City of Richmond

Report to Committee

To:	Public Works and Transportation Committee	**Date:**	November 13, 2018
From:	Victor Wei, P.Eng. Director, Transportation	**File:**	10-6500-01/2018-Vol 01
Re:	**Update on the City Centre Transportation Plan**		

Staff Recommendation

That the report titled "Update on the City Centre Transportation Plan" dated November 13, 2018 from the Director, Transportation, be received for information.

for: Victor Wei, P. Eng.
Director,Transportation
(604-276-4131)

Att. 5

REPORT CONCURRENCE		
ROUTED TO:	**CONCURRENCE**	**CONCURRENCE OF GENERAL MANAGER**
Development Applications	☑	
Policy Planning	☑	
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	**INITIALS:** CJ	**APPROVED BY CAO**

Staff Report

Origin

At the September 19, 2018 Public Works and Transportation Committee meeting, discussion occurred regarding a proposed development in the City Centre and questions were raised with regard to traffic congestion in the area and measures to improve traffic flow. As a result, the following referral was made:

That staff provide an update on the City Centre Transportation Plan and its progress to Council.

This report responds to the referral.

This report supports Council's 2014-2018 Term Goal #3 A Well-Planned Community:

> *Adhere to effective planning and growth management practices to maintain and enhance the livability, sustainability and desirability of our City and its neighbourhoods, and to ensure the results match the intentions of our policies and bylaws.*
>
> *3.1. Growth and development that reflects the OCP, and related policies and bylaws.*
>
> *3.3. Effective transportation and mobility networks.*

Analysis

Vision and Goals of the City Centre Transportation Plan (CCTP)

The update of the City Centre Area Plan (CCAP) was completed in July 2008 with adoption of the Plan in 2009. To ensure that the City Centre's transportation system supports the planned growth, improves mobility and enhances the liveability of the downtown, an update to the City Centre Transportation Plan (CCTP) was completed in July 2008 in conjunction with the development of CCAP. The CCAP and CCTP are both founded on the principles of transit-oriented development and the creation of complete communities where residents have convenient access to retail and services and a private vehicle is seen as an option, not a necessity. For example, the CCAP designates specific streets as retail streets that require new developments to provide commercial uses at grade in order to create a pedestrian-oriented environment and support walking as one of the primary modes of travel.

The CCTP has the key objective of fostering a more balanced transportation system that emphasizes transit, cycling and walking as the preferred modes to meet future travel demand. The collective transportation system improvements (i.e., new and upgraded infrastructure, policy and programs, and supporting measures) are intended to support a change in lifestyle where one can live, work, shop, and play in a sustainable urban environment.

The CCTP shares the same Smart Growth goals as the CCAP but with a transportation-specific focus. These goals are supported by a number of objectives for each element of the transportation system and are intended to guide the development, prioritization and implementation of transportation system improvements in the City Centre.

- Build Community: Meet the mobility needs of a diverse community with an accessible, continuous and integrated transportation system while minimizing the need to travel far for daily services.

- Build Green: Improve, optimize and promote travel modes that reduce greenhouse gas emissions, encourage active, healthy living and allow more responsible and sustainable use of valuable urban space.

- Build Economic Vitality: Build upon the convenience of the Canada Line and an enhanced City Centre transportation system to maximize the accessibility of businesses and ensure the efficient movement of goods and services.

- Build a Legacy: Enhance the quality, convenience and safety of the transportation system while mitigating the negative impacts of traffic to create a sustainable and liveable downtown for future generations.

The current CCTP is used as a guiding document defining in detail the transportation plan components, their phasing plans and funding mechanisms to achieve the vision and ultimate build-out of the City Centre. Key success indicators describing how each transportation component in the future City Centre contributes to the overall vision are shown in Attachment 1.

Recent Key Improvements and Initiatives to Date

The next sections identify the objective of each transportation component and highlight recent projects, partnerships and initiatives that collectively advance those objectives and the overall goals of the CCTP.

Street Network

The objective is to redesign and complete the street network to balance the needs of all road users, create shorter blocks that increase accessibility to destinations and enhance connectivity between City Centre neighbourhoods. Attachment 2 identifies the key street improvements that have a higher priority as they are critical to achieving these objectives.

- Ackroyd Road Extension (No. 3 Road-Minoru Blvd): Opened in July 2016 (Figure 1). This relatively short but important addition creates a continuous street linking Ackroyd Road with Elmbridge Way. Measuring 2.2 km in length, this continuous road is now one of the longest east-west streets within the City Centre.

- Lansdowne Road Extension (Minoru Boulevard-Alderbridge Way): Opened in May 2017 (Figure 2). This project, which includes an off-street multi-use path on the north side as the precursor of the ultimate Lansdowne Greenway, received $1.5 million in funding from the Federal Government's Asia-Pacific Gateway and Corridor Transportation Infrastructure Fund. The new link allows east-west traffic to travel along Lansdowne Road from Garden City Road to Hollybridge Way, completely bisecting the City Centre. The existing three-lane configuration is an interim condition that will be upgraded to the ultimate four-lane cross-section as development occurs. The realization of the Lansdowne Greenway as part of the ultimate cross-section will provide a continuous and protected pedestrian-cycling link between the Richmond Olympic Oval and the Garden City Lands.

Figure 1: Ackroyd Road Extension between No. 3 Road and Minoru Blvd

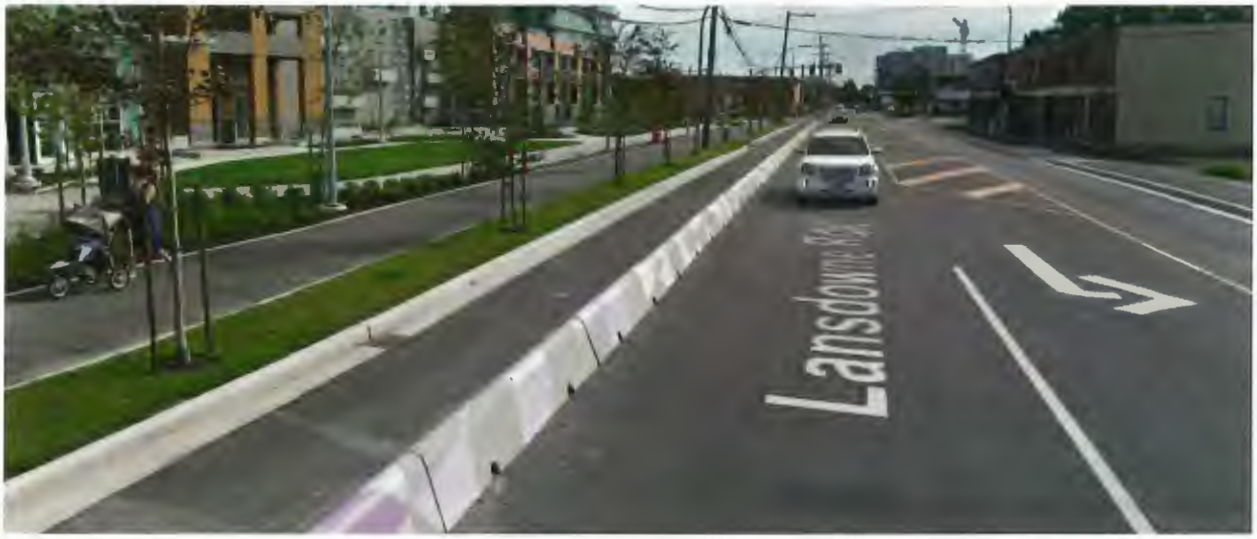

Figure 2: Lansdowne Road Extension between Minoru Blvd and Alderbridge Way

- Gilbert Road Widening (Lansdowne Road-River Road): Completed in Summer 2017. The widening from two to four lanes to provide better traffic flow includes on-street bike lanes and a centre median.

- River Parkway (Gilbert Road-Cambie Road): Construction was initiated in September 2018. The new 1.5-km long two-lane road along the former CP Rail corridor supports the CCAP vision for this area of improving public open space and access to the river with the establishment and extension of the Middle Arm Waterfront Park. The new roadway will provide a new continuous north-south route through the City Centre as an alternative to No. 3 Road. In addition, the new roadway will resolve the temporary realignment of River Road immediately east of Gilbert Road and south of the Dinsmore Bridge. Currently, this road transition is necessary to maintain network continuity and accommodate existing traffic flows in the interim.

The project includes protected bike lanes as well as improvements at Leslie Road (turning lanes, signalization and a new sidewalk) and Cambie Road (multi-use pathway on south side with crossing enhancements to connect to Aberdeen Station, turning lanes, and signalization). TransLink is providing $2.55 million towards the cycling and pedestrian elements. Ultimately, the two-lane road connection will be replaced by a new four-lane road with off-street bike paths as adjacent development occurs.

- New East-West Streets: Through the development application process, a complete street grid with shorter blocks and streetscape enhancements are being pursued to support higher density land uses and provide more direct access for pedestrians, cyclists and transit (e.g., Ackroyd Road extension, Browngate Road, planned new roadways through the Richmond Centre site). Shorter blocks also help reduce vehicular circulation by increasing accessibility to destinations and thereby minimizing congestion.

- New North-South Streets: Again, through the development application process, a new north-south roadway (Cooney Road-Hazelbridge Way) will be extended through Lansdowne Mall as part of its redevelopment to offer another continuous alternative to No. 3 Road that will complement River Parkway. Further, the existing lane behind properties on the west side of No. 3 Road north of Lansdowne Road is being widened to become a street.

The above projects all contribute towards completing the City Centre street network, particularly for key streets, and improving accessibility via new streets and shorter blocks.

Transit

The objective is to establish a convenient and well-integrated transit network that enables transit to become the preferred travel choice for trips within the City Centre and medium to long distance trips to local and regional destinations. Attachment 3 identifies the transit network map with the Canada Line forming the backbone of transit service in the City Centre, supplemented by regional and local bus services to connect riders to the rest of Richmond and beyond.

- Capstan Canada Line Station: In November 2017, Council approved the release of up to $3.5 million to TransLink to initiate design work for the new Canada Line Capstan Station including $1,097,817 for Preliminary Design with the balance to be for Detailed Design. Since then, voluntary developer contributions to the Canada Line Capstan Station Reserve Fund have now reached the target amount of $25.3 million (2010$) plus CPI or approximately $28.4 million (2018$) for the station construction. City staff are currently working with TransLink staff to develop the integrated station design.

- Richmond-Brighouse Bus Mall: At the time of the planning and design of the Canada Line, TransLink acquired sufficient property to enable construction of the Richmond-Brighouse Station as well as a planned off-street bus exchange immediately south of the station. The phased development of the bus mall is underway (e.g., construction of the Mandarin residences and demolition of Scotiabank site), which will reduce congestion in the area associated with bus circulation and layovers as well as significantly improve bus-train connectivity and safety for transit users.

- Southwest Area Transport Plan: In March 2018, Council approved TransLink's Southwest Area Transport Plan, which serves as a blueprint for how TransLink can best allocate its

resources over the next decade to improve transit and transportation in the southwest area (Richmond, South Delta and Tsawwassen First Nation) in a way that is responsive to local needs and consistent with regional objectives. For the City Centre, implementation of the key transit recommendations will provide improved service frequency and reliability for local and regional routes, improved service to industrial areas and business parks outside the City Centre, and new/improved service to neighbourhoods (e.g., Tait neighbourhood north of Bridgeport Road).

- TransLink 10-Year Investment Plan: The City is working with TransLink to support increased service frequencies of the Canada Line and buses serving Richmond as part of Phases One and Two of the 10-Year Investment Plan. Procurement is underway for 24 new Canada Line cars with delivery expected by the end of 2020. The cars will be paired to create 12 2-car trains, which will increase the Canada Line's rolling stock from 20 2-car trains to 32 2-car trains. In turn, the Canada Line's capacity will increase from the existing 6,100 passengers per hour per direction (pphpd) to over 8,000 pphpd (31% increase). Frequency of the trains on the Richmond-Brighouse-Waterfront line during peak hours would increase from every 6 minutes to every 3.75 minutes.

- Mobility Hubs: Multi-modal mobility hubs are key transportation network nodes designed to seamlessly integrate multiple travel modes, supportive infrastructure, and place-making strategies with the aim of creating pedestrian-oriented centres that help to maximize first-to-last kilometre connectivity without need for private vehicles. Mobility Hubs are being secured on key mixed use development sites (e.g., Richmond Centre) to enhance connectivity between transit and alternate modes and further promote the desired modal shift.

- Transit Amenities: The roll-out of a new 20-year contract for the provision of street furniture began in 2017 with at least 16 transit shelters to be added annually to meet at least a total of 200 shelters city-wide by Year 10 in 2026. There are currently 83 transit shelters in place, up from 48 shelters prior to the new contract, plus 365 benches (300 with advertising and 65 without advertising) and litter-recycling receptacles at select bus stops with sufficient space (Figure 3). Of the additional 35 new transit shelters, nine are located within the City Centre.

Figure 3: New Transit Shelter Design

Collectively, these partnerships support strategies whereby:

- Higher density, mixed use developments around transit stations and villages enable a car-free lifestyle;
- A complete street network allows greater access to transit;
- Frequent and convenient routes are provided between transit stations, villages and key activity centres in the City Centre and to local and regional destinations; and
- Transit users are provided with an attractive and more comfortable environment including the future capability of better certainty on bus arrival times.

Census data for Richmond indicates that the transit mode share for journey to work trips increased from 11.8% in 2006 to 19.1% in 2016. During this same time period, the vehicle mode share (driver or passenger) decreased from 82.2% to 74.2%.

Cycling and Walking

The objective for cycling is to establish a safe, continuous and convenient network of bike routes that serve cyclists of all ages and abilities encourages more people to cycle more often. The complementary objective for walking is the creation of a culture of walking allows people to move in comfort, safety and dignity along shorter blocks that are pedestrian-oriented and accessible. Attachment 4 identifies the cycling network map while Attachment 5 indicates the key walking corridors.

- Separated Cycling Facilities: Through the City's annual capital program and the development application process, existing and new cycling facilities on major streets will continue to be upgraded to enhance safety by providing physical separation from adjacent vehicle traffic (e.g., conversion of on-street painted bike lane to off-street bike path as shown in Figure 4).

Figure 4: Off-Street Bike Path on Northbound Garden City Road

- Public Bike-Share Pilot: The pilot program for public bike-share became operational in mid-October 2018 with a small scale launch of 75 bicycles located at 15 stations, primarily in the City Centre plus Steveston. Staff will monitor operations during Winter 2018 and oversee the anticipated expansion of service in early Spring 2019 in advance of the peak Spring/Summer cycling season and report back at the end of pilot program in late 2019.

- End-of-Trip Facilities: Beyond the required short- and long-term bicycle parking spaces required per the Zoning Bylaw, the City is also securing end-of-trip facilities (e.g., showers, lockers, change rooms) as these measures further support the desired modal shift to sustainable travel options.

- Pedestrian Facilities: Through the City's annual capital program and the development application process, existing gaps in the City Centre pedestrian network are being filled to ensure an accessible and connected system with an appealing streetscape (e.g., walkway on River Road between Oval Way and Brighouse Way).

Shorter city blocks improve pedestrian access to destinations. To enhance the streetscape, existing large setbacks that force pedestrians to cross surface parking lots are being transformed through the development application process to street-facing building fronts that have continuous weather protection. With respect to cycling, the shift to protected facilities, particularly on major streets, will reduce conflicts, improve safety and further encourage cycling as a legitimate and viable transportation choice.

Supporting Measures

Supporting measures comprise policies and programs that make the transportation system smarter, manage travel demand and encourage a shift to more sustainable travel modes.

- Car-Share: Access to car-share services can not only allow households to reduce their vehicle ownership but also provides an incentive to reduce driving and rely more on alternative travel modes. Currently, three car-share providers operate in the City Centre. Modo the Car Co-op (Modo) has a total of eight vehicles. Three of its eight vehicles are located in reserved on-street parking spaces near each of the Bridgeport, Lansdowne and Richmond-Brighouse Canada Line stations. The remaining five vehicles are located in reserved off-street parking areas (i.e., two at City Hall, two at the City Centre Community Centre and one at Richmond General Hospital). Zipcar has an off-street reserved parking space at Richmond Centre and Car2go has reserved off-street parking spaces at Kwantlen Polytechnic University.

  In response to customer requests, Modo is expanding to additional reserved on-street parking spaces in locations of the city that are beyond walking distance of the Canada Line and other destinations to support first/last mile trips, such as to/from surrounding multi-family residential areas. The provision of car-share vehicles and off-street reserved parking spaces are also being secured in new developments (e.g., South Street on No. 3 Road opposite Lansdowne Mall).

Figure 5: EV Charging Station at City Hall

- Electric Vehicles: The use of electric vehicles (EVs) aligns with the City's commitment to reduce energy use and greenhouse gas emissions. Publicly available Level 2 EV charging stations in the City Centre include City Hall (Figure 5), the Richmond Olympic Oval and Fire Hall No. 1. In December 2017, Council adopted an amendment to the Zoning Bylaw requiring that all new residential parking spaces feature an energized outlet capable of providing Level 2 EV charging. An on-street charging station has been secured in the Capstan Village area through the development process.

- Transit Passes: The provision of transit passes to employees and residents of new developments are being secured through the development application process as an incentive to use sustainable modes and reduce driving.

Transportation demand management measures like car-share and bike-share services have the potential to reduce private vehicle ownership and use. Ideally, with more transportation choices, it will be possible and even desirable for residents to have only one or perhaps no car at all. As a complement to a reduced reliance on private vehicles, encouraging the use of EVs helps ensure that those trips made by cars have a reduced impact on the environment. If an effective range of non-car mobility choices, infrastructure, services, and supporting initiatives are in place, the car-free lifestyle becomes feasible and public investments in the Canada Line and the transit system, as well as the City's commitment to sustainability, are maximized.

Next Steps

Looking forward, transportation improvement highlights in the City Centre over the next one to two years include the following:

- River Parkway: Completion of the roadway, including the upgrades at Leslie Road and Cambie Road, is anticipated in early 2020.
- B-Line Transit Service: In 2019, as part of their 10-Year Investment Plan, TransLink will initiate a study to implement a new B-Line service between Richmond-Brighouse Station and Metrotown Station in Burnaby.
- Capstan Canada Line Station: Once the preferred design of Capstan Station is confirmed, staff will seek Council approval to release the remaining funds to activate construction by TransLink and completion within 30 months per the City-TransLink Capstan Station Funding Agreement.
- Richmond-Brighouse Bus Mall: Initiation of construction of the bus mall in 2019 with completion anticipated in 2020.
- City Centre Cycling Network Plan: The scope of work comprises an update of the existing plan to ensure it reflects current needs, best practices with respect to design and policy, and continues to support the long-term mobility objectives as identified in the CCAP. An implementation strategy, conceptual designs and cost estimates are also included.
- Electric Vehicle Charging Stations: Existing Level 2 charging stations at City Hall and the Richmond Olympic Oval will be expanded to include a fast charging Level 3 station.

Financial Impact

None.

Conclusion

The progressive implementation of the City Centre Transportation Plan will continue to support and keep pace with the population and employment growth envisioned in the City Centre Area Plan. Collectively, the measures will foster a shift to sustainable travel modes and a reduced reliance on private vehicles, which, in turn, reduces the demand for increased road capacity.

New developments in the City Centre help advance the vision and objectives of the CCTP. As such, it is important that the City continue to adhere to the CCTP and its principles of transit-oriented development and complete communities. The key directions for each component of the transportation system encourage alternative transportation use and increase transportation system efficiency thereby reducing greenhouse gas emissions and the traffic burden on City Centre streets, as opposed to perpetuating an unsustainable expansion of road capacity and the associated negative effects of a car-oriented environment on safety, health, air quality, and livability.

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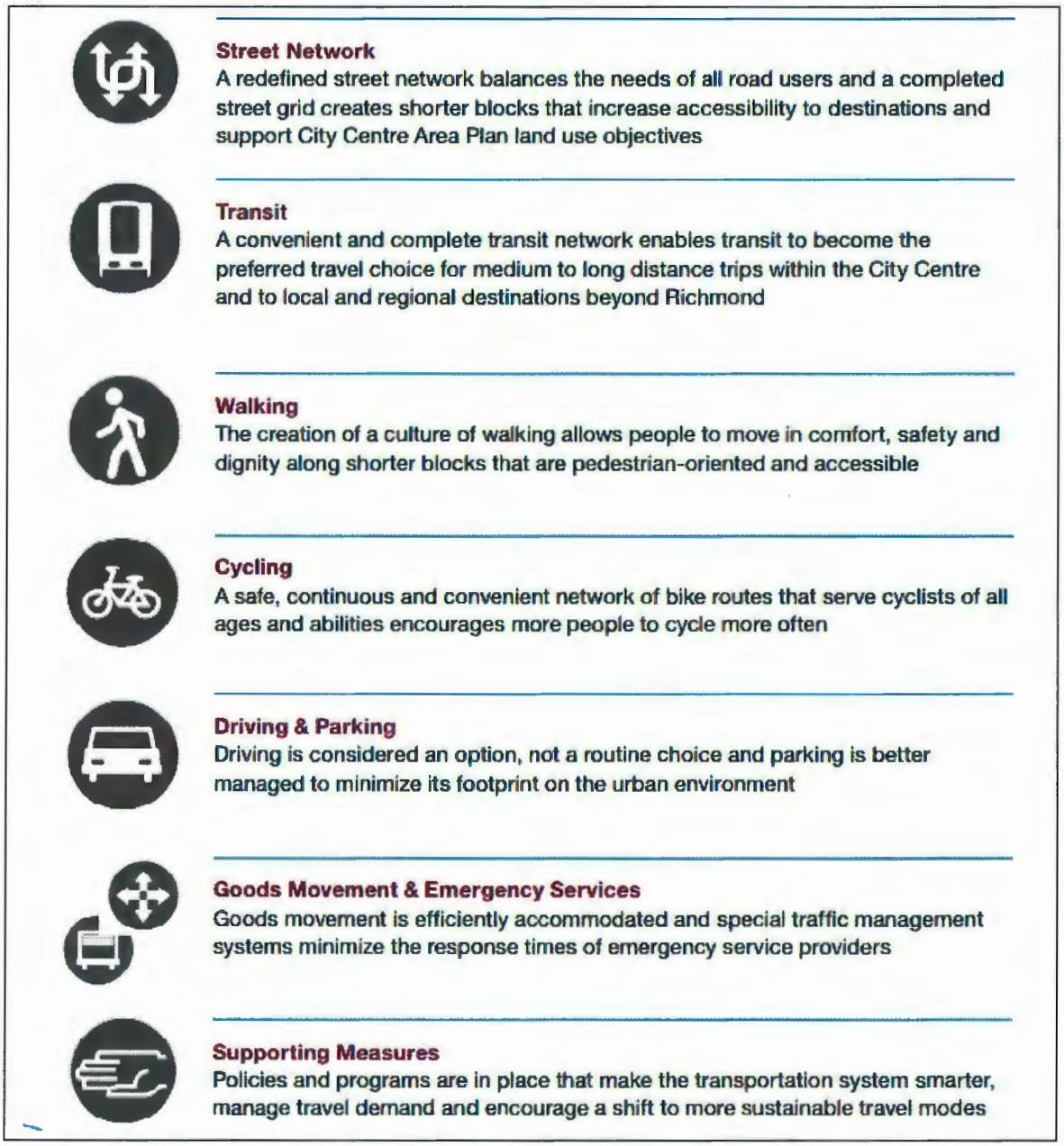
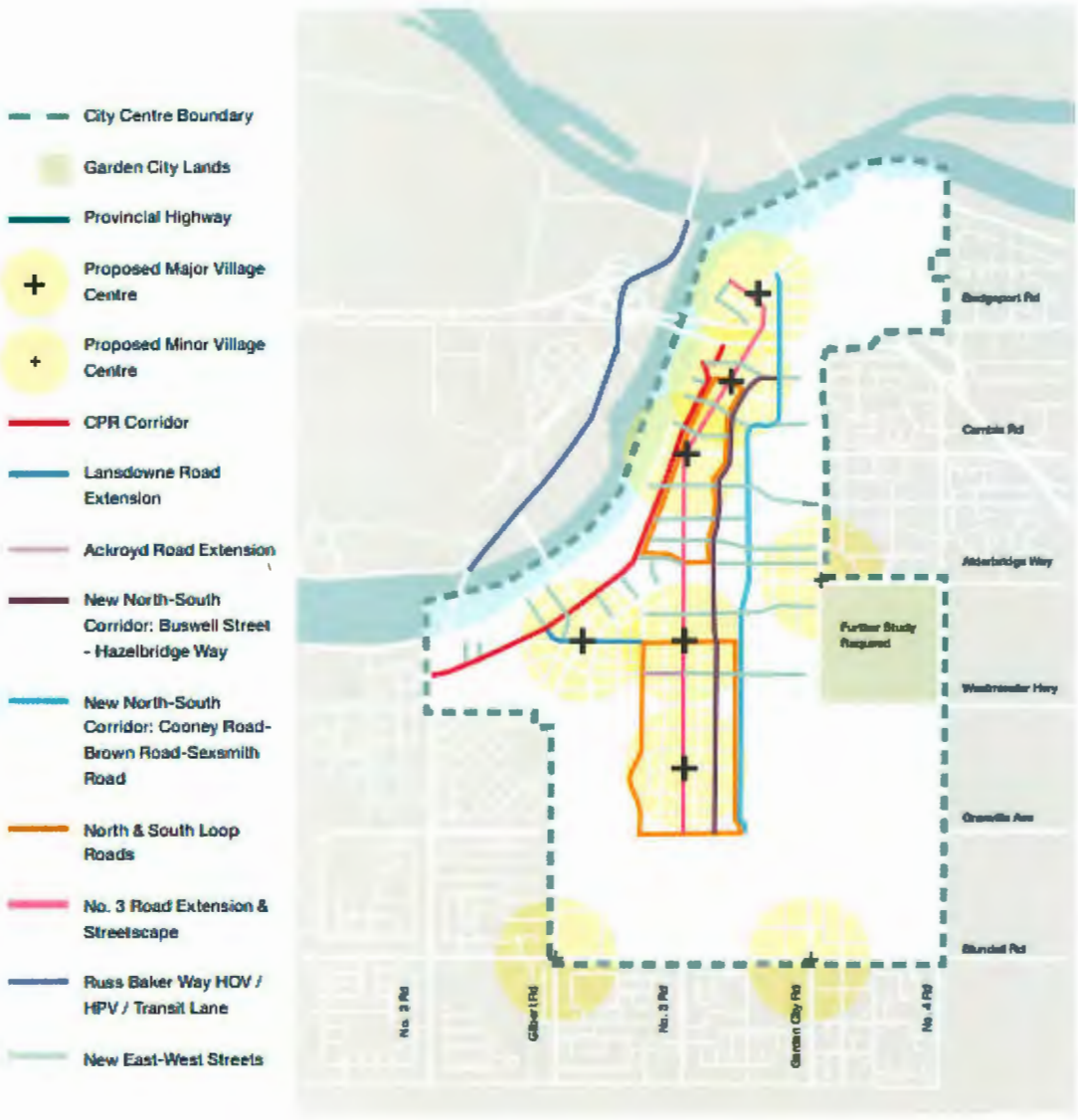
JC:jc

Att. 1: Key Success Indicators for the City Centre Transportation Plan
Att. 2: City Centre Transportation Plan: Key Street Improvements
Att. 3: City Centre Transportation Plan: Transit Network Map
Att. 4: City Centre Transportation Plan: Cycling Network Map
Att. 5: City Centre Transportation Plan: Key Walking Corridors Map

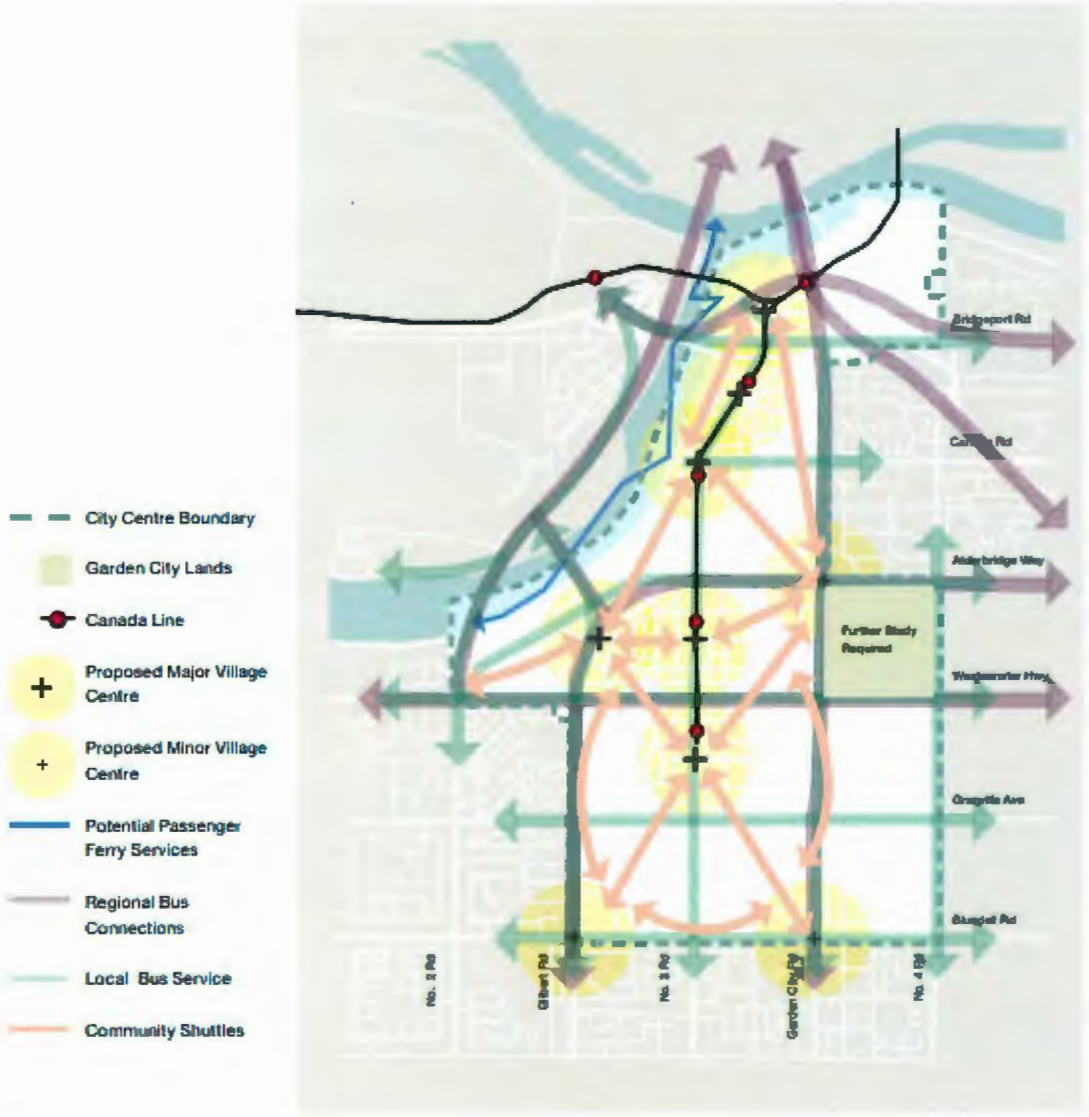
Key Success Indicators for the City Centre Transportation Plan



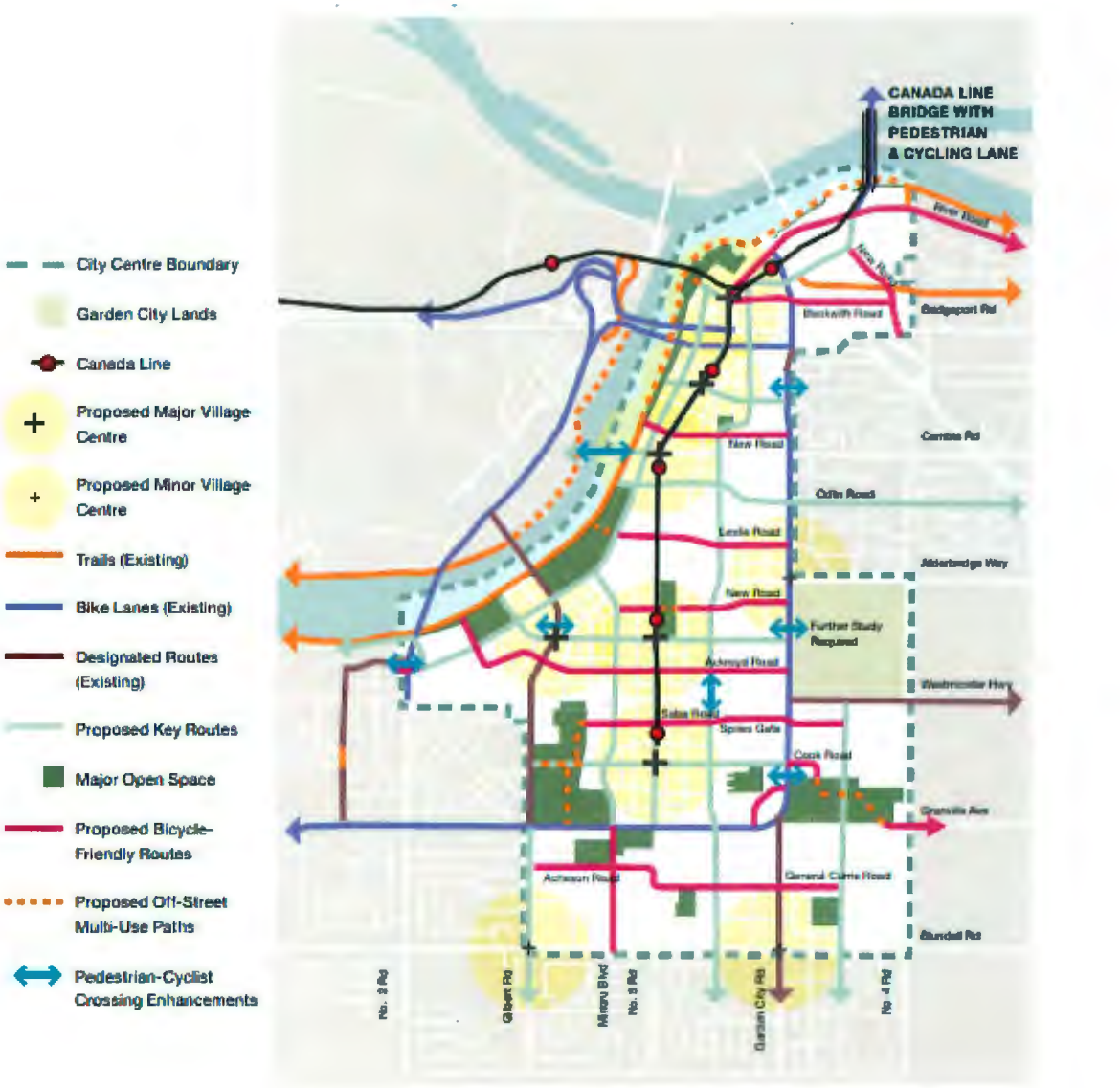
City Centre Transportation Plan: Key Street Improvements



City Centre Transportation Plan: Transit Network Map



City Centre Transportation Plan: Cycling Network Map



City Centre Transportation Plan: Key Walking Corridors Map