Westmount

Westmount Traffic and Active Transportation Master Plan

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GENIVAR

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Westmount Traffic and Active Transportation Master Plan

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1.0 INTRODUCTION

1.1 CONTEXT

The City of Westmount wishes to undertake a global examination of its transportation system to maintain its citizens' quality of life. City council has thus identified the need to prepare a Traffic and Active Transportation Master Plan. This Master Plan serves as a framework for future transportation improvements and investments.

GENIVAR prepared the Westmount Traffic and Active Transportation Master Plan on behalf and in collaboration with the City of Westmount.

This document is intended to give an overall vision, direction and orientations for transportation in Westmount. The vision, goals, objectives and measures contained in this document will guide future projects undertaken by the City of Westmount over the coming years through a number of tools: budgets, three-year capital works programs, by-laws, planning tools, sectoral studies, transportation studies and capital projects. Other actions undertaken by the City should also be consistent with the direction outlined in this document.

1.2 PURPOSE

The purpose of the Westmount Traffic and Active Transportation Master Plan is to:

- Analyse the existing transportation and traffic patterns;
- Propose the necessary changes to achieve council's objectives for the Plan within Westmount;
- Provide the tools needed to ensure effective and efficient planning and traffic management;
- Address long term transportation issues;
- Promote active transportation within the City while decreasing vehicular dependence;
- Aid the City's Administrative Traffic Committee in making decisions within an overall planning framework.

1.3 CONDUCT OF THE MASTER PLAN

The preparation of this Master Plan was done in collaboration with a Steering Committee that monitored progress, provided strategic and technical guidance and validated the findings.

The Master Plan Steering Committee was composed of three City councillors and representatives of the City's administration (director general, public safety, public works and urban planning).

In addition, input was received from City council, through presentations at key points throughout the study.

1.4 OUTLINE

The Westmount Traffic and Active Transportation Master Plan consists of the following sections:

- Section 2 describes current transportation conditions within Westmount. This section examines geography, demographics, travel patterns, conditions for various transport modes (pedestrians, cyclists, transit, vehicles), parking and planned future developments;
- Section 3 presents Westmount's vision for transportation for the next 20 years. This vision is then declined into goals and objectives;
- Section 4 outlines the measures to reach the goals and objectives of this Master Plan. (forthcoming section);

In conjunction with the Master Plan, the Westmount Traffic Calming Guide (forthcoming) has also been prepared and is available as a separate document.

2.0 CURRENT CONDITIONS

2.1 GEOGRAPHY

The Traffic and Active Transportation Master Plan applies to the whole of the City of Westmount as shown in figure 2.1. The City of Westmount, covers an area of 3.96 square kilometres, is built along the southern face of Westmount, one of Mount-Royal's three summits. The City of Westmount is located immediately to the west of downtown Montreal and is entirely surrounded by three City of Montreal Boroughs (Ville-Marie, Sud-Ouest and Côte-des-Neiges-Notre-Dame-de-Grâce).

Purpose

This section examines the geography of Westmount, specifically: entry and access points, the general layout of the street grid, physical barriers, links and topography. These elements all have an important influence on the shape of the transportation system. The slopes of the streets are also examined since Westmount is built on the face of a mountain. High slopes can be constraining for universal accessibility, pedestrians, cyclists, transit and trucks. Future improvements must take into account this defining characteristic.

Findings

Geography

- The City is entirely urbanized and has a land area of 3.96 square kilometres;
- The City can be divided into three main topographic zones:
  - ► The Saint-Jacques escarpment to the south, where the railway and the Ville-Marie Expressway were built;
  - ► A plateau between the railway and Sherbrooke Street;
  - ► The south face of Westmount stretching from Sherbrooke Street to Summit Park;
- Historically, transportation corridors were built along an east-west axis, perpendicular to the slope of the mountain;
- The combination of the Saint-Jacques Escarpment, the Canadian Pacific Railway and the Ville-Marie Expressway create an important barrier that is only crossed by Atwater Avenue, Greene Avenue and Glen Road (see figure 2.2);

- The development of Westmount on the southern face of the mountain (Summit Park and residences) and Côte-des-Neiges on the north face (Saint-Joseph Oratory and Ridgewood Avenue) were undertaken separately and their street grid was not integrated. This also creates another barrier along the northern City limits (see figure 2.2). A list of consulted historical maps can be found in appendix B;
- Westmount's street grid is much better integrated to the neighbourhoods to the east (downtown) and west (Notre-Dame-de-Grâce) than to the south (Saint-Henri) and north (Côte-des-Neiges). The city has many more access points along its eastern (14) and western limits (5), than along its southern (3) and northern (3) borders. In addition there is no continuous north-south link;
- The slopes (see figure 2.3) of east-west streets (many of which, such as Côte-Saint-Antoine predate the development of Westmount) are not as steep as north-south streets (Saint-Jacques Escarpment and the mountain) that were built at the same time as the city was developed when an orthogonal street grid was built. Streets built on the plateau between the rail corridor and Sherbrooke Street are usually level in grade;
- The steep slope of certain streets is problematic for pedestrians and cyclists, but especially people with disabilities, however this constraint is difficult to modify;
- Most of Westmount was built as a streetcar suburb. This streetcar network was built along an east-west axis (see figure 2.4) due to the topography and prevailing travel patterns (to and from Downtown Montreal);

Key issues and findings

- Westmount is built on the south slope of one of Mount-Royal's three summits. Many streets, especially north-south streets north of Sherbrooke Street, are very steep. The Saint-Jacques Escarpment is also constraining and streets that cross it are also steep. The plateau between Sherbrooke and the CPR railway is relatively level. Topography and slopes, which will not change, and can be constraining to a varying extent for users of the transportation system (universal accessibility, vehicles, transit, cycling, etc.);
- Westmount's street grid is much better integrated into neighbourhoods to the east (Ville-Marie) and west (Notre-Dame-de-Grâce) than to the north (Côte-des-Neiges) and south (Saint-Henri/Sud-Ouest);
- There is no continuous north-south link in Westmount, while there are many continuous east-west routes.

PLAN DIRECTEUR DE CIRCULATION ET DE TRANSPORT ACTIF DE WESTMOUNT
WESTMOUNT TRAFFIC AND ACTIVE TRANSPORTATION MASTER PLAN

City of Westmount

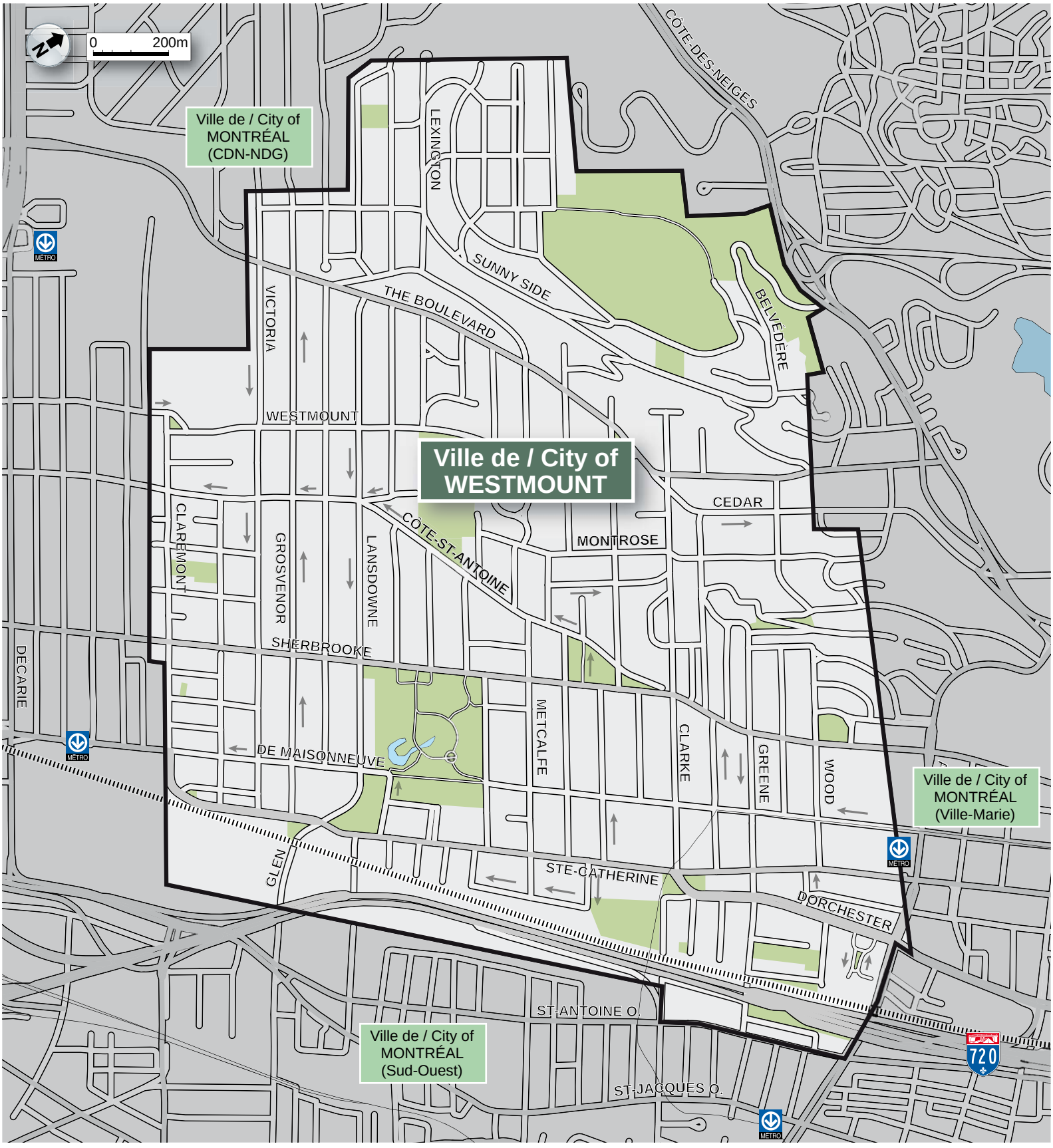

FIGURE 2.1
Ville de Westmount
City of Westmount

111-17587_Fig 2.1_Plan de local_v2_20110810.ai

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PLAN DIRECTEUR DE CIRCULATION ET DE TRANSPORT ACTIF DE WESTMOUNT
WESTMOUNT TRAFFIC AND ACTIVE TRANSPORTATION MASTER PLAN

City of Westmount

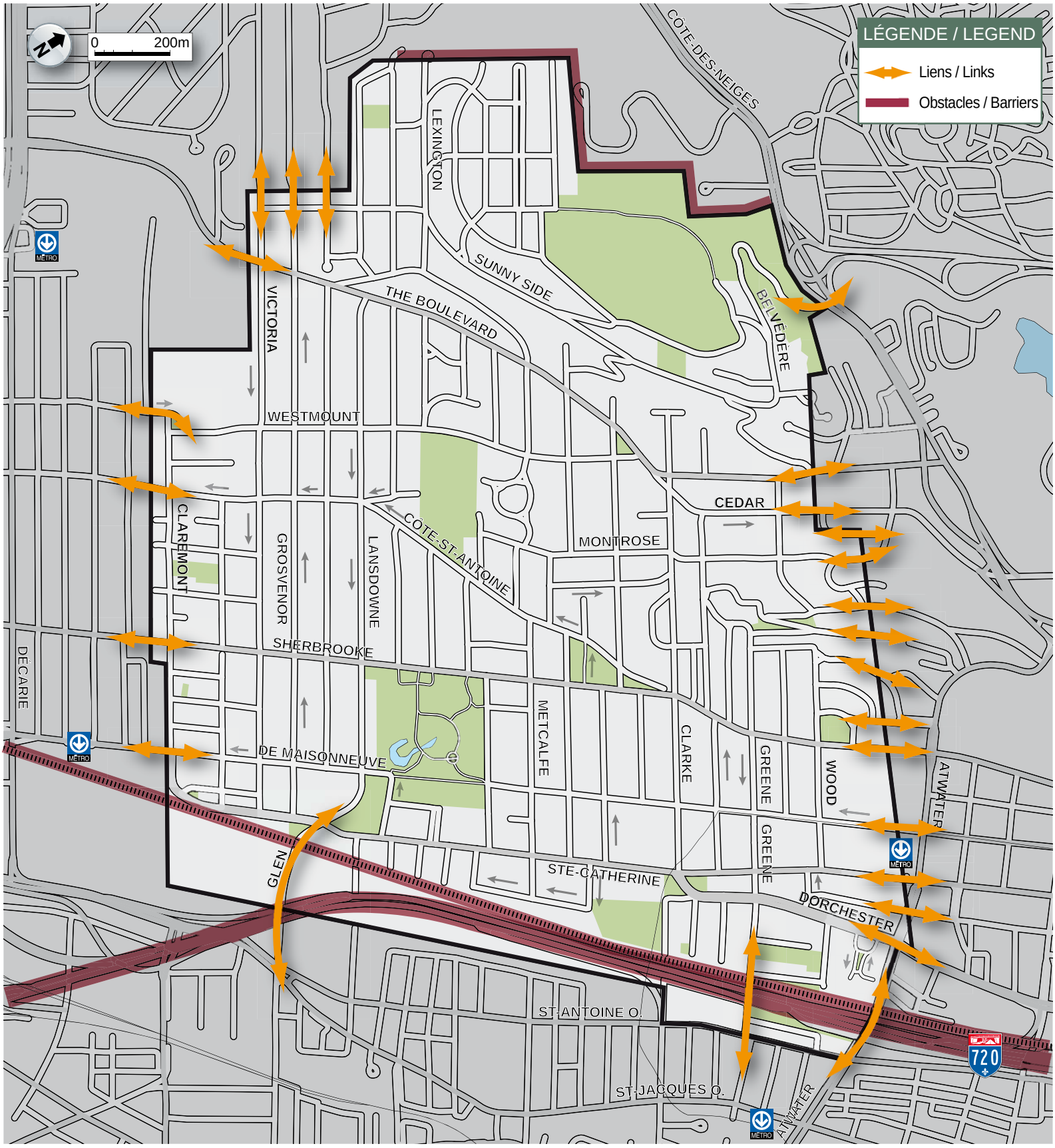

FIGURE 2.2
Contraintes géographiques
Geographic Constraints

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City of Westmount

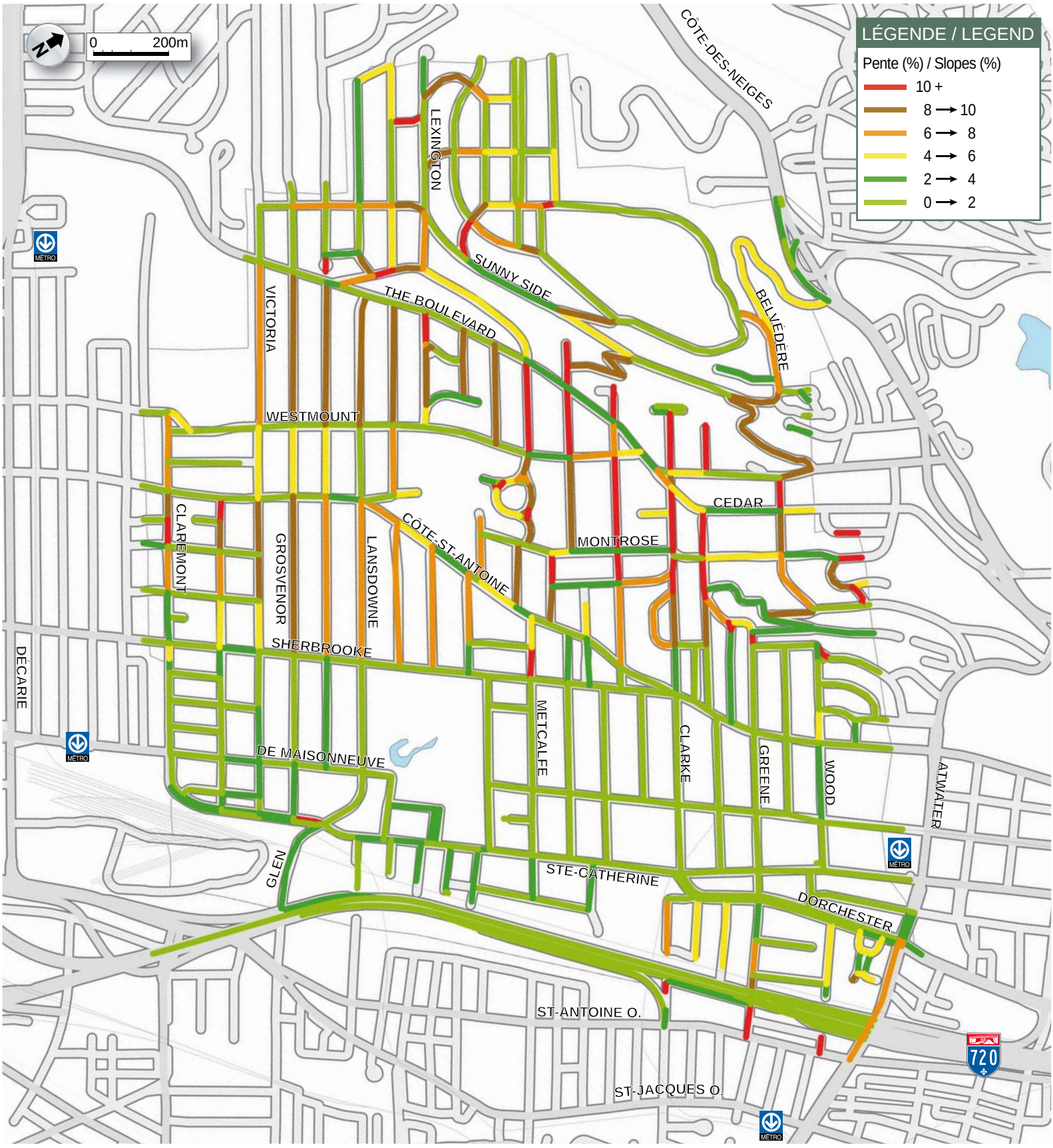

FIGURE 2.3
Pente des rues
Slope of Streets

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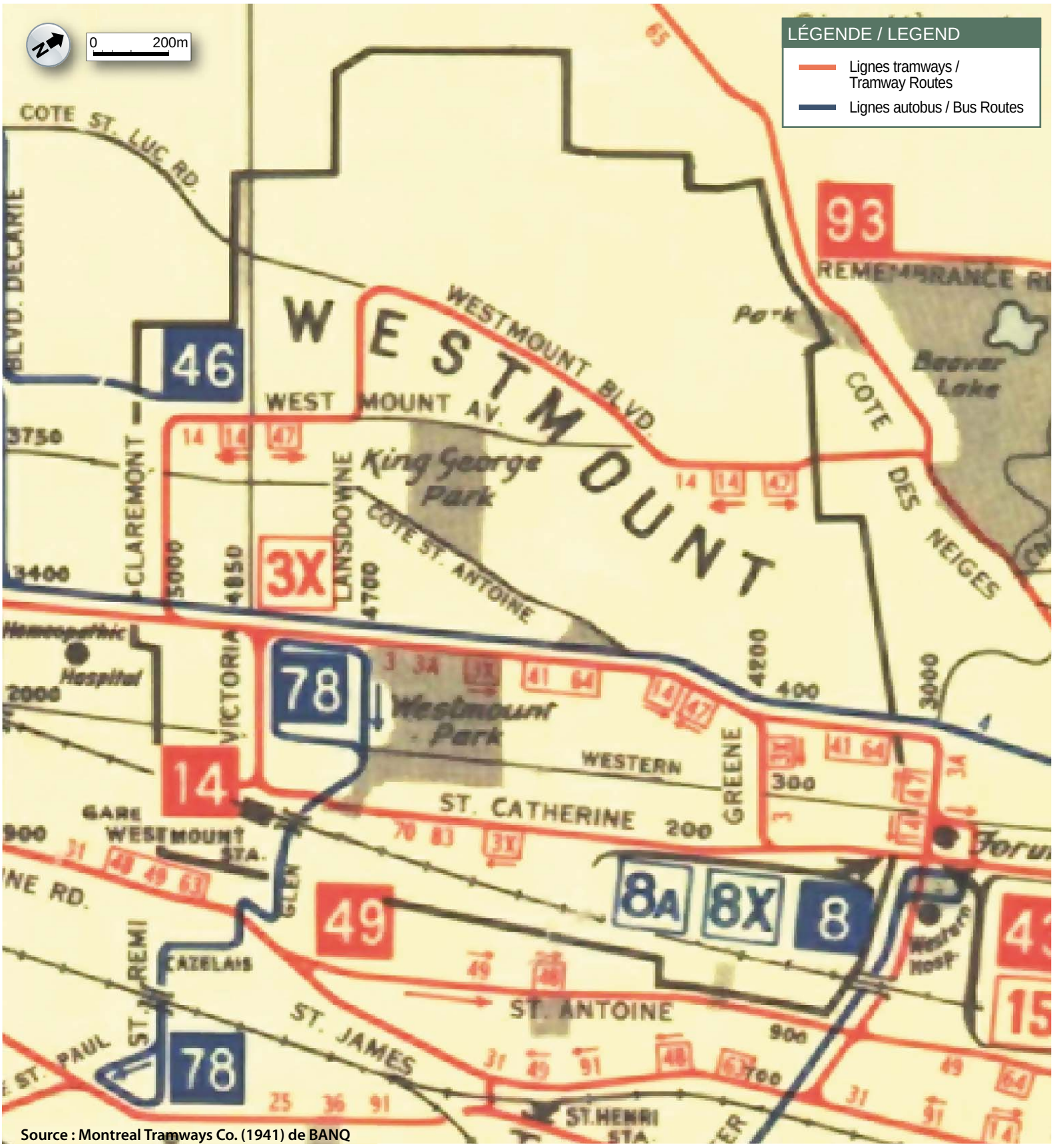

FIGURE 2.4
Réseau de transport en 1941
Transit Network in 1941

111-17587_Fig 2.4_Transit Net 1941_v1_20111103.ai

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2.2 SOCIODEMOGRAPHY & GENERATORS

Purpose

Sociodemography examines the characteristics of Westmount's population. Demographic information is important since the population and employment in Westmount have an incidence on the use of the transportation system. For example, population and employment densities have an impact on transit use. Information on the sociodemographic profile of the population is obtained from the 2006 Canada Census.

Generators are land uses, other than residences, that attract trips (shops, services, parks, schools, offices, etc.). In this report, only major activity generators are identified since they attract the most trips; Generators give an indication of where people travel to and from within Westmount. This identification allows us to see if these destinations are well served by transportation infrastructure.

Findings

Sociodemography

- Westmount's population has been relatively stable at around 20,000 over the past 20 years (20,494 residents in 2006 in 8,677 households);
- Westmount's population is generally older when compared to the Island of Montreal (median age of 45 vs. 39 years) as shown in table 2.1. This can be explained by the higher proportion of residents 65 or older (21% vs. 15%) and a lower proportion of 25 to 44 year olds (21% vs. 31%);
- According to the Institut de la Statistique du Québec, the proportion of residents 65 or older on the Island of Montreal will increase from 15 to 21% from 2006 to 2031. This is an important increase, but less so than the rest of the region (13 to 22%) and Quebec (14 to 26%);
- Education levels are higher in Westmount than the Island of Montreal (56% vs. 26% of residents 15 or older have a university degree);
- A higher proportion of households are families with children than the Island of Montreal (26.5% vs. 20.9%);
- Westmount has a diverse housing stock: 73% of housing is either row housing, duplexes, triplexes or apartments;
- Westmount has a higher density of residents than the Island of Montreal mostly due to its compact size and its proximity to the regional centre (see table 2.1);
- Over half (52%) of Westmount's population lives south of Sherbrooke Street where population densities are much higher (see figure 2.5).

Table 2.1 Demography of Westmount and the Island of Montreal (2006)

	Westmount	Island of Montreal	Montreal Region
Population			
Population	20,494	1,854,442	3,635,571
Population density (pop./km²)	5,093	3,715	854
Median age	45.1	39.2	39.3
% residents 24 and under	28.6%	28.1%	29.8%
% residents 25 to 44	21.3%	30.8%	29.6%
% residents 45 to 64	28.7%	25.6%	27.0%
% residents 65 and older	21.4%	15.4%	13.6%
% residents 15 and older with a university degree	56.4%	25.8%	21.0%
Households			
Households	8,677	831,518	1,525,629
Average household size	2.3	2.2	2.3
% multifamily housing (row house, duplex, triplex and apartment)	72.9%	83.9%	62.3%
Families			
% households that are families with children	26.5%	20.9%	26.0%
% households that are families without children	26.0%	23.2%	26.1%
% one-person households	36.1%	38.2%	31.6%
% other households	11.5%	17.7%	16.4%

Source: Statistics Canada, 2006 Census of Canada

Jobs

- According to the 2006 Census, there were more jobs in Westmount (12,600) than there are workers living in Westmount (7,545). Of these workers, only 1,205 workers both live and work in Westmount;
- Of the 7,545 workers living in Westmount (out of a population of 20,494), they were mostly employed in:
  - ► City of Montreal: 5,565 workers (74%);
  - ► City of Westmount: 1,205 workers (16%);
  - ► Other Island of Montreal Municipalities: 575 workers (8%);
  - ► South Shore of Montreal: 145 workers (2%);
  - ► Laval and North Shore: 55 workers (<1%);
- Similarly, of the 12,600 jobs in Westmount most of these workers live in the following municipalities:
  - ► City of Montreal: 6,965 workers (55%);
  - ► Longueuil and South Shore: 1,965 workers (16%);
  - ► Other Island of Montreal Municipalities: 1,425 workers (11%);
  - ► City of Westmount: 1,205 workers (10%);
  - ► Laval and North Shore: 1,040 workers (8%).

Generators

- Almost all offices, shops and services are located south of Sherbrooke Street (where just over half of residents live);
- Westmount has 15 schools located throughout the City (Dawson College and Marianopolis College both CEGEPs having the largest student bodies);
- There are two important clusters of activity generators:
  - ► Atwater Metro Area: Greene Avenue, Sainte-Catherine, Westmount Square, Plaza Alexis-Nihon, Dawson College, YMCA and various other office/institutional buildings;
  - ► Victoria Village: cluster of shops and services along Sherbrooke Street and Victoria Avenue.
- Most other institutional and recreational uses (except parks) are clustered around City Hall (City Hall, Lawn Bowling, Fire Hall and Police Station) and Westmount Park (Victoria Hall, Library, Arena, Municipal Pool, Westmount Y Centre);

Key issues and findings

Sociodemography

- Westmount is a completely urbanized and dense City of 20,494 residents. Population density is highest to the south where 73% of households are multifamily housing (higher densities have higher active and public transportation use);
- The City has an older population (21% of residents were 65 or older in 2006) than the rest of the Island of Montreal or the region. As is the general tendency elsewhere, Westmount's population is aging;
- The City has a higher proportion of households that are families with children than the Island of Montreal;
- Older residents and children are both more vulnerable and have different needs than the rest of the population;

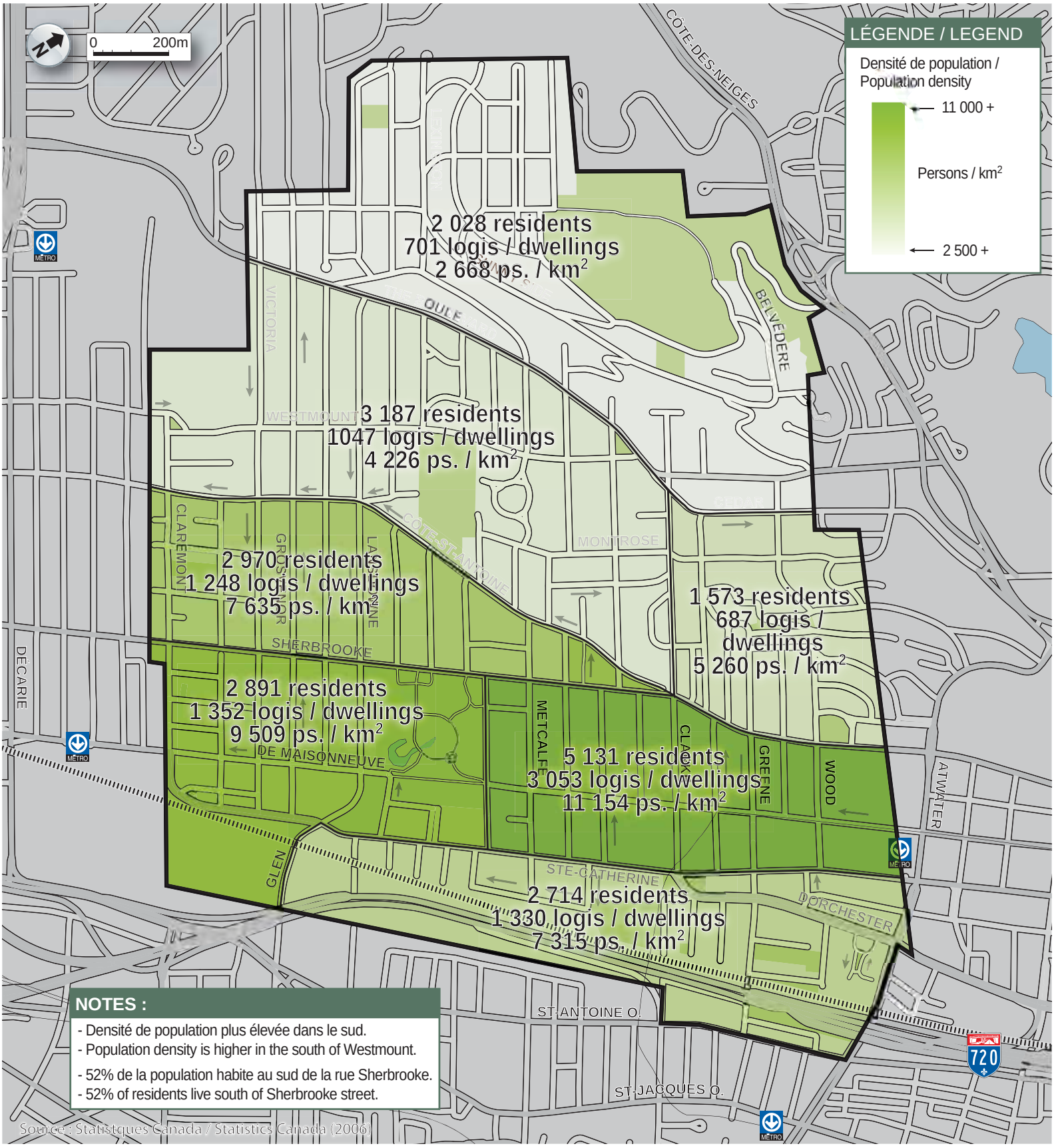
Jobs

- There are more jobs located in Westmount (12,600 in 2006) than workers residing within the City (7,545 in 2006). Workers living in Westmount mostly work closer-by than people working within Westmount;

Generators

- Almost all offices, shops and services are located south of Sherbrooke Street around two clusters: Atwater/Greene Area and Victoria Village area. This creates a high demand for transportation and parking;
- Many schools are located throughout Westmount, many of which attract students from far beyond Westmount's borders.

City of Westmount



NOTES :

- Densité de population plus élevée dans le sud.
- Population density is higher in the south of Westmount.
- 52% de la population habite au sud de la rue Sherbrooke.
- 52% of residents live south of Sherbrooke street.

Source : Statistques Canada / Statistics Canada (2006)

FIGURE 2.5
Densité de la population
Population Density

111-17587_Fig 2.5_Pop density_v3_20111025.ai

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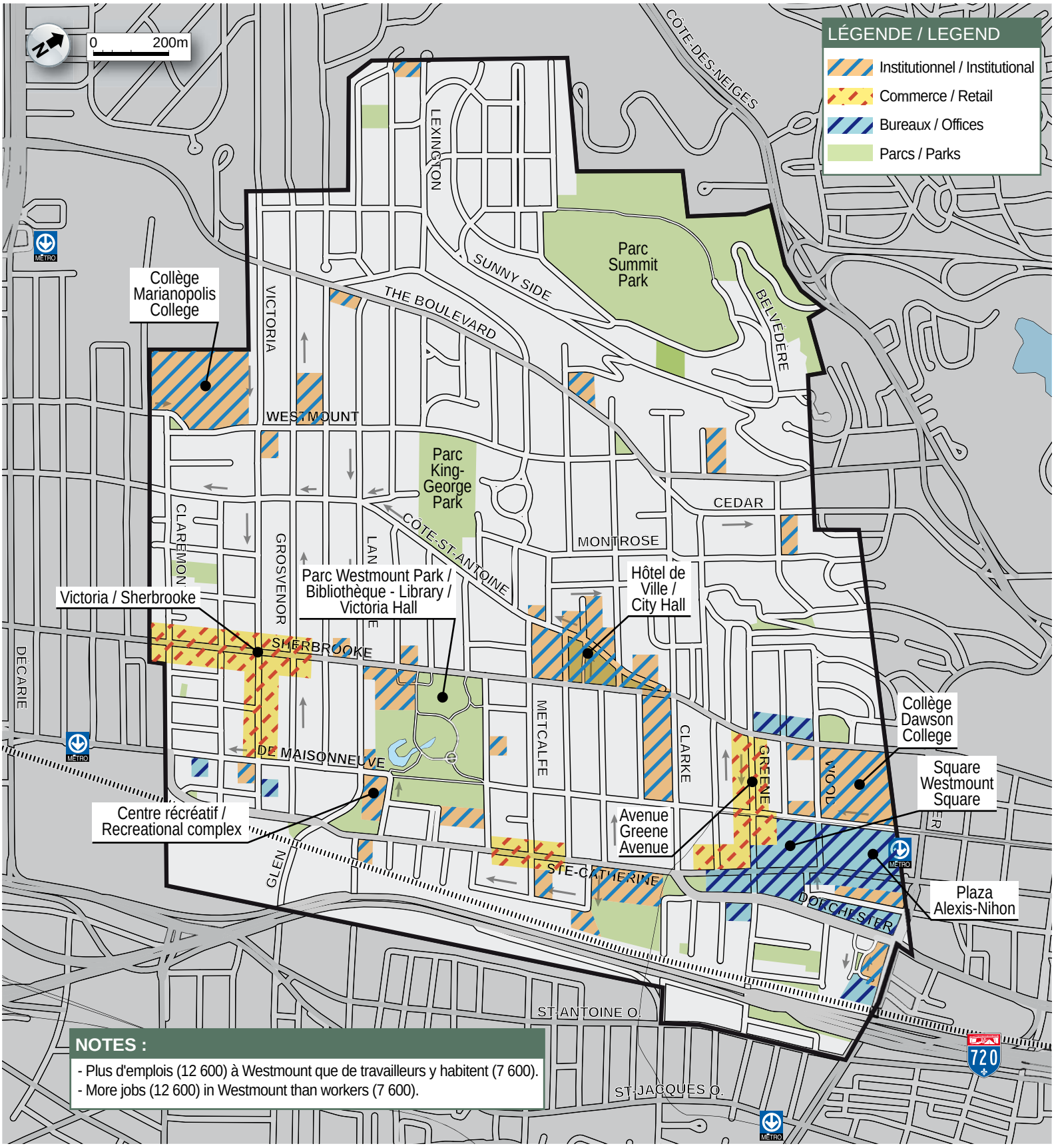
WESTMOUNT TRAFFIC AND ACTIVE TRANSPORTATION MASTER PLAN

City of Westmount



NOTES :

- Plus d'emplois (12 600) à Westmount que de travailleurs y habitent (7 600).
- More jobs (12 600) in Westmount than workers (7 600).

FIGURE 2.6

Générateurs de déplacements importants
Major Trip Generators

111-17587_Fig 2.6_Major Trip Gene_v4_20111025.ai

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2.3 TRAVEL PATTERNS

Purpose

Travel patterns are examined to understand how trips in Westmount are currently made. Travel patterns allow us to understand the following questions:

- Where are people travelling to and from?
- What modes of travel (transit, foot, bicycle, car, etc.) are used?
- Why are those trips undertaken (work, study, shopping, leisure, etc.)?

This information is crucial to understand if the existing transportation infrastructure is currently meeting travel needs and identify potential improvements. This information is also used to assess any proposed modifications. Two key data sources are used in this analysis: the 2008 Montreal Metropolitan Region Origin-Destination Survey and the 2006 Census of Canada.

The 2008 Montreal Metropolitan Origin-Destination Survey has been undertaken every five years since the 1970's and is one of the most comprehensive surveys of its kind in North America. This survey contains extensive information on where people travel (origins and destinations), how they travel (mode of transportation), why they travel, at what time, household characteristics and vehicle ownership. This data is available for the whole of Westmount. The Canada Census gives information on the travel mode to work for a more detailed breakdown of Westmount.

Findings

- According to the 2008 Origin-Destination survey, there are 89,000 trips made on a typical weekday in Westmount (see figure 2.7). These trips are made by residents and non-residents alike. This figure includes generated trips (trips that originate in Westmount) and attracted trips (trips ending in Westmount);
- Trip purposes are shown in figure 2.8:
  - ► Westmount generates (trips starting in Westmount) the same proportion of work trips than it attracts (trips ending in Westmount): 32% and 30% respectively;
  - ► Westmount attracts almost as many school trips (28%) as work trips (30%);
  - ► Westmount also generates more shopping and recreational trips than it attracts;
- Of these 89,000 trips, 12,000 of these are made entirely within Westmount (internal trips). Many of these internal trips (48%) are made by active transportation (walking or cycling). Only 3% of internal trips are made using public transit, likely due to the short distances involved and the structure of the public transit system. 47% of internal trips are made by car (average of 1.45 persons per vehicle);
- Trip origins and destinations are shown in figure 2.7:
  - ► Most trips are made along the east-west axis rather than the north-south;
  - ► Most trips are relatively short since they are made within Westmount and adjacent neighbourhoods in Montreal and other close-by cities. Approximately 7,000 trips/day (8% of trips) travel outside the island of Montreal;

- ► There are more people travelling between Westmount to/from Downtown Montreal (20,600 trips/day) and Westmount-Notre-Dame-de-Grâce to/from Hampstead/Côte-Saint-Luc/Montreal-West (14,300 trips/day) than internal trips in Westmount (see figure 2.7). There are many more trips between adjacent neighbourhoods to the north (Côte-des-Neiges and Town of Mont-Royal) than to the south (Sud-Ouest and Verdun);

- Transportation modal shares are shown in figure 2.9. In addition, modal shares (24 hour) are shown for various destinations in figure 2.7:
  - ► With 49,400 person-trips per day[1], the private automobile is the most heavily used mode of transportation in Westmount (36,500 vehicles per day). This is the case for most destinations, except for internal Westmount trips. On average, there are 1.35 passengers per vehicle, which is higher than the Montreal Region's average of 1.2. Trips to/from adjacent neighbourhoods (except downtown Montreal) are just as likely to be made by car than longer trips to the West Island, Laval/North Shore and the South Shore even if these areas are further away;
  - ► Transit is the second most used transportation mode in Westmount (28% of trips over 24 hours and 33% during the peak AM period). The percentage of trips using transit (modal share) in exchange with most areas varies between 25 and 44%. The lowest transit modal shares are for internal trips in Westmount (3%) and in exchange with the Sud-Ouest/Verdun (11%);
  - ► Active transportation (walking and cycling) use in Westmount at 15% of trips is comparable to the average on the island of Montreal, but higher than for the Montreal Region. The modal share is highest for internal trips within Westmount and with adjacent neighbourhoods in Montreal;
- The number of vehicles per household has increased slightly from 1.06 to 1.09 vehicles per household between 1998 and 2008. During this same period, the proportion of households without a vehicle increased from 25.8 to 28.4% while households with 3 vehicles or more also increased from 3.7 to 4.4%. The proportion of households with one or two vehicles decreased accordingly from 70.5 to 67.2%. Vehicle ownership in Westmount is higher than on the island of Montreal (0.96 vehicles per household), but lower than in the Montreal Region (1.28 vehicles per household);
- Westmount residents make approximately 49,000 trips per day (2.51 trips per day per resident). That being said, around 2,800 residents do not travel on any given weekday. The majority of these trips are made in exchange with somewhere outside Westmount (34,500 trips per day). Westmount residents make:
  - ► 7,600 work trips per day, but only 975[2] end in Westmount even if Westmount has approximately 12,000 jobs;
  - ► 4,600 school trips per day, but only 1,250 of these end in Westmount;

[1] Note: The origin-destination survey does not record some vehicular trips such as deliveries, public vehicles (city, police, fire, etc.).

[2] This figure is not equal to the number of people living and working in Westmount since not all workers travel to work every day.

- ► 4,000 leisure trips per day with 1,250 ending in Westmount;
- ► 2,600 shopping trips per day with 1,000 ending in Westmount;

- According to the 2006 census, which surveyed workers on their usual mode of transport to work, the modal share for active transportation and public transit is higher in the south than the north of Westmount as can be observed in figure 2.10.

Key issues and findings

- There are approximately 89,000 trips made on a typical weekday in Westmount;
- Most trips are relatively short since the majority are made within Westmount or with adjacent neighbourhoods and municipalities. There are more trips with downtown Montreal (20,600 trips/day) than internal trips (12,000 trips/day). Many of trips within Westmount and to adjacent neighbourhoods are made by active transportation (walking and cycling);
- Westmount residents make many trips outside Westmount, especially for work (88% of works trips made by residents end outside Westmount), for studying (74%) or shopping (71%);
- Public transit modal shares are higher (28% of trips in a 24 hour period) than the rest of the region (16% of trips). There are very few internal transit trips (3%) (both start and end within Westmount) due to the small size of the City;
- Westmount attracts almost as many education trips as work trips;
- Public transit and active transportation use for work trips is higher in the southern parts of Westmount;
- Westmount residents are dependent on adjacent areas for education, employment, leisure and shopping;
- Active transportation is used extensively for shorter trips;
- Public transit use is highest to Downtown Montreal;
- The number of vehicles per household has increased slightly between 1998 and 2008. The proportion of households with 3 vehicles or more has grown. On the other hand, the proportion of households without a vehicle has increased.

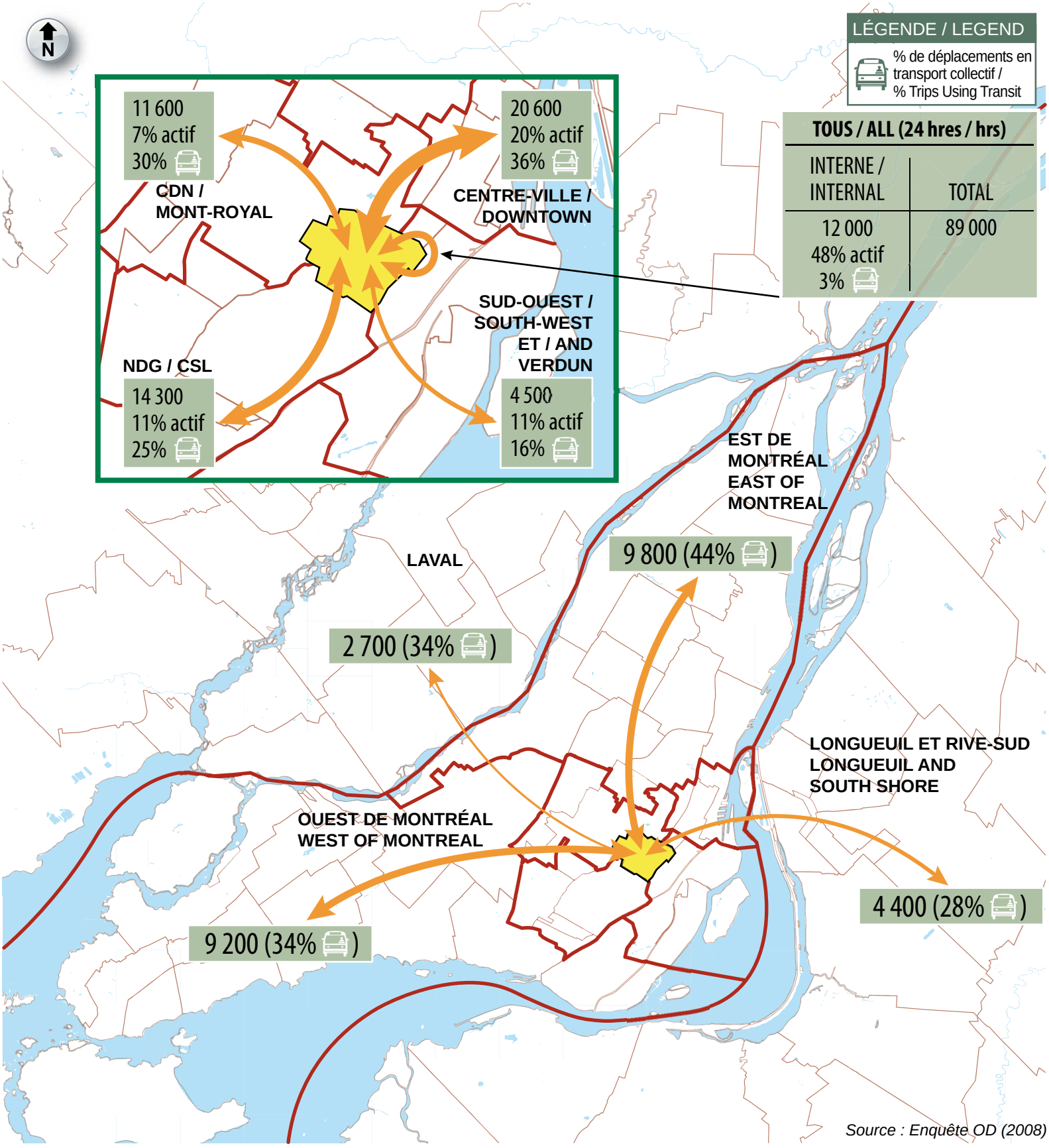

FIGURE 2.7
Origines et destinations des déplacements de Westmount
Origins and Destinations of Trips in Westmount

111-17587_Fig 2.7_Travel Patterns_v3_20111025.ai

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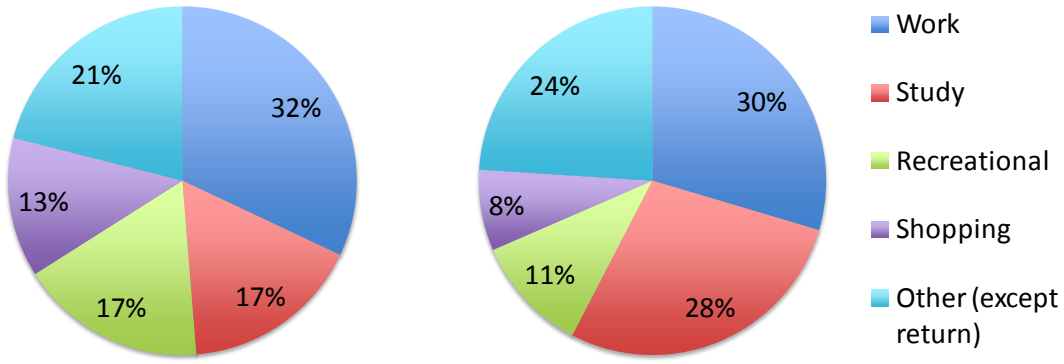
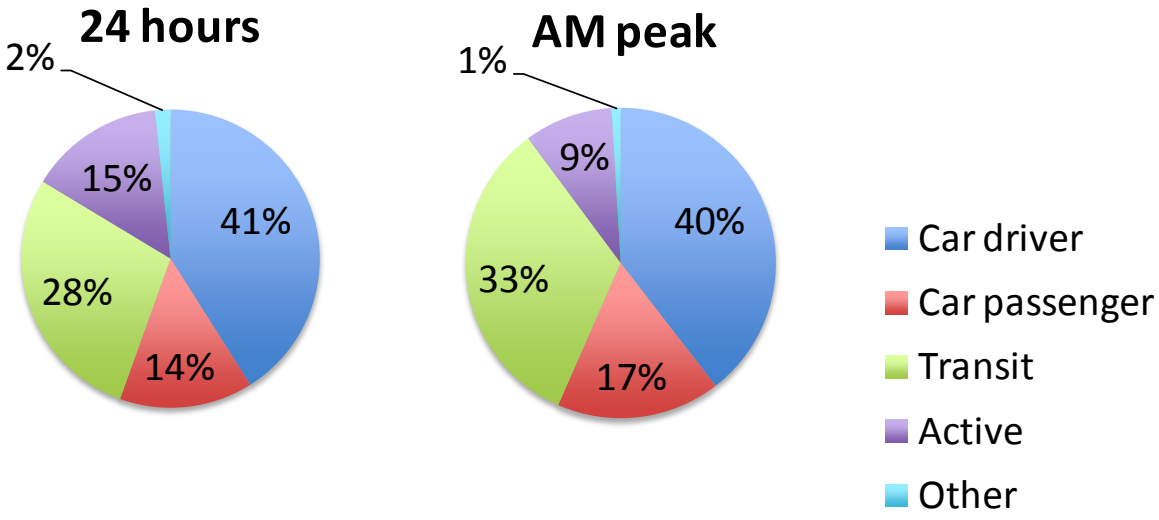
Figure 2.8 Trip purposes in Westmount



Source: Enquête orgine-destination (2008). All Trips except return home.
Note: Generated trips are on the left and attracted trips on the right.

Figure 2.9 Travel modal shares in Westmount



Source: Enquête orgine-destination (2008). All Trips except return home.

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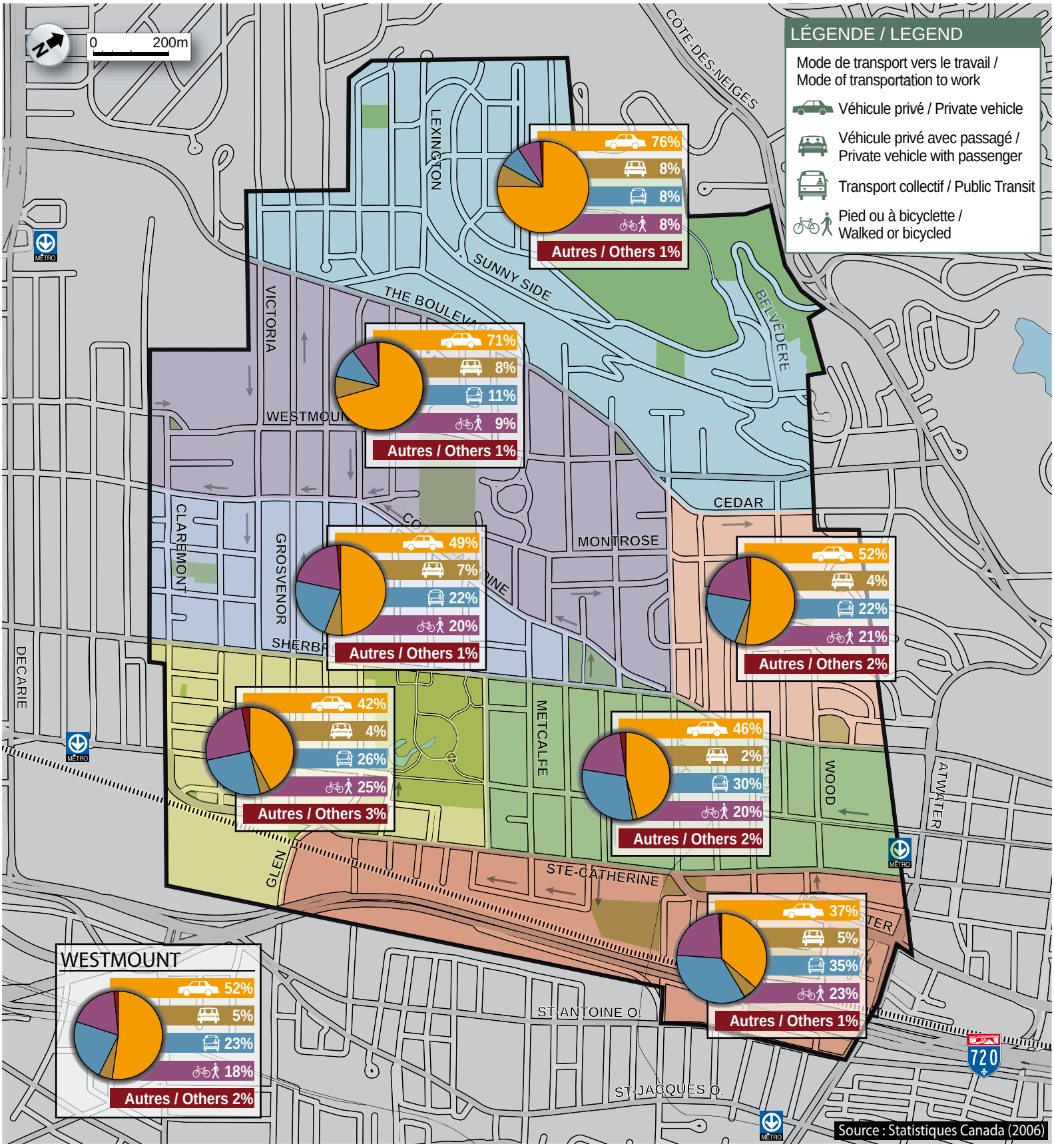

FIGURE 2.10
Mode de transport vers le travail
Mode of Transportation to Work

111-17587_Fig 2.10_Mode Trans_v2_20111025.ai

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2.4 ACTIVE TRANSPORTATION

2.4.1 Pedestrians

Purpose

Walking is the most universal transportation mode. All users of the transportation system will walk at one point of their trips, even though it may be continued by bike, by transit or by car. Walking is increasingly becoming more important because of its public health benefits, an aging population and awareness of environmental problems.

As seen in the previous section, walking is a very prevalent transportation mode of travel in Westmount since almost half of internal (to and from Westmount) and 15% of all trips are done by active transportation (the vast majority of which are done by foot). Walking is also an important component of public transit trips, which account for 28% of trips, since it is necessary to walk to and from a transit stop.

Pedestrian issues can be assessed by examining the walkability of a community. Many factors, big and small, come into play when assessing walkability[3] including:

- Mix of land uses: (are there numerous and diverse destinations close-by?);
- Presence of walking routes (sidewalks and walking paths?);
- Connectivity and continuity of the walking network;
- Universal accessibility of the walking network (Are these walking paths accessible to all users?);
- Ease of use by users (slope of streets, number of routes available, legibility of neighbourhood, permeability of blocks);
- Physical condition of the walking infrastructure (obstructions, cracks, winter maintenance);
- Safety (real and perceived) of walking routes (Are walking routes well lit? Do pedestrians have multiple routes? Are street crossings safe? Are pedestrians close/exposed to fast moving vehicles?);
- Pleasantness of walking routes (attractiveness of route, viewpoints, maintenance of properties).

Findings

- Residents have a choice of a number of destinations (shops, restaurants, parks, etc.), relatively close-by. That being said, accessibility to retail and leisure is lower in the north than the south of the City;
- Sidewalks and paths are available throughout the City. Sidewalks are usually available on both sides of the street. Only two street segments do not have any sidewalks (Belvedere Road and Bethune Street);
- In addition to sidewalks, pedestrians can use a number of paths in parks, mid-block passages (mostly staircases) and lanes to shorten walking routes. Some of these mid-

[3] Many walkability measures have been developed. A typical walkability survey can be found on the following website: http://www.activelivingresearch.org/files/SPACES_Audit_Instrument.pdf.

block connections are not visible from adjacent properties and streets and make them less comfortable to use, especially after sundown;

- The orthogonal street grid allows for quick and direct walking routes. Pedestrians can also choose between numerous routes because of the easily navigable orthogonal grid (see figure 2.11);
- The CP rail corridor and the Ville-Marie Expressway form an important physical barrier to travel across the Saint-Jacques escarpment. The three available links across this barrier (Glen, Greene and Atwater, see figure 2.11) are unpleasant for pedestrians (narrow sidewalks next to vehicle travel lanes, few activities close by, reduced lighting);
- Pedestrian connectivity is also lower between the southern parts and areas north of The Boulevard and between Westmount and Côte-des-Neiges;
- Walking along some major thoroughfares can be unpleasant, especially on those where sidewalks are narrow and are adjacent to vehicle travel lanes (see figure 2.11). On other major streets, pedestrians are separated from vehicle lanes by a combination of parked vehicles, landscaped buffers or street furniture;
- A number of specific issues were observed for pedestrians:
  - ► Insufficient crossing times at some traffic signals;
  - ► At some traffic signals, pedestrians do not have any signals visible;
  - ► Long pedestrian crosswalks across intersections;
  - ► The placement of street furniture on some streets do not allow for a clear walking path, especially for persons with a visual impairment;
  - ► Some staircases have been installed along sidewalks and in parks. These are not universally accessible;
- As Westmount is built along a mountain, many streets are steep which can be an impediment to walking. That being said, there are still quite a few people walking north of Sherbrooke Street where slopes are highest (see figure 2.12);
- Pedestrian activity is highest in the vicinity of Westmount Square/Dawson College/Greene Avenue and in Victoria Village due to the numerous activities in these areas. Pedestrian counts are also higher close to parks, schools, routes to Metro stations and retail. Pedestrian counts at the peak hour are available in figure 2.12 for certain intersections. Intersections most used by pedestrians include Greene/de Maisonneuve (1,200 per hour), Wood/Ste-Catherine (1,000 per hour) and Sherbrooke/Victoria (900 per hour).

Key issues and findings

- Westmount is generally a very walkable community due to its mix of land uses, the orthogonal street grid allows more direct walking routes to multiple destinations, sidewalks and walking paths are prevalent and generally pleasant surroundings;
- Pedestrian activity is highest close to metro stations, commercial areas and schools. Pedestrian volumes are highest in the Atwater/Greene and Victoria Village areas;
- Walking is used extensively for trips internal to Westmount;

- Most underpasses (e.g. Greene Avenue) are not pedestrian friendly (perceived safety, quality of sidewalks, etc.) and some major streets (e.g. The Boulevard) are not conducive for walking since the sidewalks are adjacent to high volumes of fast moving traffic;
- There are a number of issues for pedestrians that make walking less attractive and safe throughout Westmount that should be addressed (long crosswalks, traffic signals, street furniture placement, etc.).

PLAN DIRECTEUR DE CIRCULATION ET DE TRANSPORT ACTIF DE WESTMOUNT
WESTMOUNT TRAFFIC AND ACTIVE TRANSPORTATION MASTER PLAN

City of Westmount

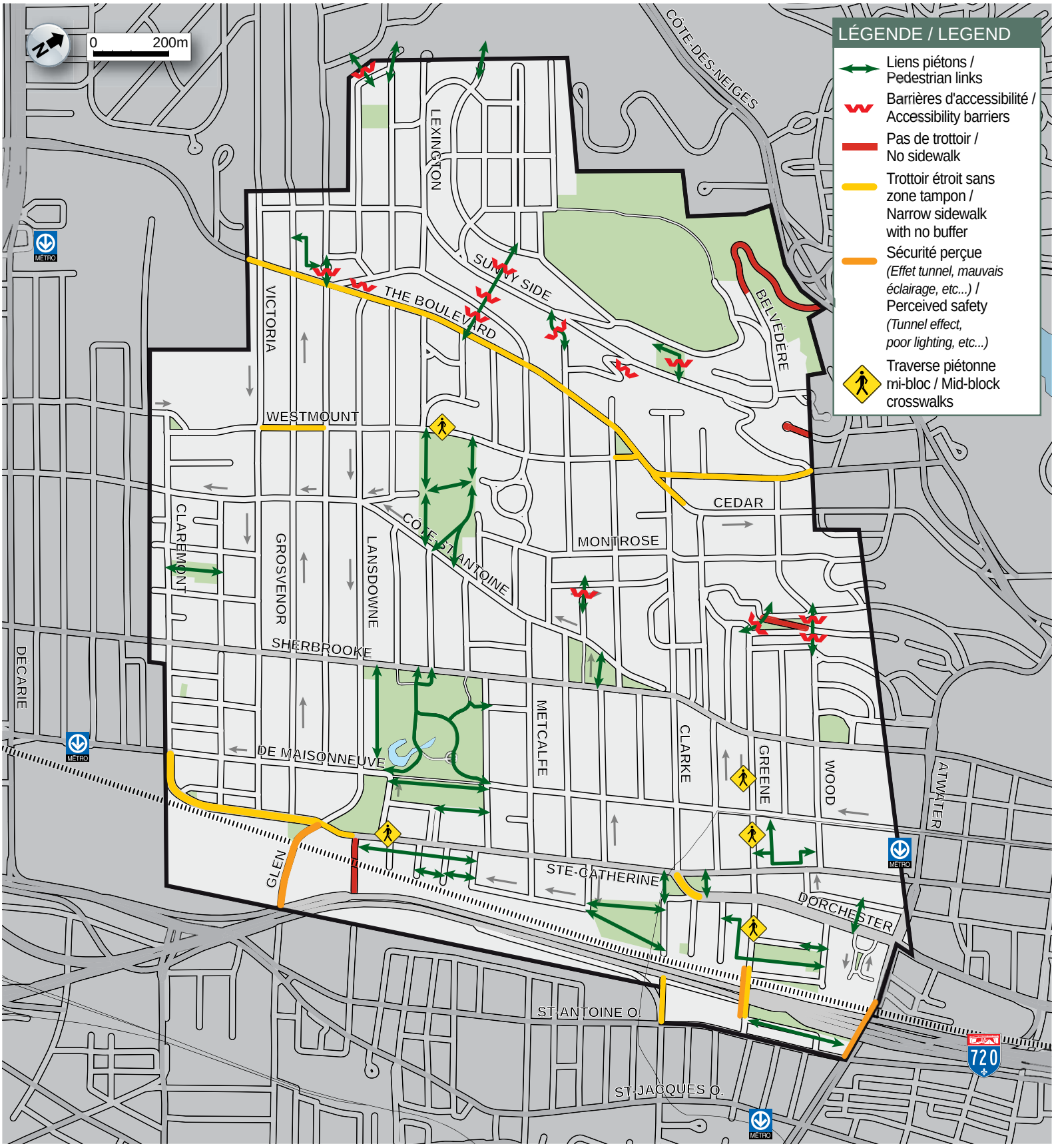

FIGURE 2.11
Piétons - problématiques et liens
Pedestrian Links and Issues

111-17587_Fig 2.11_Pedestrian Iss Links_v3_20111025.ai

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PLAN DIRECTEUR DE CIRCULATION ET DE TRANSPORT ACTIF DE WESTMOUNT
WESTMOUNT TRAFFIC AND ACTIVE TRANSPORTATION MASTER PLAN

City of Westmount

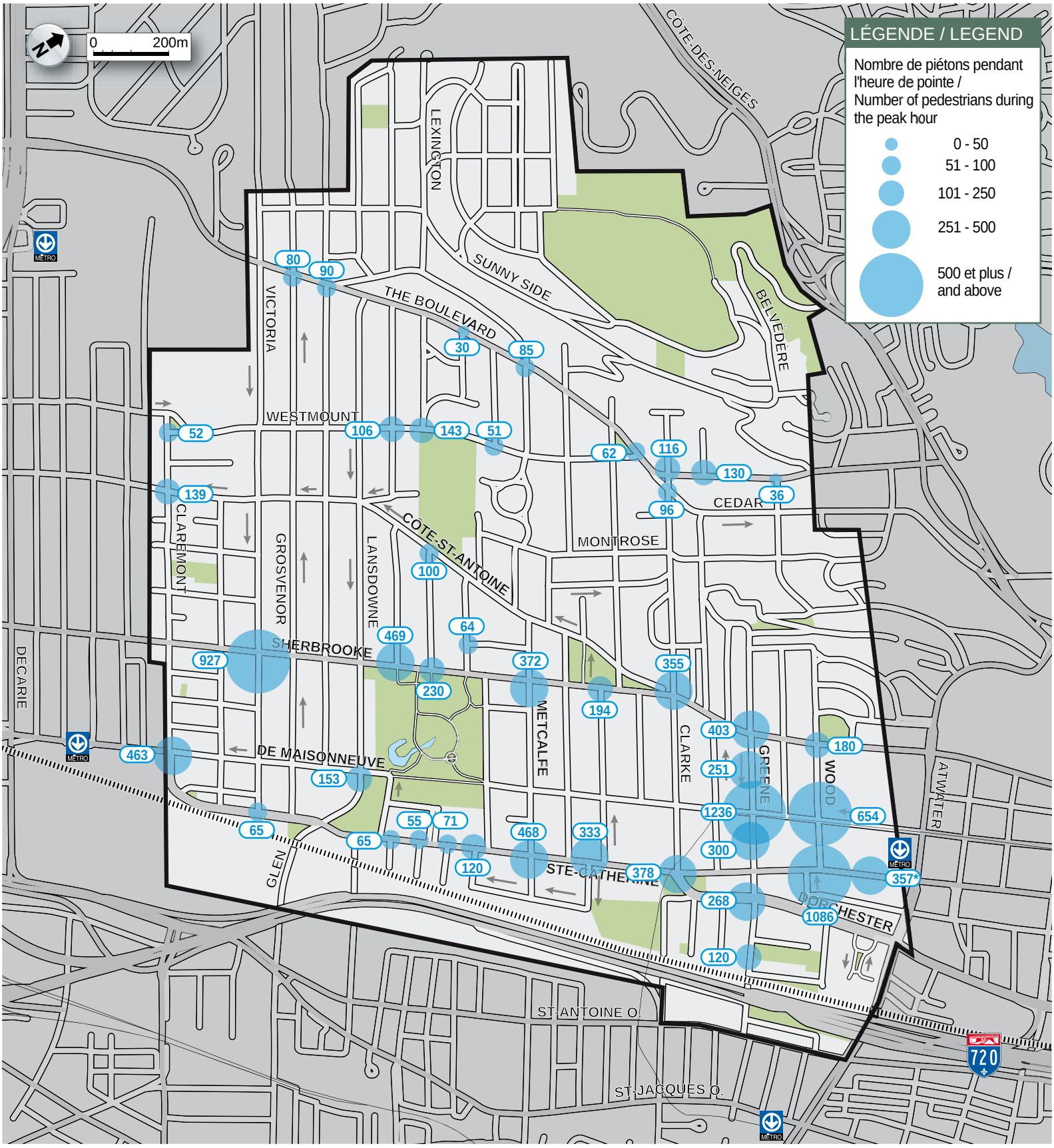

FIGURE 2.12
Nombre de piétons
Pedestrian activity

111-17587_Fig 2.12_Pedestrian activity_v3_20111025.ai

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2.4.2 Cyclists

Purpose

Cycling is an integral part of the transportation system, especially in urban areas. Its use is most convenient for short and medium length trips year-round, while still being a viable option for longer ones. Bicycles can also be used to access the public transit system. Cycling is also beneficial for improving public health, reducing demand on the road network, improves the environment and requires fewer resources than most other transport modes (energy and space).

This section describes the cycling network in Westmount and its usage. The cycling network should permit access to important destinations within the City and connect to destinations outside. Cycling infrastructure must also be continuous, safe and accommodate the needs of various user types: utility and recreational cyclists. Suitable facilities (secure parking) must also be available at both ends of a trip. The maintenance of the cycling network also influences its use. Cycling data is also examined to understand how this network is used.

Findings

- The cycling network in Westmount is comprised of a bike path on de Maisonneuve Boulevard and bike lanes on Glen Road/Lansdowne Avenue south of de Maisonneuve Boulevard (see figure 2.13). The de Maisonneuve bike path connects to the main east-west cycling routes through downtown Montreal and Notre-Dame-de-Grâce. The bike lane on Glen and Lansdowne connects to Saint-Henri;
- The cycling network is within a short distance (250 meters) of most major generators in Westmount. That being said, a large part of the city is not covered by the cycling network since many residents (48%), the majority of schools (9 out of 15) and parks are north of Sherbrooke Street;
- The bike path on de Maisonneuve Boulevard does not meet current best practices since it is narrow (2.5 meters instead of a recommended 3 meters) and is not buffered with a physical separation (distance and barrier) from the vehicle lane, except for bollards between the months of April to November. The transition between the bike path (in Westmount) and the bike lanes (in the City of Montreal) at Claremont Avenue also does not meet current best practices, such as the NACTO urban bikeway guide;
- 5 Bixi stations, a bike-sharing system, are installed in Westmount and are operational from April to November. A number of other stations in Montreal are within walking distance of Westmount (see figure 2.13);
- The Bixi station located at Greene and de Maisonneuve is the most used (36% of trips), followed by Sherbrooke/Prince Albert (22%), Sherbrooke/Argyle (16%), Victoria Hall (13%) and Sainte-Catherine/Hillside (12%). The majority of Bixi trips are made with Downtown Montreal (47% of Bixi trips), followed by the Plateau-Mont-Royal (18%), Westmount (17%) and other neighbourhoods (18%);
- The slopes of certain streets, especially north-south ones, can be an impediment for cycling;
- Few on-street bicycle racks are provided, especially in commercial zones;
- City by-laws do not require the provision of off-street bicycle parking facilities;

- The bike path on de Maisonneuve Boulevard is heavily used, since more than 2,000 cyclists use this facility from 8AM to 6PM on weekdays (up to 360 cyclists during the peak hour). This facility is still used in winter, though not as heavily, since 50 (at Claremont) to 90 (at Atwater) cyclists used this facility from 8:30AM to 4:30PM, with 25 cyclists during the peak hour;
- The Glen/Lansdowne bike path is used by approximately 70 cyclists during the peak hour, just south of de Maisonneuve (see figure 2.14);
- There are many cyclists using other streets without cycling facilities (see figure 2.14):
  - ► Sherbrooke: 20 to 50 cyclists during the peak hour;
  - ► Sainte-Catherine: 15 to 40 cyclists during the peak hour;
  - ► Cote-Saint-Antoine: 30 cyclists during the peak hour;
  - ► The Boulevard/Westmount: 20 to 30 cyclists during the peak hour;
- A by-law is exists rendering the use of helmets mandatory for cyclists in addition to inline skaters. The provincial Highway Safety Code does not have such a provision.

Key issues and findings

- Despite the fact that there are only two formal bicycle routes, the cycling network serves most major destinations within Westmount. However, many residents, schools and parks are not located close to a cycling facility;
- The slopes of certain streets can be an impediment for cycling, especially for cyclists travelling towards the north;
- The bike path along de Maisonneuve Boulevard does not meet current standards and best practices. That being said, there is a demand for this cycling facility since more than 2,000 cyclists use this bike path (8 AM to 6 PM only). There are more cyclists during this ten-hour period than vehicles during the entire day along most sections of de Maisonneuve Boulevard;
- Many cyclists also use Sherbrooke, Côte-Saint-Antoine and Sainte-Catherine Streets, even if the only east-west bike path is on de Maisonneuve Boulevard.

City of Westmount

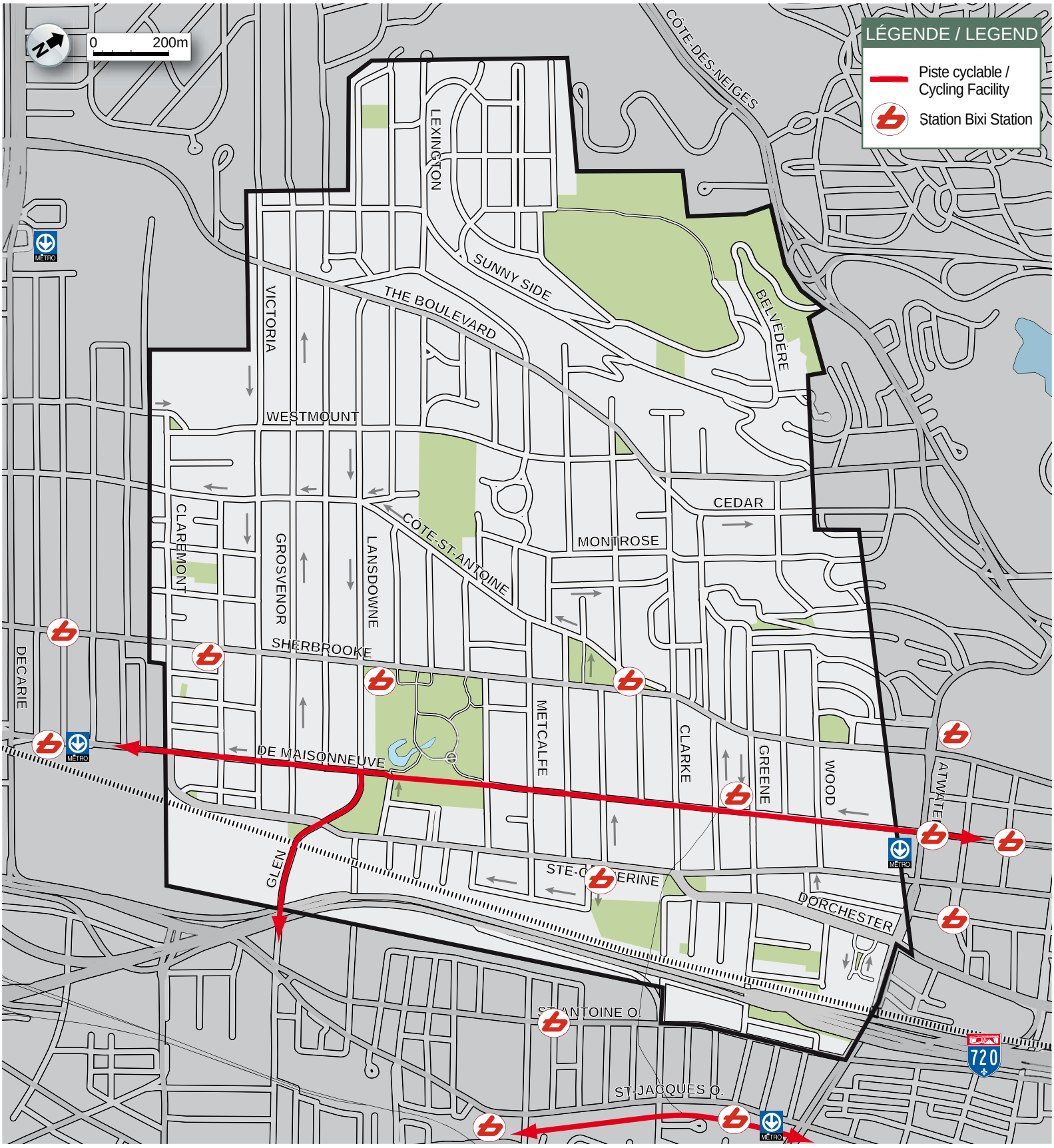

FIGURE 2.13
Réseau cyclable
Cycling Network

111-17587_Fig 2.13_Cycling Network_v2_20111025.ai

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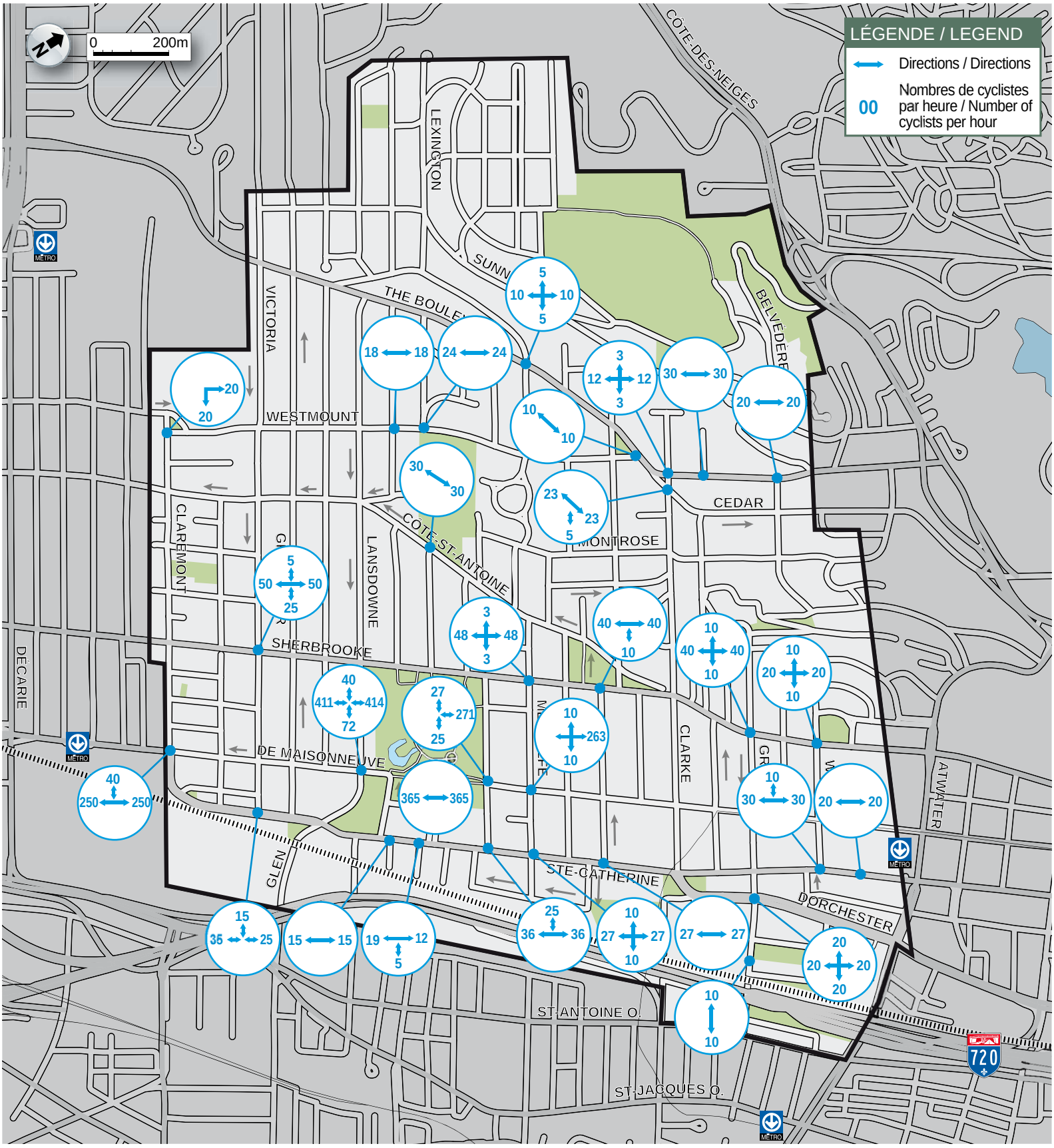

FIGURE 2.14
Volumes de Cyclistes
Cycling Volumes

111-17587_Fig 2.14_Cycling Volumes_v1_20111025.ai

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