

WELCOME

Macleod Trail and 162 Avenue S Interchange

Public Information Session #2

Please review the display panels, discuss the project with staff and provide your input on the comment sheet.

Background Information

The City of Calgary plans to upgrade the existing Macleod Trail and 162 Ave S intersection to an interchange to *improve the experience* for all travel modes.

Study Goals:

- Accommodate policy goals of the Calgary Transportation Plan.
- Integrate stakeholder input to the extent possible.
- Develop a cost-effective plan that accommodates all modes of travel.

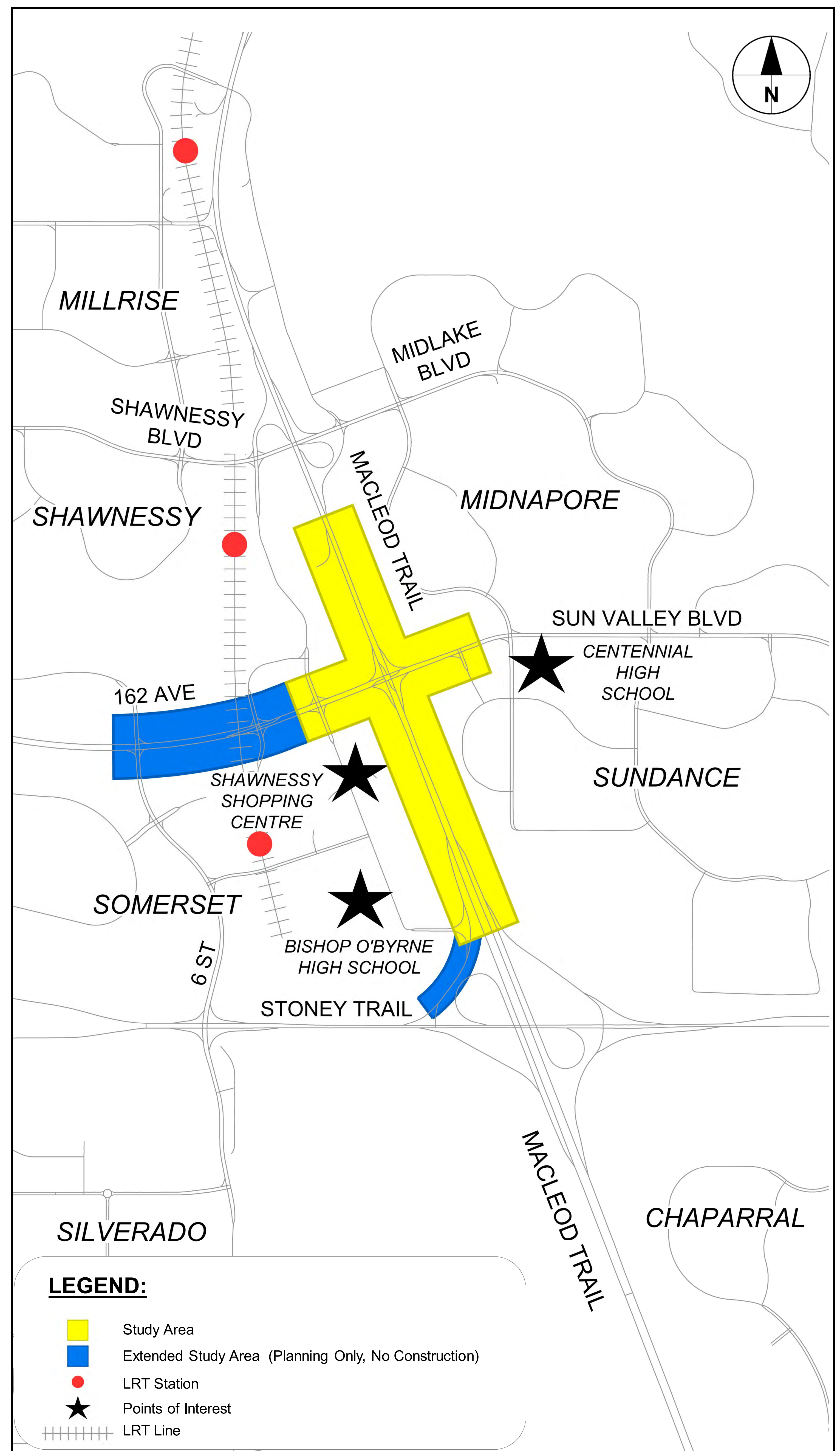
Previous Information Sessions:

- Two previous Information Sessions were held in October 2014.
- Over 410 people attended and 187 filled out comment sheets.

Purpose of the Current Session:

- Listen and learn, respond to issues, concerns and perspectives on the project.
- Report back on what we heard at the previous Information Sessions.
- Report our study progress since the previous Information Sessions.
- Provide information on next steps.

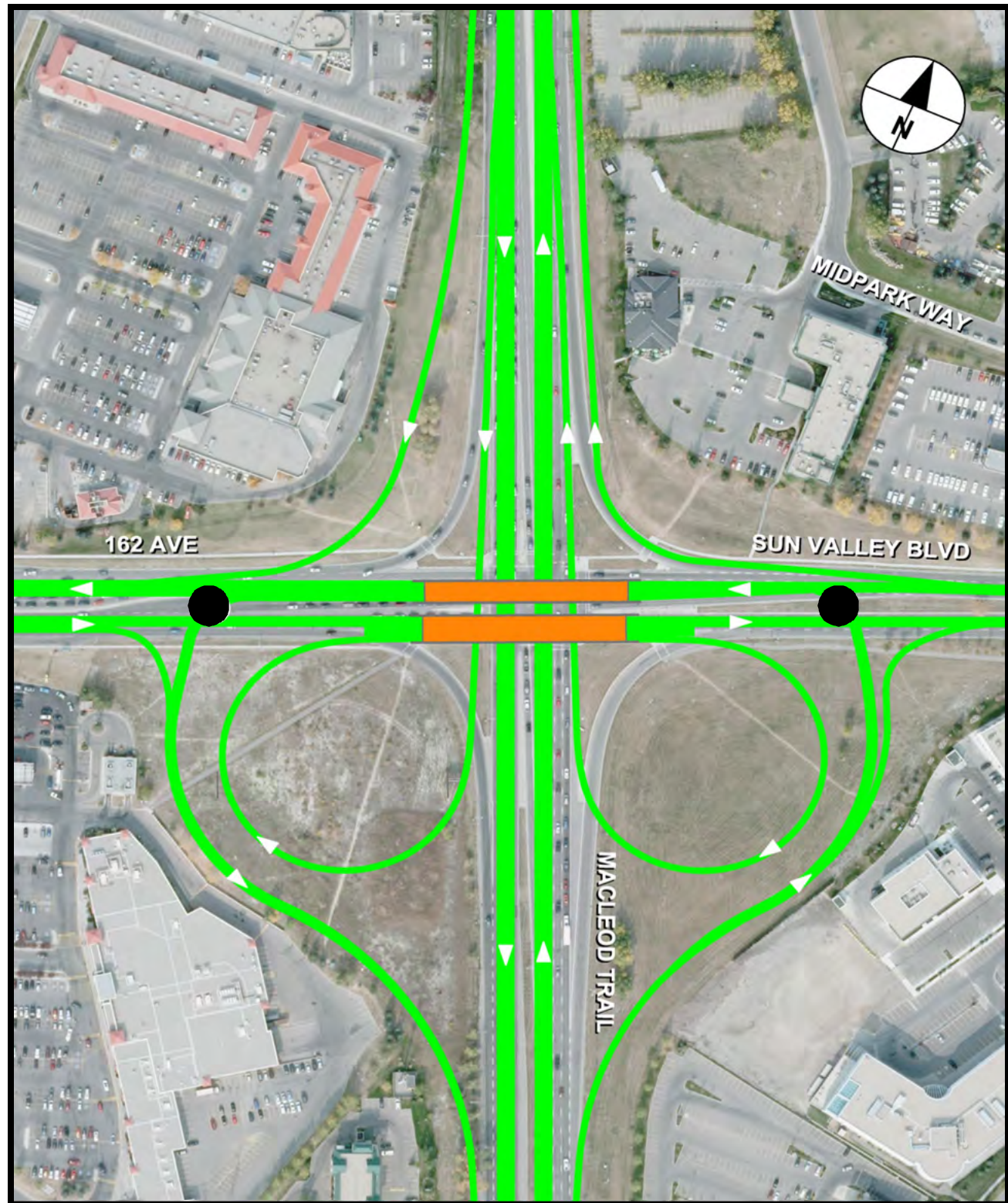
Location Plan and Key Community Features



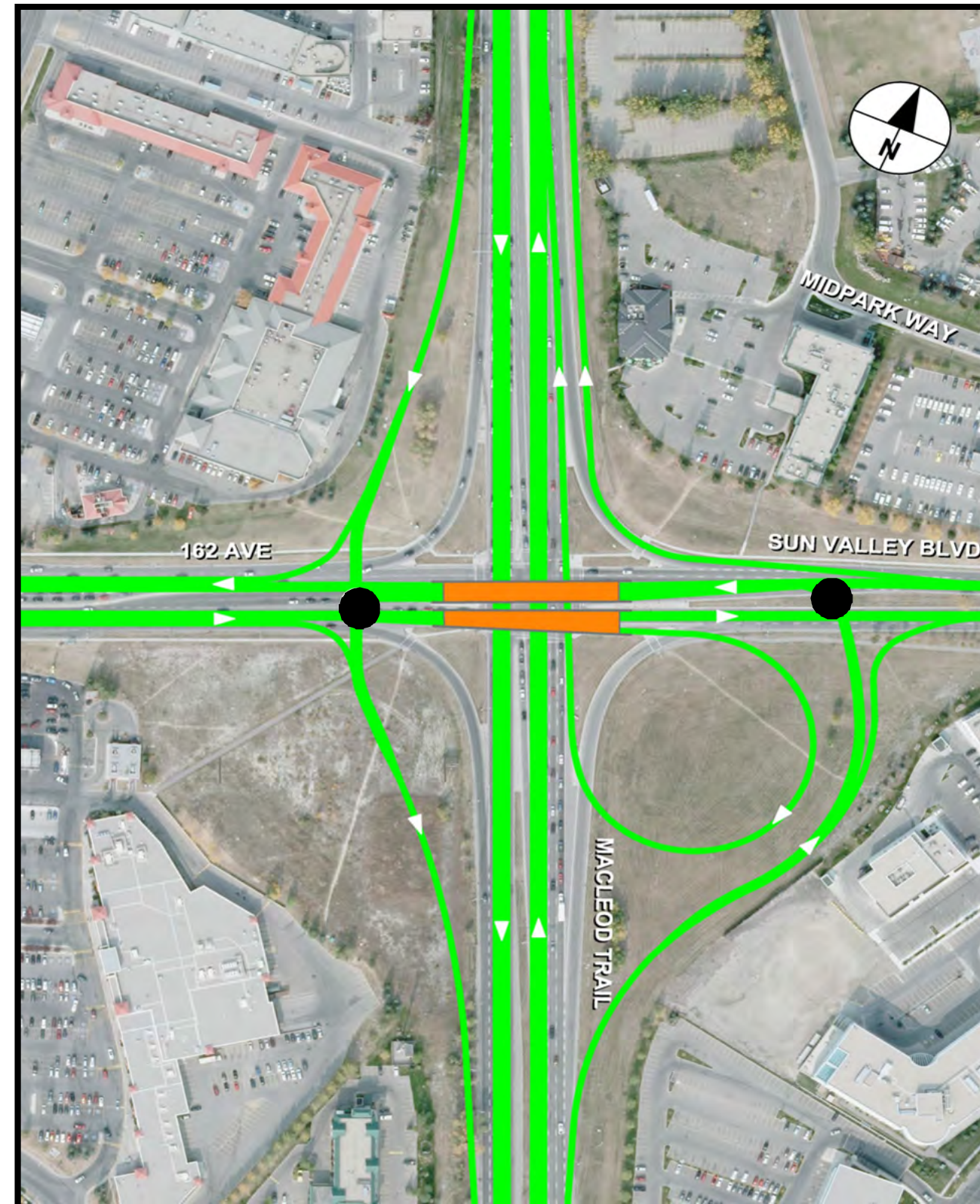
What you said: Interchange Alternatives

At the previous Information Sessions the following six alternative interchange configurations were presented.

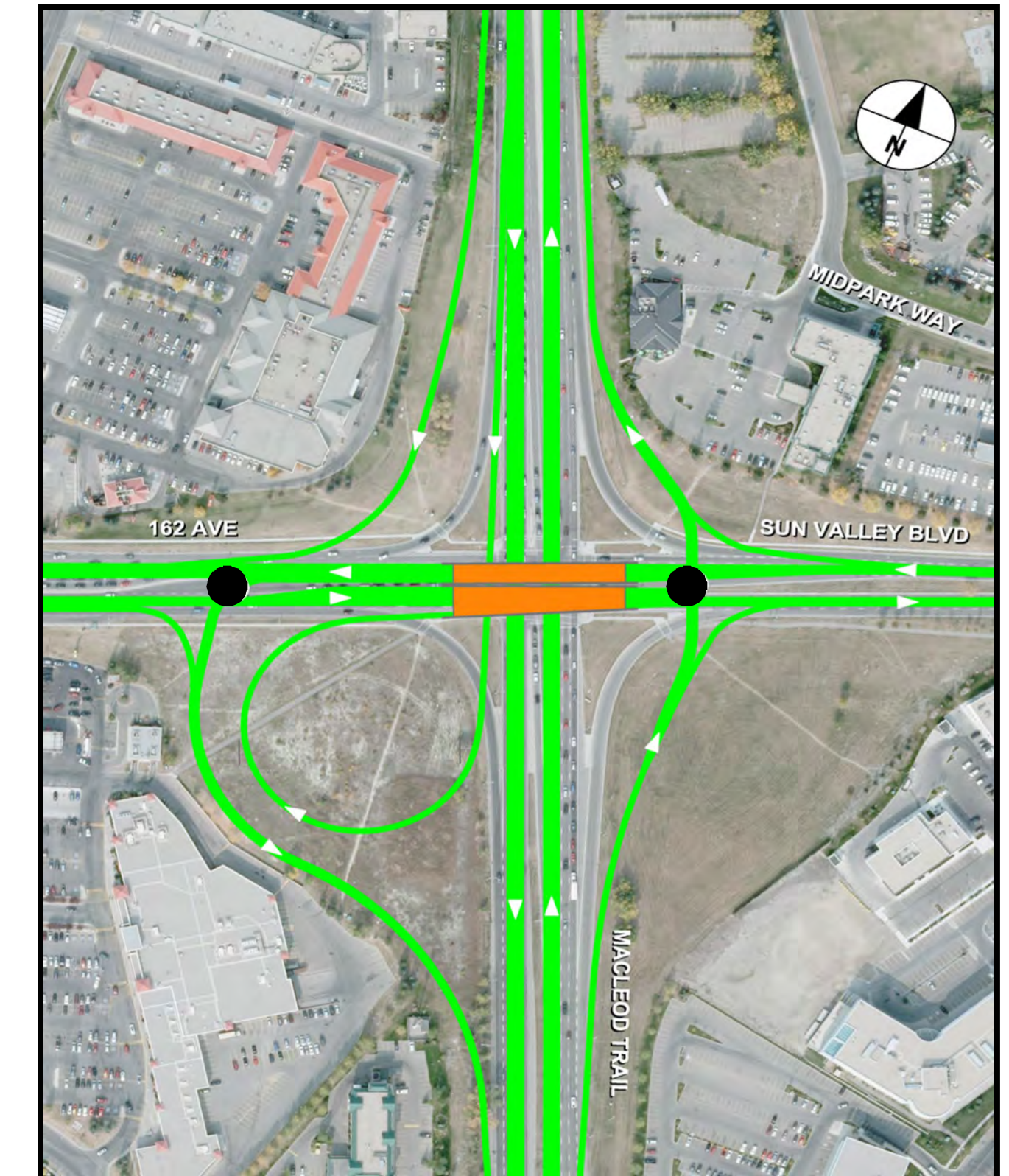
1 Partial Cloverleaf (Parclo AB)



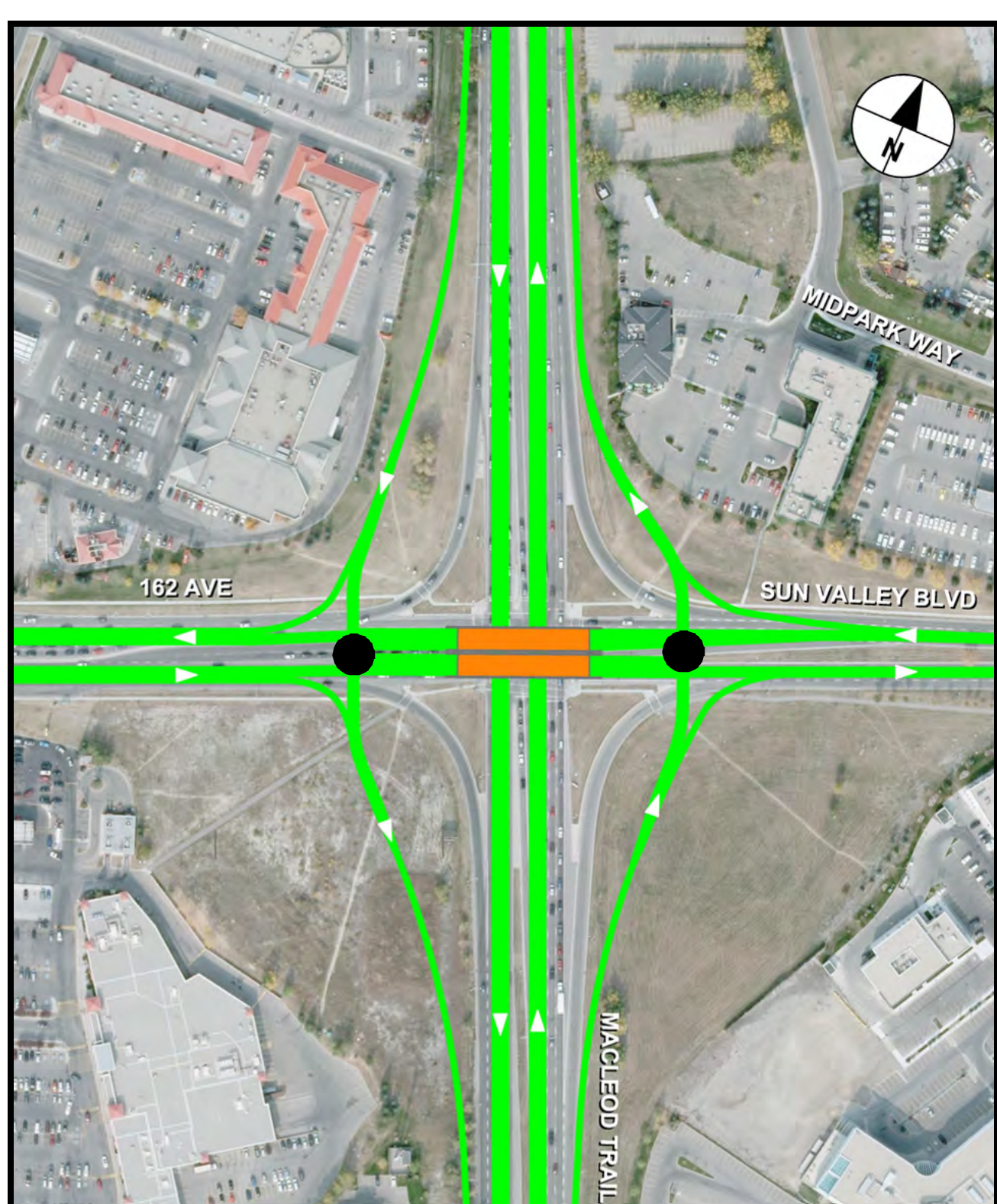
2 Partial Cloverleaf (Parclo A)



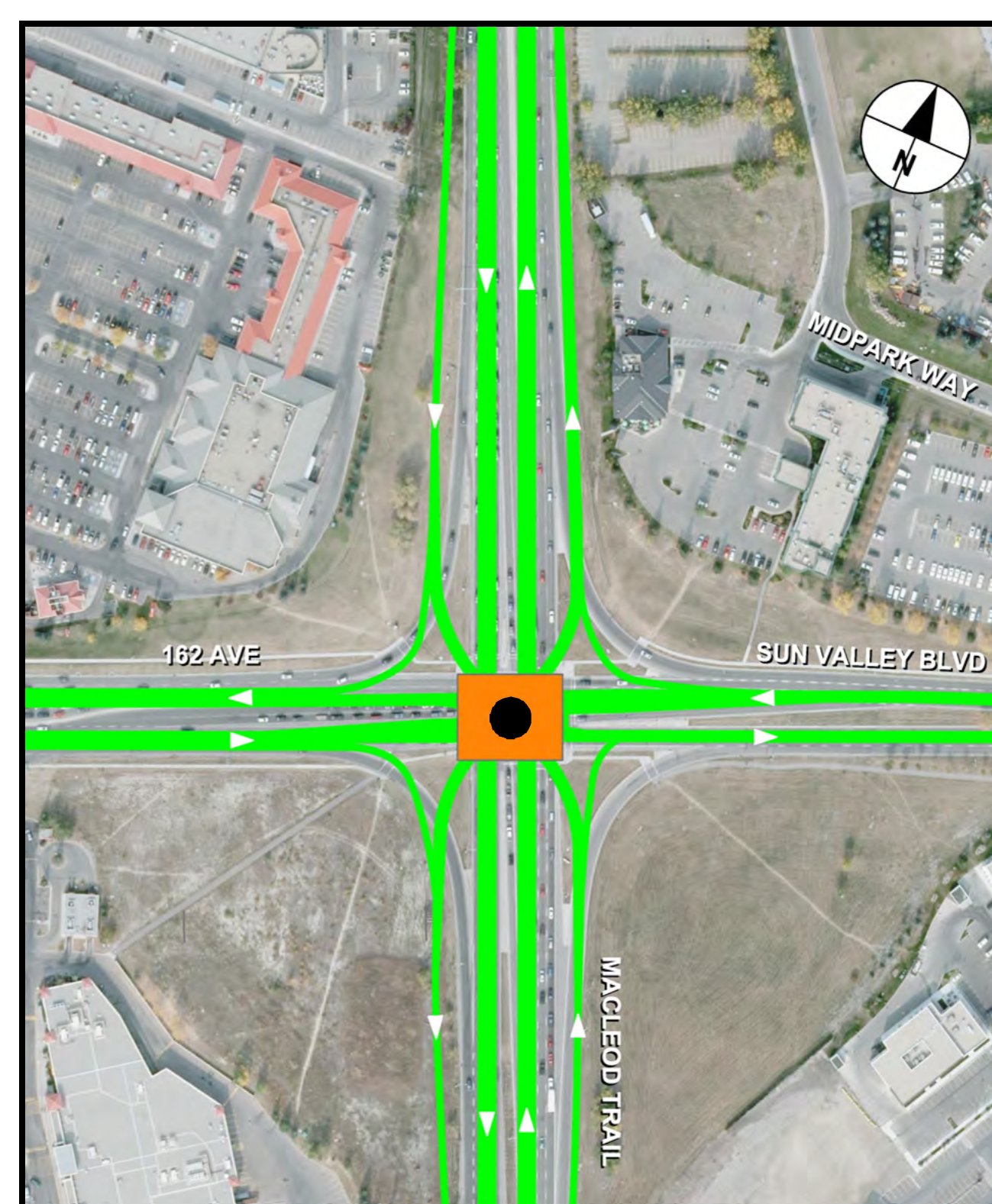
3 Partial Cloverleaf (Parclo B)



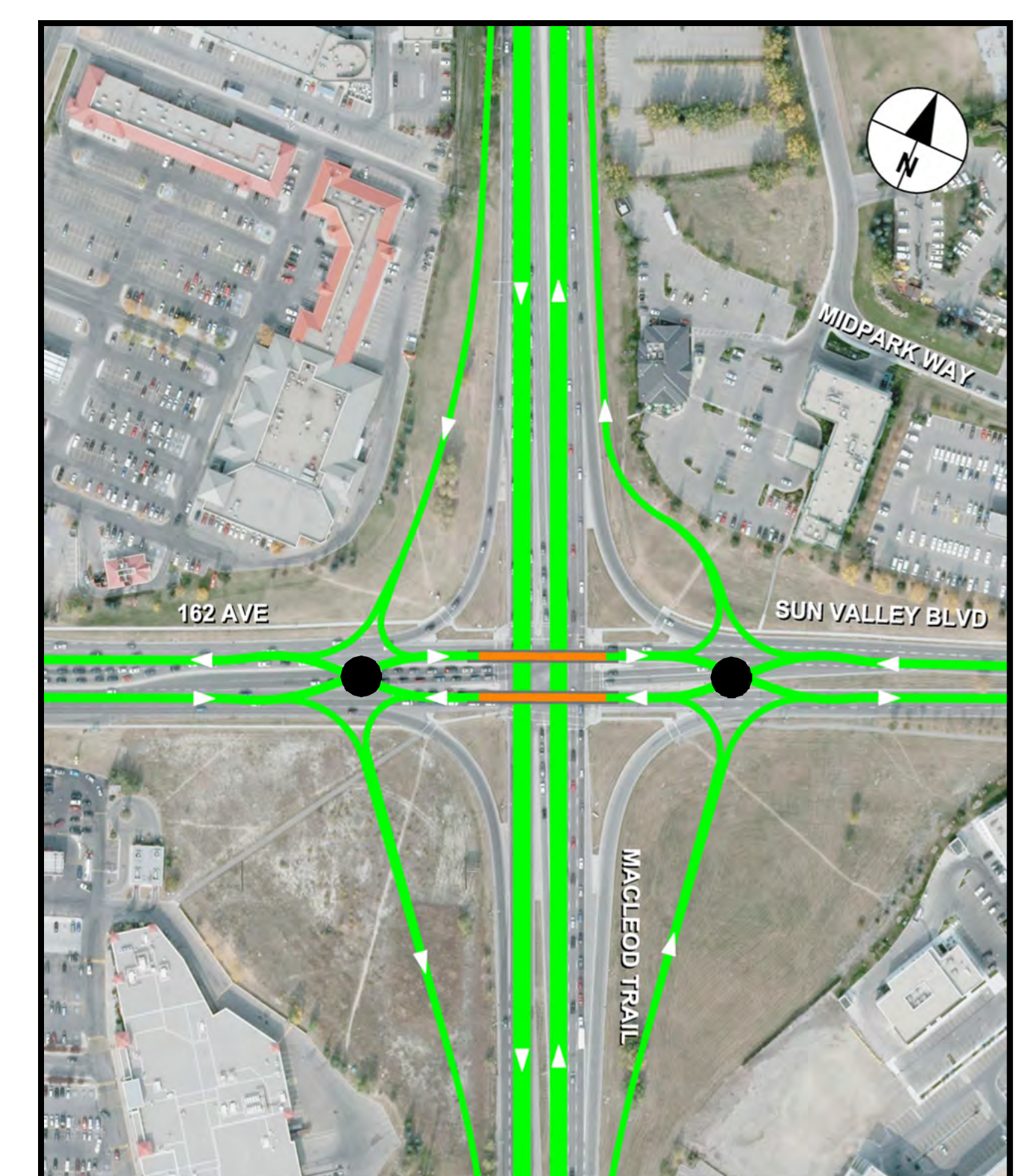
4 Diamond



5 Single Point Diamond



6 Diverging Diamond



LEGEND

- Potential Intersection
- Proposed Roadway
- Proposed Bridge
- ◁ Traffic Direction

At the previous Information Sessions, you were asked what criteria are important to you.

Criteria that are important to you:

- Vehicle travel times
- Shopping / business access
- Traffic safety
- Emergency access
- Pedestrian accommodation
- Public transit

These criteria were incorporated into an evaluation framework to compare the possible interchange configurations.

What you said: Corridor and Intersection Elements

At the previous Information Sessions, corridors and intersection elements were presented. You were asked to provide comments on these elements.

1 Sidewalks



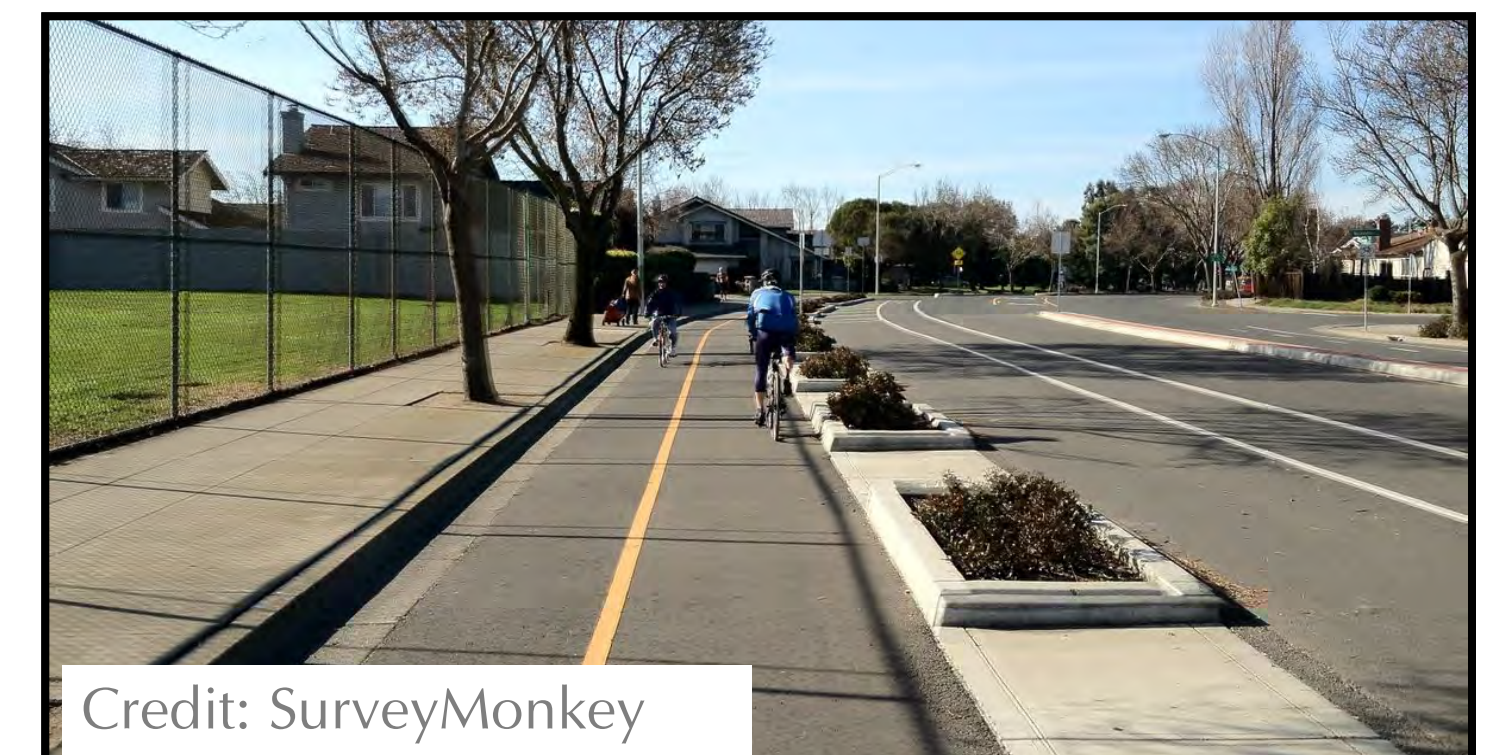
2 Multi-use Pathways



3 Bike Lanes



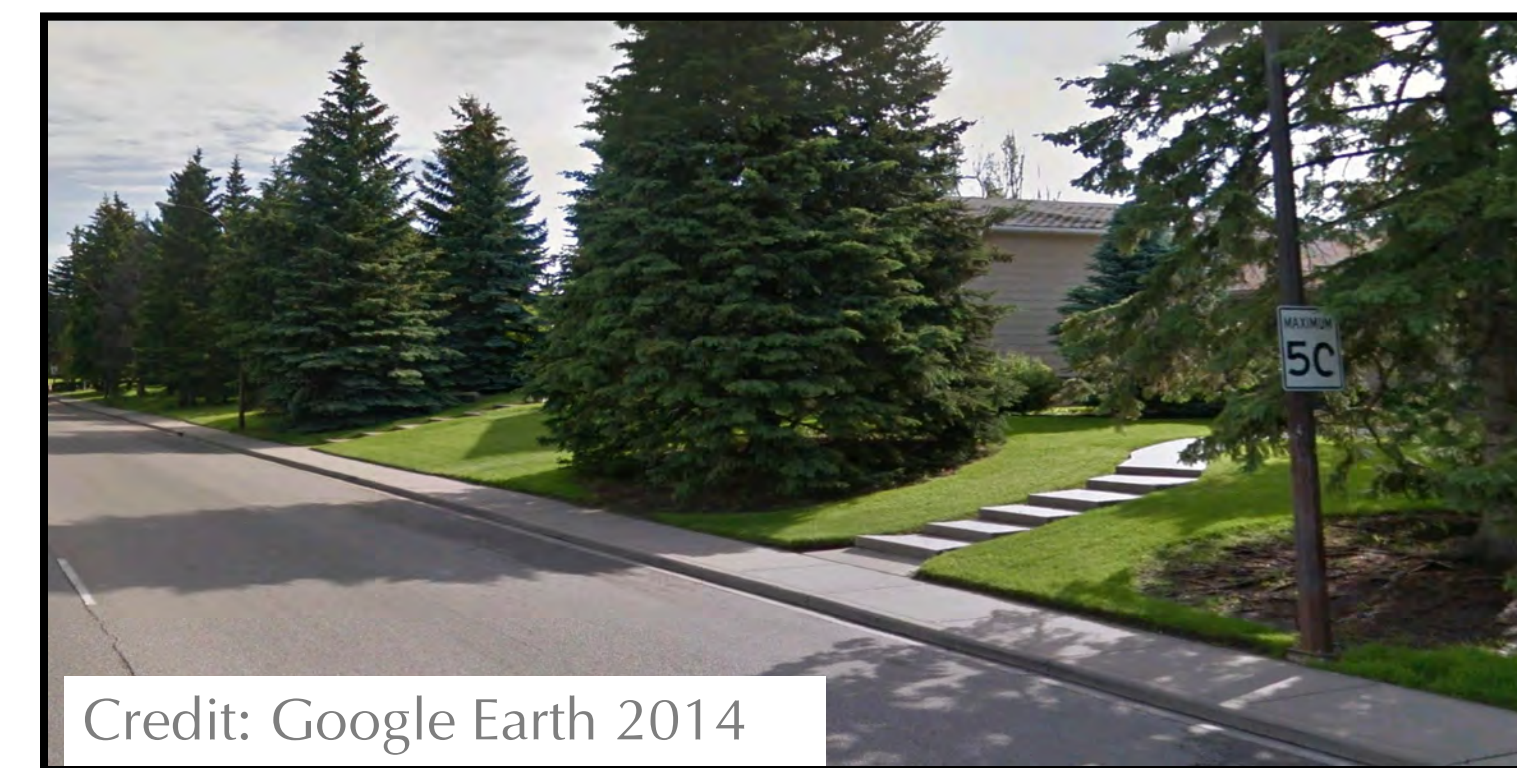
4 Protected Cycle Tracks



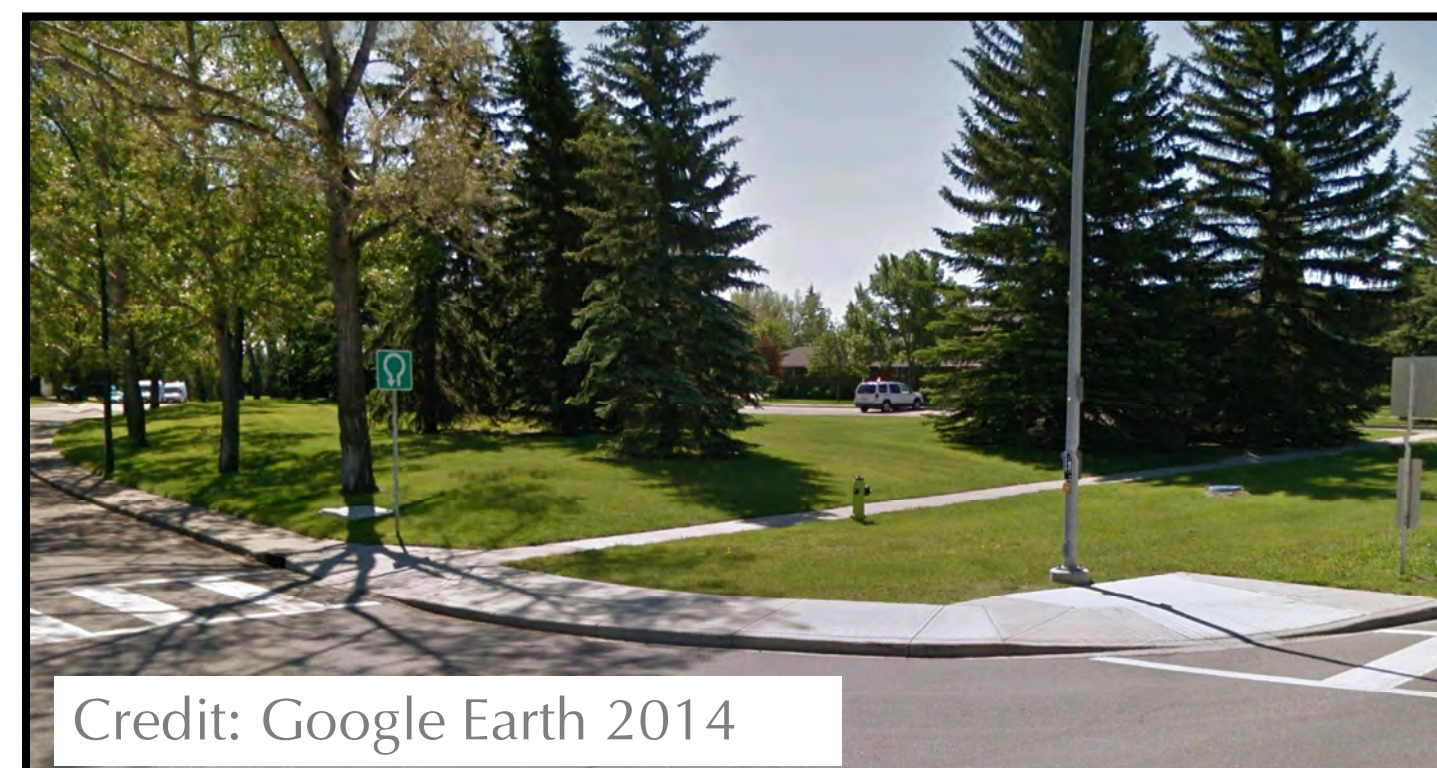
5 HOV Lanes



6 Vehicle Speed Reduction



7 Tighter Curb Corners



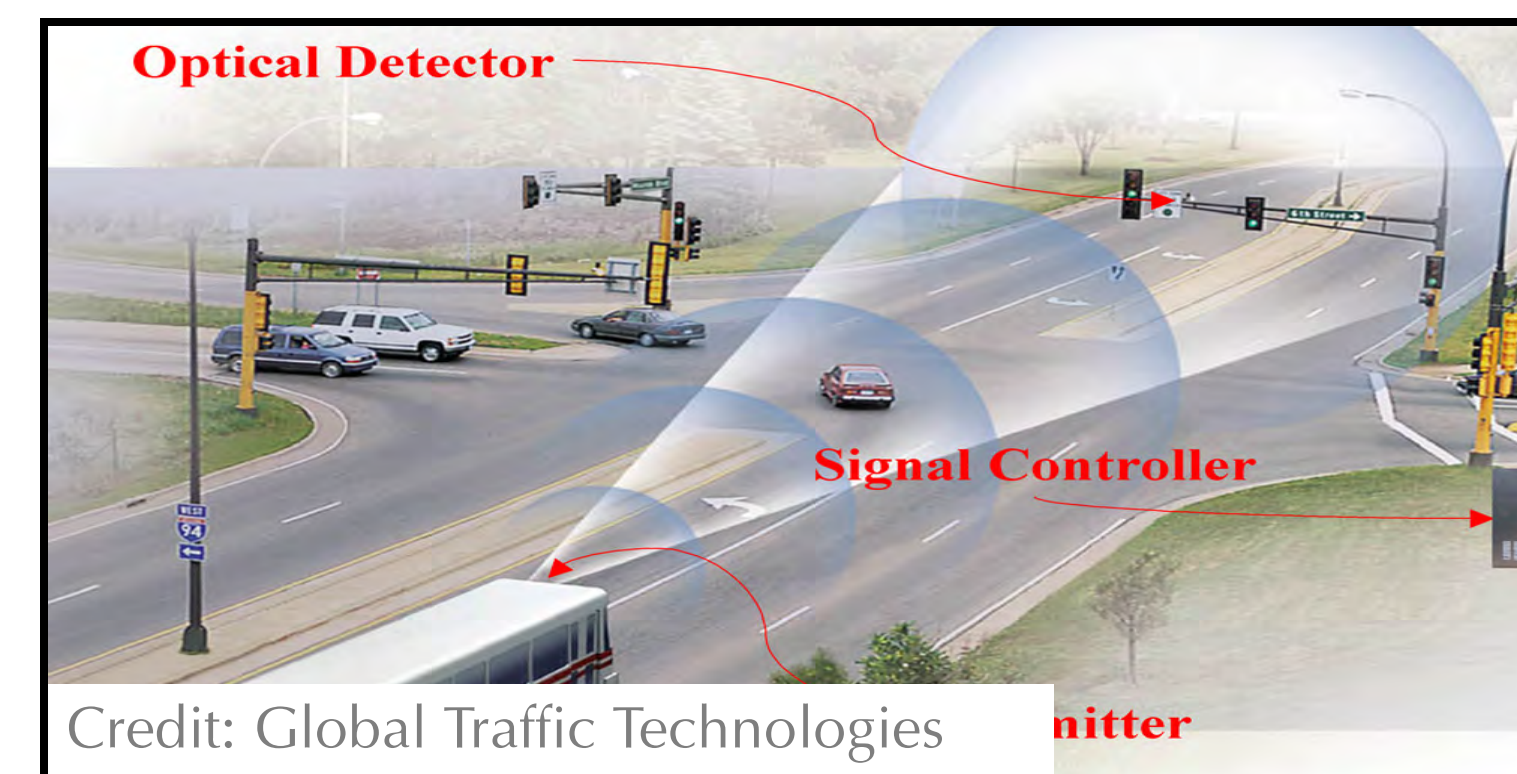
8 Traffic Signals



9 Traffic Roundabouts



10 Transit Signal Pre-emption



11 Transit Queue Jump



12 Emergency Signal Control



Your comments on these elements:

- Support for:
 - emergency signal control
 - bike and pedestrian access part from road traffic (preference for sidewalks, pathways rather than bike lanes)
 - High Occupancy Vehicle (HOV) lanes
 - roundabouts, preference for roundabouts over traffic signals
- Mixed views regarding transit signal pre-emption, transit queue jump and vehicle speed reduction
- Several concerns regarding safety of roadway for students, seniors and drivers
- Low support to tighter curb corners.

Interchange Evaluation

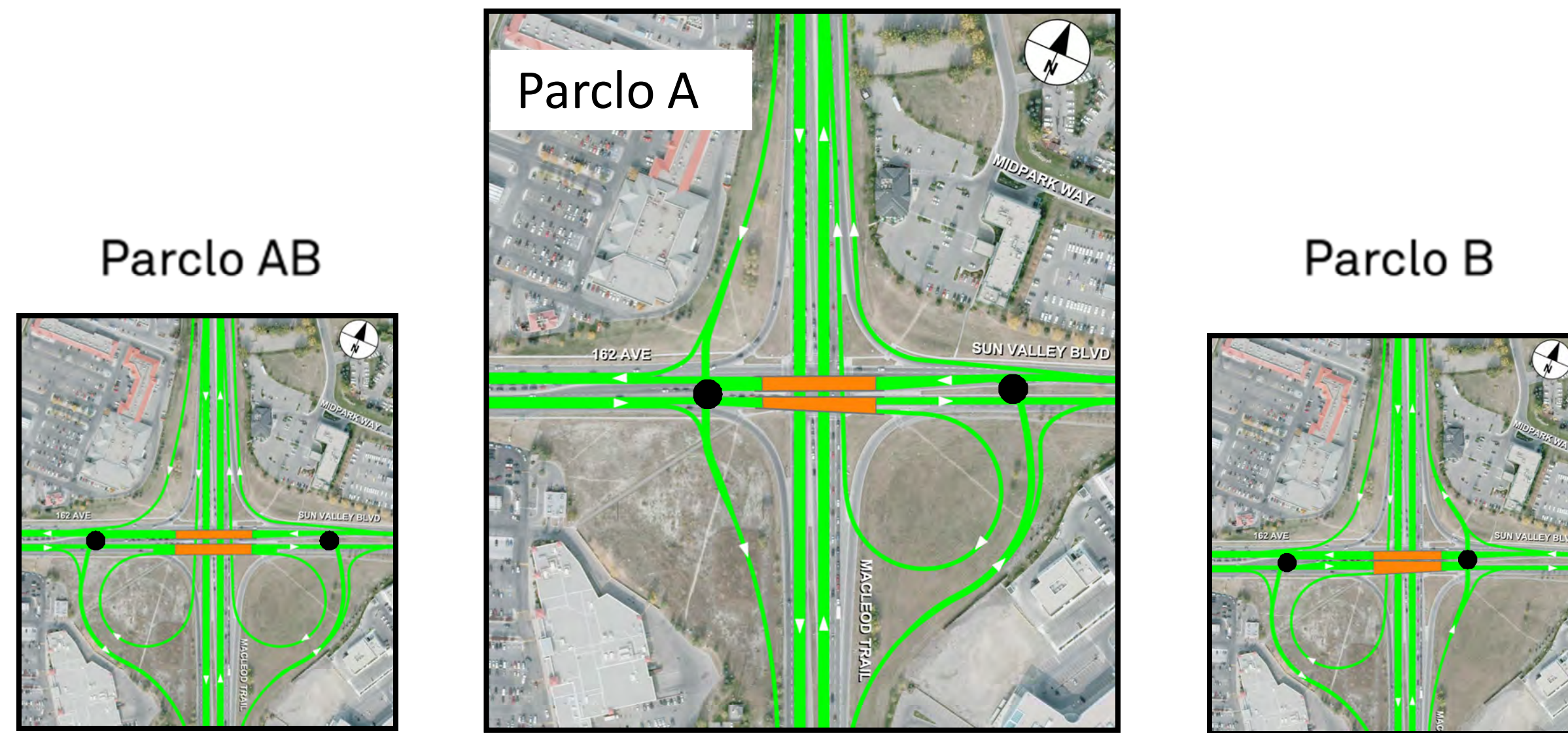
Evaluation Approach:

Six possible interchange configurations were evaluated for future traffic conditions using the criteria developed from the previous Information Sessions.

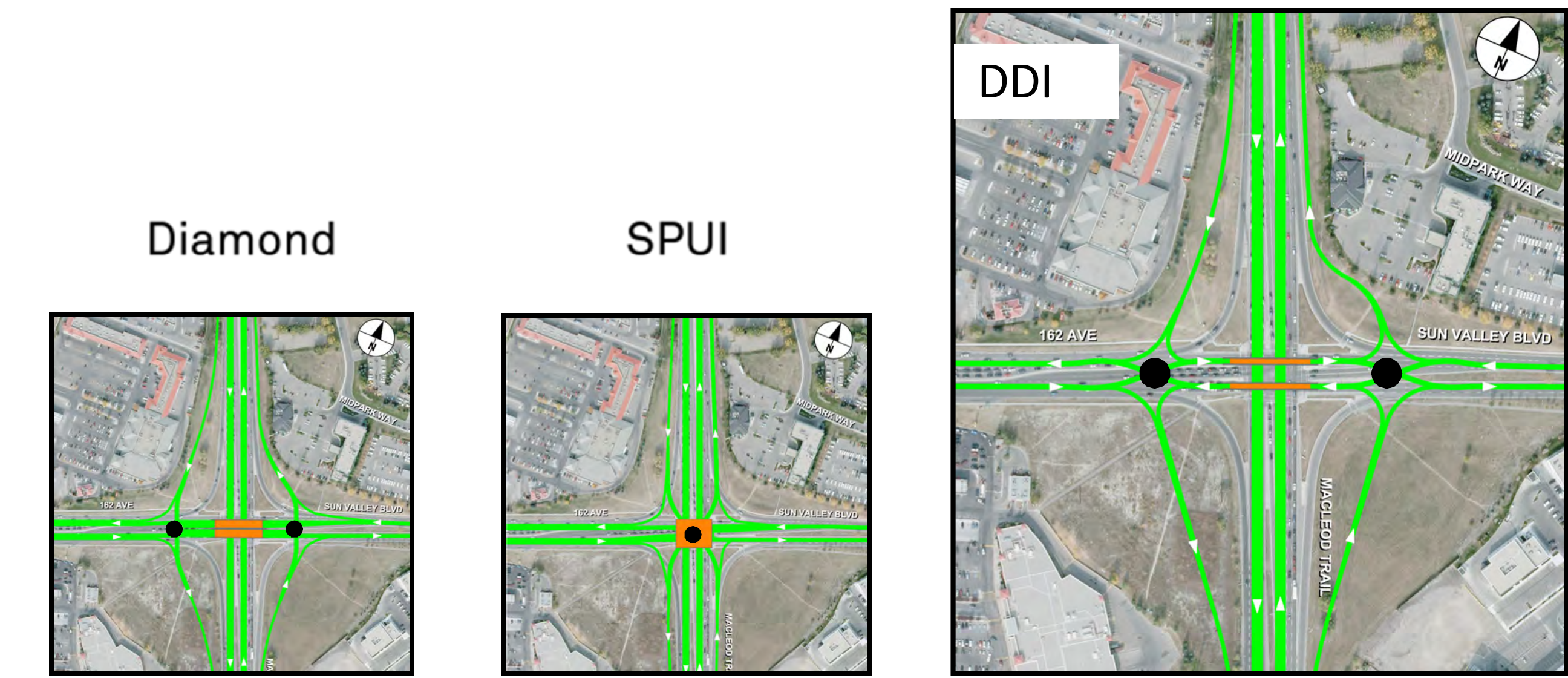
Evaluation Conclusion:

The Partial Clover Leaf (Parclo A) and the Diverging Diamond Interchange (DDI) configurations best meet the criteria and will be studied further.

Loop Type Interchanges



Diamond Type Interchanges



Criteria

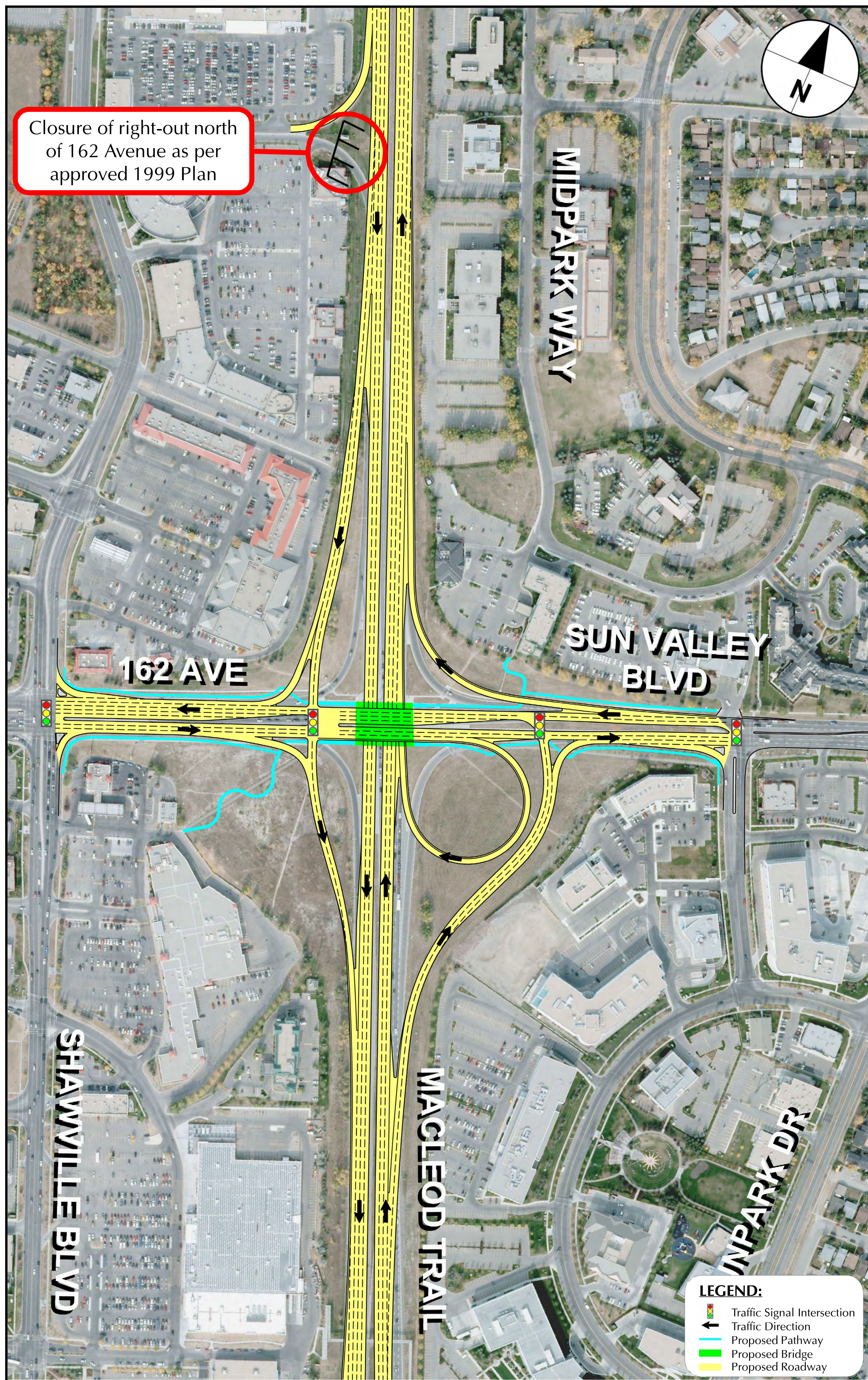
Criteria	Parclo AB	Parclo A	Parclo B	Diamond	SPUI	DDI
Vehicle Accommodation Intersection Capacity Ramp Capacity Weaving Ability - Stoney	Less Favourable	Most Favourable	Less Favourable	Less Favourable	Less Favourable	Most Favourable
Shopping and Business Access Ability for Alternative Access Travel Time Weaving Ability - Shawville	Less Favourable	Most Favourable	Less Favourable	Less Favourable	Less Favourable	Most Favourable
Safety Active Modes Conflict Points Vehicle Conflict Points	Less Favourable	Most Favourable	Less Favourable	Less Favourable	Less Favourable	Most Favourable
Emergency Vehicle Access Directness Travel Time	Less Favourable	Most Favourable	Less Favourable	Less Favourable	Less Favourable	Most Favourable
Pedestrian/Cyclists Accommodation Directness Flexibility for Accommodation Comfort	Less Favourable	Most Favourable	Less Favourable	Less Favourable	Less Favourable	Most Favourable
Transit Accommodation Intersection Capacity	Less Favourable	Most Favourable	Less Favourable	Less Favourable	Less Favourable	Most Favourable
Cost Dollar Differential	Less Favourable	Most Favourable	Less Favourable	Less Favourable	Less Favourable	Most Favourable
Environmental Sustainability Environmental Sustainability	Less Favourable	Most Favourable	Less Favourable	Less Favourable	Less Favourable	Most Favourable

Legend

Less Favourable (Purple circle) More Favourable (Yellow circle) Most Favourable (Green circle)

Best Meet the Criteria

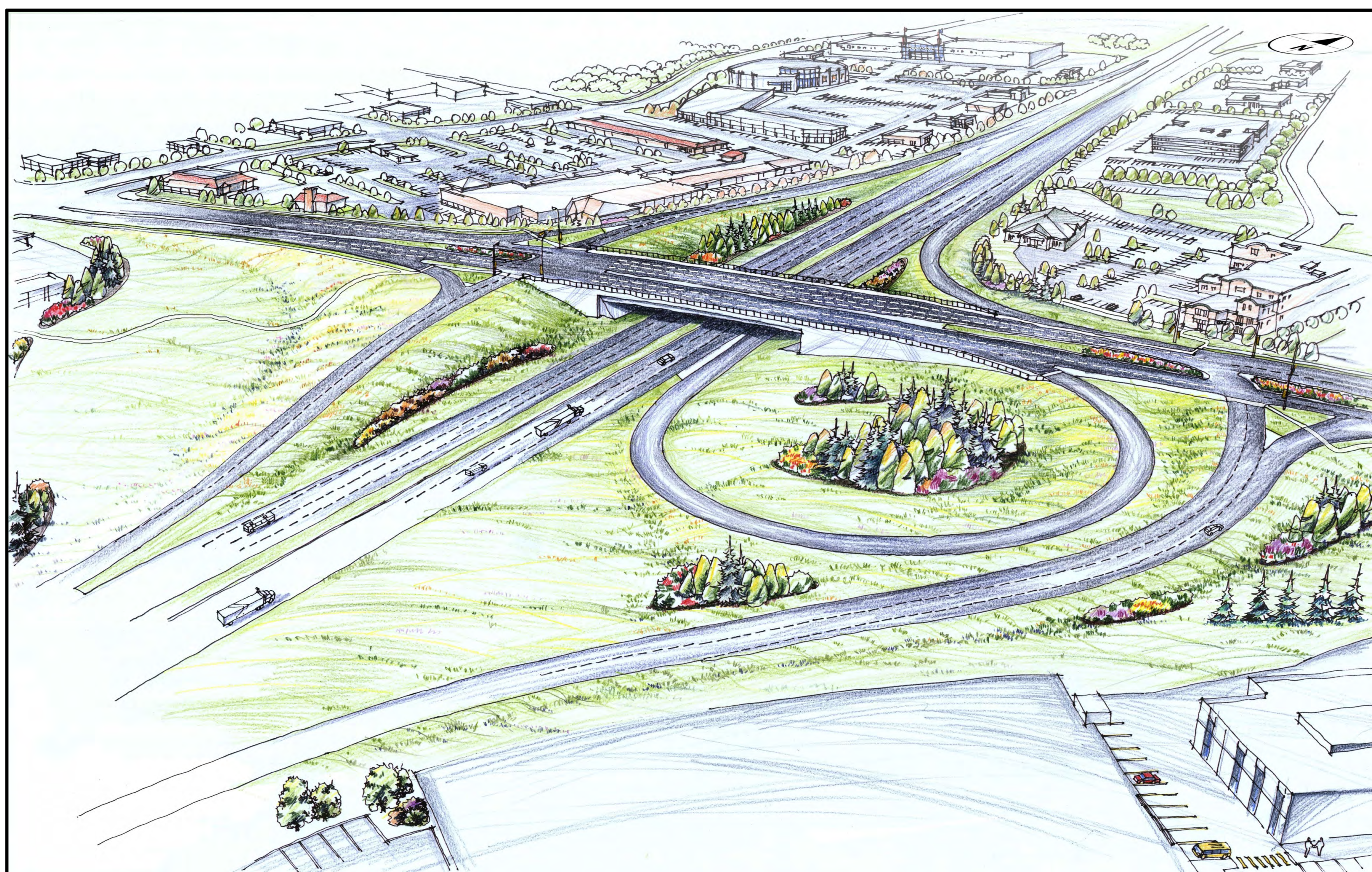
Partial Clover Leaf (Parclo A)



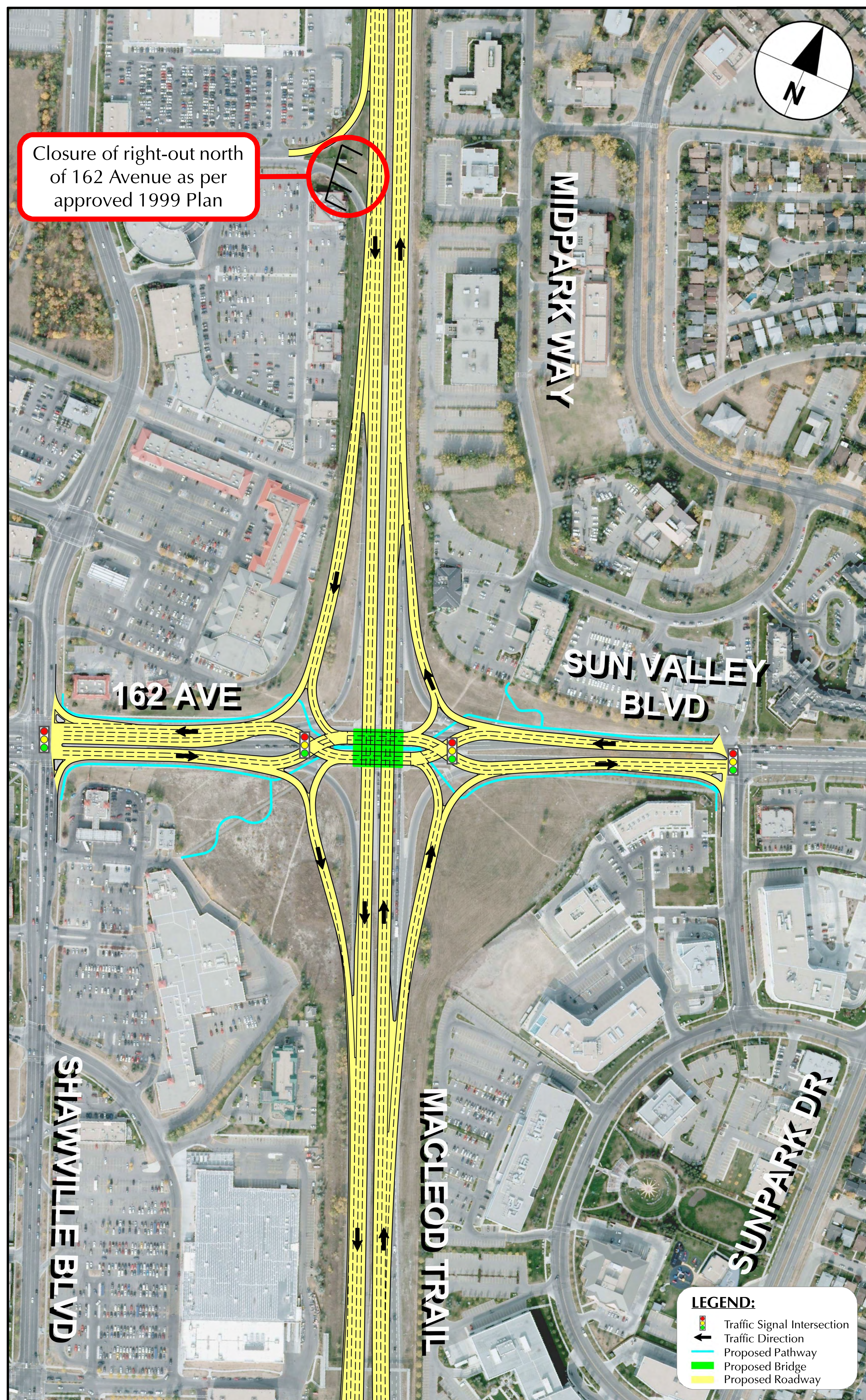
Highlights:

- Loop provides high capacity free flow access on the ramp to northbound Macleod Trail.
- Two entrances to northbound Macleod Trail to facilitate merging traffic.
- Loop provides fewer lane changes for eastbound 162 Ave to northbound Macleod Trail traffic.
- Calgary drivers are familiar with this interchange configuration.
- Corridors for pedestrian and cyclists provided on both north and south sides of the bridge across Macleod Trail.

Further analysis and evaluation of this interchange will take place during the next few months to determine a recommended plan.



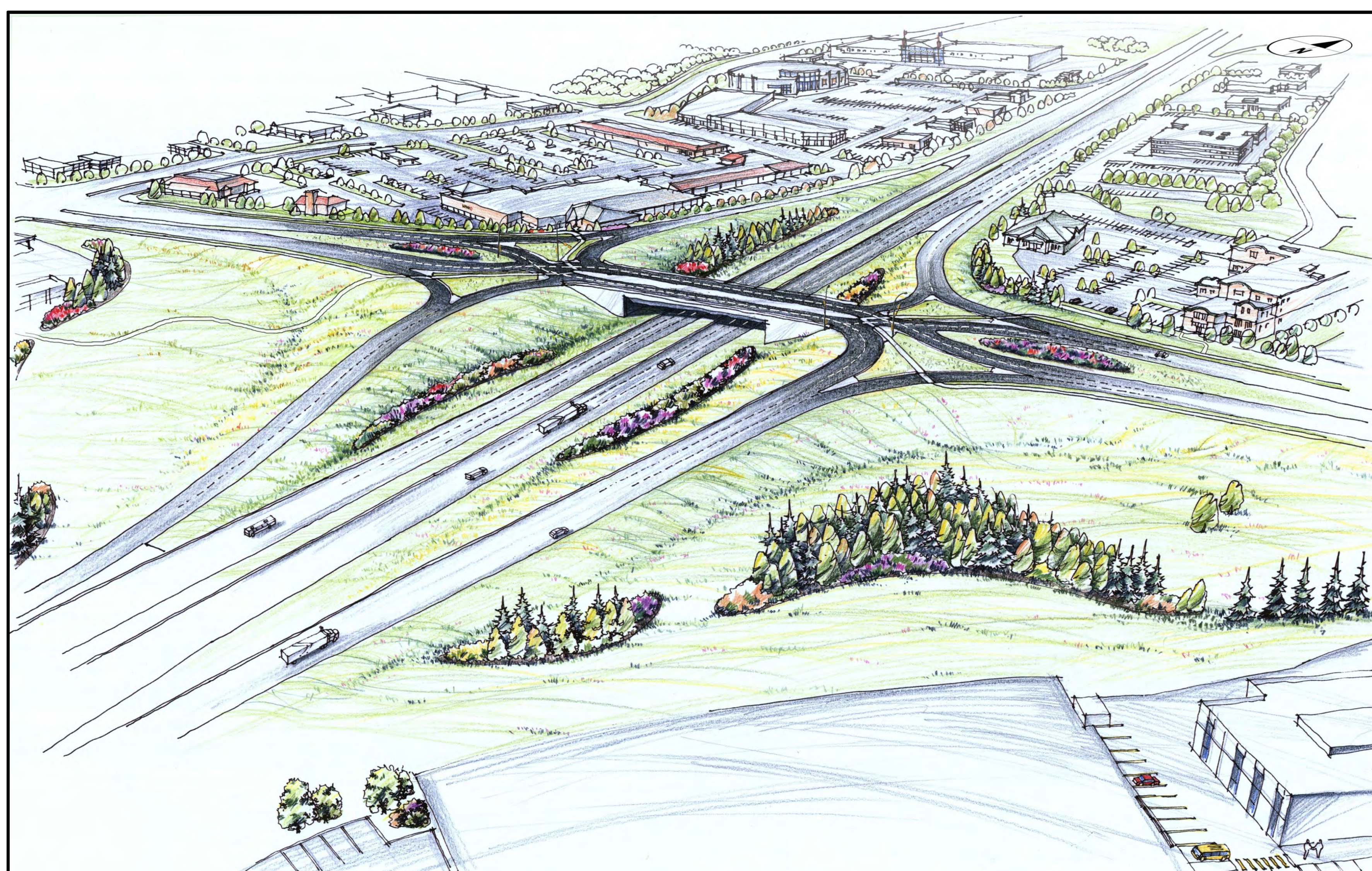
Diverging Diamond Interchange (DDI)



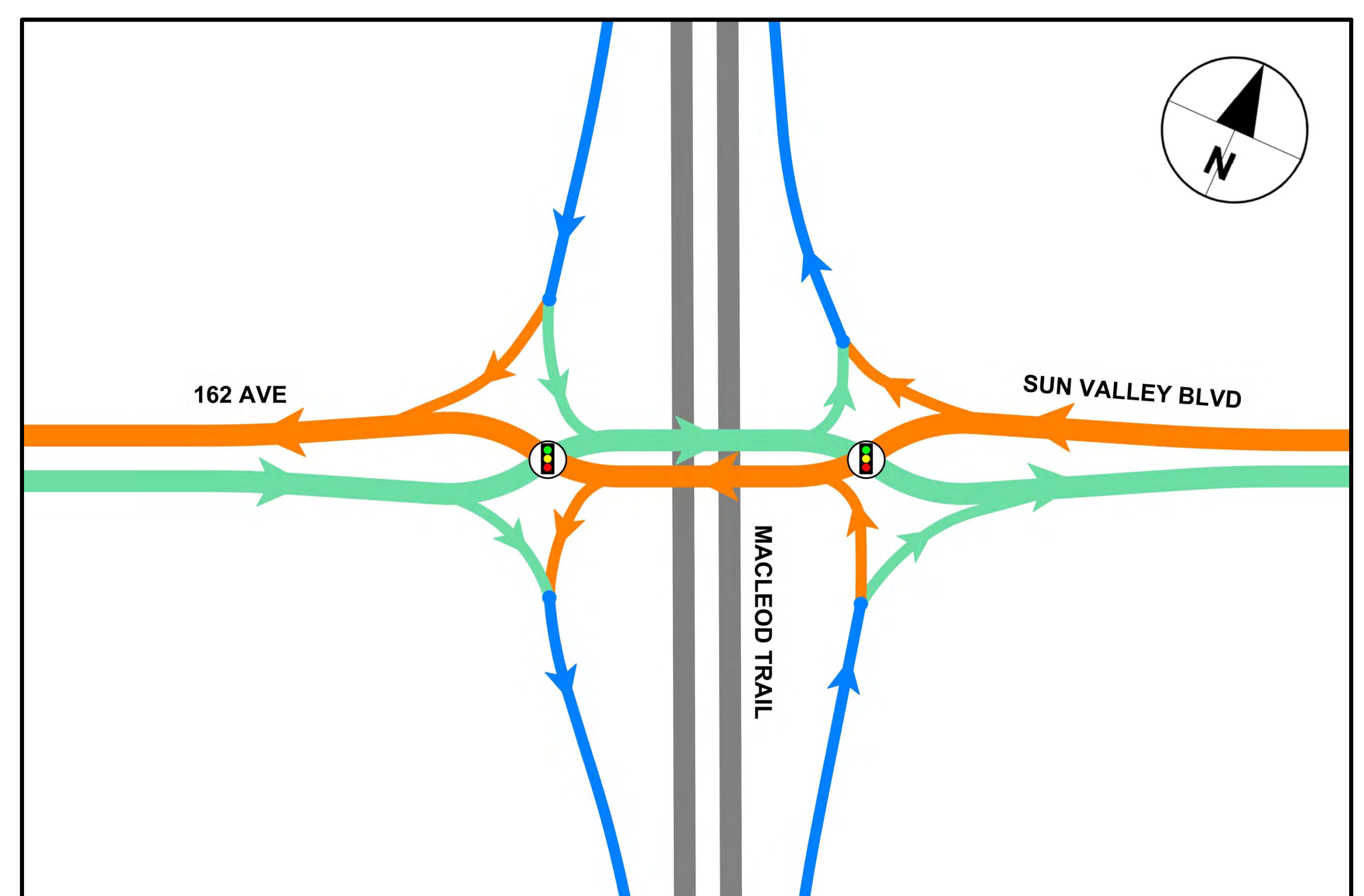
Highlights:

- Free-flow left-turn movements from both directions on 162 Ave to Macleod Trail northbound and southbound.
- Simplified traffic signal operations as no left turn arrow phases are needed (more efficient operation, less delay).
- Reduces bridge width requirements due to elimination of exclusive left-turn lanes.
- Reduces number of conflict points, thus increases the safety.
- Consolidated pedestrian and cyclist corridor to the center of the bridge and avoids crossing at high speed vehicle ramps.

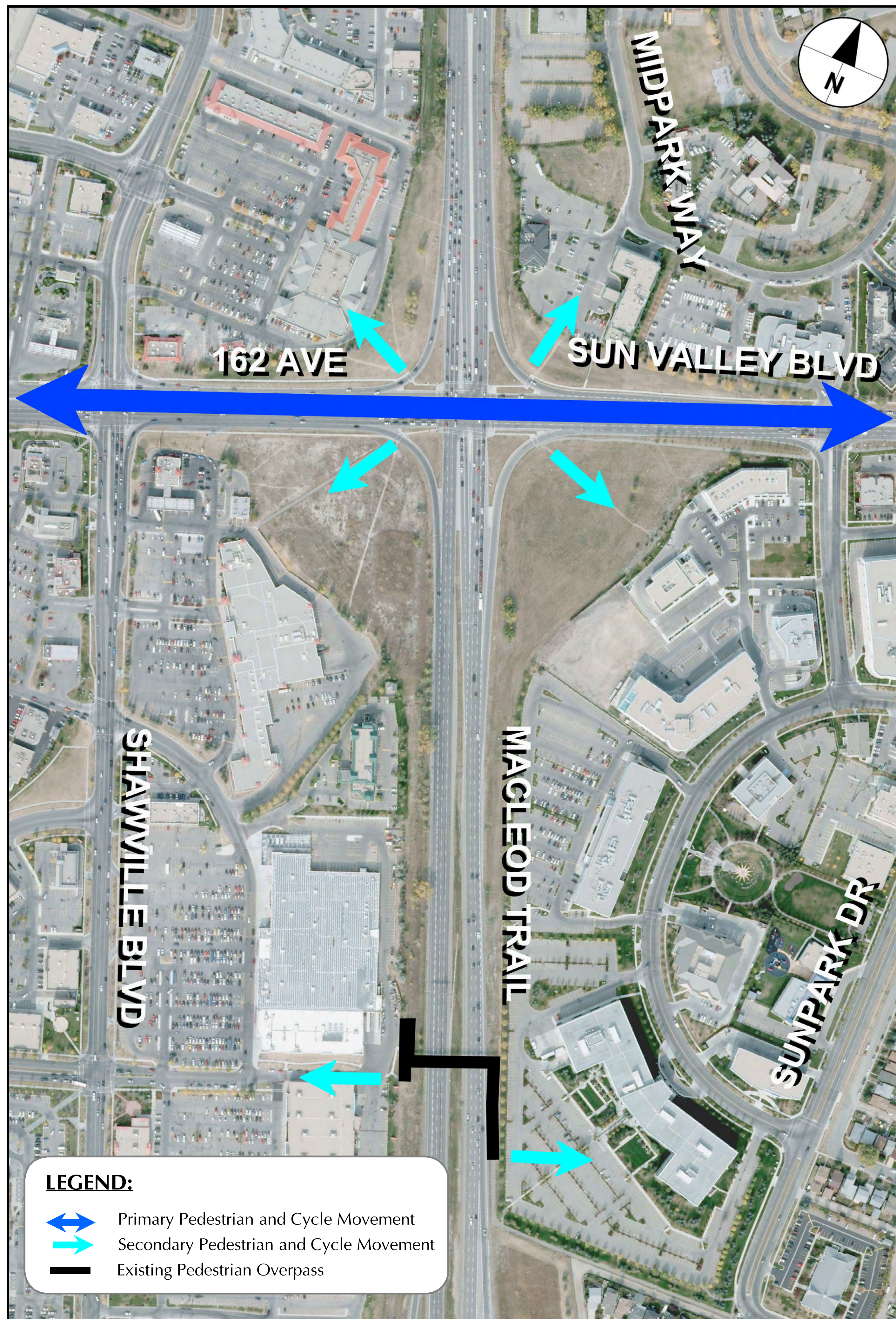
Further analysis and evaluation of this interchange will take place during the next few months to determine a recommended plan.



How a DDI Works:



Pedestrian and Cyclist Accommodation



Key Pedestrian and Cyclist Issues:

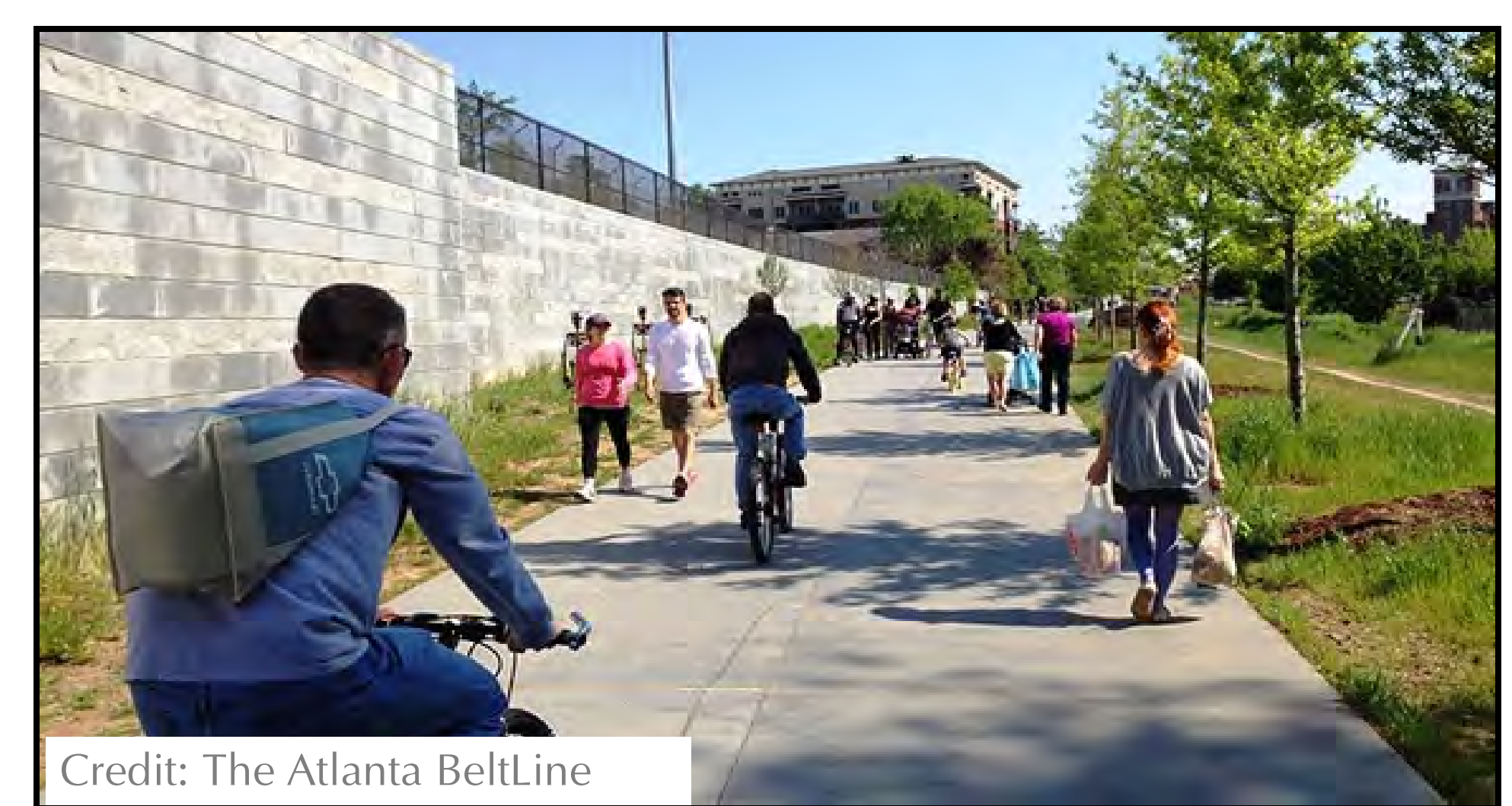
- Review pedestrian and cyclist movements within the study area.
- Maintain connections to existing pedestrian and cyclist facilities.
- Existing pedestrian overpass to remain in place.
- 162 Ave is a primary bike route.

Possible Pedestrian and Cyclist Elements:



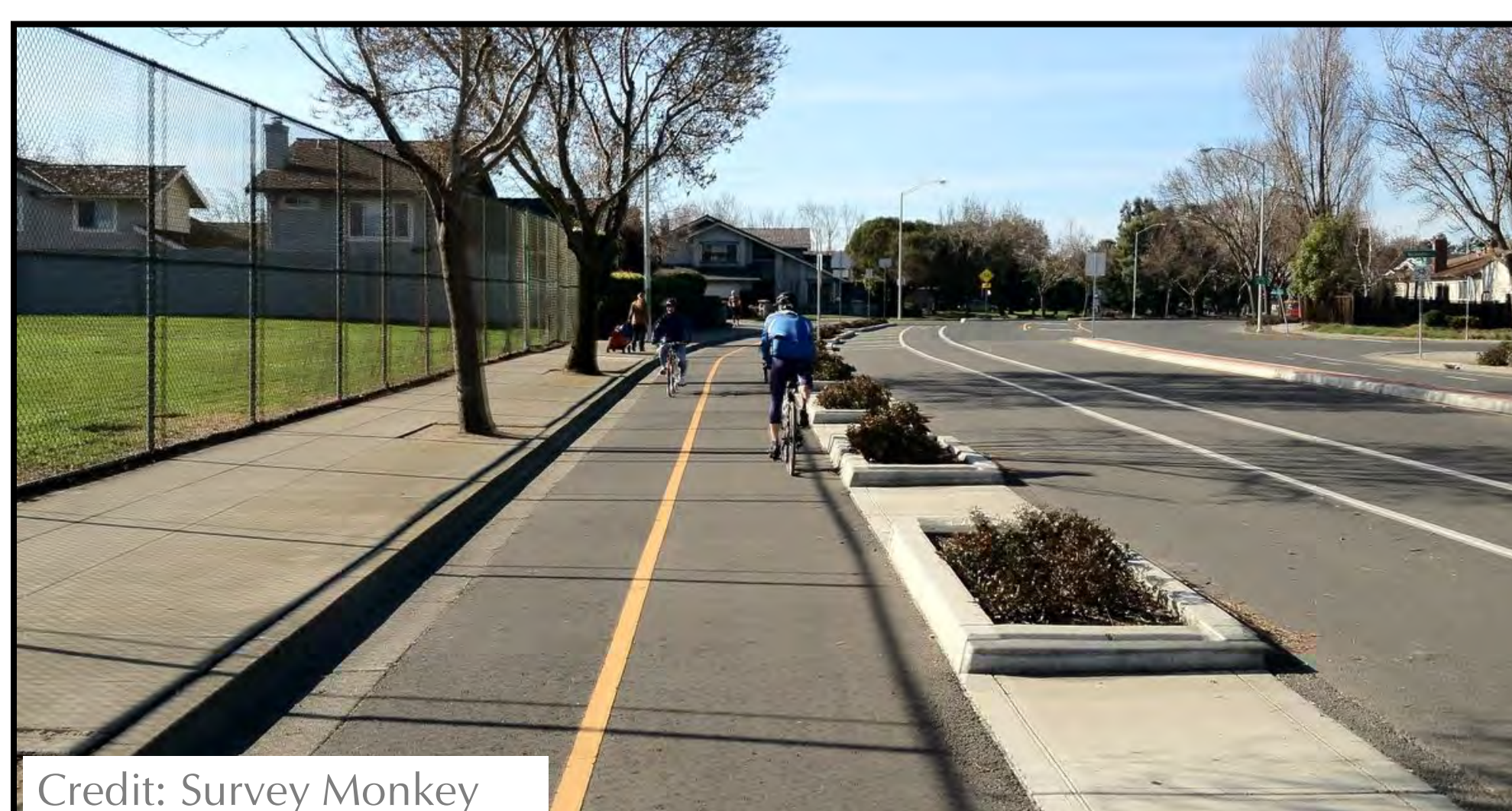
Credit: brentwoodstation.blogspot.ca

Sidewalks



Credit: The Atlanta BeltLine

Multi-use Pathways



Credit: Survey Monkey

Protected Cycle Tracks

Transit Accommodation



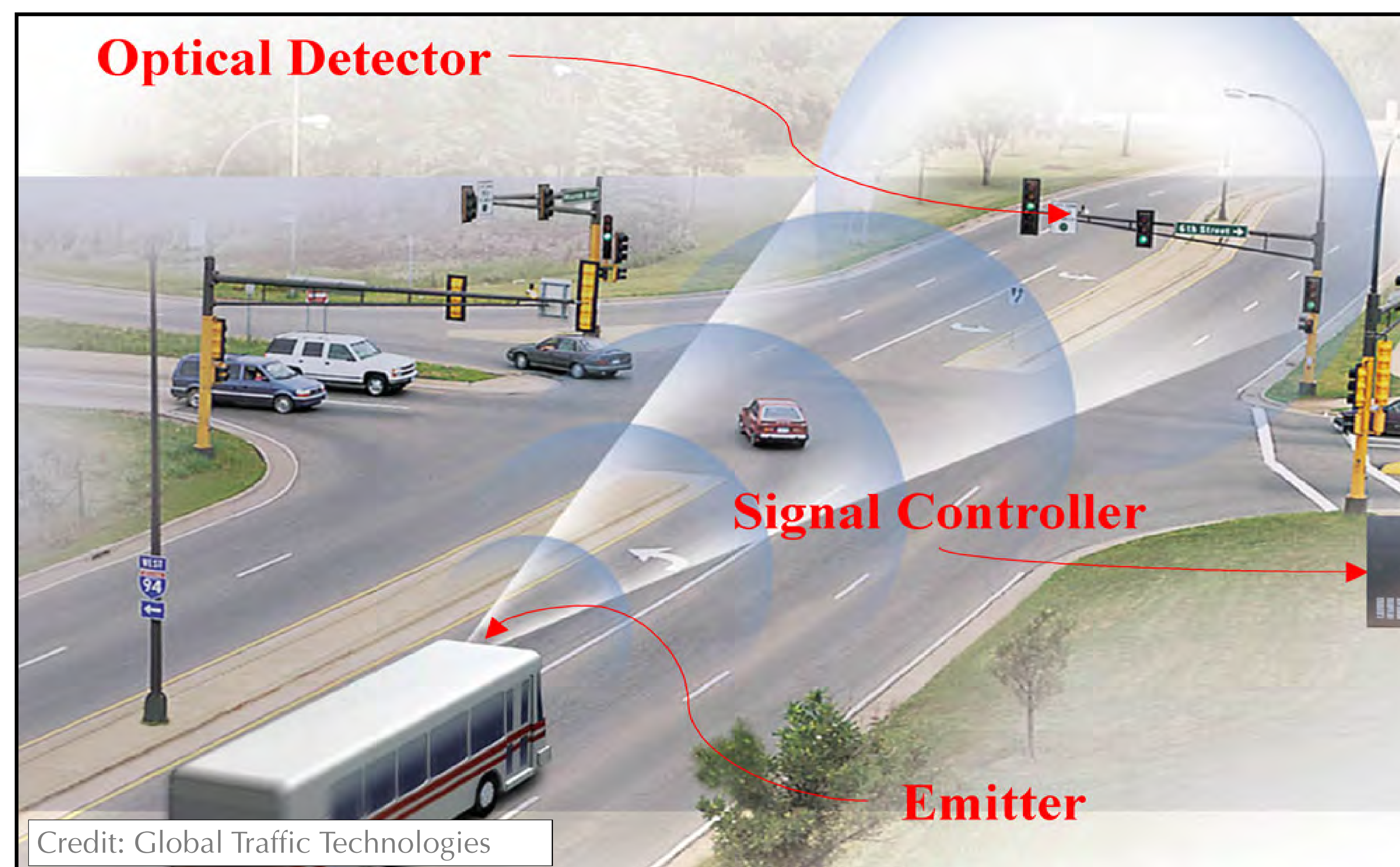
Key Bus Transit Movements:

- Between Somerset - Bridlewood LRT station and Macleod Trail and Sun Valley Blvd.

Possible Transit Priority Measures:



Queue jump lanes



Transit priority signal pre-emption

What you said: Additional Issues


Additional issues raised through the comments from the previous Information Session include:

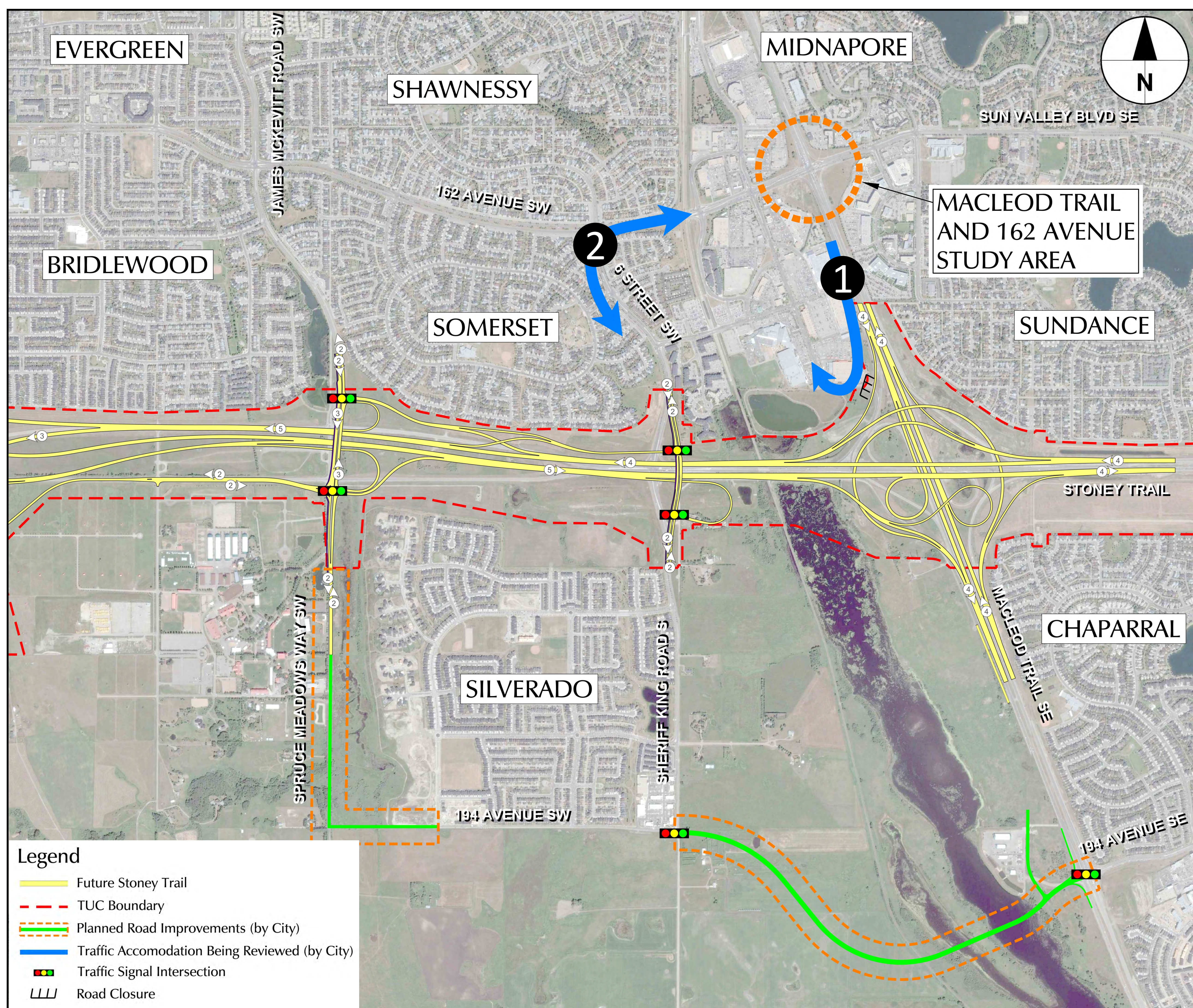
- Closure of right-in/right-out ramps to and from Shawville Blvd (South).
- Movements to/from the east on Stoney Trail at 6 Street are eliminated.
- Shawville Blvd/162 Ave intersection operational issues.
- 162 Avenue delay at rail crossing.

The following boards outline our response to these issues.



Southwest Calgary Ring Road

- The southwest portion of Alberta Transportation's Calgary ring road is scheduled to begin construction in 2016.
- The ring road is in the vicinity of Macleod Trail and 162 Ave. The City of Calgary will coordinate design and construction with Alberta Transportation.
- Visit provincial website for more information: www.sw-crr.ca 
- Construction of the ring road will remove the right-in/right-out connection from the south end of Shawville Blvd to the Macleod Trail/Stoney Trail interchange ramp and also eliminate movements to/from the east on Stoney Trail at 6 Street.



1. The City of Calgary is discussing with Alberta Transportation a southbound right-in access from Macleod Trail to the south end of Shawville Blvd. The right-out movement will be closed and is not being discussed.
2. The City of Calgary is reviewing the effects of the 6 Street/Stoney Trail movement restrictions in our study area.

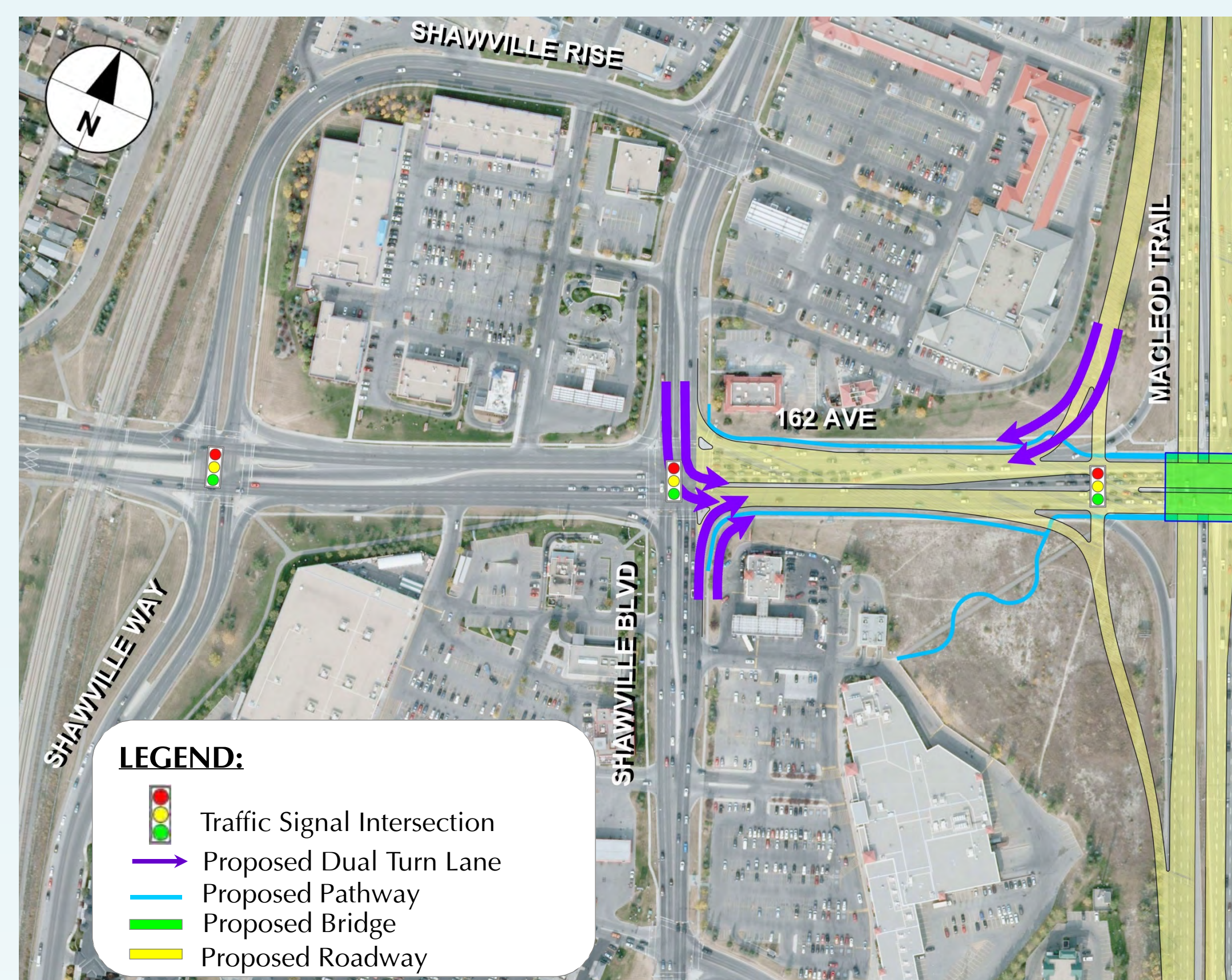
Shawville Blvd / 162 Ave Operations

Operational Issues Raised:

- Congestion and delay due to volume of traffic using the intersection.
- Safety of the traffic turning right from southbound Macleod Trail making the “zigzag” across 162 Ave to make the left onto Shawville Blvd.

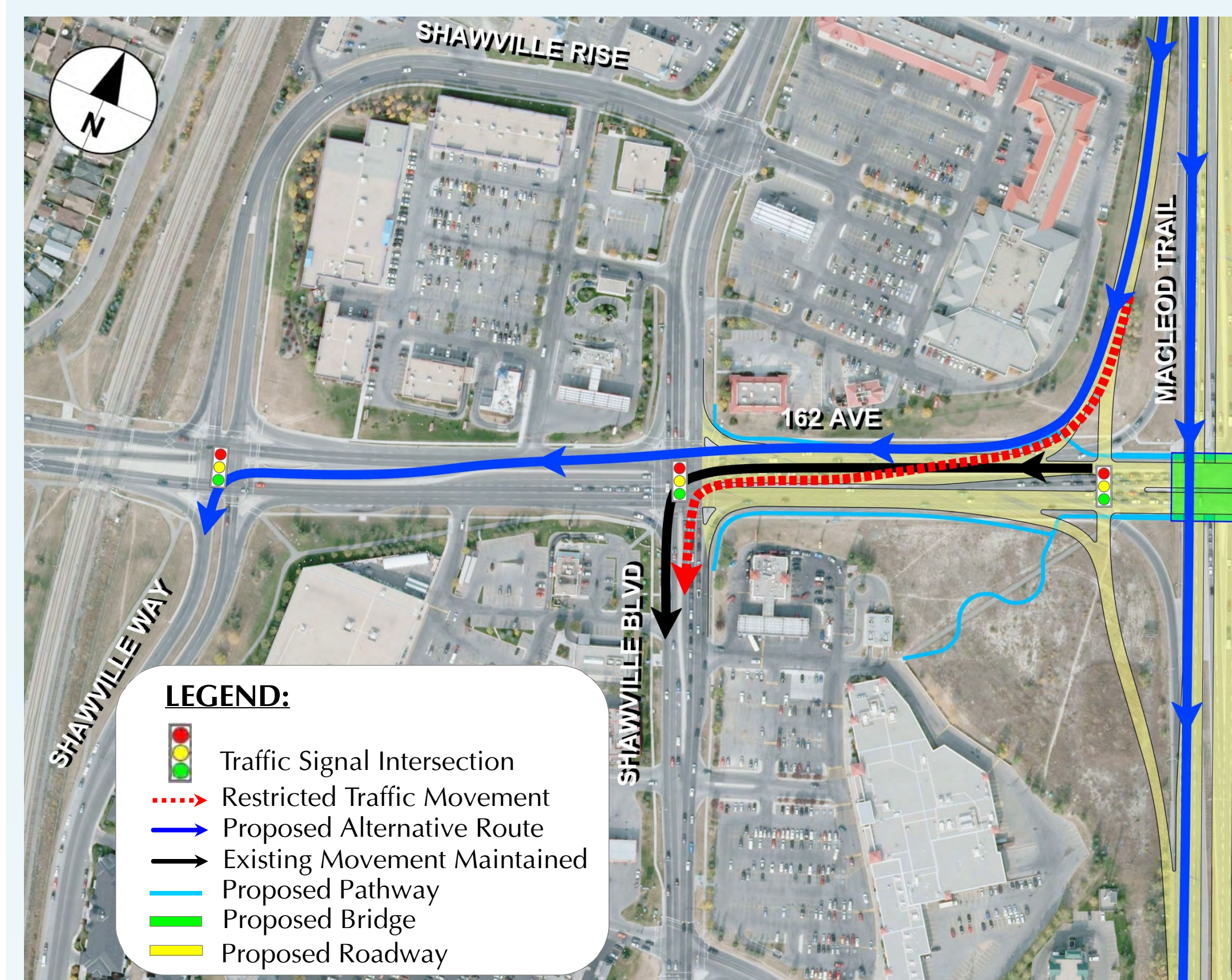
Conceptual Options for Input:

A: Manage Capacity



- Provide southbound signalized dual right turn at Macleod Trail/162 Ave to eliminate weaving with 162 Ave westbound traffic.
- Widen Shawville Blvd to improve intersection operations:
 - Provide northbound signalized dual right turn to accommodate high traffic volumes.
 - Provide dedicated southbound dual left turn to improve traffic signal timing.

B: Redirect “zigzag”

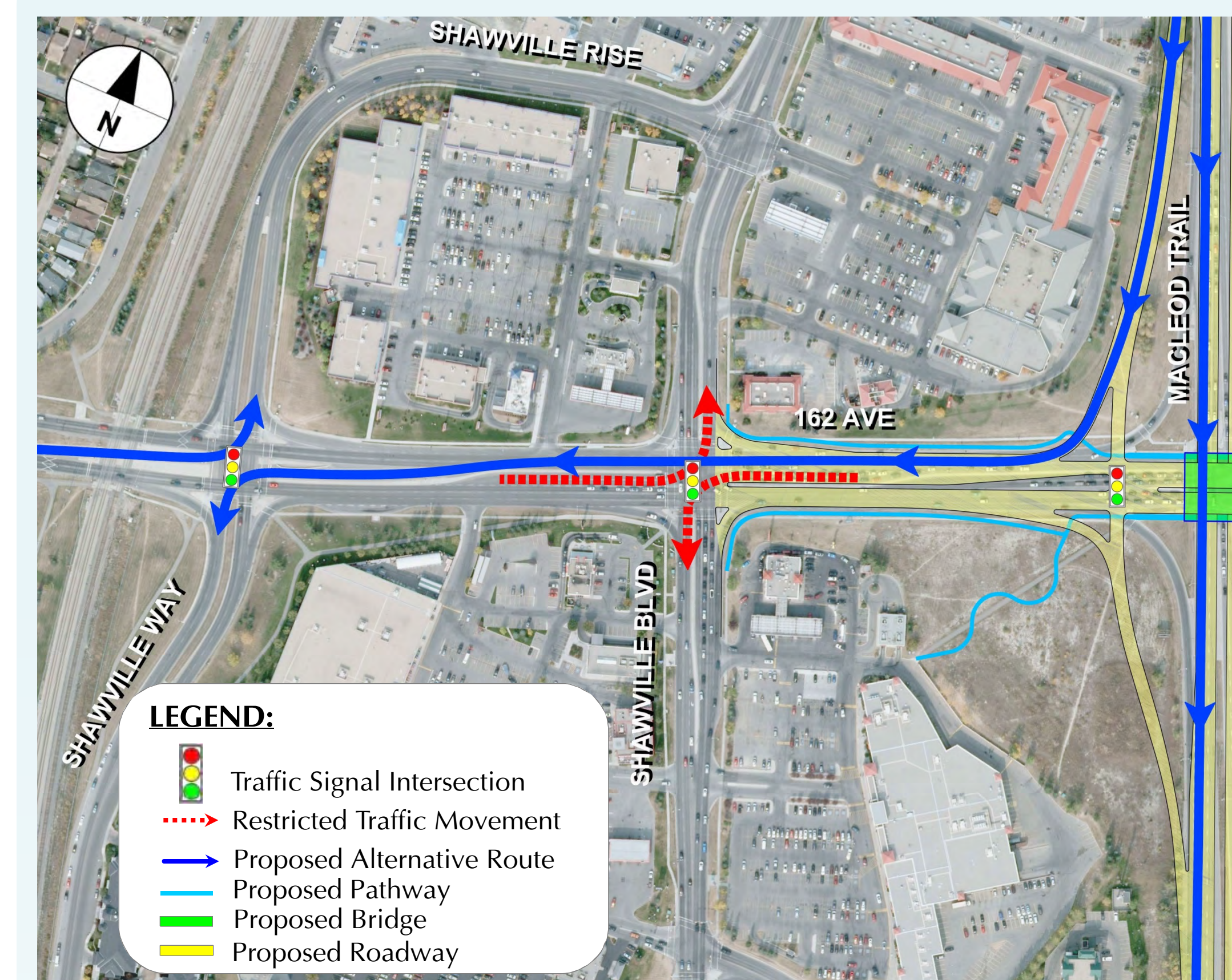


- Restrict southbound right at Macleod Trail/162 Ave from making westbound left at 162 Ave/Shawville Blvd to redirect “zigzag” movement.

Alternative Routes:

- Improve left turn at Shawville Rise.
- Provide access from Macleod Trail via proposed Shawville Blvd (South) right-in access (Pending discussion with Alberta Transportation).

C: Completely Restrict 162 Ave Left Turns

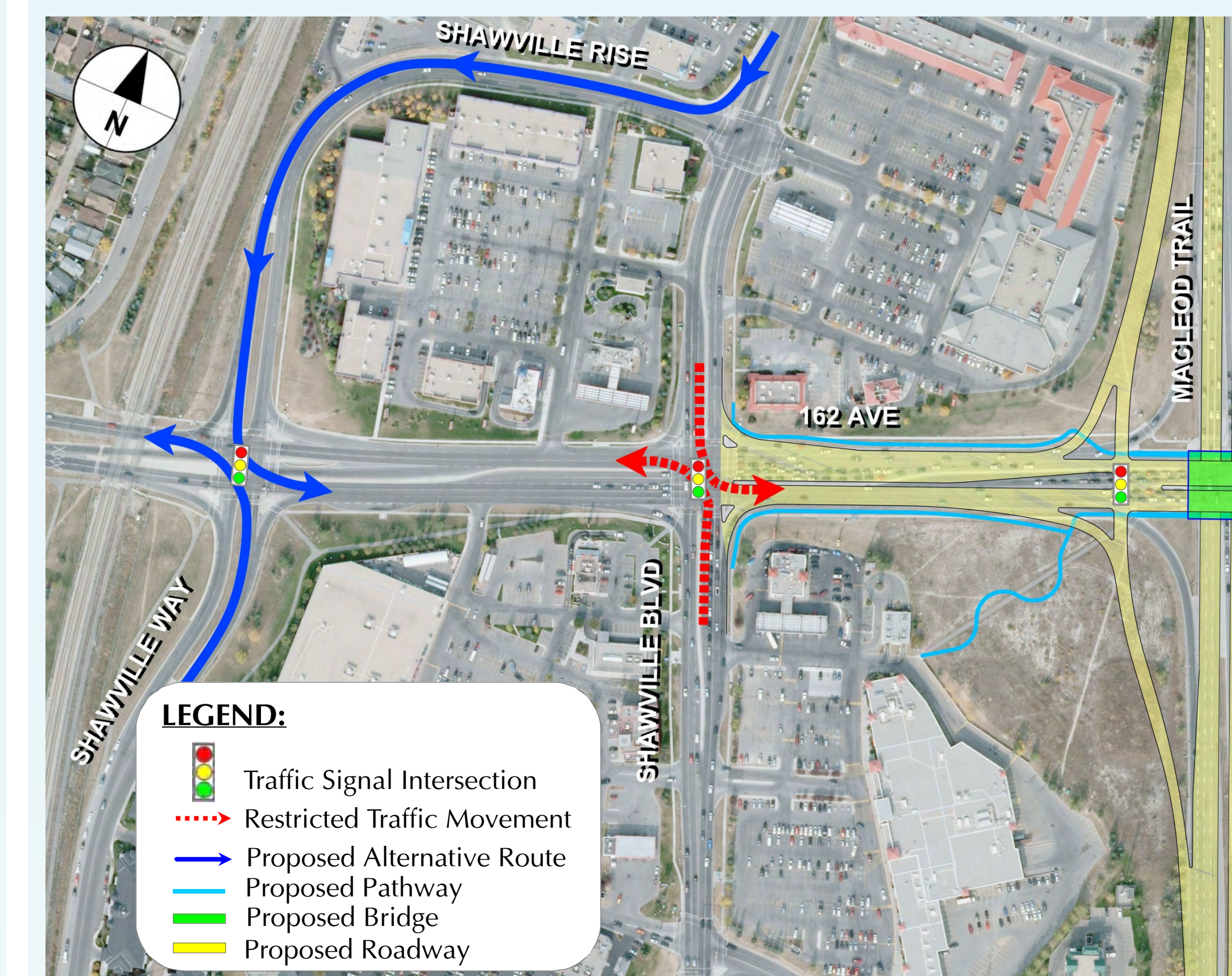


- Completely restrict* westbound and eastbound left turns at 162 Ave to Shawville Blvd to provide additional capacity for remaining movements.

Alternative Routes:

- Improve westbound and eastbound left turns at Shawville Rise.
- Provide access from Macleod Trail via proposed Shawville Blvd (South) right-in access (Pending discussion with Alberta Transportation).

D: Completely Restrict Shawville Blvd Left Turns



- Completely restrict* northbound and southbound left turns at Shawville Blvd to 162 Ave to provide additional capacity for remaining movements.

Alternative Routes:

- Improve northbound and southbound left turns at Shawville Rise.

* Except Calgary Transit

Other options may be considered. The recommended option will be subject to project budget, land and operational requirements, and schedule.

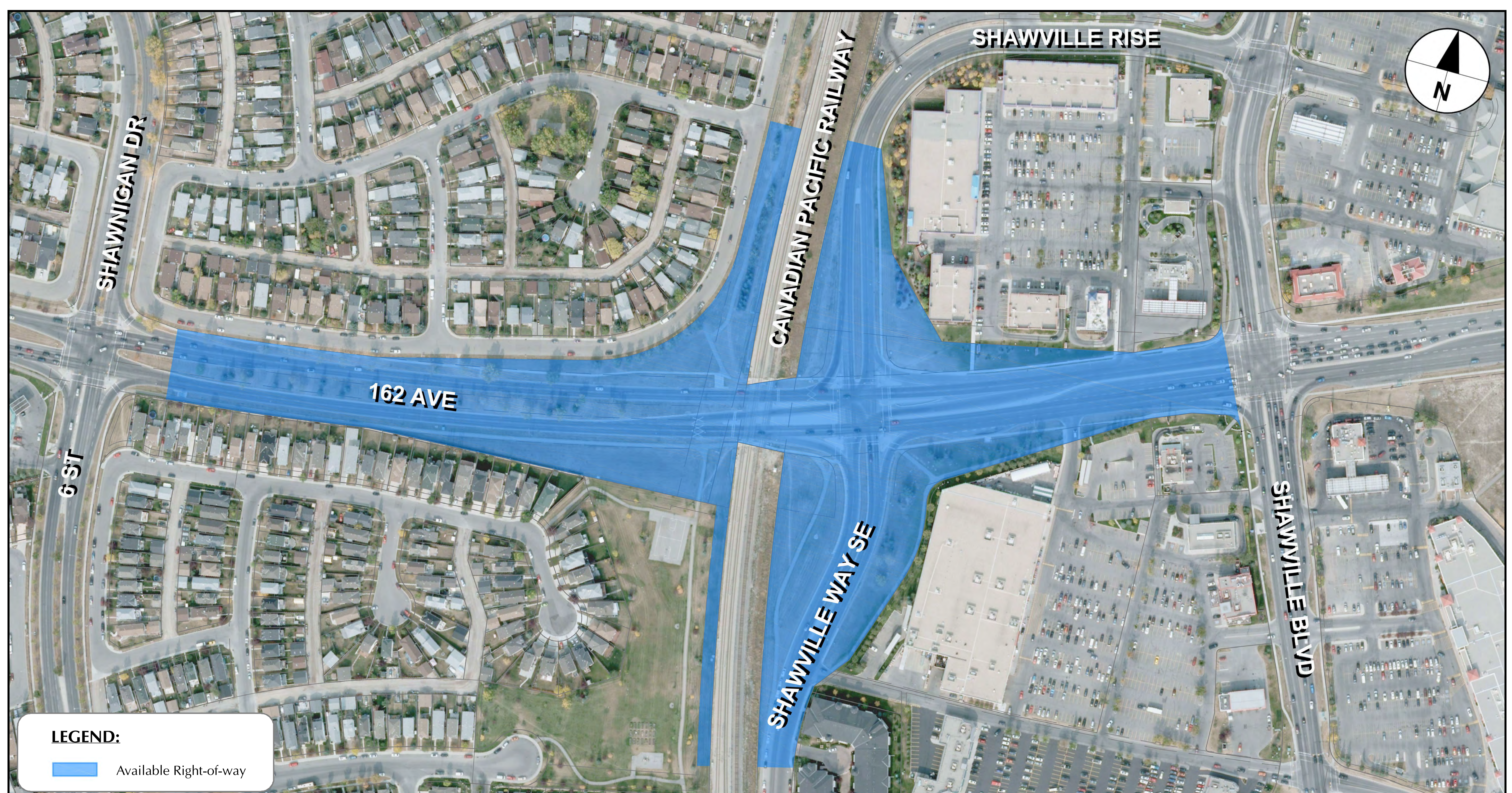
162 Ave Rail Crossing

Issues Raised:

- Delays experienced due to frequent crossings of LRT.
- Delays experienced due to duration of CPR train crossings.

Possible Solutions:

- The following solutions may be considered in the future, however no funding is available at this time:
 - Overpass – The City of Calgary right-of-way available for an overpass of the rail tracks.
 - Road widening – The right-of-way is available for 3 lanes per direction on 162 Ave across the rail tracks.
- The City will continue to review traffic signal optimization and coordination at the intersection of Shawville Rise / Shawville Way adjacent to the rail tracks.



Moving Forward

Next Steps:

The City will:

- Review stakeholder input from this Public Information Session
- Complete further analysis and evaluation of the options
- Hold Public Information Session #3: Review Recommended Plan
- Finalize Functional Planning Study (Summer 2015)
- Proceed with Engineering Design and Construction

Project Schedule:

