1. ALBERT AND SLATER STREETS POST LRT REPURPOSING FUNCTIONAL DESIGN AND SLATER STREET REALIGNMENT ENVIRONMENTAL ASSESSMENT STUDY RECOMMENDATIONS

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RECOMMANDATIONS DE L'ÉTUDE DE CONCEPTION FONCTIONNELLE DU RÉAMÉNAGEMENT DES RUES ALBERT ET SLATER APRÈS LA MISE EN SERVICE DU TRAIN LÉGER SUR RAIL (TLR) ET DE L'ÉTUDE D'ÉVALUATION ENVIRONNEMENTALE DU NOUVEAU TRACÉ DE LA RUE SLATER

## **COMMITTEE RECOMMENDATIONS**

#### That Council:

- Approve the functional design for the full road reconstruction of Albert and Slater Streets (Empress to Bay) and Bronson Avenue (Laurier to Queen), as described in this report;
- 2. Approve the functional design for the interim post-LRT modifications to Albert and Slater Streets (Bay to Waller), as described in this report;
- 3. Direct staff to finalize the Environmental Study Report with its posting of the 30-day public review period, in accordance with Ontario Municipal Class Environmental Assessment process (Schedule C) for the Slater Street Realignment (Empress to Bronson); and,
- 4. Approve the amendment to the Traffic and Parking By-Law No. 2017-301 as described in this report and detailed in Document 4.

## RECOMMANDATIONS DU COMITÉ

#### Que le Conseil :

1. Approuve la conception fonctionnelle de la réfection complète des rues Albert et Slater (entre l'avenue Empress et la rue Bay) et de l'avenue Bronson (de l'avenue Laurier à la rue Queen), comme le décrit le présent rapport;

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- 2. Approuve la conception fonctionnelle des modifications provisoires de la chaussée des rues Albert et Slater (entre la rue Bay et la rue Waller) après l'aménagement du TLR, comme le décrit le présent rapport;
- 3. Demande au personnel de finaliser le rapport de l'étude d'évaluation environnementale et de l'afficher pendant la période d'examen du public de 30 jours, conformément au processus d'évaluation environnementale municipale de portée générale de l'Ontario (annexe C) pour le nouveau tracé de la rue Slater (entre l'avenue Empress et l'avenue Bronson); et,
- 4. Approuve la modification au Règlement sur la circulation et le stationnement no 2017-301, comme le décrit le présent rapport et l'explique le document 4.

#### FOR THE INFORMATION OF COUNCIL

The Committee approved the following Directions to Staff:

- That City Staff will work with the NCC to ensure a secondary access for the Good Companions Centre will be considered as part of any future development opportunities associated with the proposed decommissioned Slater Street lands.
- That Staff consult with Walk Ottawa, Downtown Rideau BIA and the ByWard Market BIA to address their concerns with this project, going forward.

#### POUR LA GOUVERNE DU CONSEIL

Le Comité a donné l'instruction suivante au personnel :

- Que le personnel municipal collabore avec la CCN pour assurer l'examen d'un accès secondaire au Centre Good Companions dans le cadre de tout aménagement futur possible lié à la désaffection proposée des terrains de la rue Slater.
- Que le personnel consulte, à l'avenir, les membres de Walk Ottawa et des zones d'amélioration commerciales du centre-ville Rideau et du marché By afin de réponde à leurs préoccupations à l'égard du projet.

### **DOCUMENTATION / DOCUMENTATION**

- General Manager's report, dated 20 March 2018 (ACS2018-TSD-PLN-0001)
   Rapport du Directeur général, daté le 20 mars 2018 (ACS2018-TSD-PLN-0001)
- 2. Extract of Draft Minute, Transportation Committee, 4 April 2018.
  - Extrait de l'ébauche du procès-verbal de la Comité des transports, le 4 avril 2018

Report to Rapport au:

Transportation Committee Comité des transports 4 April 2018 / 4 avril 2018

and Council et au Conseil 11 April 2018 / 11 avril 2018

Submitted on March 20, 2018 Soumis le 20 mars 2018

Submitted by Soumis par:

John Manconi, General Manager / Directeur général, Transportation Services

Department / Direction générale des transports

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Ward: RIDEAU-VANIER (12) File Number: ACS2018-TSD-PLN-0001

SOMERSET (14)

SUBJECT: Albert and Slater Streets Post LRT Repurposing Functional Design and Slater Street Realignment Environmental Assessment Study Recommendations

OBJET: Recommandations de l'étude de conception fonctionnelle du réaménagement des rues Albert et Slater après la mise en service du

train léger sur rail (TLR) et de l'étude d'évaluation environnementale du nouveau tracé de la rue Slater

#### REPORT RECOMMENDATIONS

That the Transportation Committee recommend that Council:

1. Approve the functional design for the full road reconstruction of Albert and Slater Streets (Empress to Bay) and Bronson Avenue (Laurier to Queen), as described in this report;

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- 2. Approve the functional design for the interim post-LRT modifications to Albert and Slater Streets (Bay to Waller), as described in this report;
- 3. Direct staff to finalize the Environmental Study Report with its posting of the 30-day public review period, in accordance with Ontario Municipal Class Environmental Assessment process (Schedule C) for the Slater Street Realignment (Empress to Bronson); and,
- 4. Approve the amendment to the Traffic and Parking By-Law No. 2017-301 as described in this report and detailed in Document 4.

#### RECOMMANDATIONS DU RAPPORT

Que le Comité des transports recommande au Conseil municipal :

- Approuver la conception fonctionnelle de la réfection complète des rues Albert et Slater (entre l'avenue Empress et la rue Bay) et de l'avenue Bronson (de l'avenue Laurier à la rue Queen), comme le décrit le présent rapport;
- 2. Approuver la conception fonctionnelle des modifications provisoires de la chaussée des rues Albert et Slater (entre la rue Bay et la rue Waller) après l'aménagement du TLR, comme le décrit le présent rapport;
- 3. Demande au personnel de finaliser le rapport de l'étude d'évaluation environnementale et de l'afficher pendant la période d'examen du public de 30 jours, conformément au processus d'évaluation environnementale

municipale de portée générale de l'Ontario (annexe C) pour le nouveau tracé de la rue Slater (entre l'avenue Empress et l'avenue Bronson); et,

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4. Approuver la modification au Règlement sur la circulation et le stationnement n° 2017-301, comme le décrit le présent rapport et l'explique le document 4.

#### **EXECUTIVE SUMMARY**

## **Assumptions and Analysis**

Albert and Slater Streets (Empress to Bay) and Bronson Avenue (Laurier to Queen) are scheduled for full road reconstruction due to aging sewer and watermain infrastructure. Construction could begin no earlier than 2021, depending on the duration of land negotiations required to implement the proposed roadway modifications. These works, combined with the decommissioning of the Transitway in the downtown once the Confederation Line LRT opens for revenue service, provides the opportunity to reconfigure Albert and Slater Streets as complete streets with a focal point adjacent to the future Ottawa Central Library site.

One of the key design recommendations is the realignment of Slater Street between Empress Street and Bronson Avenue. This new simplified roadway configuration also improves the grades for pedestrians and cyclists. The realignment does not affect the property envelope for the future Ottawa Central Library. Although the realignment bisects lands owned by the NCC, the resulting land parcels are still viable from a development perspective.

Cycling facilities and improved sidewalks will be introduced along Albert and Slater Streets, while the road design maintains the existing vehicle lanes. Local bus service (as well as some STO buses) will operate in these mixed-use lanes when the dedicated bus lanes are removed to make space for the active transportation modes. There will be some changes to on-street parking including an increase (65 spaces) for all day, and a decrease (190 spaces) for evenings and weekends. The off-street parking supply remains at approximately 3,000 spaces within one block of Albert and Slater, which have an evening and weekend utilization of approximately 22 to 43 percent respectively. Major road reconstruction is not scheduled for several years on Albert and Slater Streets east of Bay Street. Therefore, the study identified interim solutions that can be coordinated with other planned capital works in a way that supports a long-term implementation strategy. These interim solutions include enhancements to the pedestrian, cycling and transit conditions, while continuing to maintain safe and efficient vehicle travel.

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## **Financial Implications**

The estimated full-reconstruction cost for Albert and Slater Streets between Empress and Bay Street and Bronson Avenue between Laurier Avenue and Queen Street is approximately \$26 million, including property. The authority plan to fund this integrated road reconstruction section of the project is projected for 2021. Project implementation and timing is also being coordinated with the future Ottawa Central Library project.

For the interim measures east of Bay Street on Albert and Slater Streets and the Mackenzie King Bridge, the project budget includes \$500K in the 2018 capital budget with a projected three-year authority plan of \$2.545M in 2019, \$2.106M in 2020, and \$1.291M in 2021. City staff also successfully applied to the Ontario Municipal Green House Gas Challenge Fund. On February 15, 2018, the Province advised that the City of Ottawa would receive funding for Albert and Slater Streets between Bay and Waller Streets. The amount of funding awarded is expected to be announced by the Province by April 2018.

#### **Public Consultation / Input**

The study team undertook a thorough consultation program that included the establishment of a Working Group of stakeholders, a design workshop, a public meeting, a <u>public engagement project website</u>, consultation with the Accessibility Advisory Committee, and additional stakeholder meetings with various agencies, residents, and business owners. The study team also worked closely with other City service areas including staff leading the Ottawa Central Library project. The recommended plan was presented to the Urban Design Review Panel, which endorsed the broad design directions and provided strategic/general advice based on best practices and lessons learned in other communities.

## RÉSUMÉ

## Hypothèses et analyse

Les rues Albert et Slater (entre l'avenue Empress et la rue Bay) et l'avenue Bronson (entre l'avenue Laurier et la rue Queen) doivent être entièrement réaménagées en raison du vieillissement des égouts et de la conduite d'eau maîtresse. Les travaux pourraient débuter au plus tard en 2021, selon la durée des négociations de terrains nécessaires à la mise en œuvre des modifications qu'on propose d'apporter à la chaussée. Ces travaux, combinés au déclassement du Transitway au centre-ville une fois que le TLR de la Ligne de la Confédération sera en service, offrent l'occasion de transformer les rues Albert et Slater en des rues complètes avec un point central adjacent au futur emplacement de la Bibliothèque centrale d'Ottawa.

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Au chapitre de la conception, il est recommandé notamment de revoir le tracé de la rue Slater entre la rue Empress et l'avenue Bronson. Cette nouvelle configuration simplifiée de la chaussée améliore également les niveaux pour les piétons et les cyclistes. Le nouveau tracé n'a aucune incidence sur les limites de la propriété de la future bibliothèque centrale d'Ottawa. Bien que la nouvelle chaussée sépare les terrains appartenant à la CCN, les parcelles de terrains qui en résultent pourront faire l'objet d'aménagements.

Des installations cyclables et des trottoirs améliorés seront aménagés le long des rues Albert et Slater. Selon la conception des rues, les voies actuelles réservées aux véhicules ne seront pas modifiées. Le service d'autobus local (ainsi que certains autobus de la STO) fonctionnera dans ces voies à usages mixtes lorsqu'on aura enlevé les voies réservées aux autobus pour faire place aux modes de transport actif. Certains changements seront apportés au stationnement sur rue, notamment l'augmentation du nombre de places pour toute la journée, qui augmentera de 65, et la diminution du nombre de places pour les soirs et les fins de semaine, qui diminuera de 190. Le nombre de places de stationnement hors rue demeure à environ 3 000 le long de la section Albert à Slater, où les pourcentages d'utilisation le soir et les fins de semaine sont d'environ 22 et 43 % respectivement.

Aucun chantier majeur de réfection n'est prévu avant plusieurs années sur les rues Albert et Slater, à l'est de la rue Bay. Par conséquent, l'étude a défini des solutions

provisoires qui pourront être coordonnées avec d'autres grands travaux prévus de manière à appuyer une stratégie de mise en œuvre à long terme. Ces solutions provisoires comprennent l'amélioration des conditions pour les piétons, les cyclistes et le transport en commun, tout en continuant à assurer la sécurité et l'efficacité des déplacements en voiture.

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## Répercussions financières

On estime le coût total de la réfection de la chaussée complète des rues Albert et Slater, entre la rue Empress et la rue Bay, et de celle de l'avenue Bronson, entre l'avenue Laurier et la rue Queen, à environ 26 millions de dollars, incluant celui du bienfonds. Le plan d'autorisation du financement de cette section du projet de réfection intégrée de la chaussée vise l'année 2021. La mise en œuvre et le calendrier du projet sont également coordonnés avec le futur projet de la Bibliothèque centrale d'Ottawa.

Pour les mesures provisoires à l'est de la rue Bay, dans les rues Albert et Slater et sur le pont Mackenzie-King, le budget du projet prévoit 500 000 \$ au titre du budget des immobilisations de 2018 et un plan d'autorisation prévu sur trois ans de 2 545 M\$ en 2019, de 2 106 M\$ en 2020 et de 1 291 M\$ en 2021. La Ville a également présenté une demande au Fonds d'incitation à la réduction des émissions de gaz à effet de serre pour les municipalités de l'Ontario et a obtenu une réponse favorable. Le 15 février 2018, le gouvernement provincial a fait savoir que la Ville d'Ottawa recevrait du financement pour les travaux de réfection des rues Albert et Slater, entre les rues Bay et Waller. Il devrait annoncer le montant accordé d'ici avril 2018.

## Consultation publique et commentaires du public

L'équipe de l'étude a mis en place un programme de consultation approfondi qui comprenait la création d'un groupe de travail composé d'intervenants, un atelier de conception, une réunion publique, un site Web sur le projet (www.ottawa.ca/albertslater), une consultation du Comité consultatif sur l'accessibilité et des réunions additionnelles avec divers organismes, des résidents et des propriétaires d'entreprises. L'équipe de l'étude a également travaillé en étroite collaboration avec d'autres secteurs de services municipaux, notamment les responsables du projet de la Bibliothèque centrale d'Ottawa. Le plan recommandé a été présenté au Comité de révision de la conception urbaine, qui a approuvé les grandes orientations

conceptuelles et a donné des conseils stratégiques/généraux fondés sur les pratiques exemplaires et les leçons apprises dans d'autres collectivités.

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#### **BACKGROUND**

When the Confederation Line comes into revenue service, it will significantly change transit patterns in the downtown. Continuous dedicated bus rapid transit (BRT) lanes will no longer be needed on Albert Street, Slater Street and the Mackenzie King Bridge. This provides an opportunity to reallocate this space for other uses, while also maintaining acceptable vehicle capacity. The upcoming full road, sewer, and watermain reconstruction of Albert and Slater Streets (Empress to Bay) offers opportunities to reconfigure the street space to meet a diversity of needs, including space adjacent to the future Ottawa Central Library site.

On May 15, 2017, a memo was issued to inform Council that the Albert and Slater Streets planning and functional design efforts were getting underway. On October 20, 2017, a second memo to Council was issued to advise of the requirement for an environmental assessment (Municipal Class EA, Schedule C) as a result of the study findings which recommended the realignment of Slater Street. It should be noted that the remainder of the corridor can be planned following the Municipal Class EA Schedule A+ pre-approved process.

Overall, the planning efforts are building upon previous Council directions. The Downtown Moves Study, approved by Council in 2013, includes recommendations for short-term interventions that could be implemented in coordination with the Confederation Line, as well as longer-term plans to inform future road reconstruction. The 2013 Transportation Master Plan (TMP) includes policies and modal share targets for increased walking and cycling within the inner area of the City. The Complete Streets policy and Multi-Modal Level-of-Service (MMLOS) guidelines, approved by Council in 2015, focus on creating streets that offer safety, comfort, and mobility for all users regardless of their age, ability, or mode of transportation.

Other key City planning documents that guided this work include:

- Official Plan;
- Ottawa Pedestrian Plan;

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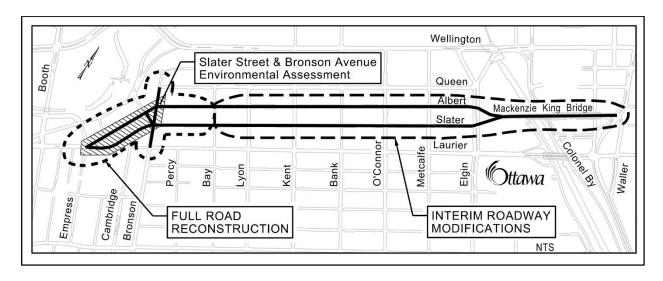
- Ottawa Cycling Plan;
- Escarpment Area District Plan;
- Central Area Secondary Policy Plan (former City of Ottawa Official Plan);
- Downtown Ottawa Urban Design Strategy (DOUDS); and,
- The Accessibility Design Standards.

#### **DISCUSSION**

The recommended functional design for the entire study corridor will provide input into the City's:

- Planned integrated road and underground infrastructure reconstruction project at the west end of Albert and Slater Streets (Empress to Bay) and Bronson Avenue (Laurier and Queen); and,
- Interim roadway modifications to Albert and Slater Streets (Bay and Waller), including the Mackenzie King Bridge, to be implemented following decommissioning of the bus Transitway in the downtown.

Figure 1 below shows the study area and future road reconstruction limits for the renewal works.



## Figure 1: Functional Design and Environmental Assessment Study Areas

The general scope of work to develop the recommended functional designs for Albert Street, Slater Street, and Bronson Avenue includes the following:

- Assessing the motor vehicle lane arrangements, including turning lanes at intersections;
- Improving accessibility and the pedestrian and cycling environments;
- Incorporating transit operations in mixed traffic, and identifying localized transit priority measures; and,
- Addressing requirements for other functions along the street such as: emergency vehicle access, on-street parking, taxi and lay-by/loading zones, bicycle parking, building entrances, and street side services and amenities.

## **Study Sectors**

The consultations regarding the functional design were divided into three sectors: West, Core and East, as depicted by Figure 2 below.

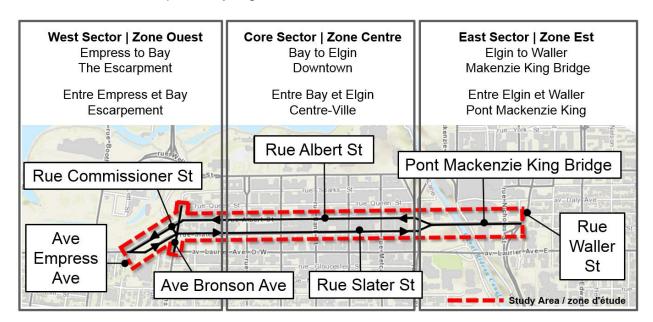


Figure 2: Functional Design - Study Sectors

The Recommended Plan is shown in Document 1 of this report.

#### **West Sector**

The West Sector coincides with the limits of the upcoming integrated road renewal. It includes Albert and Slater Streets (Empress to Bay) and three blocks of Bronson Avenue (Queen to Laurier). The existing environment consists of a complex road pattern with steep grades, disconnected pedestrian and cycling facilities, with predominately vacant lands west of Bronson Avenue, and high density mixed-use development to the east.

Numerous high-level road design concepts were developed and were refined into four distinct groups, which are fully described in Document 2 of this report. The Recommended Plan to realign Slater Street has the following benefits:

- Simplifies area road network;
- Enables transit service to future adjacent developments;
- Maximizes opportunities to re-purpose/develop adjacent vacant lands;
- Provides best connectivity for all modes; and,
- Improves accessibility through reducing existing road grades.

Highlights of the Recommended Plan for the West Sector includes the following:

- Wider sidewalks (minimum 2.0 metres) with street trees on both sides and with more connections providing choice for pedestrian travel;
- Raised cycle tracks (one-way and two-way) to improve ease of travel, connectivity and safety, including consistency west of Empress Avenue and east of Bay Street;
- Cycling cross-rides and protected intersections to improve visibility, comfort, and safety;
- Sufficient travel and turn lanes to address vehicle traffic movements; and,
- Flexible street space (i.e. space that can accommodate on-street parking, outdoor patio space, and/or seasonal bike parking, etc.).

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## **Core Sector**

The Core Sector includes Albert and Slater Streets (Bay to Elgin), where interim street modifications are recommended. This sector has the following existing characteristics: exclusive transit lanes with long bus platforms; on-street parking and loading areas; many private driveway access points; and high-density mixed-use development.

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Major road reconstruction is not scheduled for many years and therefore the Recommended Plan includes interim measures that can be coordinated with other planned capital works in a way that supports a long-term implementation strategy.

Development of the Recommended Plan began with the following guiding principles:

- Maintain one-way traffic operations on Albert and Slater Streets focusing on affordable interim modifications within the existing road network;
- Develop interim measures that are generally within the existing curb lines;
- Design interim measures that can be incrementally implemented;
- Reallocate the existing continuous dedicated transit lanes to provide new cycling facilities that have regard to other street services such as parking, loading, etc.;
- Build on lessons learned from previous downtown cycling initiatives including Laurier Avenue and O'Connor Street;
- Maintain existing specialized street-side functions including loading, taxi stands, accessible "no-parking areas", hotel and diplomatic zones; and,
- Maintain sufficient arterial road capacity for general traffic and local bus operation.

Presently there are no cycling facilities along Albert and Slater Streets in the Core Sector. A range of alternative cycling lane locations were evaluated, which included cycling lanes on the left side of each one-way street, on the right side of each one-way street, and bidirectional cycling lanes on one street only. The evaluation of these alternative concepts considered the impacts and mitigations at the mid-block sections,

transit stops, and intersections. Right-side cycling on both streets is recommended

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Corresponds with typical user expectations – nationally and locally;

because it best addressed the guiding principles above, including the following:

- Provides a consistent cycling design from Scott Street in the west into the downtown;
- Has the lowest number of vehicle crossings at intersections and private approaches; and,
- Enables right-side parking and loading zones to improve accessibility while also protecting the cycling lane from traffic.

Highlights of the interim measures are as follows:

- A buffered bicycle lane along the curb on the right side of both Albert and Slater Streets;
- Transit platforms modified to accommodate cycle tracks, space for transit passengers to queue, and for accessibility ramp deployment;
- Two general purpose traffic lanes including local bus operation;
- Space to improve visibility at intersections and private accesses;
- Parking, loading and other street side services generally provided on the right side of the streets between the bicycle lane and general traffic lanes;
- Space for potential streetscape enhancements such as landscape planters, colourful pavement painting, seating clusters and bicycle parking etc.

In general, turning lanes are maintained at the intersections with higher volumes or long queues of turning vehicles. The provision of these lanes allows for the separation of straight through pedestrians and cyclists from turning vehicles, and provides a safer and more efficient intersection. This type of signalization provides a better level-of-service for active transportation modes compared to existing conditions with acceptable level-of-service for vehicle movements in the downtown.

#### **East Sector**

The East Sector consists of Albert and Slater Streets and the Mackenzie King Bridge (Elgin to Waller). Existing characteristics of this sector consist of median bicycle lanes, one lane of traffic in each direction, dedicated bus lanes with a stop at Rideau Centre, and major institutional, commercial, and employment land uses.

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The section of the bridge deck that is over the National Arts Centre's (NAC) parking garage forms the roof for the structure below and it requires renewal, with work to begin potentially as early as 2020. This creates an opportunity to reconstruct the deck in this area to reflect the ultimate design with new sidewalks and cycling facilities.

Similar to the Core Sector, guiding principles for the development of the Recommended Plan for the Mackenzie King Bridge are:

- Implement affordable interim measures between the existing sidewalk and median that can address immediate needs and also be adaptable to future incremental renewal of the bridge deck;
- Maintain one general traffic lane in each direction plus turning lanes with buses travelling in mixed traffic;
- Maintain good quality transit stops and priority measures at the Rideau Centre; and,
- Include space for streetscape features that enhance the quality of the walking and cycling environment between important civic and cultural destinations.

A transition is required between the recommended right-side cycling facilities running through the core sector of Albert and Slater Streets (Bronson Avenue to Elgin Street) to the existing median cycling facilities on the bridge between the Rideau Centre and the intersection with Waller Street. This transition is needed because there is insufficient space to extend and operate right-side cycling through the transit platform east of the Rideau Centre pedestrian crossing to the Waller Street intersection without extensive modification to the bridge deck.

Five alternative transition locations from right side cycling to median cycling were developed:

Option 1: Metcalfe Street intersection;

Option 2: Elgin Street intersection;

Option 3: New signalized crossing on the bridge between Elgin Street and the Rideau Centre:

Option 4: Existing Rideau Centre signalized pedestrian crossing; and,

Option 5: Waller/Nicholas intersection.

Each option was evaluated based on criteria including: technical complexity; available space; user intuitiveness; user vulnerability; potential for mitigation and affordability. Option 4, the Rideau Centre pedestrian crossing, performed best against these criteria compared to other options, and the design improvements required are consistent with the overall project scope and budget.

The Recommended Plan for the Mackenzie King Bridge contributes to a civic promenade over the Rideau Canal that provides scenic vantage points and connections to important civic and cultural destinations (National Arts Centre, Commissioners Park, Shaw Centre, Rideau Centre, Arts Court and the University of Ottawa). Specifically it:

- Replaces the existing reserved transit lanes with buffered cycling lanes on the right side between Elgin and Rideau Centre and enhances the existing median bicycle lanes between the Rideau Centre and Waller Street;
- Identifies opportunity for a new pedestrian and cycling crossing between the NAC and Commissioners Park for further exploration at detail design and subject to funding and approvals;
- Moves the general traffic lanes to the centre of the bridge adjacent to the existing median;
- Maintains the existing bus stops at Rideau Centre, with transit priority measures; and,
- Includes space for public realm enhancements such as seating and planters along the existing sidewalk between the National Arts Centre and the Shaw Centre.

The Recommended Plan maintains and enhances the existing median cycling lanes at the intersection with Waller Street. Enhancements include pre-cast curb edges with flexi-post markers, enhanced pavement markings, and waiting area for the exclusive bike signal. The median cycle lane will tie directly into the future bidirectional cycling lanes between Tabaret Hall, at the University of Ottawa, and the bus lay-up area and connect at Laurier Avenue to the pathway along the Confederation Line.

#### Corridor-wide

The following issues apply to all three corridor sectors (West, Core and East).

#### **Multi-Modal Level of Service**

The City's Multimodal Level of Service (MMLOS) Guidelines (2015) and MMLOS analysis tool were used to assess the various travel modes, with particular focus on walking, cycling and automobile performance for several intersections and midblock locations within the study area. In general, the existing levels of service are maintained or enhanced in many locations along the corridor and satisfies service level targets. Due to the diversity of road cross sections, there is a range in the levels of service along the corridors.

Where the Recommended Plan provides new wider sidewalks (West Sector) offset from travel lanes and new separated cycling facilities (all sectors), pedestrian and bicycle levels of services will improve. Transit levels of service will decrease as buses will no longer operate in exclusive transit lanes, but with general mixed traffic. Truck levels of service will generally be maintained with improvements at some intersections. Vehicle levels of service will be slightly reduced, given that buses will travel in mixed traffic lanes, but will achieve the level of service targets specified in the Complete Street Guidelines for the downtown core.

Although this study covers a wide range of issues at a functional level, there will be continued analysis in the detailed design phase, particularly for traffic signal operations. Additional, advanced or dedicated signal phasing may be required to reduce potential conflicts between vehicles and cyclists/pedestrians at geometrically constrained locations. As a trade-off, this may affect the signal cycle lengths which could increase delays to all users of the road network.

## **Parking Supply**

Currently, on Albert and Slater Streets, parking is provided only between Bronson Avenue and Elgin Street. The Recommended Plan affects the existing on-street parking supply by increasing the number of all day spaces (65 spaces) while reducing evening and weekend spaces (190 spaces). To put this reduction in context, there is approximately 3,000 off-street parking spaces within one block of Albert and Slater, which have an evening and weekend utilization of approximately 22 to 43 percent respectively. The Recommended Plan also retains approximately 45 specially designated spaces including loading, taxi, diplomatic and hotel zones along the streets. A signage plan identifying specific curbside regulations, including the identification of "No Parking" zones, which can be used by vehicles with accessibility permits, will be prepared during the subsequent detailed design phase.

#### Implementation Phasing

Construction of the West Sector will be coordinated with the integrated road, water and sewer reconstruction on Albert and Slater Streets, planned to start in 2021, and spanning three construction seasons. The ultimate end-state design will be constructed in coordination with the renewal of Albert and Scott Streets west of Empress Avenue and the Ottawa Central Library project.

The interim measures in the Core and East Sectors, between Bay and Waller Streets, will be implemented in phases, subject to funding, starting in 2019 and continuing until 2021. Implementation will also be coordinated with other projects, such as cycling facilities on Bay and O'Connor Streets, modifications to accommodate local transit, pavement renewal of Albert Street, and the renewal of the Mackenzie King Bridge deck over the NAC.

Integrated capital asset management planning and confirmation of funding will determine the actual timelines and coordination with adjacent downtown projects including watermain replacement in the Core Sector of Albert and Slater (between Bay and Elgin). Traffic management plans, detours, and detailed project phasing and coordination with adjacent downtown projects will be developed during detailed design.

## **Project Cost**

The estimated cost for integrated reconstruction in the West Sector for Albert and Slater Streets (Empress to Bay) and Bronson Avenue (Laurier to Queen) is approximately \$26 million, including property. These planning-level estimates account for the renewal or replacement of the underground watermain, sanitary, and storm sewers, as well as the street surface configurations.

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For the interim measures in the Core and East sectors, on Albert and Slater Streets and the Mackenzie King Bridge (between Bay and Waller Streets), the project cost for the detailed design and implementation will be funded by Transportation Services Department (TSD) capital account 908553. The approved 2018 budget is \$500K, and the projected authority plan for the next three years is \$2.545M in 2019, \$2.106M in 2020, and \$1.291M in 2021.

In Q4 2017, City staff applied for the Ontario Municipal Green House Gas Challenge Fund. On February 15, 2018, the Province of Ontario advised that the City's application was successful in securing funding for the reallocation of space to zero emission active transportation and street amenities along Albert and Slater Streets (between Bay and Waller Streets). The amount of funding awarded is expected to be announced by the province by April 2018. The additional funding will be incorporated at the detail design stage to augment the existing/recommended interim design measures with more permanent physical measures. These could include intersection modifications to improve AODA compliance, improved quality of landscaping, urban design and public art along the corridor, and/or extended modifications to the Mackenzie King Bridge deck to improve the quality of pedestrian and cycling facilities.

## **Traffic and Parking By-Law Update**

The Recommended Plan for Albert and Slater Streets has regard for the recent Transportation Association of Canada (TAC) updates to the Canadian Model Rules of the Road to improve safety for the boarding and alighting of public transit and school vehicles. The updates require all vehicles, including bicycles, to not pass stopped public transit or school vehicles on the side that loading/unloading activity is occurring unless there is a safe, designated area for the boarding and alighting of passengers. Staff further recommend the following amendment to the Traffic and Parking By-Law (2017-

301) to be consistent with the recent TAC updates to improve the safety of public transit and school bus passengers citywide, as a new subsection 43(3).

"43. (3) No person operating a vehicle shall pass on the right side of a stopped public transit motor vehicle or a school purposes vehicle that is loading or unloading passengers, unless the loading / unloading passenger area is separated from passing vehicles"

All transit stops along Albert and Slater Streets have been designed to include safe passenger boarding and alighting areas that do not conflict with passing vehicles and bicycles.

#### **RURAL IMPLICATIONS**

This report does not have direct impact on the rural area.

#### CONSULTATION

The study team undertook a thorough consultation program that included the establishment of a Working Group of stakeholders, a design workshop, a public meeting, a project website (www.ottawa.ca/albertslater), consultation with the Ottawa Urban Design Review Panel, engagement of the Accessibility Advisory Committee, and additional stakeholder meetings with various agencies, residents, and business owners.

Upon request, the study team met with, or made study materials available to groups or agencies to allow them to provide a more thorough review and comments. These included representatives of condominium boards, community associations, business owners and advocacy groups such as Bike Ottawa. Consultation with the National Capital Commission started early and continued throughout the study process.

#### **Working Group**

The Working Group included: elected officials; representatives of local community associations; a representative of the Accessibility Advisory Committee; advocacy groups such as Bike Ottawa and Ecology Ottawa; representatives from local Business Improvement Areas, and other business stakeholders including Building Owners and Managers Association (BOMA). Agency representatives included STO, NCC, and City staff specializing in walking and cycling facilities, transit services, traffic safety, urban

design, traffic operations, traffic signals, parking services, street maintenance, emergency and protective services, asset management, design and construction, and the team leading the Ottawa Central Library file. The group was tasked with identifying challenges and bringing forward solutions for the development of the recommended design. Members of the Working Group met three times: June 28, 2017 (Design Workshop), November 14, 2017, and January 19, 2018.

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Feedback was used to refine the preliminary recommended plan and addressed such aspects as:

- Enhancing the pedestrian crosswalks and sidewalks;
- Reviewing the overall accessibility of the design;
- Improving the design and connectivity of cycling facilities:
- Refining the design of intersections to improve safety for all users;
- Addressing transit operating requirements; and,
- Inventorying the existing trees and exploring preservation and mitigations measures.

## **Public Meetings**

A public meeting was held on November 28, 2017 at City Hall. Notifications included: advertisements in local papers; postings on the City of Ottawa project website; e-mails to Working Group members and the general public who asked to be notified of the study; social media messages and notices; e-mail notifications to representatives of provincial agencies and local First Nations groups; and flyers delivered to over 1,000 area residents through the postal service.

The meeting provided an overview of alternative options, the evaluation process, and the preliminary Recommended Plan for public comment. Approximately 70 people attended the meeting and 30 comments were received via e-mail or through comment sheets. The major comments are listed below, in order of frequency (high to low):

1. Make cyclist safety a priority;

- Support for the recommended plan;
- 3. Make cycling connections a priority;
- 4. Concern about the Mackenzie King Bridge cycling transition to the median;

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- 5. Does not support moving cyclists to median along Mackenzie King Bridge;
- 6. Support for the design on the Mackenzie King Bridge;
- 7. Consider improvements to the Waller intersection;
- 8. Remove parking from Albert and Slater;
- 9. Remove cars from Mackenzie King Bridge;
- 10. Consider an alternate rearrangement for the West Sector; and,
- 11. Increase amount of trees and vegetation along these streets.

#### **Online Consultation**

The recommended plan was updated and posted to the study website for review and comment between March 14 and March 28, 2018. Enhancements to the plan, based on previous consultations were highlighted. The results of the consultation related to the environmental assessment will be recorded in the final study documentation.

## **Coordination with the National Capital Commission**

NCC staff actively participated in the study and indicated that they remain supportive of the proposed improvements. Additional comments pertained to detailed roadway design, archeology, land requirements and approvals.

On September 19, 2017, NCC staff discussed this study at their Internal Land Use Review Committee (ILURC), as well as a previous Stage 1 archeological assessment of the LeBreton Flats area (2012) and noted that the study area escaped the 1900 Great Fire. Based on the findings of the archeological assessment, the NCC recommended that an archaeological survey and, if warranted, archaeological rescue excavation be carried out prior to the initiation of the proposed roadway construction work. City staff have also initiated the Federal Land Use, Design and Transactions Approvals

(FLUDTA) process due to the realignment of Slater Street through lands owned by the NCC.

#### **Ottawa Urban Design Review Panel**

The Ottawa Urban Design Review Panel consists of design professionals from Ottawa and other parts of Ontario. The study team presented the Recommended Plan to the Panel on February 1, 2018 for review and comment. The Panel endorsed the broad design directions and provided strategic advice based on best practices and "lessons learned" in there communities including:

- Support the streetscape project with an interpretive master plan that is inspired
  by the City and civic stories (rather than federal/capital stories) with regard to
  such elements as: street furniture, lighting, wayfinding, and public art;
- Highlight areas requiring attention during detail design including the sidewalk slopes, interaction of cyclists and pedestrians at transit stops and ways to address street-side functions including parking, loading and drop-offs; and,
- Foster partnerships and develop communications strategies that engage the public and affected business and property owners.

The Panel recognised the challenges of street redesign projects given the number of stakeholders involved and commended the City for addressing urban design considerations in the early stages of transportation planning.

## **COMMENTS BY THE WARD COUNCILLOR(S)**

## **Comments from Councillor McKenney (Ward 14)**

Overall I am pleased with the Albert and Slater Functional Design plan, however I still have the following concerns:

Infrastructure needs to be designed around trees as much as possible to
preserve trees throughout the corridor. If a tree absolutely must be removed, the
replacement ratio should be 10 to 1 for the loss of any mature tree. The current
policy of 2 to 1 is woefully inadequate for a part of the City that is lacking in trees
and especially mature ones.

 There is no reason to remove the trees on Slater as a result of its decommissioning. The NCC would agree that mature trees are essential for the environmental health of the downtown.

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- The plan should not include a right turn lane on to Bay Street off of Albert Street (heading north) as this turning movement would make the intersection less safe for pedestrians and cyclists.
- The NCC owned land across from the Central Library site should be purchased by the City so that it can be designated as parkland and integrated into the overall site plan for the library.
- The majority of the outdoor/amenity space connected to the new Central Library should be located at the front of the building along Albert Street. A significant setback from the public ROW would create a large open area that will provide an opportunity for outdoor performances, festivals, reading, meeting and general accessibility to the public.
- The trees located along this corridor must be retained and incorporated into the overall landscaping plan for this space.
- To facilitate this vibrant and well-used space associated with the new Central Library, loading, pick-up/drop-off etc., and any vehicle parking or layby should not be located along Albert Street in close proximity to the main entrance but should be directed to the east or west entrance along side streets (Empress or Commissioner).

## **Comments from Councillor Fleury (Ward 12)**

Overall, we are pleased with the changes set to come forward as part of the Downtown Moves project. Our main concern falls with the Mackenzie King Bridge. We'd love to see cycle tracks throughout this corridor, but we understand that the concrete median creates a significant cost barrier. The cycle infrastructure configuration, as planned, transitions from a right-hand lane to a left hand lane where the current crosswalk is. The cycling configuration is not perfect, but it is still an improvement.

We have advocated for a PXO on Mackenzie King Bridge connecting the Confederation Park staircase to the National Arts Centre (NAC). We believe significant numbers of pedestrians would pick this location over the current Rideau Centre entrance crosswalk. We are additionally concerned about the Mackenzie King and Nicholas Street intersection and the potential conflicts points for pedestrians and cyclists heading to or from the future Waller Street multi-use pathway (two-directional cycling facility).

We support the goal of not letting Albert and Slater remain as bus corridors. These streets should function more as downtown traditional mainstreets, and we're glad to see the forward planning necessary to see this happen.

## ADVISORY COMMITTEE(S) COMMENTS

Staff presented the project to the Accessibility Advisory Committee on November 21, 2017. The meeting minutes record that:

"Questions and responses were with respect to comparisons of other cities, cost analysis, accessible parking permits, rest areas and landscaping.

After discussion, the Committee RECEIVED this item for information and advised that further questions and comments were to be forwarded to staff through the Committee Coordinator."

While no further questions or comments were received from the Committee, their representative on the Working Group contributed throughout the consultation process.

#### **LEGAL IMPLICATIONS**

There are no legal impediments to implementing the recommendations in this report.

#### **RISK MANAGEMENT IMPLICATIONS**

A risk associated with the West Sector of the study is the unknown conditions of underground utilities and soils, which may affect the overall timeline and budget for the project. The detailed design phase will investigate these issues further.

Although the NCC has not yet formally approved the land transfer to enable realignment of Slater Street, west of Bronson Avenue, NCC staff have been supportive of the proposed design to date. The City will continue to work with the NCC to complete

Federal Land Use, Design and Transactions Approval (FLUDTA) process. To minimize potential delays to the FLUDTA, staff will seek measures to secure ongoing support, such as a Memorandum of Understanding, once a land acquisition/disposal plan is available.

Construction of interim measures in the Core and East Sectors cannot start until Confederation Line is in service and the Transitway is decommissioned. Coordination is required with a number of infrastructure renewal projects and opportunities for construction in advance of winter 2018/2019 may be limited. The project will be implemented in phases across the downtown over several years. Disruption to traffic will be minimized through the coordination of various projects in the area.

#### ASSET MANAGEMENT IMPLICATIONS

The information documented in this report is consistent with the City's <u>Comprehensive Asset Management (CAM) Program</u> objectives. The recommended interim roadway modifications (functional design) pertaining to the repurposing of Albert Street, Slater Street and the Mackenzie Bridge (Empress to Waller) as outlined assists to fulfil the City's obligation to deliver quality services to the community, in a way that balances service levels, risk, and affordability.

Ongoing long term operation, maintenance and capital renewal cost may increase in order to ensure the upgrade of assets in order to support the expected level of service. Including the scope of work with planned renewal projects is an effective means of coordinating delivery of the targeted enhancement and changes in level of service to the community. Depending on the nature of the components integrated into the scope, this impacts the extent of funding and work directed to the overall lifecycle renewal program objectives. Moving forward, there is a need to assess the impacts to renewal funding and objectives as a result of the coordinated enhancement construction. These impacts (reduced scope of renewal, ongoing operation and maintenance costs, future renewal costs of the new assets) and the strategies to maintain these assets should be reflected in Long Range Financial Plan and Asset Management Plan updates.

#### FINANCIAL IMPLICATIONS

Financial implications are identified in the report.

#### **ACCESSIBILITY IMPACTS**

The recommended design fulfills all municipal, provincial, and federal accessibility requirements. In general, the proposed design for the West Sector will improve accessibility by moderating the existing steep sidewalk grades and by providing wider sidewalks and shortened crossing distances at certain intersections. Additional space is also recommended at transit stops to allow buses to deploy accessibility ramps, without interfering with passing cyclists. Tactile Walking Surface Indicators (TWSIs) and curb ramps are also required for all intersections with pedestrian crossings.

Similar to the West Sector, the Core and East sectors, where existing sidewalks and intersection corners and signals are renewed or replaced, the designs will fulfill accessibility standards. During the detailed design phase, interim measures will be evaluated to facilitate accessibility. Parking plans will also account for accessibility vehicle requirements.

#### **ENVIRONMENTAL IMPLICATIONS**

The Slater Street Realignment Environmental Assessment Study has analyzed the project's effects on the natural, physical, and social environments, and has identified appropriate mitigation measures that conform to City, Provincial, and Federal environmental policies, standards, regulations, and legislation. A summary of the environmental implications is in Document 3 of this report.

Approximately 19 trees with trunks 20 cm DBH (diameter at breast height) or greater will require removal as a result of the proposed roadworks for the reconstruction of Albert Street and the realignment of Slater Street. Additionally, 14 young trees that line the temporary multi-use pathway along the north side of Albert Street (Empress to Commissioner) will also be removed or may be candidates for relocation due to their age and condition. As a result of the decommissioning of the existing Slater Street (Empress to Bronson), up to 26 trees with trunks 20 cm DBH (diameter at breast height) or greater may also require removal. In the detailed design phase, there may be an opportunity to explore ways to retain some of these trees. Trees identified for removal will be compensated and/or replaced in accordance with the City's Municipal Trees and Natural Areas Protection By-law. A tree conservation plan will be developed in the detailed design phase which will identify trees that require removal and mitigation

measures to protect trees identified for retention. Where feasible, relocation of existing trees will be explored and a landscape plan showing new tree plantings within the downtown and specifically in the vicinity of the project area will be completed. The objective will be to maintain and improve the urban forest in the general area.

#### **TERM OF COUNCIL PRIORITIES**

The recommendations summarized in this report will help achieve the following Strategic Directions of the 2015–2018 Term of Council Priorities:

- TM2 Provide and promote infrastructure to support safe mobility choices; and,
- TM4 Improve safety for all road users;

#### SUPPORTING DOCUMENTATION

Document 1 – Recommended Plan (Previously distributed to all Members of Council and held on file with the City Clerk and Solicitor)

Document 2 – West Sector Road Concepts and Evaluations

Document 3 – West Sector Recommended Plan Environmental Implications

Document 4 – Amendment to the Traffic and Parking By-Law No. 2017-301

#### **DISPOSITION**

Following Transportation Committee and Council approval of the report recommendations, staff will complete the requirements of the EA process; initiate the process for property acquisition and disposal, subject to budget approval; and update Section 43 of the Traffic and Parking By-law (2017-301).

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COMITÉ DES TRANSPORTS RAPPORT 31 LE 11 AVRIL 2018

Document 1

# Albert Street – Slater Street Post LRT Repurposing Functional Design Study Recommended Plan

This document is a map of the recommended design (Previously distributed to all Members of Council and held on file with the City Clerk and Solicitor)

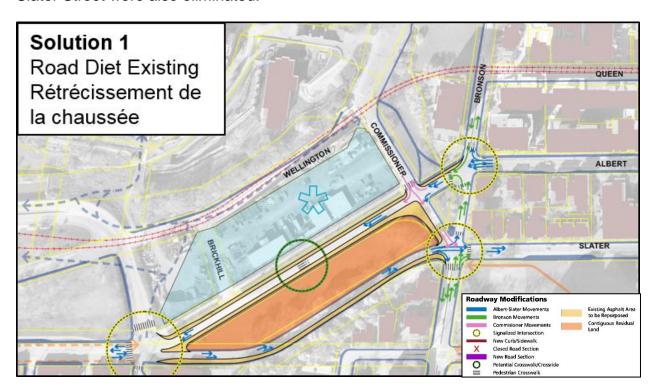
#### **Document 2**

## **West Sector Road Concepts and Evaluations**

Numerous high-level road designs were developed and the the following alternative concepts depicted below were selected by the project team for further evaluation. Each of the four concepts assumes two lanes of general traffic in each direction, and were considered to be configured as a complete street, incorporating cycling and pedestrian facilities.

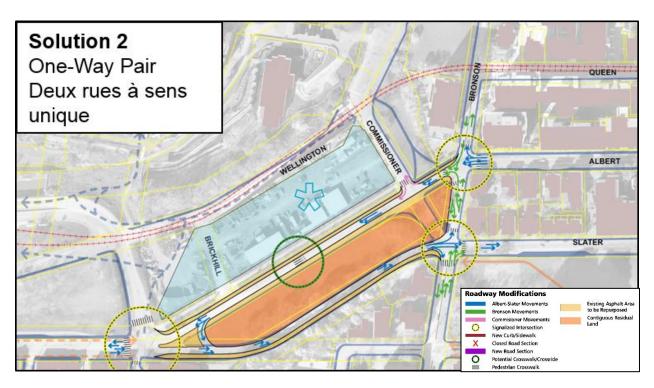
## **Solution 1: Roads Diet Existing**

The existing configuration remains, but with one westbound lane on Albert Street eliminated. The existing eastbound lane on Albert Street and one eastbound lane on Slater Street were also eliminated.



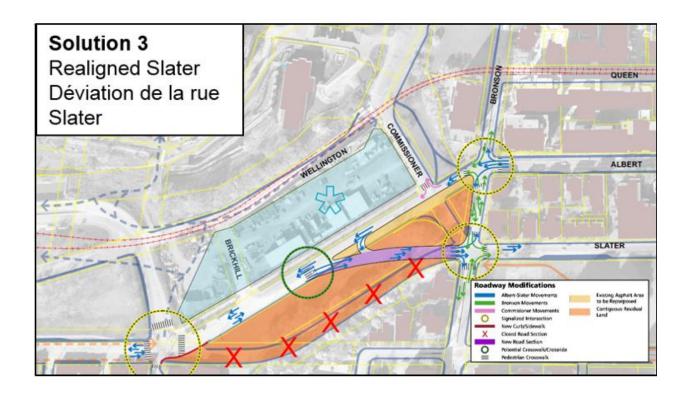
## **Solution 2: One-Way Pair**

Commissioner Street between Albert and Slater is closed as a municipal street. One eastbound lane on Slater Street, and the eastbound lane and one westbound lane on Albert Street were eliminated. A westbound to eastbound left-turn connector is provided near Empress Avenue, for motorists from Commissioner Street to access eastbound Slater Street and/or Bronson Avenue. Bronson Avenue is converted to a two-way street between Albert and Slater Streets.



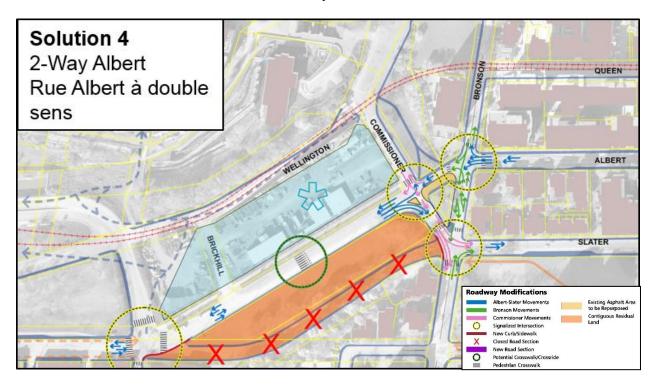
## **Solution 3: Realigned Slater Street**

Slater Street between Empress and Bronson are closed as a municipal street, as is Commissioner Street between Albert and Slater Streets. Albert Street is extended approximately 165 m east of Empress as a two-way street. From this point a new, approximately 140 m long eastbound one-way street is provided to connect to the Bronson/Slater intersection. A westbound to eastbound left-turn connector is provided for motorists from Commissioner Street to access eastbound Slater Street and/or Bronson Avenue. Bronson Avenue is converted to two-way street between Albert and Slater Streets.



## **Solution 4: Two-way Albert Street**

Slater Street between Empress and Bronson is closed as a municipal street. Albert Street is extended as a two-way street east of Empress Avenue to Commissioner Street, and Bronson is converted to two-way street between Albert and Slater.



The following table provides a high-level evaluation of the four alternatives.

Legenda	•
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Performs well against criteria	
Performs adequately against criteria	
Perform poorly against criteria	0

Criteria	Solution 1:  Road Diet Existing	Solution 2: One Way Pair	Solution 3:  Realigned Slater	Solution 4: Two-Way Albert
Enables the Reconstruction of Albert and Slater as "Complete Streets"				
Provides <b>Clarity of Movement</b> For All Users At All Intersections				
Simplifies Traffic Operations For All Modes Compared to the Existing Configuration	0			0
Provides for the "Normalization" of the downtown street grid	0			
Improves Accessibility for Walking and Cycling				
Results	Not carried forward	Carried forward	Carried forward	Not carried forward

Through this preliminary evaluation, closing the segment of Commissioner Street between Albert and Slater Streets was recommended as it simplifies traffic operations for all modes compared to the currently complicated street configuration. As such,

Solutions 2 and 3 emerged as the preferred concepts and were carried forward for detailed evaluation, as shown in the tables below.

## **Transportation**

Criteria	Solution 2: One-way Pair	Solution 3: Re-aligned Slater Street
Enables Walking	Somewhat preferable	Most Preferable
Enables Cycling	Somewhat preferable	Most Preferable
Enables Transit Service	Least Preferable	Most Preferable
Provides for General	Moot Professible	Somewhat preferable
Traffic Movement	Most Preferable	Somewhat preferable
Provides for Traffic	Somewhat preferable	Mast Dustaughla
Calming	Somewhat preferable	Most Preferable
Enables Heavy Vehicle	Somewhat preferable	Most Professible
Turn Movements	Somewhat preferable	Most Preferable

## **Land Use**

Criteria	Solution 2: One-way Pair	Solution 3: Re-aligned Slater Street	
Supports the Ottawa	Somewhat preferable	Most Dusfauskie	
Central Library Site	Somewhat preferable	Most Preferable	
Provides Access to NCC	Least Preferable	Mast Dusfauchie	
Development Lands	Least Freierable	Most Preferable	
Retains Development			
Potential of NCC	Most Preferable	Somewhat preferable	
Development Lands			
Supports Open Space			
Planning Choices	Somewhat preferable	Mark Darkand In	
Identified in Escarpment		Most Preferable	
Area District			
Land Requirements	Most Preferable	Somewhat preferable	

## **Cost and Implementation**

Criteria	Solution 2: One-way Pair	Solution 3: Re-aligned Slater Street
Construction Cost	Most Preferable	Somewhat preferable
Design and Approvals Timing	Most Preferable	Least Preferable

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## **Utilities and Infrastructure**

Criteria	Solution 2: One-way Pair	Solution 3: Re-aligned Slater Street
Conflict with Utilities and		
Underground	Most Preferable	Most Preferable
Infrastructure		

Based on the above evaluation, *Solution 3: Realigned Slater Street* was selected as the recommended design concept.

#### **Document 3**

## **West Sector Recommended Plan Environmental Implications**

The Slater Street Realignment Environmental Assessment Study analyzed the project's effects on the natural, physical and social environments, and identified appropriate mitigation measures that conform to municipal, provincial, and federal environmental policies, standards, regulations, and legislation. The environmental implications of the proposed roadway modifications are as follows:

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#### **Archeology**

A Stage 1 Archaeological Assessment was undertaken as part of this study. Based on the potential for archaeological features associated within the study area, the study includes recommendations for undertaking a Stage 2 Archaeological Assessment during detailed design phase of the project for those areas where archaeological potential has been identified.

## Species at Risk (SAR)

The review of background information identified the following SAR that have the potential to occur within or near the study area: Snapping Turtle, Peregrine Falcon, Chimney Swift, Eastern Small-footed Myotis, Northern Myotis, Little Brown Myotis, Tricolored Bat, and butternut. Following completion of the final design, an impact assessment and mitigation measures, if necessary, should be prepared to reduce and/or eliminate potential impacts on the natural environment and potential SAR that occur within the study area. Compensation and/or mitigation measures will be developed through consultation with relevant agencies.

## Vegetation/Trees

Natural heritage features within the study area include that of deciduous trees and a small woodland just south of Slater Street, along with parklands of manicured lawns and a community garden. The tree inventory assessed 137 trees, in which 16 were identified to be distinctive (i.e. ≥ 50 cm DBH). The majority of trees displayed good health and vigour, while some showed signs of decay and small canopy sizes due to overcrowding. One live butternut (Juglans cinerea, endangered) was observed within the Slater Street right-of-way. Any work conducted within 25 m of a butternut is considered an impact

and a Butternut Health Assessment is recommended for future work. No other SAR, provincially rare species, or rare vegetation communities were present. Approximately 19 trees with trunks 20 cm DBH (diameter at breast height) or greater will require removal as a result of the proposed roadworks for the reconstruction of Albert Street and the realignment of Slater Street. Additionally, 14 young trees that line the temporary multi-use pathway along the north side of Albert Street (Empress to Commissioner) will also be removed or may be candidates for relocation due to their age and condition. As a result of the decommissioning of the existing Slater Street (Empress to Bronson), up to 26 trees with trunks 20 cm DBH (diameter at breast height) or greater may also require removal. In the detailed design phase, there may be an opportunity to explore ways to retain some of these trees.

Given that the proposed roadway modifications will have impact to trees in the area, it is recommended that in subsequent design phases, a compensation and/or replacement strategy for any vegetation loss associated with this project be developed. Where feasible, relocation of existing trees will be explored and a landscape plan showing new tree plantings within the downtown, specifically in the vicinity of the project area, will be completed. The objective will be to maintain and improve the urban forest, and avoid a net-loss of vegetation. Impacts to the operation and enjoyment of the community garden should be avoided, and impacts should be localized and mitigated to the greatest extent possible.

## **Cultural Heritage**

The study identified future approvals from the regulating agencies and all levels of governments to implement the project, including those from the NCC. Further studies on cultural heritage features will be undertaken during detailed design stage of the project to guide mitigation of any potential impacts on cultural heritage features within the study area. The foundation of the Fleck Fountain may be buried on the existing triangular parcel bounded by Commissioner Street, Albert Street, and Bronson Avenue. The NCC has indicated an interest in retaining any excavated pieces of the foundation and for their staff to monitor any excavation in this area.

Two properties designated under Part IV of the Ontario Heritage Act (OHA) (504 Albert Street and 10 Fleet Street) and one property designated under Part V of the OHA (506 Wellington Street, in the Cathedral Hill Heritage Conservation District) are located within

or adjacent to the study area. In addition, the Ontario Heritage Trust holds a conservation easement on the Fleet Street Pumping Station Building at 10 Fleet Street. Five additional properties were identified in the vicinity of the study area, but not adjacent – one designated under Part IV (593 Laurier Avenue West), and four designated under Part V of the OHA (within the Lorne Avenue Heritage Conservation District. It is recommended that a Heritage Impact Assessment be undertaken for the entire study area to identify and assess potential impacts based on detailed design, when available, and to recommend mitigation measures to lessen or avoid any identified impacts.

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#### **Environmental Site Assessment**

A Phase 1 Environmental Site Assessment identified areas of potential contamination. This included a comprehensive review of historic information sources, request for regulatory agency information, and a site visits. The results of the Phase 1 Environmental Site Assessment suggest that a Phase 2 Assessment will be required during detailed design for areas where the likelihood of contamination has been identified. The Phase 2 Assessment will prescribe mitigation and remediation options for identified contaminated sites within the study area.

#### **Vehicle Emissions**

As the project will provide commuters with alternative modes of transportation and a reduction in the number of buses resulting from LRT service, it will result in improved environmental quality for the corridor by reducing pollutants and greenhouse gases from vehicle emissions.

## Document 4 - Amendment to the Traffic and Parking By-Law No. 2017-301

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Amend the Traffic and By-Law 2017-301 as follows

- 1. Add a new subsection 43(3) containing the following:
  - "43. No person operating a vehicle shall pass on the right side of a (3) stopped public transit motor vehicle or a school purposes vehicle that is loading or unloading passengers, unless the loading / unloading passenger area is separated from passing vehicles"