

## CHAPTER 11: STREET DESIGN AND TRANSPORTATION SUMMARY

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One of the greatest potential outcomes of this Study and future work by the City is the transformation of Bloor Street West to a more complete street that supports the Village as a place.

This chapter provides a summary of the street design and transportation process for the Avenue Study. The full Transportation Report is included in the Appendices.

### 11.1. EXISTING PLANNING AND POLICY CONTEXT

The existing planning and policy context related to improving active transportation and streetscape conditions is well established in the City of Toronto.

#### Official Plan

<https://www.toronto.ca/city-government/planning-development/official-plan-guidelines/official-plan/>

The Official Plan includes several policies to encourage balancing the space available in the public rights-of-way for all users, increasing choice for how people move through the city, improving walkability, improving the cycling environment, and increasing overall sustainability. The 2014 Official Plan transportation update “Feeling Congested” included a “Complete Streets” policy to consider streets for all users and uses, considered additional right-of-way width at intersections to improve safety and to accommodate universal accessibility (AODA), and maintained that laneways remain accessible for public use. Active transportation policies supported further protection for pedestrians, and encouraged street design that promotes walking and cycling to improve overall health.

#### Bike Plan, Network Plan, Pedestrian Charter, and Walking Strategy

<https://www.toronto.ca/services-payments/streets-parking-transportation/cycling-in-toronto/>

The City of Toronto’s Bike Plan (2001), Pedestrian Charter (2002) and Walking Strategy (2009) are policy documents to encourage cycling and walking more often. These activities will help to

achieve Toronto’s public health and greenhouse gas emission reduction targets and improve the livability of the city. An increase in the amount of space allocated for active transportation will make these activities more attractive, comfortable and safe for all users. The Ten Year Cycling Network Plan, adopted in 2016, identifies Bloor Street West through the study area as a potential future Major Corridor Study. The Cycling Network Plan Two-Year Review Report, scheduled for 2019, will identify recommendations for initiating additional Major Corridor Studies, which may include this segment of Bloor Street West.

#### Toronto Complete Streets Guidelines

<https://www.toronto.ca/services-payments/streets-parking-transportation/enhancing-our-streets-and-public-realm/complete-streets/complete-streets-guidelines/>

“Complete Streets” are streets that enable safe function and access for all users within the transportation system, including pedestrians of all ages and abilities, cyclists, public transit riders, and vehicles. The City’s Complete Streets Guidelines provide a framework to improve decision-making processes and outcomes across Toronto’s complex and diverse street system. By seeking innovative ways to make Toronto’s streets work for all uses and users, we can achieve the benefits of road safety, expanded mobility choices, social and environmental health and a more attractive public realm. The Guidelines build upon the vision for streets outlined in the City’s Official Plan and are

guided by three high-level city-building objectives: designing streets for people, designing streets for placemaking and designing streets for economic prosperity.

**Healthy Toronto by Design (Toronto Public Health, 2011)**

<https://www.toronto.ca/wp-content/uploads/2017/10/9621-TPH-healthy-toronto-by-design-report-Oct04-2011.pdf>

A key component to becoming a healthier city is to become a more active city. Health advocates and local governments realize that the design of built environments can influence people's everyday choices for active living. There is now enough health evidence showing that changes in neighbourhood, street and building design that encourage regular physical activity as a normal part of people's daily lives can be a part of the solution to reduce risk factors and incidence of chronic disease and illness. Recent efforts by Toronto Public Health in partnership with many other City departments have led to a series of reports in the Healthy Toronto by Design series, with a particular focus on walking, biking and taking transit.

Active living is about incorporating more physical activity into all aspects of our lives:

- Street design, bike lanes and sidewalks; housing types and neighbourhood design; patterns of development; the provision of trees, parks, green space and recreational facilities; and the location of jobs, schools and services are all important components of the built environment.
- Design of neighbourhoods, streets and buildings can influence how people get around and travel, which in turn influences their physical activity levels and health.
- While concern about safety can act as a barrier to active living, the rate of collisions between motorists and walkers or bicyclists declines as the numbers of people walking or bicycling increases (a phenomenon referred to as "safety in numbers").
- Communities that have sidewalks, on-street parking, buildings set close to the sidewalk and attractive features such as art, trees and benches improve the perception of an area's safety and walkability.

**Road to Health: Improving Walking and Cycling in Toronto (Toronto Public Health, 2012)**

<https://www.toronto.ca/legdocs/mmis/2012/hl/bgrd/backgroundfile-46520.pdf>

This report focuses on active transportation as a means to improve health and quality of life in Toronto. It reviews the literature on the health impacts of walking and cycling for transportation in urban areas, and also discusses the economic,

social, environmental, and transportation system benefits. It presents data on walking and cycling mode shares in the City of Toronto and quantifies the health benefits of active transportation in Toronto. It also analyzes collision data and quantifies the costs of pedestrian and cyclist collisions and injuries in Toronto. Finally, it draws on secondary sources and interviews with municipal staff in other jurisdictions to identify strategies for increasing the safety and use of active transportation across Toronto.

**Transform TO**

<https://www.toronto.ca/services-payments/water-environment/environmentally-friendly-city-initiatives/transformto/>

TransformTO, Toronto's new and ambitious climate action plan, identifies how to significantly reduce greenhouse gas emissions and improve the City's health, grow the economy, and improve social equity. In July 2017 City Council unanimously approved a set of long-term, low-carbon goals, and strategies to reach them. Achieving these goals will require transformational changes in how Toronto residents live, work, commute, and build. Transportation will contribute greatly to the overall TransformTO initiative, with a target of 75% all trips less than 5 kilometers being made on foot or by bicycle.

## 11.2. OPTION DEVELOPMENT AND EVALUATION

One purpose of the street design and transportation exercise was to consider the impact of the preferred land use and built form alternative on the transportation system and to provide direction for initiatives related to balancing access for all modes of transportation. Another purpose was to test the feasibility to introduce safe cycling infrastructure within the Bloor West Village Avenue Study Area.

It is important to note that no change to Bloor Street West is anticipated in the near future, or will likely take place until reconstruction is required. Further, the Cycling Infrastructure & Programs Unit of Transportation Services have not yet conducted a formal feasibility analysis or detailed design of bicycle infrastructure along the Bloor West Village corridor. The Cycling Network Plan Two-Year Review Report, scheduled for 2019, will identify recommendations for initiating additional Major Corridor Studies, which may include Bloor Street West through the Study Area.

For this exercise, the preferred cycling facility for all options include a buffered or protected bike lane. Cycling lanes without a buffer or protection were

not considered for they do not provide sufficient user safety or comfort on a street like Bloor Street West with higher speed and volume vehicle traffic.

The Study Team estimated a potential population and employment increase in the Study Area over the next several decades. This estimate was informed by the testing and demonstration of potential future redevelopment, following the guidelines and standards established through this Study. It is important to note that the existing transportation system can support the potential increase of trips in the Study Area.

Further, the Study Team developed and evaluated several street design options to assess how they could accommodate the future travel demand. All options included a higher order of cycling facility due to the volume and speed of vehicle traffic and the level of broader network connectivity that the Bloor Street Corridor provides. Three shortlisted options present a change to the street design from the existing condition. Overall, to introduce safe cycling infrastructure will require a decision that reduces the size of, changes the nature of, or eliminates some elements of the street.

Based on the analysis of the preferred land use and built form alternative, the Study Team offers the following conclusions:

- The proposed developments are estimated to generate modest numbers of outbound and inbound trips during the weekday a.m. and p.m. peak hours, respectively;

- Approximately half of the proposed development-generated trips are non-vehicular trips based on the 2011 Transportation Tomorrow Survey (TTS) modal split analysis for both peak hours;

- The major arterial roads, such as Jane Street, Runnymede Road, South Kingsway, and Keele Street, are the primary inflow and outflow points to Bloor West Village given they provide connections to Highway 401, the Gardiner Expressway and Queen Elizabeth Way depending on the travel direction.

The street design options were developed and evaluated to assess their ability to accommodate the future travel demand. The four design options are described below:

- Existing Condition (Option Zero): Maintains the existing cross-section along Bloor Street West, of two travel lanes in each direction, with no cycling facilities on either side of the street. Off-peak parking is permitted along the north side of Bloor Street West, while some lay-by parking bays are available in select areas along the south side of Bloor Street West.

- Option 1: Maintains the two lane cross-section in each direction, but removes some left turn lanes at select intersections to accommodate cycle tracks on both sides of the road, and wider sidewalks. Off-peak parking will be permitted on both sides of Bloor Street West.

- Option 2: Provides a three lane cross-section; one lane each in the eastbound and westbound directions, and a centre left turn lane. Dedicated left turn lanes will remain, with a shared through-right in both the eastbound and westbound directions. There will be lay-by parking on the south side with a cycle track, and a midblock parking on the north side with a buffered bike lane.

- Option 3: Consists of one eastbound lane and two westbound lanes. There will be off-peak parking on the north side and layby parking on the south side. The westbound direction would have a dedicated left turn lane with two through lanes while the eastbound direction would have a left turn lane and a shared through-right lane at key intersections. Cycle tracks will be provided on both sides of the roadway.

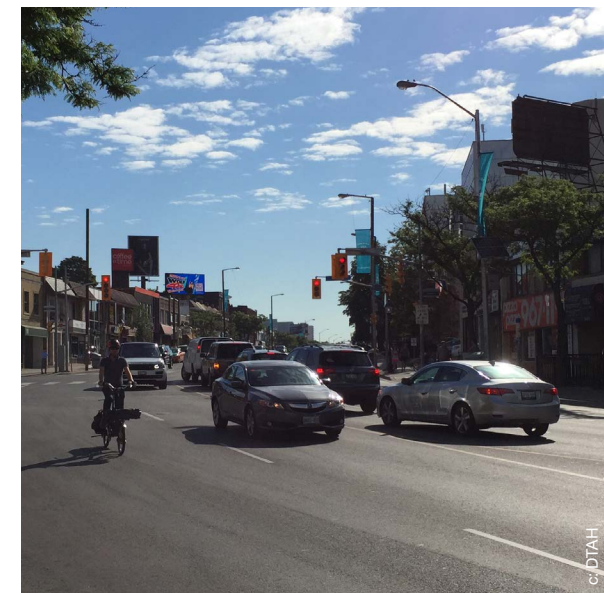
The majority of intersections are projected to operate at acceptable Levels of Service with the total future traffic volumes under the existing cross-section (Option Zero) and signal timing plans. This shows that there is opportunity for change. Based on the evaluation, Option 1 performs the best and has fewer traffic impacts, followed by Option 3 and Option 2.

There are four intersections where traffic conditions are projected to operate above theoretical capacity during peak hours: Bloor Street West at Old Mill Trail, South Kingsway/Riverview Gardens, High Park Avenue/Colborne Lodge Drive and Keele Street /Parkside Drive. These locations will require careful attention if change is contemplated.

With any change to the street design, the north side of the blocks from Jane Street to Armadale Avenue and from Runnymede Road to Kennedy Road will require special design consideration to ensure and facilitate TTC bus circulation.



Bloor Street West: Existing Conditions



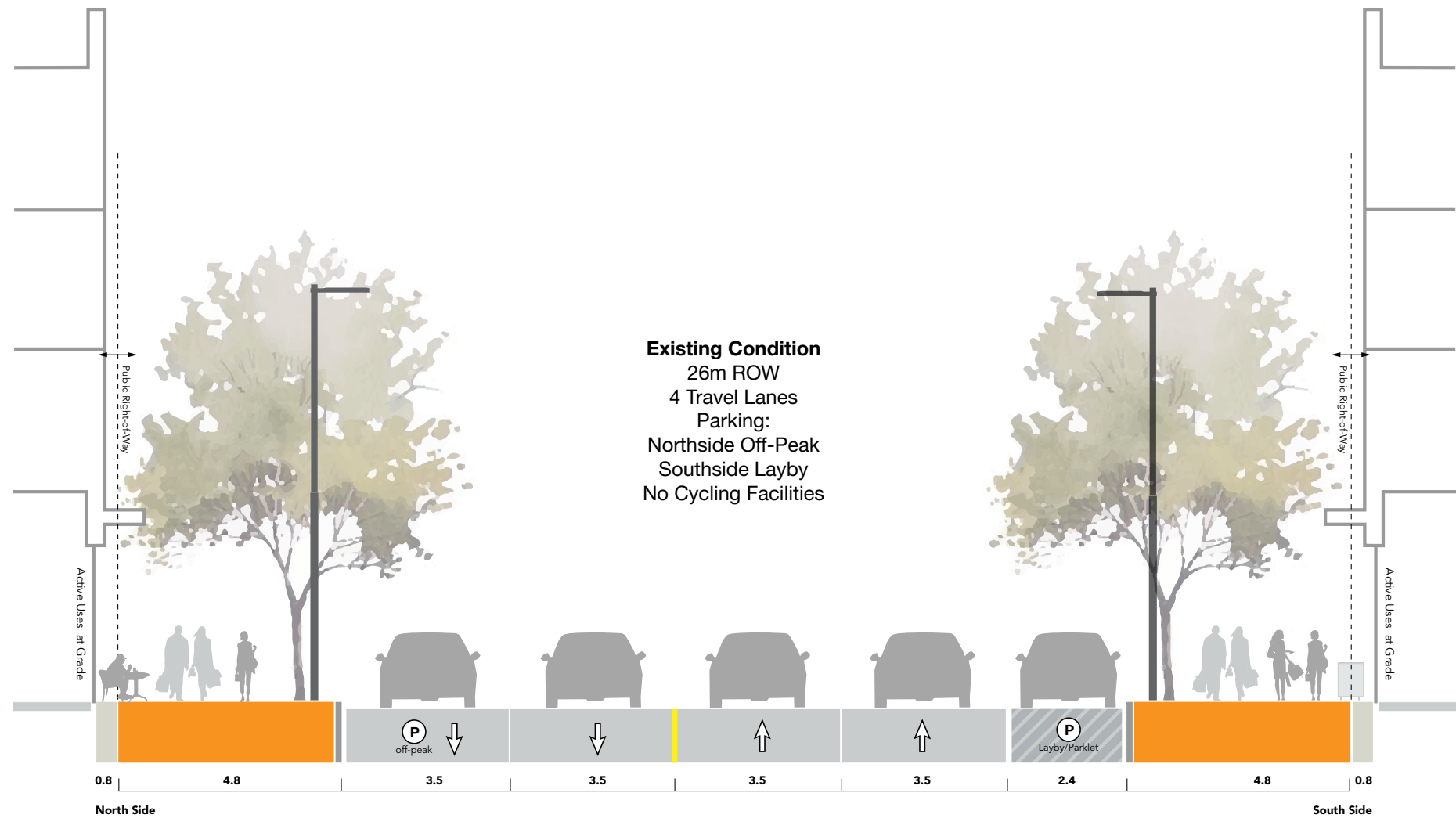


Figure 11.1 Bloor Street West. 26m ROW. Existing Condition

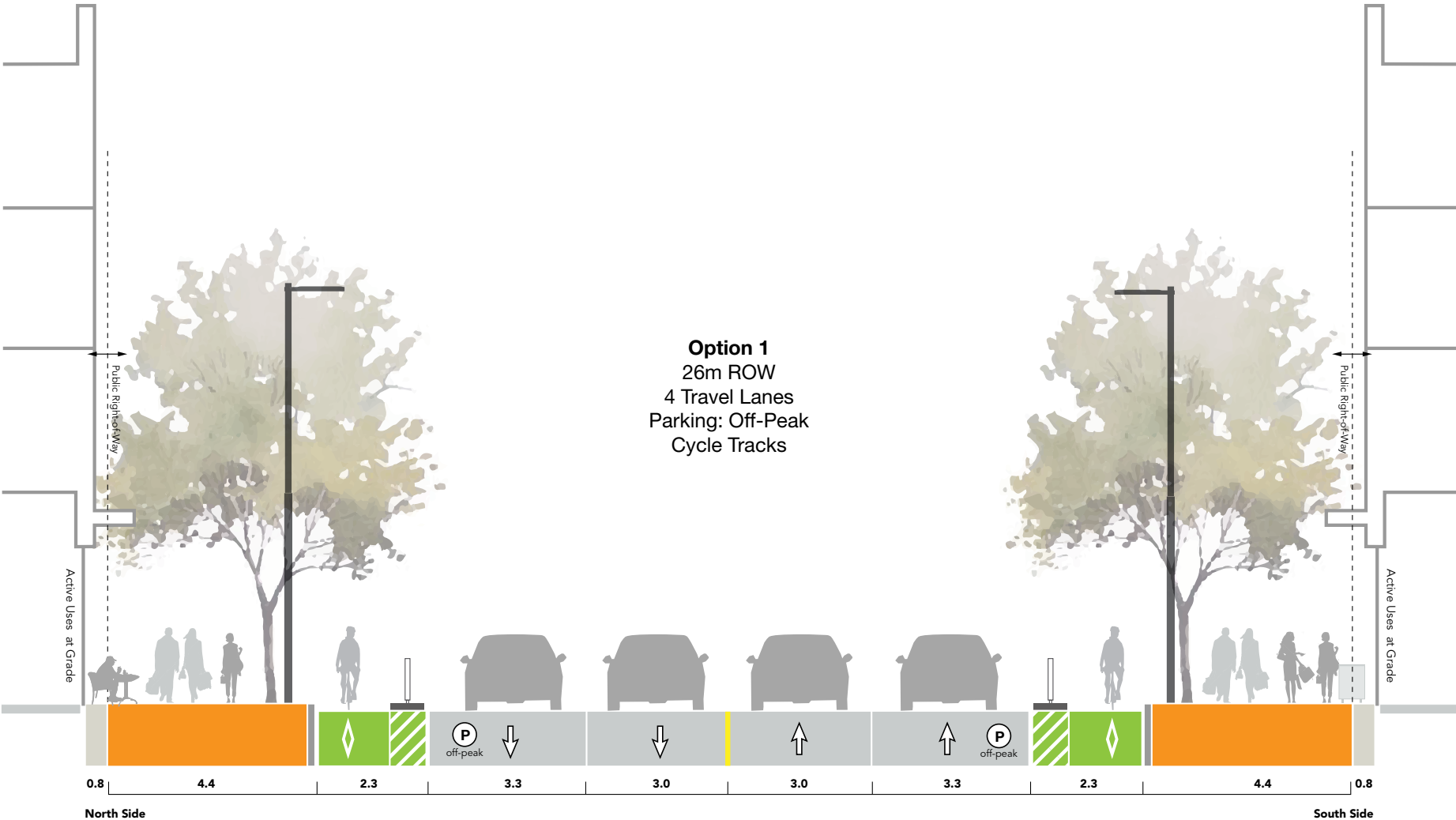


Figure 11.2 Bloor Street West. 26m ROW. Option 1



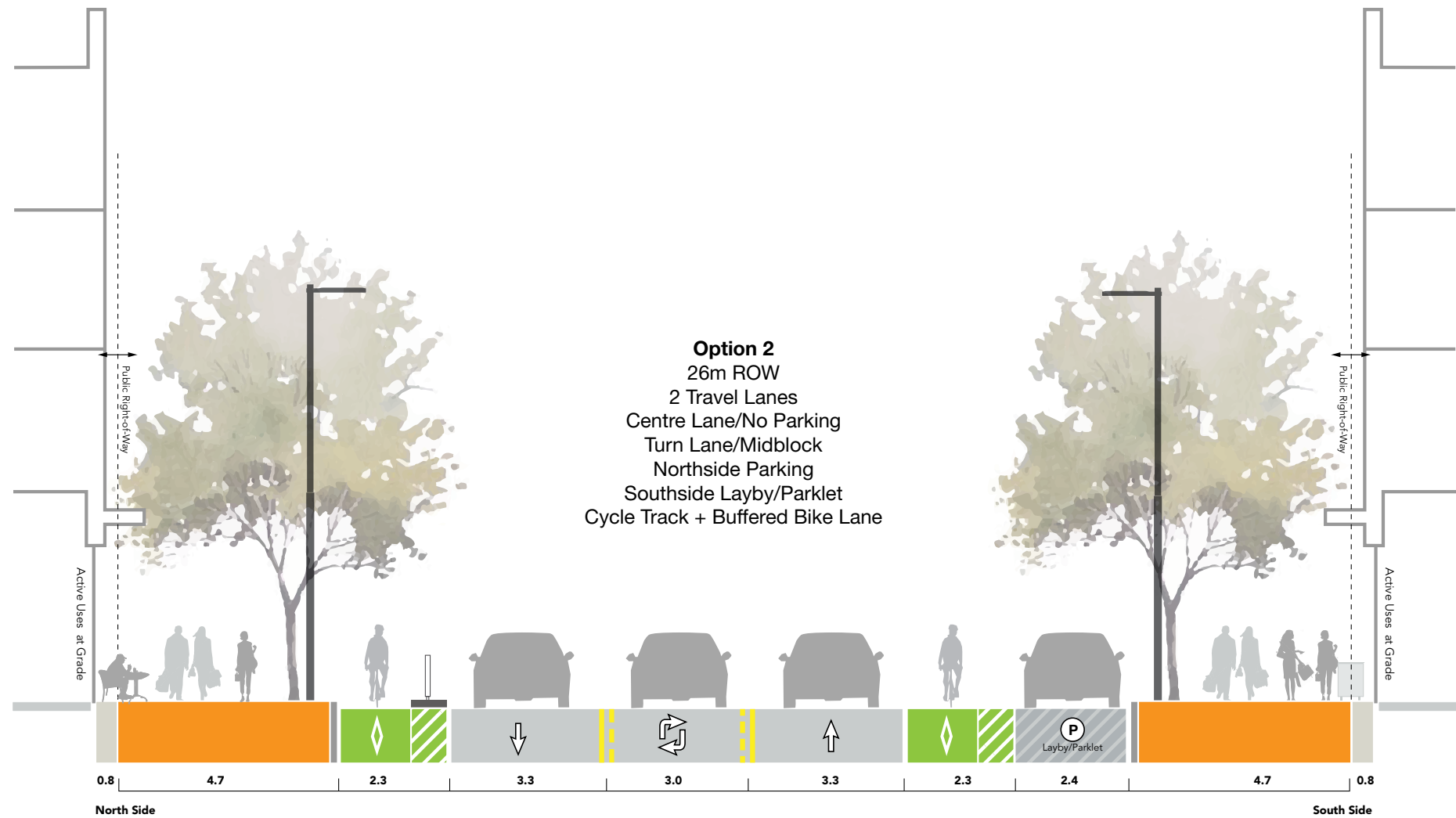
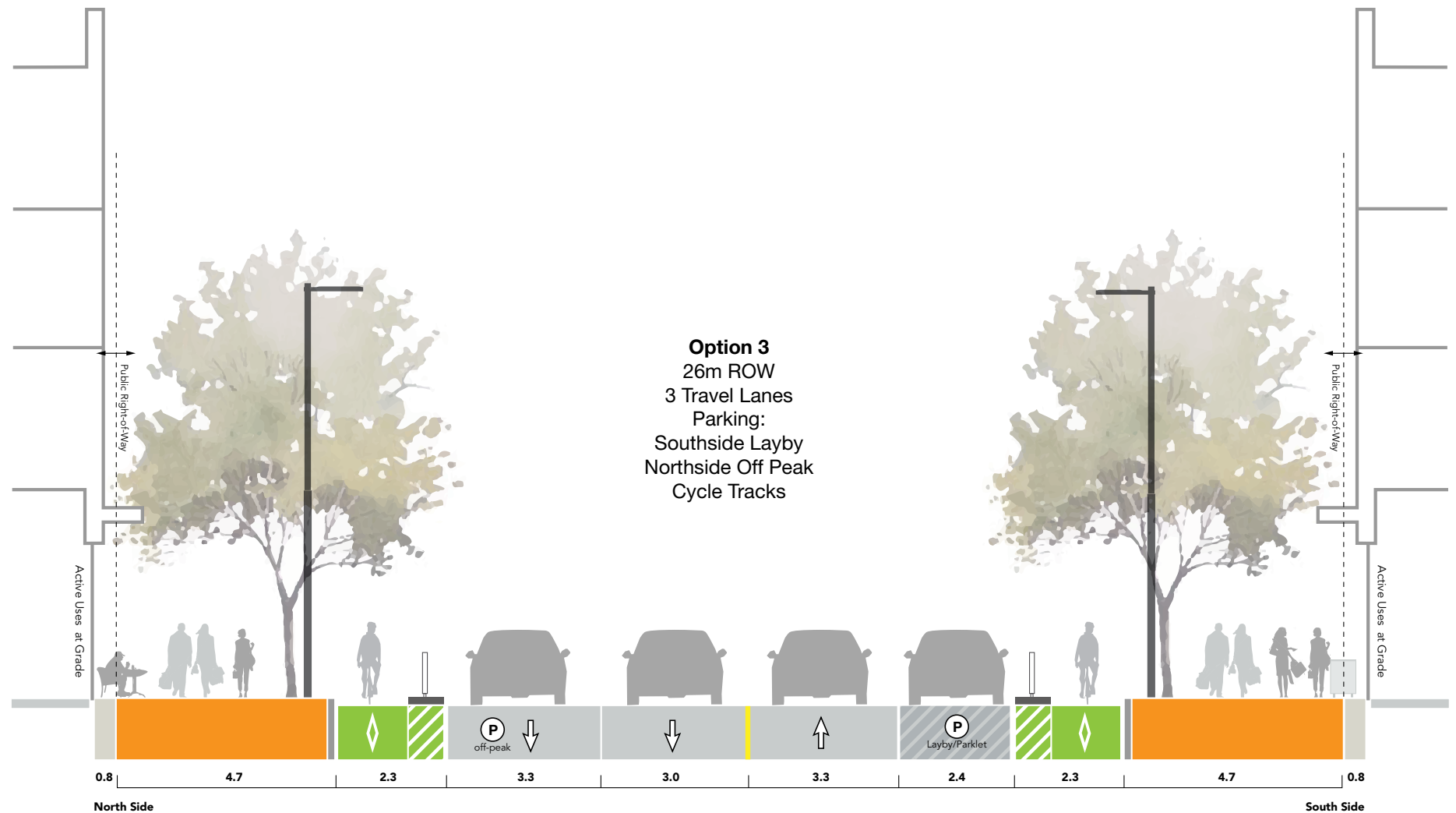


Figure 11.3 Bloor Street West. 26m ROW. Option 2



**Figure 11.4** Bloor Street West. 26m ROW. Option 3



### 11.3. SYNTHESIS AND CONCLUSION

Based on the projected potential increase of population and employment within the Avenue Study Area, the existing street network can accommodate the anticipated growth without changes to the existing transportation system. The purpose of exploring the three street design options was to see how to make Bloor Street West more complete.

Overall, the three street design options attempt to re-distribute the available right-of-way width among the different users and uses and provide safe space of adequate capacity for each. The major change in all options is the addition of dedicated cycling facilities. However, the existing 26 metre right-of-way does pose challenges. For example, sidewalk widths would essentially remain the same as the existing condition in all of the options. That said, Bloor West Village has well dimensioned boulevards today and may not require further widening. The Complete Streets Approach to accommodate all users on relatively narrow 26 m right-of-way does create some compromises and that elements such as the cycling infrastructure and pedestrian zones are not at the optimum widths as recommend by Cycling Infrastructure or to accommodate such a busy corridor.

For motor vehicle operations, Option 1 would have the least adverse impacts to Bloor Street West. Option 2 and Option 3 would likely incur capacity constraints and delays at many intersections. In all scenarios, the intersections of Bloor Street West / South Kingsway and Bloor Street West / High Park Avenue are forecast to operate near or over capacity with the additional traffic. As part of subsequent studies, further investigate these intersections to better accommodate the future traffic volumes.

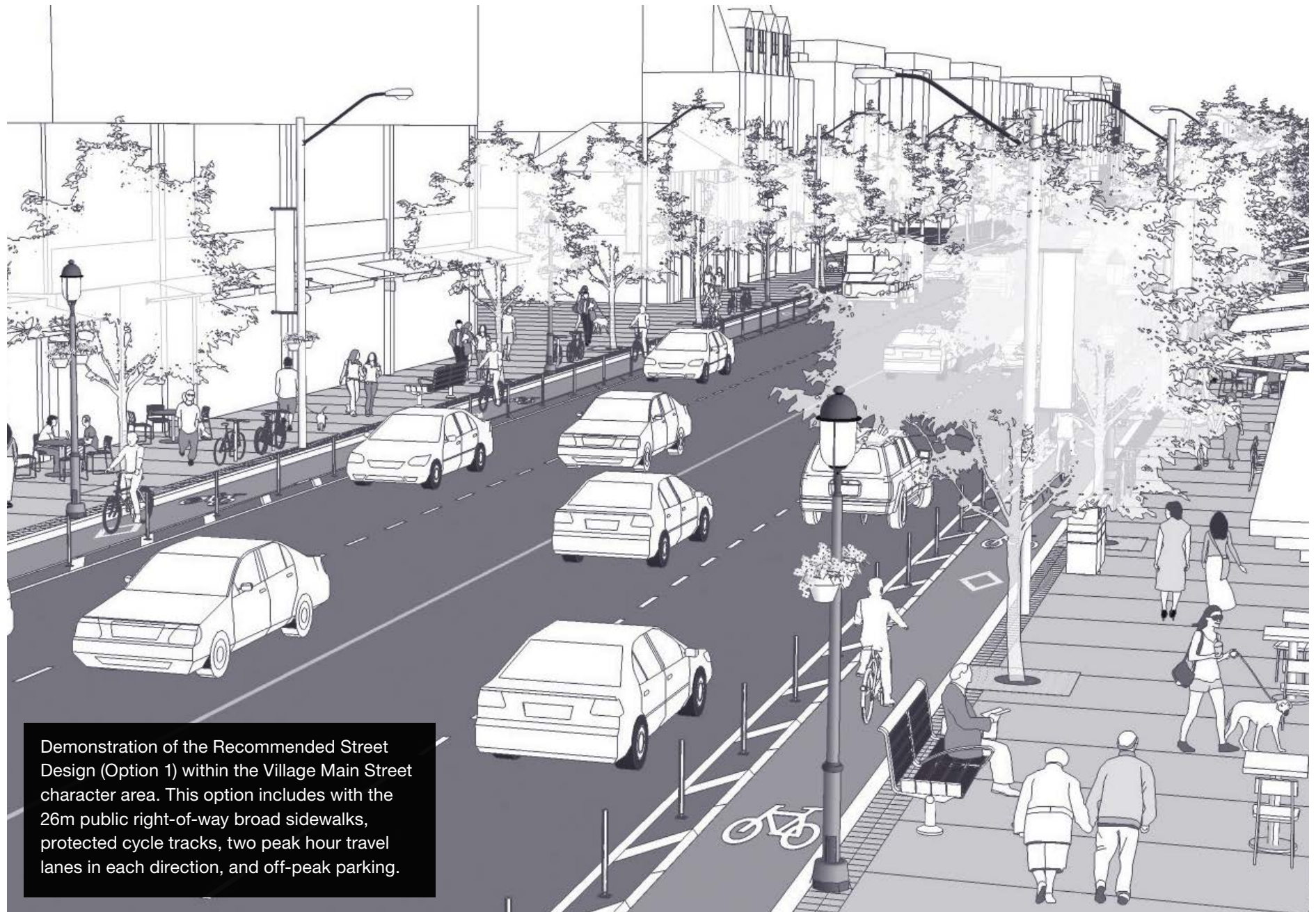
For surface transit, on-street parking, cycling, and pedestrian facilities, all proposed options fit within the existing right-of-way. At key intersections and near TTC Stations, explore enhancements to pedestrian and cycling facilities to ensure that bus services can continue to function with adequate reliability. Option 1 will likely provide the greatest number of on-street parking spaces (available during off-peak periods only), and provide the safest environment for cyclists. Overall, Option 1 provides the best balance among the various modes and satisfies the desire for on-street parking.

Despite the above conclusions, we are in a dynamic time for transportation. The rise of autonomous vehicles, declining auto sales in Ontario, and rising proportions of trips made by walking, cycling and transit suggest that what works or doesn't work today will likely change in the coming decades.

As stated previously, no major change is anticipated to Bloor Street West in the near future (given recent major capital works in 2012). By the

time it is reconstructed, transportation demands may be substantially different than they are in 2017. If significantly more trips are made by carpooling, autonomous vehicles and/or ride-share services, pick-up and drop-off activity will need more curbside space while parking will need less. There has also been considerable growth in car-sharing, so we still require long-term and short-term parking options to accommodate this demand. In this case, Option 1 would still better accommodate this future scenario of fewer personal vehicles than the other options, for it provides the greatest amount of road space for pick-up and drop-off. However, there are many uncertainties and all options could potentially work in the future.

In a future scenario where less parking supply is required, the opportunity exists to also rethink the land dedicated to off-street parking. In that case, a more complete public laneway system is possible parallel to Bloor Street West by taking some of the space now used for parking. A more complete laneway system could alleviate some circulation and curbside pressures for servicing and loading and is supported by the City's Official Plan (Official Plan Policy 2.2.3.(g)).



Demonstration of the Recommended Street Design (Option 1) within the Village Main Street character area. This option includes with the 26m public right-of-way broad sidewalks, protected cycle tracks, two peak hour travel lanes in each direction, and off-peak parking.