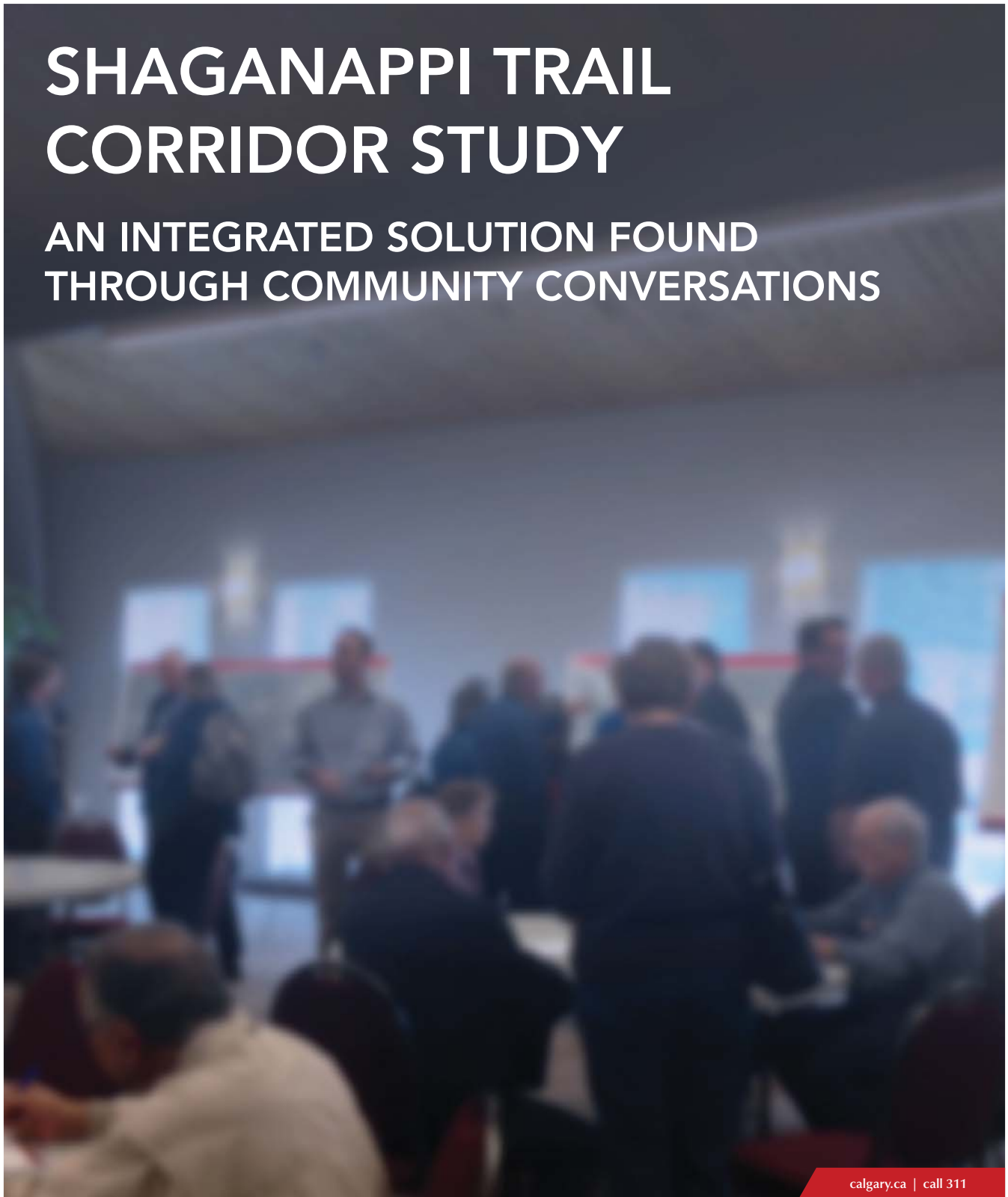


SHAGANAPPI TRAIL CORRIDOR STUDY

AN INTEGRATED SOLUTION FOUND THROUGH COMMUNITY CONVERSATIONS



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Onward/ Providing more travel choices helps to improve overall mobility in Calgary's transportation system.



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Overview

Transportation Planning conducted a study of the Shaganappi Trail corridor between north of 16 Avenue and Stoney Trail. The study looked at how best to accommodate all modes of transportation (walking, cycling, transit and driving), including High Occupancy Vehicle (HOV) lanes, in a long-term vision for Shaganappi Trail.

The Shaganappi Trail study was made up of two components:

1. A Corridor Study from north of 16 Avenue N to Crowchild Trail NW
2. HOV Implementation Study from north of 16 Avenue N to Stoney Trail NW

The Study was undertaken after the 2009 Calgary Transportation Plan re-designated Shaganappi Trail from a Skeletal Road to an Arterial Street south of Crowchild Trail NW and identified Shaganappi Trail as part of the Primary Transit Network, Primary HOV Network and Primary Cycling Network.

The Shaganappi Trail Corridor Study was also required in order to consider other planning initiatives in the area such as the University of Calgary Master Plan, West Campus Master Plan and South Shaganappi Communities Area Plan. An analysis of future traffic volumes indicated that by 2039 traffic volume increases on Shaganappi Trail will be 40 percent over capacity if no changes are made to the existing four-lane configuration creating gridlock conditions and unreliable transit service.

One of the major challenges of the Study is that areas along Shaganappi Trail in the community of Varsity between 40 Avenue N and Crowchild Trail N have limited space to accommodate for any expansion of the corridor without significant impact to residential properties along Shaganappi Trail. The southern part of the corridor, from north of 16 Avenue N to 40 Avenue N, doesn't have the same property

constraints so a solution for the entire corridor would have to accommodate for both sections of the corridor and provide one connected configuration for Shaganappi Trail.

The physical constraints of the corridor became an opportunity for a highly integrated engagement program for the project. The project team turned to the community to better understand their values and perspectives for the corridor and worked very closely with homeowners to come-up with an integrated solution for the constrained area in Varsity that ultimately connects to the rest of the corridor.

The project team created a multi-phased engagement program to work closely with internal and external stakeholders, area residents and the general public in order to integrate community feedback into project decision-making. The corridor study kicked-off in the summer of 2012 and the project team gathered community feedback for two-years to create a long-term solution for the Shaganappi Trail Corridor.

The two main priorities the project team heard from area residents and the general public during the engagement process is that the community wanted to limit or eliminate any impacts to residential properties and that homeowners wanted to maintain the frontage road (Voyageur Drive) that runs parallel to Shaganappi Trail.

Like many long-term transportation corridor studies undertaken by The City's Transportation Planning business unit, the Shaganappi Trail Corridor Study project team sought to create a recommended plan for the corridor that adheres to and balances the priorities of City of Calgary policy, is reflective of the values and perspectives of citizen and stakeholder input, meets technical requirements for safe and efficient street design and is fiscally responsible.

Key benefits of the recommended plan for the Shaganappi Trail Corridor

Supports Council's Direction

- Aligns with Council's 2009 Calgary Transportation Plan (CTP) and Municipal Development Plan (MDP)

Plans for All Modes

- Accommodates all modes of transportation including walking, cycling, transit and driving

Feedback Incorporated

- Stakeholder and citizen feedback incorporated into the plan as much as possible

Community Support

- Ninety percent of the community members, who provided feedback, are in favour or neutral about the recommended plan

Certainty for Residents

- No houses required for the recommended plan
- No property required for the recommended plan
- Property access maintained
- Accommodates future growth

Accommodates Future Traffic

- Provides a solution for Shaganappi Trail that accommodates predicted traffic volume increases based on 2039 traffic forecasts

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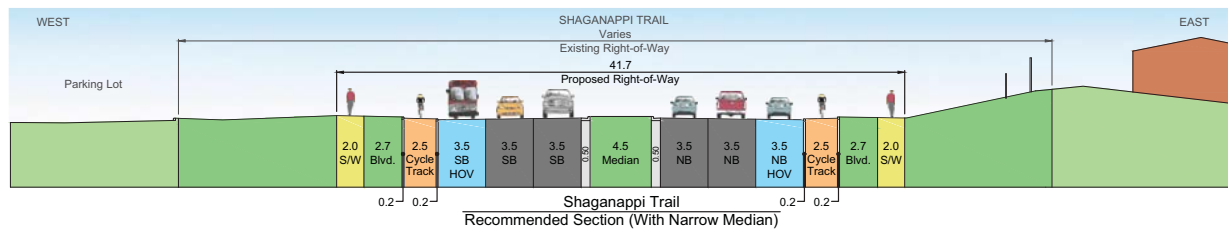
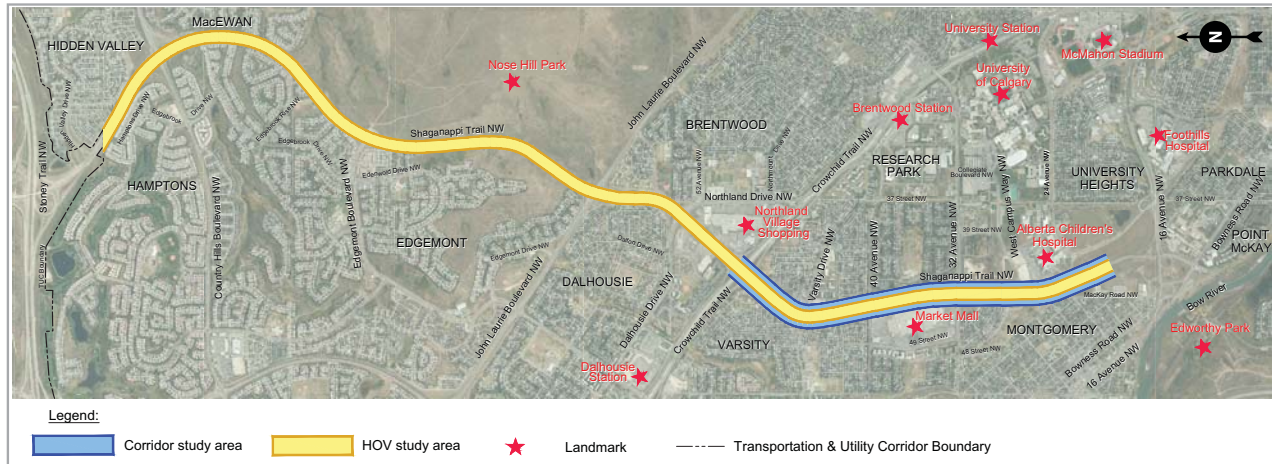
Key considerations of the Shaganappi Corridor Study

- Create a new Shaganappi Trail corridor plan that aligns with the 2009 CTP designation change of Shaganappi Trail from a Skeletal Road to an Arterial Street and includes the following:
 - » Consider Shaganappi Trail's new function as designated by the CTP, which looked at the entire transportation network in The City, and determined that Shaganappi Trail no longer needs to be a free-flow expressway to accommodate future traffic demand in the network.
 - » Accommodate for future traffic volume increases, with City forecasting indicating that Shaganappi Trail would be 40% over-capacity by 2039 if no changes are made to the existing four-lane configuration. These gridlock conditions would particularly create unreliable transit service as buses would have no ability to bypass peak-hour congestion. This, in turn, would inhibit the ability of Shaganappi Trail to be used as a Primary Transit route as designated by the CTP and the RouteAhead plan, providing high quality BRT service connections to the NW Hub transit area.
 - » Accommodate use as a Primary HOV route, as designated by the CTP.
 - » Accommodate use as a Primary Cycling route, as designated by the CTP. Shaganappi Trail is a strategic link in the northwest cycling network due to its direct connection to popular destinations such as the Bow River Pathway, residential communities and major Activity Centres including the University of Calgary, West Campus and Market Mall.
- Update an existing, outdated, previously approved Shaganappi Trail corridor plan developed in 1970 that no longer meets the needs of the 2009 CTP. In the absence of a new corridor plan, the 1970 Shaganappi Trail corridor plan that is currently in place would:
 - » Upgrade Shaganappi Trail to a free-flow expressway with limited access via interchanges.
 - » Close the existing intersections at Varsity Drive and Valiant Drive.
 - » Physically separate planned BRT service from adjacent land uses.
 - » Provide no accommodation for active modes of transportation
 - » Require acquisition of about 30 homes on the west side of Shaganappi Trail in areas of constrained right-of-way.
- Consider the values and concerns of area residents including the reduction or elimination of residential and business property acquisition, maintaining residential property access, parking and quality of life for those residents along Shaganappi Trail.
- Incorporate the input of citizens and stakeholders into the decision-making process for the corridor and if feedback can't be included, explain the reasons why not.
- Create a stakeholder and citizen engagement program that adheres to The City's engage! Policy.
- Recognize that Shaganappi Trail is an existing road corridor with significant property constraints between 40 Avenue N and Crowchild Trail N, which limits the space available for expansion. The southern part of the corridor, from north of 16 Avenue N to 40 Avenue N does not have the same property constraints. Ultimately, a recommended plan must integrate balanced solutions in areas with and without property constraints.

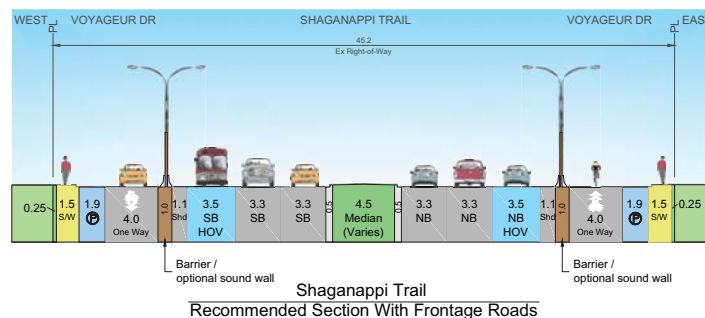
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Recommended plan

The recommended plan would see the entirety of the corridor widened to a six-lane basic cross-section with the new exterior lanes designated for Transit / HOV-only use by transit and carpools.



In the constrained area in the Varsity community, pedestrian and cyclists will be accommodated by sidewalks and an on-street bike lane along Voyageur Drive that will connect to the remainder of the corridor through dedicated sidewalks and cycle lanes.



Voyageur Drive will be converted from a two-way configuration to a one-way street to accommodate for the six-lane configuration and to retain street parking and driveway access for residents along Voyageur Drive.

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Key outcomes of the Shaganappi Corridor Study

The following are key outcomes of the Shaganappi Trail Corridor Study:

- The recommended plan would see the entirety of the corridor widened to a six-lane basic cross-section, with the new exterior lanes designated for Transit / HOV-only use by buses and carpools.
- This aligns with the 2009 CTP by including the following:
 - » The recommended Shaganappi Corridor Study plan reflects an Arterial Street standard that provides for a high quality environment with a multi-modal focus and significant new connections for pedestrians, cyclists, and transit and carpool users.
 - » The increase from a four-lane to a six-lane configuration with an exterior Transit / HOV lane will benefit all users. All drivers will see moderate benefit through the capacity improvements provided by HOV, while transit service will gain a significant advantage by using the Transit / HOV lane to attain efficient peak period service.
- The recommended plan accommodates for Shaganappi Trail to function as part of the Primary Transit Network with the addition of the outer Transit / HOV lane, creating a facility that will provide consistent transit service along the length of Shaganappi Trail. This accommodates the planned BRT service on Shaganappi Trail, which is included as a longer-term priority in the RouteAhead transit plan, using Shaganappi Trail to connect the Northpoint Terminal to the NW-HUB transit area near the West Campus.
- The recommended plan accommodates for Shaganappi Trail to function as part of the Primary HOV Network with the addition of a northbound and southbound outer, Transit / HOV-only lane. The addition of a dedicated HOV lane will also improve operations for general (single-driver) traffic by shifting transit and carpool traffic to the dedicated lane. It would also be possible to designate the HOV-only use during peak periods, allowing the lane to benefit all users during off-peak and weekend periods.
- The recommended plan accommodates for Shaganappi Trail to function as part of the Primary Cycling Network. There will be two approaches to adding continuous cycling facilities to the corridor. Dedicated one-way bike lanes will be added where there are no property constraints and will connect to “shared use” residential streets in the constrained areas through Varsity. Space is also provided to physically separate the bike lanes from adjacent traffic lanes, enhancing safety for all users. The Shaganappi Trail cycling facility will provide the major north-south commuter cycling connection between residential areas in northwest Calgary and the Bow River Pathway System.
- The recommended plan for Shaganappi Trail incorporates and reflects most of the feedback received from area residents, especially those most affected by the project in the constrained area between 40 Avenue N and Crowchild Trail. Through a two-year long engagement process, options were evaluated, eliminated or refined based on the feedback received. The recommended plan is based directly on community priorities, which significantly included the reduction and elimination of residential / commercial property impacts. The plan does achieve this critical objective, retaining all existing homes, on-street parking, and space to maintain existing sound walls, where desired by residents.
- The recommended Shaganappi Trail corridor plan would replace the outdated 1970 plan as the plan “on record”, and bring assurance to affected residents that they are not at risk of the significant property acquisition included in the 1970 plan.

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Community Conversations: story of engagement

The Shaganappi Trail Corridor Study included extensive public engagement through every stage of the project and adhered to The City's engage! Policy.

Each phase of engagement included multiple engagement opportunities for stakeholders, homeowners and members of the general public. The project team provided information about the project and promoted events through various communications channels including direct mailing, email update and invites, the creation of and updates to a project webpage, community newsletter articles, bold signs, variable message boards as well as through City social media channels.

Feedback provided during each engagement phase was incorporated into concepts and directly influenced the refinement of five original concepts down to the recommended plan. Where feedback

was not incorporated into the decision-making process, the project team reported back to stakeholders and citizens the reasons why feedback could not be included.

The project team held numerous meetings with the Varsity Civic Affairs Committee, to review matters of concern in the most constrained corridor sections around Varsity Drive and Valiant Drive. These meetings have resulted in some short-term solutions for the intersection that are recommended by the project team to be included in The City's optimization program.

The engagement process evolved through the project in response to previous feedback, providing more engagement opportunities than had been planned at the outset. The overall engagement process is indicated in below.

Phase	Purpose	Dates
1	Stakeholder introduction	July 2012
2	Public introduction and review of preliminary concepts	Oct / Nov 2012
3	Community conversations to review preliminary concepts	March / April 2013
4	Community conversations to review refined options	Oct / Nov 2013
5	Review recommendations with adjacent homeowners	Feb / April 2014
6	Open House to review recommended plan	May 2014

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What we heard

A public open house for the Shaganappi Trail Corridor Study was held on May 1, 2014 at the Varsity Acres Presbyterian Church. Approximately 180 people attended the session and the project team received 66 written comment forms. The open house was the fourth engagement opportunity for the public at large to learn about and provide feedback on the project. The intent of the open house was to present and receive input about the recommended plans prior to finalizing the study and presentation to City Council for approval.

General themes we heard include the following:

Over 90 percent of respondents either support or are neutral about the recommended plan

It's good to accommodate more modes of transportation such as HOV and walking

The City has listened to homeowners' concerns and developed a plan that most can accept

Some still concerned with more detailed design (to be undertaken during functional planning phase) such as pedestrian crossings, signal light timing and sound walls, traffic noise, headlight glare etc.

Safe cycling access is important at intersections especially with the addition of HOV lanes

Glad to see that no homes need to be purchased for the project

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What we heard (cont.)

What some members of the community had to say about the engagement process and the recommended option directly quoted from public open house feedback forms:

- "Plans are clear and outlined well"
- "The format was what I expected. I appreciated the context provided including "checking-in on objectives and feedback"
- "I liked parts of it and not others"
- "Overall I think the plan will meet the needs of most users"
- "Changes are needed and these seem to make the most sense"
- "I acknowledge the need to prepare for increase (+multi) use of this corridor. I feel that careful consideration has gone into weighing multiple factors"
- "If Shaganappi is going to be changed...this is probably addressing most of our issues"
- "Bike lanes and HOV lanes are good things"
- "You listened and made the best plan to accommodate everyone involved-community"
- "This is the best and most satisfactory solution. I fully support the final plan as presented today"
- "Thanks for the effort put forth by the city staff in laying this out but much work remains to be done in consultation with the impacted C.A.s prior to final planning and construction in the future"
- "Thank you for allowing our input"

"I think the planning group has listened to some suggestions and altered (modify) the plan to address some of our concerns"

.....

"Having weighed all the pros and cons - having our street changed to a one-way, seems for now the best solution. At least this way we are not compromising any of our property"

.....

"I spoke with a resident of Voyageur Drive about the impact to them and also to a couple City reps about discussion had and traffic pattern - very helpful"

.....

"All concerns I had seemed to have been considered"

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Summary of objectives achieved

Project Objective	Achieved?	
	Yes	No
Primary Cycling route accommodated?	✓	
Primary Transit route accommodated?	✓	
Primary HOV route accommodated?	✓	
Continuous pedestrian route accommodated?	✓	
Safety / design considerations?	✓	

Resident Priority	Achieved?	
	Yes	No
Retain Voyageur Drive	✓	
Retain on-street parking in front of houses	✓	
Retain driveway access in front of houses	✓	
Retain two-way traffic on Voyageur Drive * Reason for variance: The existing cross-sections of Voyageur Drive are already considered to be too narrow for practical two-way operation. The constrained right-of-way of Shaganappi Trail / Voyageur Drive was balanced to achieve a wide array of objectives, and providing additional widening to accommodate safe two-way operation of Voyageur Drive would require direct residential property acquisition. The remaining one-way driving lane on Voyageur Drive will provide for safe emergency access while maintaining on-street parking and front-drive access.		x
Pave / maintain back alleys used for access	✓	
Separate pedestrians and cyclists	✓	
Allow for noise wall for those who want one	✓	
Do not impact houses	✓	
Reduce median width *Reason for variance: After discussion with adjacent homeowners, it is understood that reducing the median had been suggested primarily as a means to achieve the other objectives above, such as maintaining parking. Since these objectives were achieved without reducing the median, it was no longer considered a priority. From a corridor perspective, the median width of 4.5 m on Shaganappi Trail accommodates for left turn lanes at intersections. Elimination of left turn lanes would significantly restrict community access and create operational issues for all users. The median also provides for safe separation of opposing lanes of traffic and space for snow storage in winter.		x

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Frequently Asked Questions

Question: What is a transportation corridor study and why does it matter to me?

A corridor study is a long-term transportation analysis which examines the current and future transportation planning needs for a specific area of the city. Transportation corridor studies are important because they will shape how people get to work, how they travel through their neighbourhoods and how goods are transported across the city for years to come.

The Shaganappi Trail Corridor Study will allow The City to better prioritize and plan for future transportation infrastructure projects through the 10-year Investing in Mobility plan. There is currently no funding available to implement recommendations from the corridor and HOV study.

Question: What is the Calgary Transportation Plan and why does it matter?

The Calgary Transportation Plan that was approved in 2009 is the long-term Council approved policy that guides our work. It determines and classifies our roadway system including primary transit and bikeway networks to make sure we can move people and goods in an efficient way.

The Calgary Transportation Plan changed the classification of Shaganappi Trail from a Skeletal Road to an Arterial Street. This reclassification and the projected future increases in traffic volume over the next 30 years are the two main reasons for undertaking the Shaganappi Corridor Study.

The adoption of the Calgary Transportation Plan by City Council in 2009 that changed the classification of Shaganappi Trail from a Skeletal Road to an Arterial Street made the existing 1970 Shaganappi Trail Corridor Study outdated. The old plan classified Shaganappi Trail as a freeway which no longer fits

within the City of Calgary's long-term transportation plans.

City Council has already decided HOV and cycling are to be part of Shaganappi Trail through the Calgary Transportation Plan.

Question: What is the difference between a Skeletal Road and Arterial Street?

From the CTP: "Skeletal Roads promote the movement of vehicular traffic over long distances. They typically operate at high speeds and have little direct access and interaction with adjacent land uses." "Arterial Streets provide a high-quality environment for all modes of transportation, and are the most common street in the transportation system. They have a varying degree of interaction with adjacent land uses, but on average allow for greater connectivity than Skeletal Roads. Arterial Streets are not destinations themselves, but provide a reasonable direct connection between multiple communities and major destinations.

Question: Why don't you use the 1970 corridor study for Shaganappi Trail? Why don't you widen to the west?

The Calgary Transportation Plan changed the classification of Shaganappi Trail from a Skeletal Road to an Arterial Street. This reclassification and the projected future increases in traffic volume over the next 30 years are the two main reasons for undertaking the Shaganappi Corridor Study.

The adoption of the Calgary Transportation Plan by City Council in 2009 that changed the classification of Shaganappi Trail from a Skeletal Road (freeway type of road) to an Arterial Street made the existing 1970 Shaganappi Trail Corridor Study outdated. The old plan classified Shaganappi Trail as a freeway which

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Frequently Asked Questions (cont.)

no longer fits within the City of Calgary's long-term transportation plans.

The project team has heard through its public engagement program that limiting and/or eliminating impact to adjacent properties along the Shaganappi Trail Corridor is a priority. The 1970 Plan does not achieve this priority.

One of the previous options to widen Shaganappi Trail to the west will not be presented to City Council as a preferred or recommended option.

Question: Why do we have to upgrade Shaganappi Trail at all?

The project team did analyze what would happen if Shaganappi Trail stayed the same as it is today. The Calgary Transportation Plan changed the classification of Shaganappi Trail from a Skeletal Road to an Arterial Street. This reclassification and the projected future increases in traffic volume over the next 30 years are the two main reasons for undertaking the Shaganappi Corridor Study. Future traffic volumes show that if the "do nothing" option is left in place that Shaganappi Trail will be 40 percent over capacity creating gridlock and unreliable transit service.

Question: Why are you recommending this plan?

The option we are recommending adheres to all the policy and technical requirements for the corridor, but more importantly, we will be recommending Council approve this plan because the project team has heard through its public engagement program that limiting and/or eliminating impact to adjacent properties along the Shaganappi Trail Corridor is a priority.

The recommended plan does not directly impact

any properties along Voyageur Drive or Shaganappi Trail and doesn't require the acquisition of homes, properties, front yards or the closing or moving of driveways for residents along Voyageur Drive. The recommended plan also gives certainty to homeowners living next to Shaganappi Trail on Voyageur Drive so they can plan for their future without worrying that their property might be needed for expansion of Shaganappi Trail

Question: Is the sound wall being removed?

No. Based on feedback provided from homeowners, the recommended plan has been revised to allow for space for a future sound wall if required by adjacent homeowners. Once the project receives funding to be constructed, the detailed design of the concept will begin and more public engagement will be undertaken. At that time, residents who currently have the sound wall can provide feedback that it should be kept/rebuilt and those who don't currently have the sound wall and don't want one can provide that feedback.

Question: Why are dedicated walking and cycling paths part of the recommended plan?

The project team has certain guidelines or policies that guide our work which means some decisions about the Shaganappi Trail Corridor Study have already been made. The project team has to include biking and pedestrian facilities as directed by the CTP. We have heard through engagement that a dedicated bike pathway is not preferred in the constrained area.

There will be two approaches to adding continuous cycling facilities to the corridor. Dedicated one-way bike lanes will be added where there are no property constraints and will connect to "shared

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Frequently Asked Questions (cont.)

use” residential streets in the constrained areas through Varsity. The Shaganappi Trail cycling facility will provide the major north-south commuter cycling connection between residential areas in northwest Calgary and the Bow River Pathway System.

Question: Why is HOV part of the recommended plan?

The project team has certain guidelines or policies that guide our work which means some decisions about the Shaganappi Trail Corridor Study have already been made.

The parts of the project that were predetermined with the adoption of the 2009 CTP are that Shaganappi Trail be re-classified from a Skeletal Road to an Arterial Street which means we need to include bike and pedestrian access to meet the requirements of an Arterial Street. The CTP also identified Shaganappi Trail as part of the primary HOV network, Transit Network and Cycling Network. This means that we ask questions about where cycling facilities should go, or how to best incorporate an HOV lane instead of whether or not these things should be included.

HOV lane is a combined transit and two or more passengers in the vehicle lane. The HOV lane has benefits for all users of Shaganappi Trail and not just for those who use the lane. The HOV lane will decrease the use of single occupant vehicles helping to reduce traffic volumes, congestion and pollution.

Question: Have you ever visit or looked at Voyageur Drive?

Yes, the project team has visited and understands the current state of Voyageur Drive. The existing Voyageur Drive is between 6.7-6.8 meters wide. It is not a standard two-way road based of City of Calgary

guidelines. The recommended plan will only reduce the existing Voyageur Drive to 5.9 meters which is a reduction of 0.9 meters. Voyageur Drive is proposed to be a standard one-way road with parking.

Question: When will the project be built? What are the next steps?

If City Council approves the recommended concept for the Shaganappi Trail Corridor Study, the project will be considered for funding through Investing in Mobility. This means the project will be prioritized along with all other City of Calgary transportation projects and City Council will determine if the project will receive funds for further functional and detailed design and construction.

There is currently no funding to build or construct the changes proposed to Shaganappi Trail. This means that implementation of the recommended concept will likely not happen for 10 to 30 years. Once the project receives funding from City Council, the project will move to a functional and detailed design phase which allows for additional public input into specific design concepts such as sound walls, storm water, pavement marking, signs, concrete barriers, exact locations of cycling facilities, pedestrian crossings etc.

Funding for construction of Shaganappi Trail is not currently available in the City's 10-year capital plan, "Investing in Mobility." This plan and the priority of projects is periodically reviewed by City Council. The current Investing in Mobility Plan has a project list from 2015-2024 and the Shaganappi Trail Corridor Study project is not on this current list.

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