

MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT STUDY FOR ALBION VAUGHAN ROAD AND KING STREET INTERSECTION

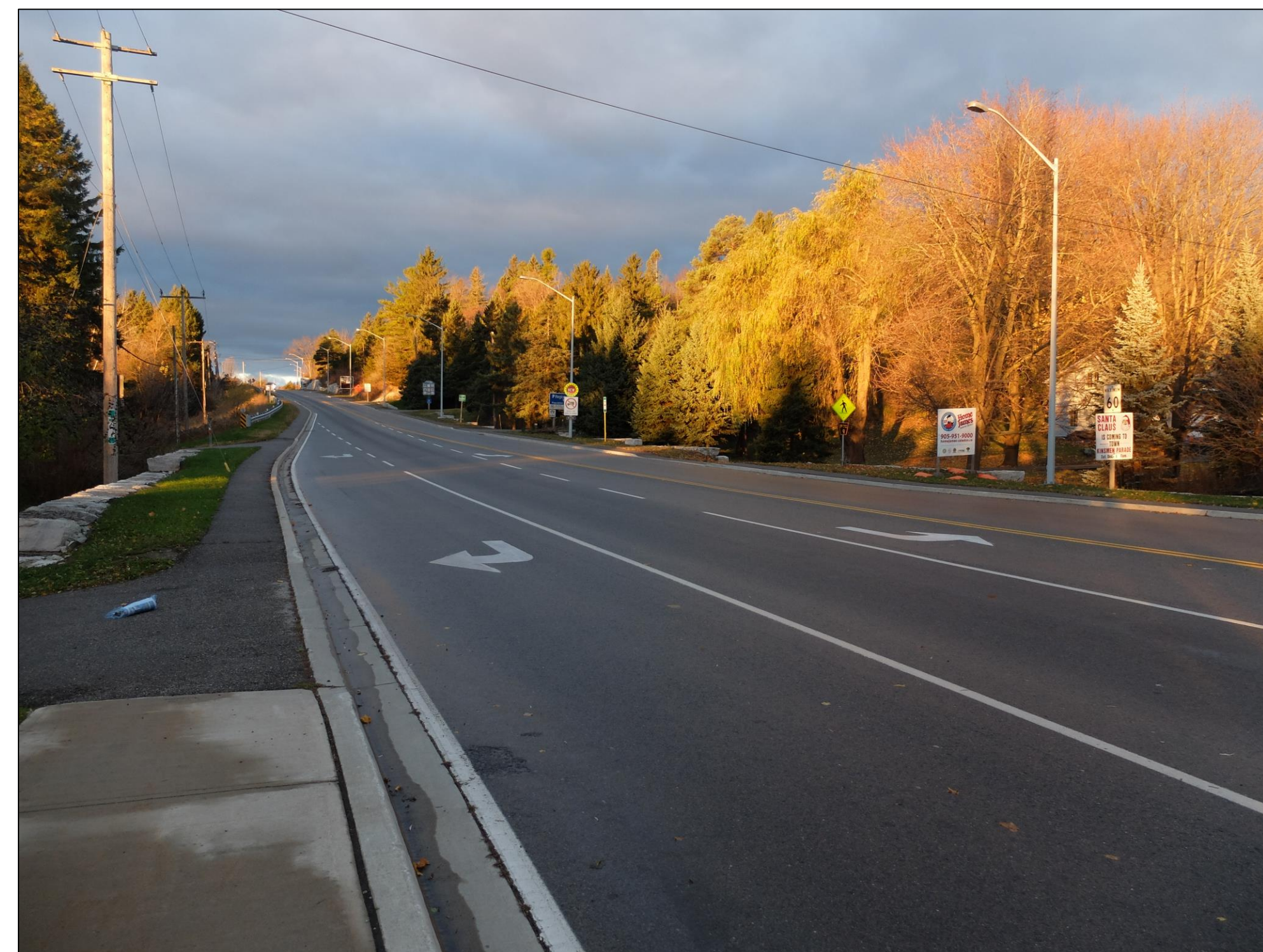
PUBLIC INFORMATION CENTRE

December 5, 2017

Albion Bolton Community Centre – Auditorium Room

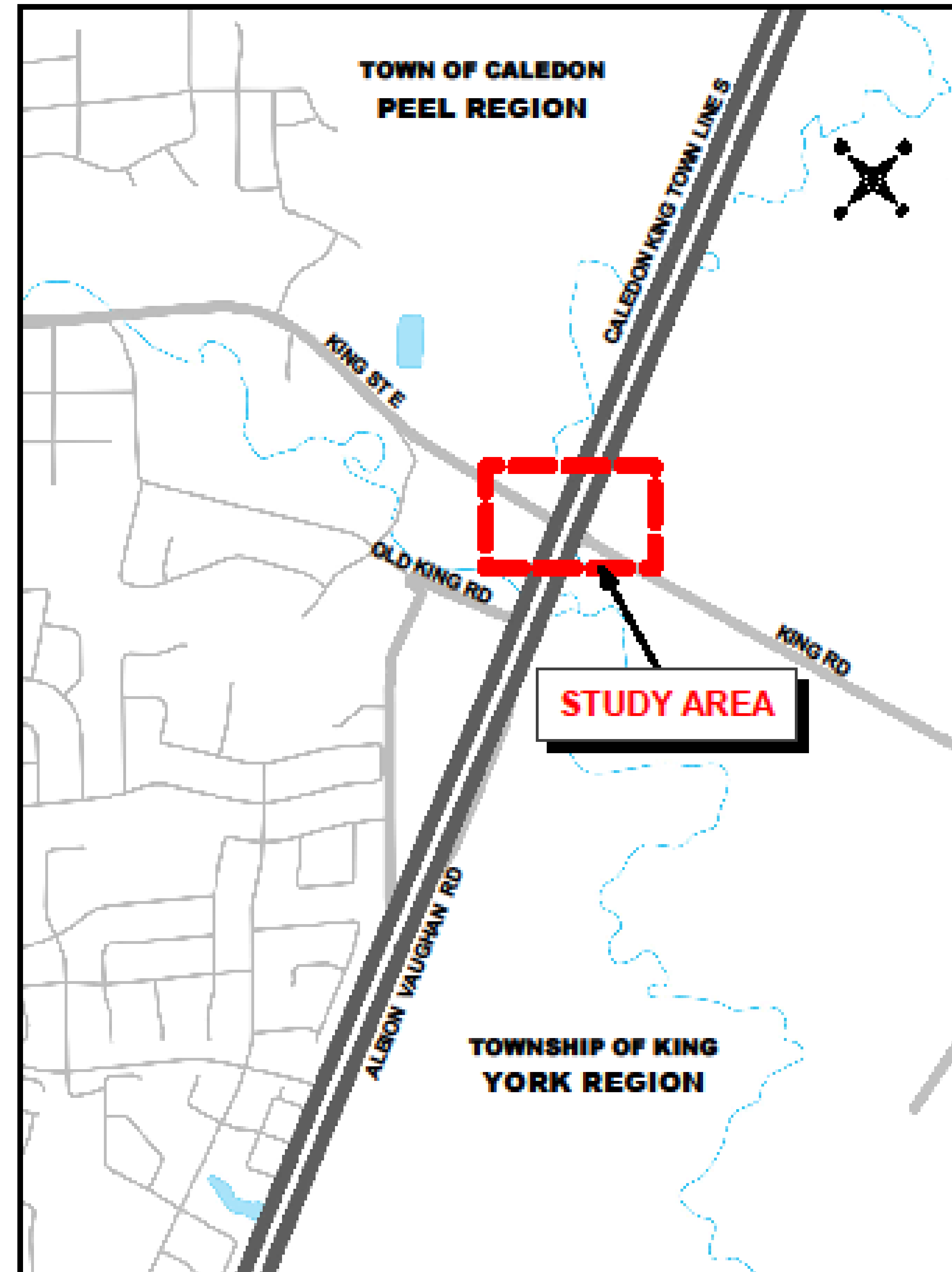
150 Queen St. S, Bolton ON L7E 1E3

6:00 PM to 8:00 PM



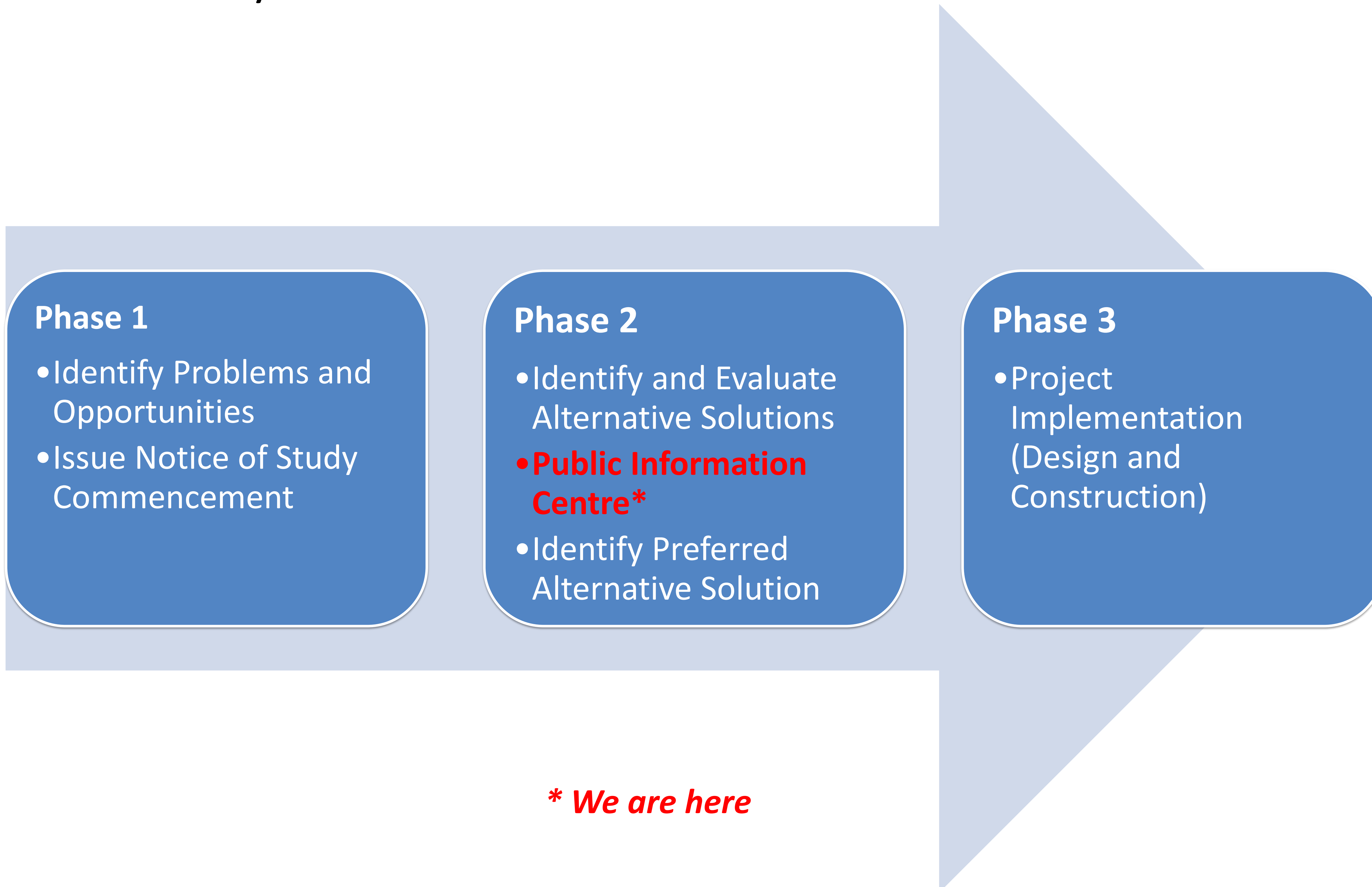
PURPOSE OF THE EVENT

- Review project information:
 - Background to the study
 - Existing conditions of the study area
 - Alternative solutions
 - Evaluation criteria and evaluation of alternative solutions
 - Technically preferred alternative solution
- Ask questions to the study team
- Discuss areas of interest with the study team
- Provide your comments by January 5, 2018



CLASS EA PROCESS

- The Municipal Class EA is a planning and design process approved by the Ministry of Environment and Climate Change to meet the requirements of the Ontario Environmental Assessment Act. This Study follows the Class EA process for **Schedule 'B'** projects. Key components of the study include:



PROBLEM STATEMENT

- Current traffic conditions (long queues and delay) at the intersection of Albion Vaughan Road and King Street East (Peel Regional Road 9)/King Road (York Regional Road 11) are problematic.
- It is expected that these conditions will worsen in the future due to a significant increase of traffic along King Street and Albion Vaughan Road
- This intersection will significantly benefit from operational and safety improvements for all modes of transportation.
- Currently, all four sections of the intersection are owned by four different jurisdictions.



TRANSPORTATION

- Signalized Intersection. Posted speed limit within the study area is 60 km/h.
- Rural area with residential homes scattered throughout.
- Vehicular traffic at the intersection during the most travelled time of the day exceeds the capacity of the northbound portion which affects the entire operation of the intersection generating an increase on travel time of 70 seconds per vehicle.
- The current rural nature of the intersection provides few opportunities for walking and cycling.

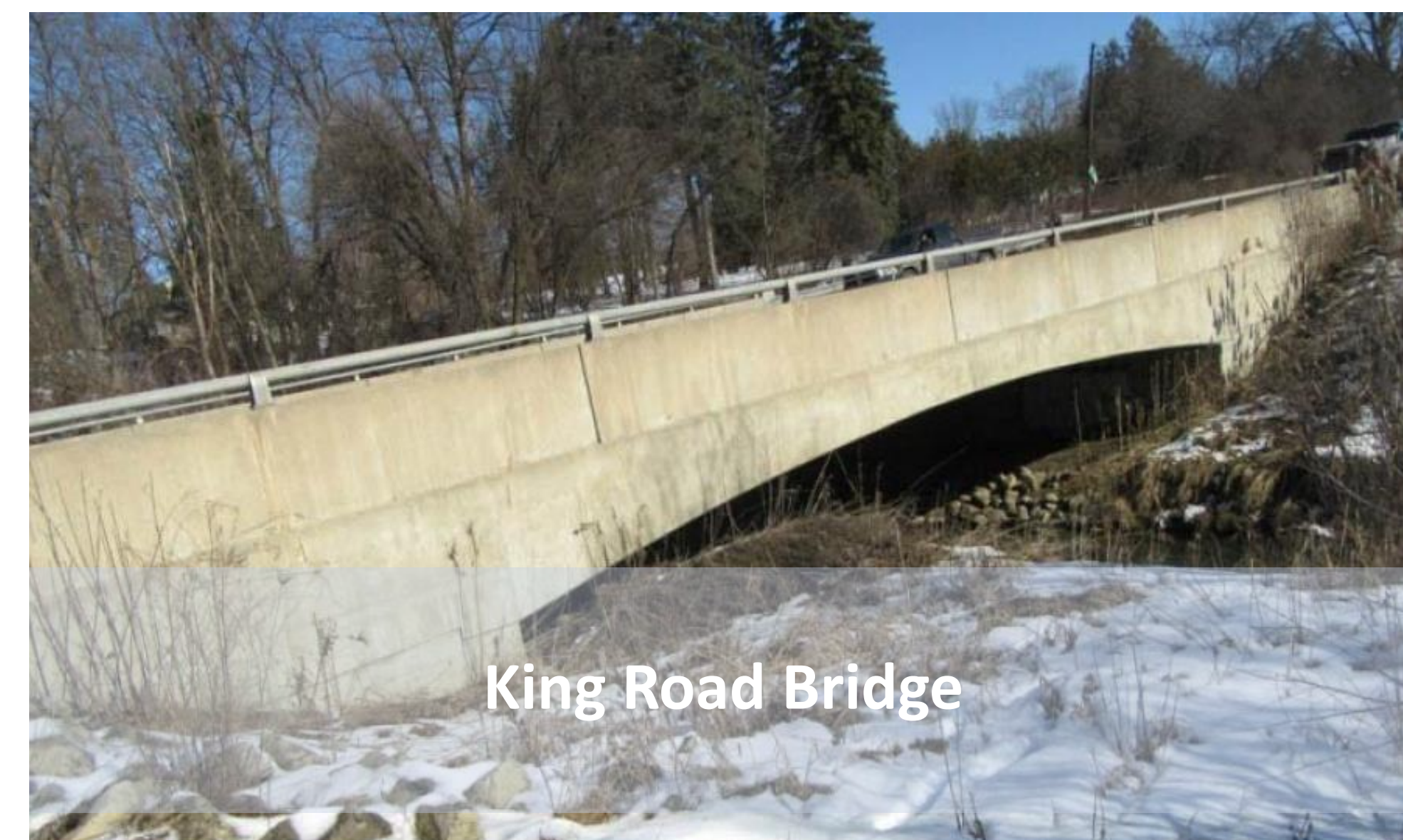
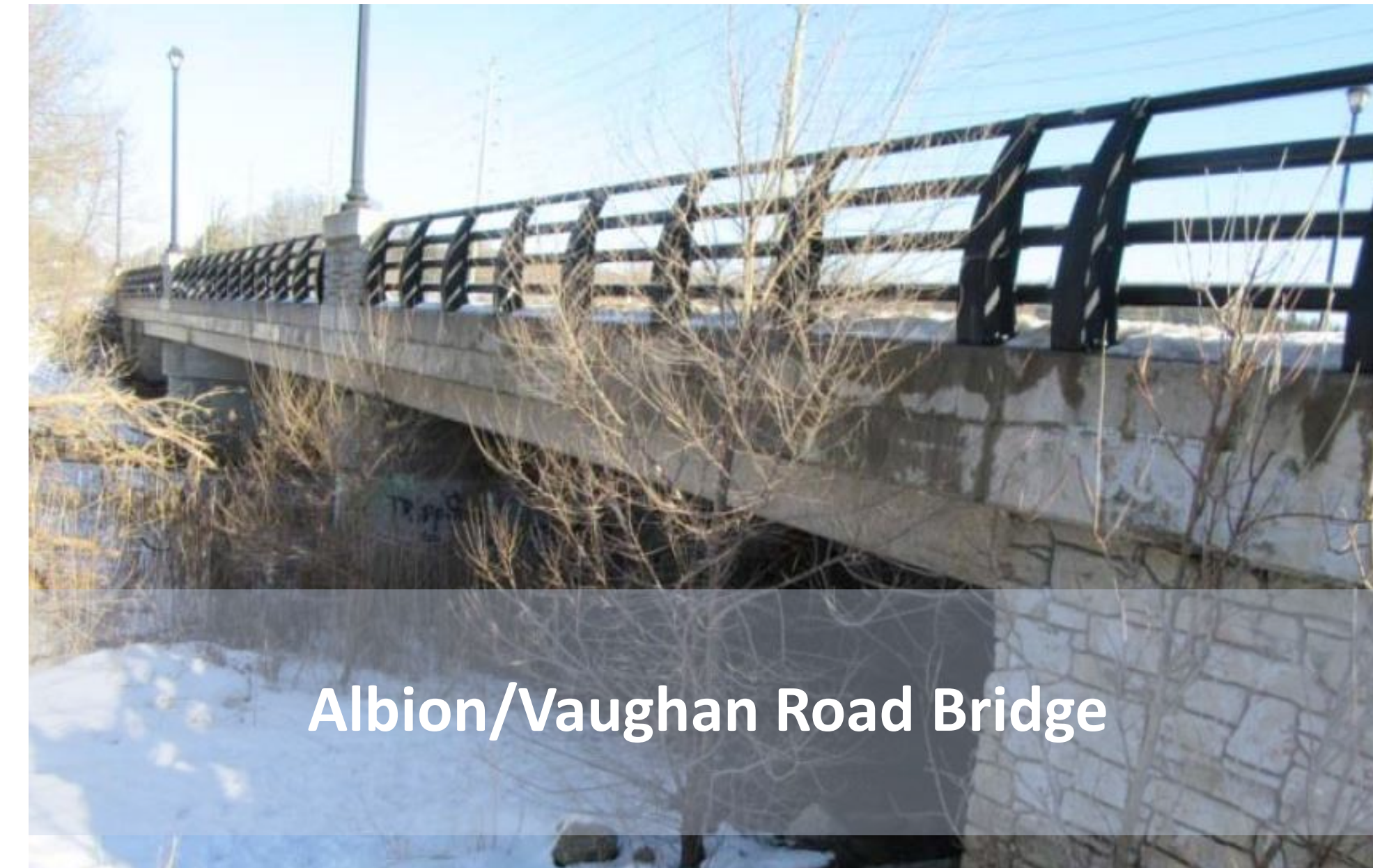


ENGINEERING

- There are 3 existing structures present in the study area.
- From a structural perspective, existing conditions of all structures are adequate.
- From a hydraulic perspective - meaning the relationship between the geometrics of the structure and the corresponding watercourse, all structures requires mitigation measures to comply with the Ministry of Transportation Ontario (MTO) requirements*

* *Freeboard, clearance and relief flow depth.*

EXISTING CONDITIONS



SOCIAL AND CULTURAL ENVIRONMENT

- Properties within the study area are not considered to be of cultural heritage value or interest.
 - No further cultural heritage assessment of study is required.
- A Preliminary (Stage 1) and detailed (Stage 2) archaeology assessment was conducted.
 - No archaeological resources were identified.



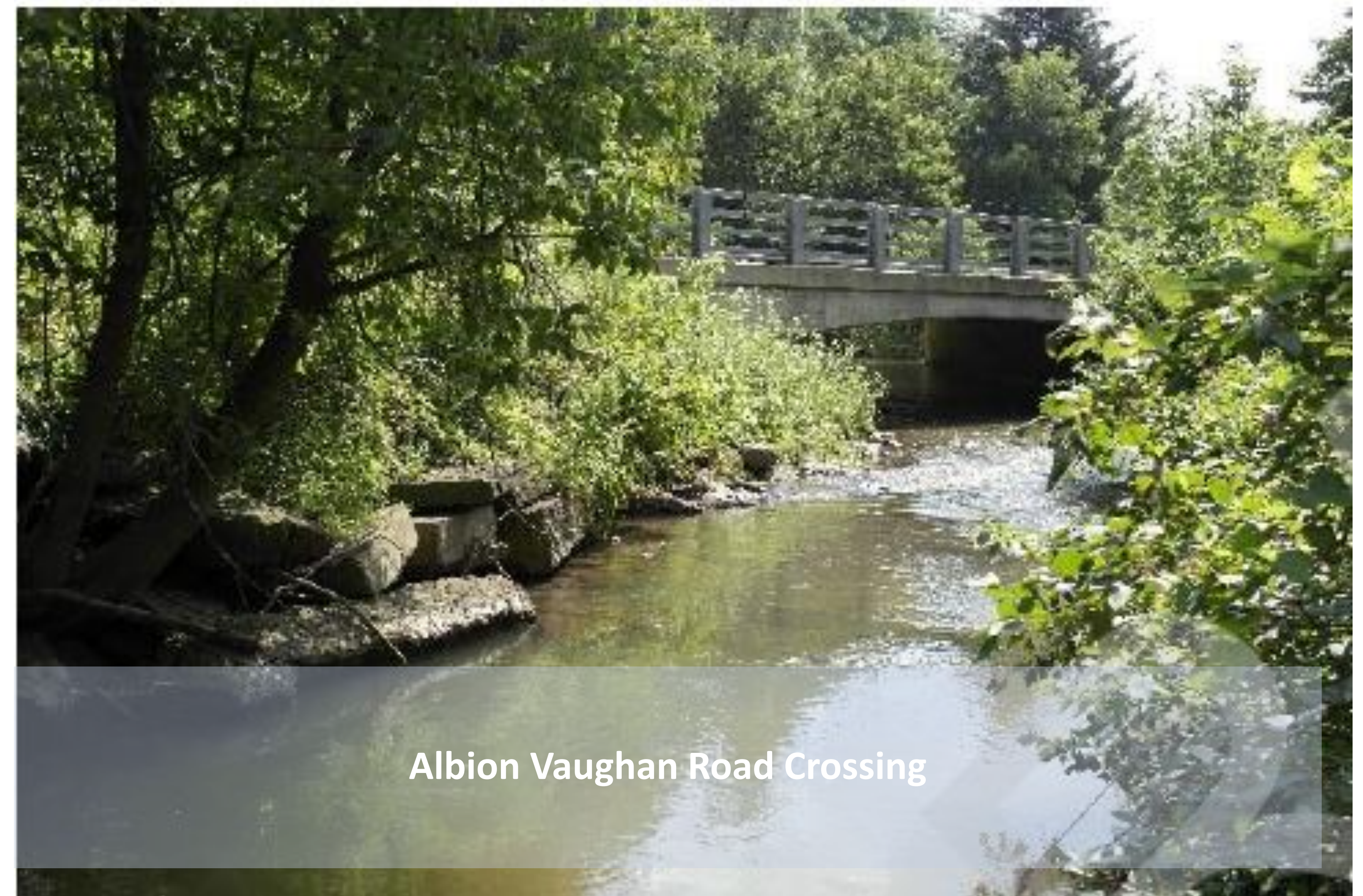
NATURAL ENVIRONMENT

- The majority of the study area is within the Greenbelt Plan area.
- Toronto Region Conservation Authority (TRCA) Natural Heritage System extends into the study area.
- Although Species at Risk have been previously recorded in natural areas adjacent to the study area, no Species at Risk or locally rare species were found in the immediate study area during field investigations.
- Two watercourses designated as fish habitat are within the study area:
 - Cold Creek
 - Humber River



NATURAL ENVIRONMENT

- 44 water well records were identified within 500m of the study area but no municipal or public wells were identified.
- A private well survey was completed for the study areas and 10 domestic well residences were identified.
- A meander belt assessment indicates that any necessary modifications and/or reconstruction of the three structures should be conducted outside of the watercourse meander belt width to the extent possible.



Albion Vaughan Road Crossing

HEALTH RELATED – NOISE AND AIR QUALITY

- Currently noise exceeds the Regional standard noise level limit. However, since noise barrier walls are only installed to minimize the noise perceived at outside living spaces (i.e. backyards), this type of mitigation measure is not recommended in the study area.
- Current concentration of common air contaminants generated by internal combustion engine vehicles, such as carbon monoxide and nitrogen oxides, are below current standards and guidelines.
- Only concentration of hydrocarbons (i.e. benzene) was found over applicable standards.

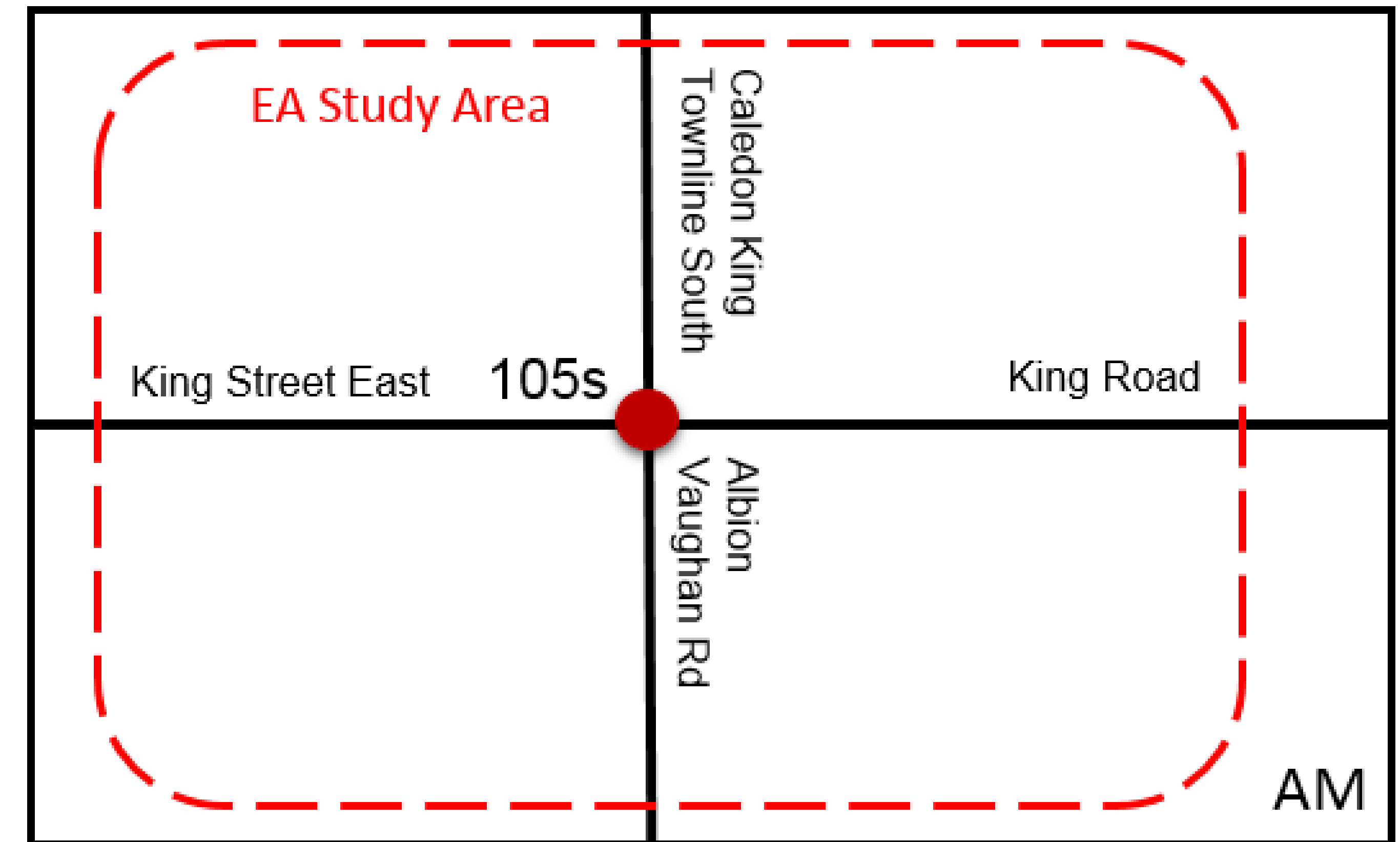


FUTURE PROJECTED TRAFFIC CONDITIONS

- The results of the operational analysis for the future (2031) 'Do Nothing' scenario projects the following conditions if intersection improvements are not implemented:

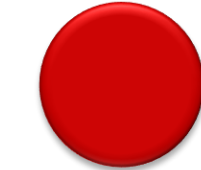
–AM Peak Hour:

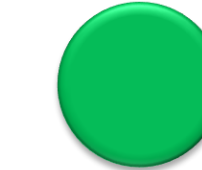
- Most movements operating over capacity indicating that the intersection is operating over capacity.



Legend

S Represents the average number of seconds that a driver is delayed at the intersection

 Represents congested conditions with slow operating speeds, high delays and extensive queues at the intersection

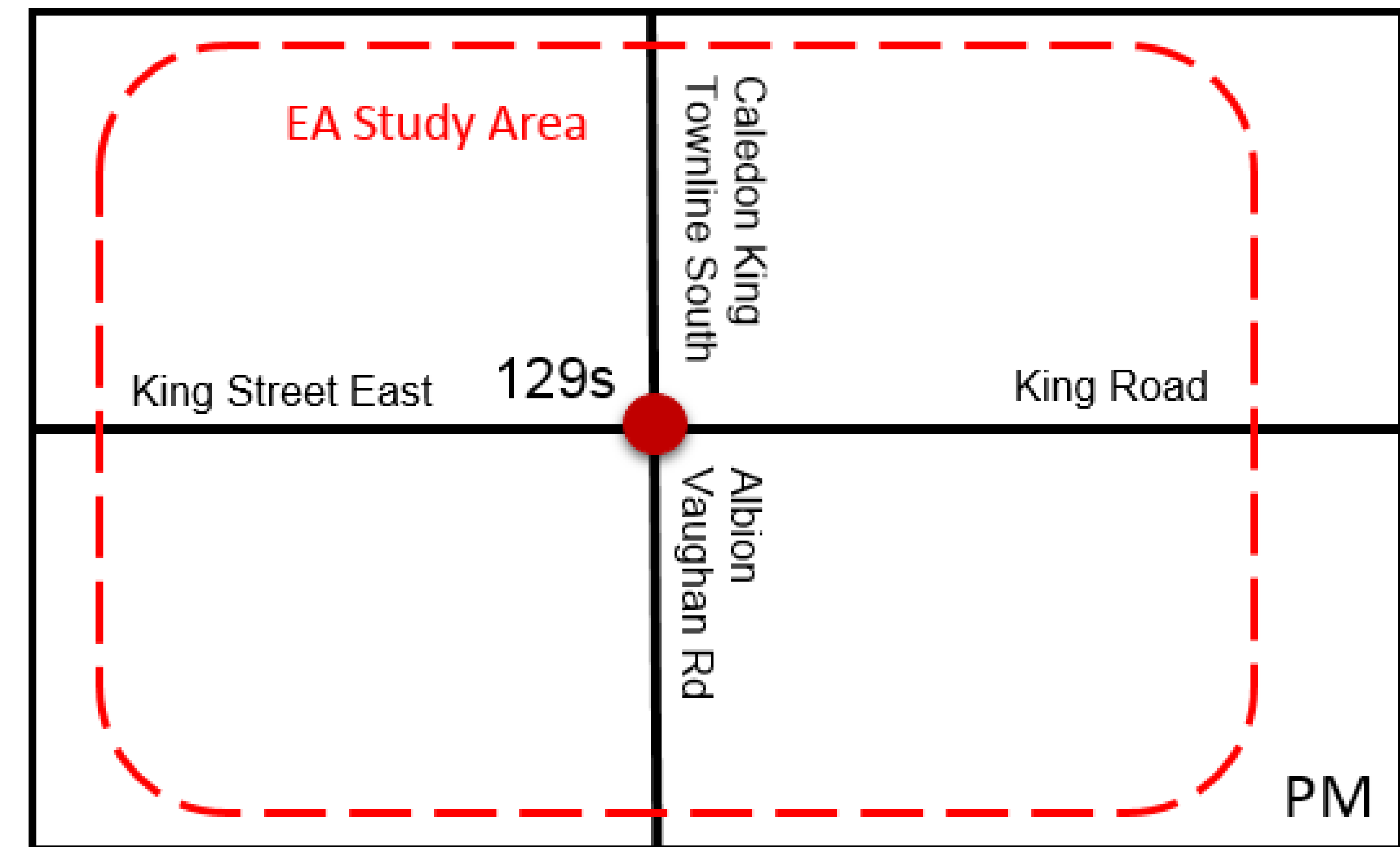
 Represents stable conditions with modest reduction in operating speeds, minimal delays and at the intersection

FUTURE PROJECTED TRAFFIC CONDITIONS



- The results of the operational analysis for the future (2031) 'Do Nothing' scenario projects the following conditions if intersection improvements are not implemented:

–PM Peak Hour:

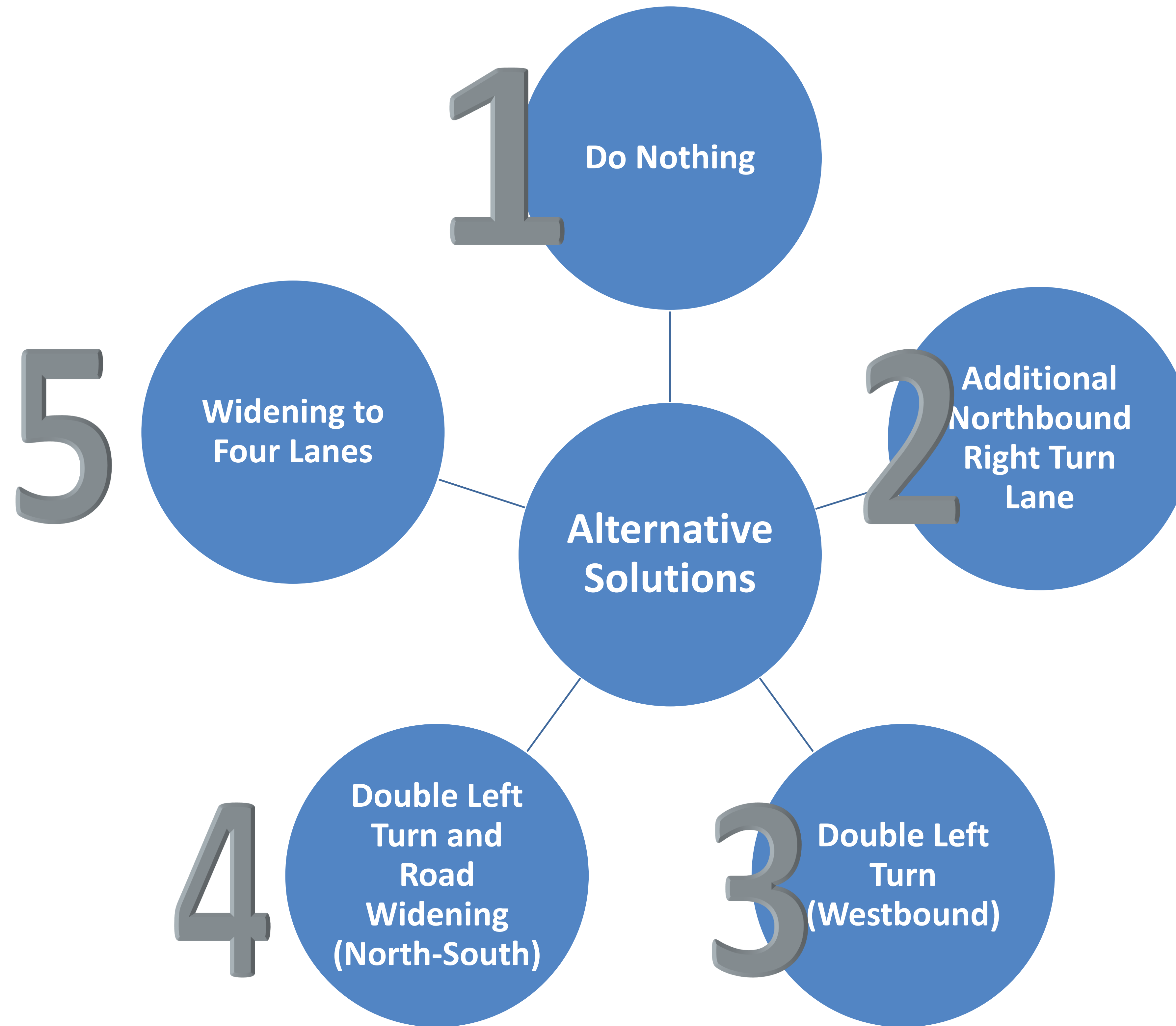
- All movements operating over capacity indicating that the intersection is operating over capacity.



Legend

- | | | | | |
|---|---|---|---|---|
| <p>S</p> <p>Represents the average number of seconds that a driver is delayed at the intersection</p> |  | <p>Represents congested conditions with slow operating speeds, high delays and extensive queues at the intersection</p> |  | <p>Represents stable conditions with modest reduction in operating speeds, minimal delays and at the intersection</p> |
|---|---|---|---|---|

ALTERNATIVE SOLUTIONS

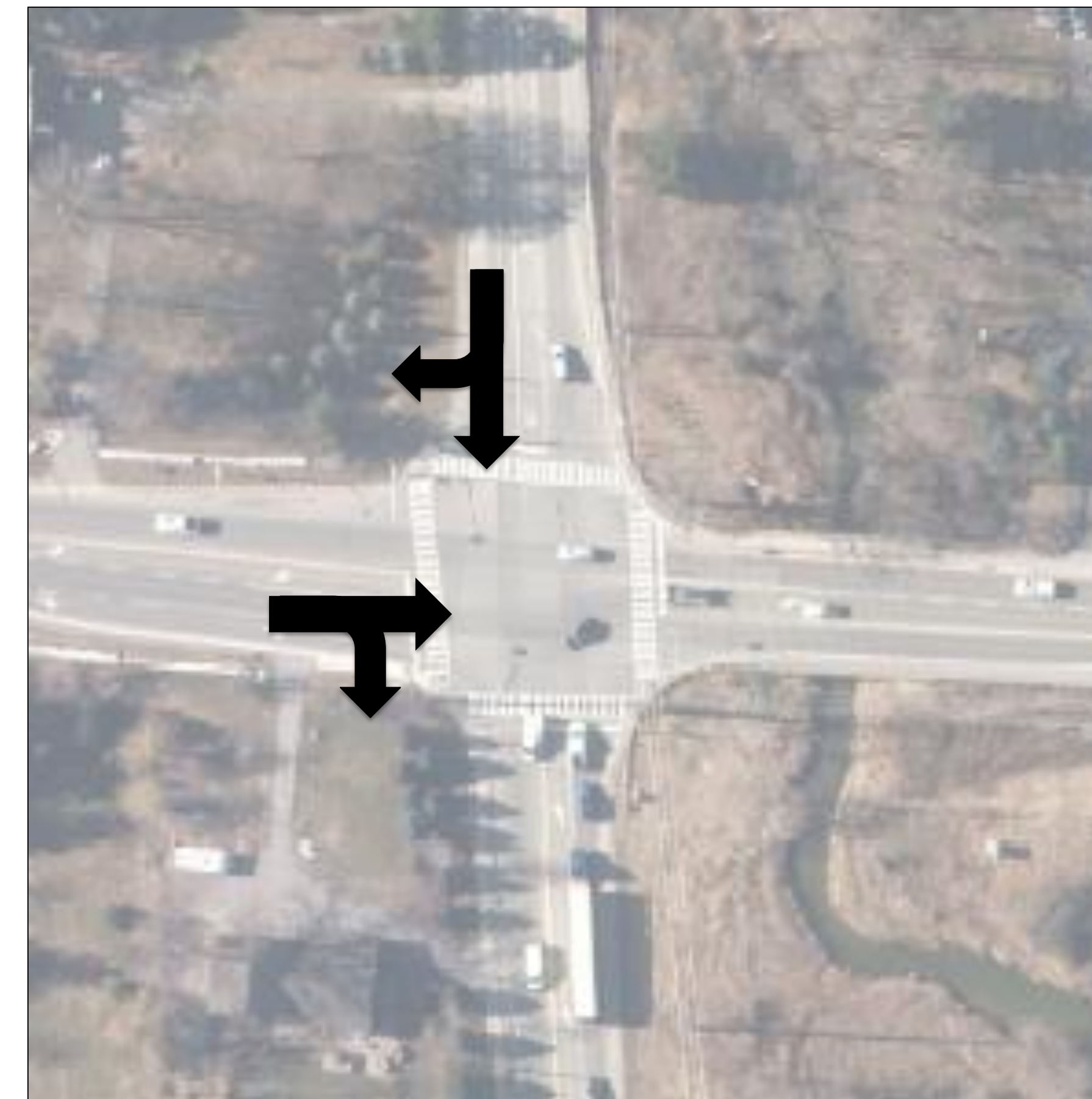


ALTERNATIVE SOLUTIONS

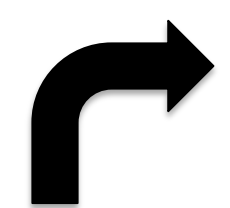
**Alternative Solution #2
Additional Northbound Right Turn
Lane**



**Alternative Solution #3
Double Left Turn (Westbound)**



Legend



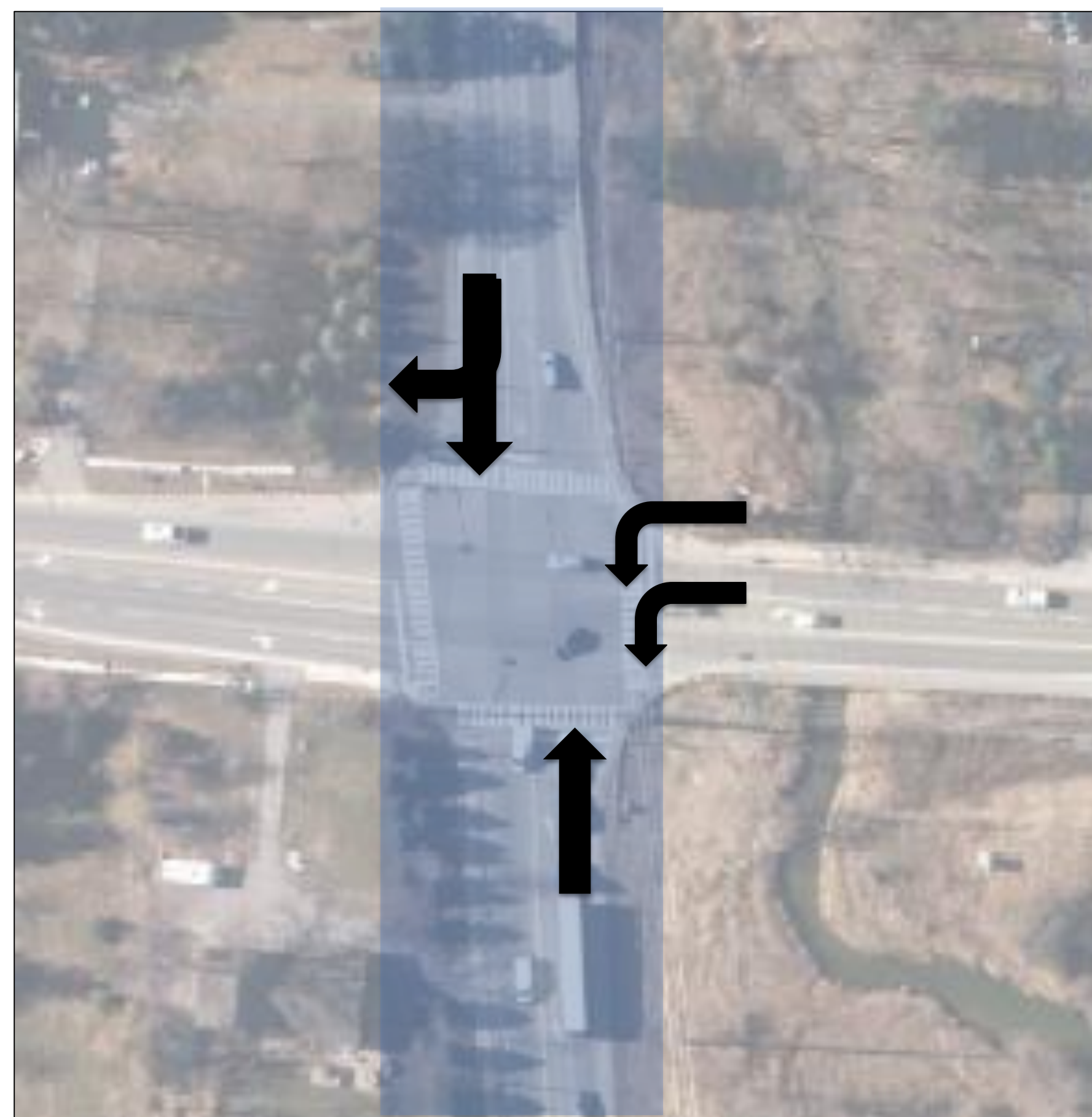
Represents the new movements being added at the intersection



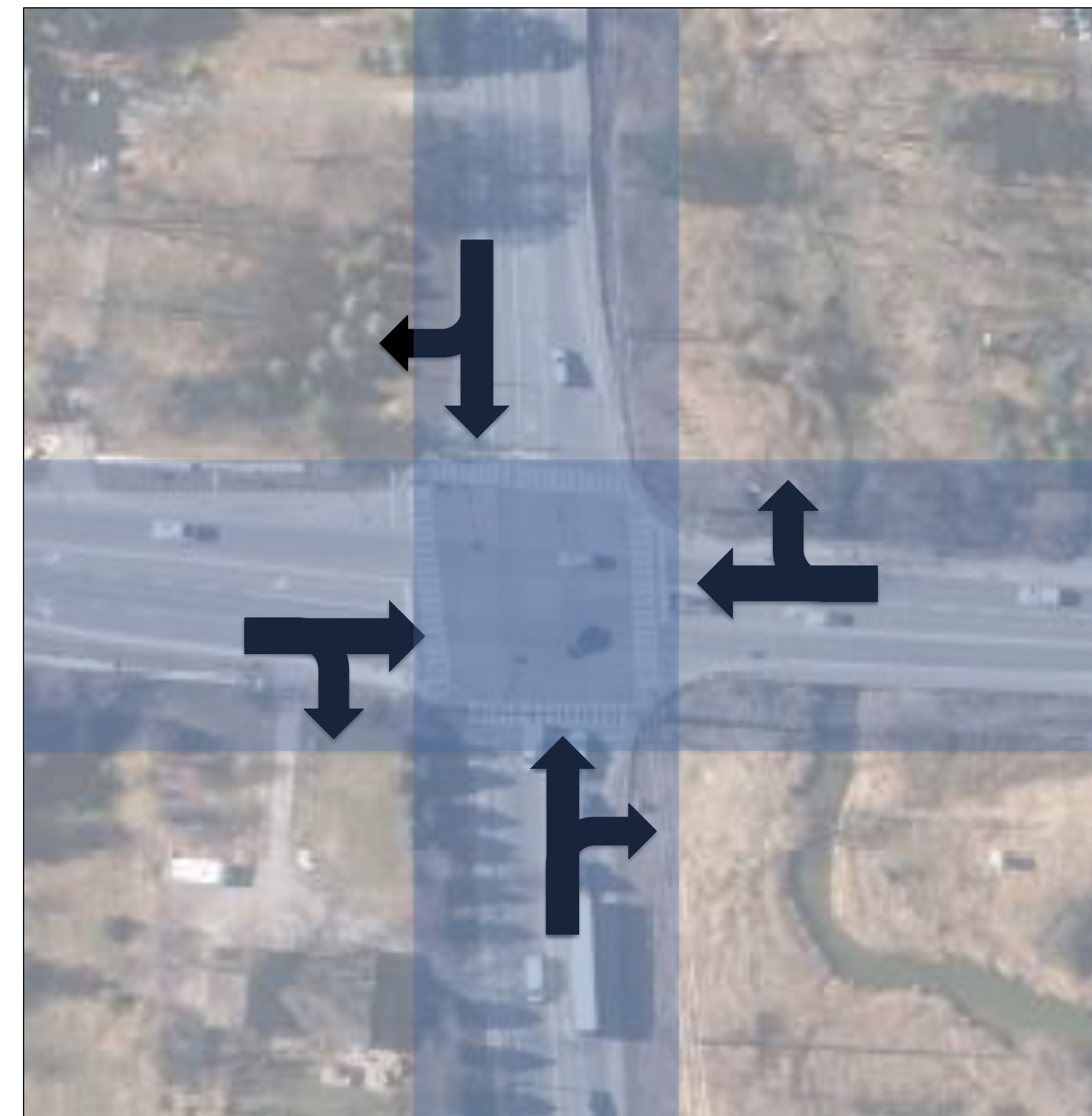
Represents road widening (limits are not to scale and are shown for visual representation only)

ALTERNATIVE SOLUTIONS

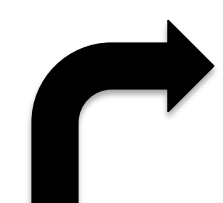
**Alternative Solution #4
Double Left Turn and Road
Widening (North-South)**



**Alternative Solution #5
Widening to Four Lanes**



Legend



Represents the new movements being added at the intersection



Represents road widening (limits are not to scale and are shown for visual representation only)

All of the Alternative Solutions consider at minimum the following elements to improve active transportation:



Pedestrian Safety

- Sidewalk from the northwest corner of the intersection to the GO Transit stop.
- Intersection modifications to improve pedestrian movements across intersection.



Cycling Opportunities

- Consideration for future implementation of bicycle lanes west of the intersection along King Street East as identified in the Region of Peel Sustainable Transportation Study



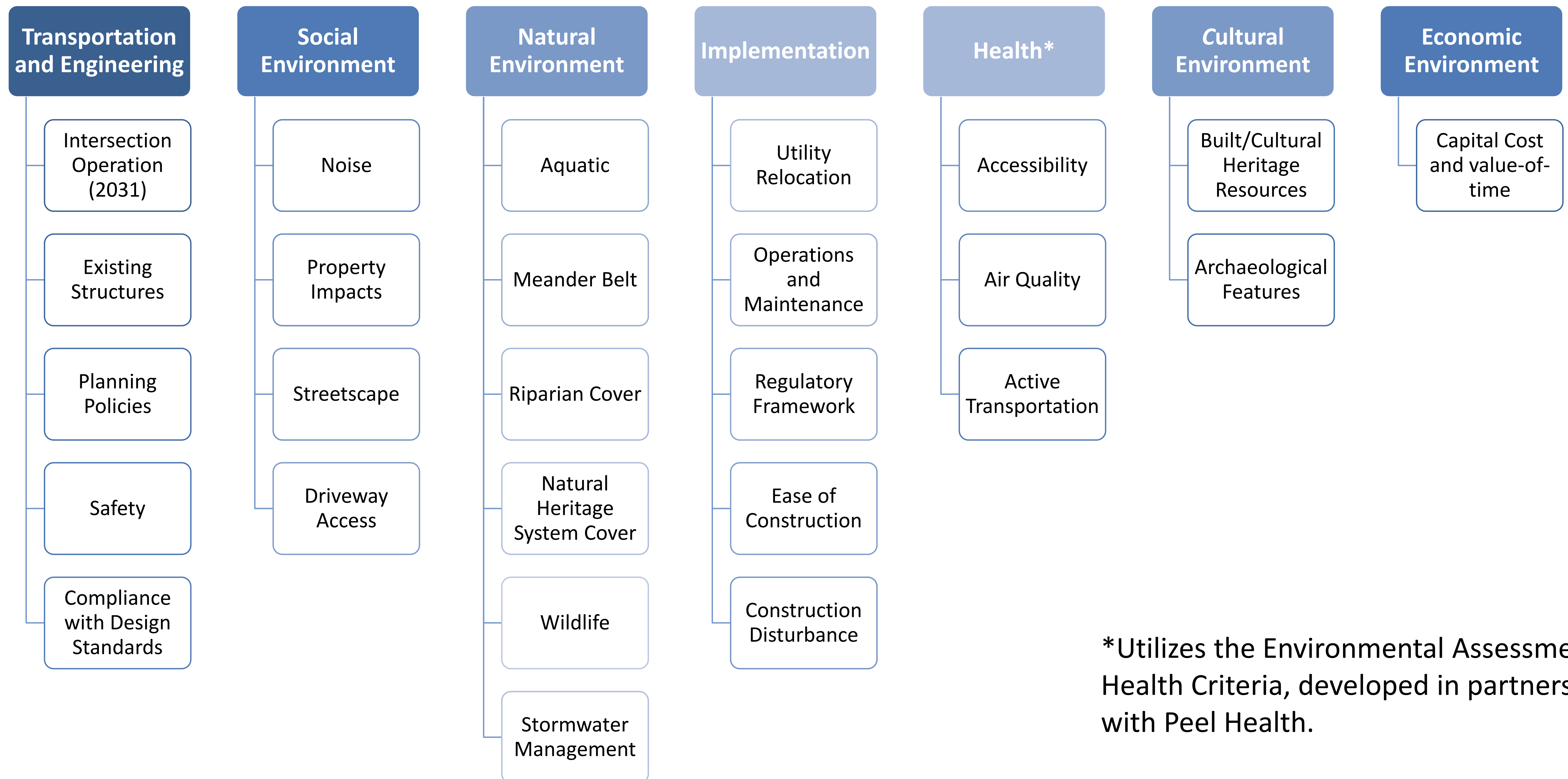
Accessibility related Improvements

- Curb cuts and ramps at crosswalks
- AODA push buttons with locator tones
- Tactile plates



EVALUATION CRITERIA

- The preferred alternative solution will be selected based on review of comments received from agencies and members of the public.
- Alternative design concepts for the preferred alternative solution will be developed, assessed and evaluated based on the following factors:



*Utilizes the Environmental Assessment Health Criteria, developed in partnership with Peel Health.

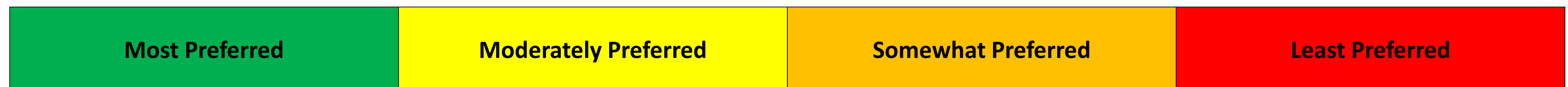
EVALUATION OF ALTERNATIVE SOLUTIONS

	Alternative 1: Do Nothing	Alternative 2	Alternative 3	Alternative 4	Alternative 5
Transportation	Does not meet Regional target	Intersection exceeds capacity in the AM peak hour (LOS E) and provides opportunities for active transportation facilities	Intersection below capacity in the AM (LOS D) and PM peak hour (LOS D) and provides opportunities for additional active transportation facilities	Intersection below capacity in the AM (LOS D) and PM peak hour (LOS D) and provides opportunities for additional active transportation facilities	Fully complies with Regional target and provides opportunities for additional active transportation facilities.
Engineering	Does not address MTO's requirements	Requires the construction of a retaining wall	Requires a retaining wall and widening of existing structures	Requires a retaining wall and widening of existing structures	Requires a retaining wall and widening of existing structures
Social Environment	No impact	Effects on existing driveways and surrounding properties	Effects on existing driveways and surrounding properties	Effects on existing driveways and surrounding properties	Effects on existing driveways and surrounding properties
Natural Environment	No impact	Mitigation of impact of the proposed retaining wall will be required	Mitigation of impact of the proposed retaining wall and the widening of the bridge structure(s) will be required	Mitigation of impact of the proposed retaining wall and the widening of the bridge structure(s) will be required	Mitigation of impact of the proposed retaining wall and the widening of the bridge structure(s) will be required
Cultural Environment	No impact. Properties within the study area are not considered to be of cultural heritage value or interest.	No impact. Properties within the study area are not considered to be of cultural heritage value or interest	No impact. Properties within the study area are not considered to be of cultural heritage value or interest	No impact. Properties within the study area are not considered to be of cultural heritage value or interest	No impact. Properties within the study area are not considered to be of cultural heritage value or interest

Most Preferred	Moderately Preferred	Somewhat Preferred	Least Preferred
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EVALUATION OF ALTERNATIVE SOLUTIONS

	Alternative 1: Do Nothing	Alternative 2	Alternative 3	Alternative 4	Alternative 5
Economic Environment	Increase congestion and delay	Reduce delay and improves traffic safety	Reduce congestion, delay and increase safety of all road users	Reduce congestion, delay and increase safety of all road users	Reduce congestion, delay and increase safety of all road users
Implementation	No impact	Minimal construction disturbance	Requires collaboration of other road authorities. Major construction disturbance	Requires collaboration of other road authorities. Major construction disturbance	Requires collaboration of other road authorities. Major construction disturbance
Health	Identified health related issues (i.e. noise and air quality) are not addressed	Provides opportunity for compliance with AODA requirements. Improvements to air quality and noise reduction	Provides opportunity for compliance with AODA requirements. Improvements to air quality and noise reduction	Provides opportunity for compliance with AODA requirements. Improvements to air quality and noise reduction	Provides opportunity for compliance with AODA requirements. Improvements to air quality and noise reduction
Summary	Not Preferred	Preferred - Interim	Not Preferred	Not Preferred	Preferred – Preliminary Technically Preferred



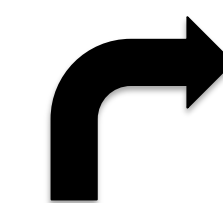
POTENTIAL PHASING

- The project is planned to be implemented in two phases:
 - Phase 1: Interim Solution (an additional northbound right-turn lane)
 - Phase 2: Ultimate Solution (Preferred Alternative Solution)*
- The interim solution will be completed prior to the implementation of the preferred solution to address existing safety concerns.

** The replacement of structures adjacent to the intersection of Albion Vaughan Road and King Street is anticipated to delay the implementation of the preferred alternative solution as the study area includes roads that are not within the Region of Peel jurisdiction.*



Legend

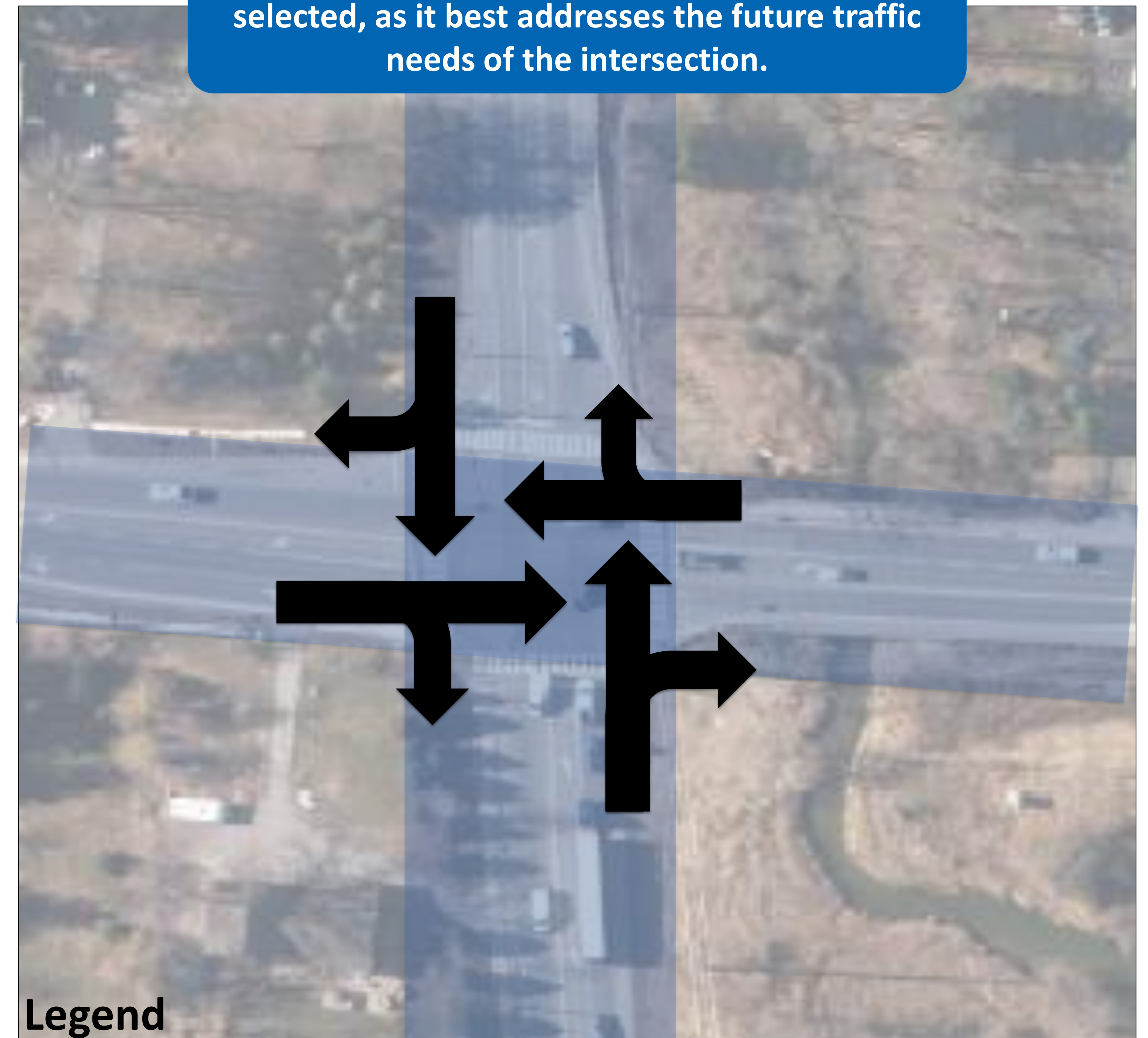


Represents the new movements being added at the intersection

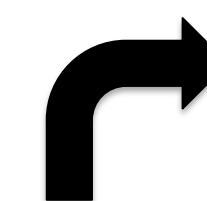
TECHNICALLY PREFERRED ALTERNATIVE SOLUTION

- The ultimate solution includes:
 - Addition of a northbound through-right lane
 - Converting existing southbound exclusive right turn lane to southbound through-right lane
 - Addition of a westbound through-right Lane
 - Converting existing eastbound exclusive right turn lane to eastbound through-right lane
 - Opportunities for integration of sidewalks in all segments of the intersection as well as cycling facilities to tie into eventual active transportation facilities along the King Street corridor.

Alternative 5 – Widening to Four Lanes has been selected, as it best addresses the future traffic needs of the intersection.



Legend



Represents the new movements being added at the intersection



Represents road widening (limits are not to scale and are shown for visual representation only)

- Review and confirm preferred alternative solution and assessment in light of comments received from the public and other stakeholders
- Develop preliminary design
- Document Study in Project File Report (PFR)

**Comment
Deadline is
January 5,
2018**

**Thank you for
your
participation!**

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