

**Report to  
Rapport au:**

**Transit Commission  
Commission du transport en commun  
15 June 2016 / 15 juin 2016**

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**Ward: CITY WIDE / À L'ÉCHELLE DE LA VILLE      File Number: ACS2016-CMR-OCM-0019**

**SUBJECT: OC TRANSPO 2018 ROUTE NETWORK – TRANSFORMATION TO  
COORDINATE WITH THE O-TRAIN CONFEDERATION LINE  
MULTIMODAL OPERATIONS**

**OBJET: RÉSEAU DES CIRCUITS DE 2018 D'OC TRANSPO –  
TRANSFORMATION EN VUE D'UNE COORDINATION AVEC LES  
OPÉRATIONS MULTIMODALES DE LA LIGNE DE LA  
CONFÉDÉRATION DE L'O-TRAIN**

**REPORT RECOMMENDATION**

**That the Transit Commission receive this report for information.**

**RECOMMANDATION DU RAPPORT**

**Que la Commission du transport en commun prenne connaissance de ce rapport.**

## **EXECUTIVE SUMMARY**

The opening of the O-Train Confederation Line in 2018 marks a major transformation in the delivery of transit service in Ottawa. Bus routes that today operate on the Transitway between Blair and Tunney's Pasture stations and through downtown will be replaced by the high-frequency train service. Customers will connect to the Confederation Line at Blair Station in the east, Tunney's Pasture Station in the west, and St-Laurent and Hurdman stations in the central part of the transit system. The many positive outcomes of the conversion from bus rapid transit to light rail will be realized, the volume of buses in the downtown core will be significantly reduced, and bus routes in Ottawa's communities will be realigned to connect with O-Train stations.

Connections at O-Train Confederation Line stations will be easy and simple for customers. Stations will be comfortable, attractive, and secure. Real-time information on both the train and bus platforms will be provided. Stations have been designed based on universal accessibility principles. Tunney's Pasture, Hurdman and Blair stations will serve as major connection points for many customers. At these key stations, integrated bus loops will allow quick and easy connections between bus and train.

All O-Train stations on the Trillium Line and the Confederation Line will have automated fare control to make it easy for customers to pay fares. Fare vending machines allow customers to buy fares and to purchase and reload smartcards. Fare vending machines will provide a direct audio/visual link to customer service representatives for assistance. Fare gates will accept smartcards and other fare media (such as transfers and event tickets) with barcodes. Customers arriving at the major transfer stations by bus will be dropped off within the fare-paid zone at the station, where no further fare transaction will be required. In the afternoon, buses will load within the fare-paid zone with all doors open to ensure fast boarding at the station.

The centrepieces of the O-Train Confederation Line are the Alstom Citadis Spirit trains, which will provide a very smooth and quiet ride. The trains will operate very frequently, reliably, and quickly. Each train will have capacity for 600 customers, which is the equivalent of more than eight articulated buses. No fare transactions will occur on the train platform or onboard the train.

Bus routes will connect to the O-Train Confederation Line at one of the 13 stations along the line and will be revised in most cases according to the following design principles:

- One-bus connection to the Confederation Line during peak hours;

- Travel times that are similar or better compared to today;
- Service frequencies that are similar or better compared to today; and,
- Bus routes that are compatible with the 2023 transit system.

The transition to the 2018 bus route network will affect the everyday trips of most transit customers as they may have to make a new connection between bus and train or bus and bus, use fare gates, or use a bus route with a different route number. O-Train Confederation Line stations will have many features that will make connections easy and comfortable, while the Alstom Citadis Spirit trains will provide frequent and reliable service.

The 2018 bus route network will be revised to coordinate with the O-Train Confederation Line, and will introduce three new service types: Rapid, Frequent and Connexion. Premium fares will be eliminated and current Express service will be replaced by new Connexion routes, which connect customers' home locations to the Confederation Line. In the downtown area, bus volumes will be reduced and routes will be shortened or split into two routes to connect with the Confederation Line, which will improve reliability.

A replacement bus service will operate when the O-Train Confederation Line shuts down each night for track and vehicle maintenance.

Adjustments to the bus route network to coordinate with O-Train Confederation Line service will be completed in phases leading up to the opening of the O-Train Confederation Line. Some routes have been in the process of being adjusted since 2011, while some route changes will be made between now and 2018 in consultation with Councillors and following normal procedures.

The "18 Minus 18" program will be a comprehensive communication, information, and education campaign that begins in early 2017 and builds understanding, knowledge and excitement about O-Train Confederation Line operations among our customers, Transit Commission, City Council, and all City stakeholders. The campaign will help transition customers to the new service and will build on the comprehensive Customer Journey Mapping project that was instrumental in ensuring the service is viewed, planned and operated through the view of the customer. Specific objectives of the campaign include: increasing awareness of the Confederation Line and its benefits, educating stakeholders about how the system works and how to manoeuvre through the light rail system, creating a sense of confidence regarding use of the light rail system, and

supporting customers as they adapt to changes. A report on the “18 Minus 18” program will be brought to the Transit Commission later this year that will outline all the elements of the program.

## **BACKGROUND**

On December 4, 2012, City Council approved the contract with the Rideau Transit Group (RTG) to design, build, finance and maintain Ottawa’s Light Rail Transit project. This report confirmed that the transit service delivery model, whereby the train would replace most buses to and from downtown and that routes from the east, south, and west would connect to the train at key stations, is aligned with the City’s long-range financial plan.

In a memo to Transit Committee on December 16, 2009, entitled *Strategic Plan for Bus Connections with Rail Line*, City staff presented a plan, at the concept level, which outlined how bus routes would be changed to connect with the new rail line once it is built and open. Specifically, under this plan, the train would replace most bus service to and from downtown from the outlying communities. Bus routes from the east would end at Blair Station, from the south at Hurdman Station, and from the west at Tunney’s Pasture Station.

Intrinsically related to this, on December 9, 2013, the Transit Commission approved the *Rapid Transit Fare Control Strategy*, which consists of fare-paid zones at major transfer stations, fare gates and fare vending machines at all O-Train Confederation Line and Trillium Line stations, machine readable transfers with barcodes, and compatibility with future fare payment methods.

In 2014, OC Transpo initiated the Customer Journey Mapping project, designed to track the activities customers undertake when interacting with OC Transpo. The objective of that project was to understand the customer’s transit experience from their perspective, clearly understand and articulate the interests of the customer, and put them at the centre of all decision making, and then to understand how customer interactions work together to contribute to the customer’s overall perceptions and experience of the new multi-modal service.

## **DISCUSSION**

The O-Train Confederation Line will open in 2018 and will provide major improvements for many transit customers. The O-Train Confederation Line will replace many bus and

car trips through downtown with zero-emission electric trains, while providing reliable and easy commuting through downtown as well as capacity for future growth.

The bus route network must transform in order to coordinate with the O-Train Confederation Line service. Plans for the 2018 transit network have been developed and OC Transpo's transformation to the 2018 transit network is underway.

The transition to a multimodal transit system in 2018 will affect most current transit routes and customers. Many customers will have a different journey compared to today, as they may:

- have to make a new connection from bus to train or from bus to bus;
- use a fare gate; and,
- use a bus route with a different number than today, etc.

Changes to the 2018 bus route network provide opportunities to make substantial improvements to bus services, as well as improvements to other important elements of the transit network such as customer information.

### *Route Network Overview*

The O-Train Confederation Line will replace bus routes along the Transitway between Blair and Tunney's Pasture stations. Bus routes will connect to the Confederation Line at one of the 13 stations along the line.

Bus routes will operate along the same streets within Ottawa's communities; however, customers' travel experiences will change when the O-Train Confederation Line opens. Making connections will be an integral part of the 2018 route network. Many customers will have to make a new connection from bus to train or bus to bus. O-Train Confederation Line stations have been designed to make these connections easy and comfortable.

Some O-Train Confederation Line stations will serve as major transfer stations, with closely integrated bus and train operations to facilitate high volumes of connections between bus and train. These major transfer stations are Blair Station in the east, Tunney's Pasture Station in the west, and St-Laurent and Hurdman stations in the central part of the transit system.

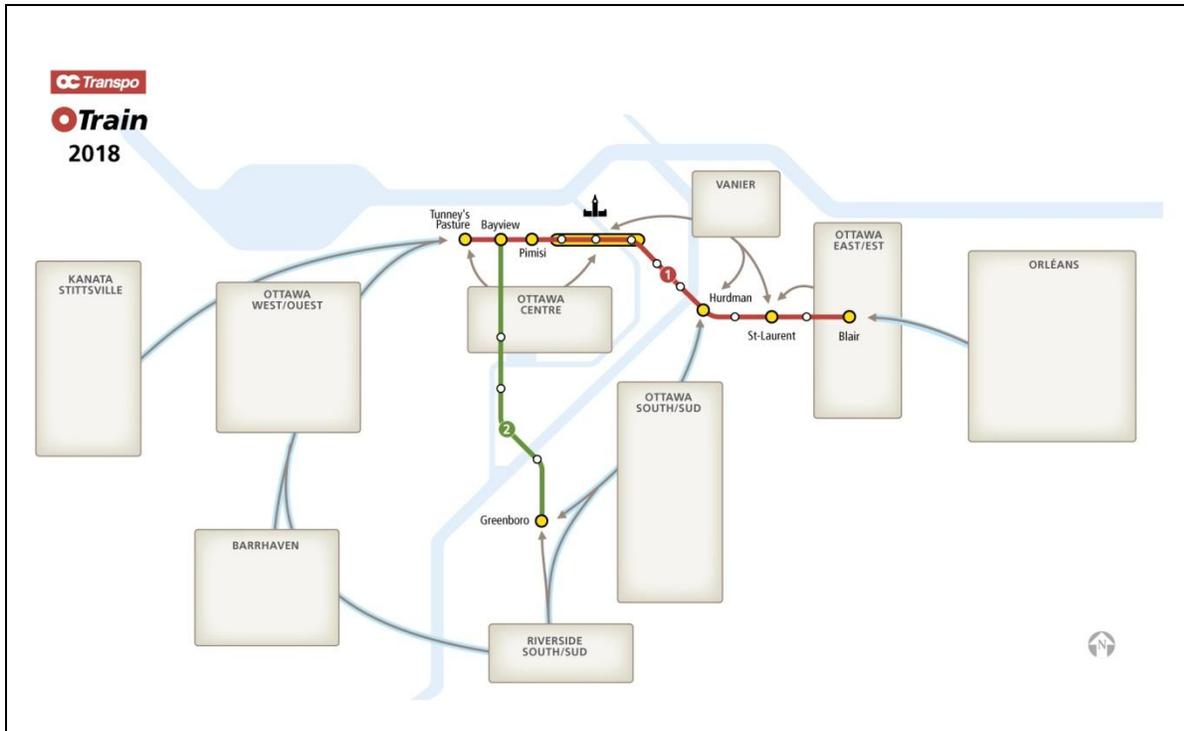


Figure 1: Map 1, O-Train 2018 bus connections

Table 1: Making connections at O-Train Confederation Line Stations

Area	Connecting O-Train Confederation Line Stations
Barrhaven	Tunney's Pasture and Hurdman
Kanata/Stittsville	Tunney's Pasture
Orléans	Blair
Ottawa Centre	Tunney's Pasture, Pimisi, Lyon, Parliament and Rideau
Ottawa East/Est	Blair and St-Laurent
Ottawa South/Sud	Hurdman
Ottawa West/Ouest	Tunney's Pasture
Riverside South/Sud	Tunney's Pasture and Hurdman

Vanier	Rideau, Hurdman and St-Laurent
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### *Customers' Everyday Trips*

Many changes in 2018 will make the transit system easier to understand and use for customers.

Some customers will pay a different fare and many customers will use a bus route with a different route number. As part of the transformation of the 2018 route network, transit fares and customer information will be revised, making it simpler and easier to understand.

A trip to work in the downtown area will be different compared to today for many customers because they will make a connection to the O-Train Confederation Line. Light rail will bring increased reliability, frequency, convenience, and comfort. Customers will have improved access to and through downtown, and a more comfortable and dependable commute with more predictable travel time. Every step in the customer journey will be familiar and in many cases steps will be simpler and easier because of the changes in the 2018 transit network.

Steps for a typical trip to work in 2018:

- Catch bus at neighbourhood bus stop;
- Pay fare or tap pass on bus;
- Travel to nearest O-Train station;
- Exit bus inside the fare-paid area;
- Walk to train platform and board train – no fare transaction;
- Trains run frequently;
- Exit train at destination; and,
- Ascend escalator, exit fare gates, and walk out to street and to work.

Steps for a typical trip in the homebound direction:

- Walk to nearest O-Train station;

- Pay fare or tap pass to enter the station;
- Walk to train platform and board train;
- Trains run frequently;
- Exit train at transfer station;
- Walk to bus platform – no fare transaction;
- Check video display for bus status and departure time; and,
- Travel to neighbourhood bus stop.

Steady communication with customers will be made in many forms and maintained throughout the different stages of the transformation. Customers will be well informed through the “18 Minus 18” program of the new system in advance of the opening of the O-Train Confederation Line in order to ensure a smooth and successful transition to multimodal operation.

#### *O-Train Confederation Line Stations and Trains*

Connections at O-Train Confederation Line stations will be easy and simple for customers.

Stations will be comfortable, attractive, and secure, with Transecure waiting areas designated on both train and bus platforms. Next-bus and next-train arrival information will give customers real-time information on both the train and bus platforms. Stations have been designed based on universal accessibility principles. Public art has been incorporated into all stations. Stations will include sheltered bicycle parking and connections to multi-use pathways.

All O-Train stations on the Trillium Line and the Confederation Line will have automated fare control to make it easy for customers to pay fares. Fare vending machines allow customers to buy fares and to purchase and reload smartcards. Fare vending machines will provide a direct audio/visual link to customer service representatives for assistance. Fare gates will accept smartcards and other fare media (such as transfers and event tickets) with barcodes.

Tunney’s Pasture, Hurdman and Blair stations will serve as major connection points for many customers. At these key stations, integrated bus loops will allow quick and easy connections between bus and train. Arrival bus stops will be located adjacent to station

entrances to minimize walking distances. Departure bus stops will be organized by destination using alpha-identifiers. Real-time next bus departure information will be available on video screens. These three stations will also have fare-paid zones, which will simplify connections. Customers arriving at the station by bus will be dropped off within the fare-paid zone at the station, where no further fare transaction will be required. In the afternoon, buses will load within the fare-paid zone with all doors open to ensure fast boarding at the station.

Access to and from the train platform will be via stairwells and elevators at all stations and escalators at nine of the 13 stations. Twelve of the 13 stations will have backup elevators in order to minimize the incidence of elevator service disruptions. The train platforms will be wide and well-lit.

The centrepieces of the O-Train Confederation Line are the Alstom Citadis Spirit trains, which will provide a very smooth and quiet ride. The trains will operate very frequently, reliably, and quickly. Each train will have capacity for 600 customers, which is the equivalent of more than eight articulated buses. Each two-car train will have 14 doorways on each side and customers will board trains through all doors to ensure fast and easy boarding. No fare transactions will occur on the train platform or onboard the train.

#### *The 2018 Bus Route Network*

The 2018 bus network will be revised to coordinate with the O-Train Confederation Line.

Bus routes will be revised in most cases according to the following design principles:

- One-bus connection to the O-Train Confederation Line during peak hours;
- Travel times that are similar or better compared to today;
- Service frequencies that are similar or better compared to today; and,
- Bus routes that are compatible with the 2023 transit system.

#### *New Service Types*

New route service types will be introduced to convey the meaning and value of different bus routes, as they relate to the O-Train Confederation Line.

**Rapid routes** will provide high speed, station to station bus service. Rapid routes provide connections to the O-Train Confederation Line seven days a week via

Transitway infrastructure and on-street bus-only lanes. The Rapid route network will consist of sections of current Transitway routes in the 80 and 90 number series.

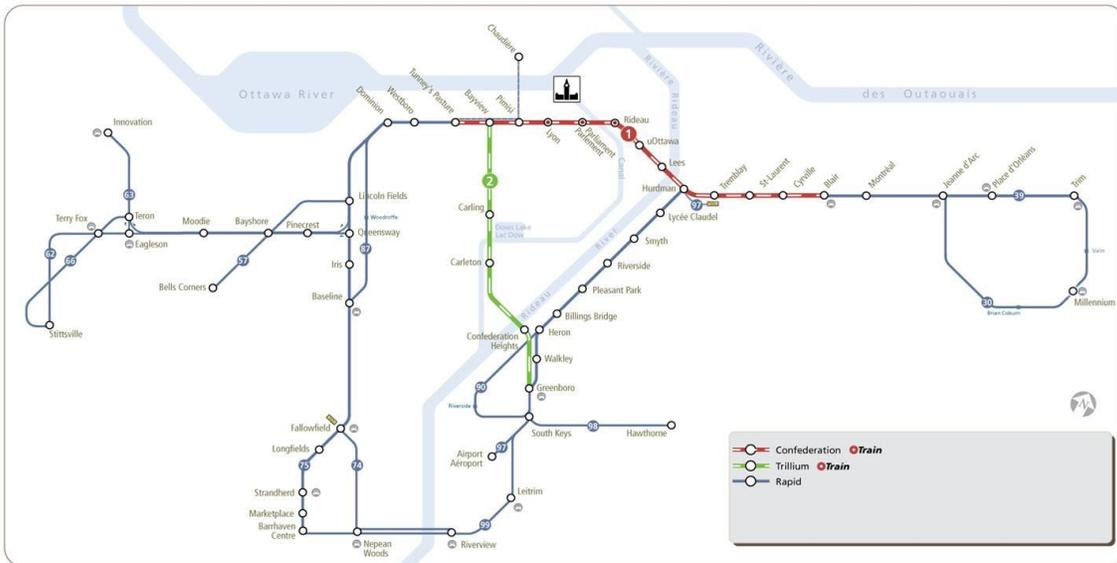


Figure 2: Map 2, O-Train and Rapid Routes

The **Frequent Route Network** will provide reliable, high frequency bus service at least every 15 minutes from 6:00 a.m. to 7:00 p.m. on weekdays, and will operate at least every 30 minutes during all other times, seven days a week. Many existing bus routes inside the Greenbelt form the frequent route network, re-numbered according to a new geography and service type-based numbering system. The two O-Train lines and the Rapid routes also form part of the Frequent Route Network.

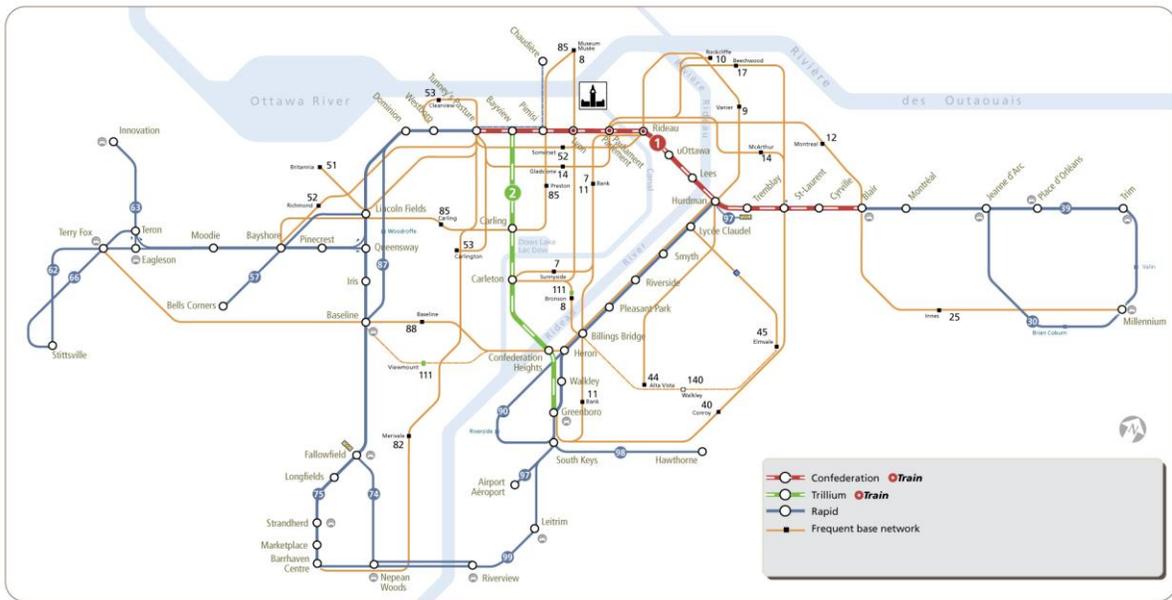


Figure 3: Map 3, O-Train, Rapid and Frequent Routes

**Connexion routes** connect residential neighbourhoods to the O-Train Confederation Line during weekday peak periods. These routes will replace current express routes, other direct-to-downtown routes, and some current feeder routes, operating on the same streets as today. Connexion routes will not require premium fare and will be recognizable by new numbers in the 200-series.

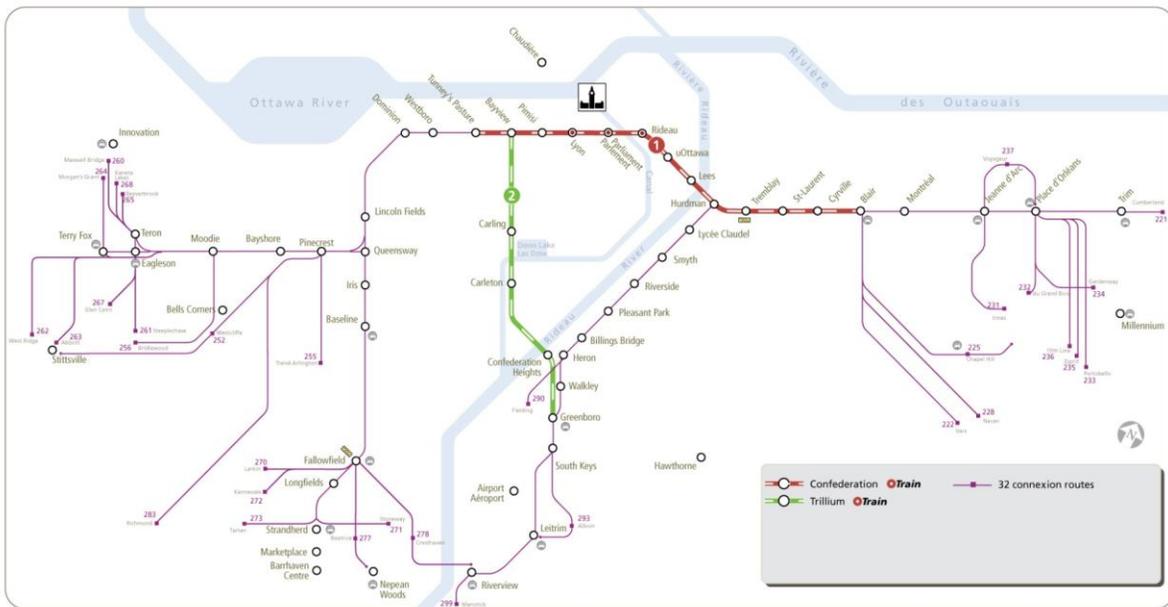


Figure 4: Map 4, O-Train and Connexion Routes

### *Downtown Connections*

Albert and Slater Streets will no longer be major transit corridors in the downtown core. Several longer bus routes that currently operate through the downtown will be shortened or split into two routes to connect with the O-Train Confederation Line downtown, which will improve reliability. Local and Frequent service will continue to operate along the same streets and will serve the same bus stops.

While bus volumes will be reduced in the downtown core, customer activity will shift towards Queen and Rideau Streets where O-Train Confederation Line station entrances will be located. Improvements and modifications to both Rideau and Queen Streets are planned to accommodate the changes in customer activity and bus volumes compared to today. Planned street improvements to both Rideau and Queen Streets will include features to provide customer amenities at either bus stops or linking a bus stop to an O-Train Confederation Line station entrance. Other street improvements, including transit priority measures, roadway geometry modifications, and infrastructure requirements, are planned to accommodate bus movements. OC Transpo is working with other City partners to implement these changes.

The Rapid, Connexion, and Local routes that will bring customers to O-Train stations will have improved reliability compared with their current equivalents, because the section of the route through downtown will be replaced by trains on the Confederation

Line. Bus operation downtown is currently susceptible to variability caused by traffic signals, weather, auto traffic congestion, and other day-to-day occurrences. Most of the Local and Frequent routes that operate on downtown streets will also be more reliable than they are now. Routes 1, 5, 7, 14, and 16 will be split into two separate routes to make convenient connections to downtown stations and to ensure that they have enough recovery time to start the next trip on time. Routes 2, 9, and 12 were split previously and will be adapted to make convenient connections to the downtown stations.

### *Overnight Service*

The O-Train Confederation Line will shut down each night during the following times to allow for track and vehicle maintenance required as part of the LRT system:

- Monday to Thursday night, 1:00 a.m. to 5:00 a.m. the next morning;
- Friday night, 2:00 a.m. to 6:00 a.m. Saturday morning;
- Saturday night, 2:00 a.m. to 8:00 a.m. Sunday morning; and,
- Sunday night, 11:00 p.m. to 5:00 a.m. Monday morning.

During these times, the train service will be replaced by select Rapid bus routes extended into downtown from the east, west and south parts of the city.

### *Travelling Beyond the O-Train Confederation Line*

Some customers may not need to board an O-Train Confederation Line train or will only use Confederation Line stations as a transfer point between bus routes. Where opportunities exist, service will be improved for customers that do not need to travel on the Confederation Line. For example, O-Train stations will have many customer-friendly features, including fare-paid zones at the major transfer stations and real-time next-bus arrival information, which will make connections between bus routes easier for customers.

### *Transition Strategy*

Some routes have been in the process of being adjusted to be coordinated with the Confederation Line since 2011. Some route changes will be made between now and 2018 to continue to meet customers' changing travel needs. Staff will work with Councillors on these changes following normal procedures. As described in detail

earlier in this report, direct bus service to downtown will be phased out with the opening of the Confederation Line in 2018.

The “18 Minus 18” program will be a comprehensive communication, information, and education campaign that begins in early 2017 and builds understanding, knowledge and excitement about Confederation Line operations among our customers, Transit Commission, City Council, and all City stakeholders. The campaign will help transition customers to the new service and will build on the Customer Journey Mapping project that was instrumental in ensuring the service is viewed, planned and operated through the view of the customer. Specific objectives of the campaign include: increasing awareness of the Confederation Line and its benefits, educating stakeholders about how the system works and how to manoeuvre through the light rail system, creating a sense of confidence regarding use of the light rail system, and supporting customers as they adapt to changes. A report on the “18 Minus 18” program will be brought to the Transit Commission later this year that will outline all the elements of the program.

OC Transpo will provide customers with the information they need so that their transition to the 2018 bus route network is seamless. Customer outreach will be conducted through the “18 Minus 18” program and for all service changes, so that customers are fully aware of when and how their trips will change.

## **RURAL IMPLICATIONS**

The transformation of the bus route network to coordinate with O-Train Confederation Line service will affect most existing bus routes, including rural service. Rural bus service will connect to one of the key O-Train Confederation Line stations.

## **CONSULTATION**

OC Transpo is developing a communications strategy to ensure a smooth transition to the 2018 bus route network. OC Transpo will provide customers with the information they need to adapt to transit network changes. Customer outreach will be conducted through all service changes so that customers are fully aware of when and how their trips will change. A report on the “18 Minus 18” communications program will be brought to the Transit Commission later this year.

Changes to the bus route network will be carried out in phases. Staff will provide Councillors with support for any communication they may carry out.

## **ADVISORY COMMITTEE(S) COMMENTS**

This report has not been considered by advisory committees.

## **LEGAL IMPLICATIONS**

There are no legal impediments to receiving this report for information.

## **RISK MANAGEMENT IMPLICATIONS**

There are no risk implications.

## **FINANCIAL IMPLICATIONS**

There are no financial implications associated with this report.

## **ACCESSIBILITY IMPACTS**

O-Train Confederation Line stations and the Alstom Citadis Spirit trains will be fully accessible. All OC Transpo buses are fully accessible.

## **TERM OF COUNCIL PRIORITIES**

This report supports the following 2015-2018 Term of Council priorities:

*Transportation and Mobility* – Meet the current and future transportation needs of residents and visitors through Phase 1 and Phase 2 of the Transportation Master Plan, including ensuring the City’s transit services are reliable and financially sustainable. Continued focus on improving mobility during the LRT implementation, and support for alternative transportation methods including cycling and walking, as well as transit.

*Service Excellence* – Improve client satisfaction with the delivery of municipal services by measurably strengthening the culture of service excellence at the City, by improving the efficiency of City operations, and by creating positive client experiences.

*Financial Sustainability* – Practice prudent fiscal management of existing resources, and make sound long-term choices that allow City programs and services to be sustainable.

*Sustainable Environmental Services* – To provide sustainable environmental services that balance protection of our natural resources and support the planned growth of the city with the duty to ensure fiscal sustainability and meet legislative requirements in the delivery of municipal services.

**DISPOSITION**

Staff will undertake any further direction from the Transit Commission.