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Item No. 12.1.2
Transportation Standing Committee
November 25, 2021

TO: Chair and Members of Transportation Standing Committee
Original Signed

SUBMITTED BY: _____
Kelly Denty, Executive Director, Planning & Development
Original Signed

Jacques Dube, Chief Administrative Officer

DATE: November 1, 2021

SUBJECT: Spring Garden Road – Impacts of a Daytime Transit Priority Corridor

ORIGIN

On April 16, 2019, the following motion of Regional Council was put and passed:

“THAT Halifax Regional Council direct the Chief Administrative Officer to:

2. Gather data during construction on how loading is accommodated and how diverted traffic impacts other streets and return to Council with further analysis of the impacts of a daytime transit priority corridor, including consideration of the feasibility of a temporary pilot project.”

LEGISLATIVE AUTHORITY

Transportation Standing Committee Terms of Reference, section 4 (a): “The Transportation Standing Committee shall oversee and review the Municipality’s Regional Transportation Plans and initiatives, as follows: overseeing HRM’s Regional Transportation Objectives and Transportation Outcome Areas”.

Halifax Regional Municipality Charter, subsection 318(2): “In so far as is consistent with their use by the public, the Council has full control over the streets in the Municipality.”

The Integrated Mobility Plan - Action 121: Identify “Strategic Corridors” – existing road corridors that are key to regional traffic flow, transit, goods movement and active transportation – and develop plans that will guide their development over time.

Motor Vehicle Act, clause 90(5)(c): “The traffic authority may ... exclude from traffic on specified streets or specified portions of streets vehicles other than public transit vehicles or vehicles specified by the traffic authority.”

RECOMMENDATIONS ON PAGE 2

RECOMMENDATION

It is recommended that the Transportation Standing Committee recommend that Halifax Regional Council direct the Chief Administrative Officer to:

1. Proceed with a year-long daytime transit priority corridor pilot project on Spring Garden Road between South Park Street and Queen Street during the hours of 7am – 8 pm, subject to the approval of HRM's Traffic Authority; and
2. Monitor the operation of the pilot project and return to Council with a final recommendation on the configuration of the street.

BACKGROUND

The Spring Garden Road streetscaping project includes two overarching goals:

1. Improve the corridor for pedestrians and transit.
2. Beautify the public realm.

These goals were informed by various Council policies (*Downtown Halifax Secondary Municipal Planning Strategy - DHSMPs*, *Halifax's Economic Growth Plan*, *Integrated Mobility Plan – IMP*, and the *Moving Forward Together Plan - MFTP*) and confirmed with the public during an extensive engagement program in summer 2018 which included a pilot project (the 'stoplet') to temporarily widen the sidewalk and narrow the roadway at one of the corridor's busy bus stops.

Spring Garden Road is designated as a Transit Priority Corridor in the IMP and identified as a significant, transit-oriented street in both the DHSMPs and the MFTP. It was also recently identified as a future corridor for Bus Rapid Transit (BRT) in the *Rapid Transit Strategy (RTS)*.

In 2018/19, the Spring Garden Road Functional Plan was completed to develop a vision for how the street could prioritize transit and pedestrians over other modes. The functional plan explored three configuration options for Spring Garden Road. In terms of the built form, the options explored how space for pedestrians could be increased to varying degrees by narrowing the roadway and thereby limiting curbside loading activities. In terms of traffic operations, the options explored how reliability of transit could be improved by limiting general vehicle traffic to various degrees.

The options were assessed according to various criteria, shared with the public for comment, and brought to Council for further review and direction on April 16, 2019. At that time Council directed staff to proceed with the built form component of the streetscaping project, and to return to Council with more data and analysis for direction on the transit-only component. Construction began June 2021 and substantial completion is targeted for late December 2021.

In terms of built form, the streetscaping project will see sidewalks widened and the roadway narrowed. The option to designate these four blocks of Spring Garden Road as a daytime transit-only corridor provided the most benefit for priority modes (pedestrian experience & transit) and was the preferred option by the public. However, concerns raised by some businesses and residents centered on the impacts this option would have on loading and area traffic circulation. It was determined that the construction period would provide an opportunity to better understand these impacts while the street was closed and the decision to test a transit-only street could be deferred. These impacts have been monitored over the construction period and the following discussion outlines the findings.

DISCUSSION

In addition to describing what a transit-only scenario would mean for Spring Garden Road and the findings of traffic monitoring during construction, this section summarizes the conditions for loading and deliveries in the Spring Garden area.

Transit-Only Corridor

A daytime transit-only corridor (Attachment A) means that 400m of Spring Garden Road between South Park Street and Queen Street would be closed to general vehicle traffic between 7am and 8 pm (Monday to Sunday) and would reopen to all users between 8 pm and 7 am. These times were informed by historical traffic patterns showing that Spring Garden Road does not follow the usual AM/ PM traffic peaks. Weekends are included to maintain the best pedestrian experience during peak shopping days, in addition to supporting transit. The access-a-bus stop at Park Lane Mall would remain as part of this pilot.

Data Collection Before and During 2021 Construction

During construction of the streetscaping project, Spring Garden Road has been closed from South Park Street to Queen Street (the 400m section proposed as a transit-only corridor). To understand the impacts of traffic diversion into the surrounding neighbourhood, data was collected before construction began in May 2021, and again during construction. The data consisted of traffic counts and speed monitoring on surrounding neighbourhood streets and can be found on the Imagine Spring Garden [ShapeYourCity](#).

Due to a significant increase in COVID-19 cases in the latter half of April, the Province of Nova Scotia implemented a [14-day lockdown on April 27th](#), which ended on May 12th. Data collection occurred after the lockdown was lifted but travel by all modes (walking, cycling, transit, and driving) was still significantly reduced compared to typical levels. For this reason, it was not possible to directly compare observed vehicle counts before and during construction to assess the impacts of the closure of Spring Garden Road (for construction) on shortcutting through the nearby residential areas. Given this limitation, staff will investigate methods to monitor the incidence of shortcutting traffic through the pilot period.

Travel Behaviour During Construction

Despite the above challenges, the data did allow a comparison of vehicle travel speeds to assess changes in motorist behaviour before and during construction. Figure 1 shows where speeds were observed in the neighbourhood (in blue) and Table 1 shows an overall summary of the observed speeds for the neighbourhood. Additional details of the analysis are included in Attachment B.

Figure 1 – Speed Monitoring Locations

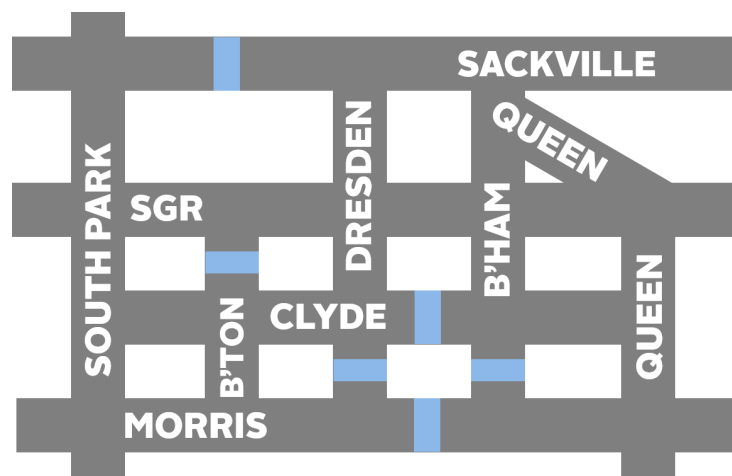


Table 1 – Neighbourhood Speed Monitoring Summary

Day of the Week	85th Percentile Speed (km/h)			Average Speeder (km/h)			% of Speeders		
	Before	During	Change	Before	During	Change	Before	During	Change
Weekday	45	44	-1	55	56	1	7%	5%	-2%
Weekend	44	43	-1	55	55	0	6%	5%	-1%

The “85th percentile speed” is the speed at or below which 85% of motorists were travelling and is a typical engineering measure. By definition, the 85th percentile speed is higher than the average (the 50th percentile).

Overall, no significant change in the 85th percentile driving speed was observed. Some variation was observed at individual points, but the 85th percentile speed did not exceed the maximum posted speed limit (50 km/h) at any location. For points within the Schmidville neighbourhood (Brenton Street, Clyde Street, Dresden Row, and Birmingham Street), the 85th percentile speed during construction ranged from 31 km/h (Clyde Street) to 41 km/h (Birmingham Street). Observed speeds on Dresden Row increased during construction (from 32 km/h on weekdays and 34 km/h on weekend days to 38 km/h on both weekdays and weekend days) but were still significantly slower than the maximum posted speed limit. Otherwise, speed observations within Schmidville were shown to decrease slightly (by 2-4 km/h).

There was also an overall reduction in vehicles exceeding the posted speed limit during construction of 1-2%. Except for a minor 1% increase in speeding on Dresden Row, all points inside Schmidville showed a decrease in speeding. Sackville and Morris Streets also showed a decrease in the incidence of speeding, except for westbound Morris Street (9% to 12% on weekday, 7% to 11% on weekend), though this means that at least 88% of drivers were travelling below the posted speed limit.

Intersection Performance (Vehicles)

The collected data was also entered into intersection analysis software which allowed staff to assess the driving performance of the intersections and to model different scenarios. Included in these scenarios was consideration of future proposed transit routes and schedules in the *Moving Forward Together Plan* and *Rapid Transit Strategy*; comparison to 2019 traffic levels; and sensitivity testing (e.g., to account for Covid-19 traffic reduction, seasonal variation, future potential increases in driving). The base scenarios tested were:

- **2019 – Pre-Construction:** Analysed as a pre-COVID benchmark
- **2021 – Construction:** Data collected during the reconstruction of Spring Garden Road
- **2021 – Transit-Only:** Modification of the 2021 – *Construction* scenario to re-route buses from their construction diversion route (via Queen, Morris, and South Park) to a route directly along Spring Garden Road between Queen and South Park Streets. This scenario also assumes full implementation of Bus Rapid Transit in the corridor, which results in five additional buses per direction during the morning and afternoon peak hours.

Intersection performance was assessed at the eight intersections in the immediate vicinity to the proposed transit-only section, which are:

- Sackville Street / Bell Road / South Park Street
- Sackville Street / Queen Street
- Sackville Street / Brunswick Street
- Spring Garden Road / South Park Street
- Spring Garden Road / Queen Street
- Spring Garden Road / Brunswick Street
- Morris Street / South Park Street
- Morris Street / Queen Street

[HRM's multi-modal level of service \(MMLoS\) framework](#) provides guidance on the appropriate level of service (LOS) for all modes of travel (walking, cycling, transit, goods movement, and driving) when

considering changes to infrastructure and operation of the mobility network. These guidelines provide a letter grade from A (best) to F (worst) for performance of intersections and road segments for how the design and operation of the mobility network affects the safety, priority, and convenience of all road users.

For the purposes of this study, a full MMLOS analysis was not undertaken, as any modifications currently under consideration will only serve to improve the safety, priority, and convenience of the area for walking, cycling, and transit users and no infrastructure changes are being proposed. The MMLOS guidelines define the target level of service (LOS) for driving within the Regional Centre as *LOS E*.

A graphical summary of the operational analysis is included on Page 2 of Attachment B and is discussed below. Detailed results of the operational analysis can be found on the [Imagine Spring Garden ShapeYourCity](#).

Base Scenarios

Attachment B – *Base Scenarios* shows a summary of the driving Level of Service (LOS) for intersections within the study area. As can be seen, all intersections performed well in the base scenarios. Delay and queuing were within acceptable limits in all scenarios and the intersections performed better than their MMLOS target. Implementing the transit-only pilot segment on Spring Garden Road was not shown to significantly impact operation of the intersections for driving. In fact, the performance of the intersections was shown to improve slightly, due to the re-routing of buses from their diversion route to a more direct route along Spring Garden Road, removing large slow-turning vehicles from intersections along Morris Street.

Sensitivity Analysis

To account for the ongoing effects of the COVID-19 pandemic and other fluctuations, a series of sensitivity tests were also performed to assess intersection performance if traffic levels were to increase beyond those observed during construction. Five scenarios were tested which added +10% to +50% car volume above the 2021 – *Transit Only* scenario in 10% increments. (Note that 2019 traffic counts in the study area were 25% higher than those observed in 2021.)

As shown in Attachment B – *Sensitivity Analysis*, all study area intersections were shown to meet their LOS target for the sensitivity test scenarios from +10% to +50% during the AM peak hour.

During the PM peak hour, however, the performance of the intersection of Spring Garden Road and Brunswick Street was shown to be LOS F at the +20% volume level. This intersection is controlled by a stop sign and is well-used by pedestrians (approximately 400 crossings of the Brunswick leg per PM peak hour and 150 crossings of the eastern leg). Drivers approaching the stop sign have difficulty completing both left and right turns as the intersection prioritizes pedestrian flow and Spring Garden Road also has a significant number of eastbound left turns. The intersections of Sackville / Bell / South Park and Queen / Morris also were shown to operate at LOS F in the +50% volume scenario. These intersections may require modification if this extra demand for driving emerges in the future. This possibility can be reduced through continued efforts to improve the safety, priority, and convenience for walking, cycling, and taking transit throughout HRM, but especially in the vicinity of dense, walkable areas such as this.

Relationship to Other Projects

The intersection analysis also considered possible future options currently being evaluated through the Peninsula South Complete Streets Project. The modelling was completed to confirm that a transit-only pilot would not eliminate any of the concepts currently being considered for Morris Street as part of the Peninsula South Complete Streets project

Loading During Construction:

In 2020, changes were made to streets in the Spring Garden Road area to support loading and vehicle movement in advance of the 2021 streetscape construction. This included the addition of new traffic signals at the Dresden Row / Sackville Street intersection, and the conversion of portions of Dresden Row and Birmingham Street into a one-way couplet, to allow for additional loading space to replace what was

to be removed when streetscape construction made Spring Garden Road narrower. In addition to allowing the use of both curbs for loading and/or parking, the one-way couplet allows for smoother traffic circulation on these narrow streets.

The new streetscape design has removed all but one loading space from this section of Spring Garden Road, shifting all loading activities to side streets. During construction this new loading approach was tested. Delivery trucks parked on side streets, and goods were wheeled by dolly, platform dolly, or hand truck to their destinations. Signage on side streets preserves curbside space for loading in the mornings and assigns it to parking at 11am, encouraging deliveries (and large trucks) to complete their activities before pedestrian activity increases. The project team supported businesses in forming new loading plans at the beginning of construction. Further adjustments to the timing of side street loading availability can also be adjusted by HRM. In advance of construction, additional parking enforcement was added in the area to support time of day loading. This was a temporary resource added through OCC to ensure dedicated enforcement presence to enforce time of day loading. It should be noted this resource ends in March 2023. Moving forward, these additional resources should be maintained to ensure effective use of these spaces.

Additionally, the impact to drop-offs and accessible parking has been considered with the new design and is the same whether the street is restricted to transit or not. With Council's previous decision to prioritize wide sidewalks and the pedestrian experience, the streetscape's narrowed roadway will provide almost no space for drop-offs and will largely be signed 'no stopping'. In anticipation of this, accessible parking spaces were added near each cross-street intersection in 2020. The goal was to increase the amount of available accessible parking and meet this demand for drop-offs and short term stopping as close to destinations and curb ramps as possible. It would be impossible to provide dedicated on-street drop-off space in front of every business, but good corner access coupled with Spring Garden Road's short block lengths (60 -100m) will continue to make this area an accessible streetscape.

Access and Circulation

Should the Municipality proceed with a daytime transit-only pilot on Spring Garden Road between Queen Street and South Park Street, one of the trade offs will be reduced ease of circulation and access for vehicles in the immediate area. A transit-only segment, layered with previously implemented one-way side streets, will make vehicle access more circuitous. Staff previously completed routing exercises to confirm that all driving locations and parkades remain accessible and this informed the decision to close Spring Garden Road for the duration of streetscape construction.

Transit-only Pilot Implementation – Key Considerations

The following sections provide further detail on various aspects of the transit-only pilot:

Timing of Implementation

It is proposed that the transit-only pilot project commence immediately following the completion of construction. Vehicle routing to area destinations under a transit-only scenario will be almost identical to the patterns established during streetscape construction. This means that, unlike other street network changes that have been made in the past, a transition to transit-only on this segment will not require major routing adjustment for local drivers who have accustomed themselves to avoiding this segment of the street since construction began in June 2021. This is a significant opportunity that will not present itself again.

Pilot Project Duration

It is recommended that the pilot project be in place for a full calendar year to allow for all seasonal impacts and benefits to be understood. Staff will return to Regional Council to provide an update on the operation of the transit-only pilot and provide recommendations for the ultimate configuration for the street.

Time Period

A 7am to 8pm daytime transit pilot is recommended as it allows for the improved reliability of transit, while

allowing for general vehicle use of the street at times when transit and general traffic volumes are lower. Vehicle drivers will also add more “eyes on the street” in the evenings and overnight, potentially

increasing the sense of security. Additionally, there remains one loading bay along the street that would be accessible in the evening.

Alternatively, a 24/7 transit-only pilot could be implemented. While this approach would make regulatory signage and communication less confusing, it is considered to be more restrictive than necessary to meet the project’s objectives.

Brenton Street Configuration

Prior to the 2021 streetscape construction, Brenton Street (between Clyde Street and Spring Garden Road) was a southbound, one-way street. It has been closed to all but local traffic since June 2021 as a result of the ongoing construction work. Under a transit-only scenario, it would be re-opened as a northbound one-way street with a required left-turn at Spring Garden Road. During the pilot staff may also consider closing Brenton Street tactically (i.e., with temporary free-standing planters) at its north end, to understand if this is possible or desirable. More detail around implementation of the proposal is included in the report below.

Regulatory Approval & Signage

Approval of the Traffic Authority under section 90(5)(c) of the *Motor Vehicle Act* is required in order to “exclude from traffic on specified streets or specified portions of streets vehicles other than public transit vehicles ...” HRM’s Traffic Authority is aware of the proposed pilot project and supports it in principle. Should Council direct the CAO to proceed with the pilot project, staff will seek the formal approval of the Traffic Authority.

Traffic Authority approval is also required for the erection of necessary signage. A signage plan is being developed in conjunction with this staff report to allow for the quick implementation of this pilot (if approved) once the construction fencing and traffic control set up for the streetscape project is removed in late 2021. Signage would be installed to communicate restrictions to the driving public in advance of the transit-only segment, and on all side streets. Regulatory signage will include time-limited “bus only” signs (as seen on other transit-only lanes) at the main intersections (Queen and South Park Streets) as well as turn restriction signage on the side streets. No transit-only pavement markings will be added.

Communication / Education

As a transit-only street is a new concept for Halifax, communication and education will be important to complement regulatory signage and enforcement efforts. A communications plan will be developed to increase awareness of the changes to drivers and residents.

Enforcement

Halifax Regional Police (HRP) are aware of this proposal and have existing resources in the area who will support implementation of the transit-only pilot through on-street education and enforcement (of moving violations), to the extent that they are able. In addition to this, some operating funds will be used to support dedicated enforcement immediately after implementation (four hours per day for approximately 14 days). If additional dedicated enforcement (i.e. spring and fall campaign) are required in the future, funds be considered in a future budget process. Halifax Transit and Compliance officers will support HRP’s efforts by enforcing any stopping, loading, and parking violations on Spring Garden Road and side streets.

Measures of Effectiveness

Staff will evaluate the pilot based on identified performance indicators and return to Council in fall 2022 with a recommendation on whether to maintain the transit-only corridor, or to re-open the street to all vehicles. To be considered a success, the pilot will need to improve the pedestrian and transit experience along the 400m corridor, with minimal negative impacts to the surrounding area.

Some of the possible evaluation metrics include

- Pedestrian, customer, and transit rider experience on the street
- Public and area resident feedback
- Average transit travel time
- Pedestrian volumes along the corridor
- How people access the street
- Compliance review, which may include the use of cameras to monitor vehicles along the corridor
- Speeds, collision data, volumes, and intersection performance on surrounding streets
- With cooperation of the business association and individual businesses, business sales and customer volumes could also be measured.

Conclusion

There are important physical changes happening to Spring Garden Road that will change the way the street operates. Before the streetscaping project, buses could enter and exit the general traffic stream to pick up and drop off passengers and drivers could occasionally pass stopped buses. With the new widened sidewalks and narrowed roadway, buses will always stop in the travel way, and vehicles will not be able to pass. While this new reality may deter many from driving down the street even if vehicles are permitted, remaining vehicles will impact the reliability of bus travel with their turning movements, which will themselves be delayed by the high pedestrian volumes.

While it may be possible to re-open the street to general traffic but restrict all left turns, a transit-only street would augment the project's original goals of enhancing the pedestrian realm and prioritizing transit. Fewer vehicles will improve reliability on Halifax's busiest transit corridor. A transit-only street will markedly improve the pedestrian experience by reducing overall noise, which will be further improved as the transition to quieter, sustainable fuel or electric buses takes place. Without a constant stream of slow-moving vehicles, the sidewalks will feel less like 'tunnels' and more like open space. Additionally, the transit-only segment will still permit bicycles, creating better conditions for this mode of travel as well.

With a daytime transit-only street, general vehicle traffic will be permitted to re-enter the corridor in the evening and overnight, when traffic volume is lighter and less impactful to the efficiency of the transit network. This will maintain a degree of casual surveillance ('eyes on the street') without significantly deteriorating the pedestrian experience. Since bus frequency decreases in the evening, and ceases overnight, allowing general vehicle traffic during these times should not impact transit reliability, even if stopping restrictions are occasionally violated.

In approving a daytime transit-only pilot project, Council is accepting reduced access and circulation for vehicles in the area. While this may inconvenience some travellers, it may also contribute to a phenomenon known as "traffic evaporation". This term describes possible reductions in overall traffic as road space is reallocated from general vehicle traffic to more sustainable modes like walking, cycling and public transport. This mode shift, in conjunction with the ongoing streetscape improvements will enhance Spring Garden Road's place standing and have the potential to improve its status as a destination in itself. Furthermore, as the land-use by-law continues to stimulate the area's residential intensification, the number of people visiting local shops by foot will continue to rise, potentially offsetting losses from those who prefer to shop at more driveable destinations. While this change may result in some travellers changing their destinations, various other behaviour changes are possible and have been observed elsewhere (e.g., route changes, trip consolidation, car-pooling, mode-switching, etc.).

FINANCIAL IMPLICATIONS

The financial impacts of this pilot project can be absorbed by approved 2021/22 operating budgets and with existing resources. Initial dedicated enforcement during the implementation phase will cost approximately

\$10,000. P&D will use its operating surplus to cover this cost for 2021/22. If additional dedicated enforcement is required in the future, budget will be included in a future operating budget process.

RISK CONSIDERATION

The following outlines the possible risks and their impacts of implementing the transit-only pilot versus opening the street to full-time vehicular access.

Risks of implementing the transit-only pilot project

1. Traffic volumes re-routed from Spring Garden may not “evaporate” or disperse through the surrounding road network. This may impact nearby streets and neighbourhoods.
2. Vehicular access and circulation may become too confusing and have unexpected detrimental impacts on the area.
3. Compliance issues may compromise the benefits of the ‘transit-only’ segment.
4. There may be driver frustration and congestion on side streets.

If any of these risks materialize, the pilot can be terminated, and general traffic allowed back on Spring Garden Road. The above risks are all considered to be low with low impact. This is based on the traffic data analysis described in this report and the network changes that were carried out in 2020 (one-way couplet and Dresden/Sackville signal).

Risks of *not* implementing the transit-only pilot project

1. General vehicle traffic may negatively impact transit travel time and reliability.
2. Driver frustration due to the inability to pass buses at bus stops due to the narrow street width.
3. Frequent violation of no-stopping signage may impede transit and general traffic.
4. High loading demand from Spring Garden Road businesses may result in vehicles mounting the curb, encroaching on the pedestrian realm and potentially damaging high value street furnishings.
5. Crossing Spring Garden Road at Birmingham Street in a vehicle may be more difficult because drivers must wait for a gap in vehicle traffic as well as pedestrian traffic.

All of the above erode pedestrian comfort and safety. The above risks associated with not undertaking the pilot are all expected to have a high likelihood of occurrence, and their impact would be medium to high. If any of these risks materialize, the transit only pilot project could be initiated at a future time, but without the benefit of the smooth transition resulting from maintaining construction period travel patterns.

COMMUNITY ENGAGEMENT

Attachment C, summarizing the work completed from the [functional plan report](#), outlines the engagement completed in 2018 and 2019 for the Spring Garden Road streetscaping project. At that time, there was significant support from the general public for a transit-only street.

Staff have invited the Spring Garden Area Business Association to consult with their members and communicate their preferences to Council.

ENVIRONMENTAL IMPLICATIONS

This project supports the *Council Priority Outcome* of building healthy, livable communities: it aims to make it more convenient for residents to choose sustainable transportation options for everyday transportation purposes. While the segment of the street under consideration for this project is only 400m long, its prominence as a transit & pedestrian only corridor in the heart of the city will demonstrate Halifax’s commitment to climate action under HalifACT.

ALTERNATIVES

Halifax Regional Council can direct the Chief Administrative Officer:

1. To not proceed with a daytime transit-only pilot project.
2. To not proceed with a daytime transit-only pilot project but consider restricted left-turns from Spring Garden onto Dresden Row and Birmingham Street.
3. To proceed with a 24 hour/7 days per week transit-only pilot project.

ATTACHMENTS

Attachment A – Daytime Transit-Only Pilot

Attachment B – Summary of Transportation Analysis

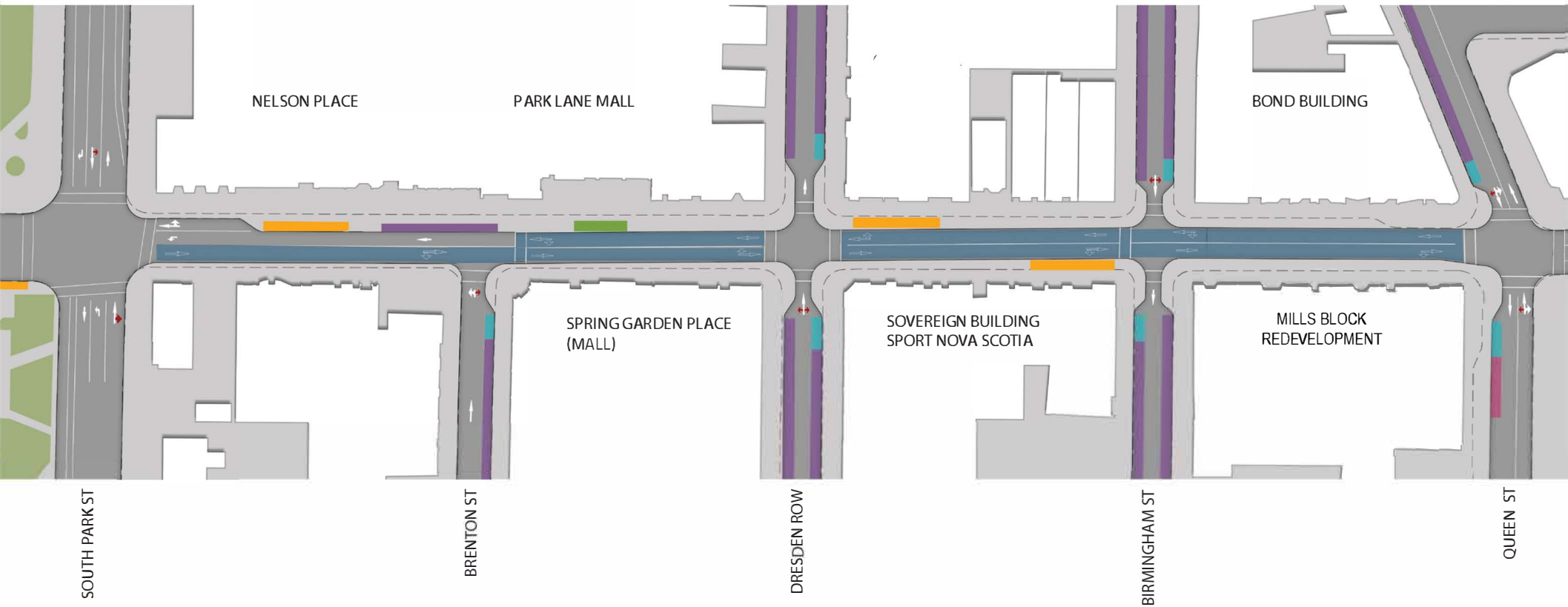
Attachment C – Summary of Engagement from Functional Plan

Attachment D – Multi-Modal Transportation Patterns Before Construction

A copy of this report can be obtained online at halifax.ca or by contacting the Office of the Municipal Clerk at 902.490.4210.

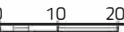
Report Prepared by: Elora Wilkinson, Planner II, 902-719-5029

DAYTIME TRANSIT CORRIDOR From 7am - 8pm; Monday - Sunday



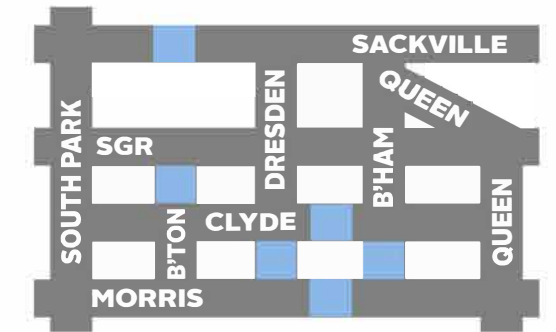
LEGEND

- TRANSIT STOP
 - PARKING
 - LOADING & PARKING
 - TRANSIT ONLY
 - ACCESSIBLE PARKING
 - ACCESS-A-BUS
 - TIME RESTRICTED
- *Loading until 11am and then turns into parking



SPRING GARDEN ROAD - TRANSIT-ONLY PILOT

Driving Speed Analysis - Before and During Construction



Weekday

Street	Direction	85th Percentile Speed (km/h)			Average Speeder (km/h)			% Speeders		
		Before	During	Change	Before	During	Change	Before	During	Change
Brenton (Clyde/Spring Garden)	SB*	35	--	--	57	--	--	2.3%	--	--
Dresden (Clyde/Morris)	NB	36	36	0	54	56	2	0.4%	1.4%	1.0%
	SB	32	38	6	56	56	0	0.4%	0.5%	0.1%
Birmingham (Clyde/Morris)	NB**	34	33	-1	--	55	--	--	0.1%	--
	SB	43	41	-2	57	55	-2	5.8%	4.6%	-1.2%
Sackville (South Park/Dresden)	EB	47	43	-4	55	55	0	6.7%	1.9%	-4.8%
	WB	49	47	-2	55	55	0	12.3%	6.8%	-5.5%
Clyde (Dresden/Birmingham)	EB	32	31	-1	51	56	5	0.9%	0.1%	-0.8%
	WB	31	31	0	54	56	2	0.2%	0.2%	0.0%
Morris (Dresden/Birmingham)	EB	48	47	-1	55	55	0	8.5%	6.4%	-2.1%
	WB	47	49	2	58	59	1	9.1%	11.9%	2.8%
OVERALL		45	44	-1	55	56	1	7.2%	5.3%	-1.9%

Weekend

Street	Direction	85th Percentile Speed (km/h)			Average Speeder (km/h)			% Speeders		
		Before	During	Change	Before	During	Change	Before	During	Change
Brenton (Clyde/Spring Garden)	SB	34	--	--	56	--	--	1.0%	--	--
Dresden (Clyde/Morris)	NB	37	37	0	54	57	3	0.6%	1.6%	1.0%
	SB	34	38	4	51	56	5	0.3%	0.6%	0.3%
Birmingham (Clyde/Morris)	NB	36	34	-2	51	51	0	2.0%	0.4%	-1.6%
	SB	43	41	-2	56	56	0	5.8%	4.9%	-0.9%
Sackville (South Park/Dresden)	EB	46	43	-3	55	54	-1	5.0%	2.2%	-2.8%
	WB	49	47	-2	55	55	0	10.2%	6.6%	-3.6%
Clyde (Dresden/Birmingham)	EB	31	31	0	57	52	-5	0.7%	0.2%	-0.5%
	WB	31	31	0	54	52	-2	0.3%	0.1%	-0.2%
Morris (Dresden/Birmingham)	EB	48	46	-2	56	55	-1	7.2%	4.6%	-2.6%
	WB	47	48	1	58	58	0	7.0%	10.7%	3.7%
OVERALL		44	43	-1	55	55	0	5.7%	4.5%	-1.2%

* Brenton Street was closed at Spring Garden Road during construction

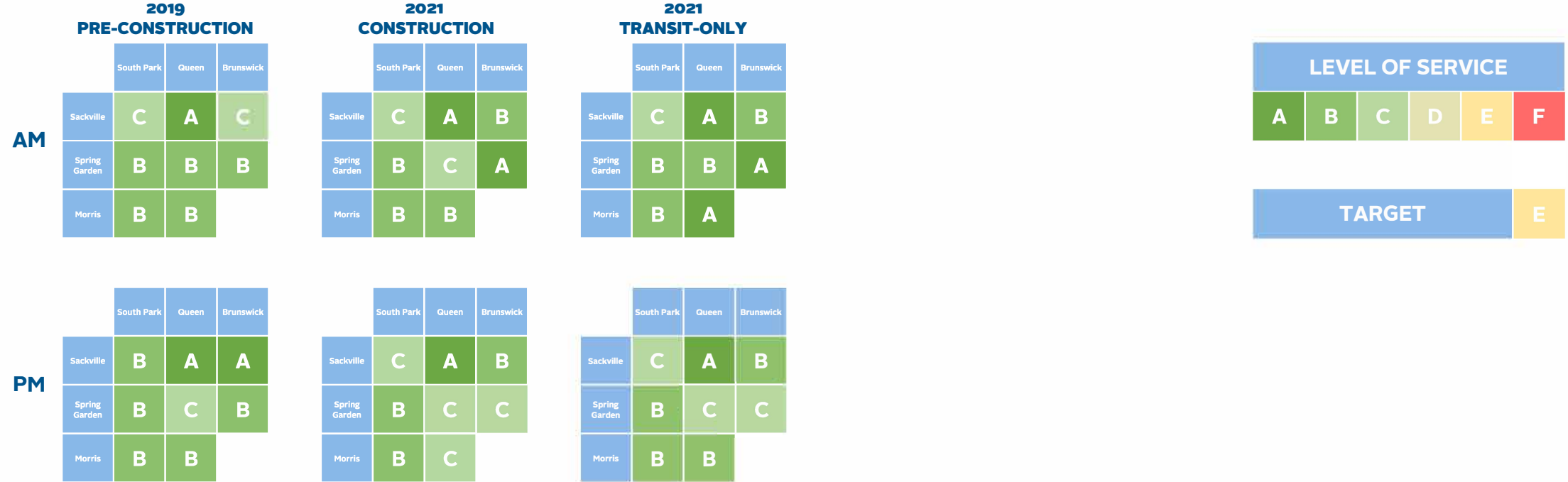
** No speeders were observed on Birmingham Street northbound on a weekday before construction

SPRING GARDEN ROAD - TRANSIT-ONLY PILOT

Operational Analysis - Driving Level of Service Summary

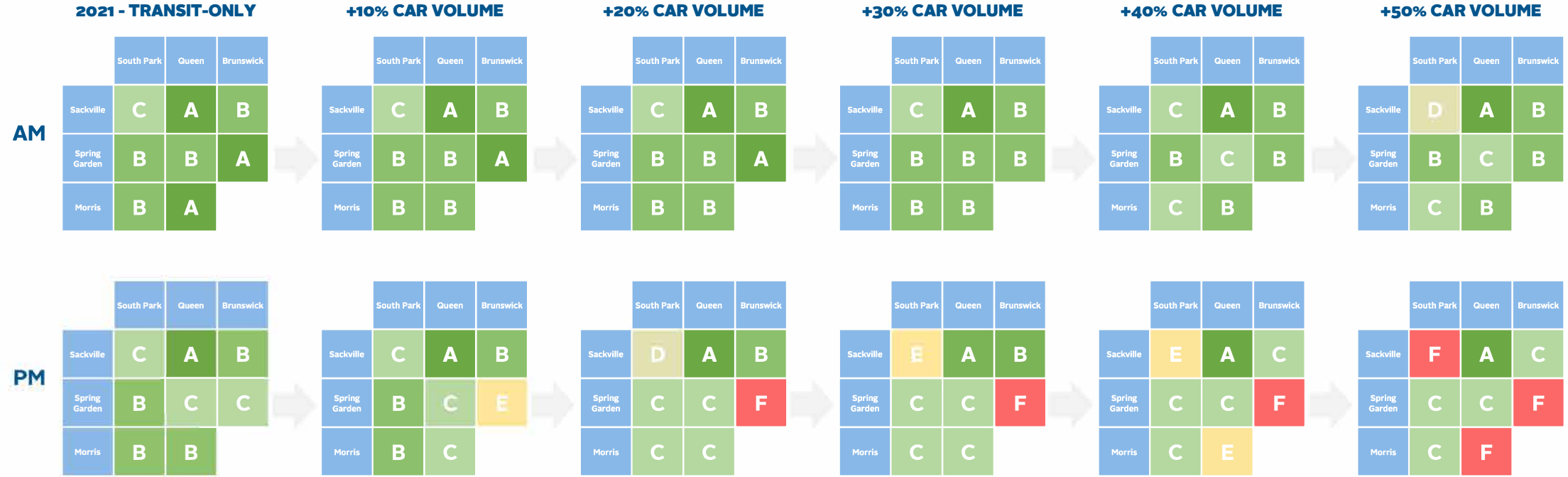
BASE SCENARIOS

The '2021 - Transit-Only' scenario assumes the completion of the Moving Forward Together Plan and full implementation of Bus Rapid Transit. This results in 75 buses using this section of Spring Garden Road during each of the peak hours.



SENSITIVITY TESTING

These scenarios take the 2021 car volume (including shifts due to the transit-only pilot on Spring Garden Road) and add the noted volume to account for elements such as COVID recovery, seasonal adjustment, and future growth in demand for driving. Note that 2019 car volumes were observed to be generally 25% above those observed in September 2021 within the study area.



Summary of Engagement from Functional Plan

The below is a summary of the engagement completed at the Functional and Schematic stages of the Spring Garden Road Streetscaping project in 2019.

Notification

The public was notified of engagement opportunities via:

- Paid newspaper and social media ads
- Collaboration with the Spring Garden Area Business Association to notify all their members
- Emails directly to stakeholder groups (i.e. resident and advocacy organizations) encouraging them to be forwarded to members.
- Digital screens in 47 HRM facilities, including the Central Library
- Social media campaigns on Twitter and Facebook
- Internally via “HRM Employee Hub”
- Placement of a ‘homepage icon’ on Halifax.ca
- Attraction of significant media coverage (unpaid)
- Posters put up in the area before both public open houses.

Functional Plan Feedback Engagement

Once the draft functional plan options had been developed, another round of consultation began, including:

- A presentation to the Spring Garden Area Business Association Board (December 11th, 2018)
- A public open house (January 7th, 2019, 6:30pm, Central Library)
- An online survey (January 7th to 25th, 2019)
- An online “quick poll” (January 16th to 25th, 2019)
- “Pop-up” engagements (January 10th, 2019, 10am-noon, Central Library; January 15th 1:30pm-3:30pm, Park Lane Mall).
- A presentation and discussion with the Spring Garden Area Business Association (including businesses, residents, and board members) on January 18th, 2019.
- A presentation to HRM’s Accessibility Advisory Committee on February 19th, 2019
- Collaboration with HRM’s new in-house accessibility consultant on an audit of the current street to inform the schematic design (next phase).

A total of 232 people completed the online survey and generated 796 comments which were categorized as either ‘supporting’ or ‘against’ the three options. Option 3 (transit- only with the widest sidewalks) received more positive comments than negative ones (75% vs 25%), and Options 1 (most loading bays and no restrictions on vehicles) and Option 2 (some loading bays with left-turn restrictions on transit) received more negative than positive comments (57% vs 43%).

The most supported aspects of each of the options were:

- Option 1: The least amount of change relative to present conditions, with more sidewalk space on bump outs
- Option 2: Added left turn restrictions, more sidewalk space, and a more balanced approach
- Option 3: Added transit priority, more sidewalk space, boldness and the most appropriate ‘focus’ for the street.

The main concerns cited about each of the options were:

- Option 1: retains too much prioritization of vehicles and 'not bold enough'
- Option 2: Too confusing and 'not bold enough'
- Option 3: Implications of traffic diversion on other streets.

In all three options, it is notable that there was significant support for increased sidewalk space and an enhanced pedestrian realm. Most of the comments were related to the traffic operational aspects. Regarding loading, some business/ property owners expressed concerns about moving the loading zones to side streets, however others supported the removal of on-street loading from Spring Garden Road. While some residents were concerned about potential re-routing of traffic to area streets, others recognized alternate routes were available, and that transit/ pedestrian priority was important on Spring Garden Road.

There were some comments about the lack of dedicated cycling facilities in any of the options. In addition to the online survey, 142 people completed an online "quick poll" asking which option they preferred:

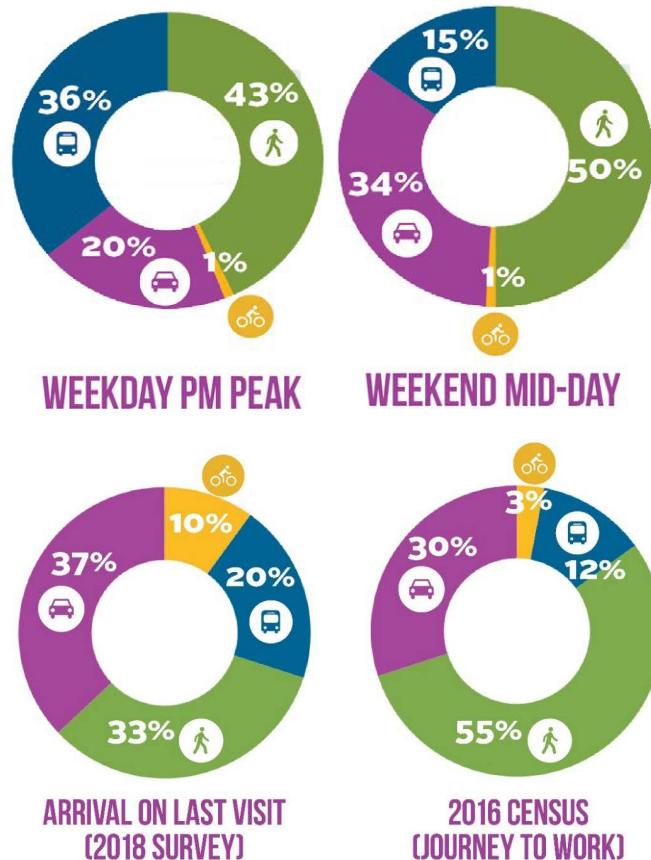
- (24%) preferred Option 1: Transit Prioritized Vehicle Thoroughfare
- (23%) preferred Option 2: Turn Restricted Transit Corridor
- (53%) preferred Option 3: Daytime Transit Corridor

Multi-Modal Transportation Patterns Before Construction

Mode Share

In summer 2018 between Birmingham Street and Dresden Row, data revealed that more people travel **along** Spring Garden Road on **foot** than by any other transportation mode (weekdays and weekends). A significant portion of people also ride buses along the corridor, particularly on weekdays, when only one in five people moved along the corridor as a driver or passenger in a private automobile.

In online and intercept surveys, more people reported travelling **to the street** by active transportation and transit (63%) than car (37%). In the census tract bounded by South Park Street, Sackville Street, Morris Street, and the Harbour, more residents walk to work (55%) than use any other mode (2016 Census).



Transit:

Spring Garden Road includes some of the busiest bus stops in the network, with over 3,260 people getting off a bus between South Park Street and Brunswick Street on a typical weekday, bringing employees, shoppers, visitors, and residents to important destinations.

Bus travel times along this part of Spring Garden Road are consistently higher than those of private vehicles, which is normal for busy transit routes operating in an urban context. While much of the delay in transit travel time is related to dwell time (the time it takes for passengers to board and alight), the reliability of buses is impacted by turning vehicles, that are in turn delayed by high pedestrian volumes.

Traffic:

Traffic characteristics on Spring Garden Road were reviewed to inform the 2019 approved functional plan and these varied east and west of South Park Street. The western section accommodated about 8,000 vehicles per day and exhibited typical commuter-based peak traffic distribution (highest volumes observed at 7-9 am & 4-6 pm). By contrast, the section east of South Park Street (the portion considered

for transit-only) experienced lower volumes (approximately 6,000 vehicles per day including 850 transit buses) and had longer, less pronounced peak periods occurring later in the morning and evening (10-11am; 7-8 pm); consistent with its more commercial character.

Approximately one-third of traffic on Spring Garden Road (South Park Street to Queen Street) was related to movements onto or off local side streets (local parkades, pick-up or drop-off activities, or local circulation). The remaining two-thirds of vehicles on this section were 'through traffic' not destined to stop in the immediate area. Analysis to inform the approved function plan concluded that these through trips could be accommodated on parallel streets in the south peninsula street network (i.e., Sackville Street, Morris Street, South Street), or were discretionary trips such as recreational driving or people-watching and did not need to be accommodated at all.