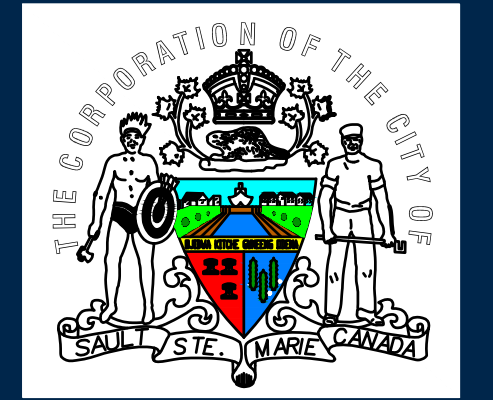


## WHY IS THIS PROJECT BEING UNDERTAKEN?

- The purpose of this study is to investigate alternatives to improve the efficiency of the Northern Avenue corridor.
- The opportunity for Northern Avenue to undergo a possible lane reassignment and/or elimination as well as a possible extension to Black Road was presented in the City of Sault Ste. Marie's Transportation Master Plan, completed in 2015.
- The City has also identified the opportunity to possibly incorporate improvements to the access/egress of the P-Patch subdivision.
- Upon completion of the EA process, the City will have a preferred design which can be implemented as required and when funding is available.

# OPPORTUNITY STATEMENT



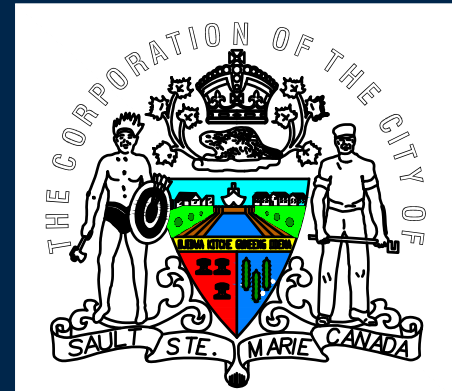
Vehicular travel patterns throughout Sault Ste. Marie have shifted over the years as a result of development in the north end of the City. Improving the efficiency of the Northern Avenue corridor is one of the recommendations of the recently completed Transportation Master Plan meant to help accommodate this shift.

Potential improvements noted in the Transportation Master Plan include:

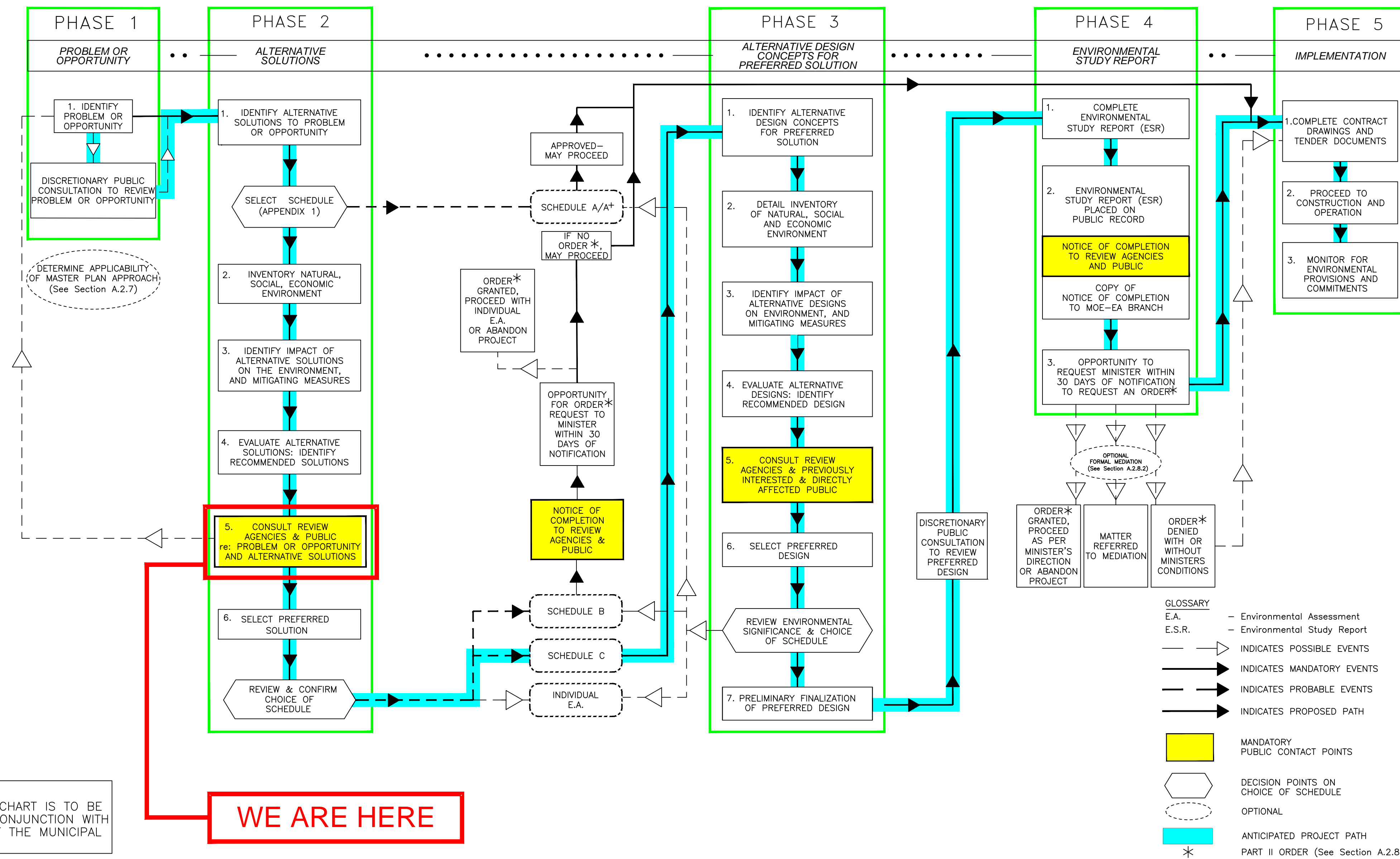
- Opportunity A: Lane reassignment or elimination along the Northern Avenue Corridor
- Opportunity B: Extension of Northern Avenue to Black Road

In conjunction with these possible improvements, the City has also identified:

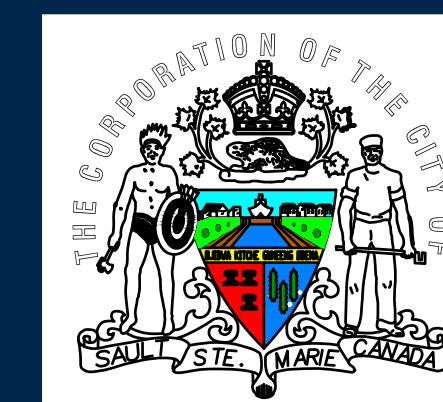
- Opportunity C: Improvements to the access/egress of the P- Patch subdivision



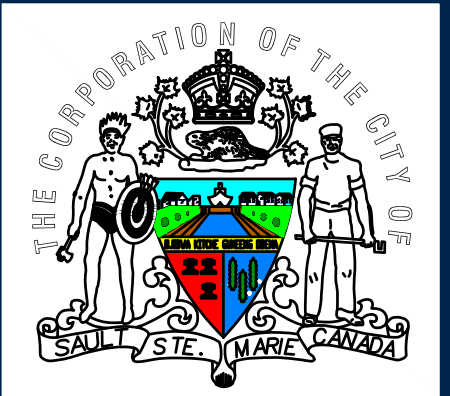
# MUNICIPAL CLASS EA PLANNING AND DESIGN PROCESS



# STUDY AREA



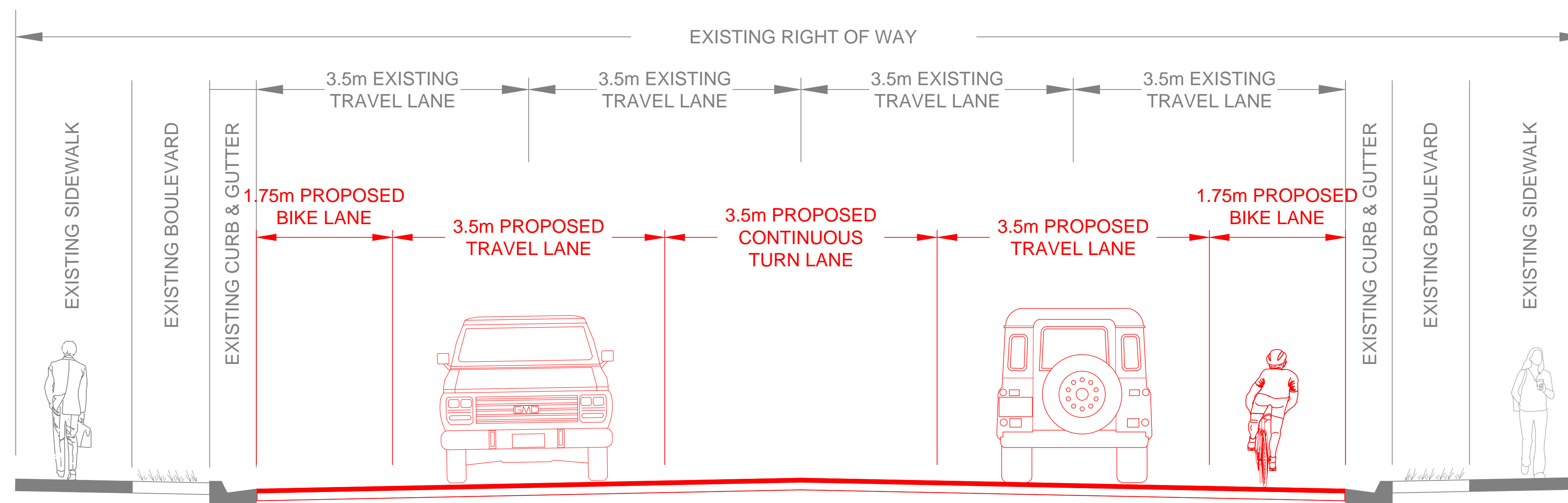
# OPPORTUNITY A: LANE REASSIGNMENT



## ALTERNATIVE SOLUTIONS

- A1: No Lane Reassignment
- A2: Full Length Lane Reassignment (North Street to Pine Street)
- A3: Lane Reassignment in Select Locations

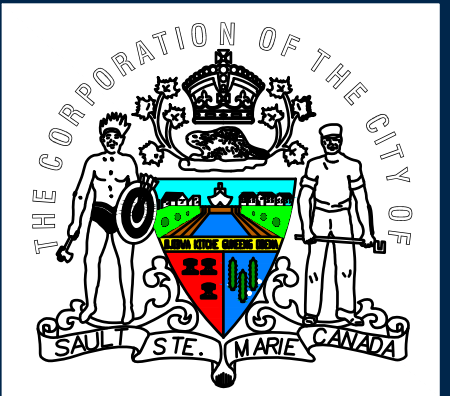
- Current traffic volumes support a lane reassignment.
- Special considerations may be required at intersections (i.e. Great Northern Road, Willow Ave).



CROSS SECTION: GREY IS EXISTING, RED IS PROPOSED



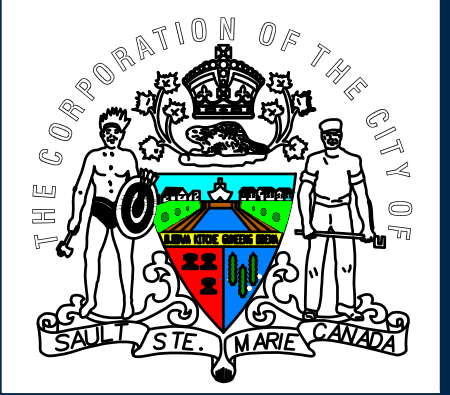
# OPPORTUNITY B: EXTENSION OF NORTHERN AVENUE



- Alternative B1: No extension of Northern Avenue
- Alternative B2: Extend easterly to connect to Black Road
- Alternative B3: Extend southeasterly to connect to Lake Street
- Alternative B4: Extend southeasterly to connect to Black Road



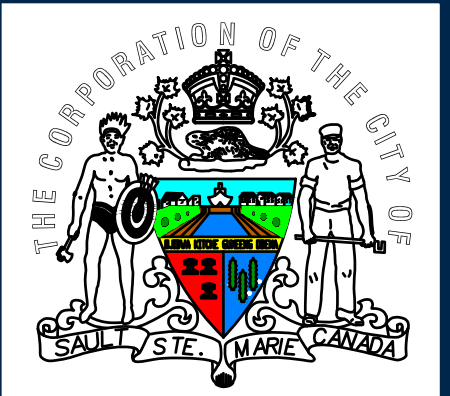
## OPPORTUNITY B: EXTENSION OF NORTHERN AVENUE



- Alternative B1: No extension of Northern Avenue
- Alternative B2: Extend easterly to connect to Black Road
- Alternative B3: Extend southeasterly to connect to Lake Street
- Alternative B4: Extend southeasterly to connect to Black Road

- An extension of Northern Avenue counters the opportunity of a possible lane reassignment as an extension will likely result in increased traffic along the corridor.
- Previous assessments have noted that an extension of Northern Avenue (to Black Road or Lake Street) could exacerbate traffic capacity issues along Great Northern Road by directing traffic to an area of concern (Great Northern Road between Northern Avenue and Second Line).
- An extension may severely impact intersection capacity at the Great Northern Road/Northern Avenue intersection.
- Extending Northern Avenue may negatively impact adjacent properties.
- An extension of Northern Avenue through challenging topography is anticipated to result in high construction costs.
- An extension of Northern Avenue to Lake Street or southeasterly to Black Road (via Lake Street) would allow for better access to properties in the upper Lake Street area, however, traffic will likely increase on Lake Street.
- Extending Northern Avenue southeasterly to Black Road would potentially provide an opportunity for the removal of the existing Upper Lake Street Sewage Pump Station via diversion to the trunk sewer east of Black Road.

# OPPORTUNITY C: P-PATCH ACCESS

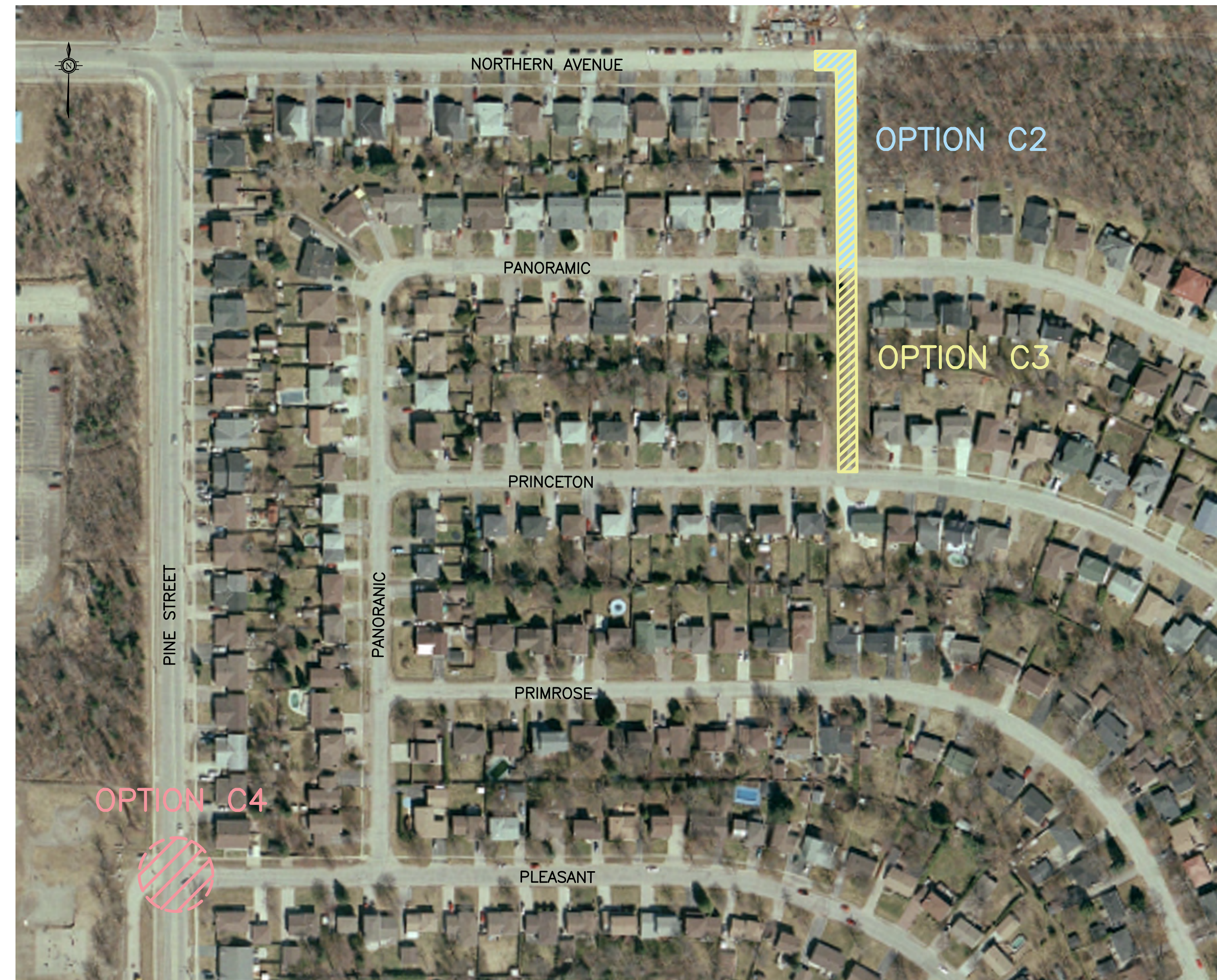


Alternative C1: No new access into the P-Patch

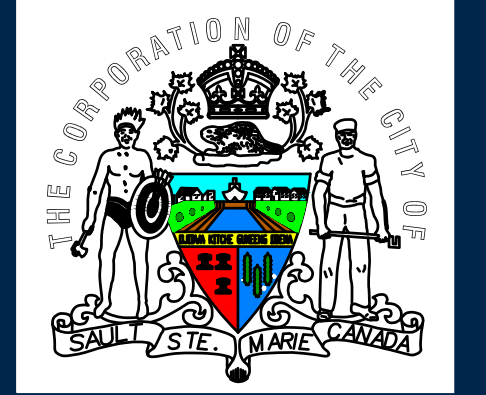
Alternative C2: New road to Panoramic Drive

Alternative C3: New Road to Princeton Drive

Alternative C4: Install traffic lights at Pine Street/Pleasant Drive intersection







## OPPORTUNITY C: P-PATCH ACCESS

Alternative C1: No new access into the P-Patch

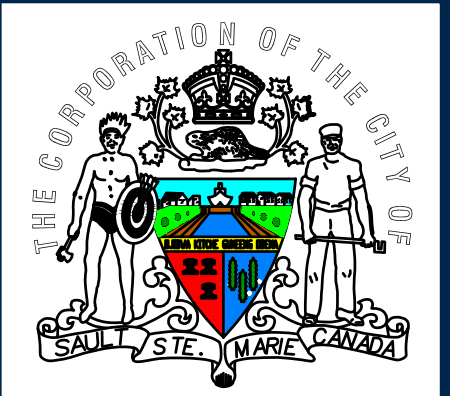
Alternative C2: New road to Panoramic Drive

Alternative C3: New Road to Princeton Drive

Alternative C4: Install traffic lights at Pine Street/Pleasant Drive intersection

- Construction of a new road (to Panoramic Drive or to Princeton Drive) will allow enhanced access/egress to the P-Patch.
- There is an existing city owned right-of-way between Northern Avenue and Princeton Drive.
- Potential negative impacts of a new road are anticipated for neighboring properties as traffic will increase.
- Previous studies have concluded that traffic lights or an all-way stop is not warranted at the intersection of Pine Street and Pleasant Drive as the intersection operates with acceptable volume to capacity ratios and levels of service for all approaches.

# RECOMMENDED SOLUTION



Based on evaluation of the identified Alternative Solutions, the following Recommended Solution is proposed.

Alternative A2      Implement Northern Avenue lane reassignment between North Street and Pine Street:

- Reduce from four lanes to three lanes with a continuous centre turn lane
- Designate bike lane along north and south sides of corridor where possible
- Existing pedestrian sidewalks and boulevards to remain

Alternative B1      No extension of Northern Avenue to Lake Street or Black Road

Alternative C3      Construct access/egress to the P-Patch subdivision:

- Construct a new two-lane road from the existing east termination of Northern Avenue south to Princeton Drive