

New Roundabout at Jeanne d'Arc and Fortune Drive/ Vineyard Drive and Accompanying Bus Bay Infrastructure

Public Information Session April 29, 2024



Welcome

The City of Ottawa is planning to construct a roundabout at the intersection of Jeanne d'Arc Boulevard/ Fortune Drive/Vineyard Drive. The planned scope of work includes full road reconstruction within the area of the proposed roundabout, new multi-use pathways and a bus layby area on Jeanne d'Arc Boulevard, south of the roundabout.

The purpose of this Public Information Session is to present the design and inform residents of upcoming construction activities.

Proposed Schedule:

- Tender period: Spring 2024
- Construction start: Summer 2024
- Construction completion: Summer 2025



Background - Challenge

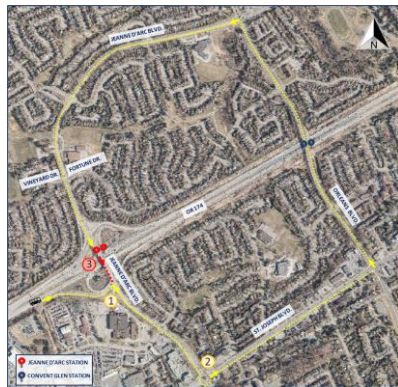
When the Jeanne d'Arc Stage 2 O-Train Station opens, buses will have to access the station from both the north and south direction along Jeanne d'Arc Boulevard.

Under current road configurations, this would result in:

- Increased bus traffic in front of Convent Glen Catholic School.
- Increased bus traffic through residential areas.
- Buses stopped in residential areas.
- Decreased transit service reliability.
- Increased transit operational costs.

Current required SB bus route →

Buses travelling EB from OR 174, will turn right at Jeanne d'Arc Blvd off-ramp and travel the dashed yellow route which includes St Joseph Blvd, Orleans Blvd and Jeanne d'Arc Blvd



Current required NB bus route →

Buses travelling NB on Jeanne d'Arc will arrive at Jeanne d'Arc Station and will be required to travel the yellow dashed route which includes Fortune Dr, Orleans Blvd and Jeanne d'Arc Blvd



Required Infrastructure Solution

A **roundabout** at the intersection of Jeanne d'Arc Boulevard/Vineyard Drive/Fortune Drive is the recommended solution.

Typical bus operations:

- 1 Buses travelling eastbound from OR 174 and from Jeanne d'Arc NB will arrive to Jeanne d'Arc Station.
- 2 Buses will proceed to Fortune Drive/Vineyard Drive and turnaround at the roundabout.
- 3 Buses will then proceed to the bus staging area.
- 4 Buses will travel from the staging area to Jeanne d'Arc Station to begin their southbound trip.

Benefits for all intersection users:

- Improved safety for all modes of travel
- Prevents buses from travelling in front of Convent Glen Catholic School
- Keeps buses off residential streets
- Bus bay improves bus reliability while maintaining local traffic flow



Advantages of a Roundabout vs Intersection

- **Safety:** Roundabouts are proven to reduce frequency and severity of collisions when compared to stop controlled and signalized intersections. Key benefits include reduced vehicle conflict points, reduced pedestrian crossing distances and lower vehicle speeds.
- **Conflict Points:** Roundabouts have fewer vehicular conflict points in comparison to typical intersections. High-severity conflicts such as right turn and left-turn head-on crashes are greatly reduced with roundabouts.
- **Traffic Calming:** Roundabouts require motorists to reduce speeds on approach to the roundabout and will encourage motorists to slow down when transitioning from the high-speed OR174 to a low-speed (Vineyard Drive/Fortune Drive and school zone) environment.
- **Traffic Operations:** Roundabouts often operate with lower delays and shorter vehicle queues as compared to intersections.



Why a Single-Lane Roundabout?

A single-lane roundabout is the preferred design as compared to a multi-lane roundabout given:

- **Lower speeds:** Single-lane roundabouts operate at slower speeds as compared to multi-lane roundabouts.
- **Shorter crossing distance:** Single-lane roundabouts provide two-stage crossings, where pedestrians and cyclists can cross one lane at a time, with one-way traffic for each stage.
- **Increased vehicle yield compliance:** Motorists yield to pedestrians more frequently at single-lane roundabouts.



Single lane roundabout - One circulatory lane within and on approach to roundabout

Single-Lane roundabout at Brian Coburn Boulevard/Strasbourg Street



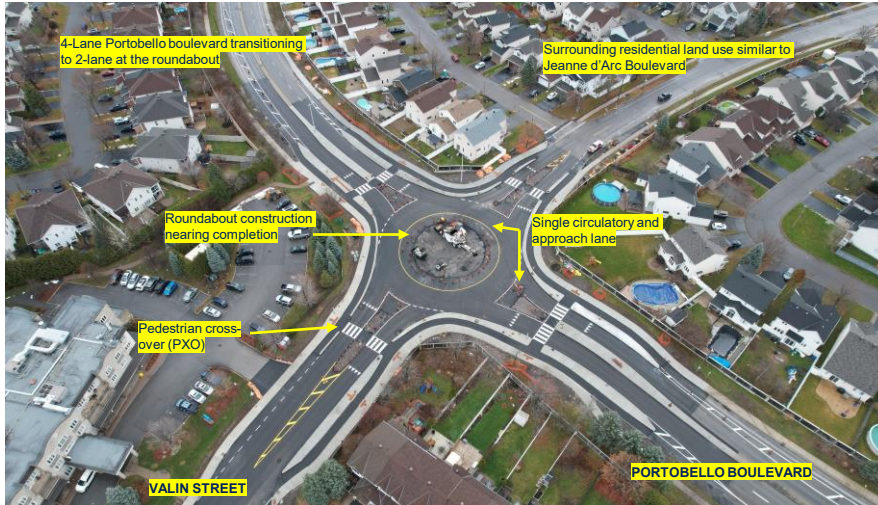
Why a Single-Lane Roundabout? Continued

- **Surrounding Community:** A single lane roundabout conforms with the surrounding Jeanne d'Arc Boulevard community and residential land-use. Multi-lane roundabouts are generally implemented on higher speed arterials.
- **Traffic Capacity:** A traffic engineering analysis was completed using forecast traffic volumes factoring in future development and population growth in the Convent Glen - Orléans Woods area. The analysis indicates that a single lane roundabout
- **Safety Record:** Single lane roundabouts have a stronger safety record as compared to multi-lane roundabouts.

The decision to move forward with the single-lane roundabout design was reviewed by several City of Ottawa departments, an engineering consultant and also further validated through an independent Road Safety Audit.



Single-Lane Roundabout Example at Portobello Boulevard/Valin Street



Roundabout Pedestrian and Cycling Features

Pedestrian Crossovers (PXOs): At all legs of the roundabout PXOs with rapid flashing beacons allow pedestrians to cross the road with vehicles yielding to pedestrians until they finish crossing.

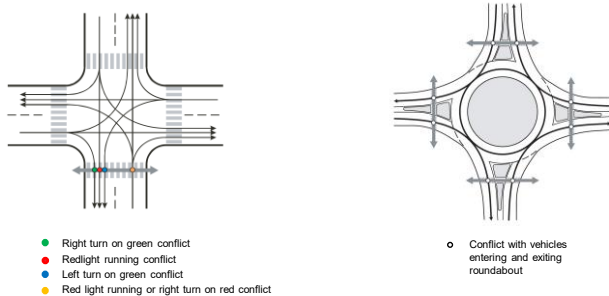
Typically, roundabouts offer safe and easy crossing for pedestrians through:

- **Two Stage Crossing:** Splitter islands allow pedestrians to cross the road one lane at a time by taking refuge in the center median.
- **One-way Crossing:** Pedestrians only need to look for vehicles approaching from one direction at a time when crossing, instead of two-ways and turning vehicles, at a traditional intersection.
- **Shorter Crossing Distance:** Current crosswalk length on Jeanne d'Arc Boulevard is 24m. Roundabout crosswalk length will be approximately 4.5m for each lane for a total crossing distance of 9m.



Roundabout Pedestrian and Cycling Features (Continued)

Reduced Pedestrian and Vehicle Conflicts (PXOs): Roundabouts greatly reduce the number of conflicts between vehicles and pedestrians as compared to a signalized intersection.



Cycling Accommodation: Cycling ramps on Jeanne d'Arc Blvd, Fortune Dr and Vineyard Dr transition cyclists from the road to multi-use-pathways before the roundabout. This design feature allows cyclists to by-pass the roundabout if desired. Slower vehicle speed also allows for more confident cyclists to cycle within the roundabout, if desired.



Traffic Management During Construction

Traffic impacts will be closely coordinated with Stage 2 construction at Jeanne d'Arc bridge. The following traffic conditions will be observed during the roundabout construction:

Jeanne d'Arc Boulevard: Maintain a minimum of one lane in each direction at all times.

Fortune Drive and Vineyard Drive: Maintain one lane in each direction during the weekday peak hours (7am-9am and 3pm to 6pm). Outside weekday peak hours and on weekends reduction to one lane with police assistance is permitted. One road closure of each road (Fortune Drive and Vineyard Drive) is permitted over a weekend period.

Convent Glen Catholic School: The project team will continue to work closely with school staff to ensure children's safety remains a priority throughout this project and impacts to the school are minimized



Traffic management during Brian Coburn Boulevard/Jerome Jodoin Drive Roundabout construction.



Construction Impacts

Pedestrian, cycling, and property access as well as transit service will be maintained throughout the construction period.

OC Transpo bus stops will be maintained during construction. During the weekend closure of Fortune Drive and Vineyard Drive a temporary bus detour will be required. Further details will be provided closer to the road closures dates.

Accessibility is an important consideration for the City of Ottawa. The City makes every effort to provide access through and around construction sites. If you require a disability-related accommodation, please contact the project team listed below.

Activity on this project will generate construction noise. The City of Ottawa Noise By-law (2017-255) allows construction activity to occur weekdays between 7 am and 10 pm. On Saturdays, work is permitted between 7 am to 10 pm, while Sundays, statutory and public holidays work is permitted between 9 am to 10 pm.



Thank You!



Thank you for your attendance. We encourage you to provide your comments by email or by phone to the City Project Manager at the contact information below.

All information/comments received will be maintained on file and may be included in design documentation. With the exception of personal information, all comments will become part of the public record.

For construction related questions:

City Project Manager

Kyle Delaney

Project Manager

Infrastructure and Water Services

Tel.: 613-580-2424 ext 26856

Email: kyle.delaney@ottawa.ca

For OC Transpo related questions:

OC Transpo – Service Planning

Daniel Richardson

Program Manager, Operational Planning

Email: Daniel.Richardson1@ottawa.ca

Accessible formats and communication supports are available, upon request, at the following link:

www.ottawa.ca/accessibleformat

