

# **5 Street SW Underpass Enhancement Project**

Consolidated What We Heard Report May 2019



# **Project overview**

Built in the 1970's, the 5th Street Underpass serves as a main gateway and key corridor for north-south movement between the communities of Beltline and Downtown Calgary.

Currently the underpass' cycle track averages over 1,185 riders each day with as many as 2,500 riders during peak days. More than 6,500 pedestrians pass under the rail tracks each day.

The underpass should be a safe and comfortable space for pedestrians and cyclists as they move between the Beltline and Downtown communities. Through the creative use of durable and cost-effective materials designed to perform in our climate, we are exploring to improve the overall user experience through art, strategic lighting concepts and sustainable design solutions.

# **Engagement overview**

Between May 2018 and March 2019, 3 phases of engagement for the 5<sup>th</sup> Street Underpass Enhancement project took place.

## **Phase 1: Project Discovery**

This phase of engagement included a 'Walk Shop' of the area in which stakeholders toured the area with members of the project team to identify 'what was working', 'what are the concerns', and 'what are the opportunities'. This phase also included a 'Design Blitz' in which participants could provide feedback in person at a kiosk directly on site from May 30 – June 16, 2018. This phase was also accompanied by online engagement during the same time period.

# **Phase 2: Concept Exploration**

This phase of engagement included a workshop for the project team, steering committee, and targeted internal and external stakeholders. This phase collected feedback on three concepts presented with the intent of selecting a preferred option that was to be refined and presented back to the public in the next phase of engagement. The workshop took place on October 9, 2018.

# **Phase 3: Preferred Concept Development**

This phase of engagement included an onsite kiosk directing stakeholders to provide feedback online. The online engagement was open from February 4-14, 2019.



# Phase 1: Project Discovery

### What We Asked

Participants were asked to provide input regarding the following three questions:

- 1. What currently works well for the underpass?
- 2. What elements of the underpass need improvement?
- 3. What opportunities do you see for the underpass?

#### What We Heard

The following are the themes that emerged from the question 'What currently works well for the underpass?' in order of most frequent to least frequent:

	Sidewalk and pedestrian space
	Bike/ cycle track
	Structure/ connections
	Openness/ visibility
	Public art/ greening
	Lighting
	Cleanliness/ maintenance
	Snow removal

The following are the themes that emerged from the question 'What elements of the underpass need improvement?' in order of most frequent to least frequent:

Lighting
Sidewalk/ pedestrian space
Bikes/ cycle track
Cleanliness/ maintenance
Structure/ connections
Public art/ greening
Snow removal
Openness/ visibility
Safety



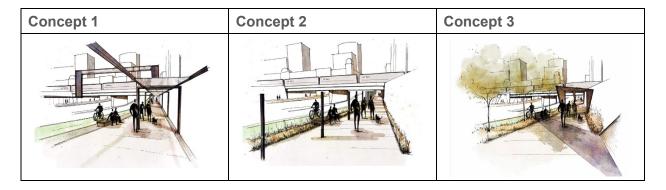
The following are the themes that emerged from the question 'What opportunities do you see for the underpass?' in order of most frequent to least frequent:

Public art/ greening
Lighting
Sidewalk/ pedestrian space
Bike/ Cycle track
Cleanliness/ maintenance
Openness/ visibility
Snow removal



# Phase 2: Concept Exploration

Participants were presented with three options and the design qualities of each option was presented in detail. Participants were asked to complete a worksheet regarding each option to help identify the best option for further development. A sample of the options is presented below.

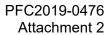


#### What We Asked

The questions on the worksheet were as follows:

Vision + Objectives	Provide feedback on the Vision and Objectives, including if anything missed or could be improved.	RANK
Underpass + Roadway (10 to 11 Ave) Geometry	What are your thoughts on reconfiguration of the curb + gutter geometry? Any concerns based on your area of specialization?	RANK
Option 1: Framing the Rail	Does this option achieve the Vision and Objectives? What are the strengths and weaknesses of this concept? What is missing from this concept?	RANK
Option 2: Subterranean Experience	Does this option achieve the Vision and Objectives? What are the strengths and weaknesses of this concept? What is missing from this concept?	RANK
Option 3: Linear Park	Does this option achieve the Vision and Objectives? What are the strengths and weaknesses of this concept? What is missing from this concept?	RANK
Impacts to your Business Unit or Organization	Are there any positive and negative impacts to this project for your BU or organization? How can we mitigate these impacts?	RANK
Other Considerations	Anything else you would like to add?	

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#### What We Heard

The following are the themes that emerged from the question '*Provide feedback on the Vision and Objectives, including if anything missed or could be improved*?' in order of most frequent to least frequent:

General	Generally positive feedback
Themes	Encourage more focus on safety and comfort

The following are the themes that emerged from the question 'Underpass + Roadway (10 to 11 Ave)
Geometry - What are your thoughts on reconfiguration of the curb and gutter geometry? Any concerns based on your area of specialization?' in order of most frequent to least frequent:

General Themes	Positive feedback on extending the project between 10th and 11th Avenues
	Some concern over narrowing the lanes – ensure that transit can still turn and function
	Encourage better barriers between cyclists and vehicles (more permanent)
	Less support for elevating the bike lane

The following are the themes that emerged from the question 'Option 1: Framing the Rail - Does this option achieve the Vision and Objectives? What are the strengths and weaknesses of this concept? What is missing from this concept?' in order of most frequent to least frequent:

Critical	Concern with the reflective surface for the public art concepts
Themes	Concern for visibility and safety of both pedestrians and drivers
	Concern for the canopy and other structural elements



The following are the themes that emerged from the question 'Option 2: Subterranean Experience - Does this option achieve the Vision and Objectives? What are the strengths and weaknesses of this concept? What is missing from this concept?' in order of most frequent to least frequent:

Supportive Themes	Markers are noted as "whimsical"
	Markers as lighting is good for the pedestrian experience
	More open than option 1
Critical	Markers may be an obstacle for pedestrians
Themes	Concerns for materials and constructability of markers
	Generally needs further design and consideration

The following are the themes that emerged from the question 'Option 3: Linear Park - Does this option achieve the Vision and Objectives? What are the strengths and weaknesses of this concept? What is missing from this concept? What is missing from this concept?' in order of most frequent to least frequent:

Supportive Themes	Generally like the canopy – wood would keep the space feeling warm
	Celebrates the connections between the 2 rivers
	Positive feedback on the public art lighting ideas
	Planting is a benefit and an interesting add to the underpass environment
Critical	Winter maintenance
Themes	Some concern for vegetation in a vehicular environment
	Some concern for the canopies – ideas need to be progressed

The following are the themes that emerged from the question 'Are there any positive and negative impacts to this project for your BU or organization? How can we mitigate these impacts? What is missing from this concept?' in order of most frequent to least frequent:

General	Long term maintenance
Themes	Constructability
	Ensure we consider the adjacent properties and how pedestrians interact with those businesses



The following are the themes that emerged from the question 'Anything else you would like to add?' in order of most frequent to least frequent:

General	Desire to add trees and vegetation to concepts 1 & 2
Themes	General concern for durability and winter maintenance

Overall Summary: The following are overall themes that emerged from second phase of engagement.

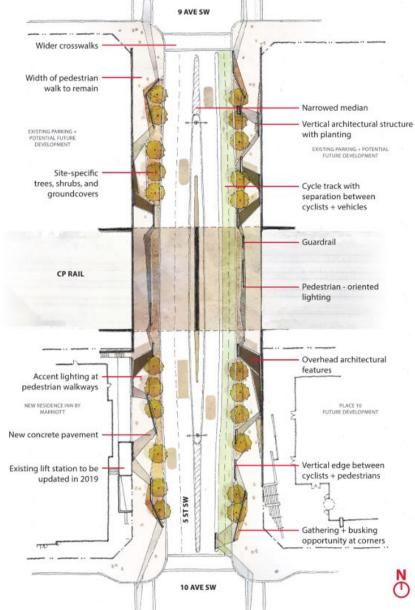
General Themes	Concept #3 was the preferred
	Elements of concept #2 are encouraged to be incorporated
	Concept #1 had little support and a high number of concerns
	General support for the use of plant material – ensure that maintenance and durability are considered
	Support for revising the laneway geometry to allow for wider sidewalks and lane narrowing between 10th and 11th Avenues
	Encourage better separation between bike and vehicles (more permanent)
	Do not elevate the bike lanes, keep at same elevation as road
	Narrowing the lanes is possible, but need to consider room for buses and turning radius required



# Phase 3: Preferred Concept Development

Stakeholders were presented a preferred concept that was designed based on the feedback from the previous phases of engagement. During Phase 2 engagement, the *Option 3: Linear Park* was identified as having the greatest potential for development as a preferred concept. The design team continued to refine that concept and presented it to stakeholders and the public.

Underpass Design Concept

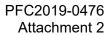








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#### What We Asked

Participants were asked to provide feedback on if the design achieves the project vision, goals and objectives. This included a ranking (fully achieves, partially achieves, does not achieve) and an opportunity to provide detailed, qualitative feedback by asking "tell us why" for each objective.

The objectives that were used for the purposes of evaluation and assessment were as follows:

Mobility + Functionality Objectives	Safety & Social Objectives	Design & Aesthetic Objectives
<ul> <li>Balance the modal split between pedestrians, cyclists, transit, and vehicles</li> <li>Make movement an enjoyable experience</li> <li>Consider long-term operations and maintenance</li> </ul>	<ul> <li>Improve perceptions of safety</li> <li>Enhance lighting</li> <li>Improve integration with existing and future adjacent developments</li> </ul>	<ul> <li>Make "wasted space"         useful</li> <li>Provide elements of         discovery and curiosity         through art and design</li> <li>Incorporate trees and         vegetation</li> </ul>



## **What We Heard**

A summary of the ranking activity and outcome themes for each objective is provided below.

Mobility + Functionality Objective #1		
Balance the modal split between pedestrians, cyclists, transit, and vehicles	Does the design achieve the vision, goals and objectives?	22%  Fully Achieves  Partially Achieves  Does Not Achieve
Supportive Themes	Neutral Themes	Critical Themes
<ul> <li>General support for proposed design</li> <li>Supportive of separation between cyclists and vehicles</li> <li>Supportive of vegetation/green space</li> <li>Concepts supports multi model transportation</li> <li>Proposed widths work well</li> <li>Pedestrian space works well</li> <li>Well lit</li> </ul>	<ul> <li>Desire for increased sidewalks both at underpass and in connecting pathways</li> <li>Comments relating to timing of lights for pedestrian crossing adjacent to underpass</li> </ul>	<ul> <li>Lack of support for proposed width for vehicle lanes (too narrow)</li> <li>Lack of support for bike lanes contributing to the decrease in the width for vehicle lanes</li> <li>Concern that this project is an inefficient use of tax dollars</li> <li>Concern the proposed design is too clustered/compressed</li> <li>Concern pedestrian sidewalks not wide enough</li> <li>Concern proposed design will contribute to loitering</li> <li>Snow clearing concerns</li> </ul>



Mobility + Functionality Objective #2		
Make movement an enjoyable experience	Does the design achieve the vision, goals and objectives?	21%  51%  Fully Achieves  Partially Achieves  Does Not Achieve
Supportive Themes	Neutral Themes	Critical Themes
<ul> <li>General support for proposed design</li> <li>Supportive of vegetation/green space</li> <li>Supportive of the amount of lighting in proposed design</li> <li>Concepts supports multi model transportation</li> <li>Pedestrian space works well</li> <li>Proposed widths work well</li> <li>Proposed design is aesthetically pleasing</li> </ul>	Not enough details on public art to provide feedback on that aspect of the design	<ul> <li>General lack of support for project and its associated cost</li> <li>Lack of support for bike lanes contributing to the decrease in the width for vehicle lanes</li> <li>Lack of support for proposed width for vehicle lanes (too narrow)</li> <li>Concern proposed design will contribute to loitering (specific reference to seating areas)</li> <li>Concern the focus should be on function vs. aesthetics</li> <li>Desire for separated cycle track to be at grade with pedestrian pathway resulting in cycle track having less change in elevation</li> <li>Construction timeline concerns</li> <li>Concern the proposed design is too clustered/compressed</li> <li>Drainage concerns</li> </ul>

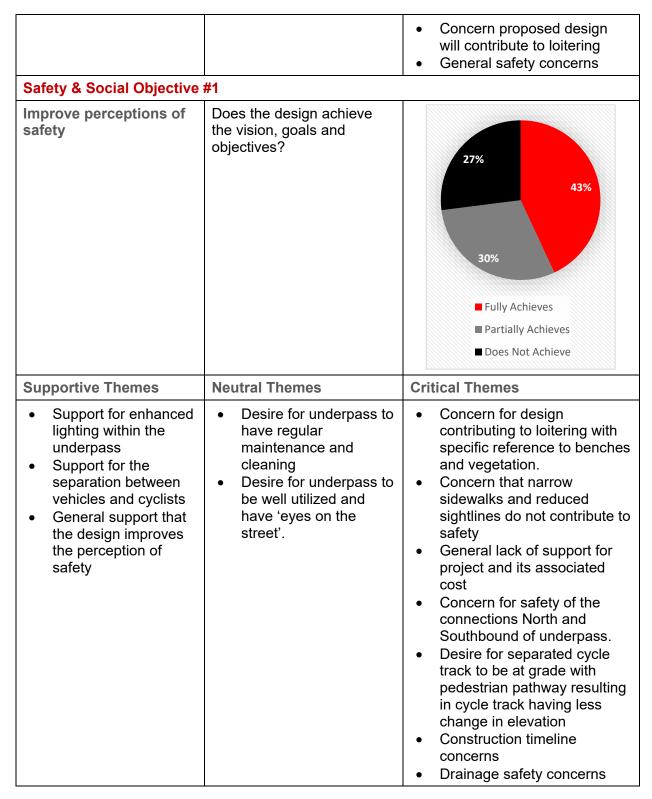


	General safety concerns
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Mobility + Functionality Objective #3		
Consider long-term operations and maintenance	Does the design achieve the vision, goals and objectives?	22%  41%  Fully Achieves  Partially Achieves  Does Not Achieve
Supportive Themes	Neutral Themes	Critical Themes
General support for proposed design in terms of long term operation and maintenance	Desire for underpass to have regular maintenance and cleaning	<ul> <li>Lifecycle concerns for vegetation and desire for this vegetation to be resilient</li> <li>Lifecycle concerns for wood material</li> <li>General lack of support for project and its associated cost</li> <li>Graffiti concerns</li> <li>Concern proposed design will contribute to loitering (specific reference to seating areas)</li> <li>Concern the focus should be on function vs. aesthetics</li> <li>Desire for separated cycle track to be at grade with pedestrian pathway resulting in cycle track having less change in elevation</li> <li>Construction timeline concerns</li> <li>Overhead architectural features may have negative effect on maintenance</li> </ul>





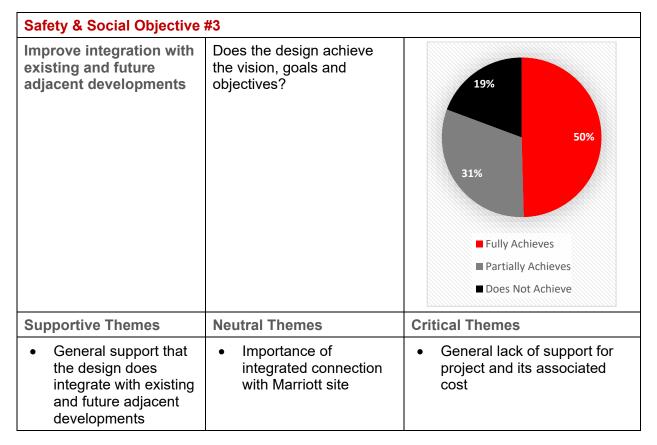


	•	Lack of support for narrowed traffic lanes
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Safety & Social Objective #2		
Enhance lighting	Does the design achieve the vision, goals and objectives?	15% 60% Fully Achieves Partially Achieves Does Not Achieve
Supportive Themes	Neutral Themes	Critical Themes
Support for enhanced lighting within the underpass	<ul> <li>Inadequate details of lighting in design to provide meaningful feedback</li> <li>Desire for functional, low cost, efficient lighting vs. aesthetically pleasing lighting</li> <li>Lighting critical for safety of underpass</li> </ul>	General lack of support for project and its associated cost





<sup>\*\*</sup>Note – much of the feedback to this question did not fall into specific themes and in many cases wasn't a response to the question asked. It is recommended that the reader view the verbatim section to get a fulsome understanding of the feedback.



Design & Aesthetics Obje	ctive #1	
Make "wasted space" useful	Does the design achieve the vision, goals and objectives?  • Fully Achieves • Partially Achieves • Does Not Achieve	18%  25%  Fully Achieves  Partially Achieves  Does Not Achieve
Supportive Themes	Neutral Themes	Critical Themes
<ul> <li>The design achieves the goal of making 'wasted space' useful</li> <li>Supportive of vegetation/green space</li> <li>Supportive of open concept and use of space</li> <li>Support for public art in underpass</li> </ul>	<ul> <li>Desire for underpass to be well lit</li> <li>Desire for heated indoor walkway</li> </ul>	<ul> <li>General lack of support for project and its associated cost</li> <li>Concern the focus should be on function vs. aesthetics</li> <li>Lack of support for narrowed traffic lanes</li> <li>Concern for design contributing to loitering</li> <li>Construction timeline concerns</li> </ul>

<sup>\*\*</sup>Note – much of the feedback to this question did not fall into specific themes and in many cases wasn't a response to the question asked. It is recommended that the reader view the verbatim section to get a fulsome understanding of the feedback.



Design & Aesthetics Object	ctive #2	
Provide elements of discovery and curiosity through art and design	Does the design achieve the vision, goals and objectives?  • Fully Achieves • Partially Achieves • Does Not Achieve	■ Fully Achieves ■ Partially Achieves ■ Does Not Achieve
Supportive Themes	Neutral Themes	Critical Themes
<ul> <li>The design achieves the goal of 'Provide elements of discovery and curiosity through art and design'</li> <li>Supportive of public art being incorporated into design</li> </ul>	Not enough information provided for participants to provide meaningful feedback	<ul> <li>Concern the focus should be on function vs. aesthetics</li> <li>General lack of support for project and its associated cost</li> </ul>

<sup>\*\*</sup>Note – much of the feedback to this question did not fall into specific themes and in many cases wasn't a response to the question asked. It is recommended that the reader view the verbatim section to get a fulsome understanding of the feedback.



Design & Aesthetics Obje	ctive #3	
Incorporate trees and vegetation	Does the design achieve the vision, goals and objectives?  • Fully Achieves • Partially Achieves • Does Not Achieve	18% 65%  Fully Achieves Partially Achieves Does Not Achieve
Supportive Themes	Neutral Themes	Critical Themes
The design achieves the goal of incorporate trees and vegetation	Comments associated with ensuring the vegetation that will be planted is resilient to the elements associated with being in a underpass	<ul> <li>Lifecycle concerns</li> <li>Maintenance concerns</li> <li>Loitering concerns         <ul> <li>associated with incorporated trees and vegetation into the design</li> </ul> </li> <li>General lack of support for project and its associated cost</li> </ul>

<sup>\*\*</sup>Note – much of the feedback to this question did not fall into specific themes and in many cases wasn't a response to the question asked. It is recommended that the reader view the verbatim section to get a fulsome understanding of the feedback.



## **Other Considerations**

Do you have any additional comments? (ranked from most frequent to least frequent)

(ranked from most frequent to least frequent)		
Supportive Themes	Neutral Themes	Critical Themes
<ul> <li>General support for the proposed 5<sup>th</sup> Street Underpass</li> <li>Support the design allows for all modes of transportation</li> <li>Support specifically for the cycle amenities</li> </ul>	<ul> <li>Desire for underpass to be well maintained and regularly cleaned</li> <li>Desire that safety be a top priority for underpass</li> </ul>	<ul> <li>General lack of support for project and its associated cost</li> <li>Loitering concerns associated with incorporated benches and vegetation into the design</li> <li>Construction timeline concerns</li> <li>Concern the focus should be on function vs. aesthetics</li> <li>Desire for separated cycle track to be at grade with pedestrian pathway resulting in cycle track having less change in elevation</li> <li>Drainage concerns</li> <li>Desire for local art to be incorporated</li> <li>Safety concerns of North and South bound connections adjacent to underpass</li> </ul>



# Next steps: what we will do

Based on stakeholder and citizen feedback, the project team will continue to revise the design. This will include addressing frequently heard critical comments. The final concept will be incorporated into a Design Development Report that will be presented for approval by The City's Transportation Leadership Team. Following approval, the concept will be further developed into contract documents, with the intent of commencing construction as early as 2020.

The following summary represents The City's response to the most comment themes discovered with the engagement.

Theme	Design Response	
Sidewalk width		
Don't compress the sidewalks at the underpasses	The sidewalk is to remain the same width as existing at the underpass. As you exit from out of the underpass the sidewalks become wider.	
Keep sidewalks wide	The City will keep wide sidewalks throughout.	
Maintenance		
How to remove the snow from the sidewalk?	Snow removal is a consideration when designing the layout of the sidewalks, guardrails and the planters. Snow storage areas will be indicated on the detail drawing plans.	
Better maintenance in pedestrian areas is required	Pedestrian areas will be maintained by the City of Calgary following construction. The design team is working with Maintenance to ensure the area can be maintained. Due to citizen concerns, The City typically provides higher levels of maintenance in underpasses than other areas of the city.	
Concern for vandalism	Vandalism is a consideration when selecting materials. This will be further explored during the next phase of the project. Wood elements, which are prone to vandalism, will be removed from the design.	
Concern for health of plants near the road	Salt tolerant plants and mulch will be selected for the planters adjacent to the road.	
Paving surface that is not slippery	All walking surfaces will be textured to ensure they are non-slip and conform to applicable standards for slip resistance.	
Ensure canopies are not climbable and will last a long time	The canopies will be deleted from the design due to maintenance and safety concerns.	



Modal Split Between Pedes	trians, Cyclists and Vehicles
Barrier between cyclist and vehicles	There will be a slight grade and material change between cyclist and vehicles with the use of a concrete rolled curb - this will provide a visual differentiation between the vehicle lane and the cycle lane. Additional visual differentiations being considered are: painted asphalt, bike lane stencils, high visibility textures and colours outlining the extents of the bike lane.
Ensure all three modes are separated	All tree lanes will be separated.
Raise cycle track to match pedestrians	The cycle track cannot be raised to match the pedestrian elevation because it serves as a bypass route for vehicles if there is a blockage at the east side of the underpass. The cycle track can be slightly raised with a rolled curb as a visual indicator.
Make the cycle track less steep at intersections	Due to cost limitations, the grades of the cycle tracks cannot be modified. Other assistive devices will be explored to make the underpass easier to use for cyclists.
Lane Narrowing	
Undesirable due to buses using two lanes, concern for fire dept. access	The lanes will still meet City of Calgary minimum standards which is 3.5m to the face of curb. This exceeds the lane widths provided in other existing underpasses.
Narrow the lanes (makes use of wasted space)	Narrowing lanes within acceptable standards allows for additional pedestrian and planting space to be provided.
Narrow lanes will cause traffic problems	Lane width will still meet acceptable standards for city roads. Traffic congestion is not anticipated as a result.
Site Furniture	
Remove benches (concern for who will be using them)	Benches will be removed from the design.
Benches, planter and / or overhead canopies might create too much clutter	In addition to the benches, the overhead canopies are being removed. The planters will not constrict pedestrian movement, as most of this space has been allocated from the removal of the central median in the design.



Public Art	
Concern over cost	The contribution from public art aligns with the current public art policy, and was approved by Council to this project prior project initiation. The project team has been working closely with artist to ensure the public art components are not only aesthetically pleasing, but functional. This approach to functional, integrated artwork enhances the overall value of the project to Calgarians.
More colourful	The addition of color is being considered through the design.
Not important	Public art continues to be a controversial topic to Calgarians. This project will attempt to address common critical concerns over public art, and has been approved by Council. The City will monitor citizen feedback once the project is constructed to see how this approach resonates with Calgarians.
<b>Great Use Of Public Space</b>	/ Urban Design
Improved light, art and space	
Creates a more social space	
Better to invest in pedestrian space and cycle	
Lighting	
Improve lighting for safety	Lighting for vehicles and pedestrians will be improved through the use of centrally located street lighting in the median and area lights in the pedestrian realm. Accent lighting will also be provided throughout the pedestrian areas.
Reasonable price and maintainable	All lighting products will be products that are cost effective, widely available and easily maintained.
Safety	
Wider crosswalks improve safety	Crosswalk widths will be evaluated during detailed design.
Wider sidewalk make it feel more safe	Existing sidewalk widths will generally be maintained throughout the project boundary.
Addition of a help button	A help button and surveillance cameras will be considered during detailed design.



Plant Material		
Love the green / park feel		
A distraction and creates place to linger/sleep	Benches will be removed from the design. The planters will be designed so as to discourage aberrant behaviour.	
Traffic		
Traffic pattern on 10 Ave. and 5st needs reconsideration	The City is aware of conflicts between turning vehicles and pedestrians / cyclists. Operation changes will be identified to Roads for consideration.	

