



Bus Service Identification Evolution to Coordinate with the O-Train Confederation Line Multimodal Operations

Technical Briefing

June 7, 2016

Service Identification

The bus route network will be modified to coordinate service with the O-Train Confederation Line:

- Bus routes that today operate through the downtown core will be replaced by very high frequency rail service;
- Most transit trips will become multimodal;
- Service type names, route numbers, and the colours and symbols used on maps and signs will be modified to simplify understanding and navigation of the new network; and,
- A new wayfinding system will form the basis for clear communication and understanding of the new network for transit customers in the lead-up to Confederation Line operation.



Current Downtown Service

On Mackenzie King Bridge, Albert Street and Slater Street, 48 different routes provide more than 2,800 bus trips each day.



Simplified Wayfinding

For a customer starting a trip at the Rideau Centre, instead of jostling for one of 48 different bus routes on Mackenzie King Bridge, they will board Line 1, the Confederation Line, at the underground Rideau Station. There will be only one navigation choice to make:



Simplified Wayfinding

- Most trips will become multimodal;
- Many major destinations will be on the O-Train Confederation Line;
- Navigation will often be a question of identifying which routes connect to the O-Train, and where the best connections can be made;
- Express and Transitway routes will be split or shortened to meet the train at major transfer stations; and,
- Many local routes will be extended from their communities to connect directly to the Confederation Line.



New Navigation Structure

- Describes how, where and when bus routes will operate, which routes connect to the train, and where to transfer;
- Methods for service identification and navigation include new symbols, colours and numbers that will appear on signs, maps, and other customer information systems; and,
- Designs are based on transit industry wayfinding best practices and confirmed through focus group testing.



New Navigation Structure

The new system is an evolution of the current system, with the following design objectives:

- Simplifies understanding of the route network;
- Integrates easily with O-Train identification methods;
- Helps customers make the transition from the current network;
- Uses meaningful, descriptive words;
- Improves legibility and usability of maps and signs;
- Meets all applicable current accessibility standards; and,
- Assists with meeting safety standards.



Bus Service Identification

Major Navigation Elements

- Bus routes and train lines are organized into groups – or **service types** – that provide meaningful information to customers about the level of service and value associated with each route or line.
- The resulting classification structure is communicated through a consistent use of **names, numbers, colours, and symbols** that simplify wayfinding and trip-planning tasks for customers who are navigating and using the system.



Rapid Routes

- Station-to-station connections along the Transitway and dedicated bus lanes on highways and major corridors;
- Quick connection to the O-Train Confederation Line at Tunney's Pasture, Hurdman or Blair stations;
- Name describes value and promises performance;
- Name is clear and exclusive, unlike the term 'Transitway' which means different things for different customers and routes; and,
- In the 2018 service network, there will be 15 Rapid routes.



Frequent Route Network

- Creates a “frequent service” class as in Montreal, Vancouver, Boston, San Francisco, Toronto:
 - Every 15 minutes or less between 6:00 a.m. and 7:00 p.m. on weekdays; and,
 - Operates 7 days/week;
- Reduces the requirement for customers to plan all trip details in advance;
- Name describes value and promises performance;
- Name is clear and exclusive;
- Improves system usability by simplifying route choices, and by organizing maps and bus stop signs; and,
- In the 2018 service network, there will be 20 Frequent routes.



Connexion Routes

- Replaces current “express” routes, other direct-to-downtown routes, and some current feeder routes;
- Connects residential neighbourhoods to the O-Train at Tunney’s Pasture, Hurdman, or Blair stations for a convenient transfer to downtown;
- Spelling is bilingual, and has a positive connotation;
- Operationally has some similarities with Rapid; and,
- Assigned a distinct number group and colour.



Local Routes

- Value is in customization by routing and schedule to meet customer needs;
- Many Local routes provide a 7-day connection to Rapid or O-Train service;
- Some Express routes will be combined with existing local routes and extended to create one full-time connection to the O-Train;
- Serve a specific neighbourhood and ridership, often as circulator routes within a community; and,
- Serve smaller, local destinations.



Local Routes

- Most Local routes (39 of 63) connect with O-Train stations. In some cases, service on the existing local route in an area will be combined with the current Express route to make the new Local route more frequent, similar to a Connexion route except that service is provided all day long.
- Other Local routes (24 of 63) do not yet connect with O-Train stations, as they are connector routes within communities and bring customers to Rapid routes for the connection to O-Train stations.
 - As the Confederation Line and the Trillium Line are extended in Stage 2 of the City's rail expansion project, more of these Local routes will connect directly with O-Train stations.
- Certain Local routes (19 of 63) operate only during peak periods, providing connections to employment locations and smaller residential neighbourhoods.



Other Service Types

- 39 bus routes are in other existing categories:
 - 22 School routes;
 - 12 Event routes (CTC and Lansdowne); and,
 - 5 Shopper routes (one trip/week).
- Existing names are the most meaningful and appropriate names for these service types:

School, Event, Shopper



All 2018 Service Types

O-Train	Quick station-to-station train service
Rapid	Quick station-to-station bus service
Frequent	Service every 15 minutes or less
Connexion	Quick, convenient connection to the O-Train
Local	Custom routing to local destinations
School	Custom service from home to school
Event	Direct to Lansdowne or Canadian Tire Centre
Shopper	Free weekly trips to and from the mall
Para Transpo	Door-to-door trips for registered customers



New Service Identification

O-Train identities established by the Transit Commission in 2013 are the starting point for designing the 2018 service identities:

O-Train	Confederation Line	Line 1	red
	Trillium Line	Line 2	green



O-Train Map Design











New Bus Service Colours

- Correspond with service types;
- Can be applied consistently on printed and digital maps;
- Can be applied consistently on bus stop signs;
- Are bright, legible, and distinctive;
- Meet accessibility requirements for contrast and tonal differentiation (minimum 70 per cent contrast); and,
- Colour palette has been tested to assure sufficient contrast for readers with red-green colour-blindness.



New Colours

-  O-Train
-  Rapid
-  Frequent
-  Connexion
-  Local
-  School
-  Event
-  Shopper

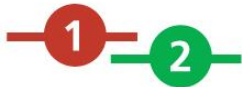




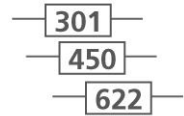


New Symbols

- Colours cannot be clearly represented in some applications, such as digital LED signs, and are not visible for people with some forms of colour-blindness; and,
- New symbols have been designed to complement the colours assigned to each service type, to improve legibility and usability of maps, and for coordination of information between maps and signs.



New Symbols

O-Train	
Rapid	
Frequent	
Connexion	
Local	
Shopper, Event, School	

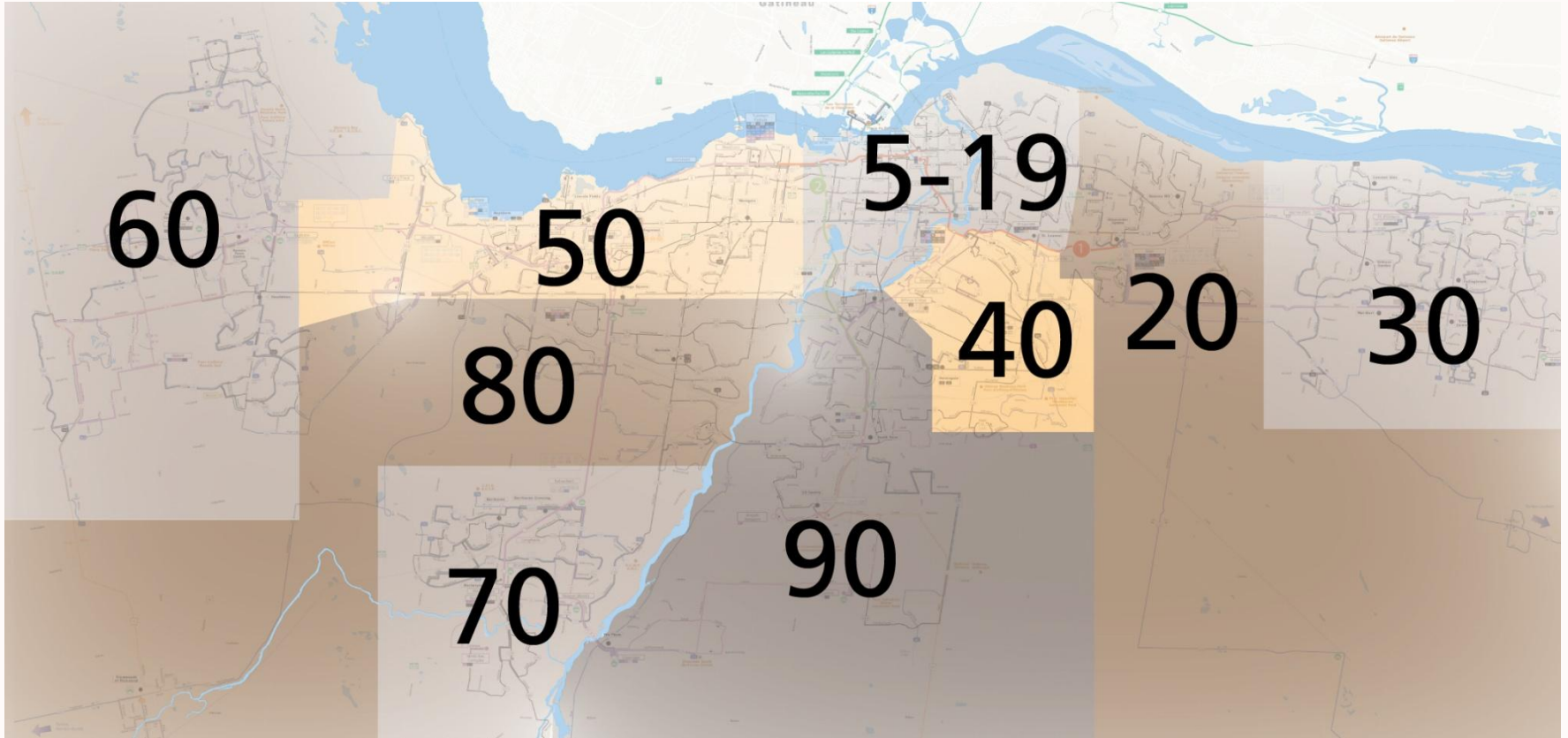


New Bus Route Numbers

- Current geographic distribution of route numbers will remain unchanged; inconsistencies will be corrected;
- Bus routes 1 and 2 will be re-numbered because those numbers are assigned to the two O-Train lines;
- Local routes that do not connect to the Confederation Line will be numbered in the 100-series;
- Current route numbers are preserved as much as possible, and routes that are moved into a new category preserve part of their current number:
 - For example, Express route 37 becomes Connexion route 237; and,
- Connexion routes will all be numbered in the 200-series.



Geographic Organization of Bus Route Numbers



Route Number Range Assignment

	O-Train connection	Kanata	Barrhaven	Nepean	Ottawa West	Central	South Keys	Ottawa East	Gloucester	Orléans
Rapid	✓	60s	70s	--	50s	--	90s	40s	20s	30s
Frequent	✓	--	70s	80s	50s	5-19	--	40s	20s	--
Local	✓	60s	70s	80s	50s	5-19	90s	40s	20s	30s
Local	✗	160s	170s	180s	150s	--	190s	140s	--	130s
Connexion	✓	260s	270s	280s	250s	--	290s	--	220s	230s
Shopper		300s								
Event		400s								
Rural Partners		500s								
School		600s								



System Map

Best cartographic design principles were reviewed to ensure that the map is easy to use and functions effectively to communicate the new service. The main functions of the System Map are:

- Provide a general understanding of the overall network organization;
- Indicate all the routes serving a particular area; and,
- Indicate where each individual route travels from end to end.

The 2018 System Map is an opportunity to describe a cohesive and stabilized network, and demonstrate the full multimodal integration of all OC Transpo services.



System Map – New Design

- Reduces complexity by adopting a schematic style;
- Uses new service-type colours to organize routes;
- Uses new route number symbols to reinforce service types and improve legibility;
- Uses varied line weights to reflect service types:
 - Frequent and Rapid lines are thicker;
- Transit lines are thicker, straighter, and have curved corners for continuous lines;
- Minor roads that don't have transit service are removed; and,
- Minor features are removed.



System Map – New Design

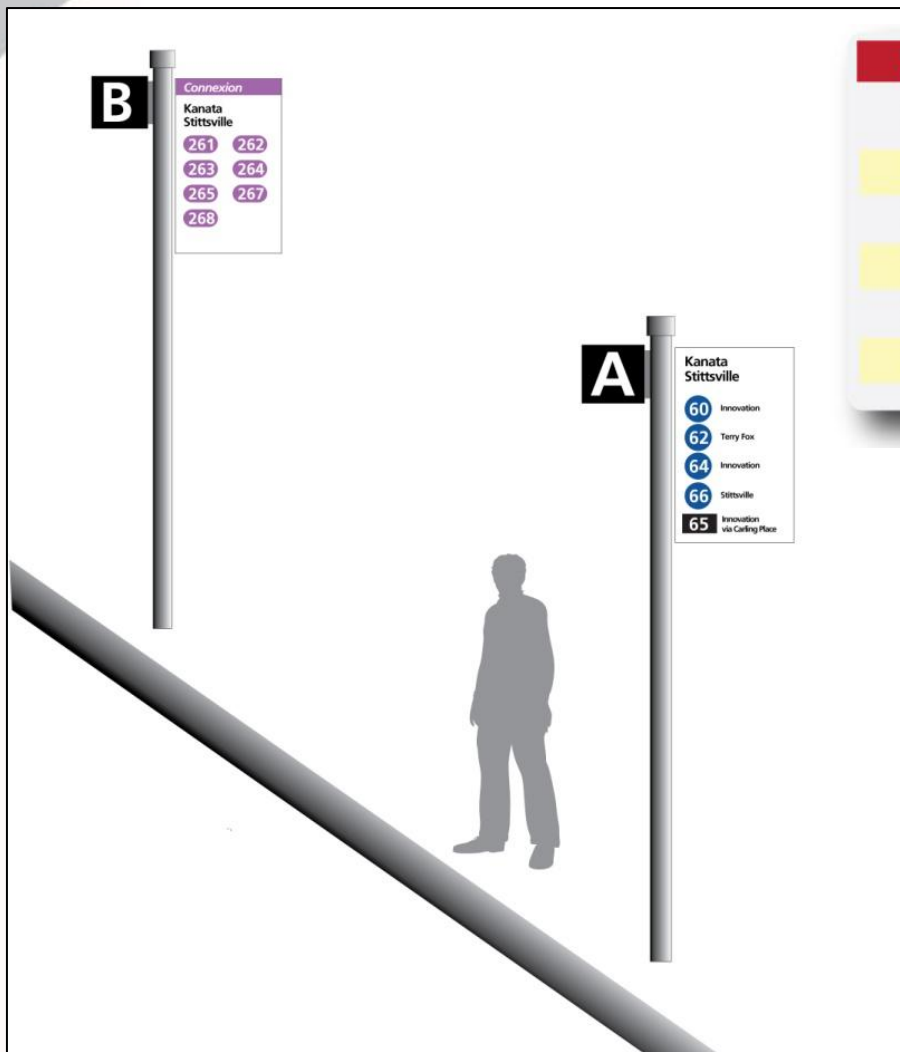


Bus Stop Signs

- Bus stop signs will display route numbers using the same colours and symbols featured on the System Map.
- Two basic sign designs are required – one for bus stops on station platforms, and one for bus stops along the street.



Bus Stop Signs – In Stations



ROUTE CIRCUIT	DESTINATION	STOP ARRÊT	Minutes
51	Britannia	C	5 & 15
52	Bayshore	C	3 & 23
62	Stittsville via Terry Fox	A	5 & 10
74	Barrhaven	E	6 & 11
271	Stoneway	E	16 & 28
283	Richmond	E	2 & 47

Directories in the station indicate which bus stop is used by each route, using a unique alpha-identifier for each stop. Electronic signs will show the next bus departures on all routes at the station.



On-Street Bus Stop Signs



JEANNE D'ARC



BANK



BERRIGAN

Design concept



Focus Group

- The focus group easily and quickly understood the value and purpose of the recommended service types and their associated graphic and visual identities.
- Confirmed that the terms **Rapid** and **Frequent** are positive, meaningful, and appropriate for the intended types of routes.
- **Frequent** means 15 minutes or less.
- Confirmed that the word **Transitway** should not be used to describe a type of route – it's a roadway.



Implementation

- The 2018 System Map will be an important tool for communicating the new service network and wayfinding structure to customers. The new System Map will be rolled out to customers in 2017 as part of the “18 Minus 18” project, a communication, information and education campaign to build understanding and knowledge about the Confederation Line.
- New route numbers will be introduced gradually over the next two years, at each planned quarterly service change. New bus stop signs featuring new colours and symbols will be introduced across the system starting in January 2017, with all to be in place when the Confederation Line opens.
- A phased implementation will simplify communication to customers by reducing the amount of change introduced at any one time. The new colour convention and many new route numbers will be in place and familiar to customers before the final set of changes occurs, on the first day of operation of the O-Train Confederation Line.



QUESTIONS?

