

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

Public Information Session

April 29, 2024



Welcome

- Purpose: explain the need for the roundabout, present the design, and explain the upcoming construction activities
- Representatives from both OC Transpo and Infrastructure and Water Services department are here
- We will start with a presentation and there are information boards in the back of the room. Staff will be there to answer your questions and capture feedback



Background: The Challenge

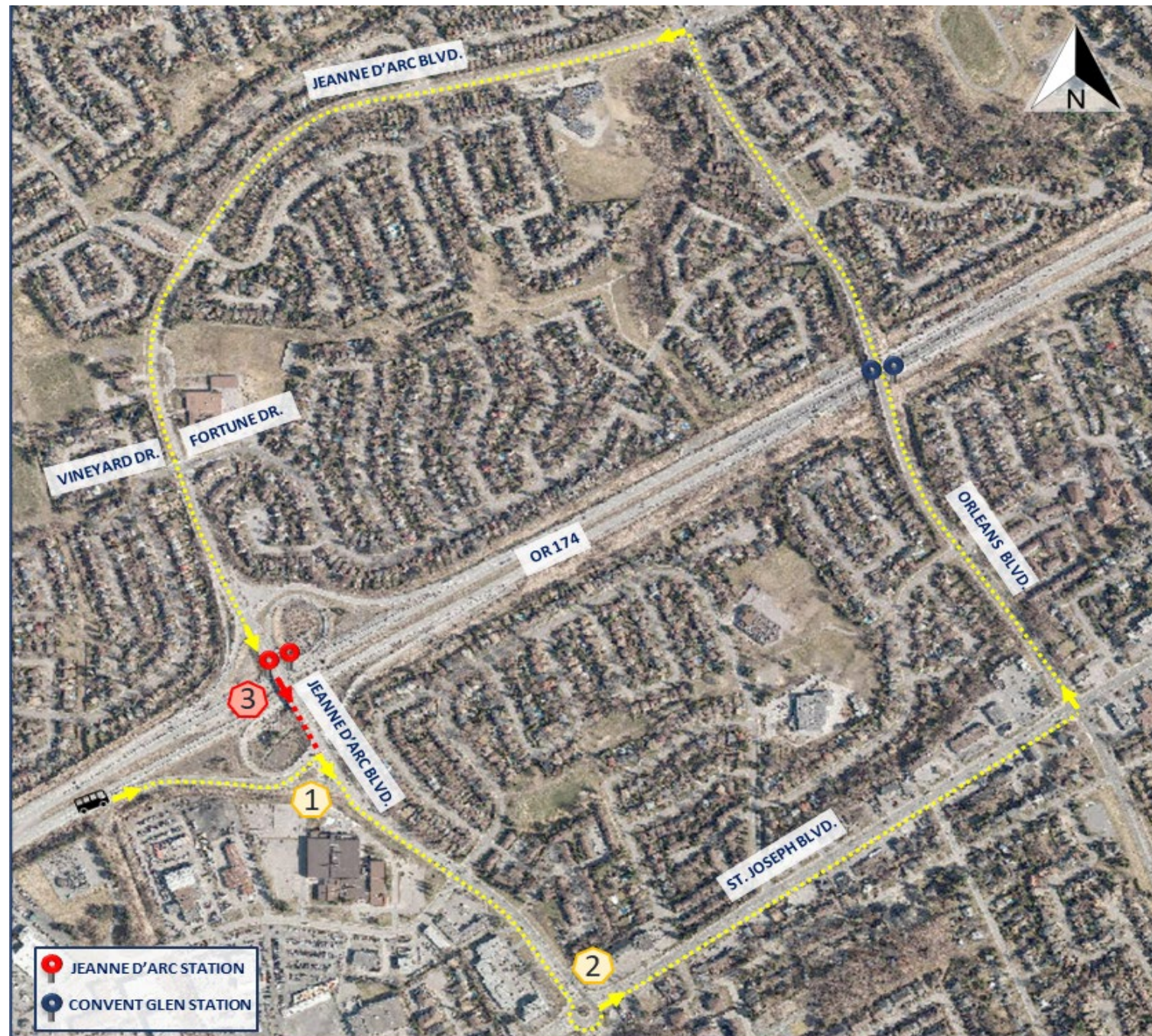
- When the new Jeanne d'Arc Stage 2 O-Train Station opens, buses will have to access the station from both the north and southbound directions along Jeanne d'Arc
- Under current configurations this would result in:
 - Increased bus traffic in front of Convent Glen Catholic School
 - Increased bus traffic through residential areas
 - Buses stopping and waiting in residential areas
 - Decreased transit service reliability
 - Increased operational costs



Background: The Challenge

Buses arriving to Jeanne d'Arc Station to begin a southbound trip

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



Background: The Challenge

Buses completing a trip at Jeanne d'Arc Station before completing a return trip

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



Planned Infrastructure Solution

- Construct a single-lane roundabout at the intersection of Jeanne d'Arc Boulevard/Vineyard Drive/Fortune Drive
- Results:
 - Improves safety for all intersection users
 - Improved transit customer travel times
 - Prevents buses from travelling in front of Covent Glen Catholic School
 - Keeps buses off residential streets
- Bus bay on Jeanne D'Arc south of the Fortune Drive /Vineyard Drive intersection near the highway bridge
 - Improves bus reliability while maintaining local traffic flow



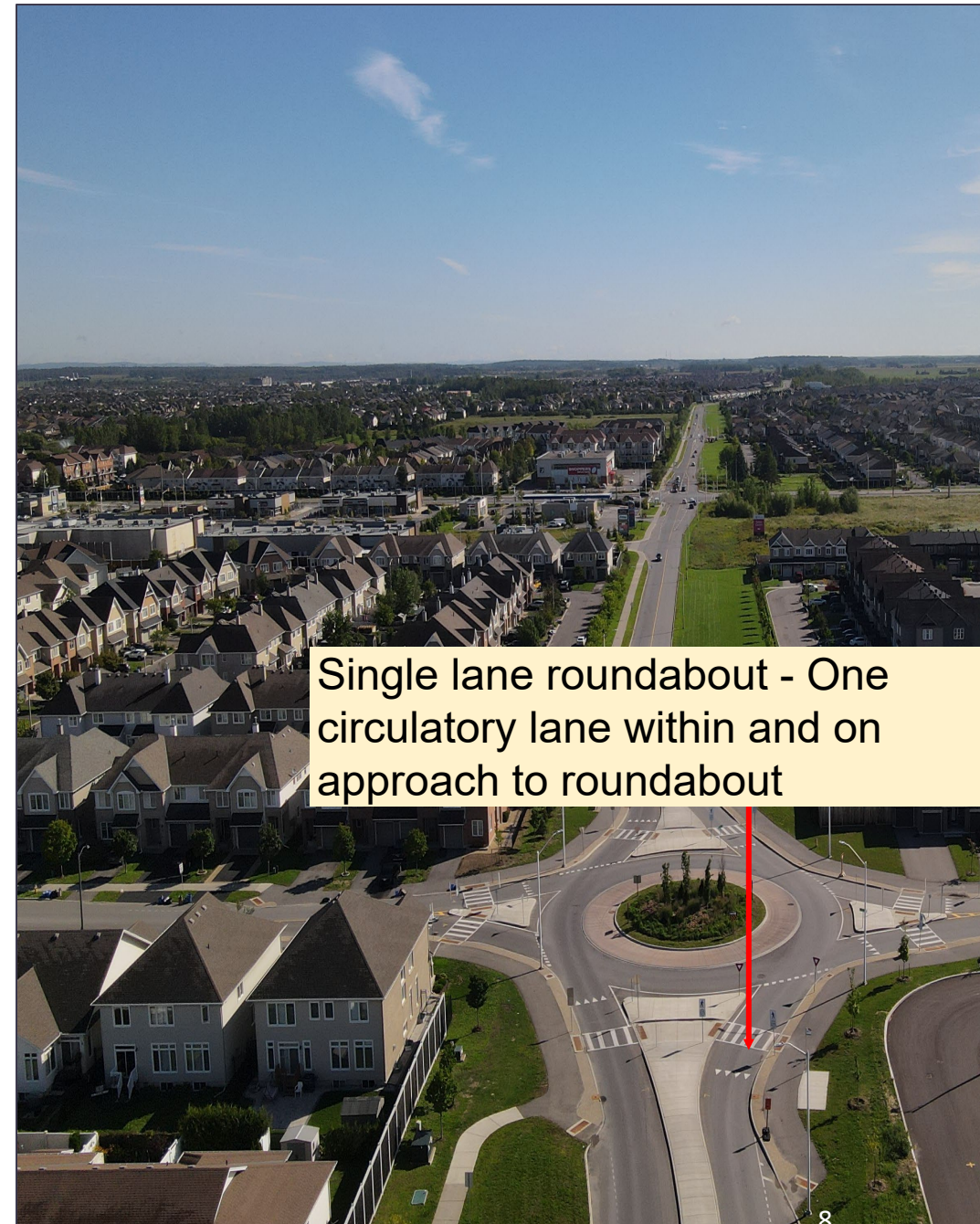
How buses would operate

- 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 turn around 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



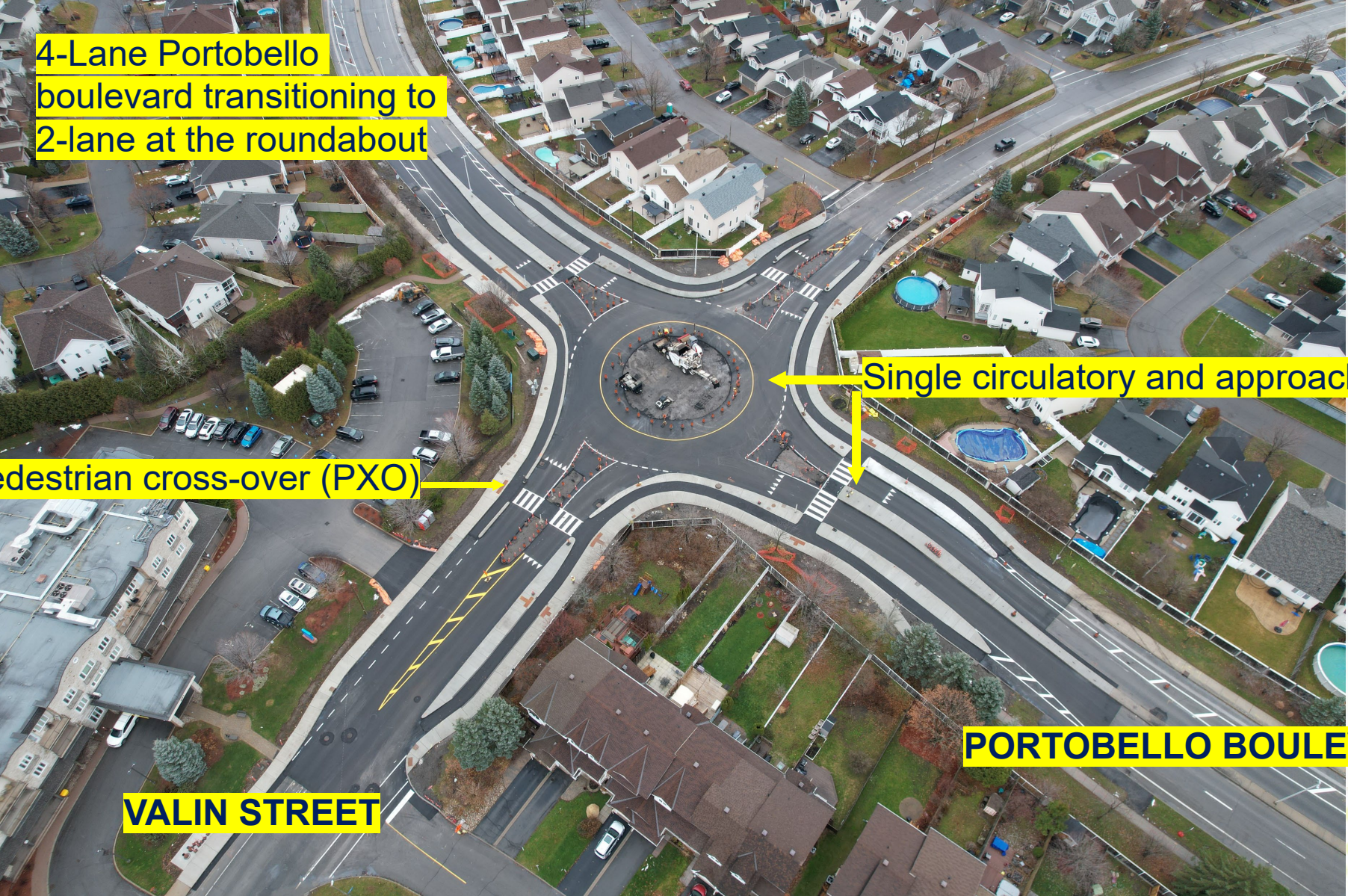
Why a single-lane roundabout?

- **Safety**
 - Lower speeds than multi-lane roundabout
 - Reduced frequency and severity of collisions compared to a stop-controlled intersection
 - Strong safety record
 - Shorter pedestrian crossing distance
- **Traffic calming**
 - Fits with surrounding residential community
 - Motorists yield to pedestrians more frequently
 - Motorist required to reduce speed on approach
 - Encourages motorists to slow down in school zone
- **Traffic capacity**
 - Fewer delays and shorter vehicle queues
 - Traffic engineering analysis was completed using forecasted traffic volumes. It indicated that with population growth the roundabout could function effectively for minimum of 12 years and potentially beyond 20 years.
- Roundabout design was reviewed by various departments, engineering consultants and an independent road safety audit was completed



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

Comparison Example: Portobello Boulevard/Valin Street



4-Lane Portobello boulevard transitioning to 2-lane at the roundabout

Single circulatory and approach lane

Pedestrian cross-over (PXO)

VALIN STREET

PORTOBELLO BOULEVARD

Roundabout Pedestrian and Cycling Features

- Pedestrian Crossovers (PXOs)
 - At all legs of the roundabout rapid flashing beacons allow pedestrians to cross the road with vehicles yielding to pedestrians until they finish crossing
- Roundabouts provide safe and easy crossings for pedestrians through:
 - Two stage crossing: Splitter islands allow pedestrians to cross the road one lane at a time
 - One-way crossing: Pedestrians only need to look for vehicles approaching from one direction at a time when crossing instead of two-ways.
 - Shorter crossing distance: Jeanne d'Arc crosswalk length is currently 24 m. Roundabout crosswalk width is approximately 4.5 m for each lane, totaling 9 m.





Roundabout Pedestrian and Cycling Features

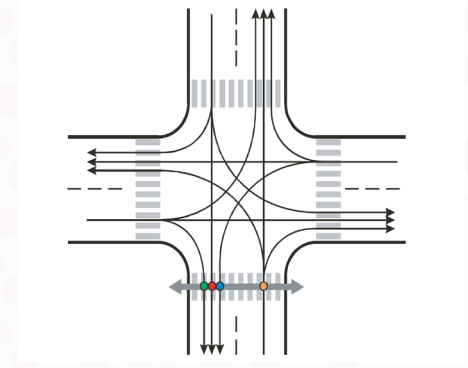
Pedestrian and Cycling Features

- **Reduced pedestrian and vehicle conflicts (PXOs):**

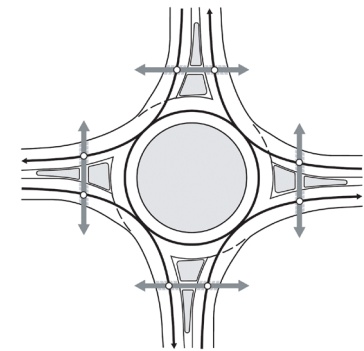
- Roundabouts greatly reduce the number of conflicts between vehicles and pedestrians as compared to a signalized intersection

- **Cycling accommodation:**

- Cycling ramps on Jeanne d'Arc, Fortune Dr and Vineyard Dr transition cyclist from the road to multi-use-pathways before the roundabout
- The design features allows cyclists to by-pass the roundabout if desired
- Slower vehicle speed increases safety and allows cyclist to cycle within the roundabout if desired



- Right turn on green conflict
- Redlight running conflict
- Left turn on green conflict
- Red light running or right turn on red conflict



- Conflict with vehicles entering and exiting roundabout



Traffic Management During Construction

- Traffic impacts will be closely coordinated with Stage 2 construction at the Jeanne d'Arc bridge
- Traffic conditions that can be expected:
 - Jeanne d'Arc
 - Maintain a minimum of one lane in each direction at all times
 - Fortune Drive and Vineyard Drive:
 - Maintain one lane in each direction during weekday peak hours (7am-9am and 3pm to 6pm)
 - Outside of peak hours and on weekends a reduction to one lane is permitted
 - One road closure of each road, over a weekend period
- Convent Glen Catholic School: Children's safety remains a priority. We will work closely with school staff throughout the project and impacts to the school will be minimized



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 weekend closures of Fortune and Vineyard Drive a temporary bus detour will be implemented
- Accessibility is an important consideration for the City. 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
- Activity on this project will generate construction noise. The City of Ottawa Noise By-law (2017-255) allows construction activity to occur:
 - Weekdays: 7 am -10 pm
 - Saturdays: 7 am - 10 pm
 - Sundays, statutory and public holidays: 9 am - 10 pm



Project Schedule

Design Phase
Spring 2024



Construction
Start
Summer 2024



Construction
Completion
Summer 2025



Thank You!

- For construction related questions:
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