

Franklin Boulevard (Avenue Road to Bishop Street) Preliminary Design Study

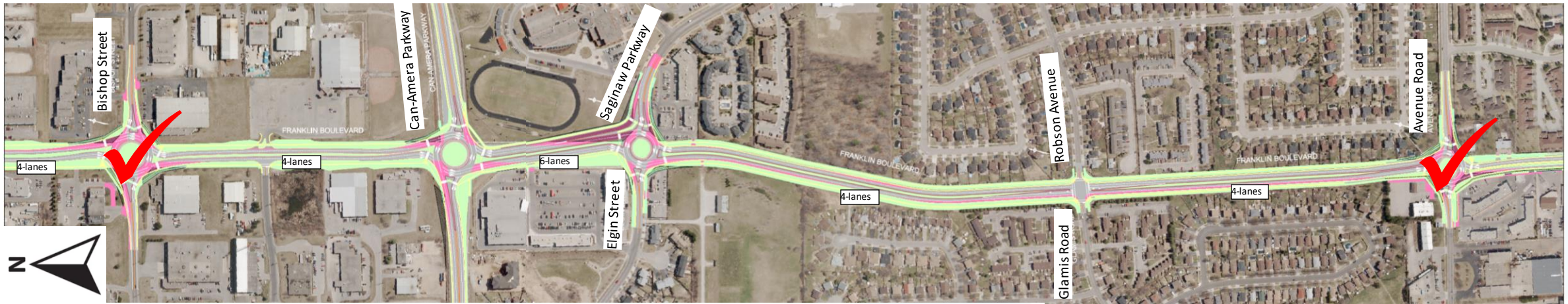
Public Open House
April 25, 2024



Region of Waterloo

Background

- 2010 EA approved design
- Roundabouts have been constructed at Bishop St. and Avenue Rd. ✓



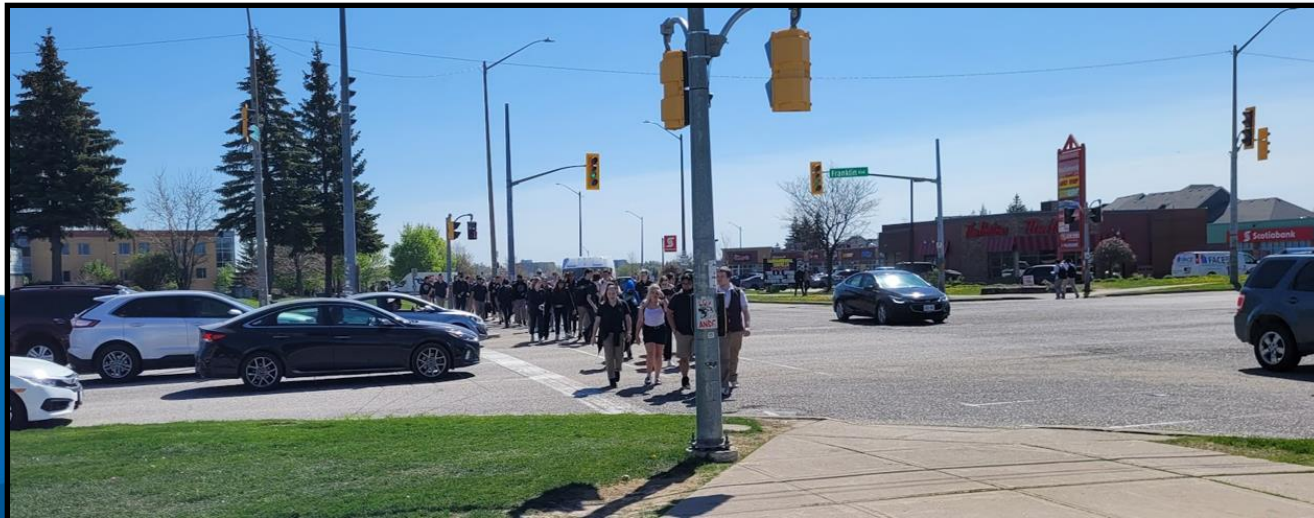
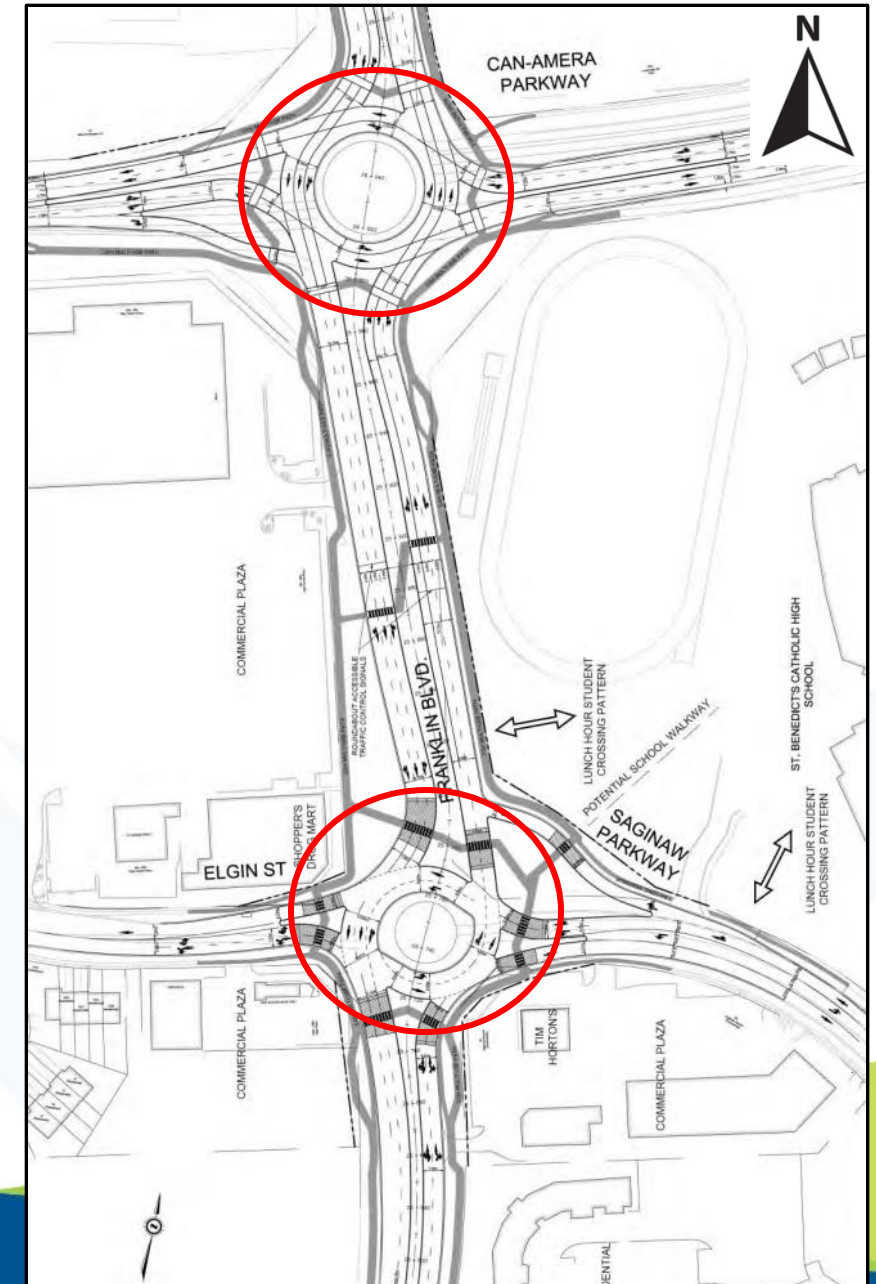
Franklin/Bishop
Roundabout
Opened 2015

Current Study Limits

Franklin/Avenue
Roundabout
Opened 2020

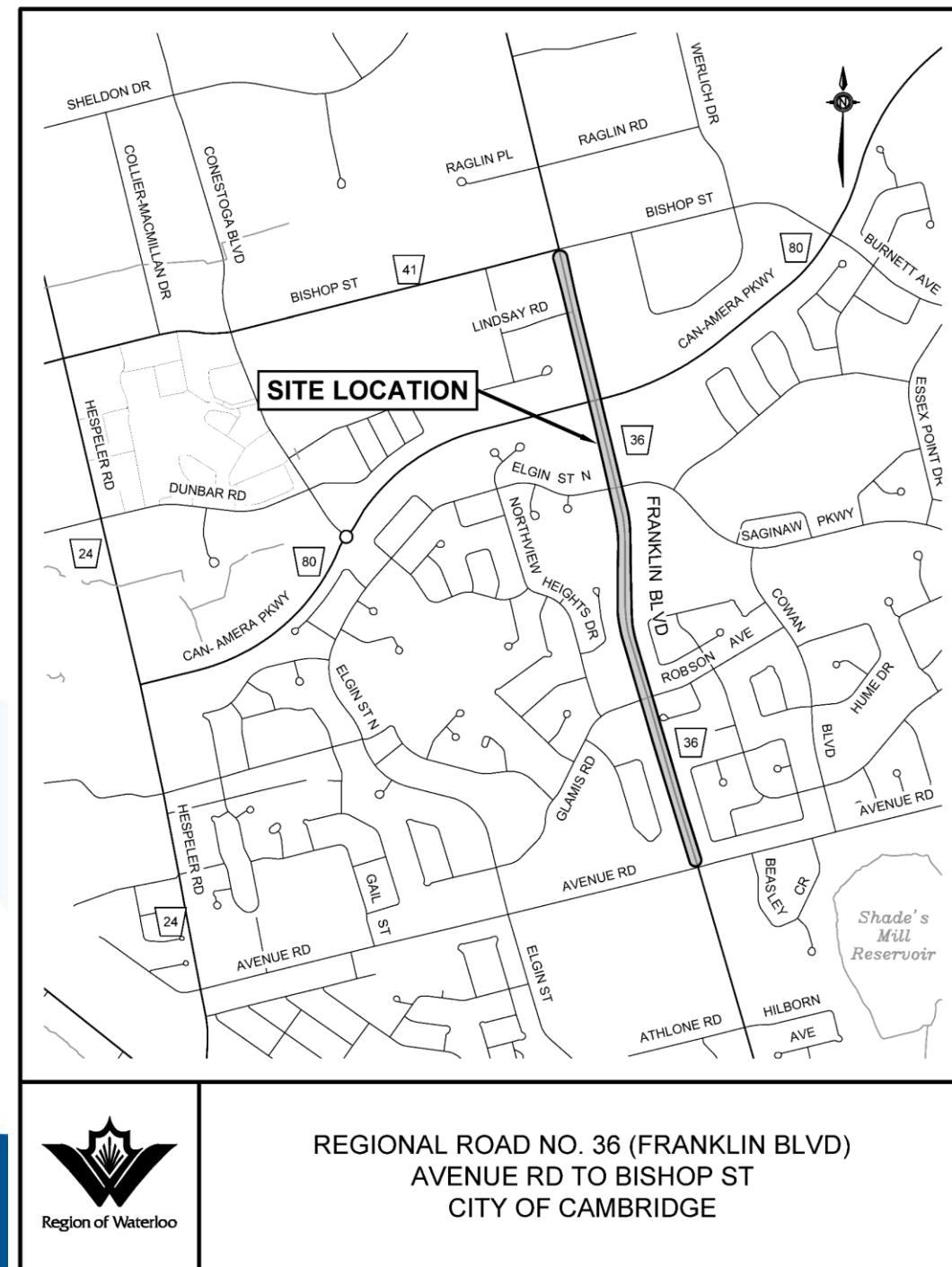
Project History

- The completed 2010 Environmental Assessment recommended a raised centre median and roundabouts along an 8 km section of Franklin Boulevard.
- The intersections of Can-Amara Parkway and Saginaw Parkway/Elgin Street were not implemented.



Project History/Key Map

- August 22, 2013 Regional Council deferred the decision for the two intersections that were not implemented to a later date.
- In 2013, the design of a three-lane roundabout at Franklin Boulevard/Saginaw Parkway was deferred to allow for construction of the first six roundabouts on Franklin Blvd. and a subsequent operational review.
- This Study was initiated in 2021 as an operational review to re-examine the proposed transportation improvements and provide updated recommendations.



Pedestrian Crossing

Franklin Boulevard and Saginaw Parkway is one of the busiest pedestrian crossings in the region with:

- St. Benedict Catholic School - 1,800 students.
- An average of 1600 daily weekday crossings of Franklin Boulevard (north and south legs) of the intersection.
- Approximately 75% of all pedestrian crossings occur on the north side.
- Mid-day peak (corresponds to the high school lunch break at 10:30 – 11:30 am).



Saginaw Parkway

- High volume of mid-block crossings during school breaks
- Turning movements into school property and plaza
- School buses back up into intersection



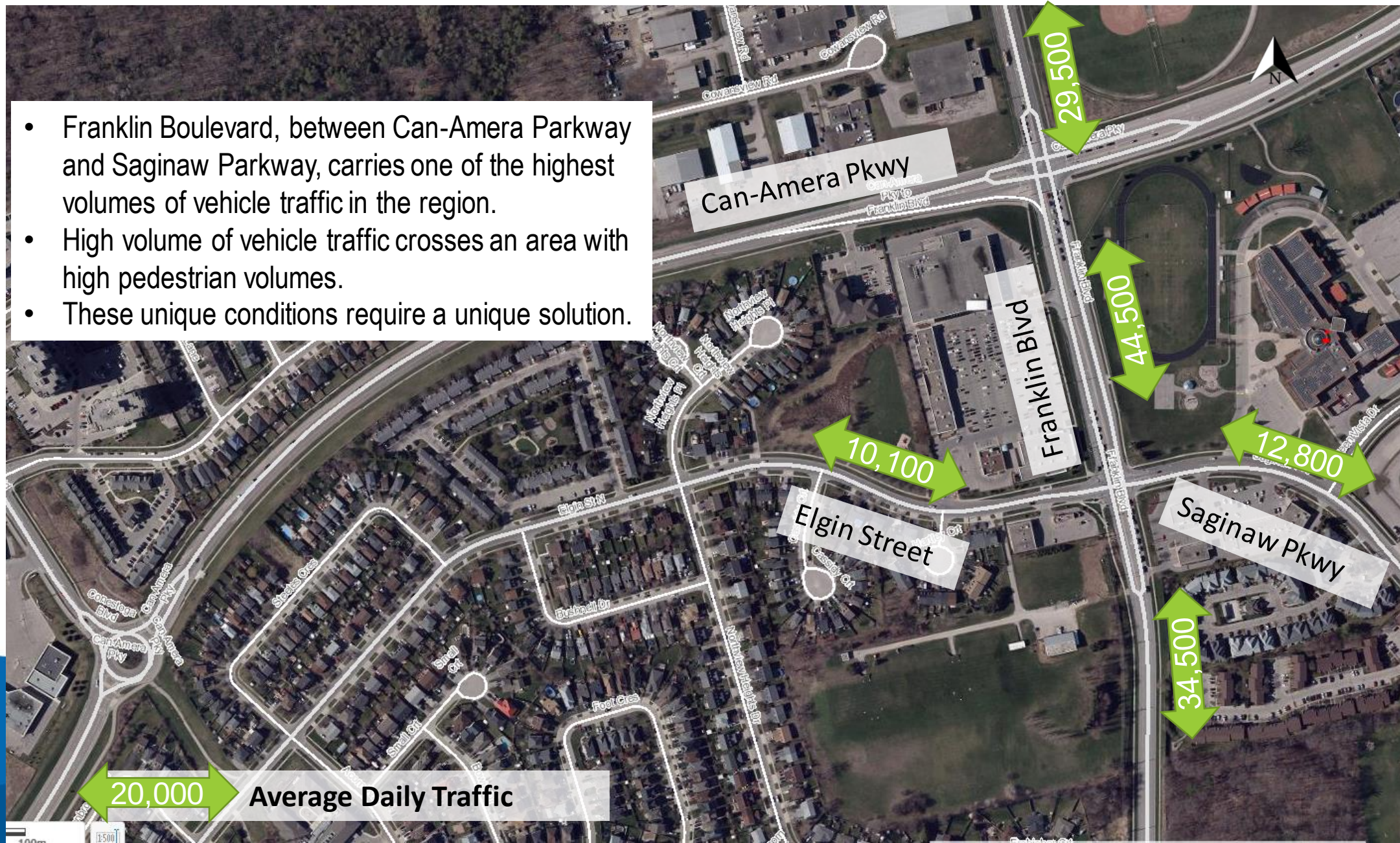
2041 Traffic Forecasts for Franklin Boulevard

- Daily traffic to increase from 36,000 today to 44,500 vehicles/day.
- Approximately 5% of traffic is heavy trucks.
- Very high turning movements.
- High pedestrian volumes.
- Traffic demand will exceed the capacity of the existing signals.
- Existing intersection cannot be left without improvements.



Forecast Traffic Volumes

- Franklin Boulevard, between Can-Amera Parkway and Saginaw Parkway, carries one of the highest volumes of vehicle traffic in the region.
- High volume of vehicle traffic crosses an area with high pedestrian volumes.
- These unique conditions require a unique solution.

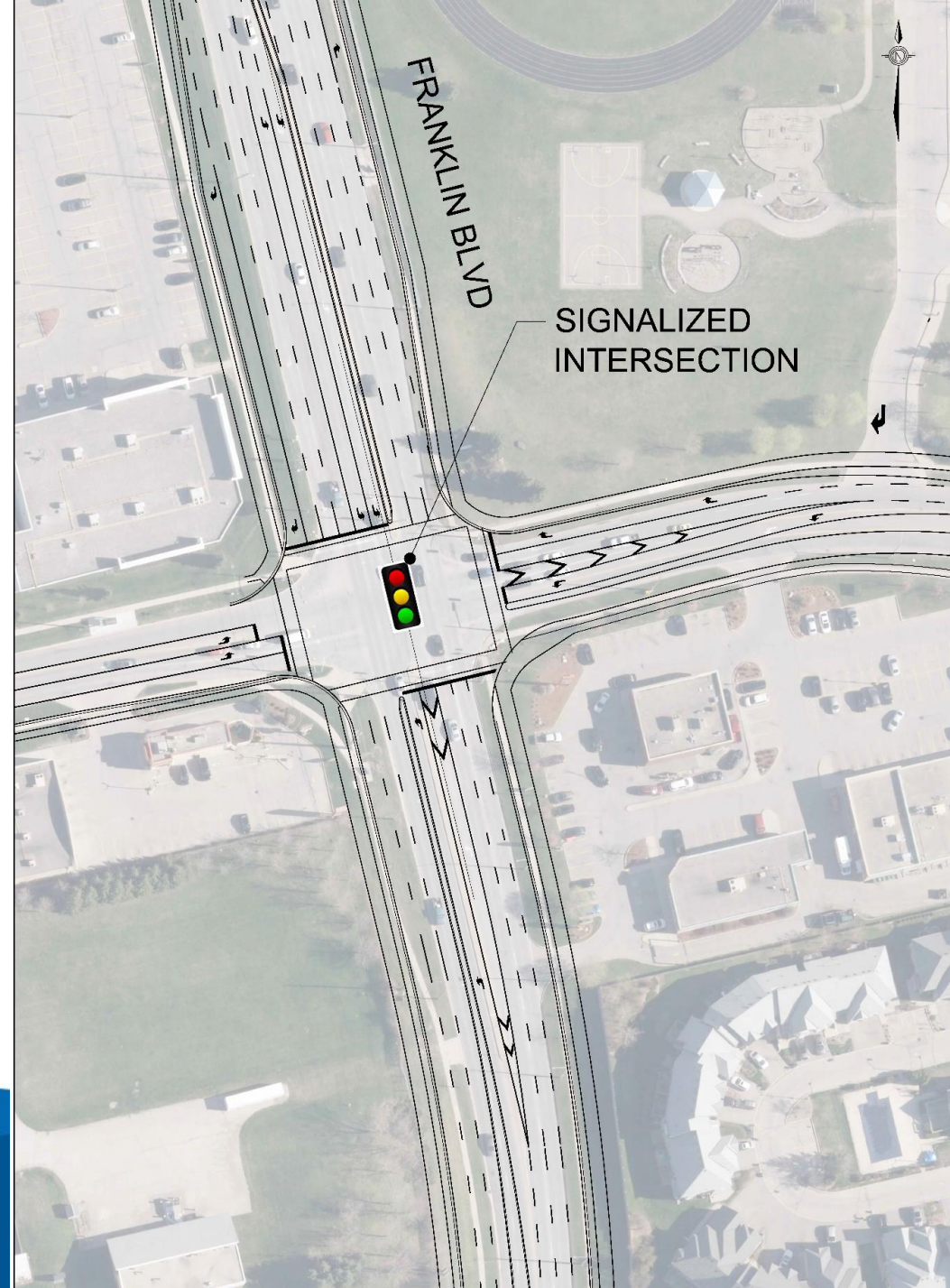


Alternatives considered:

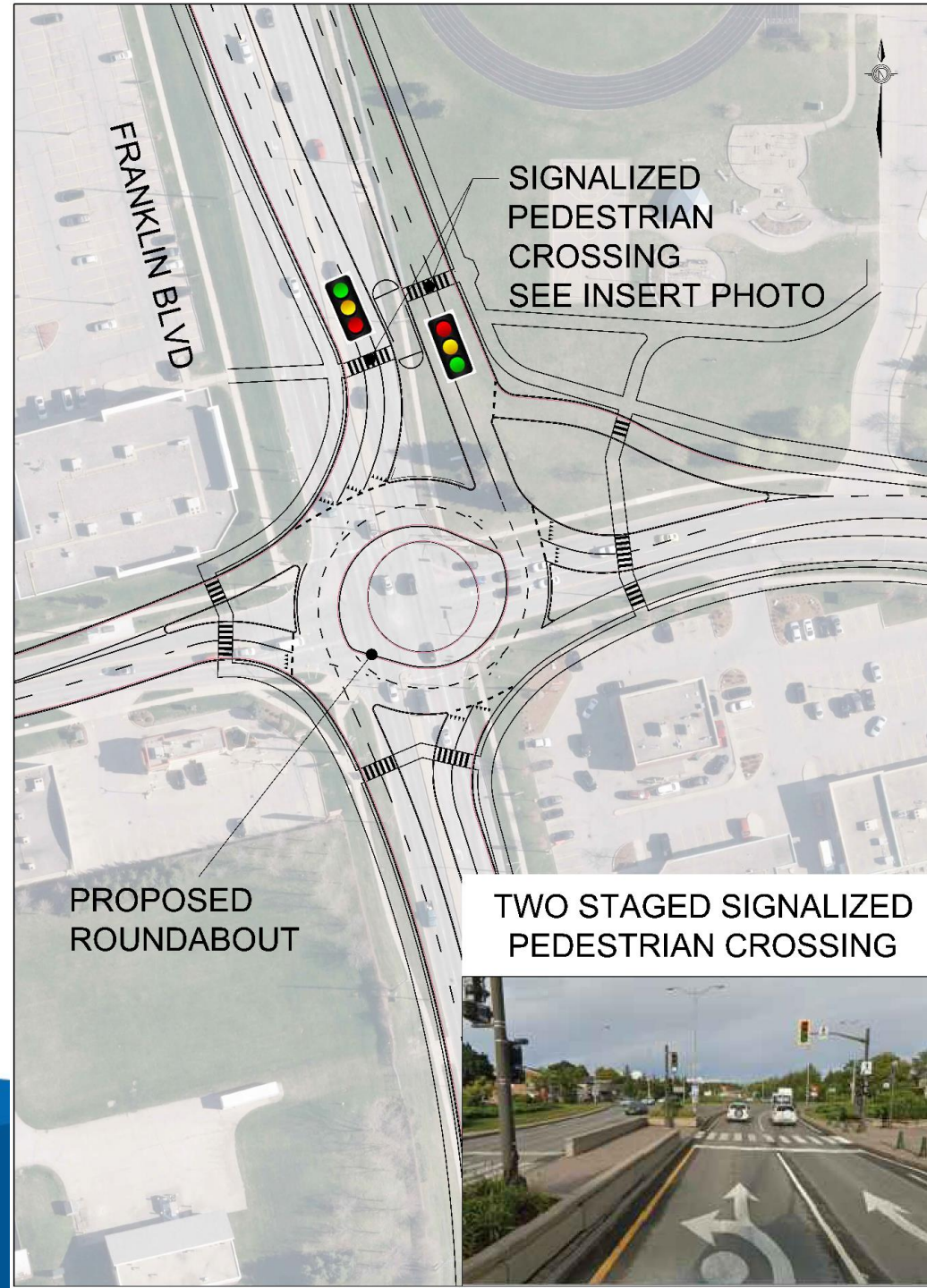
Franklin Blvd/Elgin St. Saginaw Pkwy. intersection

- **Alternative 1A:** Signalized intersection with pedestrians crossing up to 9 lanes of traffic.
- **Alternative 2A:** Roundabout intersection with a 2-stage signalized pedestrian crossing on the north end and at-grade Pedestrian Cross Overs (PXO) on other approaches.
- **Alternative 3A:** Roundabout intersection with a pedestrian grade separation crossing the north end and at-grade PXOs on other approaches.

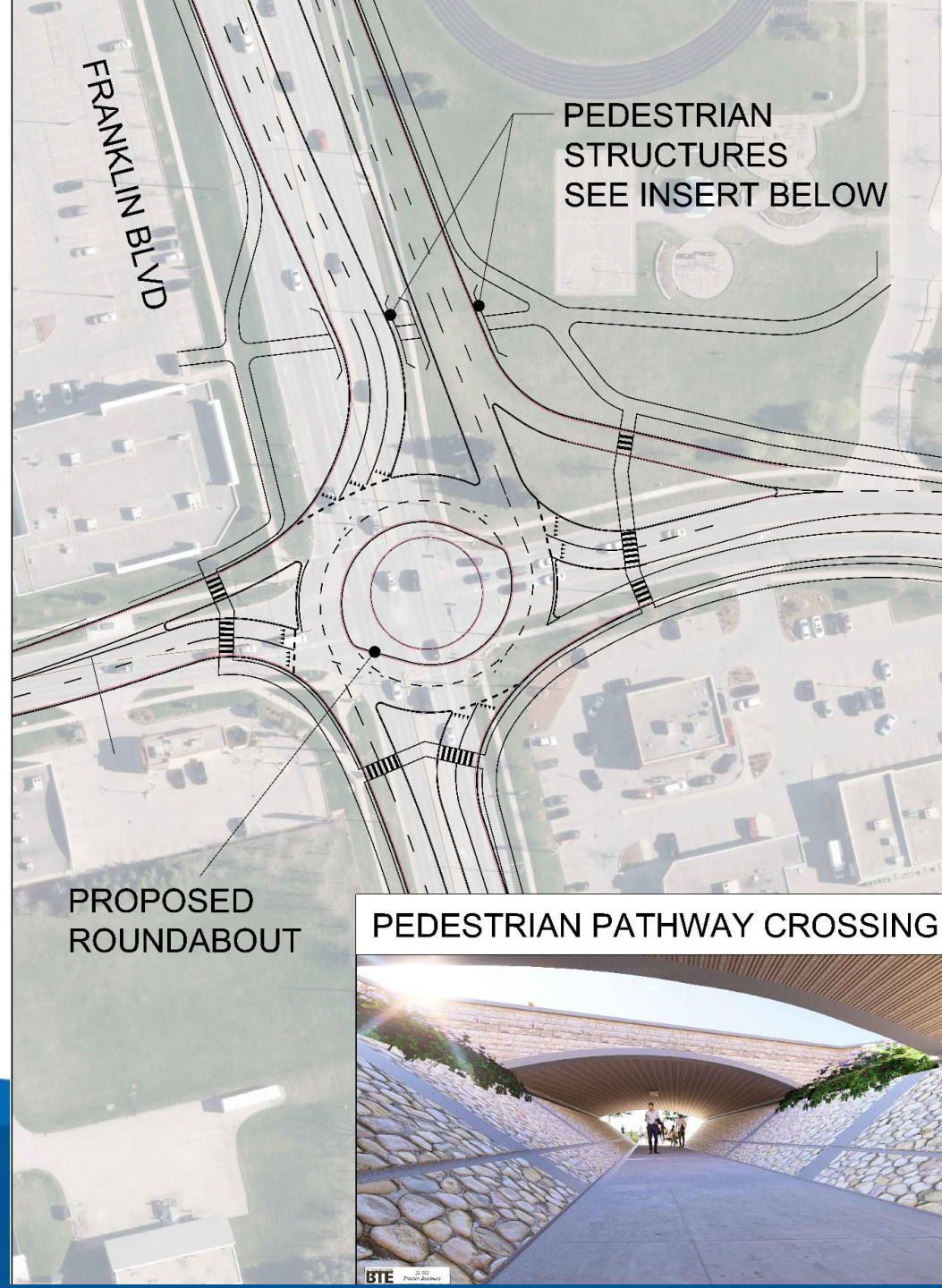
Alternative 1A



Alternative 2A



Alternative 3A



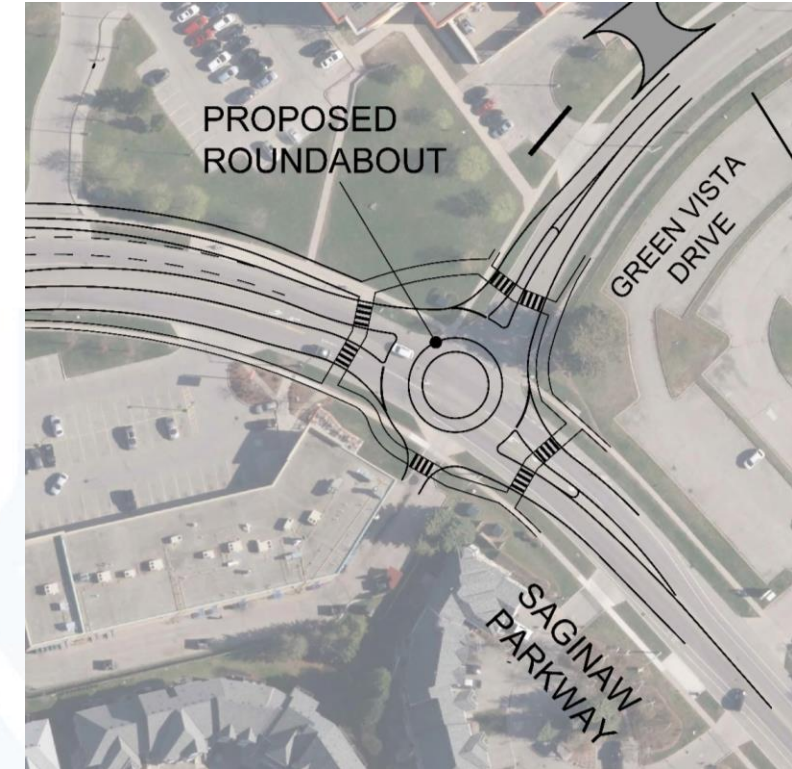
Saginaw Parkway/Green Vista Improvements

These roadways are under the jurisdiction of the City of Cambridge.

The City is proposing modifications on Saginaw Parkway to improve safety for pedestrian crossings and make the Green Vista Drive intersection a roundabout.

Benefits include:

- Reduced delay through the intersection for the southbound right turn.
- Reduce turning movements and improved traffic flow with a raised median between roundabouts.
- Eliminate school bus queuing at the school driveway on Saginaw Parkway.
- Access to businesses and school on Saginaw Parkway with two roundabouts.
- Improve safety for students to cross Saginaw Parkway with two crosswalks at the roundabouts.
- Easier movement for pedestrians and cyclists between the north and south sides of Saginaw Parkway.



Community Engagement

- Value Planning Workshop with community stakeholders.
- Community stakeholders input on alternatives.
- Community stakeholders reviewed the evaluation criteria and sub-factor definitions.
- Community stakeholders participated in the weighting of evaluation criteria.
- Community stakeholders endorsed the outcome of the ranking of alternatives.
- Meetings occurred during 2021, 2022 and 2023.



Stakeholder Participants

- City of Cambridge
- St. Benedict Catholic Secondary School
- Bennies Parent Council
- Community Development Coordinator, Fiddlesticks Community Centre
- Greenway-Chaplin Community Centre
- Student Transportation Services of Waterloo Region (STSWR)
- Waterloo Catholic District School Board (WCDSB)
- CNIB Advocate
- Vision Loss Rehabilitation Canada



Evaluation Committee Members

- Region of Waterloo (5)
- City of Cambridge (2)
- St. Benedict Catholic Secondary School (1)
- Community Development Coordinator, Fiddlesticks Community Centre (1)
- Student Transportation Services of Waterloo Region (STSWR) (2)
- Waterloo Catholic District School Board (WCDSB) (1)
- CNIB Advocate (1)
- Vision Loss Rehabilitation Canada (2)
- BT Engineering Inc. (4)
- CIMA+ (1)

(#) number of participants

Evaluation Criteria and Weights

Land Use and Property

8%

- Institutional Property Required (St. Benedict Catholic Secondary School) 20%
- Commercial Property Required 29%
- Open Space Property Required 33%
- Roadway Under Hydro Transmission Line 19%

Social Environment

13%

- Visual Intrusion to Adjacent Residents 33%
- Visual Intrusion to Adjacent Residents 33%
- Sound Level Increases 41%
- Potential for People to Congregate 27%

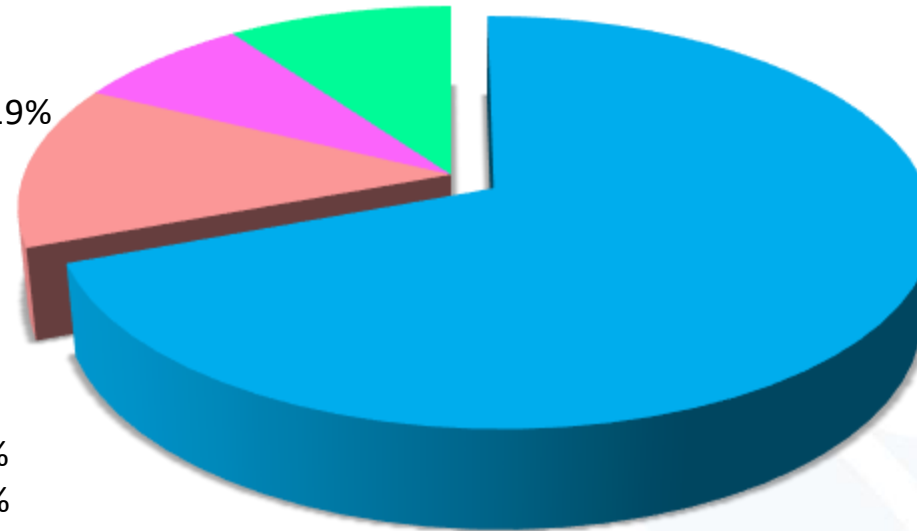
Cost

10%

Transportation

69%

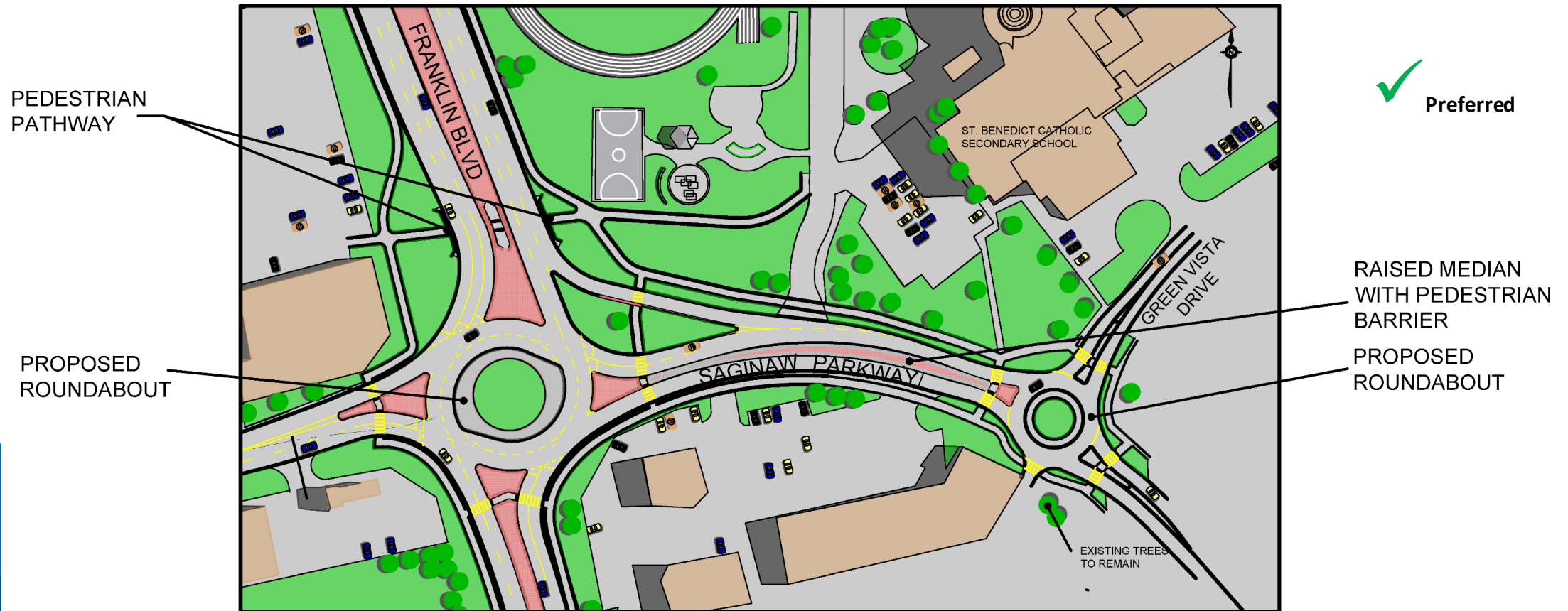
- Accommodates People Living with Vision Loss 15%
- Traffic Operations (Level of Service) Franklin Boulevard (Arterial Road) 9%
- Traffic Operations (Level of Service) Elgin Street/Saginaw Parkway (Collector Streets) 5%
- Traffic Operations Interaction between Arterial Street Intersection 4%
- Vehicular Delay during School Peak Hour 4%
- Vehicle Safety of Intersections 6%
- Severity of Vehicle Collisions 8%
- Delays to Pedestrians and Cyclists 8%
- Safety for Pedestrians and Cyclists 13%
- Safety for Pedestrians and Cyclists Mid-day Peak 13%
- Severity of Pedestrian and Cyclist Collisions 9%
- Emergency Services access 4%



Preferred Alternative

Proposed roundabout with a grade separated pedestrian pathway.

- Provides the highest safety for active transportation and best performing safety and operations for vehicular traffic.
- Unique problem requiring a unique solution.
- Topography at this intersection allows the introduction of a lower pedestrian pathway.
- Design is not proposed to become standard practice in the Region of Waterloo.



Preferred

Franklin Boulevard Pedestrian Pathway



Franklin Boulevard Pedestrian Pathway



Benefits

- A pathway under Franklin Boulevard allows pedestrians and cyclists to cross a busy road without exposure to traffic.
- The pathway improves safety for people with vision loss crossing Franklin Boulevard.
- The pathway is a shorter route between the school and the plaza frequented by students.
- The pathway is designed for uninterrupted sightlines.
- The at-grade crossing on the south leg can also be used to cross Franklin Boulevard.
- Limiting driveway access on Saginaw Parkway and the movement of pedestrian crossings to one of two roundabouts reduces conflicts between pedestrians and vehicles, and limits turning movements, improving safety.
- Multi-use paths will be provided along Franklin Boulevard to accommodate active transportation.

Connection to Strategic Objectives

- **Equitable Services and Opportunities**

- Pedestrian pathway under Franklin and pedestrian crossovers ensure that we are providing services that are inclusive, accessible and safe.
- Participation of various stakeholders, including representatives from local neighbourhood groups and persons with low to no vision on the project team was key in designing equitable services that meet local community needs.

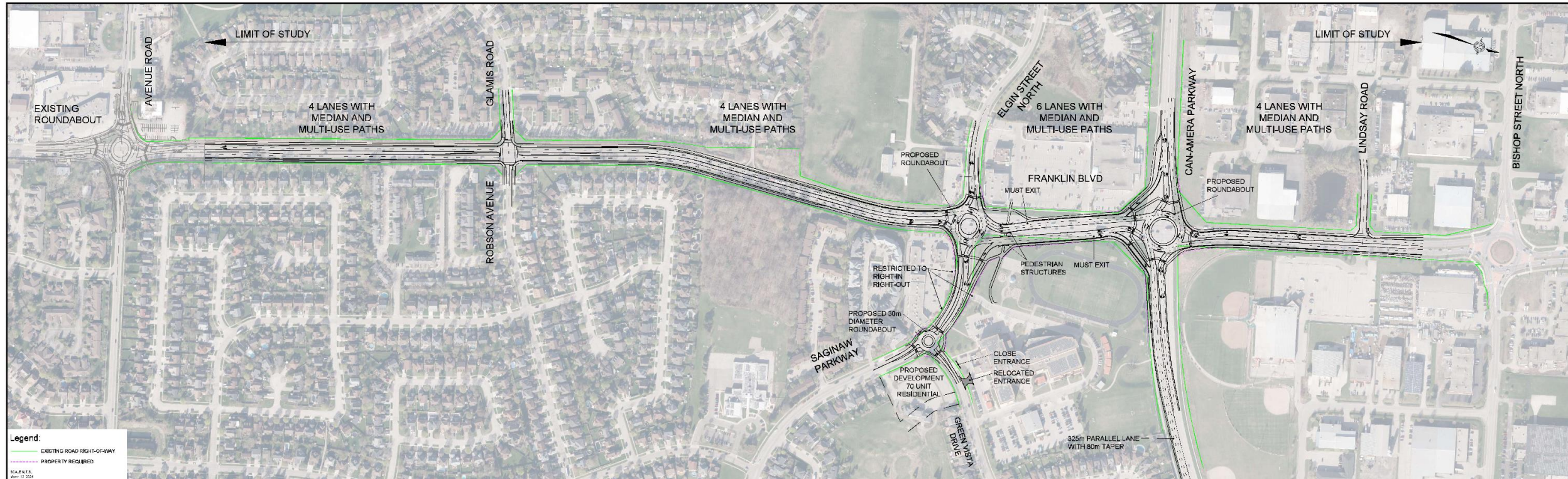
- **Climate Aligned Growth**

- Roundabouts use a climate adaptation lens to re-imagine infrastructure as they reduce idling times and emissions.
- Fostering car alternative options with proposed multi-use trails and proposed transit infrastructure improvements.

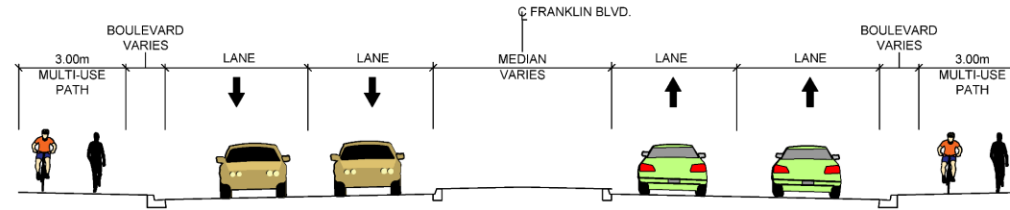
- **Resilient and Future Ready Organization**

- The project team representation allowed us to explore new models of service through community collaboration and partnerships. This project team participated in the “Multi-Attribute Trade-Off System” (MATs) evaluation to establish a preferred alternative.

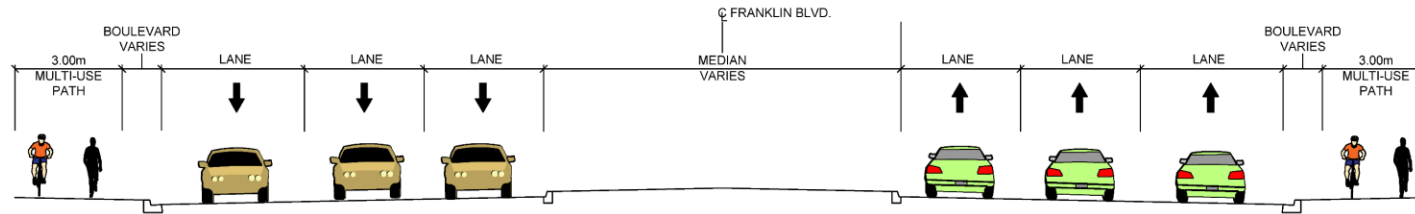
Preferred Plan Avenue Road to Bishop Street



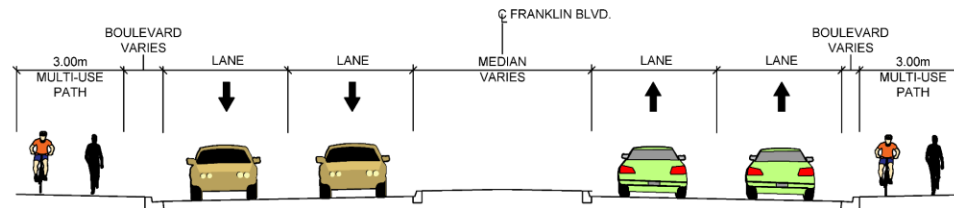
Franklin Boulevard Proposed Cross Sections



Typical Section
North of Can-Amara Parkway



Typical Section
Saginaw Parkway to Can-Amara Parkway



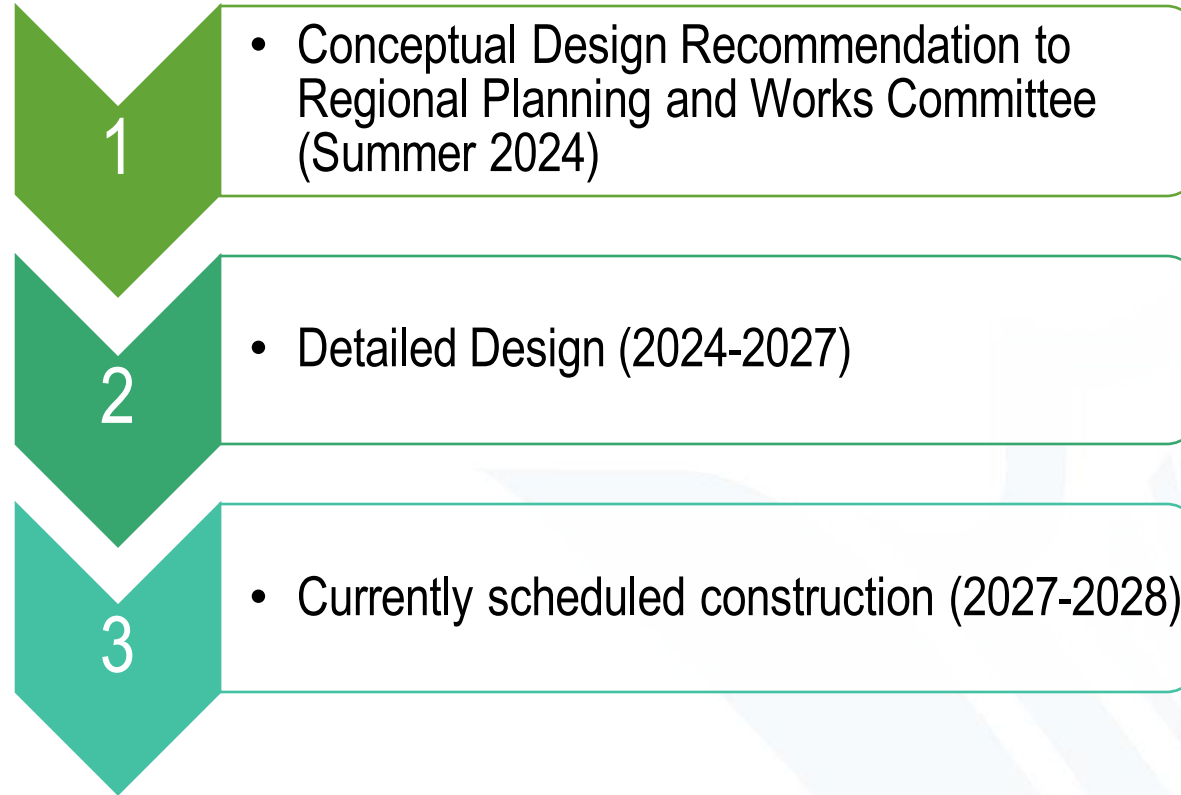
Typical Section
South of Saginaw Parkway

Franklin Boulevard, Saginaw Parkway and Elgin Street Roundabout





Next Steps



Project Information, Public Input and Contacts

Project information: **Engagewr.ca/franklin-blvd-improvements**

Comments: Share comments at Engagewr.ca/franklin-blvd-improvements by **May 12, 2024**

Contacts:

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stevenj.taylor@bteng.ca

Questions?

- Please raise your hand to ask a question, so we can get the microphone to you.
- If you have a property-specific question, speak with the project team at the boards.
- Please be respectful of time and only ask one question at a time; opportunity to ask more questions of project team at the boards.

Thank you for joining us!