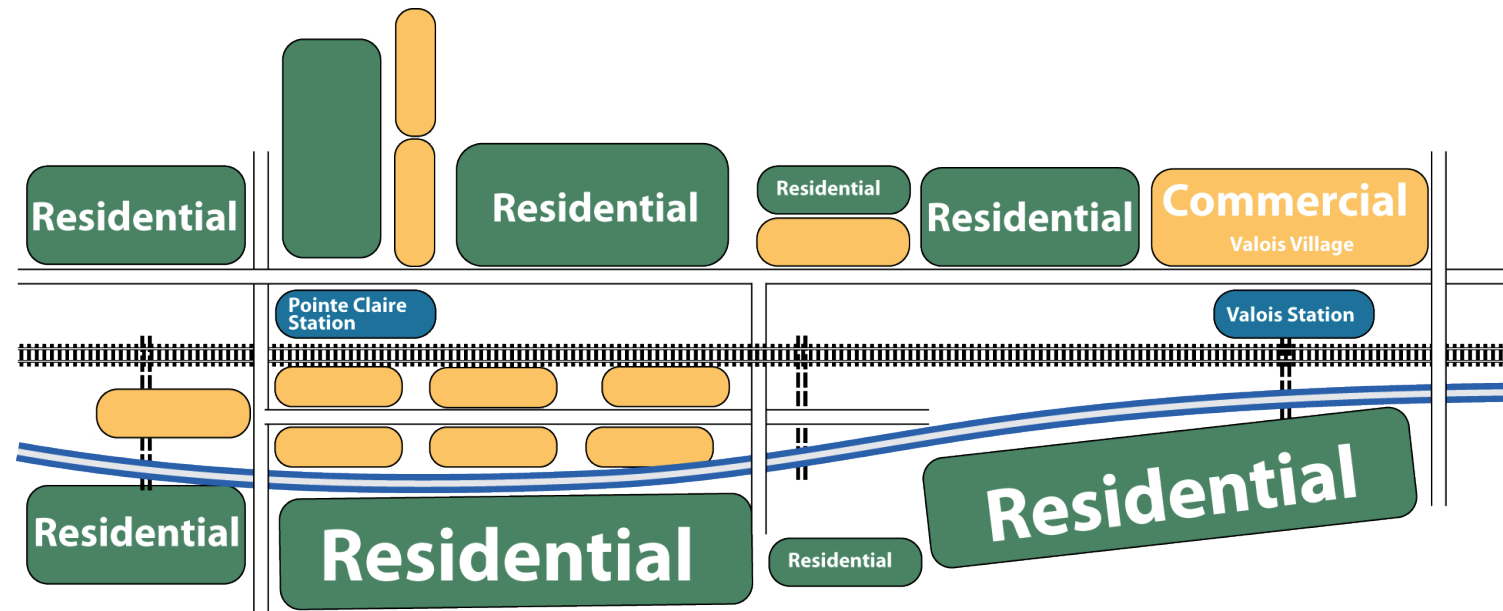
Fig. 5: Pointe-Claire Conceptual Map - Actual



This conceptual map displays the disconnection between the north and the south of the corridor. People living south have very little amount of

amenities, especially in their immediate proximity (some retail does exist on Cartier Blvd. and in Pointe-Claire Village).

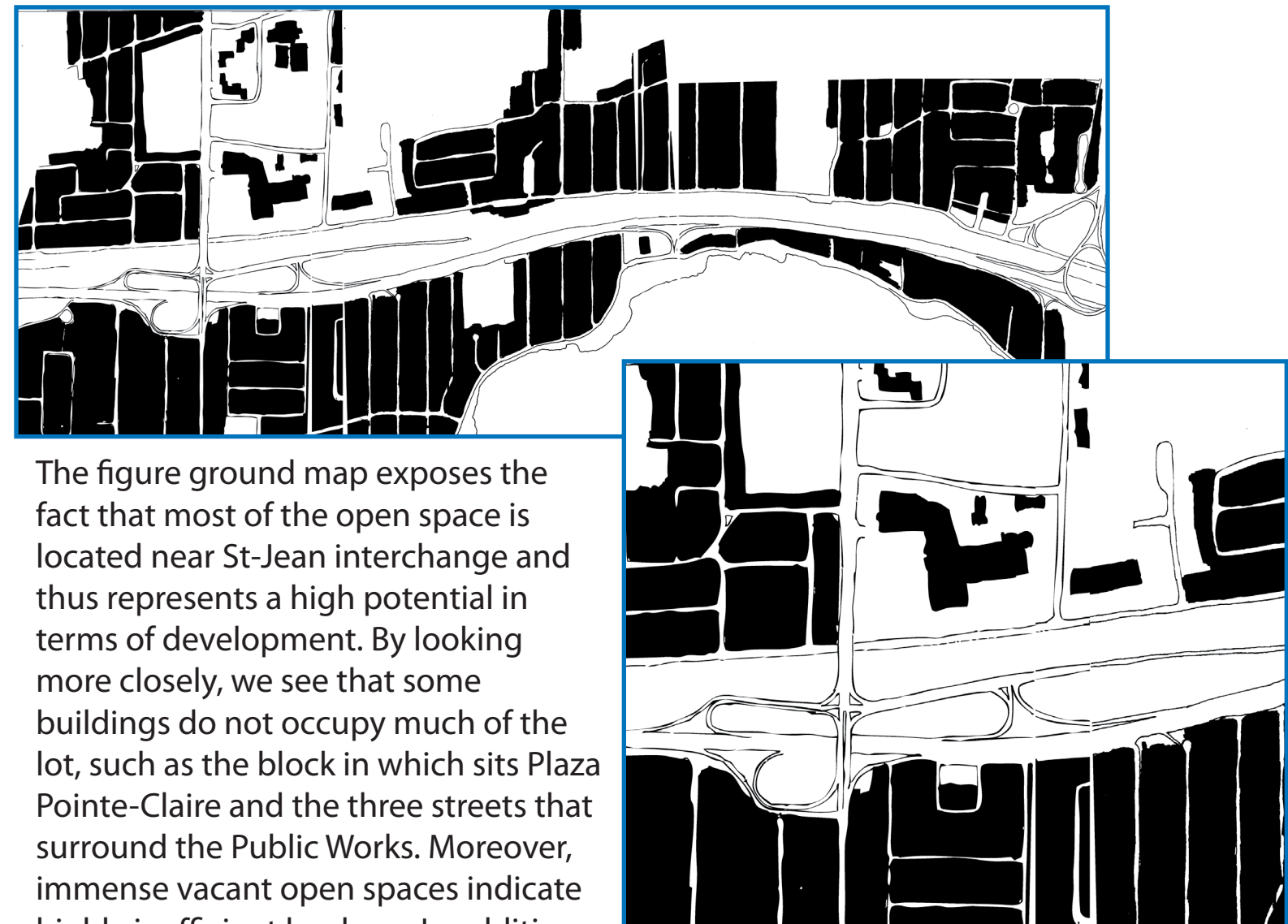
Fig. 6: Pointe-Claire Conceptual Map - Proposed



This map shows that the formerly disconnected neighbourhood would now become a place where both sides of the corridor would converge for multiple

activities. These activities being diverse, they would then create an activity node that would be lively weekdays and week ends for most of the day.

Fig. 7: Highway 20 Corridor Figure Ground plan



The figure ground map exposes the fact that most of the open space is located near St-Jean interchange and thus represents a high potential in terms of development. By looking more closely, we see that some buildings do not occupy much of the lot, such as the block in which sits Plaza Pointe-Claire and the three streets that surround the Public Works. Moreover, immense vacant open spaces indicate highly inefficient land use. In addition to showing parcels of land that are privately owned, this figure-ground plan shows all the undeveloped land owned by public instances, although not necessarily accessible to the public (between highway belts, public works parking). Those areas are underdeveloped, yet easy to acquire and still represent potential land with a large capacity of development. Large open land in this area means that large development is possible while it still does not involve massive displacement of people.