

City of Sault Ste. Marie Second Line/Great Northern Road Traffic Study

Public Information Centre
November 30, 2017

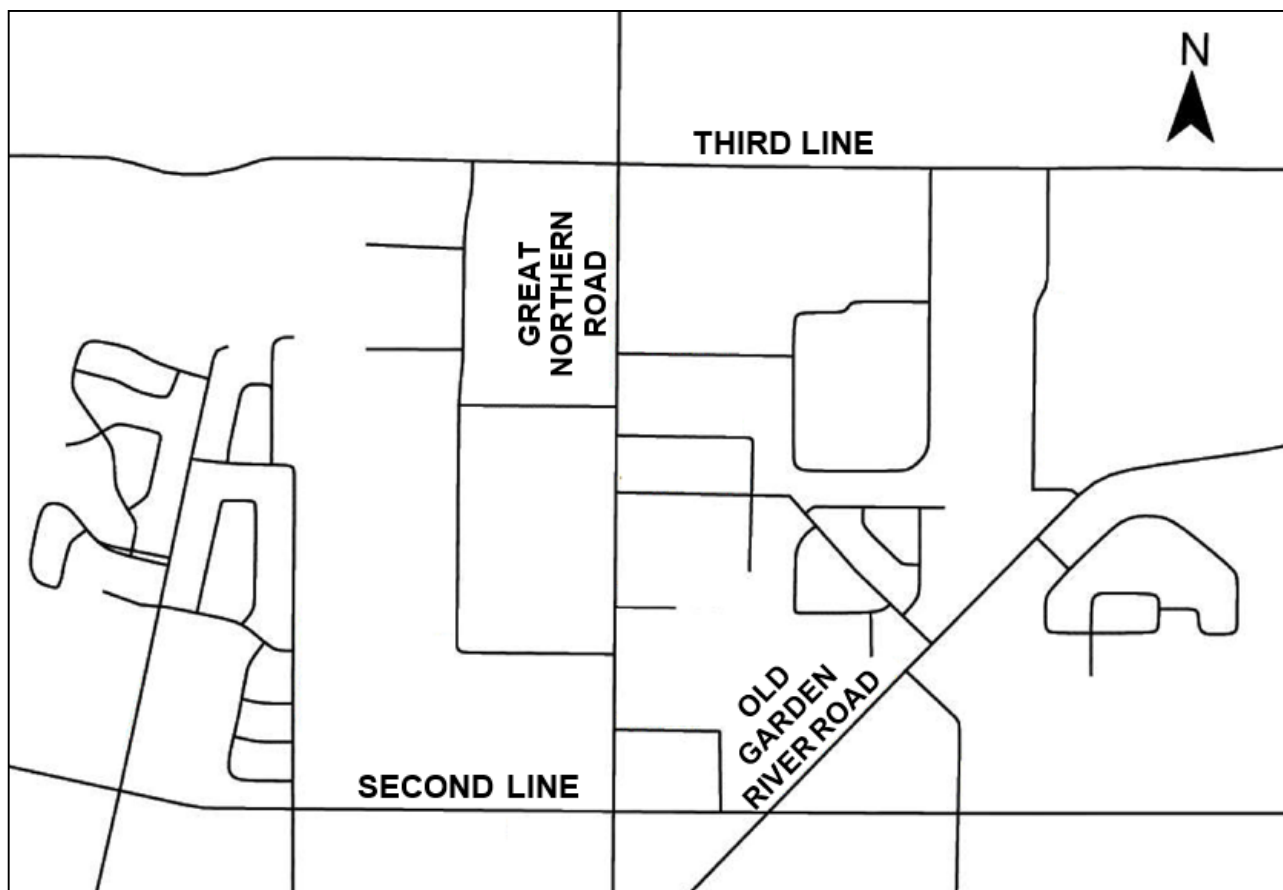


You are invited to:

- **Review project information on display**
 - Problems and Opportunities
 - Alternative Solutions (#1 to #8) – Great Northern Road/Second Line Intersection
 - Alternative Solutions (#9 to #14) – Old Garden River Road/Second Line Intersection
 - Alternative Solutions - Active Transportation
 - Next Steps
- **Ask questions of the Project Team**
- **Fill out and submit a comment sheet**

PROBLEMS AND OPPORTUNITIES – TRAFFIC OPERATIONS

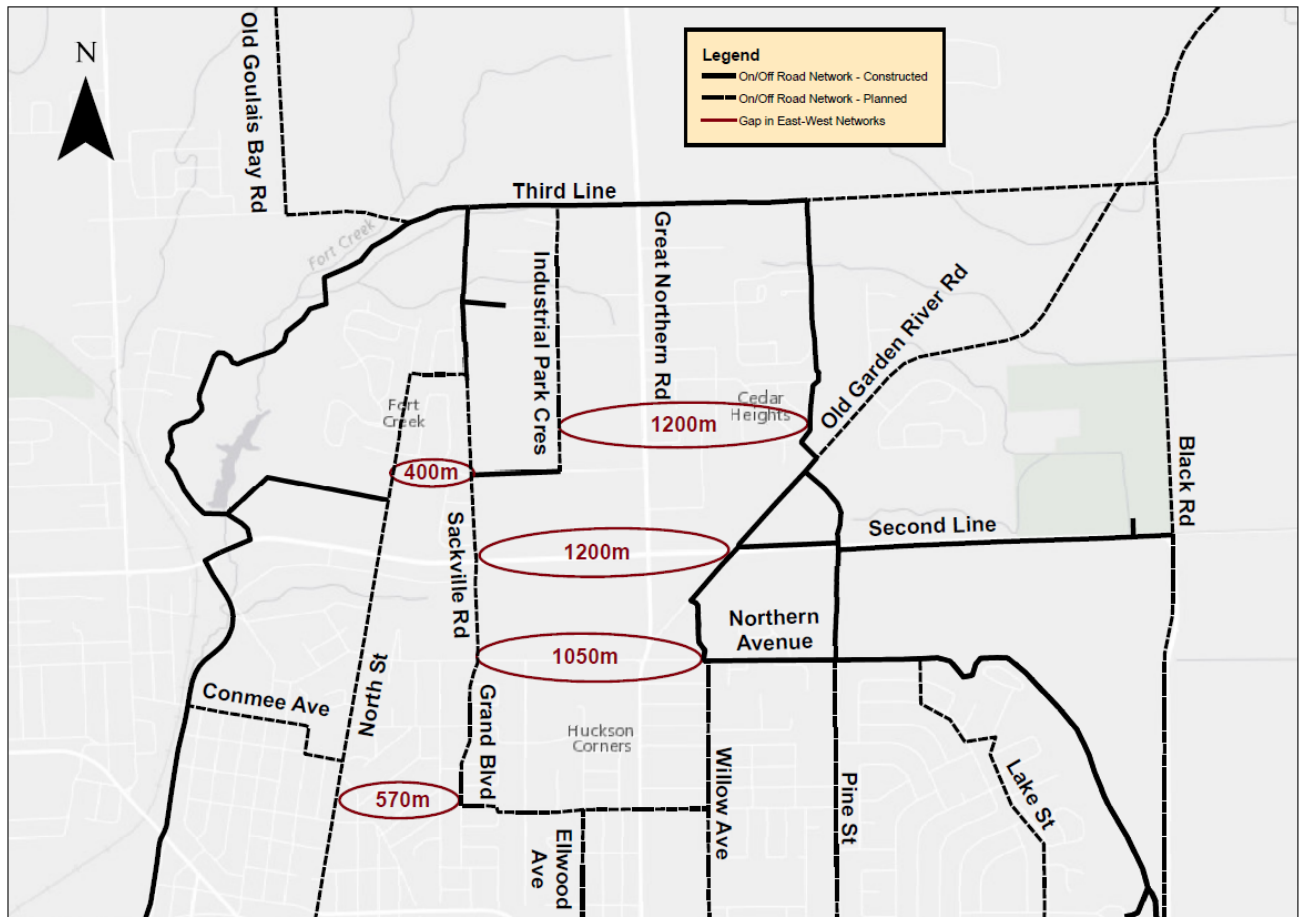
- A review of traffic operations in the study area revealed poor traffic conditions focused at the Second Line/Great Northern Road intersection.
- This is expected to worsen in the future as more development occurs in the area.
- The secondary road network in the study area is discontinuous causing most traffic to pass through the Second Line/Great Northern Road intersection.
- The intersection of Old Garden River Road/Second Line presents difficulty for left-turning traffic due to the skew of the intersection.
- In order to improve traffic operations in the study area, a secondary road network to alleviate the primary network is needed.



Study Area

PROBLEMS AND OPPORTUNITIES – ACTIVE TRANSPORTATION

- Given the current and anticipated increase in commercial development in the Second Line/Great Northern Road area, safe and convenient walking and cycling routes into and through the study area are needed.
- Within the study limits, the existing built active transportation facilities consist only of the Hub Trail.
- The City of Sault Ste. Marie Cycling Master Plan (CMP) (2007) identified the need for additional active transportation facilities as show below.
- With the existing and planned cycling facilities, there remains a lack of east-west cycling network connections in the vicinity of the Second Line/Great Northern Road intersection.
- Additional facilities are needed to provide a connected and continuous multi-use network linking cyclist destinations throughout the City.



Existing and Planned Cycling Facilities with Network Gaps

The main focus of developing alternative solutions is to provide access opportunities that attempt to avoid locally generated traffic having to pass through the Great Northern Road/Second Line intersection.

Alternative Solutions #1 - #8:

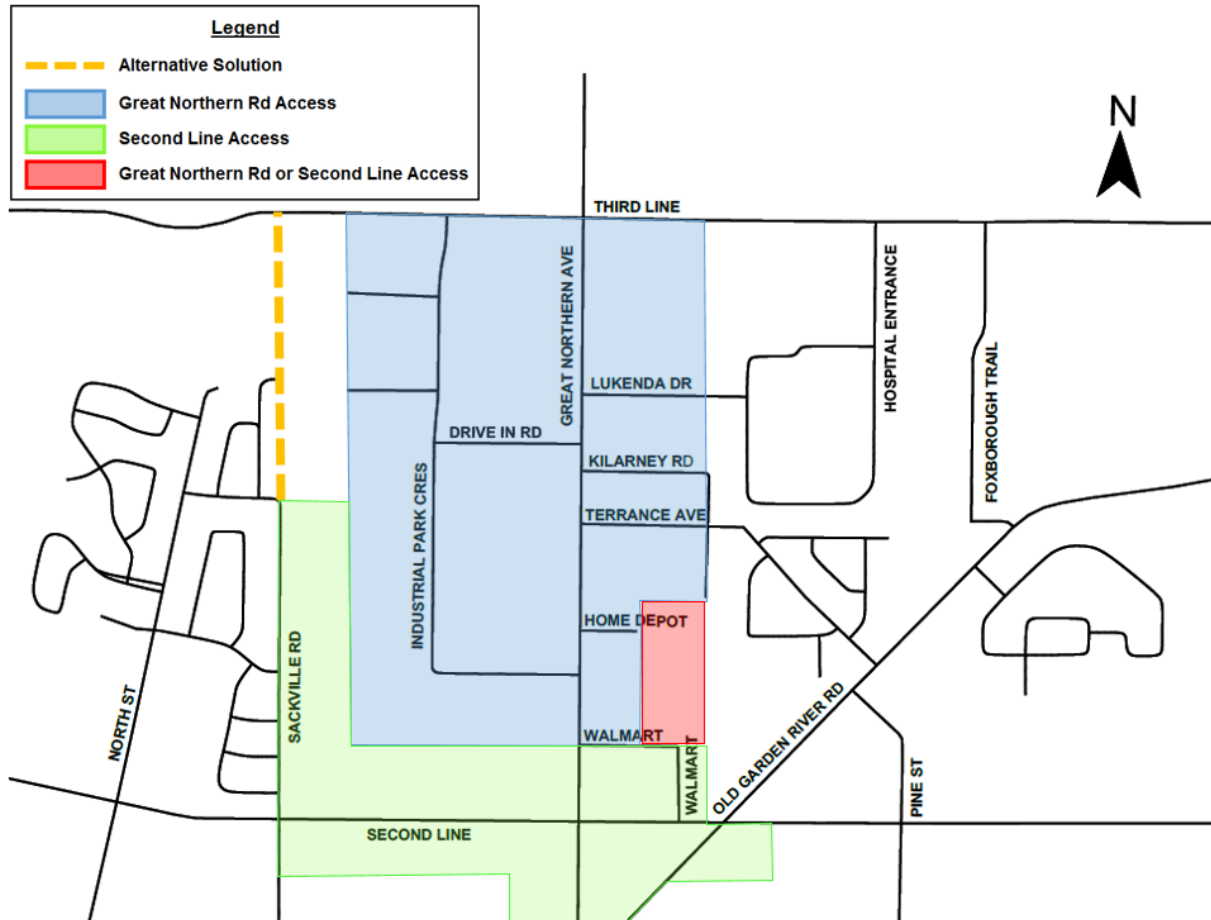
- Aim to address operational issues at the Great Northern Road/Second Line intersection.
- Provide a secondary road network to support commercial development access.

Alternative Solutions #9 – #13:

- Attempt to correct the skew angle of the Old Garden River Road/Second Line intersection.

ALTERNATIVE SOLUTIONS – SECOND LINE/ GREAT NORTHERN ROAD INTERSECTION

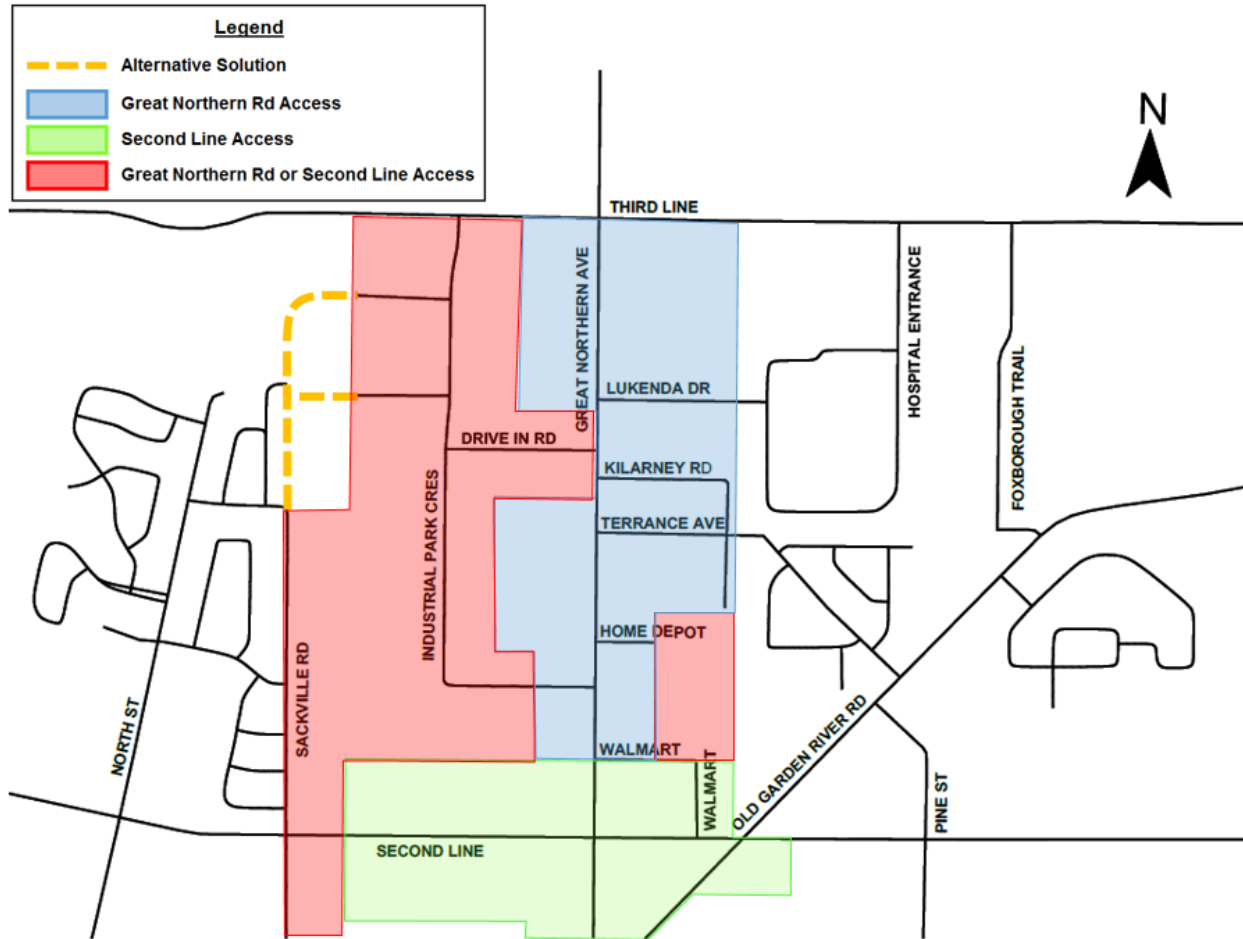
Alternative Solution #1 - Sackville Road North Extension to Third Line



Advantages	Disadvantages
<ul style="list-style-type: none"> • An Environmental Assessment has been completed and is planned for construction. 	<ul style="list-style-type: none"> • Unless Industrial Park Crescent cul-de-sac roads are extended to meet the extended Sackville Road, access to commercial and industrial developments remain unchanged and Great Northern Road will continue to be utilized as the primary access.
<ul style="list-style-type: none"> • Provides a direct connection from Second Line to Third Line and provides a secondary north-south route for traffic. 	<ul style="list-style-type: none"> • Contributes to an increase in traffic for residents adjacent to Sackville Road.
<ul style="list-style-type: none"> • Relieves the Great Northern Road/Second Line intersection by providing a new route for through traffic. 	
<ul style="list-style-type: none"> • Significant property impacts are not anticipated – land required is mainly undeveloped. 	

ALTERNATIVE SOLUTIONS – SECOND LINE/ GREAT NORTHERN ROAD INTERSECTION

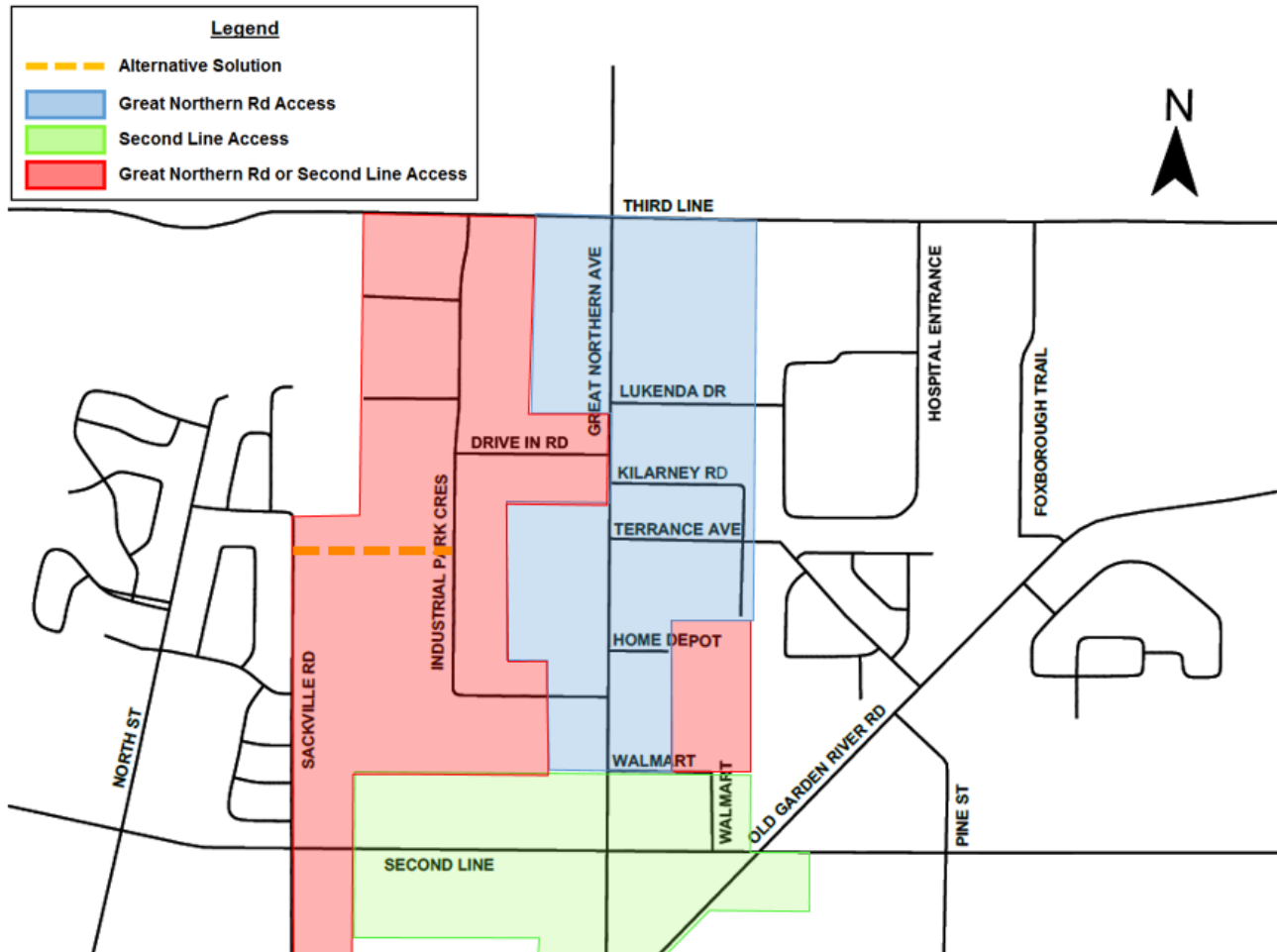
Alternative Solution #2 - Sackville Road North and East Extension to Industrial Park Crescent



Advantages	Disadvantages
<ul style="list-style-type: none"> Provides better access to Third Line for residents adjacent to and west of Sackville Road. 	<ul style="list-style-type: none"> Contributes to a minor increase in traffic for residents adjacent to Sackville Road.
<ul style="list-style-type: none"> Relieves the Great Northern Road/Second Line intersection by providing a new route for north-south traffic destined to the commercial area in the Third Line/Great Northern Road area. 	<ul style="list-style-type: none"> The easterly extension may result in minor property impacts adjacent to Industrial Park Crescent
<ul style="list-style-type: none"> The land required for the northerly road extension is City owned. 	<ul style="list-style-type: none"> Upgrades to the existing Industrial Park Crescent roadway are required to accommodate the increase in traffic.

ALTERNATIVE SOLUTIONS – SECOND LINE/ GREAT NORTHERN ROAD INTERSECTION

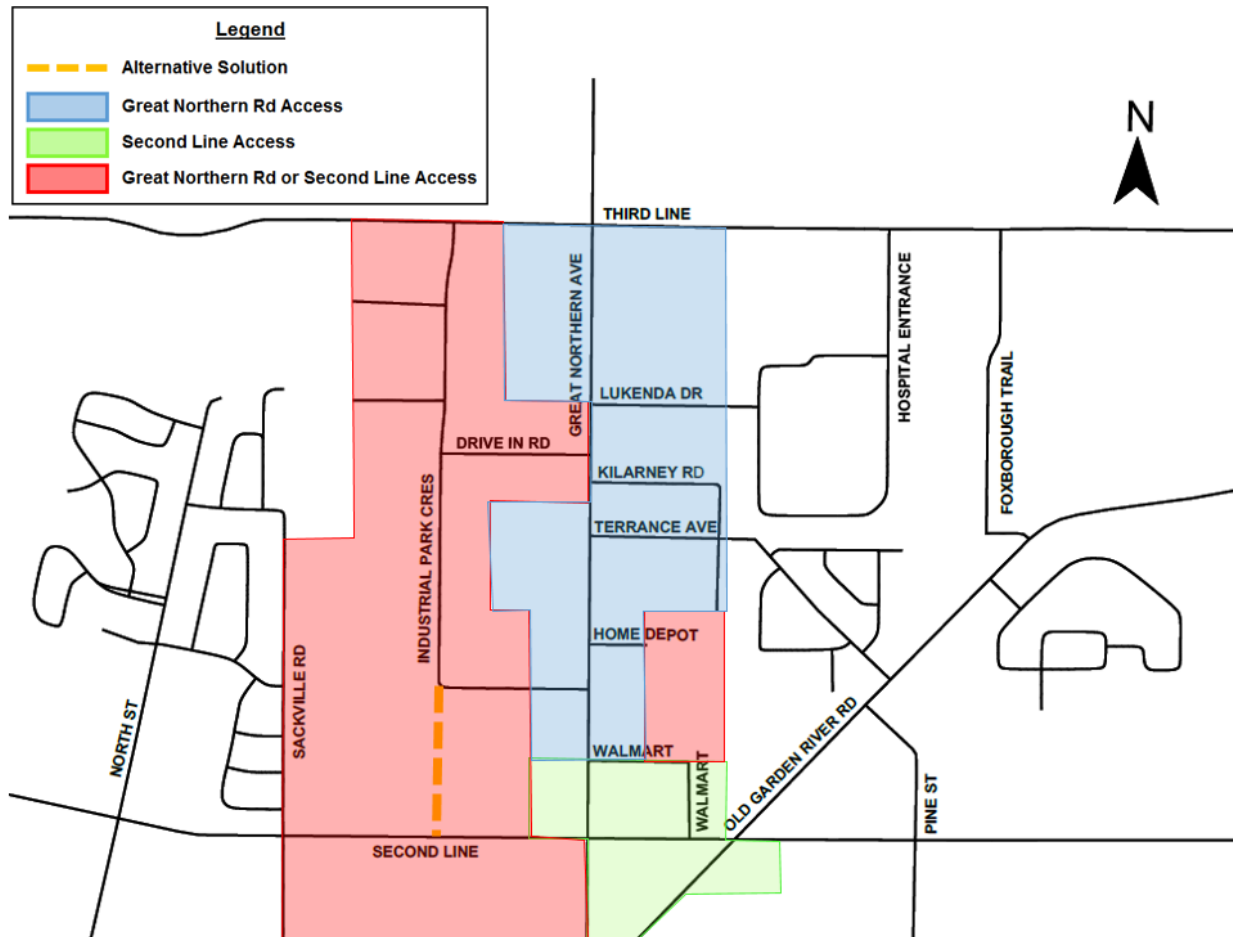
Alternative Solution #3 - Westerly Extension of Industrial Park Crescent to Sackville Road



Advantages	Disadvantages
<ul style="list-style-type: none"> Provides better access to Third Line for residents adjacent to and west of Sackville Road. 	<ul style="list-style-type: none"> Contributes to a minor increase in traffic for residents adjacent to Sackville Road.
<ul style="list-style-type: none"> Relieves the Great Northern Road/Second Line intersection by providing a new route for north-south traffic destined to the commercial area on the west side of Great Northern Road. 	<ul style="list-style-type: none"> The extension of Industrial Park Crescent may impact a private property.
<ul style="list-style-type: none"> Provides better access to the commercial centre on Great Northern Road. 	<ul style="list-style-type: none"> Upgrades to the existing Industrial Park Crescent roadway are required to accommodate the increase in traffic.

ALTERNATIVE SOLUTIONS – SECOND LINE/ GREAT NORTHERN ROAD INTERSECTION

Alternative Solution #4 - Southerly extension of Industrial Park Crescent to Second Line



Advantages

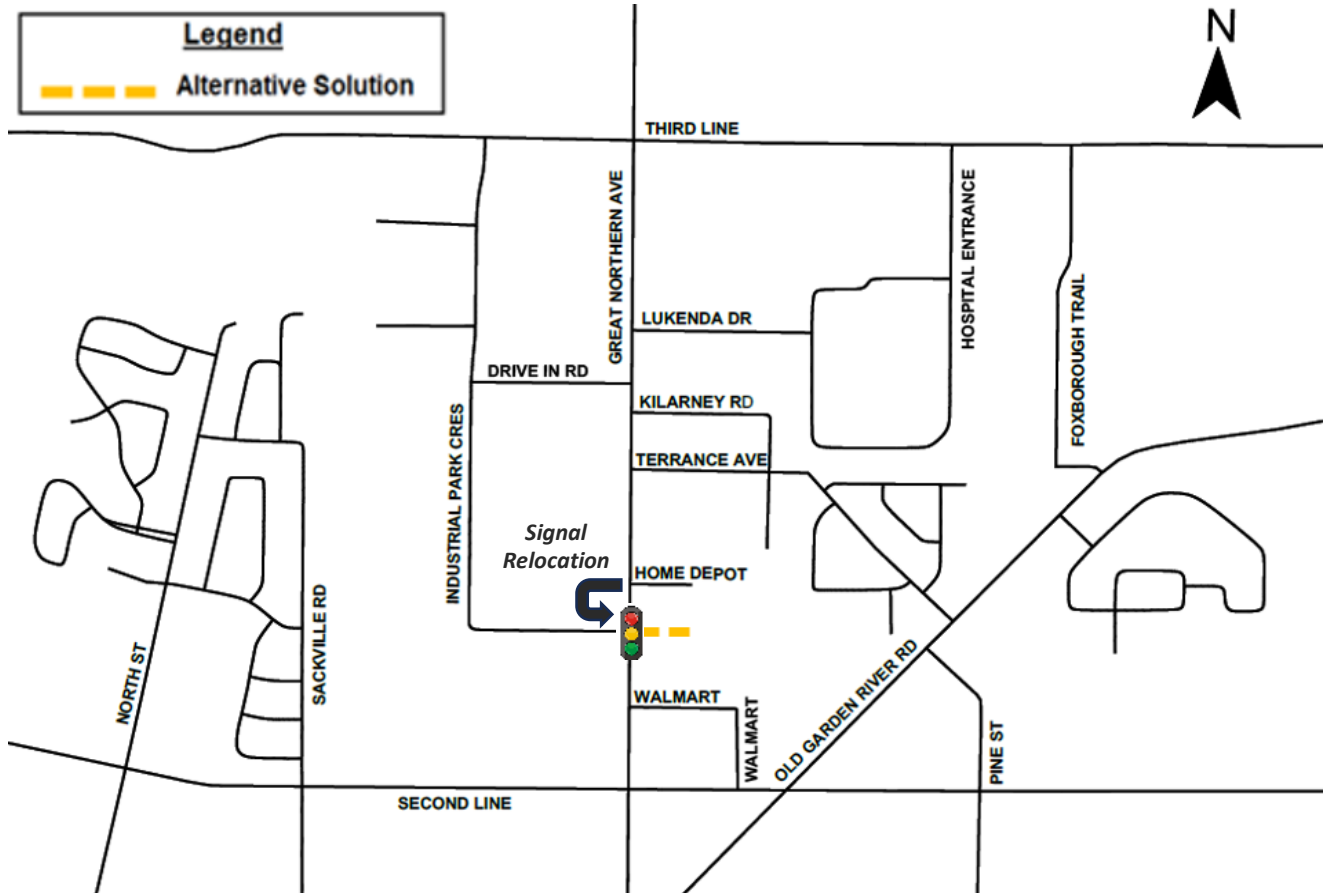
- The southerly extension of Industrial Park Crescent will improve the intersection operation of the Great Northern Road/Second Line intersection.
- Provides a separation of commercial/industrial traffic from the residential traffic on Sackville Road.
- Provides access to developments on west side of Great Northern Road by providing a secondary route for northbound and southbound traffic.

Disadvantages

- A traffic signal will be required at the Second Line/Industrial Park Crescent intersection.
- The Industrial Park Crescent extension would have property impacts on Roofmart or Murphy Service Centre.
- Upgrades to the existing Industrial Park Crescent roadway are required to accommodate the increase in traffic.

ALTERNATIVE SOLUTIONS – SECOND LINE/ GREAT NORTHERN ROAD INTERSECTION

Alternative Solution #5 - Relocation of traffic signal on Great Northern Road to Industrial Park Crescent and New Access Road



Advantages	Disadvantages
<ul style="list-style-type: none"> Provides all-turn access to Great Northern Road with a consolidated signal. 	<ul style="list-style-type: none"> The traffic signal at the Home Depot driveway requires relocation to the intersection with Industrial Park Crescent.
<ul style="list-style-type: none"> Reduces the number of potential signals on Great Northern Road. 	<ul style="list-style-type: none"> No improvement in network continuity and no change to commercial area access. Requires signal coordination with fibre optics between Great Northern Road intersections with Walmart, Second Line and Third Line. Does not provide an alternative route for local and through traffic and does not relieve the Second Line/Great Northern Road intersection.

ALTERNATIVE SOLUTIONS – SECOND LINE/ GREAT NORTHERN ROAD INTERSECTION

Alternative Solution #6 – New signal at existing Walmart Access



Advantages

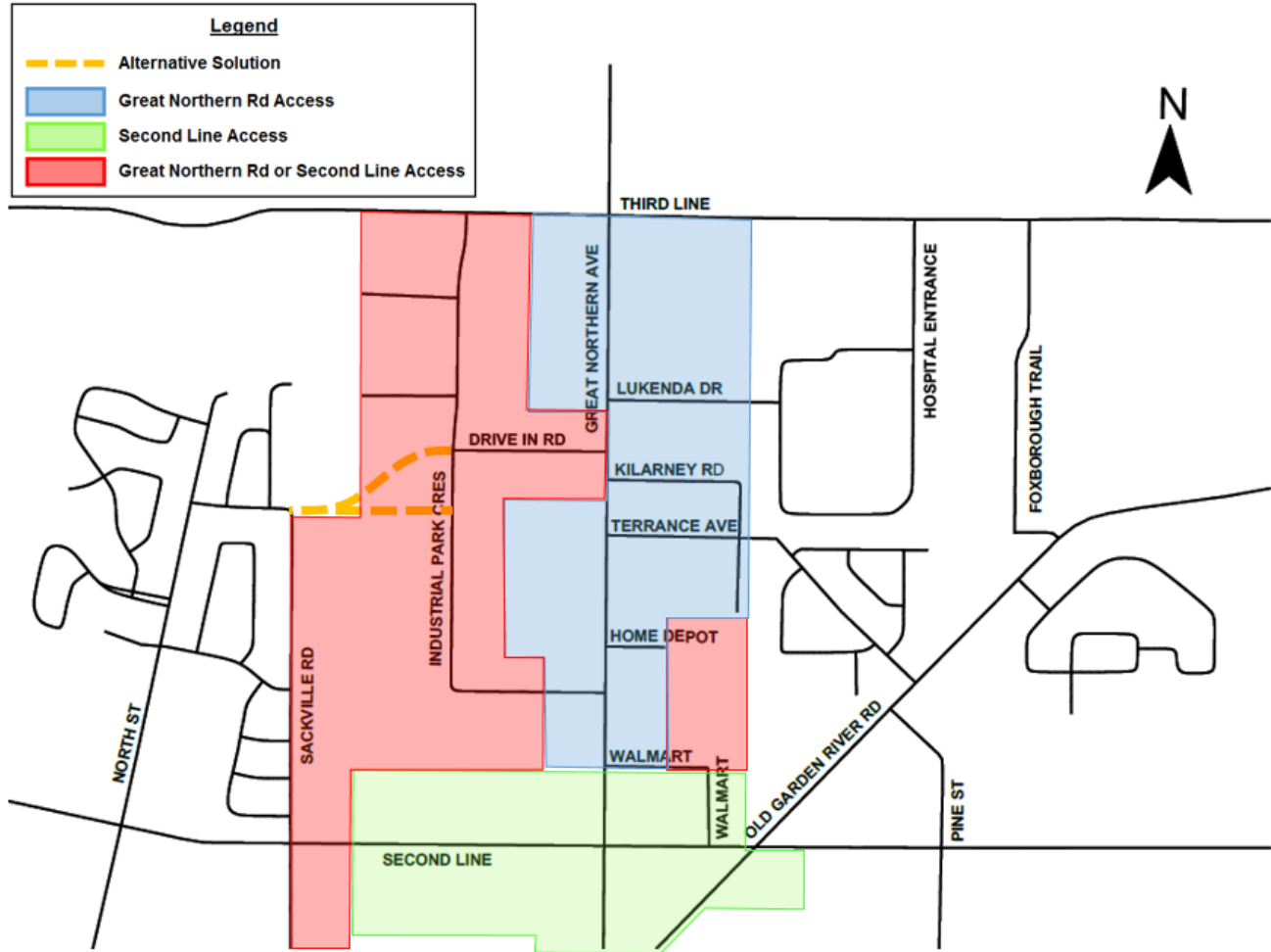
- Provides signalized access for proposed development on the west side of Great Northern Road.
- Signalized intersection coincides with Walmart entrance.

Disadvantages

- Contributes to additional delay on Great Northern Road.
- Does not provide an alternative route for local and through traffic and does not relieve the Second Line/Great Northern Road intersection.

ALTERNATIVE SOLUTIONS – SECOND LINE/ GREAT NORTHERN ROAD INTERSECTION

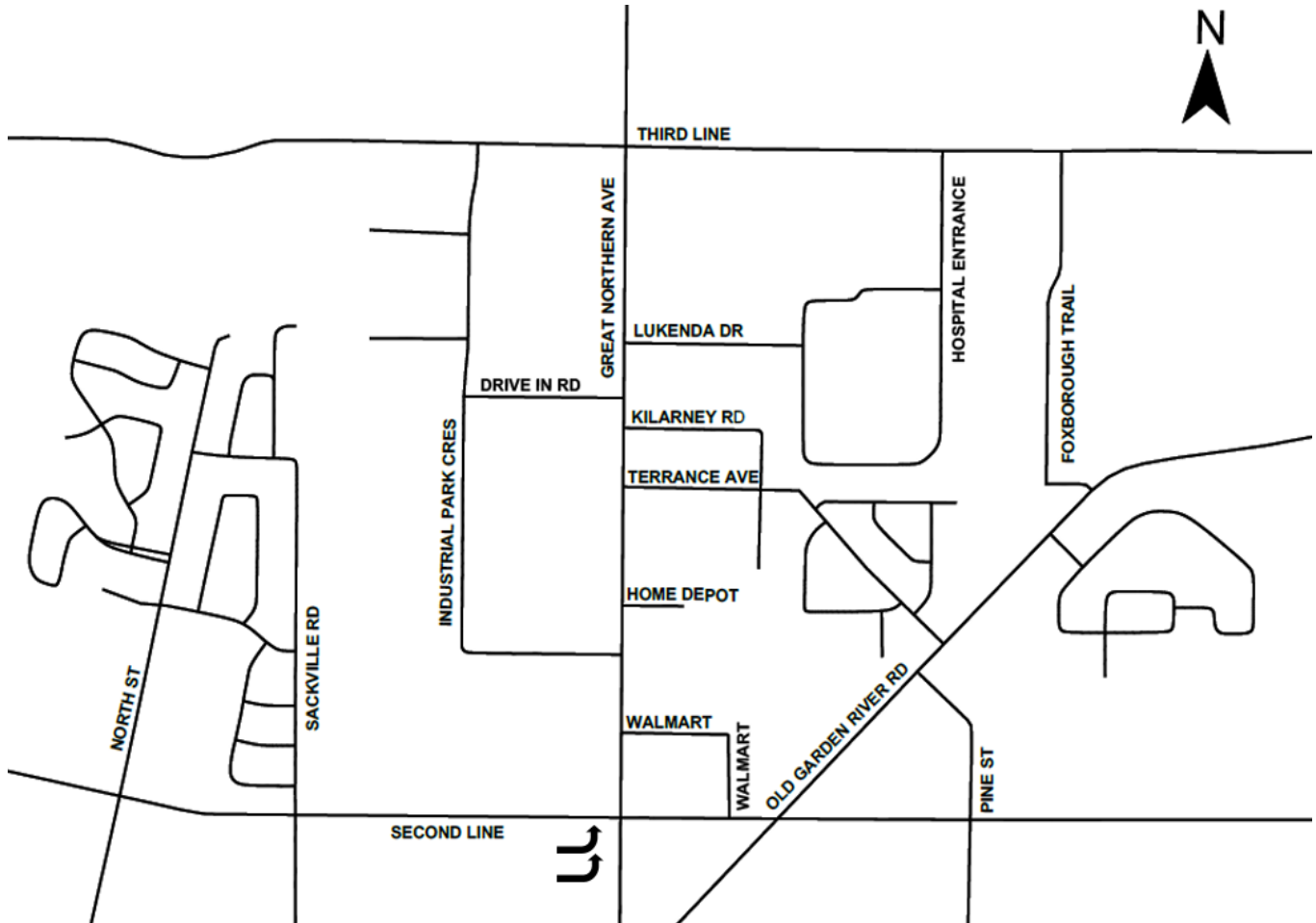
Alternative Solution #7 - Westerly extension of Drive In Road to Sackville Road



Advantages	Disadvantages
<ul style="list-style-type: none"> Provides better access to Third Line for residents adjacent to and west of Sackville Road. 	<ul style="list-style-type: none"> Contributes to a minor increase in traffic for residents adjacent to Sackville Road.
<ul style="list-style-type: none"> Relieves the Great Northern Road/Second Line intersection by providing a new route for north-south traffic destined to the commercial area on the west side of Great Northern Road. 	<ul style="list-style-type: none"> The road extension has the potential to sever the land north of the proposed alignment and leave a small portion isolated.
<ul style="list-style-type: none"> The property required for the extension is currently undeveloped and therefore property impacts are potentially minor. 	<ul style="list-style-type: none"> Upgrades to the existing Industrial Park Crescent/Drive In Road roadway are required to accommodate the increase in traffic.

ALTERNATIVE SOLUTIONS – SECOND LINE/ GREAT NORTHERN ROAD INTERSECTION

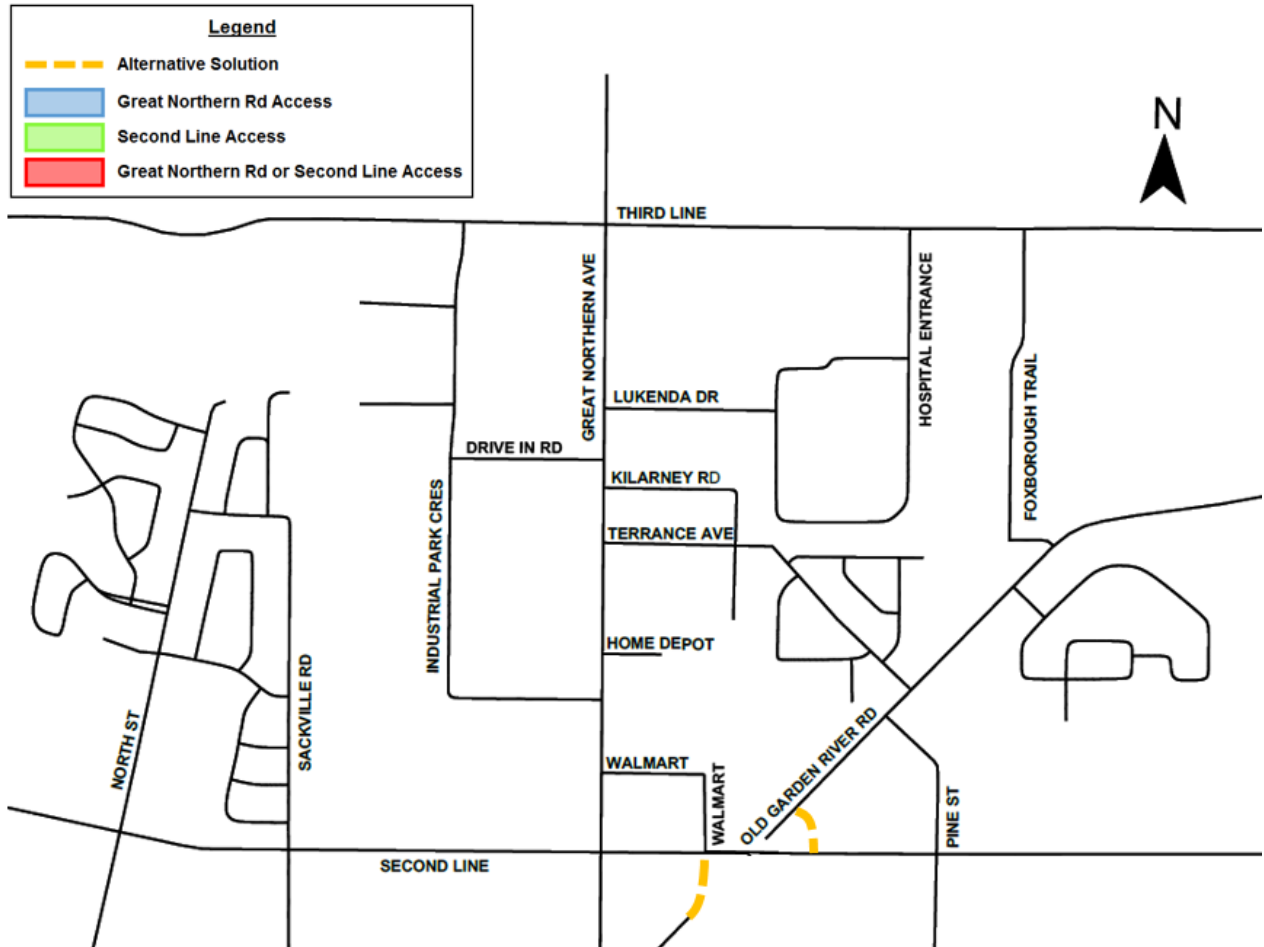
Alternative Solution #8 – Double Left-turn onto Great Northern Road at Second Line



Advantages	Disadvantages
<ul style="list-style-type: none"> Improves left-turn operations the Great Northern Road/Second Line intersection. 	<ul style="list-style-type: none"> Intersection widening is extremely difficult given the built up nature of all four corners of the intersection.
	<ul style="list-style-type: none"> Intersection widening will impact the gas stations on the northwest and southeast corners of the intersection.
	<ul style="list-style-type: none"> Additional left turn lanes provide only a marginal increase in capacity as green time is removed from other phases of the signal in order to serve the double lefts.
	<ul style="list-style-type: none"> Does not provide an alternative route for local and through traffic and does not relieve the Second Line/Great Northern Road intersection.

ALTERNATIVE SOLUTIONS – SECOND LINE/ OLD GARDEN RIVER ROAD INTERSECTION

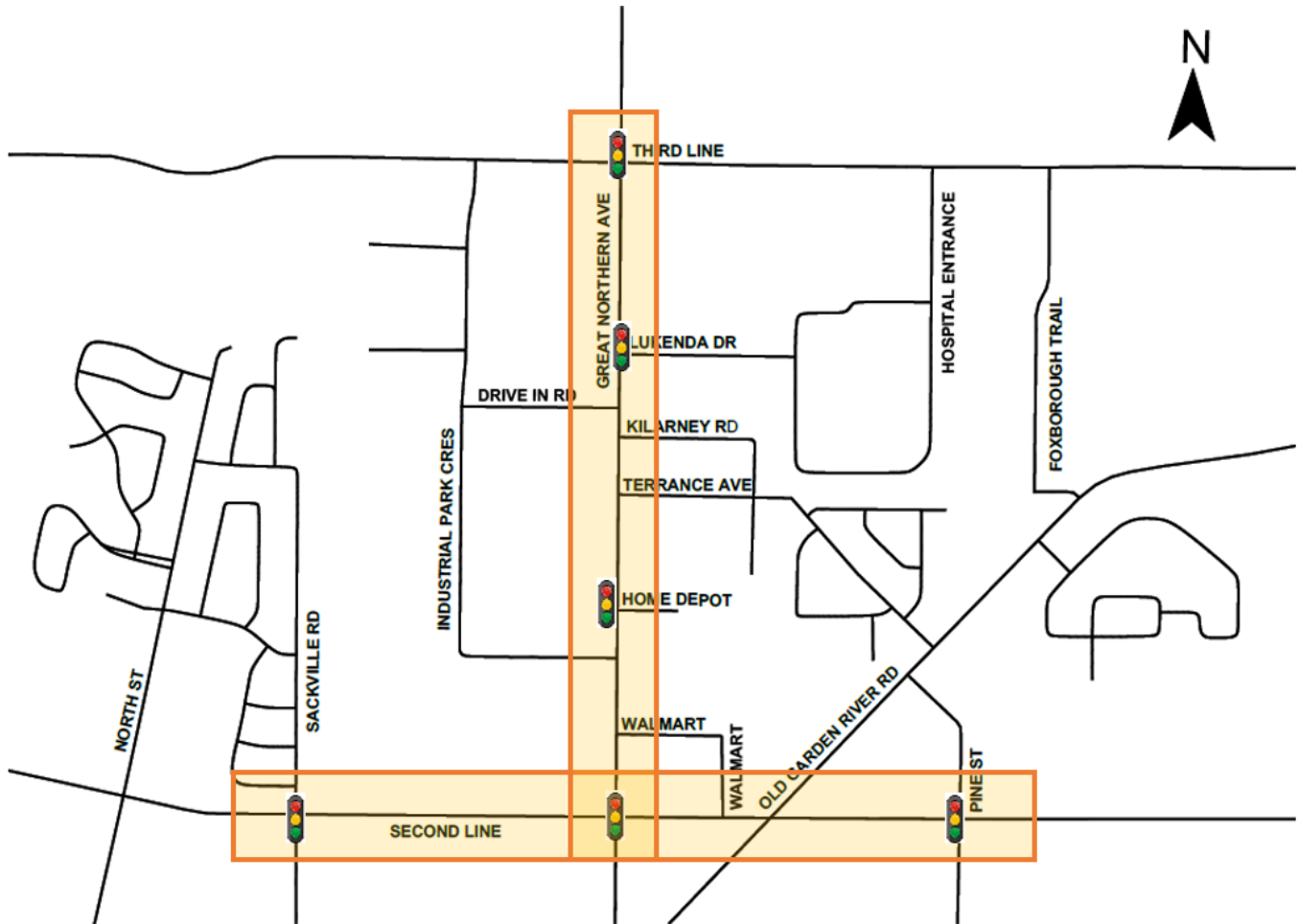
Alternative Solution #9 - Realignment of Old Garden River Road to Remove Skew



Advantages	Disadvantages
<ul style="list-style-type: none"> Improves the operations at the Old Garden River Road/Second Line intersection by removing the skewed intersection. 	<ul style="list-style-type: none"> There is potential for property impacts at The Water Tower Inn and a business on the northeast corner of the Old Garden River Road/Second Line intersection.
<ul style="list-style-type: none"> The new access road from the Walmart entrance southerly provides an alternative north-south connection from the commercial area on Great Northern Road. 	<ul style="list-style-type: none"> A traffic signal is required at the intersection with the Walmart entrance.

ALTERNATIVE SOLUTIONS – SECOND LINE/ OLD GARDEN RIVER ROAD INTERSECTION

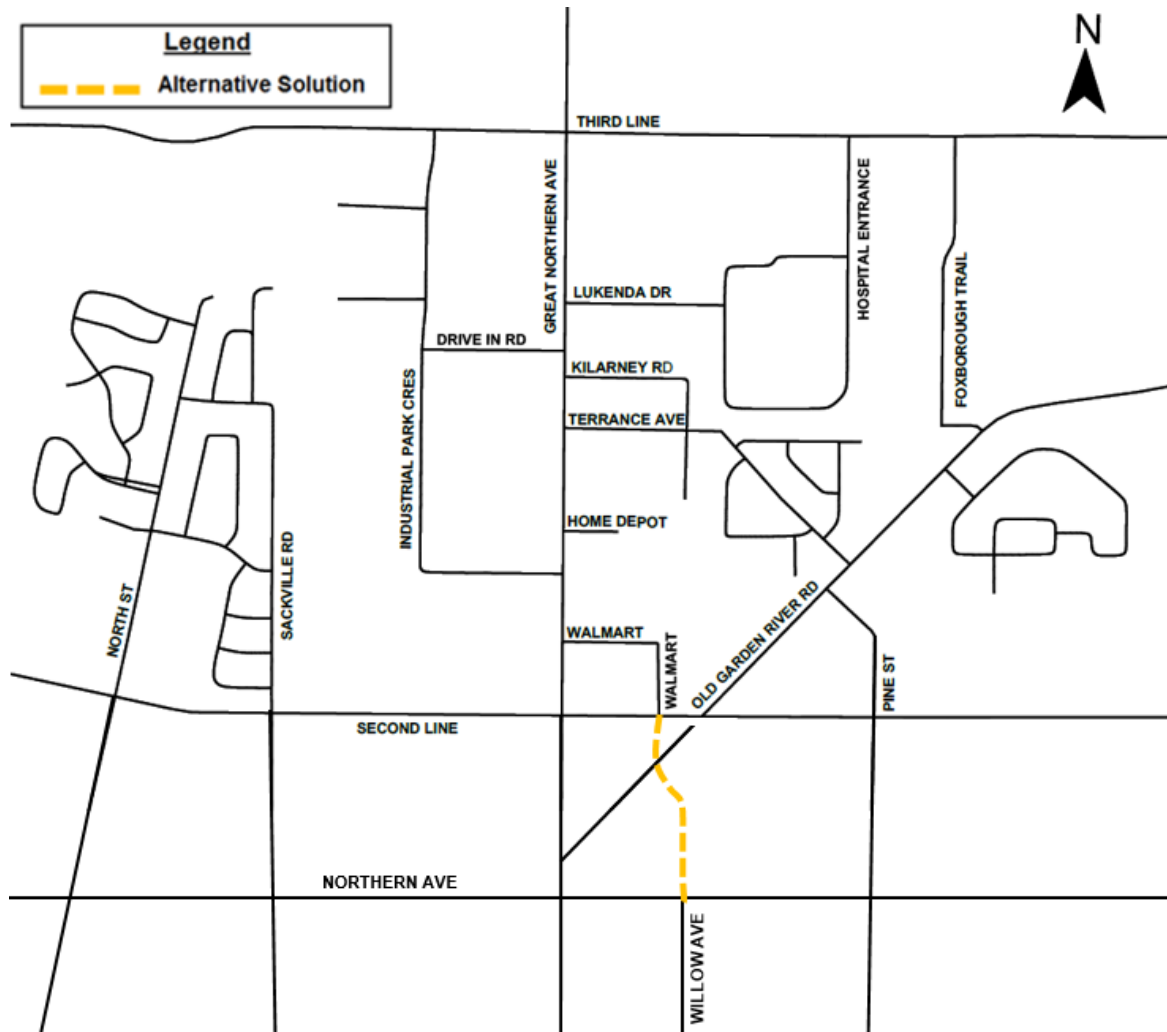
Alternative Solution #10 – Traffic Signal Optimization



Advantages	Disadvantages
<ul style="list-style-type: none"> Improves left-turn operations at the Great Northern Road/Second Line intersection. 	<ul style="list-style-type: none"> This solution has limited capabilities for operational benefits.
<ul style="list-style-type: none"> Can accommodate variable demand throughout the day. 	<ul style="list-style-type: none"> Does not provide an alternative route for local and through traffic and does not relieve the Second Line/Great Northern Road intersection.
<ul style="list-style-type: none"> Low cost compared to other options requiring construction of new roads or intersection reconstruction. 	

ALTERNATIVE SOLUTIONS – SECOND LINE/ OLD GARDEN RIVER ROAD INTERSECTION

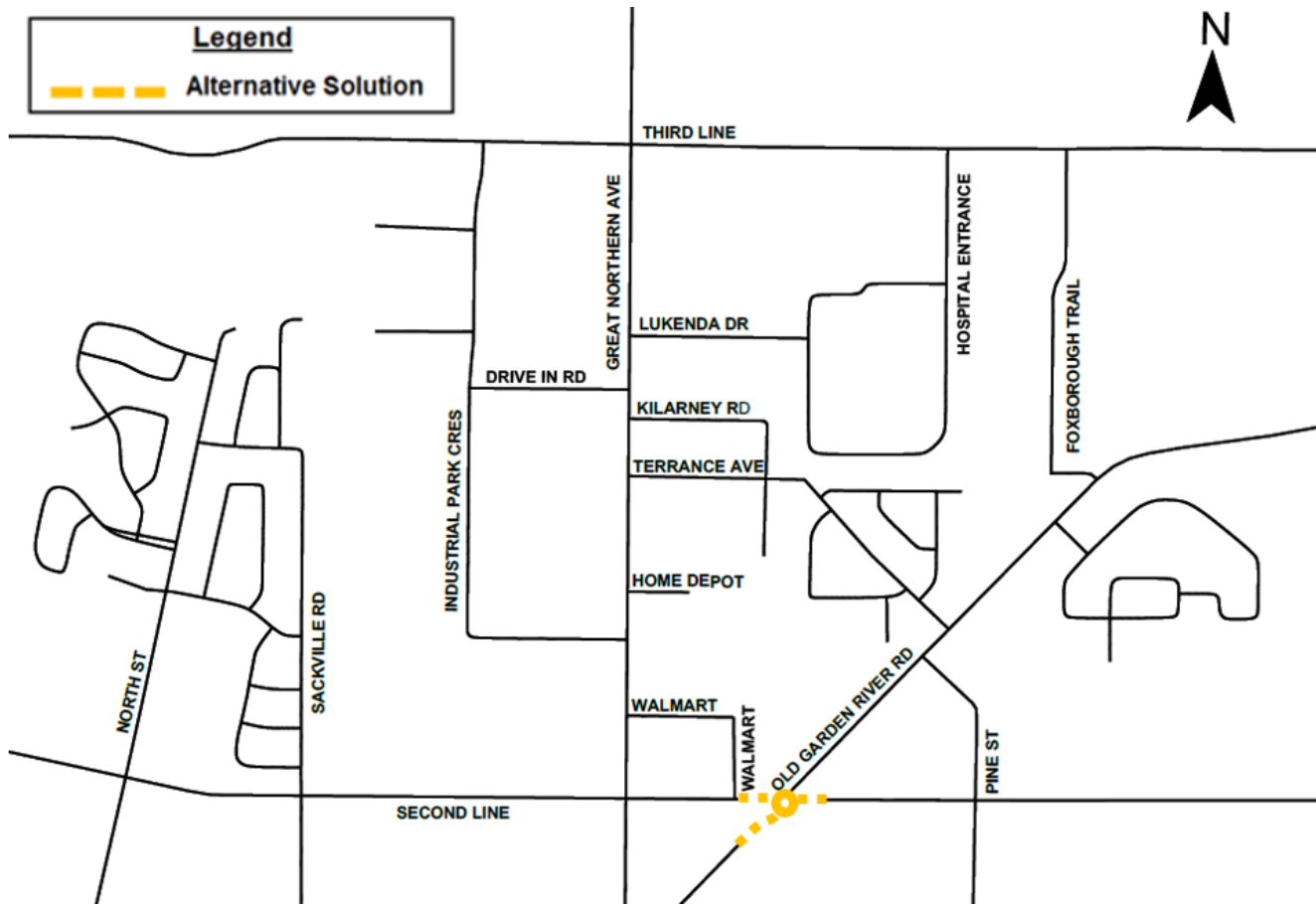
Alternative Solution #11 – Extension of Walmart Entrance Southerly to Willow Avenue



Advantages	Disadvantages
<ul style="list-style-type: none"> Provides a new north-south route via Willow Avenue as an alternative to Great Northern Road. 	<ul style="list-style-type: none"> Signal coordination along Second Line will be required.
<ul style="list-style-type: none"> Improves traffic operations at the Great Northern Road/Second Line intersection. 	<ul style="list-style-type: none"> This solution will have minor property impacts on two metal garages on the southeast corner of the Old Garden River Road/Second Line intersection and will require the purchase of property.
<ul style="list-style-type: none"> Simplifies the intersection of Old Garden River Road/Second Line by removing conflicting movements. 	
<ul style="list-style-type: none"> The road extension will utilize the existing emergency services driveway. 	

ALTERNATIVE SOLUTIONS – SECOND LINE/ OLD GARDEN RIVER ROAD INTERSECTION

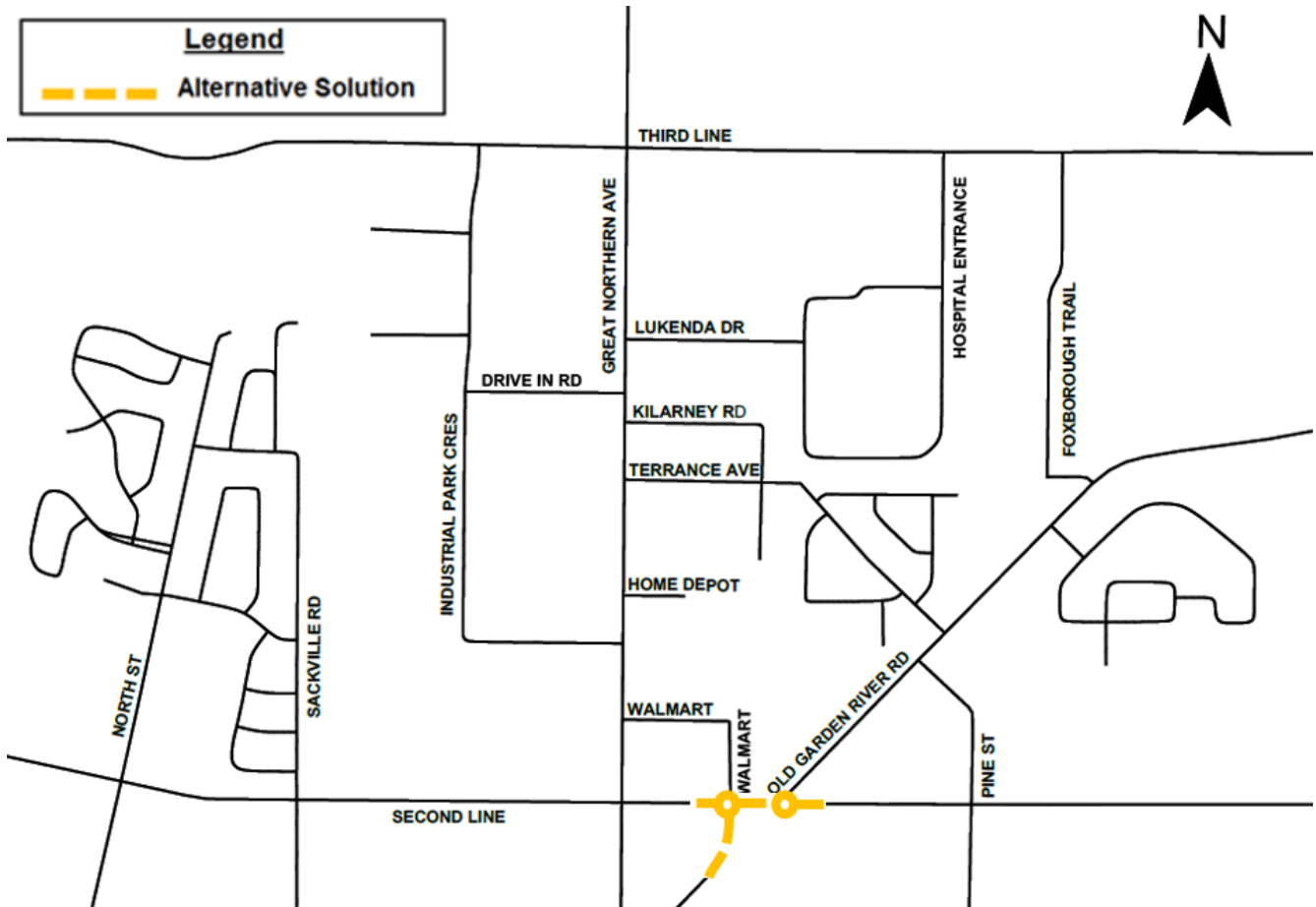
Alternative Solution #12 - Single Roundabout at Old Garden River Road and Second Line



Advantages	Disadvantages
<ul style="list-style-type: none"> • A roundabout will improve intersection geometry and traffic operations for left-turning traffic at the intersection as vehicles no longer have to turn at an odd angle. 	<ul style="list-style-type: none"> • The roundabout will have significant property impacts on the properties immediately northwest and southeast of the roundabout.
<ul style="list-style-type: none"> • Improves safety and provides a reduction in delay. 	<ul style="list-style-type: none"> • Due to the property requirements and road reconstruction, it is anticipated that this solution will have significant costs associated.

ALTERNATIVE SOLUTIONS – SECOND LINE/ OLD GARDEN RIVER ROAD INTERSECTION

Alternative Solution #13 - Double Roundabout at Old Garden River Road and Second Line



Advantages

- The intersection reconfiguration to a roundabout improves intersection geometry for both locations allowing for safe turning movements in all directions.
- With a roundabout, the traffic signal at the Old Garden River Road and Second Line intersection can be removed.

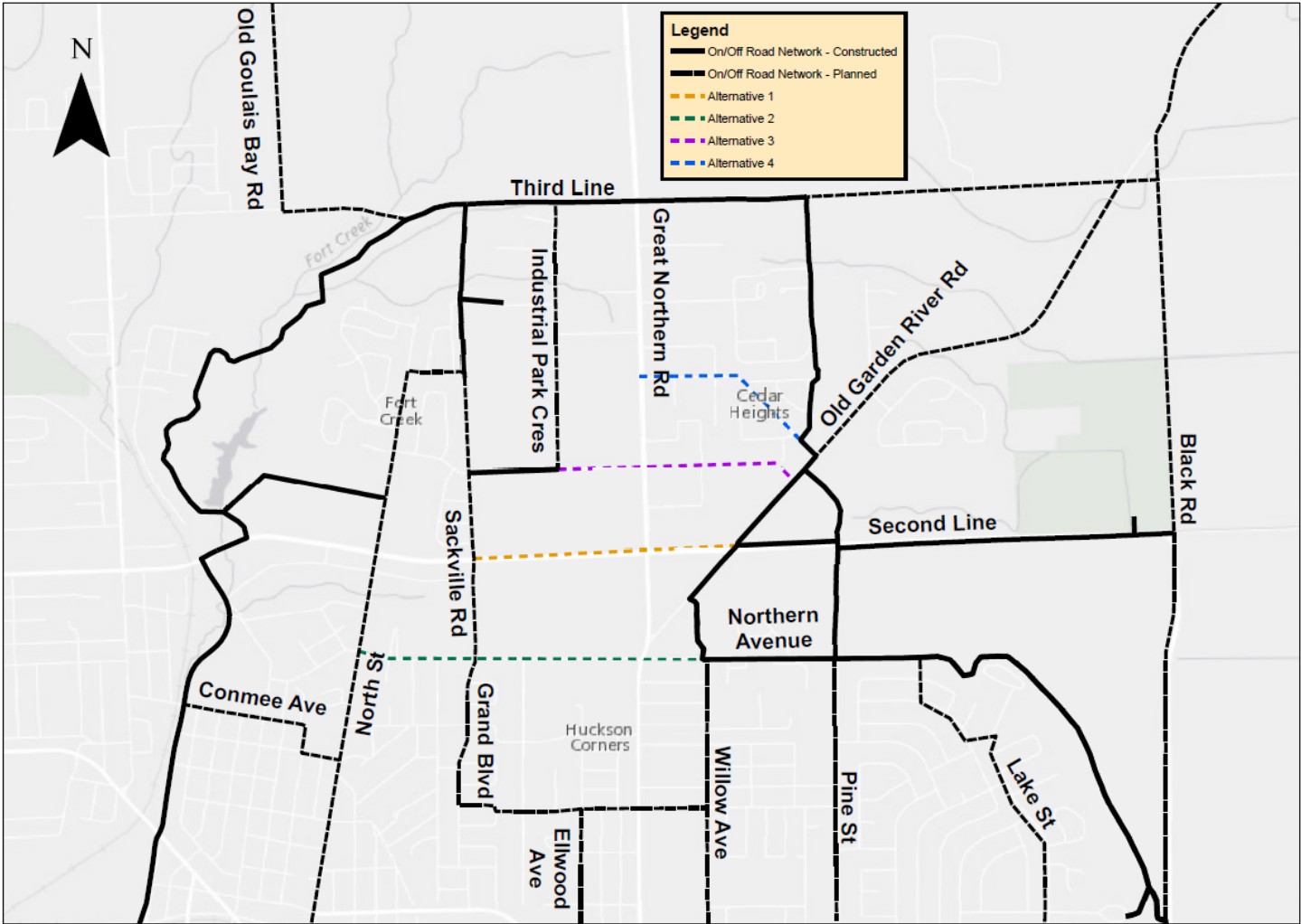
Disadvantages

- The roundabout will have significant property impacts on the properties immediately northwest and southeast of the roundabout.
- Capital costs for this solution are anticipated to be the highest as two roundabouts require construction.

ALTERNATIVE SOLUTIONS – ACTIVE TRANSPORTATION

Four alternative solutions have been reviewed to examine the possibility of providing additional east-west bicycle routes in the vicinity of the Second Line/Great Northern Road intersection:

- 1. Second Line from Sackville Road to Old Garden River Road
- 2. Northern Avenue from North Street to Pine Street
- 3. Industrial Park Crescent to Old Garden River Road
- 4. Terrance Avenue from Great Northern Road to Old Garden River Road/Hub Trail



Active Transportation Alternative Solutions

ALTERNATIVE SOLUTIONS – ACTIVE TRANSPORTATION

Alternative Solution No.	Advantages	Disadvantages
<p>1. Second Line</p>	<ul style="list-style-type: none"> Provides an east-west connection across the study area within 1 km for the area north and south of Second Line that currently lacks access. 	<ul style="list-style-type: none"> Risk for collisions at frequent driveways. Only on-road separated bicycle lanes are an appropriate option. A physical barrier system would require the widening of Second Line at a substantial cost.
<p>2. Northern Avenue</p>	<ul style="list-style-type: none"> Bicycle lanes are being recommended as part of a separate ongoing study. Bicycle lanes will provide an east-west connection to the cycling network within 1 km to the north and south. No additional property is required. 	<ul style="list-style-type: none"> Ideally, the on-road bicycle lanes would be wider than the 1.2 to 1.5 metres recommended in the separate study.
<p>3. Industrial Park Crescent</p>	<ul style="list-style-type: none"> Cycling facilities can be implemented without widening of the roadway. Provides an east-west connection to the north-south Hub Trail route and from the commercial/industrial area adjacent to Great Northern Road. Provides an east-west connection to the cycling network within 1 km to the north and south. 	<ul style="list-style-type: none"> Cycling facilities will impact private property east of Great Northern Road. Requires property through the wooded area adjacent to Old Garden River Road. Impacts two residential properties to connect with Old Garden River Road.
<p>4. Terrance Avenue</p>	<ul style="list-style-type: none"> Cycling facilities on Terrance Avenue would connect directly to the proposed Hub Trail network in the east. 	<ul style="list-style-type: none"> The east-west connection to the cycling network remains discontinuous west of Great Northern Road and does not provide a direct connection between north-south routes. Terrance Avenue cycling facilities would require cyclists to utilize Great Northern Road, which does not provide cycling facilities. Wider roadway lanes cannot be implemented without widening of the roadway.

Following this Public Information Centre, the Project Team will:

- Review input and comments received
- Finalize the preferred solution(s)
- Provide recommendations for Council consideration

Please provide all comments by January 4th, 2018 to either Project Manager:

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Thank you for attending!