

Phase 3 – Select Recommended Options Input Summary

Project Background

The City of Calgary is conducting a transportation planning study for McKnight Boulevard from Deerfoot Trail to Stoney Trail N.E. to develop a plan for the corridor that aligns with the Calgary Transportation Plan and improves safety and traffic operations for all users.

The City of Calgary is working collaboratively with citizens to improve the transportation planning process. During the *Information Gathering & Assessment* phase of the public engagement process, stakeholders and the community identified transportation issues and concerns with the corridor, before any improvement options were developed. That feedback was used during the *Develop & Refine Options* phase of the public engagement process to develop several options for optimizing the 12 Street N.E., 19 Street N.E., and Barlow Trail N.E. intersections at McKnight Boulevard. The Advisory Group and interested stakeholders participated in a workshop to select which options would be carried forward for further development. Directly and indirectly impacted landowners were invited to the public open house and given the opportunity to choose their preferred options online. The project team's contact information was included for those interested in following-up which resulted in six meetings with directly impacted landowners.

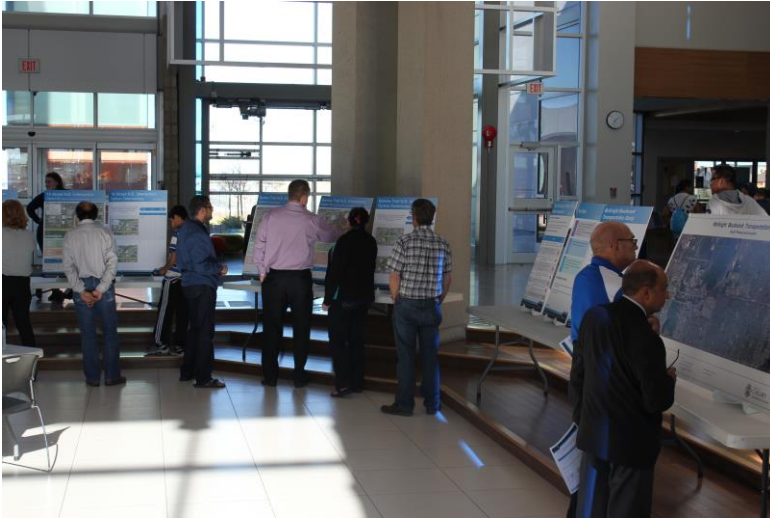
Public Engagement Process			
November 2013 – April 2014	May – August 2014	September 2014 – February 2015	
Information gathering & assessment	Develop & refine options	Select recommended plan	Share recommended plan
<u>PROJECT TEAM</u> Review technical information	<u>PROJECT TEAM</u> Develop preliminary options	<u>ADVISORY GROUP</u> Meeting#2 to confirm refined options and review presentation materials for public open house	<u>PUBLIC</u> Public information session to present the recommended option and report how public input was used
<u>STAKEHOLDERS</u> Meetings to introduce study scope and objectives, engagement process, and identify concerns and evaluation criteria			
<u>PUBLIC</u> Public open house and online feedback to introduce study scope and objectives, engagement process, and identify concerns and evaluation criteria	<u>PROJECT TEAM & INTERNAL STAKEHOLDERS</u> Meeting to refine preliminary options	<u>PUBLIC</u> Public open house and online feedback to gather input on options	<u>PROJECT TEAM</u> Present recommended option and public engagement results to Council
	<u>PROJECT TEAM & ADVISORY GROUP</u> Workshop to refine preliminary options		
<u>ADVISORY GROUP</u> Meeting#1 to discuss findings of previous consultation and work collaboratively to develop decision-making framework	<u>PROJECT TEAM</u> Refine options to incorporate stakeholder and Advisory Group input	<u>PROJECT TEAM & ADVISORY GROUP</u> Meeting#3 to evaluate and select a recommended option	

Public Open House #2 and Online Feedback

A public open house was held on Saturday, October 18, 2014 at the Genesis Centre (7555 Falconridge Boulevard N.E.) from 1:30 – 4:30 pm gather input on the options selected after the workshop. Feedback was also collected on calgary.ca/mcknight between October 18 – 26, 2014. There were 111 attendees at the open house and 33 feedback forms collected. An additional 73 feedback forms were completed online, totaling 106 feedback forms overall.

Option Evaluation

Calgarians were asked to rank and comment on three improvement options for the 12 Street N.E. intersection, two options for 19 Street N.E., and two options for the Barlow Trail N.E. intersection. Each proposed option was presented with a list of pros and cons and respondents were asked to select a number between 1 and 5, with “1” representing *Don’t Support* and “5” representing *Strongly Support*. Participants were also asked to choose their preferred option and explain their preference.



Project staff explaining 12 Street N.E. options to open house attendees.

Dotmocracy

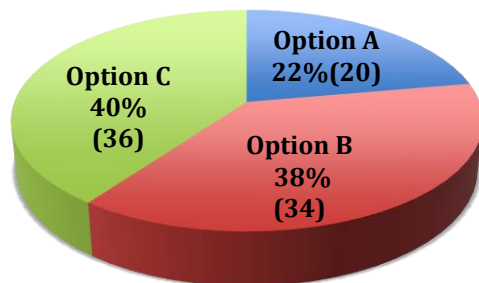
Dotmocracy is a technique that gives participants the opportunity to rank options by placing a dot sticker on preferred choices. This technique was used at the open house to compliment the same ranking opportunity on the feedback forms. This ranking exercise captured open house attendees preferences, which is beneficial as only 30% of attendees filled out a feedback form at the open house.

Three dotmocracy boards are displayed side-by-side. Each board is titled with the intersection name and 'Option Dotmocracy'. They feature a scale from 1 to 5 (Do Not Support to Strongly Support) and a grid of dots for ranking options. The boards are for 12 Street N.E. Intersection, 19 Street N.E. Intersection, and Barlow Trail N.E. Intersection. Each board shows three options with corresponding maps and a grid of dots for ranking. The boards are part of a larger display at an open house event.

12 Street N.E. Options

There were three options presented for the 12 Street and McKnight Boulevard N.E. intersection. The McKnight Boulevard Widening project has been funded and tentatively scheduled for construction in 2015. This will widen McKnight Boulevard from four to six lanes between 12 Street N.E. and 19 Street N.E.

Which option do you prefer for 12 Street NE ? (90 Respondents)



Options B and C were preferred by 38% and 40% of respondents respectively.

Which option do you prefer? Why do you prefer this option?

Option A – McKnight Widening Only (20 respondents)	Option B – Dual Left-Turns on All Approaches (34 respondents)	Option C – Right-In/Right-Out (36 respondents)
<ul style="list-style-type: none"> This option provides better traffic flow (5); specifically reduces traffic during peak hours (2) 	<ul style="list-style-type: none"> Best option presented (14); specifically better traffic flow (5) 	<ul style="list-style-type: none"> Best potential of improving traffic flow (12), specifically improves east/west travel (2)
<ul style="list-style-type: none"> Low cost (5) 	<ul style="list-style-type: none"> Reduces bottle neck at Aviation Boulevard (5) 	<ul style="list-style-type: none"> Reduces lane weaving (10)
<ul style="list-style-type: none"> Extra lanes are the best solution (4) 	<ul style="list-style-type: none"> Travel time savings (3) 	<ul style="list-style-type: none"> Roundabouts are not useful in high traffic areas (2)
<ul style="list-style-type: none"> This option will provide the least disruption (2) 	<ul style="list-style-type: none"> This option gets more cars through the intersection (3) 	<ul style="list-style-type: none"> Safest for cyclists/pedestrians (2)
	<ul style="list-style-type: none"> Alleviates lane weaving (3) 	<ul style="list-style-type: none"> Lower cost than Option B (2)
	<ul style="list-style-type: none"> This is not a good option for cyclists and pedestrians (2) 	<ul style="list-style-type: none"> Future/long term benefits (2)
		<ul style="list-style-type: none"> Decreases intersection traffic (2)

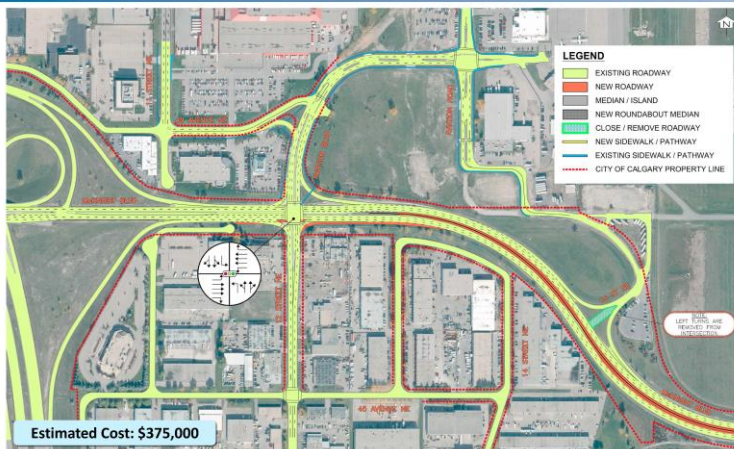
A couple of respondents (2) noted that none of the options are suitable.

Option A: McKnight Widening Only

12 Street N.E. Intersection

Option A (McKnight Widening Only)

McKnight Boulevard
Transportation Study



Pros

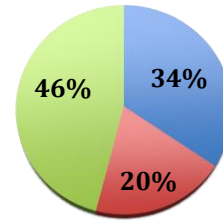
- Low cost improvement – funding secured and planned for construction in 2015.
- Notable improvements to eastbound and westbound movements compared to existing conditions.
- No impacts to adjacent properties or driveways.
- Typical intersection layout makes wayfinding easy.
- Removal of left-turns at 15 Street improves safety and traffic operations.
- Minimal disruption to traffic during construction.
- Preserves the compatibility of the intersection with longer-term interchange plans.

Cons

- Widening does not improve cross-street operations.
- Split signal phasing for northbound/southbound left-turns is not removed.
- Weaving issues with traffic to/from Deerfoot Trail ramps increase with additional lanes.
- Traffic operations may deteriorate with future increases in traffic volumes.

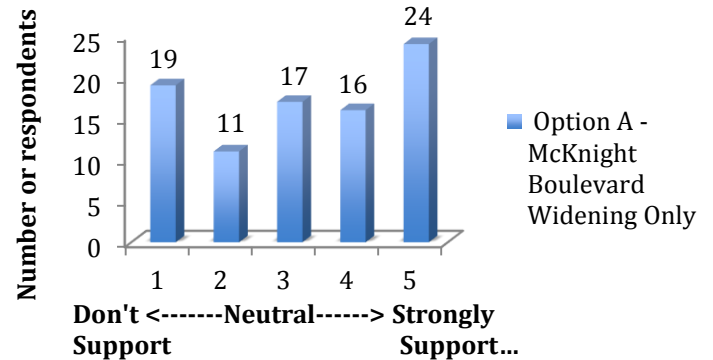
Dotmocracy rankings were similar to feedback form rankings for *Don't Support* and *Strongly Support*, but showed more polarization with no dots placed on the neutral ranking.

Option A – McKnight Widening Only

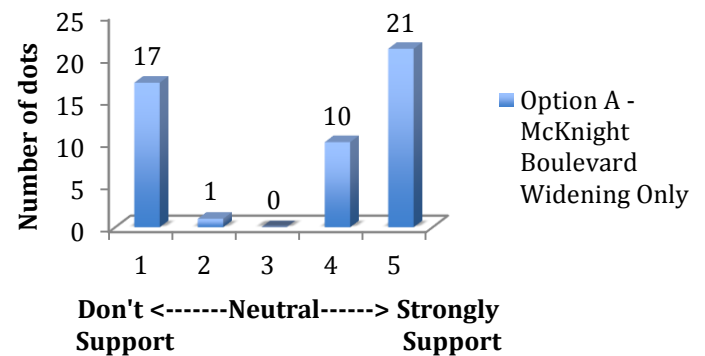


- Don't Support (30)
- Neutral (17)
- Do Support (40)

Option A Feedback Form Ranking



Option A Dotmocracy Ranking



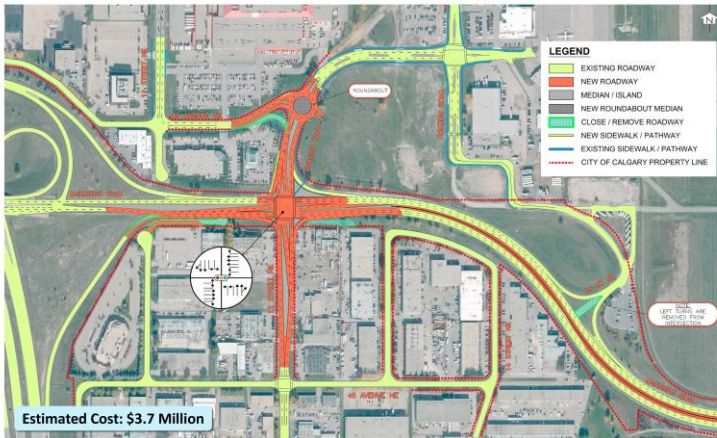
22% (20 of 90) of respondents preferred Option A.

Option B: Dual Left-Turns

12 Street N.E. Intersection

Option B (Dual Left-Turns)

McKnight Boulevard
Transportation Study



Pros

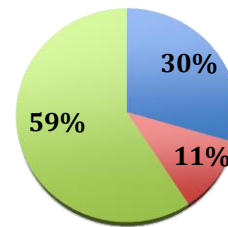
- Reduced delays for all movements, some substantially improved.
- Typical intersection layout makes wayfinding easy.
- No re-routing required.
- No changes to surrounding road network.
- Removal of left-turns at 15 Street improves safety and traffic operations.

Cons

- High construction cost.
- Does not improve weave between Deerfoot Trail and 12 Street.
- Large intersection not desirable for pedestrians and cyclists.
- Some minor property acquisition required.
- Some driveways require relocation, access limitations south of McKnight Blvd.
- Construction more disruptive to traffic compared to other options.

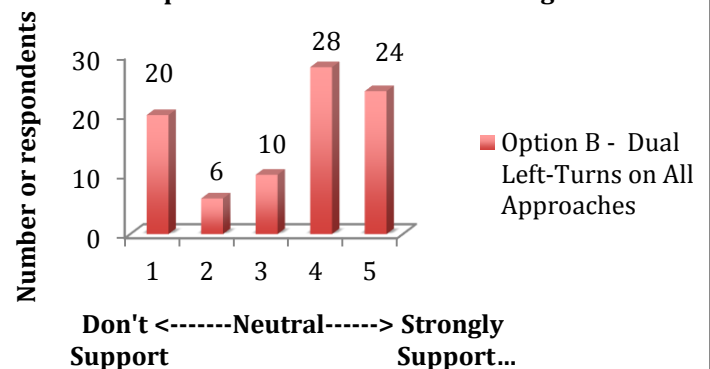
Dotmocracy rankings showed high support for this option (47 dots). Feedback form ranking also suggests high support for this option (52 respondents), but a higher number of feedback form respondents than dotmocracy participants did not support Option B (26 respondents vs. 9 dots).

Option B – Dual Left-Turns on All Approaches

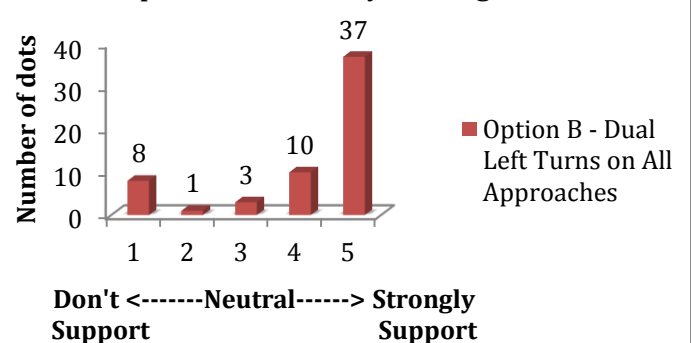


- Don't Support (26)
- Neutral (10)
- Do Support (52)

Option B Feedback Form Ranking



Option B Dotmocracy Ranking

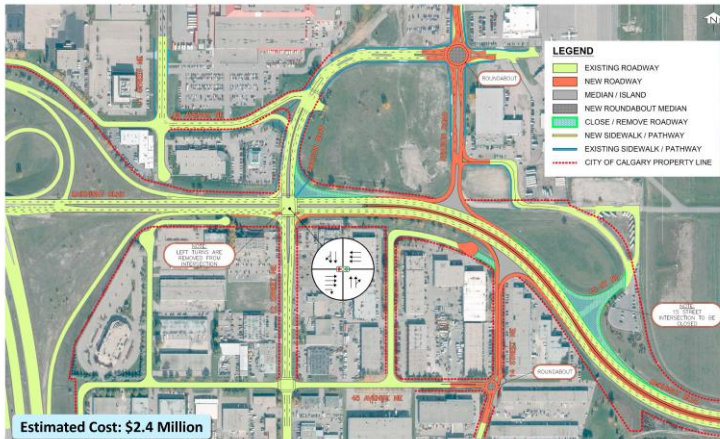


38% of respondents (34 of 90) prefer Option B.

Option C: Right-In/Right-Out

12 Street N.E. Intersection Option C (Right-In/Right-Out)

McKnight Boulevard
Transportation Study



Pros

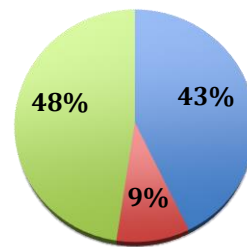
- Moderate construction costs.
- Significant operational improvements at McKnight Boulevard / 12 Street intersection.
- Removal of weaving between Deerfoot Trail and 12 Street.
- Pedestrian crossings are improved with removal of left-turns.
- Minor impacts to property access.
- Compatible with longer-term interchange plans.
- Removal of 15 Street intersection improves safety and traffic operations.

Cons

- Re-routing required for all left-turns (wayfinding may not be intuitive).
- Additional traffic added to surrounding road network, potential restrictions to on-street parking.
- Potential for (intentional or unintentional) left-turns at McKnight Blvd. / 12 Street intersection.
- Future pathway would cross right-turn ramps.
- Potential utility conflicts with extension of Aviation Road.
- Moderate property acquisition required.

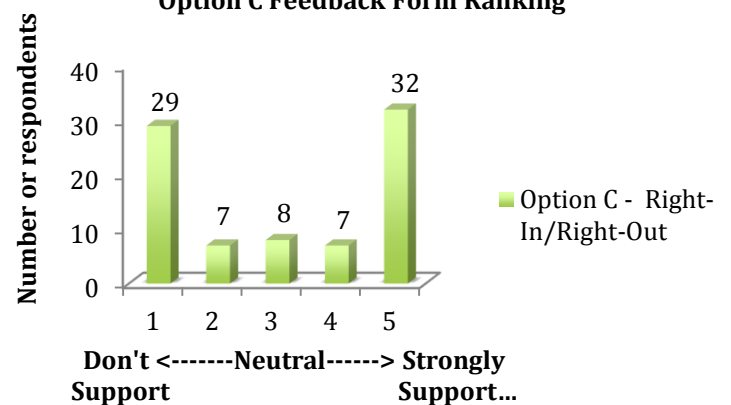
Dotmocracy rankings aligned closely with feedback form respondents; preferences show polarized results.

Option C - Right-In/Right-Out

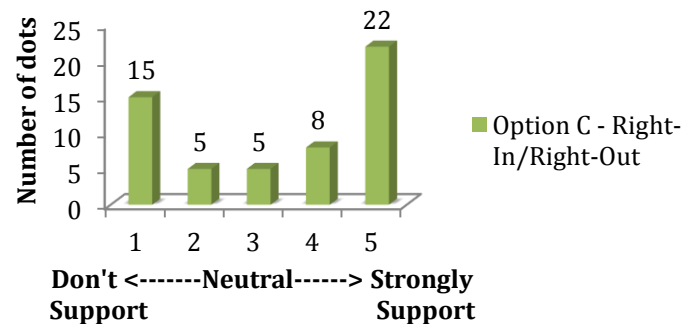


- Don't Support (36)
- Neutral (8)
- Do Support (40)

Option C Feedback Form Ranking



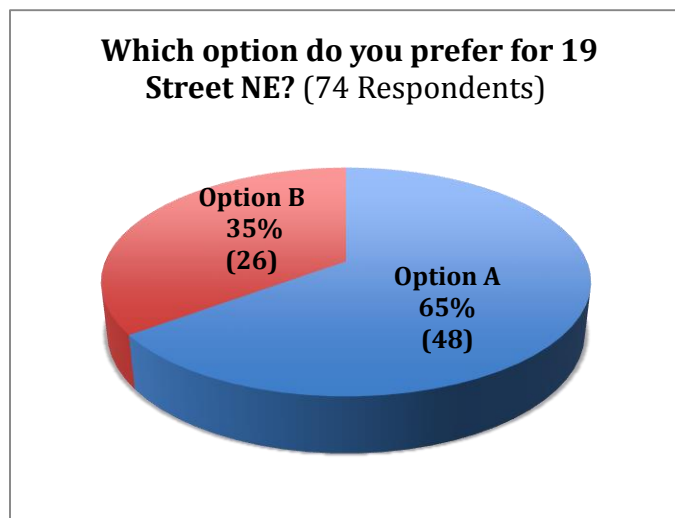
Option C Dotmocracy Ranking



Option C was favoured at 40% (36 of 90).

19 Street N.E. Intersection

There were two options presented for the 19 Street and McKnight Boulevard N.E. intersection.



Nearly two-thirds of respondents (65%) prefer the McKnight Boulevard Widening Only option.

Which option do you prefer? Why do you prefer this option?

Option A – McKnight Widening Only	Option B – Pegasus Road Improvements
<ul style="list-style-type: none">Don't use it (12); specifically Pegasus Road is not used enough (3)	<ul style="list-style-type: none">Improve traffic flow (7)
<ul style="list-style-type: none">Don't see the need for changing current conditions here (8)	<ul style="list-style-type: none">More solutions for stalled traffic (3)
<ul style="list-style-type: none">Option B will increase congestion (3)	<ul style="list-style-type: none">Future/long term benefits (2)
<ul style="list-style-type: none">East/west traffic flow will be improved (3)	
<ul style="list-style-type: none">Ease traffic during peak hours (2)	
<ul style="list-style-type: none">Congestion here is caused by the loss of the third lane before 19th Street (2)	

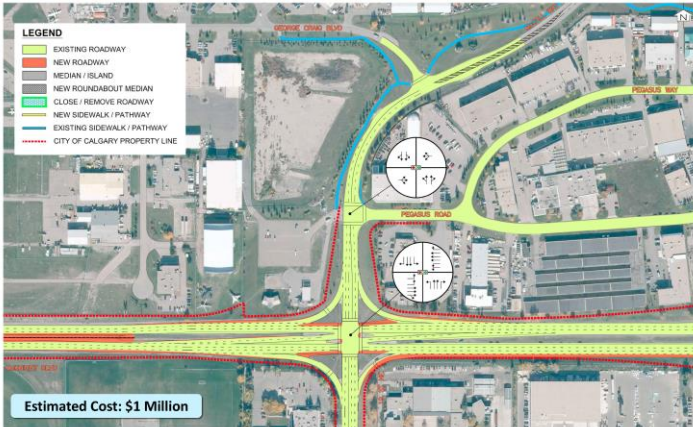
One person (1) noted none of the above because there are no considerations for cyclists/pedestrians in the plans.

Option A: McKnight Widening Only

19 Street N.E. Intersection

Option A (McKnight Widening Only)

McKnight Boulevard
Transportation Study



Pros

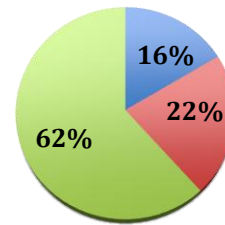
- Low cost improvement – funding secured and planned for construction in 2015.
- Notable improvements to eastbound left-turn and through movements on McKnight Blvd.
- No impacts to adjacent properties or driveways.
- Typical intersection layout makes wayfinding easy.
- Existing right-turn lanes could also be extended to bypass traffic queues.

Cons

- Widening does not improve operations on 19 Street approaches with the exception of the southbound right-turn.
- Does not address operational issues at McCall Way / Pegasus Road intersection.

Both open house attendees and feedback form respondents *Strongly Support* Option A.

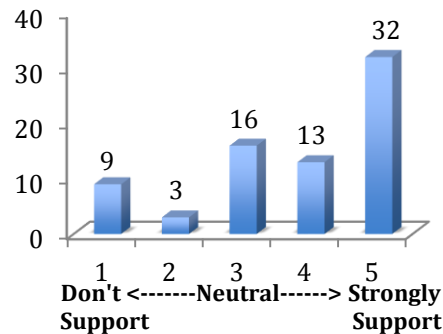
Option A – McKnight Widening Only



- Don't Support (12)
- Neutral (16)
- Do Support (45)

Option A Feedback Form Ranking

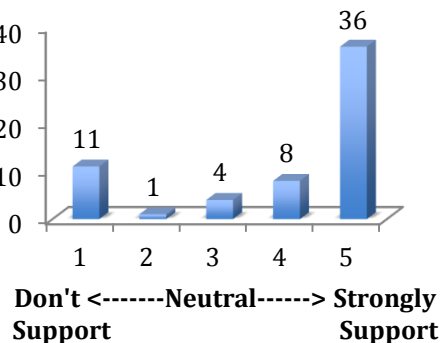
Number of respondents



- Option A - McKnight Boulevard Widening Only

Option A Dotmocracy Ranking

Number of dots



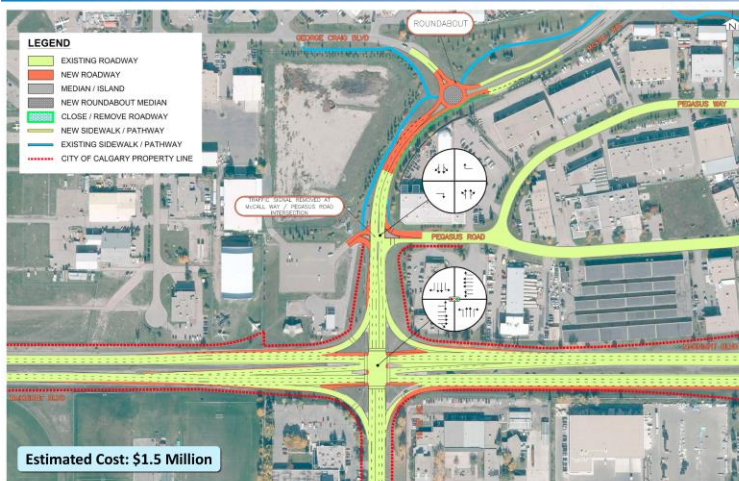
- Option A - McKnight Boulevard Widening Only

65% (48 of 74) prefer Option A.

Option B: Pegasus Road Improvements

19 Street N.E. Intersection Option B (Pegasus Road Improvements)

McKnight Boulevard
Transportation Study



Pros

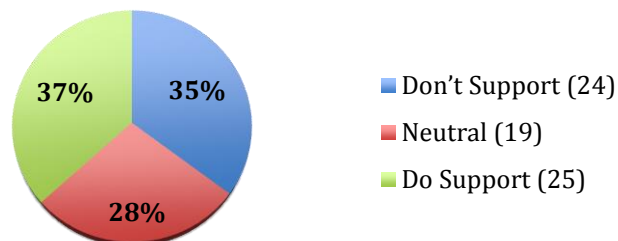
- Construction costs are low (cost of widening included in estimated cost).
- No additional property is required.
- Significant operational improvements to McCall Way / Pegasus Road intersection.
- Removal of closely spaced signalized intersections on McCall Way.
- Incorporates widening of McKnight Boulevard (Option A).

Cons

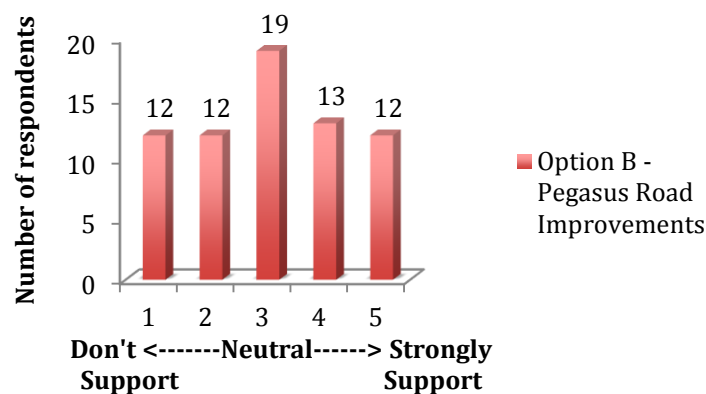
- Re-routing required for left-turns from Pegasus Road to McCall Way.
- Wayfinding may not be intuitive.
- Pedestrian crossings of McCall Way no longer signalized.

This option ranked high among open house attendees in the dotmocracy. Feedback form respondents showed a nearly even ranking distribution, with a high number of respondents being neutral.

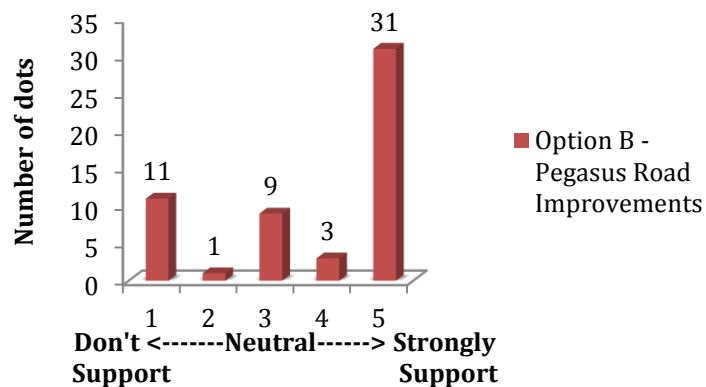
Option B – Pegasus Road Improvements



Option B Feedback Form Ranking



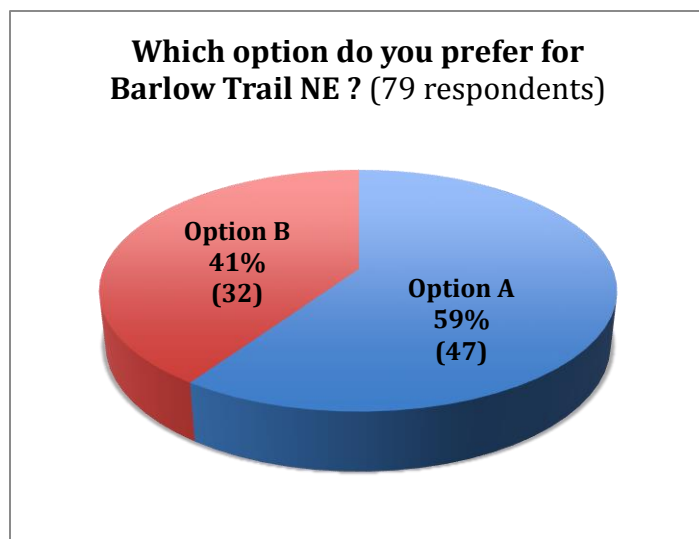
Option B Dotmocracy Ranking



Option B received 35% (26 of 74) preference.

Barlow Trail N.E. Intersection

There were two options presented for the Barlow Trail and McKnight Boulevard N.E. intersection.



Over half of respondents (59% or 47) would prefer to do nothing at the Barlow Trail N.E. intersection.

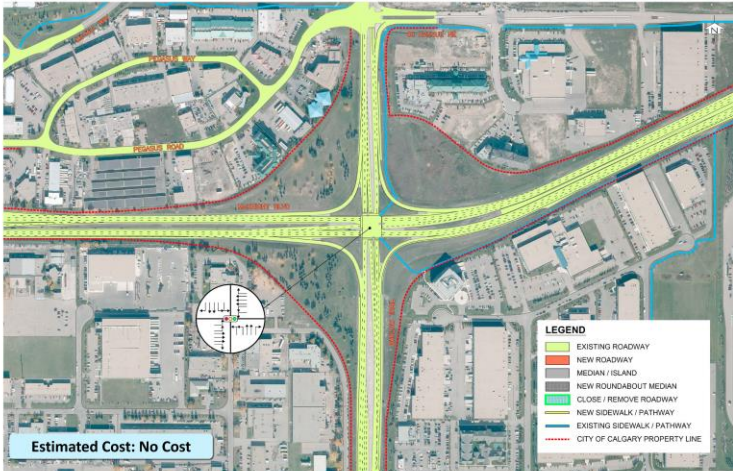
Which option do you prefer? Why do you prefer this option?

Option A – Do Nothing	Option B – Continuous Flow Intersection (CFI)
<ul style="list-style-type: none"> Existing conditions are fine (13); specifically money is better spent on other options (3) 	<ul style="list-style-type: none"> Improves traffic flow (13) because it reduces lane weaving (3), and reduces congestion on eastbound McKnight (4)
<ul style="list-style-type: none"> Better option (18); specifically less confusion than Option B (9), Option B is too expensive (6), and too many traffic lights in Option B (4) 	<ul style="list-style-type: none"> Future/long term benefits (2)
<ul style="list-style-type: none"> Do not use it (3) 	<ul style="list-style-type: none"> Reduces travel time (2)
<ul style="list-style-type: none"> Think of better long-term solutions (3) 	

Option A: Do Nothing

Barlow Trail N.E. Intersection Option A (Do Nothing)

McKnight Boulevard
Transportation Study



Pros

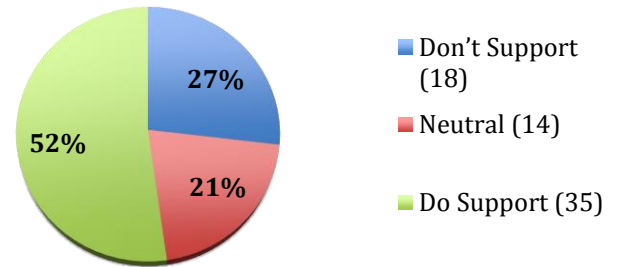
- No cost.
- No impacts to properties, accesses or utilities.
- No impacts to adjacent properties or driveways.
- Typical intersection layout makes wayfinding easy.
- No additional intersections required.

Cons

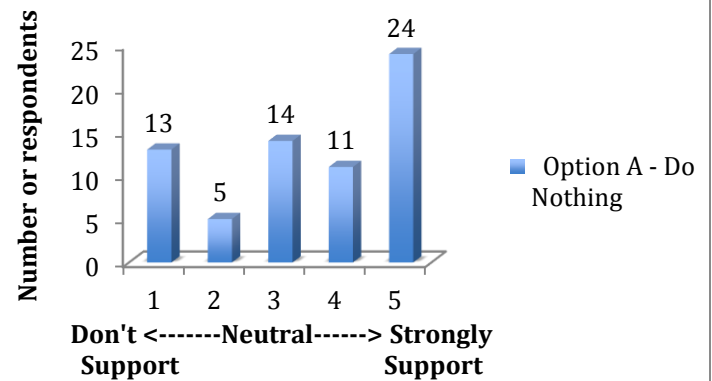
- Existing levels of delay and congestion remain.
- Traffic operations may deteriorate with future increases in traffic volumes.
- Implementation of an interchange would be dependent on Council prioritization and funding.

Dotmocracy and feedback form rankings showed high support for doing nothing to this intersection by. Approximately half of the numbers of respondents who support the option are neutral.

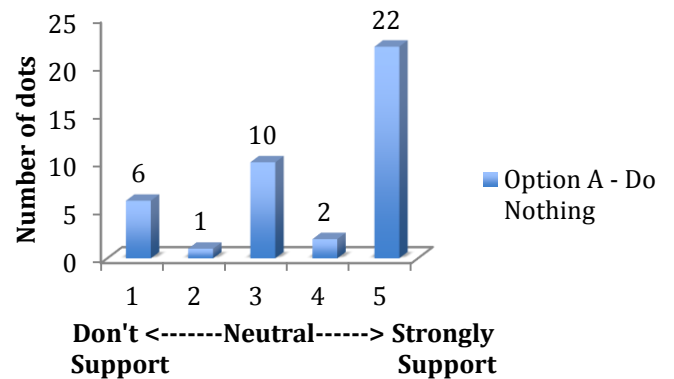
Option A - Do Nothing



Option A Feedback Form Ranking



Option A Dotmocracy Ranking

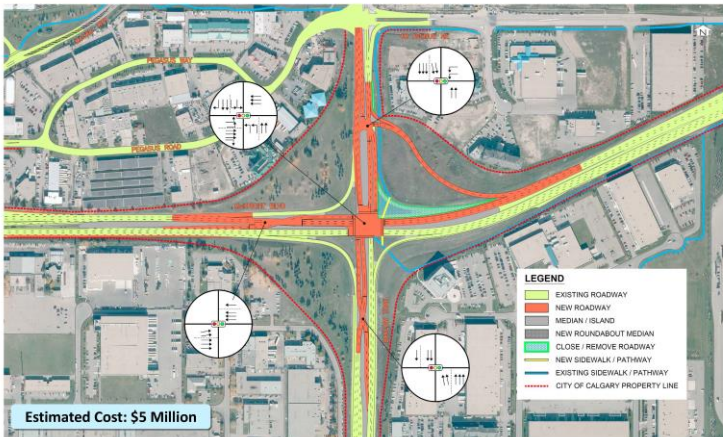


59% (47 of 79) prefer Option A.

Option B: Continuous Flow Intersection

Barlow Trail N.E. Intersection

Option B (Continuous Flow Intersection) McKnight Boulevard Transportation Study



Pros

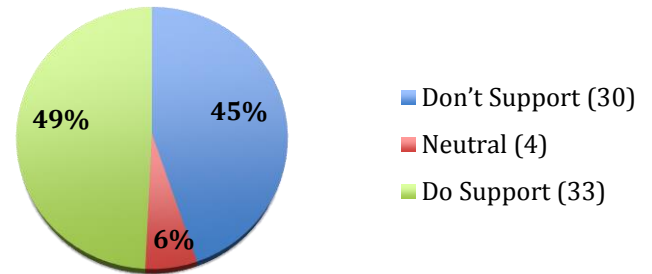
- No additional property required.
- Substantial improvements to westbound and northbound left-turn movements during the afternoon peak hour.
- Removes westbound weave between 36 Street and left-turn at Barlow Trail.
- Higher construction costs, but further delays the even higher cost of an interchange.

Cons

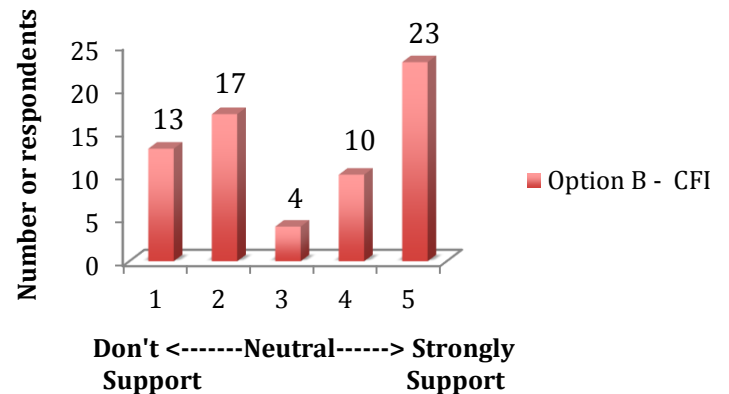
- High cost improvement.
- Potential for (intentional or unintentional) left-turns at main intersection.
- Potential driver confusion at cross-over intersections (wrong-way into left-turn lanes).
- Pedestrian challenges due to concurrent through and left-turn movements.
- Three new signalized intersections required.
- Major disruptions during construction.
- Weaving issues may occur between cross-over intersections and surrounding intersections (39 Avenue and 48 Avenue).

Rankings for both dotmocracy and feedback form participants were fairly spread out with few being neutral on their support of this option.

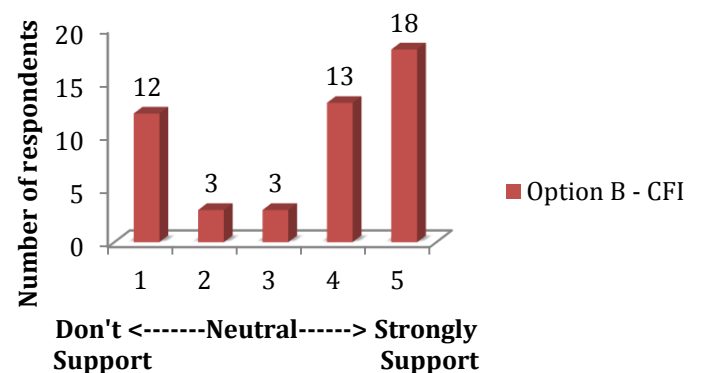
Option B – Continuous Flow Intersection (CFI)



Option B Feedback Form Ranking



Option B Dotmocracy Ranking

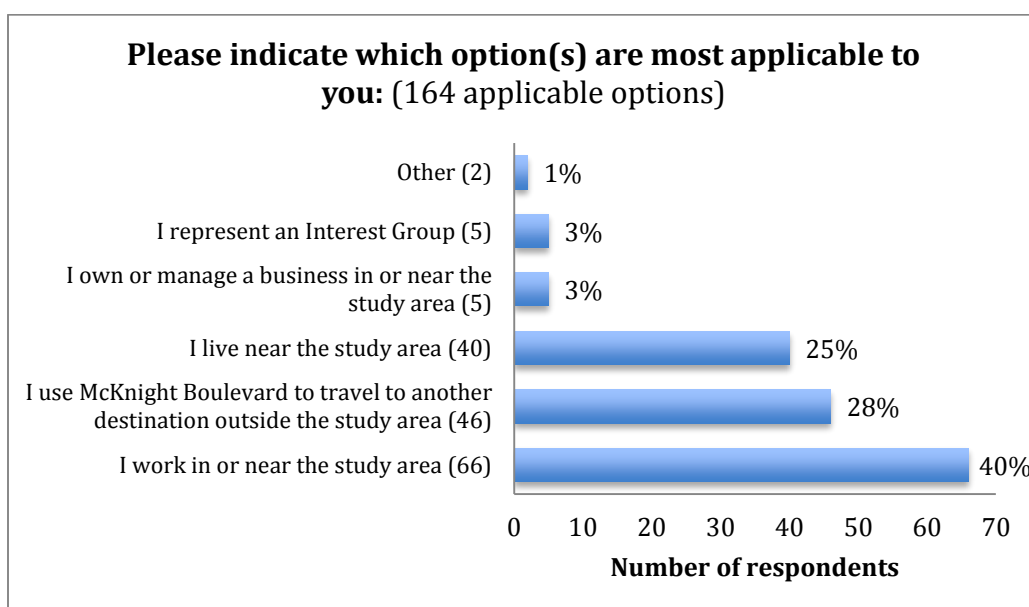


41% (32 of 79) prefer Option B of improving this intersection

Additional Comments:

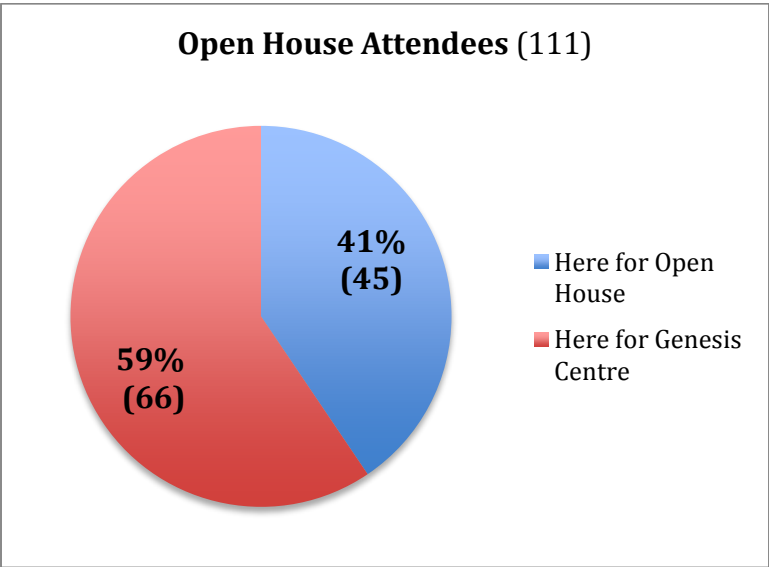
- Need to broaden study area (8); specifically extend access to Metis Trail (3), and improve all the way to Stoney Trail (2)
- Pedestrians and cyclists have not been accommodated in these plans (8)
- Interchanges are desired (5)
- Thanks for asking (3)
- Northbound Barlow Trail and Eastbound McKnight Boulevard need to be two lanes (3)
- Water/snow containment needs to be addressed (3)

Demographics



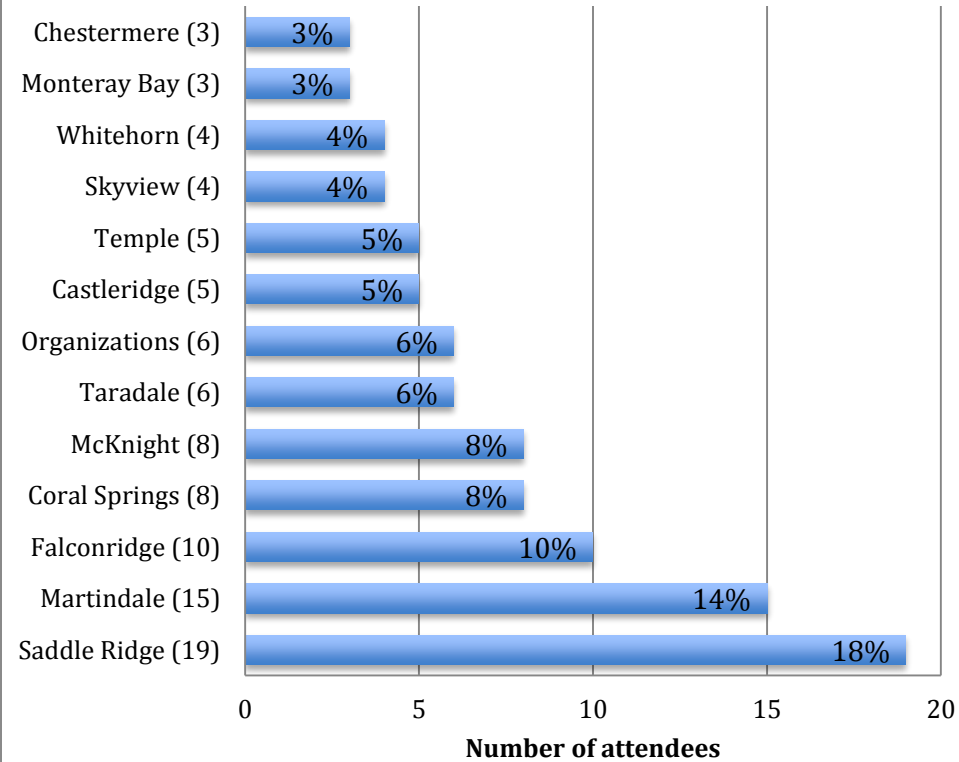
Most respondents either live, work, or travel through the study area, many of these options were applicable to each respondent. **Interest groups** represented in the feedback form submissions include: JC Slow Pitch, Elbow Valley Cycle Club, Bike Calgary, Temple Community Association, Cornerstone Church, and Hilton Garden Inn Calgary Airport. For those who selected **other**, comments include: “I also walk or drive from work to other businesses in the study area,” and “I travel that route frequently.”

Open House Evaluation



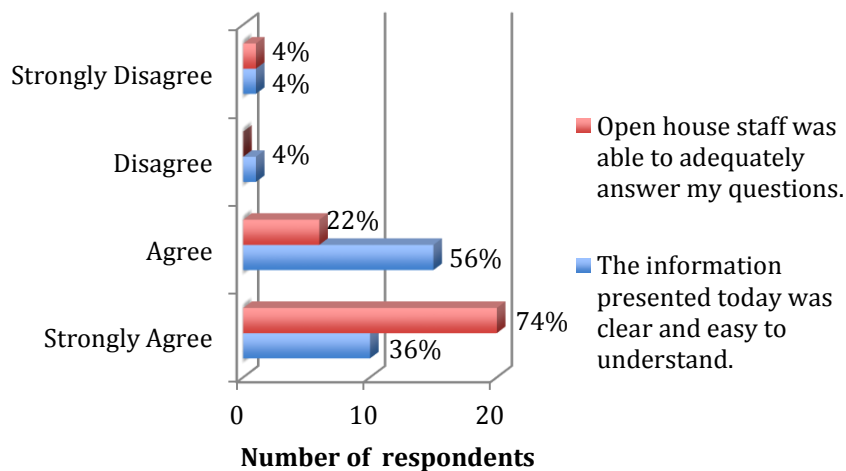
Nearly 60% of attendees at the open house were at the Genesis Centre for another reason, while 45 of the 111 attendees came specifically to attend the open house.

Attendees by Community (104 captured)



The majority of attendees came from surrounding communities. Several other Calgary communities had 2 or less attendees.

OPEN HOUSE EVALUATION (27 respondents)

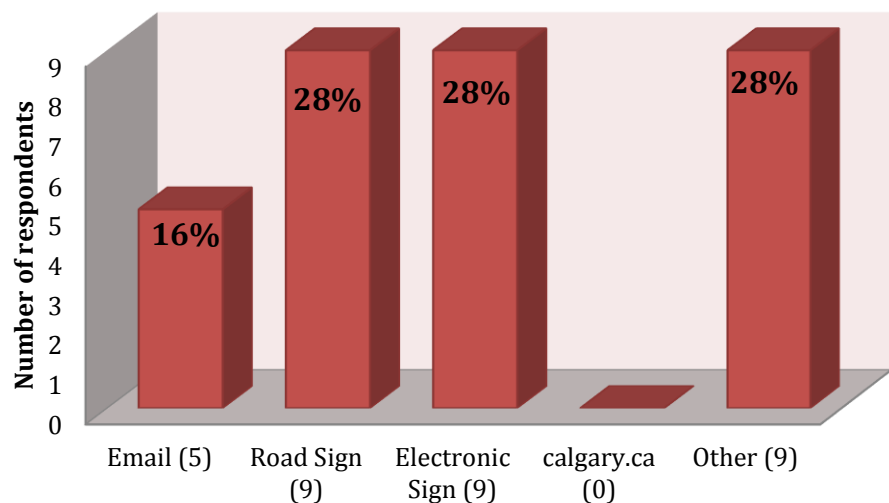


96% of respondents *Agreed* or *Strongly Agreed* that open house staff were able to adequately answer questions, and 91% of respondents *Agreed* or *Strongly Agreed* that the information presented was clear and easy to understand.

Additional Comments about the open house: Three people were thankful for the opportunity (3), a few respondents liked the open house and feedback format (3), and two (2) people thought it was good/great idea.

More than half (56%), of respondents saw advertising on a road sign or electronic sign on McKnight Boulevard.

How did you hear about the open house? (32 responses)



Conclusions

- There were a total of 184 participants of the open house and subsequent feedback opportunity.
- Of the 111 open house attendees, there were 33 feedback forms filled out.
- There were 73 feedback forms submitted online for a total of 106 feedback forms.
- **12 Street N.E. intersection:** Option B and Option C showed highest partiality noting a need for improvements to this intersections beyond widening McKnight Boulevard.
 - Option A – McKnight Widening Only – 22%
 - Option B – Dual Left-Turns on All Approaches – 38%
 - Option C – Right-In/Right-Out – 40%
- **19 Street N.E. intersection:** Many did not see the need for the proposed Option B improvements and felt that widening McKnight Boulevard would reduce many of the current issues.
 - Option A – McKnight Widening Only – 65%
 - Option B – Pegasus Road Improvements – 35%
- **Barlow Trail N.E. intersection:** Many respondents felt that the existing conditions are fine; Option B would pose other issues and is expensive.
 - Option A – Do Nothing – 59%
 - Option B – Continuous Flow Intersection – 41%
- Respondents noted that the study area should be expanded; some mentioned a preference for overpasses and interchanges and should be examined for feasibility.
- There is concern around cyclist and pedestrian access on McKnight Boulevard as it is the major east/west route in north Calgary.
- All respondents are directly impacted by travel on McKnight Boulevard.

Next Steps

The project team will conduct a technical evaluation of the options while considering input from the Advisory Group, stakeholders, and the general public to determine the final recommendations. The project team will review this input summary with the Advisory Group to evaluate and select recommended options. The recommended options will be presented to Council in early 2015 and shared with the public at calgary.ca/mcknight and by email to those that have signed up for project updates.



Open house attendees reviewing options.