



The City of Nanaimo

DOWNTOWN NANAIMO MOBILITY HUB PROJECT

Council Report

November 4, 2019



Presentation Overview

1. Guidance from Transportation Master Plan
2. Review of Study Objectives
3. Community Engagement: What we heard and follow-up sessions
4. Quick Win Projects:
 1. Victoria / Wallace / Albert
 2. Front Street Cycling Facilities
 3. Bastion / Commercial Intersection
5. Other Intersection and Cycling Improvements
6. Transit Exchange
7. Parking Strategy



McElhanney

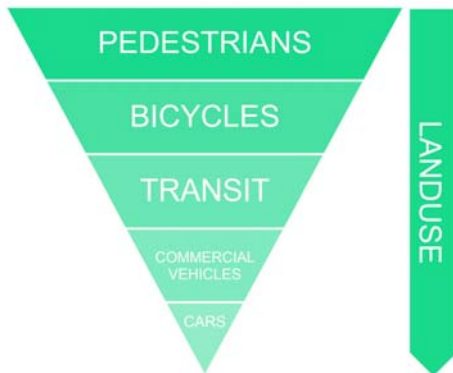
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Guidance from Transportation Master Plan

Extracts from Section 2.3: Shaping Priorities



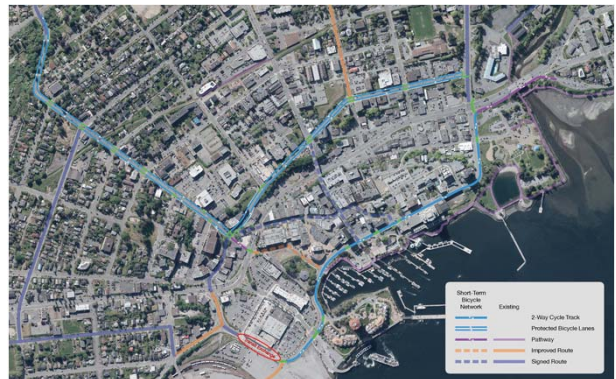
The transportation system can support these land use patterns with appropriate investments to enable and encourage people to walk, cycle, and use transit. As part of the NTMP, the public and stakeholders provided input and guidance on the priorities for developing the Plan as well as future investments in the City's transportation system. The hierarchy of modes shown below proposes that the City consider the needs of pedestrians, cyclists, public transit, and goods and services movements before that of private automobiles. By considering needs of these priority modes, future transportation plans, programs and projects will provide better, safer and more convenient solutions and encourage over time more people to walk, cycle, and ride the bus.

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Study Objectives Review

- Develop project solutions that can be built short-term (0 to 5 years)
- Study focus areas:
 - Cycling: Front St / Wallace St loop, Albert St, Pearson Bridge, network connections
 - Traffic safety: key intersection improvements
 - Transit: confirm exchange location
 - Parking: develop a strategy
- Community feedback: "Get projects in the ground versus always talking about them."



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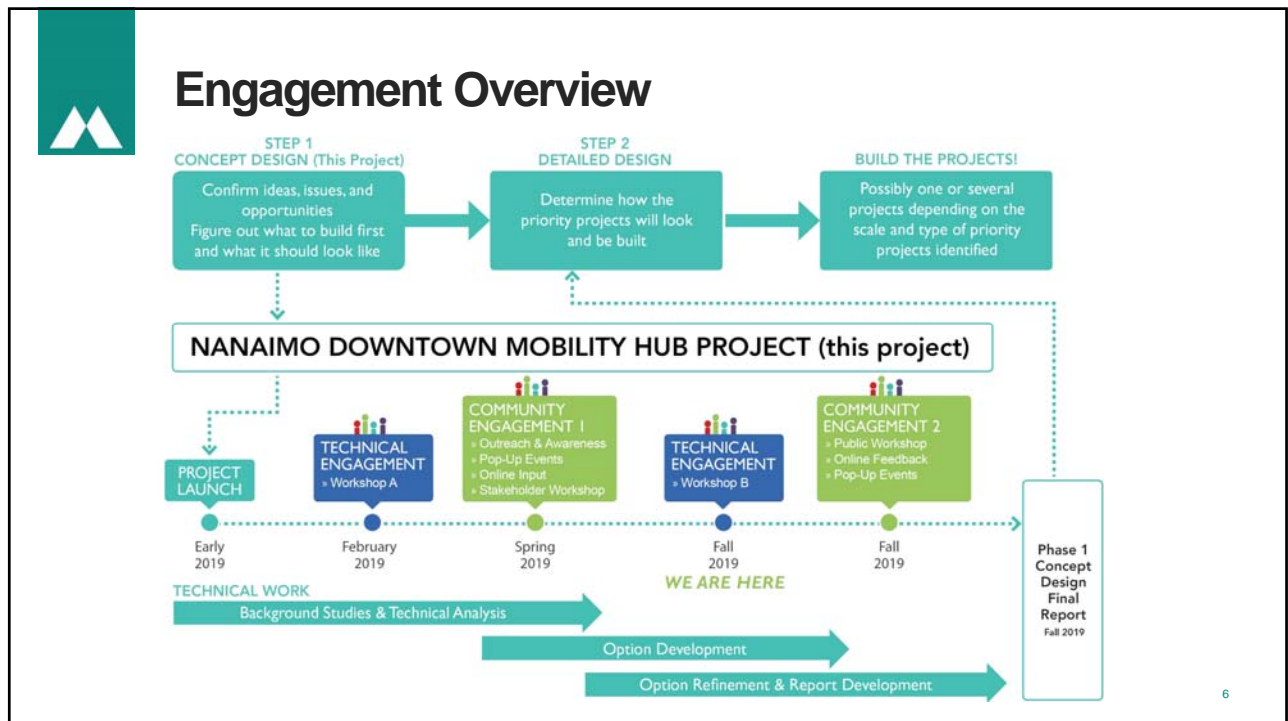
Intersections are where multiple transportation modes come together and where most conflicts occur. Intersections should be functional and easy to design with intuitive geometry and provisions for all modes of transportation. As mobility is enhanced, it is essential to equalize the safety, comfort, and convenience of all modes of transportation.

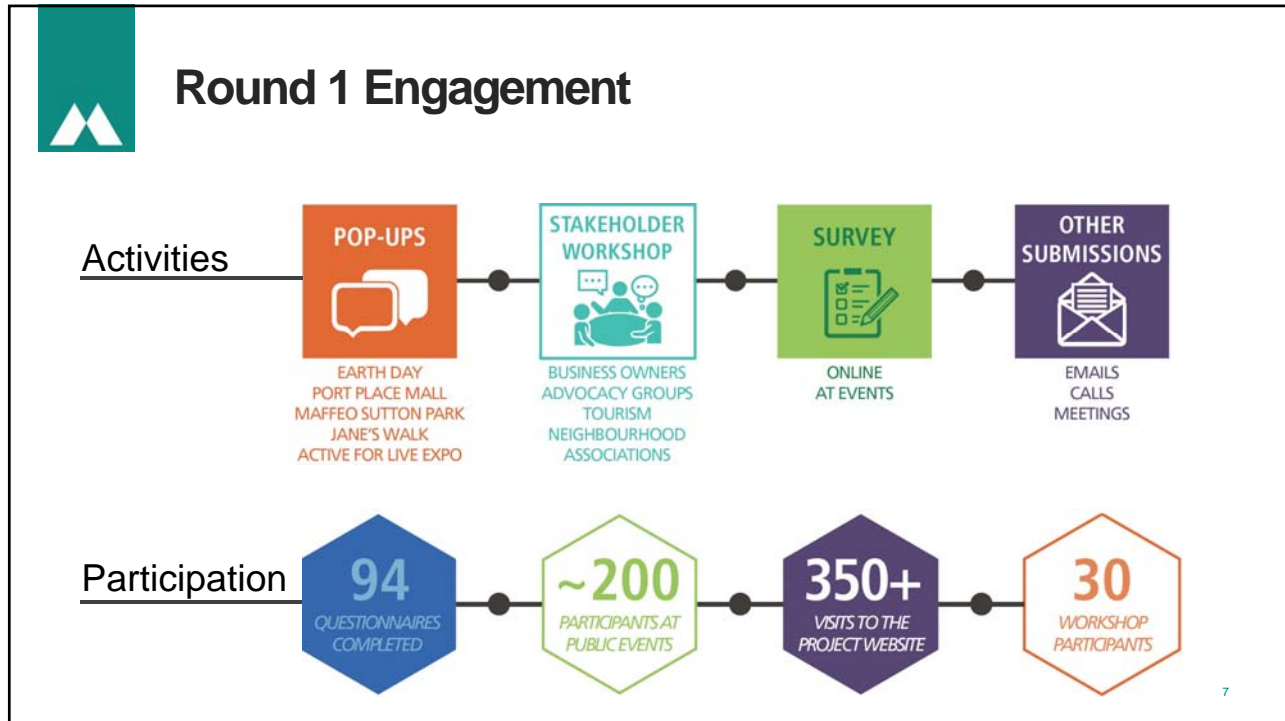
Through previous projects, five intersections have been identified for exploration in this map and descriptions illustrate existing conditions and opportunities observed at these locations.

QUESTIONS
Five intersections have been identified as candidate priorities for multi-modal improvements. What are the key questions/ideas you have for these intersections?

COMMUNITY ENGAGEMENT

- No cycling accommodation
- Extensive hard surfaces
- Free flow right-turn severs
- Property driveways close to intersection
- High pedestrian activity area
- Pedestrian challenges including long crossings, delays
- Pedestrian challenges include long crossings, poor sight lines, and missing crosswalks
- Streets are in close proximity
- Several driveways and access points to businesses close to intersection
- Challenging and unfriendly pedestrian environment
- Minimal cycling accommodation
- Existing traffic light upgrade required in short-term





What We Heard – Pedestrian Network

COMMON THEMES

- Pedestrian safety
- Wayfinding / signage
- Improved walkability

PRIMARY ISSUE LOCATIONS

- Front St – barrier
- Terminal and Nicol – barrier
- Commercial and Victoria – more pedestrian space needed

MAP: IDENTIFIED PEDESTRIAN ISSUES & IDEA LOCATIONS



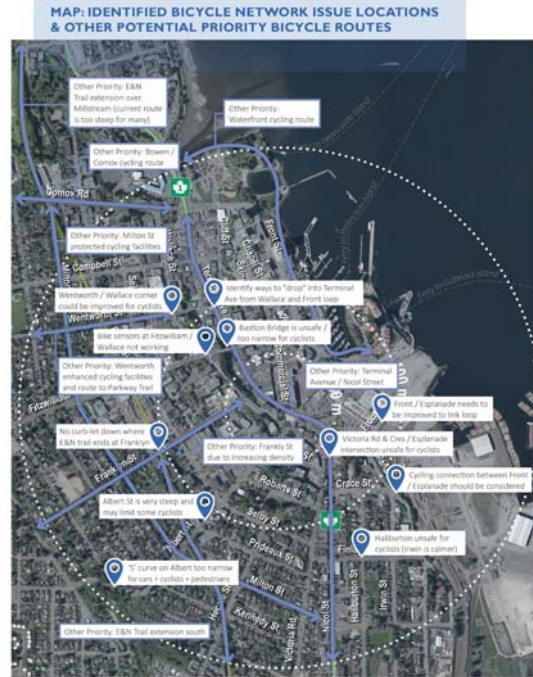
What We Heard – Bicycle Network

COMMON THEMES

- Secure bike parking and storage
- Wayfinding / signage
- Cyclist safety
- Connectivity
- Enforcement

IDEAS

- General support for suggested priorities: Wallace, Albert, Gordon / Museum Way, Front
- Other priorities: E&N Trail, Milton, Terminal, Waterfront



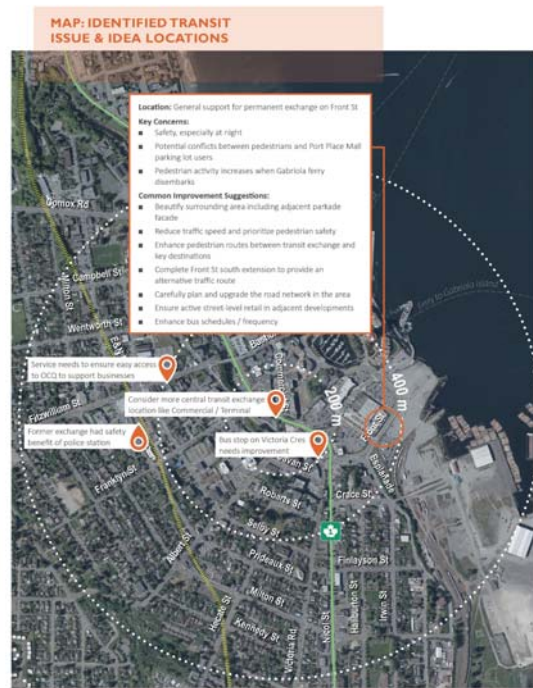
What We Heard – Transit

COMMON THEMES

- Connectivity
- Public amenities
- Safety and accessibility
- Quality, integrated design

LOCATION

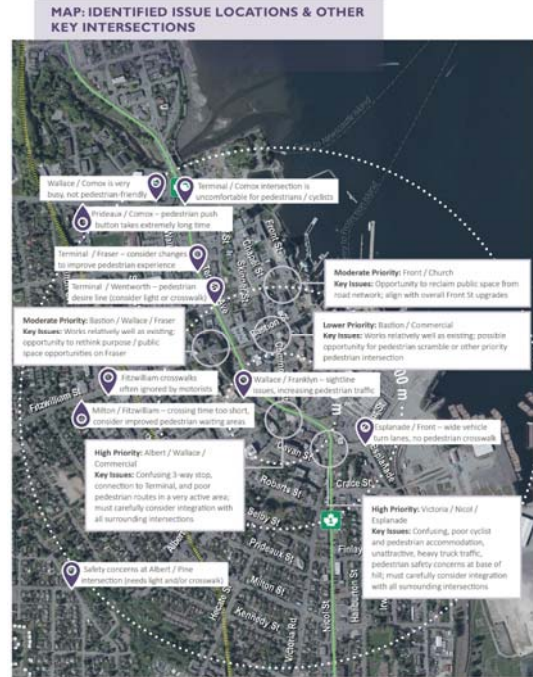
- General support for Front Street, with some concerns, mainly safety
- Some preferences for closer to downtown





What We Heard – Key Intersections

- **High Priority:**
 - Albert / Wallace / Commercial
 - Victoria / Nicol / Esplanade
- **Moderate Priority:**
 - Bastion / Wallace / Fraser
 - Front / Church
- **Lower Priority:**
 - Bastion / Commercial
- **Other Locations:**
 - Fitzwilliam: crosswalks
 - Terminal: Comox, Fraser, Wentworth intersections
 - Esplanade / Front intersection
 - Comox: Prideaux, Wallace intersections



What We Heard – Parking

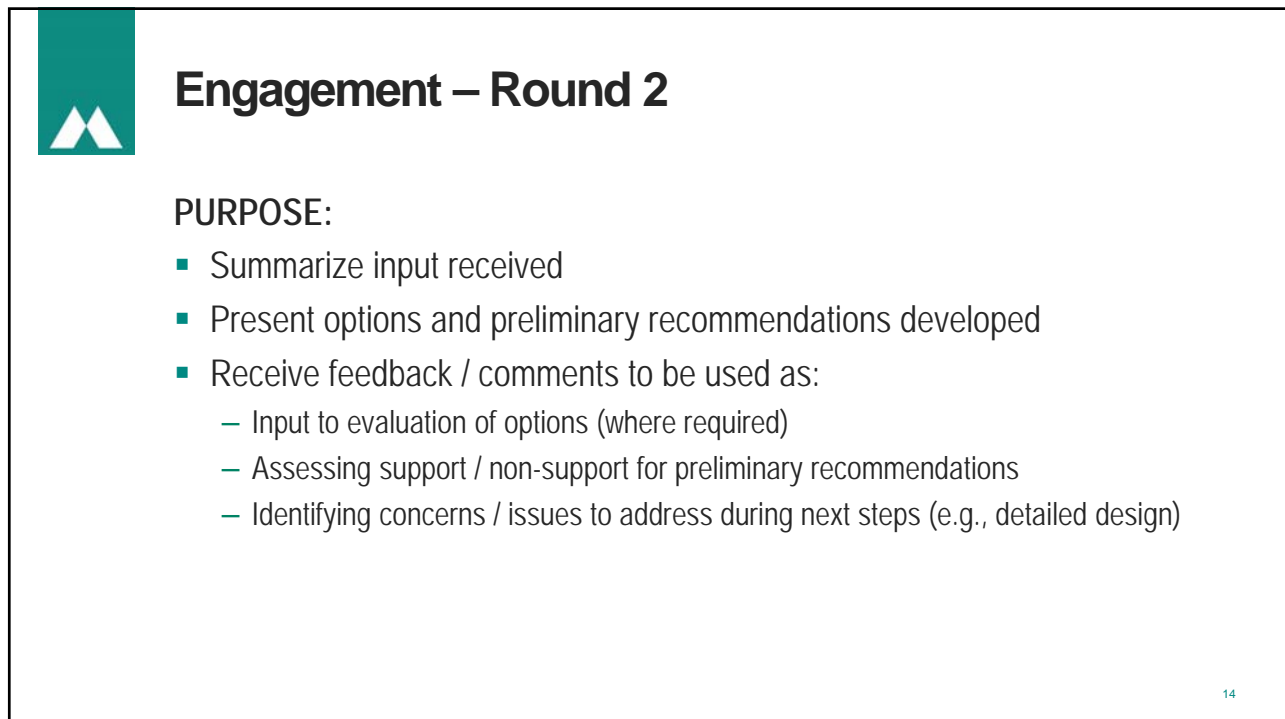
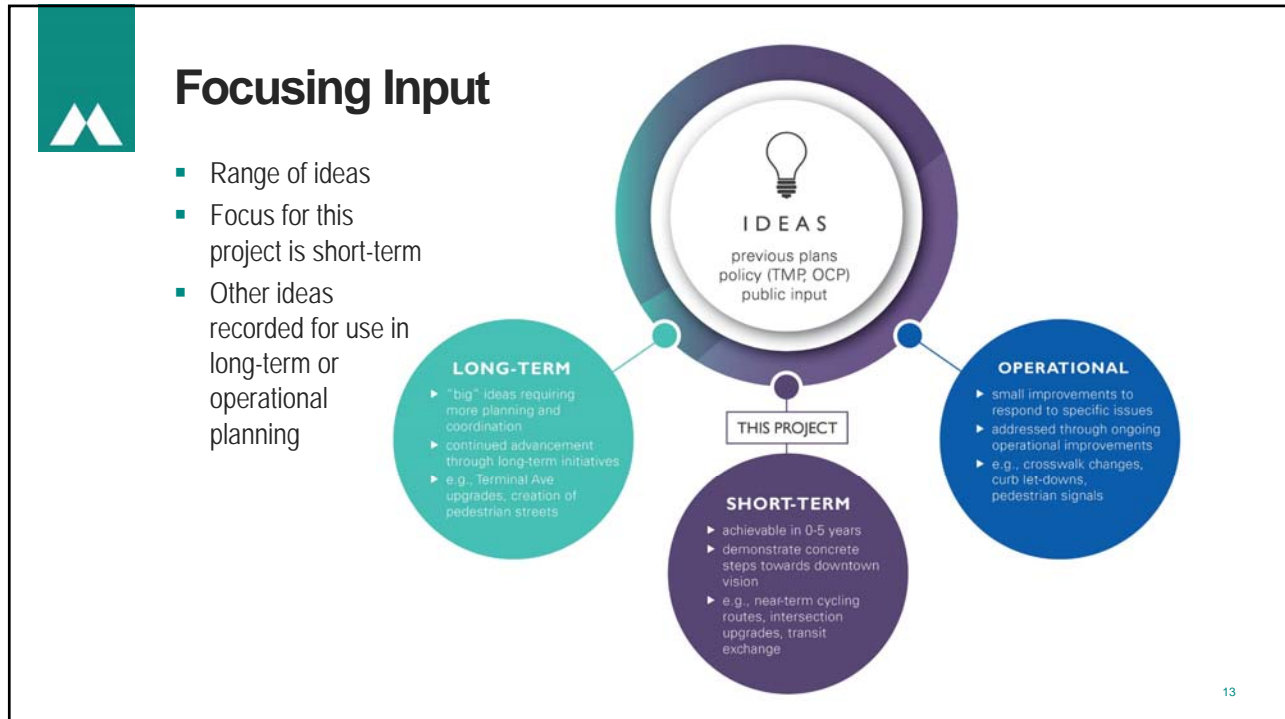
COMMON THEMES

- Amount – sufficient
- Cost – inexpensive
- Wayfinding – poor
- Safety concerns
- Other suggestions: electric charging, special event management, integration into future development, parking on the periphery, oversize parking

LOCATIONS WITH LIMITED PARKING

- Commercial St
- Courthouse area (Chapel / Front)
- Victoria St
- OCQ – Wesley, Fitzwilliam, Selby
- Overnight parking for Island residents





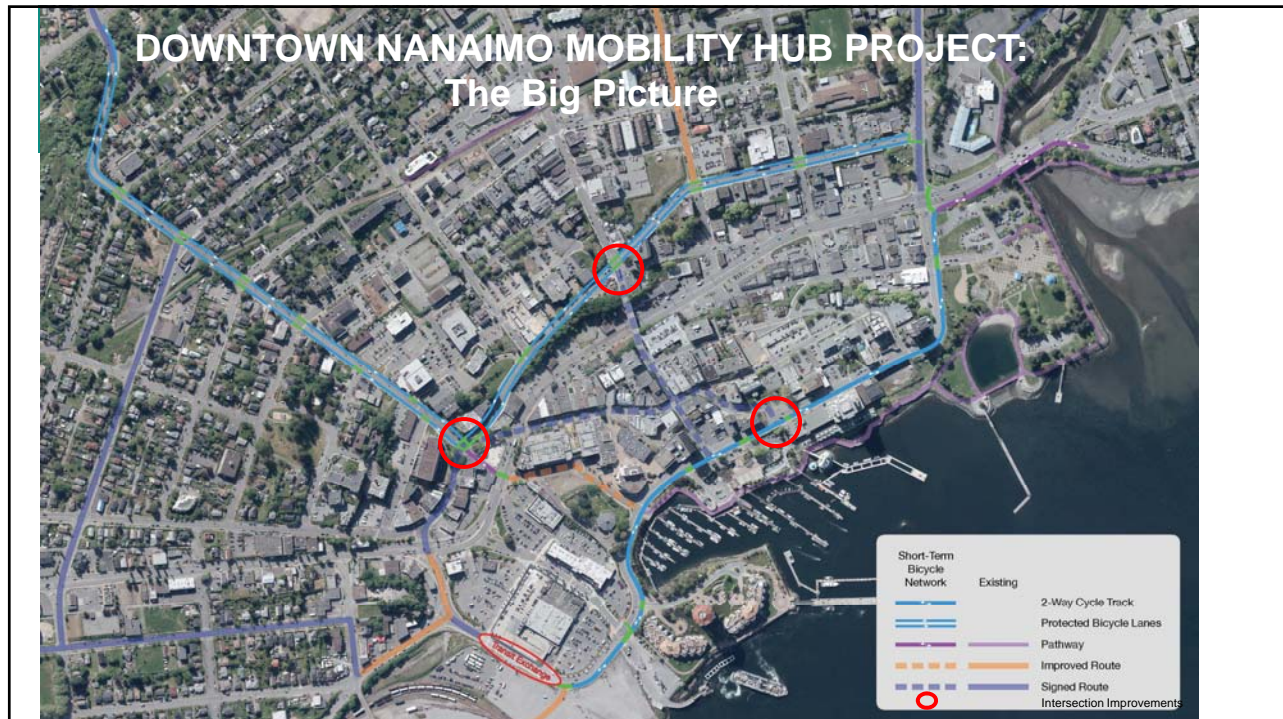


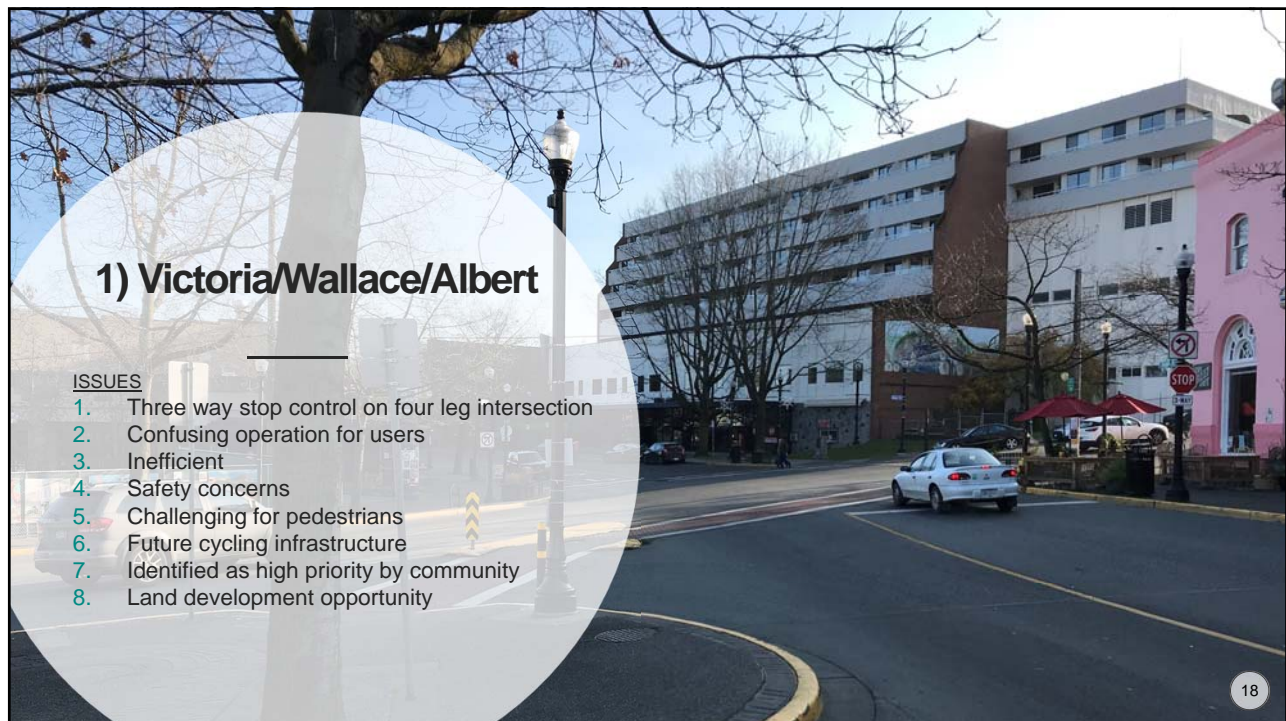
Engagement – Round 2

Preliminary Process & Timelines

Step	Description	Targeted Timing
Outreach / Announcements	<ul style="list-style-type: none"> Website, social media updates Media release Emails to stakeholders / email list Posters / print information 	Start Oct. 30
Public Workshop	<ul style="list-style-type: none"> Interactive activities Presentation(s) Discussion groups 	Nov. 20
Pop-ups	<ul style="list-style-type: none"> Display boards City staff on hand for discussions 	Nov. 16 – 21
Feedback Form	<ul style="list-style-type: none"> Collect comments Online and at events 	Nov. 15 – Dec. 9
Engagement Summary	<ul style="list-style-type: none"> Documentation of feedback 	Dec. 18

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Victoria / Wallace / Albert

OPTIONS – Refer attached report

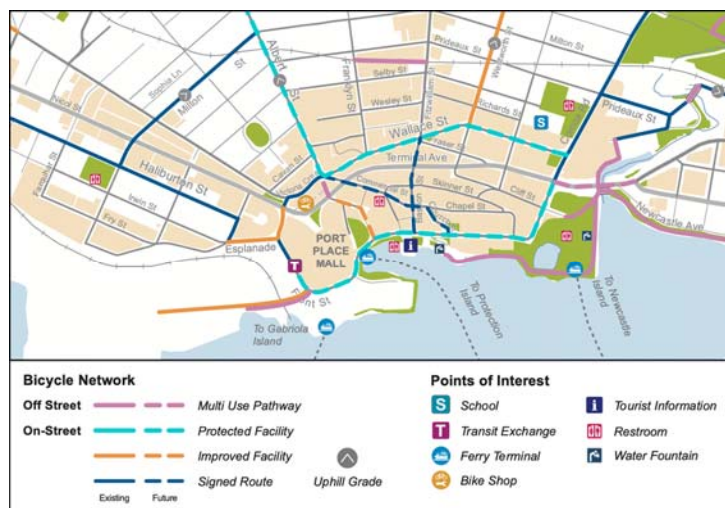
Near Term

1. Install a temporary 4 Way Stop Control, revise geometry, and monitor queuing (MoTI concern)
2. Consider intermittent (event related) closures of Commercial St between Wallace and Terminal and monitor
3. Based on public feedback and queue monitoring determine preferred permanent long-term solution

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Consistency with Short Term Cycling Plan

2) Front Street Cycling Facilities



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Front Street Cycle Track

OPTION

1. Cycle track running along waterfront
2. Improves safety by reducing intersection conflicts (vs bike lanes)
3. More comfortable for AAA users / tourists
4. 13 More parking stalls located closer to high demand areas
5. Easy to implement – paint, planters, two signal heads
6. Consistent with Long Term plan
7. Cost estimate – approx. \$390,000



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Front Street Cycle Track

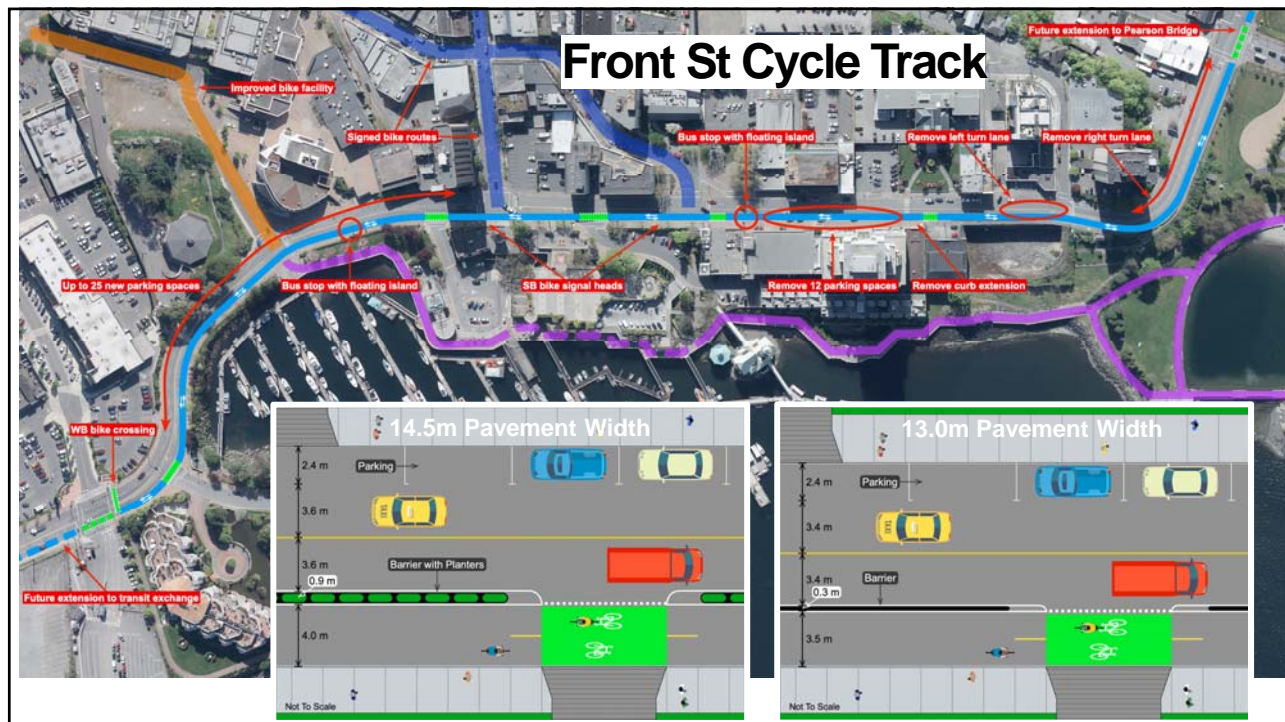
OPTION

1. Reduces corridor from 4 to 2 lanes
2. Retains all existing turn lanes at intersections
3. Negligible impact on traffic operations due to generally low traffic volumes
4. All through movements Level of Service A or B, vs. traffic operations failing at LoS E

Future 2041 Horizon Conditions on Modified Front Street Network (Two-Lane Cross-Section)															
Intersection ID	Intersection	AM Peak Hour Level of Service												Impacts summary:	
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR		Overall
7	Front Street / Church Street		A			A		C		B				A	No change
8	Front Street / Bastion Street	A	A			A		C		A				A	No change
9	Front Street / Gabriola Ferry Terminal Road		B			B			B			A	A	B	No change

PM Peak Hour Level of Service															
Intersection ID	Intersection	PM Peak Hour Level of Service												Impacts summary:	
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR		Overall
7	Front Street / Church Street		A			A		C		A				A	No change
8	Front Street / Bastion Street	A	A			A		C		A				B	Overall intersection from A to B
9	Front Street / Gabriola Ferry Terminal Road		B			C			B			A	A	B	SBT reduces from B to C

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3) Bastion / Commercial Intersection

ISSUES

- Signal at end of life and needs replacement
- Highest pedestrian traffic
- Narrow sidewalks at pinch points

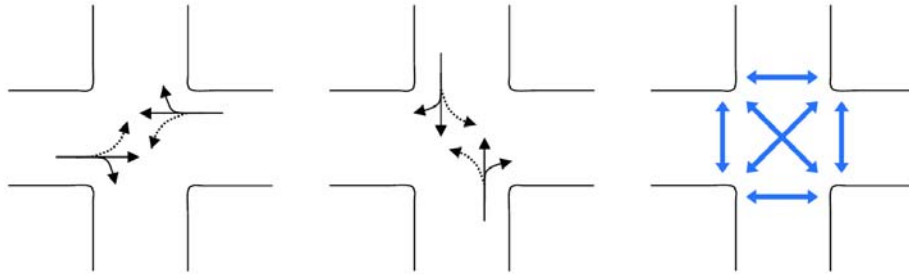




Bastion / Commercial Intersection

Options Considered – Refer attached report

1. 4 Way Stop (Level or Service AM: A; PM: B)
2. 2 Way Stop on Commercial St (LOS AM: A; PM: C)
3. Signalized with Pedestrian Scramble (LOS AM: B; PM: B)



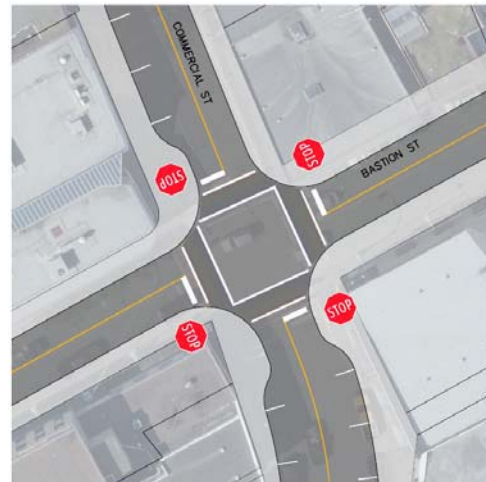
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Bastion / Commercial Intersection

Recommendation: 4 Way Stop Control with temporary/permanent geometric improvements

- Prioritizes pedestrian movements
- Reduced delay for all modes versus signal
- Minimizes delay in off-peak periods – improves adherence to intersection control
- Quick, low-cost implementation
- Low maintenance
- Scramble usually suited for larger, multi-lane intersections; requires additional signal heads
- Monitor and evaluate effectiveness



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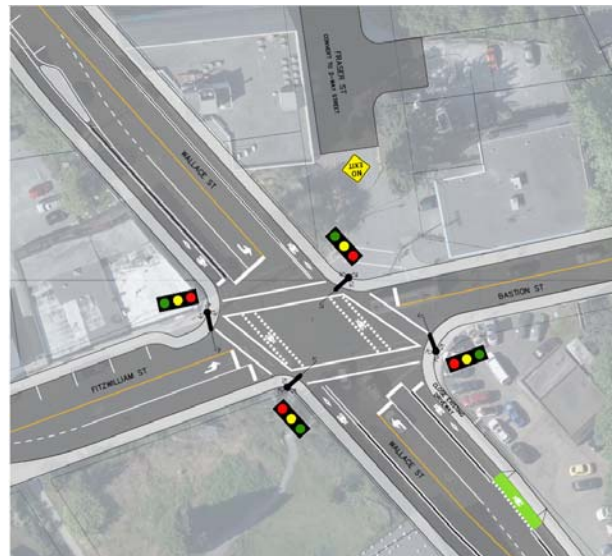
OTHER PROJECT UPDATES: Intersections

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Other Intersection Improvements

- Wallace / Fraser / Bastion
 - Consult with Emergency Services
 - Close Fraser St leg of intersection
 - Improved pedestrian crossings
 - Improved intersection operation
 - Repurpose road right of way / expand Library Gardens
 - Turnaround at the top of Fraser St
 - Geometric improvements
 - Cycling infrastructure



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Other Intersection Improvements

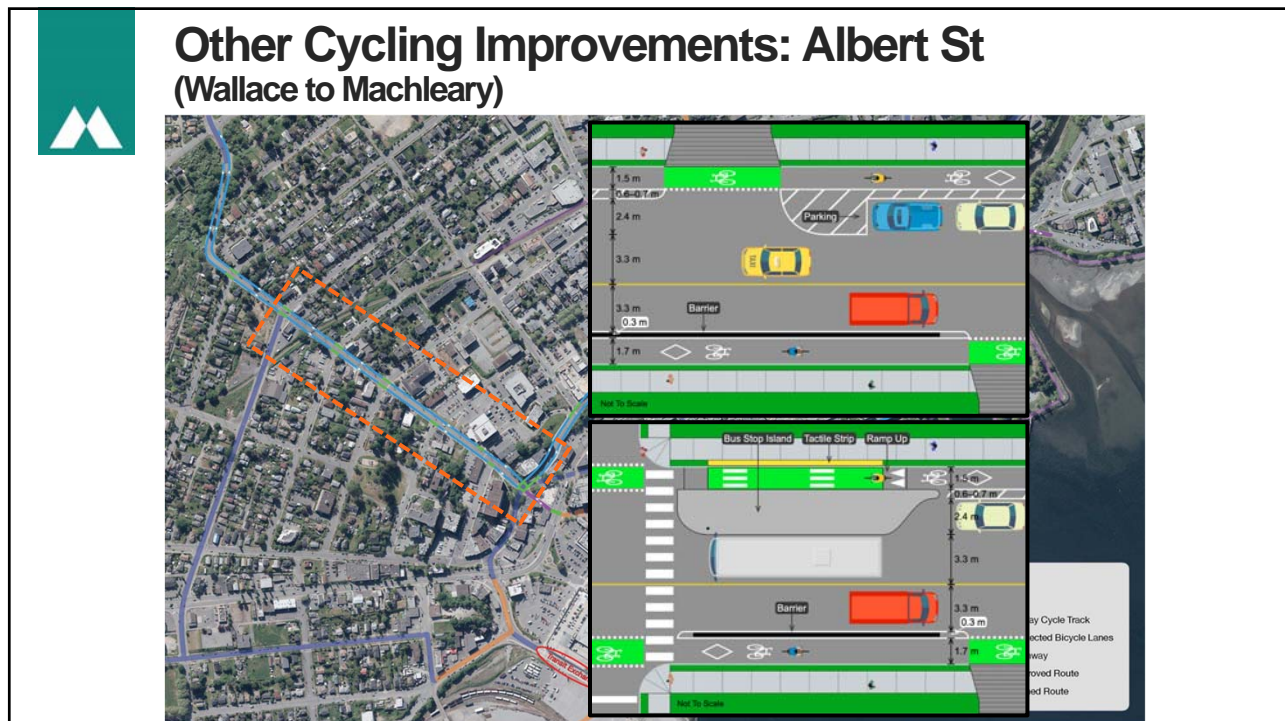
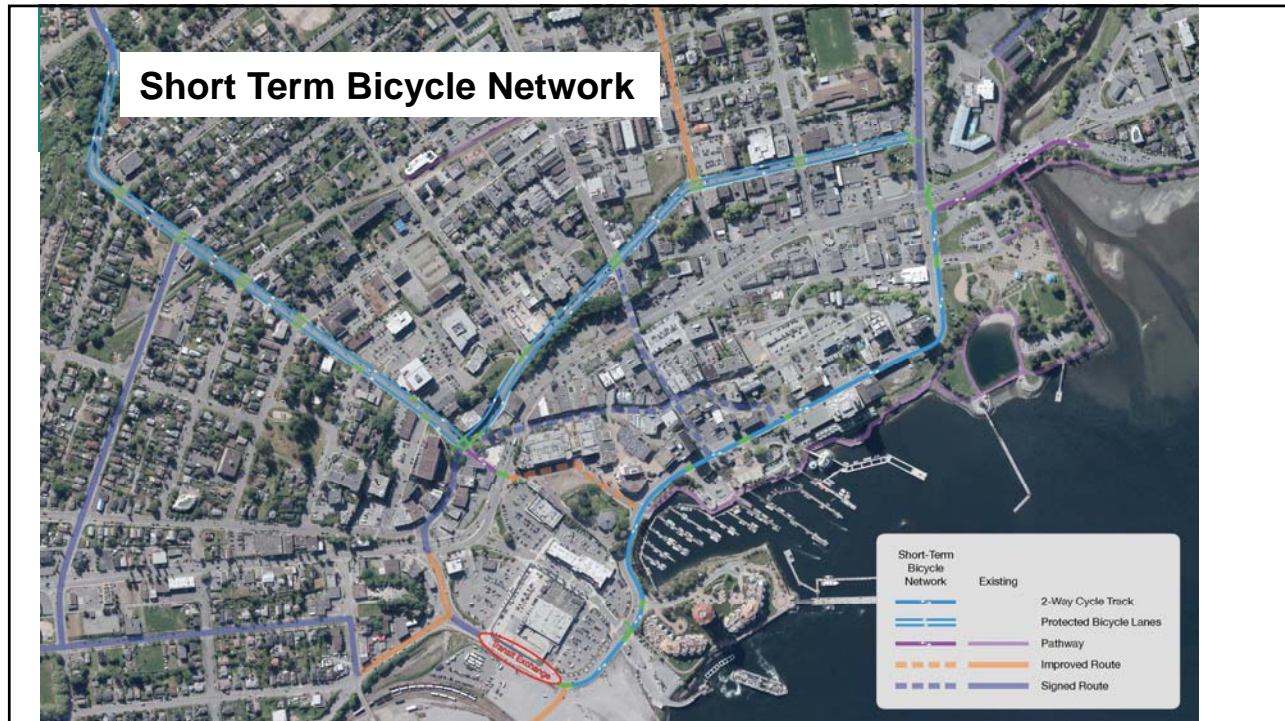
- Front St and Church St Intersection
 - Remove channelized turn
 - Improved pedestrian safety
 - Expand Dallas Square Park
 - Improve geometry and Public Realm
 - Eliminate turn lanes

Presentation Title



OTHER PROJECT UPDATES: Cycling Facilities

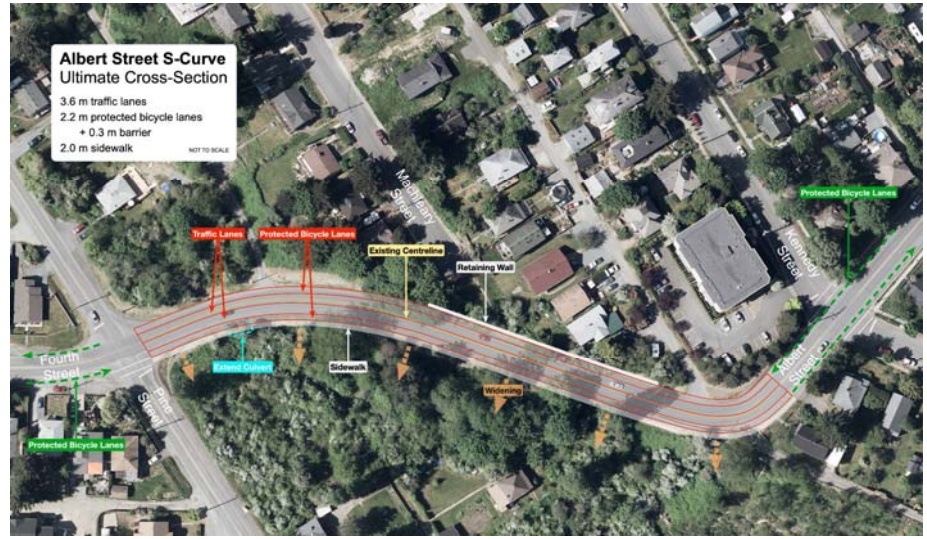
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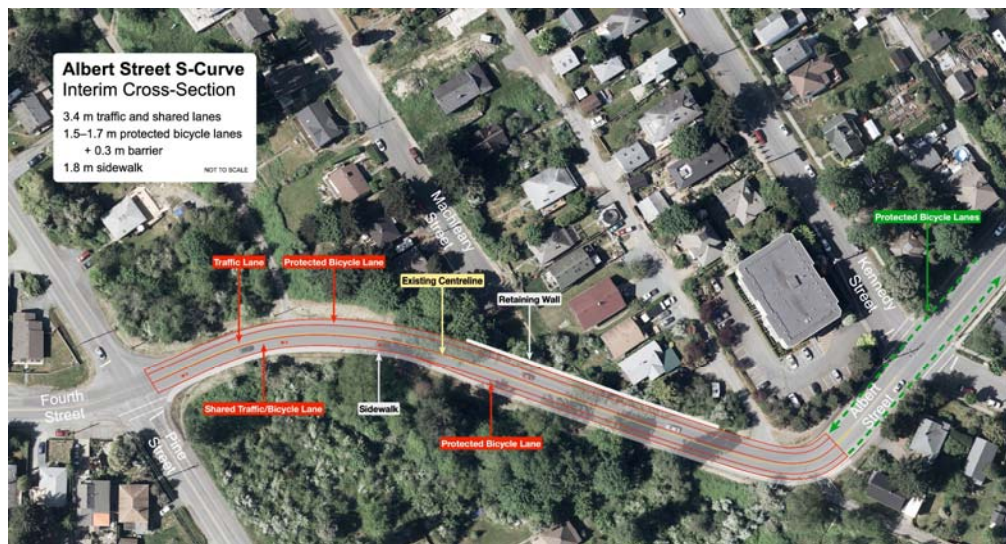
Other Cycling Improvements: Albert St & Fourth St (Machleary to Pine)

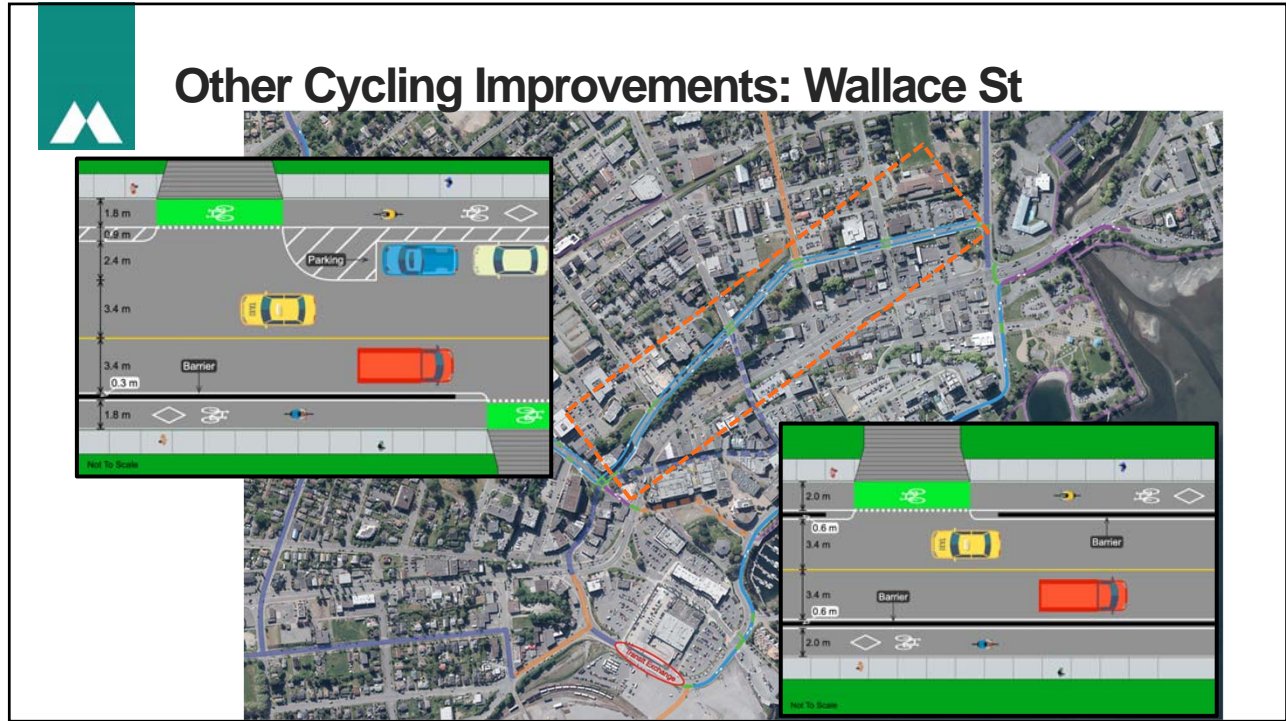
- Challenges
 - Narrow RoW
 - Property impact
 - Creek crossing
 - Tree impact
 - Gradient
 - Topography



Other Cycling Improvements: Albert St (Machleary to Pine)

- Interim option







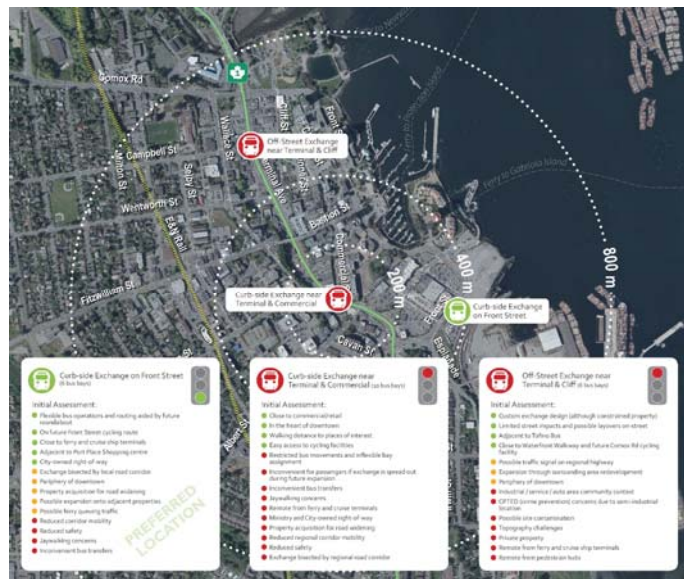
OTHER PROJECT UPDATES: Transit Exchange

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Transit Exchange

1. Detailed assessment done of all previously identified location options
2. Recommended Front Street as the preferred option
3. Community expressed support at the engagement sessions
4. User feedback on current temporary exchange is positive
5. Some safety concerns and suggestions received for amenities – all captured in a draft Design Brief



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OTHER PROJECT UPDATES: Parking Strategy

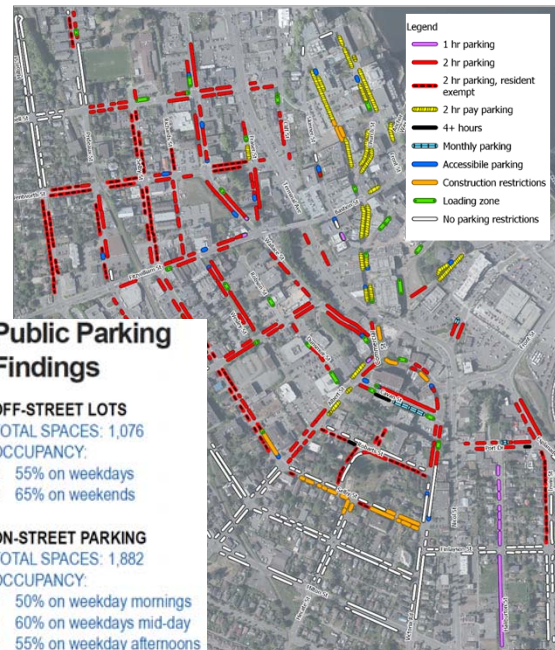
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Parking Strategy

1. Strategy will be based on:
 - i. Parking supply and demand survey: Occupancy
 - ii. Parking turnover survey
 - iii. Current parking restrictions in place
 - iv. Engagement feedback

2. Findings
 - i. Supply exceeds demand at most times, except events
 - ii. Need to improve wayfinding to lots
 - iii. Community support for increased parking fee closer to the downtown, decreasing outwards
 - iv. Consider time of day parking fees to encourage visitors to downtown late afternoon/evening



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