WELCOME!

CITY OF NANAIMO

DOWNTOWN MOBILITY HUB PROJECT

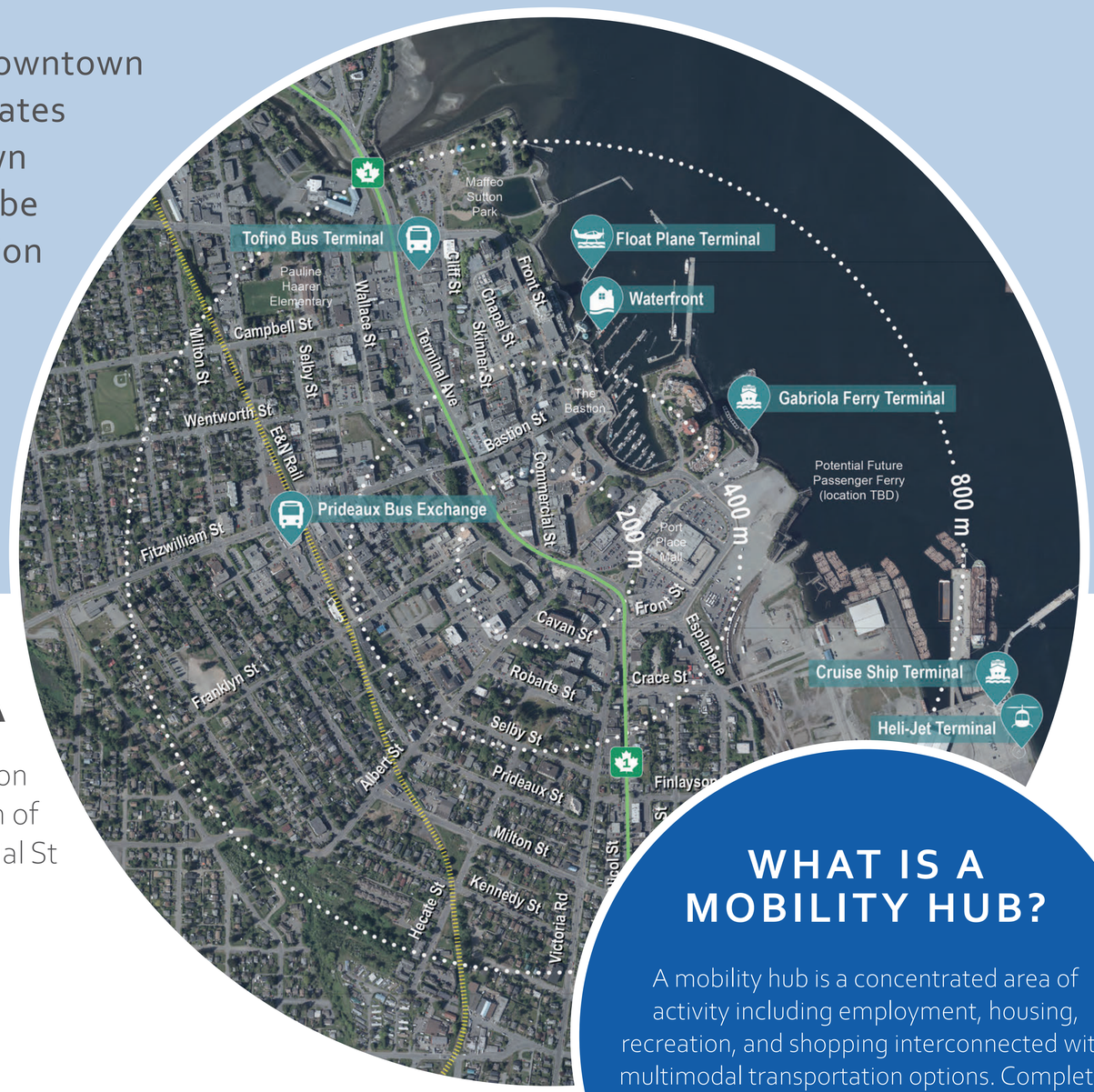
PHASE 2 COMMUNITY ENGAGEMENT

INTRODUCTION

Nanaimo Downtown Mobility Hub Project
linking it all together

The City of Nanaimo is advancing the vision for an integrated downtown transportation network that safely and comfortably accommodates pedestrians, cyclists, transit users, and motorists. The Downtown Mobility Hub Project is defining **short-term** projects that could be **built in the next 5 years** to take concrete steps towards the vision of a safer, inclusive, and connected downtown Nanaimo.

This project builds on strategies like the Official Community Plan and Transportation Master Plan to apply policy and planning recommendations to on-the-ground improvements.



PROJECT AREA

The Downtown Mobility Hub focuses on an 800 m radius around the intersection of Terminal Ave and Commercial St

WHAT IS A MOBILITY HUB?

A mobility hub is a concentrated area of activity including employment, housing, recreation, and shopping interconnected with multimodal transportation options. Complete, compact communities focused around mobility hubs are more sustainable as they reduce reliance on personal vehicles.

PROJECT PROCESS

The Downtown Mobility Hub Project is a first step in advancing short-term projects towards construction. During the next steps, it is expected that each of the projects will continue to be developed at its own pace with further public engagement incorporated into those specific processes.

The diagram below summarizes how this project, the Nanaimo Downtown Mobility Hub Project, fits into the overall project development process.

STEP 1
CONCEPT DESIGN (This Project)
Confirm ideas, issues, and opportunities
Figure out what to build first and what it should look like

STEP 2
DETAILED DESIGN
Determine how the priority projects will look and be built, including further public engagement

BUILD THE PROJECTS!
Possibly one or several projects depending on the scale and type of priority projects identified

NANAIMO DOWNTOWN MOBILITY HUB PROJECT (this project)

- **PROJECT LAUNCH** — Early 2019
- **TECHNICAL ENGAGEMENT** » Workshop A — February 2019
- **COMMUNITY ENGAGEMENT 1** » Outreach & Awareness » Pop-Up Events » Online Input » Stakeholder Workshop — Spring 2019
- **TECHNICAL ENGAGEMENT** » Workshop B — Summer / Fall 2019
- **COMMUNITY ENGAGEMENT 2** » Public Workshop » Online Feedback » Pop-Up Events — Fall 2019 ***WE ARE HERE!***

Phase 1 Concept Design Final Report
Winter 2019 / 2020

TECHNICAL WORK
- Background Studies & Technical Analysis
- Option Development
- Option Refinement & Report

WHAT WE'VE HEARD

Nanaimo Downtown Mobility Hub Project
linking it all together

During Phase 1, questions about five mobility topics – pedestrian network, bicycle network, transit, key intersections, and parking – were asked to gather community input and identify priorities. The following overview summarizes common themes. Learn more by reading the engagement summary at: nanaimo.ca/goto/downtownmobility

PARTICIPATION

- **94** QUESTIONNAIRES COMPLETED
- **~200** PARTICIPANTS AT PUBLIC EVENTS
- **350+** VISITS TO THE PROJECT WEBSITE
- **30** WORKSHOP PARTICIPANTS

COMMON THEMES

VICTORIA / WALLACE / ALBERT INTERSECTION

CONSISTENTLY IDENTIFIED AS A TOP ISSUE LOCATION FOR DOWNTOWN MOBILITY

PEDESTRIAN-ONLY STREETS COULD WARRANT EXPLORATION

TERMINAL / NICOL AND FRONT STREET

ARE WIDE, VEHICLE-DOMINATED STREETS THAT FORM BARRIERS TO WALKABILITY

WALLACE, GORDON, FRONT & ALBERT

ARE CYCLE ROUTE PRIORITIES, ALONG WITH A FEW OTHER SUGGESTED IDEAS. SEPARATED ROUTES THAT ACCOMMODATE ALL AGES AND ABILITIES ARE GENERALLY PREFERRED

FRONT STREET

IS GENERALLY SUPPORTED AS A TRANSIT EXCHANGE, PROVIDED THAT SAFETY, AMENITIES, FUTURE DEVELOPMENT, AND CONNECTIONS ARE CAREFULLY PLANNED

FINDING PARKING IS RELATIVELY EASY

EXCEPT IN A FEW LOCATIONS LIKE THE OLD CITY QUARTER AND COMMERCIAL ST, AND DURING MAJOR EVENTS. BETTER SIGNS COULD DIRECT PEOPLE TO AVAILABLE PARKING

KEY CONSIDERATIONS FOR PROJECTS:

1. PEDESTRIAN ACCESSIBILITY & COMFORT IS A HIGH PRIORITY
2. KEY DESTINATIONS SHOULD BE LINKED BY HIGH-QUALITY WALKWAYS AND CYCLE ROUTES
3. AMENITIES AND BEAUTIFICATION WILL SUPPORT WALKING AND TRANSIT
4. SAFETY AND SECURITY SHOULD BE ENHANCED
5. WAYFINDING & SIGNAGE SHOULD BE IMPROVED

EMERGING PRIORITIES

Nanaimo Downtown Mobility Hub Project
linking it all together

HISTORY

Like many other communities in North America, the City of Nanaimo became auto-dependent over the past century.

As our focus shifted to the automobile as the primary source of transportation, resulting development patterns encouraged automobile use and created obstacles to walkable, bikeable, transit-oriented centres.

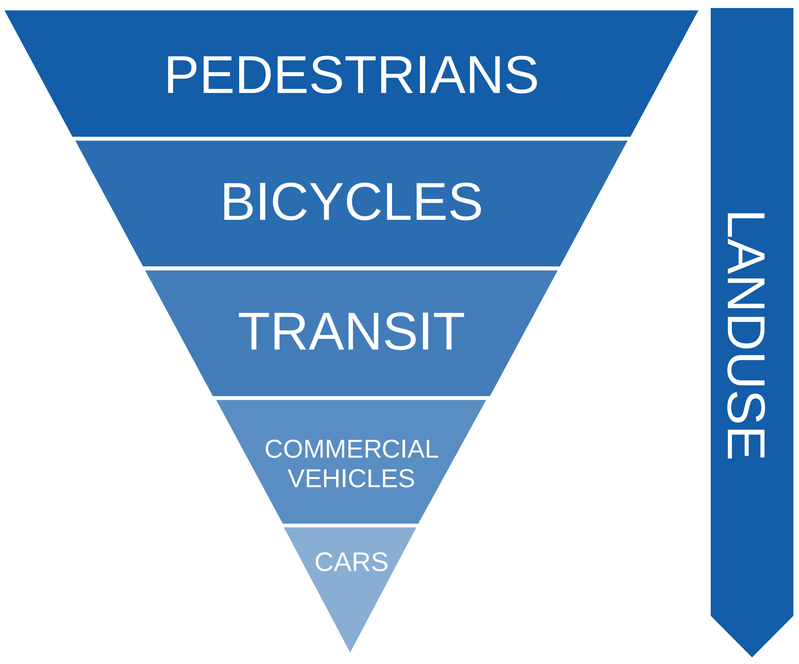
GUIDING POLICY

- The City's Official Community Plan **planNanaimo** supports a more sustainable, compact Nanaimo where people can work, shop, socialize and recreate in close proximity to where they live.
- Nanaimo's **Transportation Master Plan**, created in 2014, includes targets to double our sustainable travel mode share for trips made by walking, cycling, and transit by 2041.
- Downtown studies including the Nanaimo Downtown Plan, Nanaimo Downtown Urban Design Guidelines, Terminal Nicol Reimagined, and Port Drive Waterfront Master Plan have made recommendations for a more walkable, bikeable, and transit-friendly downtown core.

MOVING FORWARD

- In early 2019, the City of Nanaimo initiated the Downtown Mobility Hub Project to advance key ideas that have emerged in previous studies.
- The first phase focused on confirming priority issues and opportunities.
- This second phase is developing and reviewing initial concepts for short-term priority improvements.
- From here, select projects will be advanced through detailed design, including further public engagement, towards construction in the next 5 years.

NANAIMO TRANSPORTATION MASTER PLAN HIERARCHY OF MODES



The hierarchy of modes identified in Nanaimo's **Transportation Master Plan** proposes that the City consider the needs of pedestrians, cyclists, public transit, and goods and services movements before that of private automobiles.

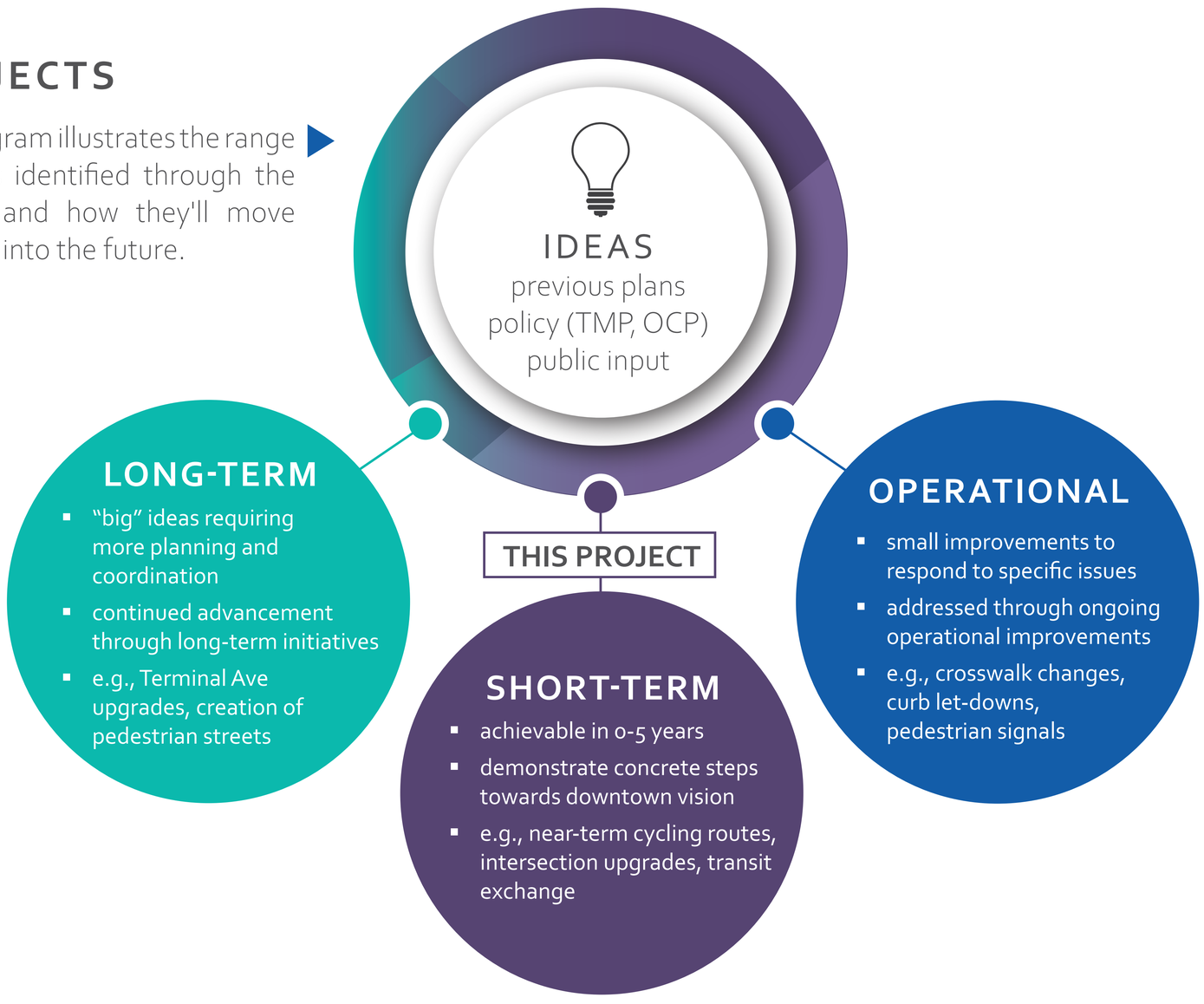
By considering needs of these priority modes, future transportation plans, programs and projects will provide better, safer, and more convenient solutions and encourage over time more people to walk, cycle, and ride the bus.

IDENTIFICATION OF SHORT-TERM PROJECTS

Public engagement and previous plans have identified many ideas for improving transportation in the downtown. The concepts being brought forward in the Downtown Mobility Hub Project are short-term priorities for the following reasons:

- Identified in previous planning initiatives
- General public support
- Provide visible change to the downtown, acting as catalyst projects to support sustained improvements
- Anticipated to be achieved in a 5-year time frame, meaning they are free of complex jurisdictional or private property challenges, they support initiatives already underway, and/or they do not require significant physical changes
- Align with long-term planning, ensuring that investments made now avoid "redoing" projects at a later time
- Support larger-scale initiatives that will continue to move forward at the same time

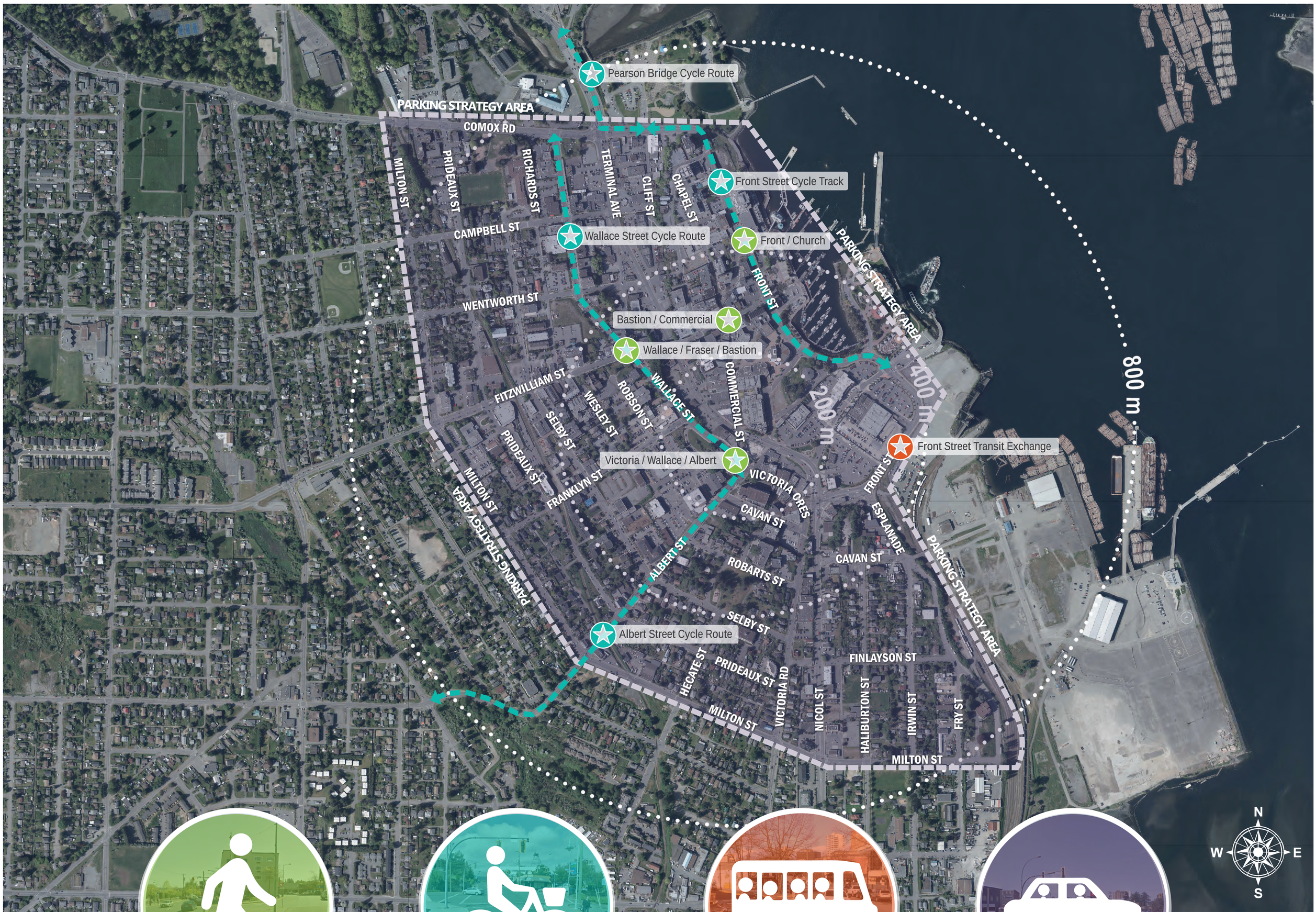
The diagram illustrates the range of ideas identified through the project and how they'll move forward into the future.



OVERVIEW OF CONCEPTS

Nanaimo Downtown Mobility Hub Project
linking it all together

The potential projects identified below represent achievable priority projects that support the policy and directions set in guiding documents. Learn more about each project by finding the relevant display.



SAFER INTERSECTIONS

Updates to key intersections to improve pedestrian conditions and enhance safety for all modes

- Victoria / Wallace / Albert
- Bastion / Commercial
- Front / Church
- Wallace / Fraser / Bastion

CYCLING ROUTES

Short-term projects towards the vision of a downtown cycling network for all ages and abilities

- Front Street Cycle Track
- Albert Street Cycle Route
- Wallace Street Cycle Route
- Pearson Bridge Cycle Route

TRANSIT EXCHANGE

A review of the proposed transit exchange location and initial discussion on design and amenities

- Summary of the Final Location Selection
- Emerging Design Criteria

PARKING STRATEGY

A comprehensive review of parking in the downtown today and emerging directions for the future

- Overview of Existing Conditions
- Occupancy Study Findings
- Emerging Key Directions

SAFER INTERSECTIONS
OVERVIEW

Nanaimo Downtown Mobility Hub Project
linking it all together

Intersections are where multiple transportation modes come together are where most conflicts occur on the roadway.

Traditional policies have primarily focused on reducing motor vehicle delay at intersections. The Transportation Master Plan requires future intersections to address the safety, comfort, and convenience of all modes, prioritizing pedestrians.

PUBLIC PRIORITIES

SAFETY
Feeling safe is important to downtown walkability and improving intersections for pedestrians is an important step

WAYFINDING / SIGNAGE
More pedestrian-orientated wayfinding would enhance the pedestrian experience

WALKABLE INTERSECTIONS
The current downtown network is often perceived as unaccommodating and inconvenient for pedestrians. Intersections that prioritize walkability are a priority

FOUR PROPOSED SHORT-TERM INTERSECTION IMPROVEMENTS

N W E S

1 VICTORIA ST / ALBERT ST / WALLACE ST

2 FRONT ST / CHURCH ST

4 BASTION ST / COMMERCIAL ST

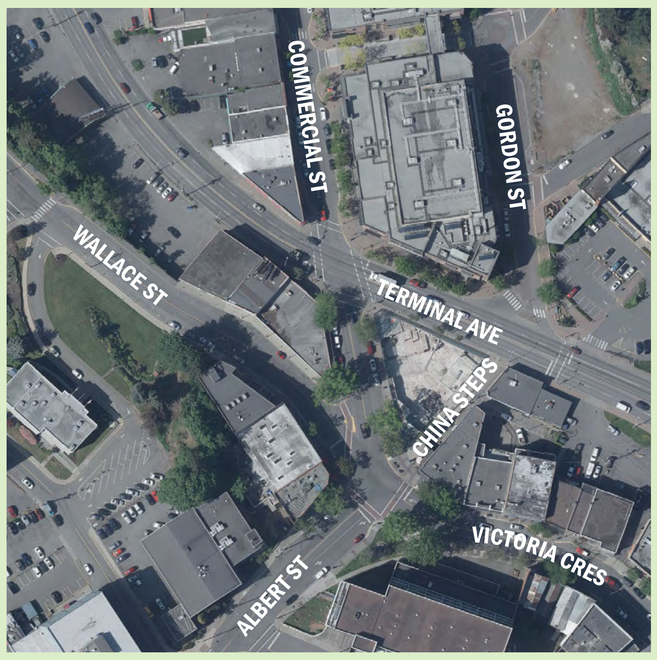
3 BASTION ST / WALLACE ST / FRASER ST

SAFER INTERSECTIONS

1 VICTORIA / WALLACE / ALBERT

Nanaimo Downtown Mobility Hub Project
linking it all together

EXISTING




3-way stop is confusing for motorists


Pedestrian activity in the area is increasing

WHY THIS INTERSECTION?

The 3-way stop was historically created to reduce potential for traffic backing up on Commercial St to Terminal Ave. Current analysis suggests traffic volumes may allow for an improved operation.

- Consistently identified as one of the most confusing intersections in the downtown
- Skewed alignment
- 3-way stop procedure is poorly understood
- No cycling accommodation
- High pedestrian activity area – a pedestrian count on April 4, 2019 showed an average of 178 pedestrians per hour
- Pedestrian challenges including long crossings, poor sight lines, and a missing crosswalk on the Commercial leg
- Identified in the Transportation Master Plan as a priority to improve safety and operations for pedestrians, cyclists, and vehicles
- Identified in Terminal Nicol Re-imagined as a priority
- High public support

PROPOSED APPROACH

START WITH A NEAR-TERM CONCEPT, LOOK TOWARDS A LONG-TERM VISION

This intersection falls within a larger planning area that includes the Terminal / Commercial intersection and surrounding land uses. The vision for this area is a vibrant, pedestrian-friendly hub – but that evolution is complex and timelines are not yet known.

For this reason, a near-term, low-cost concept is proposed for the Victoria / Wallace / Albert intersection to address pressing issues around safety and operations for pedestrians, cyclists, and motorists, while allowing flexibility for potentially area-wide changes in the future.

PROPOSED PHASING

1 Change to four-way stop procedure

2 Monitor queuing to confirm traffic does not back up to Terminal Avenue

3 Monitor large truck operations as concept could limit truck sizes using the intersection

4 Consider temporary closures of Commercial St between Terminal Ave and Wallace St (e.g., for community events) to understand potential effects of a pedestrian-only street

5 Based on feedback, monitoring, and long-term planning, continue transition of the larger area towards a visionary future, continue to engage the public at that time

PROPOSED NEAR-TERM CONCEPT

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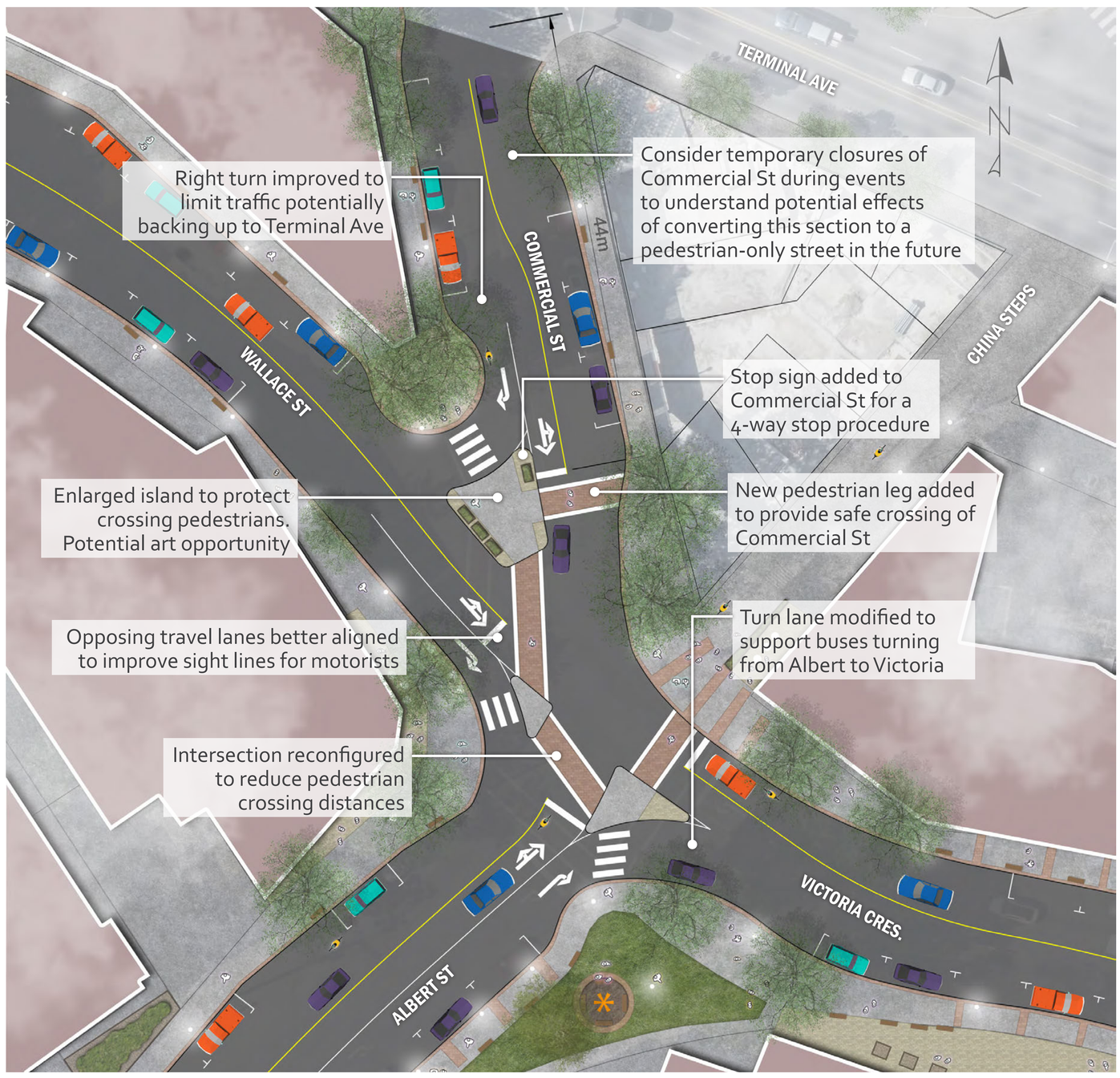

YOUR THOUGHTS

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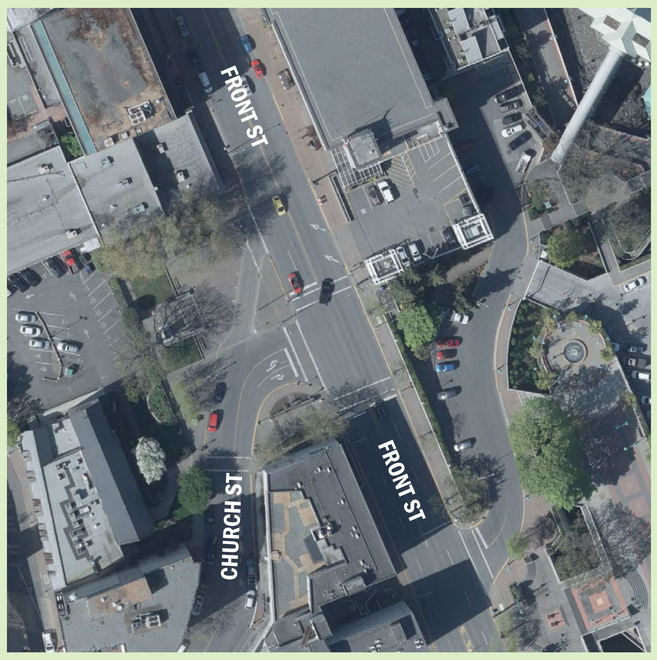
SAFER INTERSECTIONS

2 FRONT / CHURCH

Nanaimo Downtown Mobility Hub Project
linking it all together

EXISTING



Historical photo of Church Street showing large street configuration

The existing channelized turn lane is not needed and takes away space that could be used for public park

WHY THIS INTERSECTION?

Historically a traffic circle formed the intersection of Front and Church Streets. When the intersection was signalized, the diagonal configuration was maintained as a channelized right turn lane from Front onto Church.

- The channelized right turn lane is not needed for traffic flow, takes up significant space, and encourages faster driving speeds
- Pedestrian circulation on the island created by the channelized turn lane is unclear and has accessibility issues
- There is opportunity to reduce the pedestrian crossing distances over Front Street
- There is no cycling accommodation
- The area has high pedestrian activity, linking the downtown and the waterfront
- Removal of the channelized turn lane provides opportunity to expand Dallas Square Park
- Aligns with proposed Front Street updates (refer to Cycling Routes information)

PROPOSED APPROACH

REDUCE SPACE ALLOCATED TO VEHICLES AND INCREASE PUBLIC OPEN SPACE

- Remove the channelized right turn lane
- Expand Dallas Square Park into the recovered open space, creating opportunities for an enhanced plaza with elements like outdoor seating, public art, additional trees and plantings, and expanded celebration space near the Cenotaph
- Enhance the intersection to include curb extensions at Front and Church Streets that minimize pedestrian crossings distances

PROPOSED PHASING

1 Timing of these improvements might be linked to the implementation of proposed Front St bicycle lanes (refer to Cycling Routes information)

PROPOSED INITIAL CONCEPT

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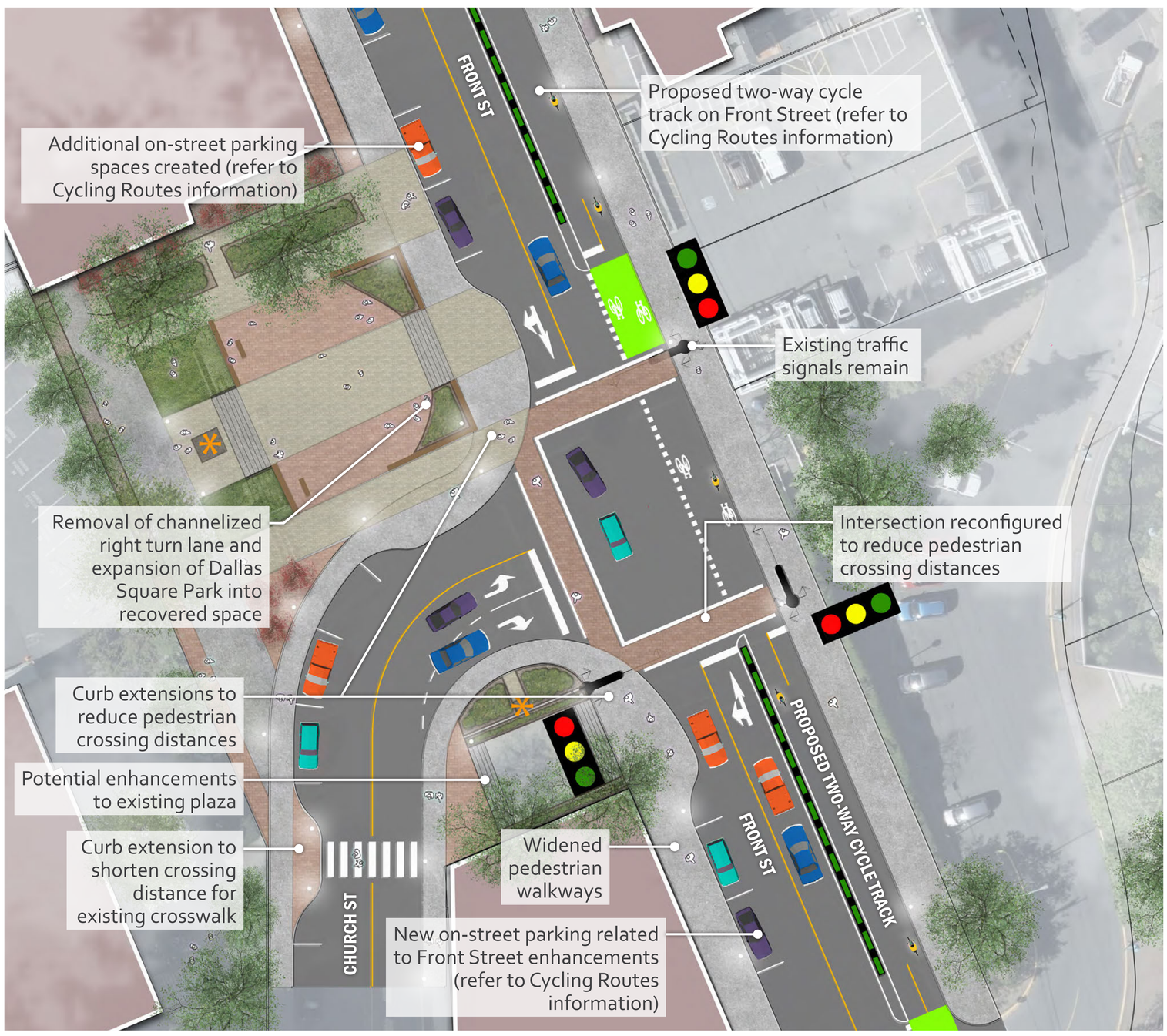

YOUR THOUGHTS

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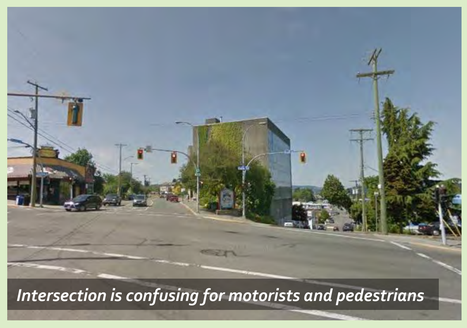
SAFER INTERSECTIONS

3 BASTION / WALLACE / FRASER

Nanaimo Downtown Mobility Hub Project
linking it all together

EXISTING


Pedestrian wait times can be lengthy at the intersection


Intersection is confusing for motorists and pedestrians

WHY THIS INTERSECTION?

A 5-way street intersection where Wallace St, Bastion St, and Fraser St meet has been identified as confusing and inefficient.

- 5-legged skewed intersection with one-way connection at Fraser Street is confusing
- A number of property driveways are close to the intersection, increasing conflicts
- High pedestrian activity area including the primary link between downtown and the Old City Quarter
- Intersection has lengthy waits between pedestrian crossings and long crossing distances due to additional signal phases
- There is minimal cycling accommodation
- Public input indicated a desire for accessibility improvements

PROPOSED APPROACH

STREAMLINE TRAFFIC MOVEMENTS TO IMPROVE PEDESTRIAN EXPERIENCE AND ADD OPEN SPACE

- Pursue closure of the Fraser St leg of the intersection to improve pedestrian crossings and intersection operation
- Convert Fraser St to a two-way with a turnaround at the top of the street. Emergency service access would need to be addressed
- Update the existing traffic signals to only two phases (reducing pedestrian wait times)
- Develop new public open space in the closed portion of Fraser St to provide additional garden space and amenities while maintaining pedestrian access
- Enhance the intersection to include curb extensions where possible to reduce pedestrian crossing distances

PROPOSED PHASING

1 Consult emergency services

2 Timing of these improvements might be linked to the implementation of proposed Wallace St bicycle lanes (refer to Cycling Routes information)

PROPOSED INITIAL CONCEPT

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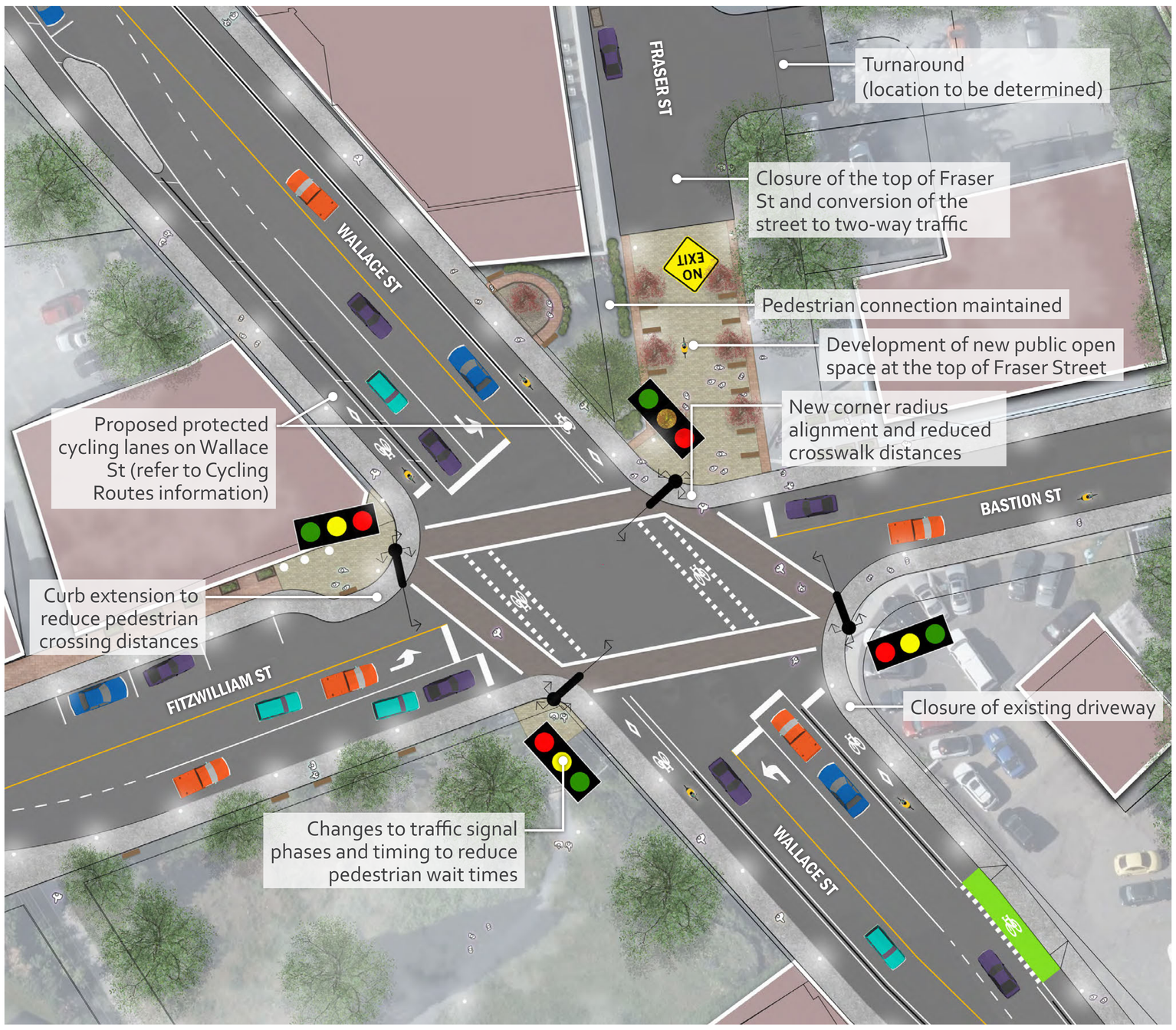

YOUR THOUGHTS

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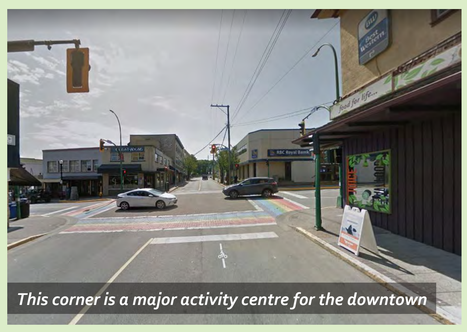
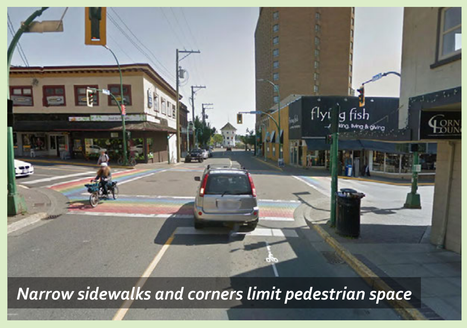
SAFER INTERSECTIONS
4 BASTION / COMMERCIAL

Nanaimo Downtown Mobility Hub Project
linking it all together

EXISTING


This corner is a major activity centre for the downtown


Narrow sidewalks and corners limit pedestrian space

WHY THIS INTERSECTION?

The existing traffic signals are close to the end of their lifespan and will need to be replaced in the near future. This provides an opportunity to consider changes that could benefit downtown mobility.

- While the existing traffic controls appear to operate acceptably, they don't prioritize pedestrians
- Existing sidewalks are narrow with obstructions from traffic signals, utilities, and street furniture
- This is one of the busiest pedestrian areas in Nanaimo – a 7-hour pedestrian count on April 12, 2018 recorded 1,715 pedestrian movements
- There is minimal cycling accommodation

OPTIONS CONSIDERED

Option	Strengths	Weaknesses
Option 1: Four-way Stop **RECOMMENDED**	▪ Pedestrians have right-of-way ▪ No significant vehicle traffic delays anticipated ▪ Low cost and easy to implement	▪ Potential for minor vehicle delays when large numbers of pedestrians are crossing ▪ Less convenient for cyclists
Option 2: Two-way Stop on Commercial (Free Flow on Bastion)	▪ Less delay for vehicles on Bastion St ▪ Pedestrians have right-of-way when crossing Commercial St ▪ Low cost and easy to implement	▪ More delay for vehicles on Commercial St ▪ Potentially higher vehicle speeds on Bastion St increasing risk for more severe collisions ▪ Less convenient for pedestrians to cross Bastion St
Option 3: Signalized with Pedestrian Scramble	▪ Avoids conflicting pedestrian and vehicle movements, increasing safety ▪ Allows pedestrians to cross diagonally	▪ Longer delays for both pedestrians and vehicles to allow all signal cycles ▪ Higher cost to implement
Option 4: Status Quo (upgrade existing signals only)	▪ Maintains existing operation which appears to operate reasonably well	▪ Higher cost to implement ▪ Does not improve pedestrian circulation

PROPOSED PHASING

1. Implement Option 1: Four-Way Stop for a trial period prior to removing the existing signals
2. Monitor pedestrian and vehicle behaviours, as well as public feedback, about the change
3. If the trial period is favourable, proceed with full updates including removal of the traffic signals and street enhancements including widened corners and sidewalks where possible

PROPOSED INITIAL CONCEPT

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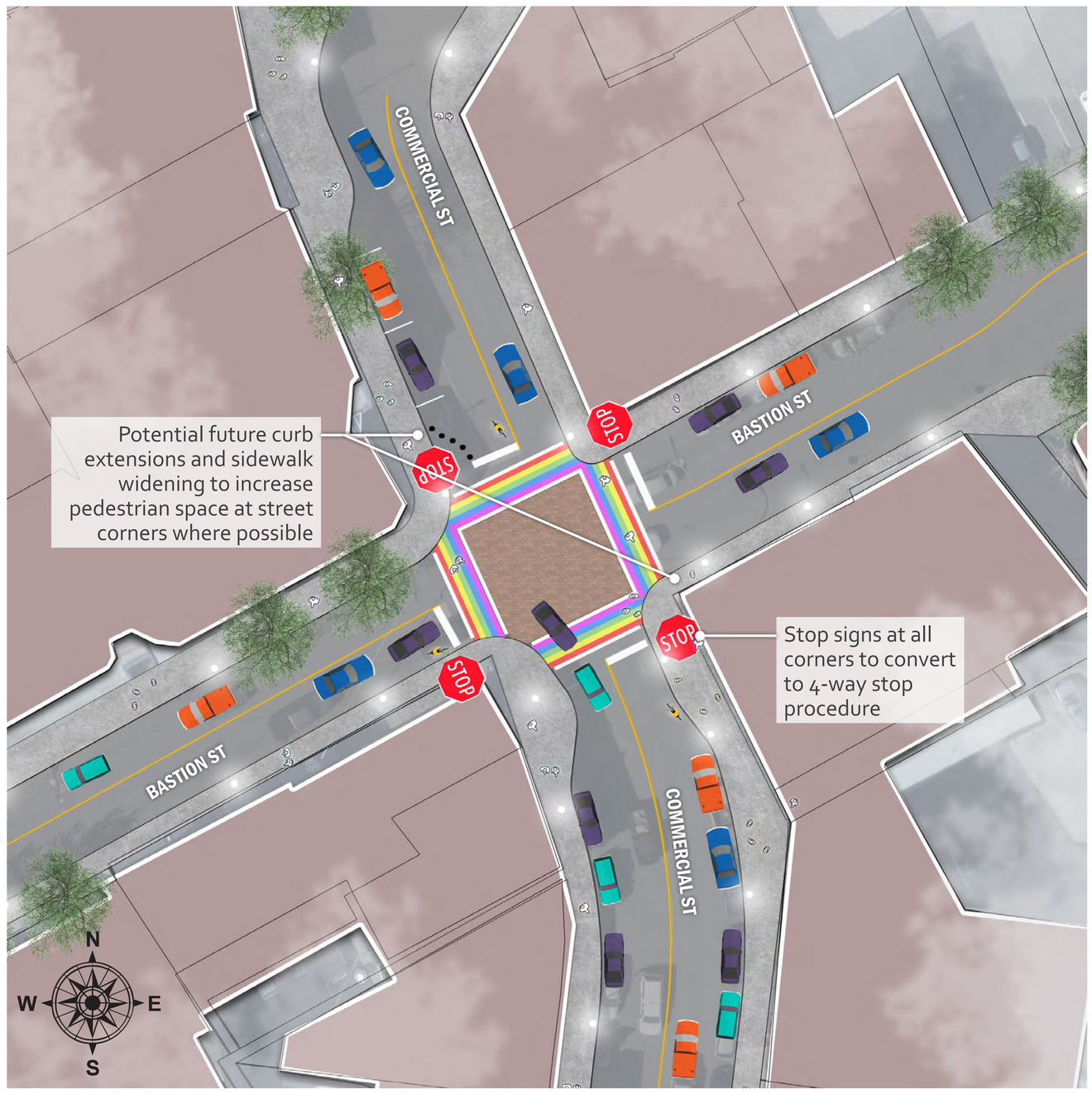

YOUR THOUGHTS

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CYCLING ROUTES
OVERVIEW

Nanaimo Downtown Mobility Hub Project
linking it all together

Downtown is a destination and hub where several cycling routes come together, but is currently limited in routes that support cyclists of all ages and abilities.

The Downtown Mobility Hub Project seeks to add a network of short-term routes to be constructed within the next five years. These additions will help connect cyclists around the downtown core more easily and in a safer manner.

PUBLIC PRIORITIES

SAFETY
Some people feel that they are not "good enough cyclists" to navigate downtown

WAYFINDING / SIGNAGE
Improved route signage could enhance the experience and decrease conflicts

CONNECTIVITY
Routes need to connect into the existing or planned future network

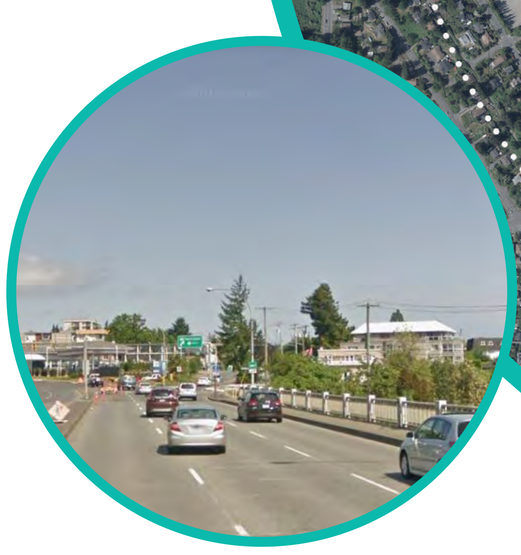
SECURE STORAGE
Secure bike lock-up and end-of-trip facilities will help support a successful network

FOUR PROPOSED SHORT-TERM CYCLING CONNECTIONS

N W E S

1 FRONT STREET CYCLE TRACK

2 WALLACE STREET CYCLE ROUTE



4 PEARSON BRIDGE CYCLE ROUTE

3 ALBERT STREET CYCLE ROUTE

CYCLING ROUTES
1 FRONT STREET

Nanaimo Downtown Mobility Hub Project
linking it all together

OVERVIEW

- Identified in the Transportation Master Plan as a part of the downtown cycling loop
- Will connect in the future to the Front Street Transit Exchange and other amenities
- Opportunity to work within existing roadway to minimize need for pavement widening
- Traffic impact analysis shows reduction in Front St laning results in little to no change in operational performance for vehicles
- Fewer vehicle travel lanes reduces Front St crossing distances for pedestrians, improving the current "barrier" effect of a 4-lane Front St

PROPOSED CONCEPT

TWO-WAY PROTECTED CYCLE TRACK ON THE EAST (WATER) SIDE OF FRONT STREET

Why is this recommended?

- **Safety:** There are fewer driveways and intersections on the east side of Front St and therefore fewer turning vehicles, reducing potential for conflicts between cyclists, motor vehicles, and pedestrians
- **Connections:** Direct connections to waterfront, Maffeo Sutton Park, Pearson Bridge, the downtown, and the Transit Exchange
- **Parking:** The smallest number of parking stalls are impacted as compared to either a cycle track on the west side or protected bicycle lanes on both sides. Allows for additional parking to be added near destinations like the Port Theatre and waterfront

KEY CONSIDERATIONS

As the concept design is advanced, the following elements will be studied further:

- Emergency service access
- Parking and loading impacts and offsets
- Continuous accessibility for pedestrians
- Relationship between bike lanes and transit stops
- Additional public and stakeholder consultation

PROPOSED INITIAL CONCEPT

Note: This concept is shown for information and discussion only and design will be refined during future steps

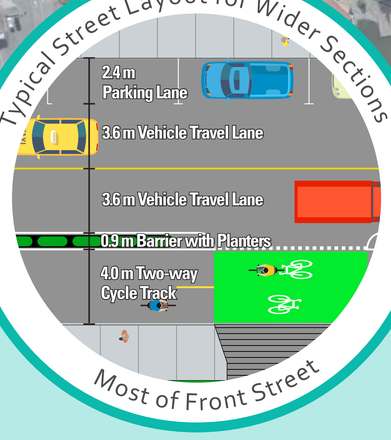
Example: Two-way Cycle Track with wide planter barrier

Image Credit: Edmonton Separated Bike Lane by Paul Krueger - CC BY 2.0

Example: Bus stop with floating island to prioritize pedestrian access

Example: Two-way Cycle Track with narrow curb barrier

Typical Street Layout for Wider Sections



Most of Front Street

Typical Street Layout for Narrow Sections

Near Law Courts

YOUR THOUGHTS

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LEGEND

SHORT-TERM BICYCLE NETWORK

Proposed	Existing	
		2-Way Protected Cycle Track
		Multi-use Pathway
		Multi-use Pathway (ped only)
		Improved Route (marked lanes)
		Signed Route (not improved)

OTHER

- Potential Parking Additions
- Parking Removals
- Marked Cycling Route Through Intersection / Driveway
- Transit Stop

CYCLING ROUTES

2 WALLACE STREET

Nanaimo Downtown Mobility Hub Project
linking it all together

OVERVIEW

- Identified in the Transportation Master Plan as a part of the downtown cycling loop
- Provides a relatively level (flat) connection to key destinations
- Opportunity to work within existing roadway to minimize need for pavement widening
- Primary north-south bicycle route west of Terminal Avenue

PROPOSED CONCEPT

UNI-DIRECTIONAL (ONE-WAY) BICYCLE LANES ON BOTH SIDES OF WALLACE STREET

Why is this recommended?

- **Safety:** Protected cycling lanes physically separate cyclists from motor vehicle traffic, providing a safer route than standard bicycle lanes
- **Connections:** Cycling lanes on both sides support easy connectivity to other parts of the network, including the proposed Albert St cycling route (see #3)

PROPOSED INITIAL CONCEPT

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YOUR THOUGHTS

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LEGEND

SHORT-TERM BICYCLE NETWORK

Proposed	Existing	
		1-Way Protected Bicycle Lane
		Multi-use Pathway
		Improved Route (marked lanes)
		Signed Route (not improved)

OTHER

- Potential Parking Removals
- Marked Cycling Route Through Intersection / Driveway
- Transit Stop

CYCLING ROUTES

3 ALBERT STREET

Nanaimo Downtown Mobility Hub Project
linking it all together

OVERVIEW

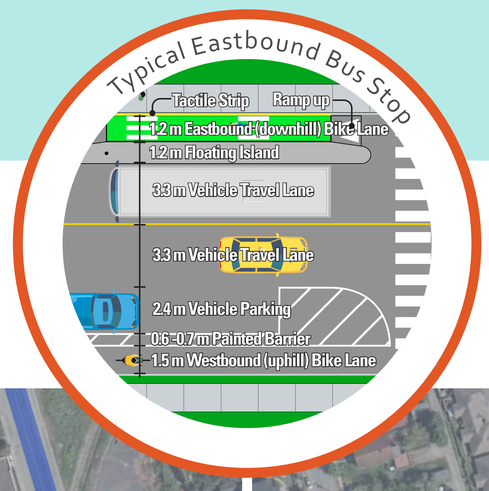
- Identified in the Transportation Master Plan as a part of the VIU Bikeway east-west cycling link
- This connection provides the shortest and most direct route between the Downtown Mobility Hub and Vancouver Island University Mobility Hub, which is the City's largest cycling destination
- Opportunity to work within existing roadway to minimize need for pavement widening

PROPOSED CONCEPT

UNI-DIRECTIONAL (ONE-WAY) BICYCLE LANES ON BOTH SIDES OF ALBERT STREET

Why is this recommended?

- **Safety:** Protected cycling lanes physically separate cyclists from motor vehicle traffic, providing a safer route than standard bicycle lanes
- **Connections:** Cycling lanes on both sides support easy connectivity to other parts of the network, including the proposed Wallace St cycling route (see #2)



PROPOSED INITIAL CONCEPT

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YOUR THOUGHTS

Do you have a comment, question, or concern about this initial concept? Post it here.

Feedback will be used to evaluate and refine the concept before it is advanced.

LEGEND

SHORT-TERM BICYCLE NETWORK

Proposed	Existing	
		1-Way Protected Bicycle Lane
		Multi-use Pathway
		Improved Route (marked lanes)
		Signed Route (not improved)

OTHER

- Potential Parking Removals
- Marked Cycling Route Through Intersection / Driveway
- Transit Stop

CYCLING ROUTES
4 PEARSON BRIDGE

Nanaimo Downtown Mobility Hub Project
linking it all together

OVERVIEW

- Pearson Bridge spans the Millstone River marking the northern threshold to downtown
- The existing bridge has 2.1 m sidewalks on both sides, but no bicycle facilities and no railings to separate pedestrians from the roadway
- A connection would link the proposed Front Street Cycle Track (see #1) with a planned complete street on Stewart Ave
- The outer northbound traffic lane that diverts onto Stewart Ave is not required for traffic operations and could be considered for reallocation to active transportation
- The highway is jurisdiction of Ministry of Transportation and Infrastructure – approvals would be required

CONCEPT OPTIONS

OPTION 1: SHARED PATHWAY (EAST SIDE)

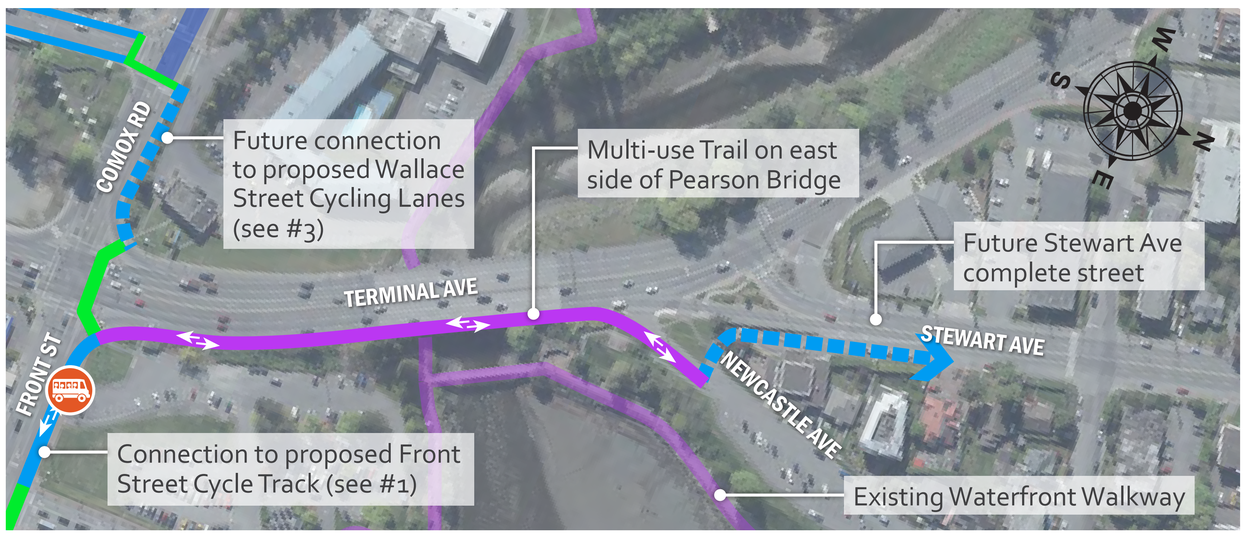
- Option 1 would widen the sidewalk on the east side of the bridge to a 6.5 m multi-use pathway shared by pedestrians and cyclists
- A barrier for protection from traffic would be added

OPTION 2: PROTECTED BICYCLE LANES (BOTH SIDES)

- Option 2 would accommodate cyclists by adding one-way protected bicycle lanes on both sides of the bridge
- Sidewalks would remain 2.1 m wide and pedestrians would be protected from traffic by the bicycle lanes

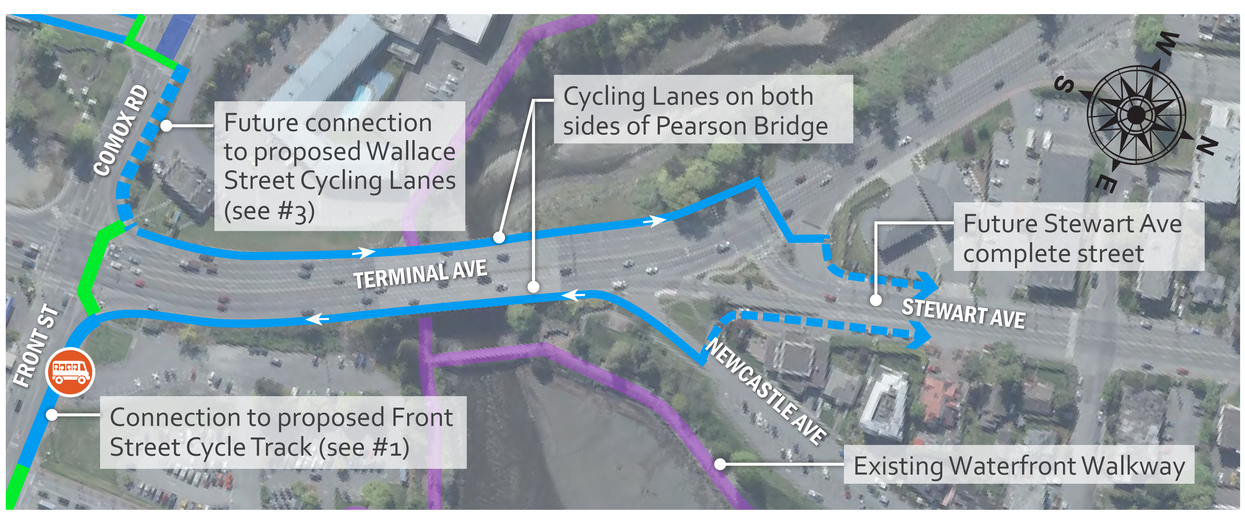
INITIAL CONCEPT OPTION 1: SHARED PATHWAY (EAST SIDE)

Note: This concept is shown for information and discussion only and design will be refined during future steps



INITIAL CONCEPT OPTION 2: PROTECTED BICYCLE LANES (BOTH SIDES)

Note: This concept is shown for information and discussion only and design will be refined during future steps

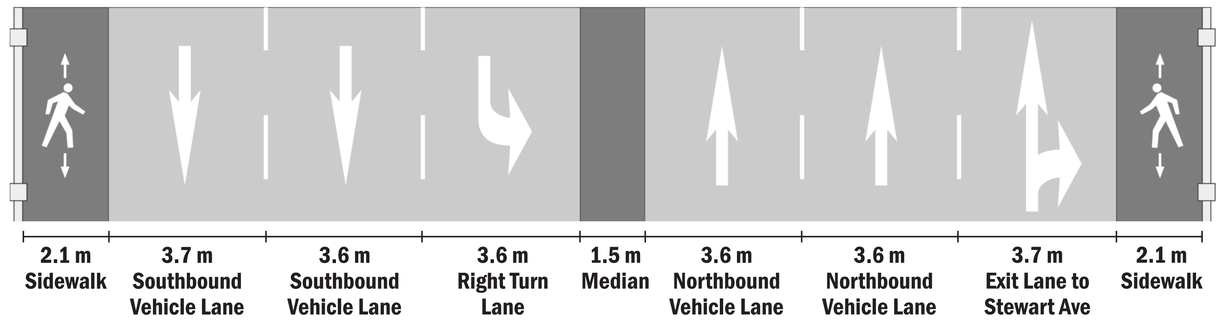


CROSS-SECTION COMPARISON

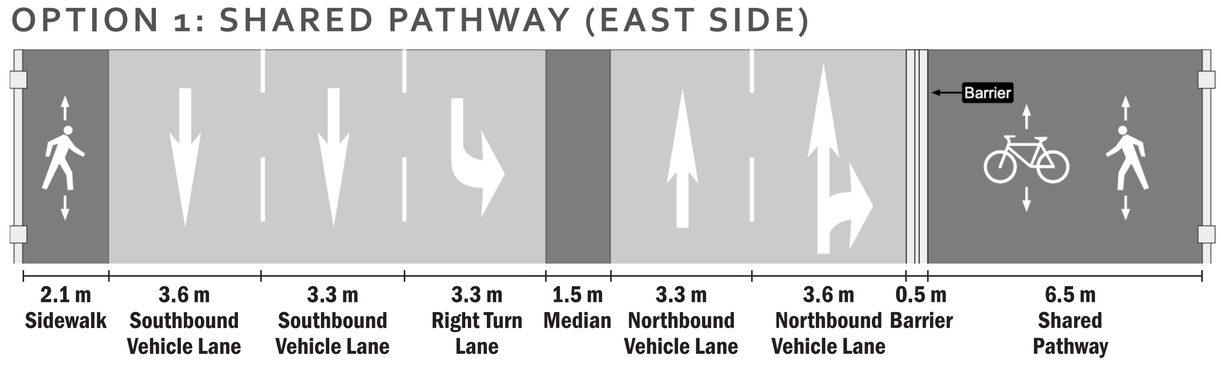
The following graphics summarize, in plan view, different laning options for Pearson Bridge.

EXISTING

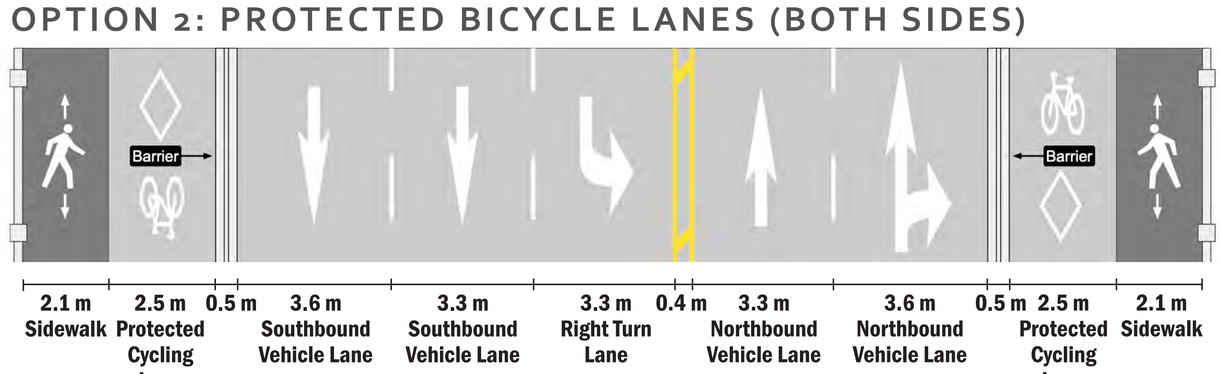
NOTE: Dimensions are approximate



OPTION 1: SHARED PATHWAY (EAST SIDE)



OPTION 2: PROTECTED BICYCLE LANES (BOTH SIDES)



LEGEND

SHORT-TERM BICYCLE NETWORK

Proposed / Existing

- 1-Way Protected Cycle Lane
- Multi-use Pathway
- Signed Route (not improved)

OTHER

- Marked Cycling Route Through Intersection / Driveway
- Transit Stop

YOUR THOUGHTS

Do you have a comment, question, or concern about these options? Post it here.
Feedback will be used to evaluate and refine the concepts before it is advanced.

TRANSIT EXCHANGE
CONFIRMED LOCATION

Nanaimo Downtown Mobility Hub Project
linking it all together

Relocation of the downtown transit exchange from the temporary Prideaux location has been a priority for many years. Through previous studies, several potential exchange locations have been explored.

The Downtown Mobility Hub Project undertook a comprehensive review, including public input, to analyze three location options. The analysis recommends a long-term downtown transit exchange on Front Street.

PUBLIC PRIORITIES

SAFETY & ACCESSIBILITY
Needs to feel safe and comfortable for all, with full accessibility, lighting, and amenities

PUBLIC AMENITIES
Weather shelters, seating, bike lock-up, and access to washrooms are important

CONNECTIVITY
Good walking and biking connections to the exchange are needed

QUALITY INTEGRATED DESIGN
The exchange should be integrated into the urban landscape, not feel like a parking lot

TRANSIT EXCHANGE LOCATION OPTIONS & ASSESSMENT

LEGEND
- Positive Condition
- Moderate Condition
- Poor Condition

Curb-side Exchange on Front Street

Assessment:
- Flexible bus operations and routing aided by future roundabout
- On future Front Street cycling route
- Close to ferry and cruise ship terminals
- Adjacent to Port Place shopping centre
- City-owned right-of-way
- Exchange bisected by local road corridor
- Periphery of downtown
- Property acquisition would be required for road widening
- Possibility for expansion onto adjacent properties
- Possible issues related to ferry queuing traffic
- Reduced corridor mobility
- Reduced safety
- Jaywalking concerns
- Inconvenient bus transfers

PREFERRED LOCATION

Curb-side Exchange near Terminal & Commercial

Assessment:
- Close to commercial / retail
- In the heart of downtown
- Walking distance to places of interest
- Easy access to cycling facilities
- Restricted bus movements and inflexible bay assignment
- Inconvenient for passengers if exchange is spread out during future expansion
- Inconvenient bus transfers
- Jaywalking concerns
- Remote from ferry and cruise ship terminals
- Combination of ministry and city-owned rights-of-way
- Property acquisition would be required for road widening
- Reduced regional corridor mobility
- Reduced safety
- Exchange bisected by regional road corridor

Off-Street Exchange near Terminal & Cliff

Assessment:
- Custom exchange design (although constrained property)
- Limited street impacts and possible layovers on-street
- Adjacent to Tofino Bus
- Close to Waterfront Walkway and future Front St cycling facility
- Possible traffic signal addition on regional highway
- Possible expansion through surrounding area redevelopment
- Periphery of downtown
- Industrial / service / auto area context
- CPTED (crime prevention) concerns due to semi-industrial location
- Possible site contamination
- Topography challenges
- Private property
- Remote from ferry and cruise ship terminals
- Remote from pedestrian hubs

TRANSIT EXCHANGE
DESIGN CRITERIA

Nanaimo Downtown Mobility Hub Project
linking it all together

Now that the Front Street Transit Exchange location has been confirmed, the next step will be developing a concept for the future exchange. Public priorities for amenities and design will be considered as part of the concept development, alongside technical circulation requirements. Below are some of the types of design elements that may be considered.

ACCESSIBILITY & COMFORT


Clearly marked pedestrian crossings
Image credit: UBC Students 99 B-line by Oran Viriyincy


Lighting and visibility


Accessible design
Image credit: BL-RATP Accessible by Jean-Louis Zimmermann - CC BY-SA 2.0

Designated Waiting Area
Image credit: St Clair Metro by Hamish - CC BY-SA 4.0

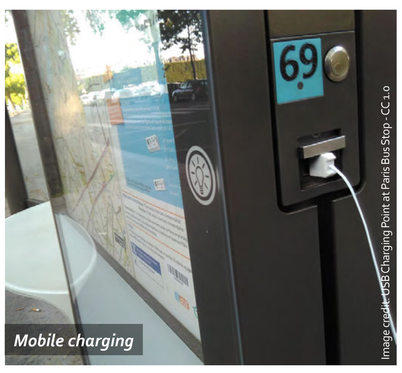

Seating options
Image credit: Portland Transit Mall by roderet - CC BY-SA 2.0


Accessible washrooms
Image credit: Accessible Public Toilet by EMsmile - CC BY-SA 4.0

INFORMATION & TECHNOLOGY


Clear network mapping
Image credit: London Transit Map by Erik Griswold - CC BY 2.0

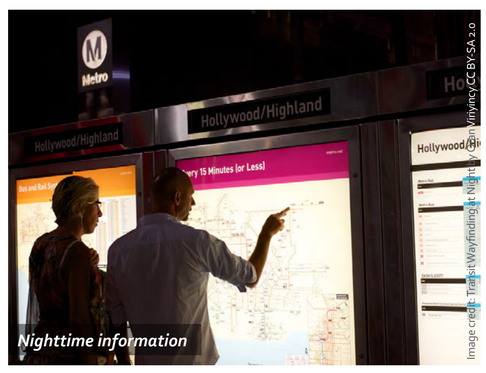

Real-time arrival information



Mobile charging
Image credit: USB Charging Point at Paris Bus Stop - CC 1.0


Interactive information display
Image credit: Bus Stop Derby Cathedral - CC BY 2.0

Information kiosks
Image credit: Vancouver Wayfinding Kiosk by Oran Viriyincy - CC BY-SA 2.0



Nighttime information
Image credit: TransitWayfinding at Night by Oran Viriyincy CC BY-SA 2.0

CYCLING


Covered bike lock-up
Image credit: Burrard School Bicycle Rack by ZLEA - CC BY 2.0


Secure bike lockers
Image credit: Canoga Park Bike Lockers by Umberto Brayj - CC BY 2.0


Electric bike charging
Image credit: Bike energy station by Peter Schiter - CC BY 2.0


Clear cycling network integration


Potential for future bike share program
Image credit: Hangzhou Bike Sharing Station by Payton Chung - CC BY 2.0

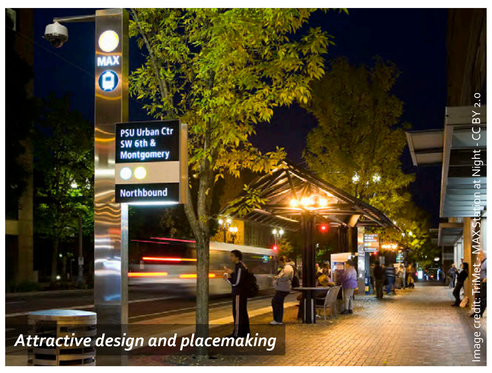
DESIGN & ART


Integrated streetscape design
Image credit: Bus stop on Castro in MountainView by Runner 928 - CC BY 2.0


Innovative structure and elements like a green roof
Image credit: Bus stop on Castro in MountainView by Runner 928 - CC BY 2.0

Integrated interpretive information
Image credit: Eichmannreferat Bus Stop by Sargoth - CC BY-SA 3.0


Public art opportunities
Image credit: Transit Maps - Art by Oran Viriyincy - CC BY-SA 2.0



Attractive design and placemaking
Image credit: TriMet - MAX Light at Night - CC BY 2.0

YOUR THOUGHTS

Do you have a suggestion for creating a great future Front Street Transit Exchange? Post it here.
Feedback will be used as input to developing design criteria for the future exchange.

PARKING STRATEGY
OVERVIEW

Nanaimo Downtown Mobility Hub Project
linking it all together

The availability, convenience, and cost of parking influences where and how we travel. It helps shape development patterns, street environments, land uses, and transportation choices.

The Transportation Master Plan recommends managing parking downtown to more efficiently share supply and maximize the benefits of each parking space, while helping the City shift to a more sustainable transportation mix.

OBSERVATIONS

- Parking counts show that downtown parking supply substantially exceeds demand at most times, except during special events
- Currently only 10% of the downtown's on-street public parking requires payment
- The majority of off-street public parking lots and garages require payment
- Wayfinding that helps people find available parking is not working well
- While opinions vary, most people find the supply and cost of downtown parking acceptable

PUBLIC PRIORITIES

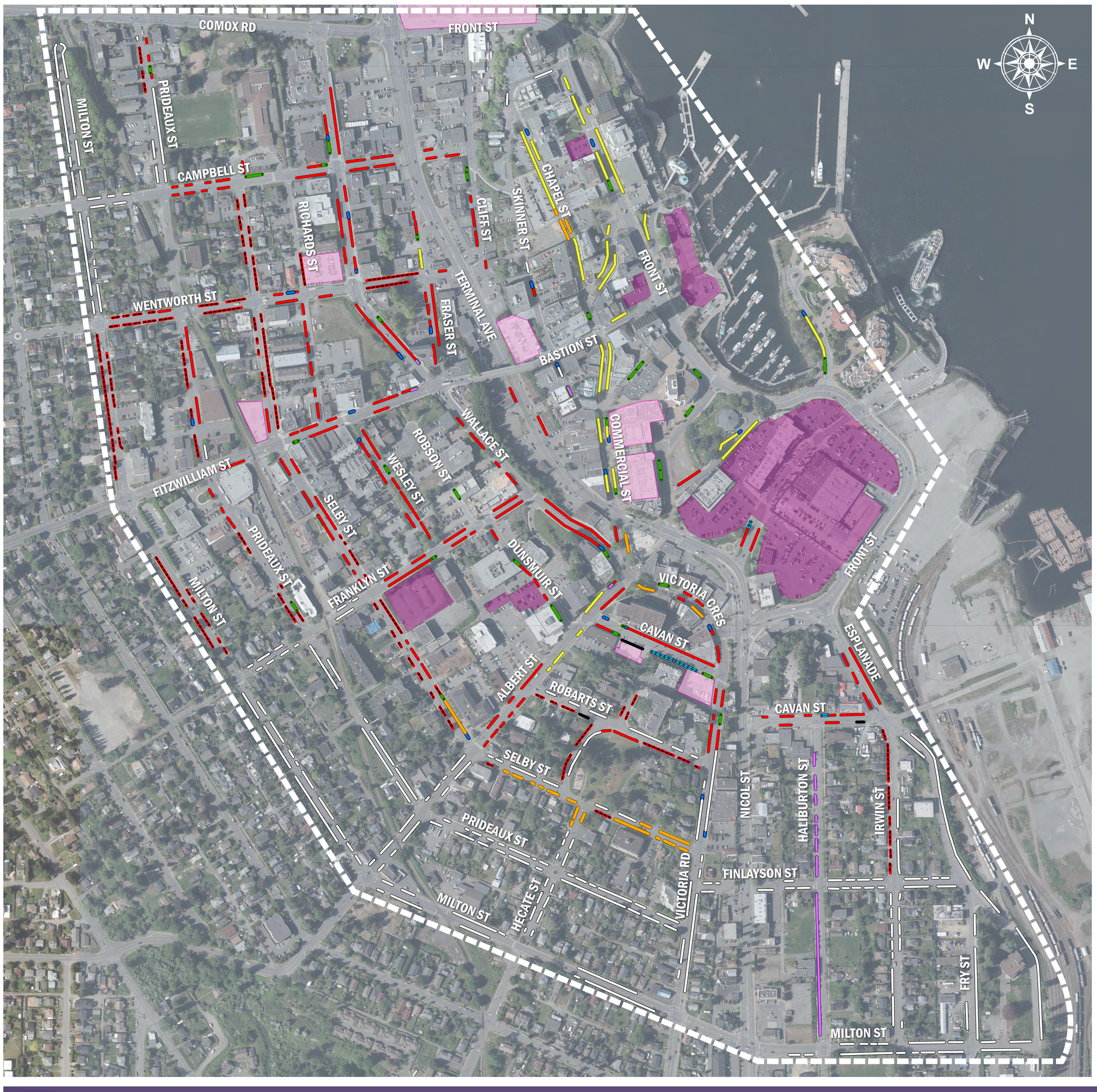
WAYFINDING
People are often unsure of where to look for parking including finding garages and lots

SAFETY
Concerns about safety, especially in parking garages

SPECIAL EVENTS
When multiple events or celebrations occur downtown, parking can be hard to find

ALTERNATIVES
More accommodation is needed for modes like electric vehicles, motorcycles, bicycles

OVERVIEW OF CURRENT DOWNTOWN PARKING



LEGEND

PUBLIC ON-STREET PARKING
Total estimated stalls = 1,882

- 1 hr parking (48 stalls)
- 2 hr parking (496 stalls)
- 2 hr parking, resident exempt (297 stalls)
- 2 hr pay parking (171 stalls)
- 4+ hours
- Monthly parking
- Accessible parking (24 stalls)
- Construction restrictions
- Loading zone (63 stalls)
- No parking restrictions (756 stalls)

PUBLIC OFF-STREET PARKING LOTS
Total estimated stalls = 1,076

- Public Off-Street Parking Lots

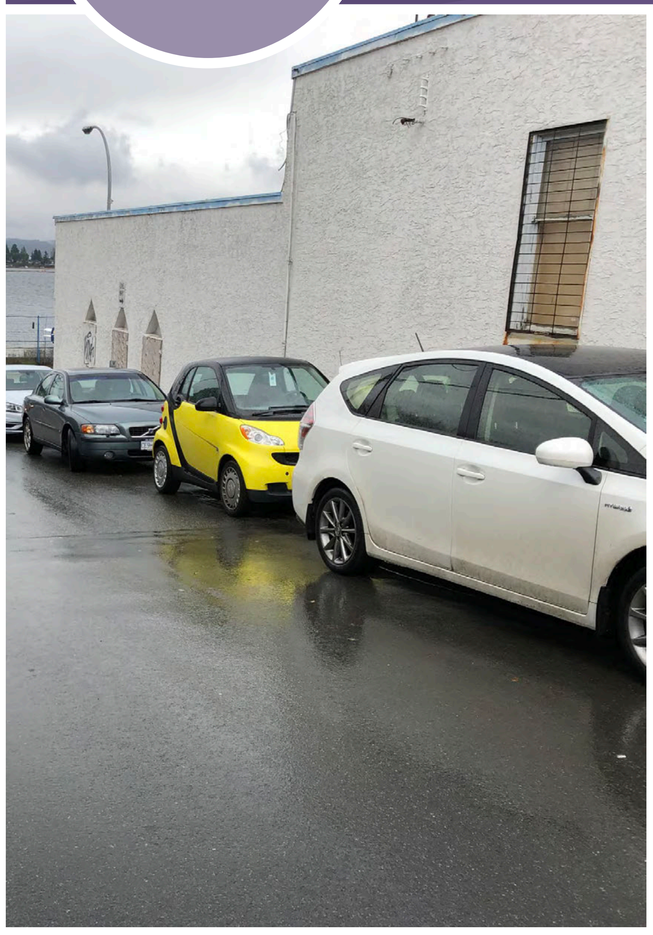
PRIVATE OFF-STREET PARKING LOTS*
Total estimated stalls = 1,086

**NOTE: Off-street parking lots owned and operated privately are shown for information, but were not part of the parking occupancy study*

- Private Off-Street Parking Lots

PARKING STRATEGY
OCCUPANCY STUDY

Nanaimo Downtown Mobility Hub Project
linking it all together



ABOUT PARKING OCCUPANCY

- Parking occupancy is how many of an area's parking stalls are in use during specific times. This helps understand when types of parking are being used
- The Transportation Master Plan recommends setting parking occupancy targets for high demand areas like downtown at **85% occupancy** during peak times in order to create a balance between the availability of parking and excessive parking supply

FINDINGS OF THE DOWNTOWN MOBILITY OCCUPANCY STUDY

On-street parking occupancy

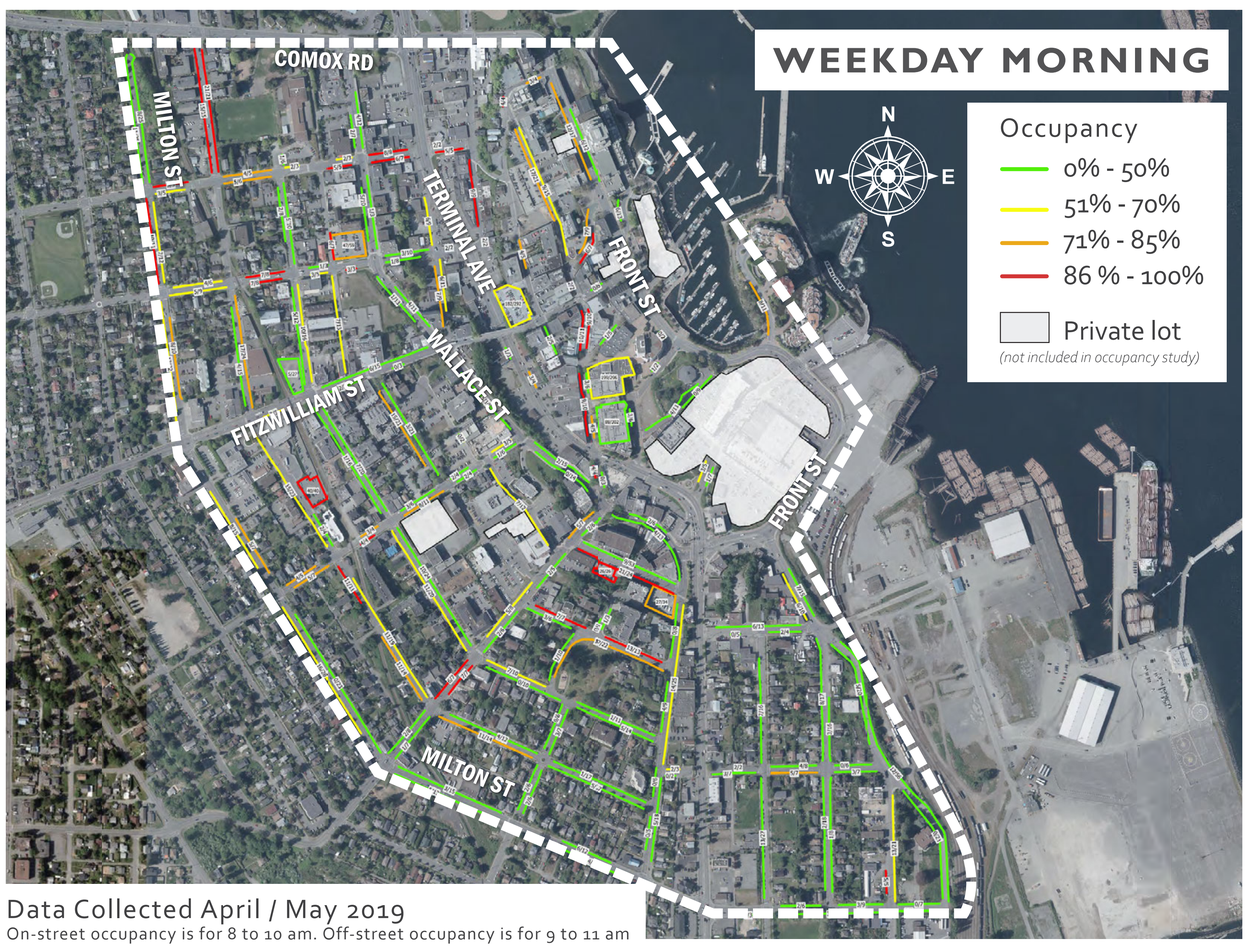
- Weekday Mornings = **50%**
- Weekday Mid-day = **60%**
- Weekday Afternoon = **55%**
- Weekend = **40%**

- 2-hour free parking is most used and is the only parking type observed reaching 85% occupancy (at mid-day)
- A turnover study indicates many people exceed the allowable length of stay for parking

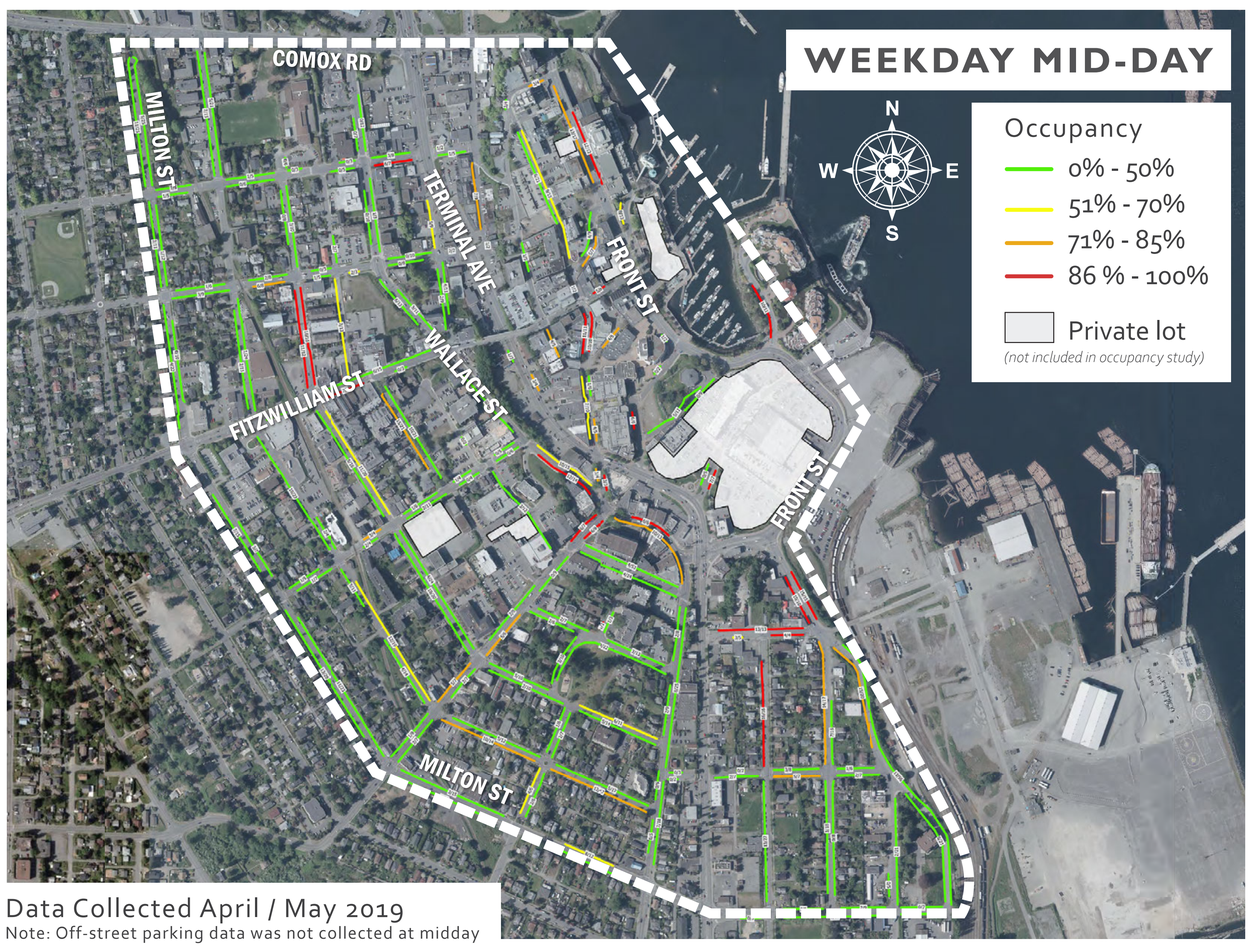
Off-street public parking occupancy

- Weekdays = **55%**
- Weekends = **65%**

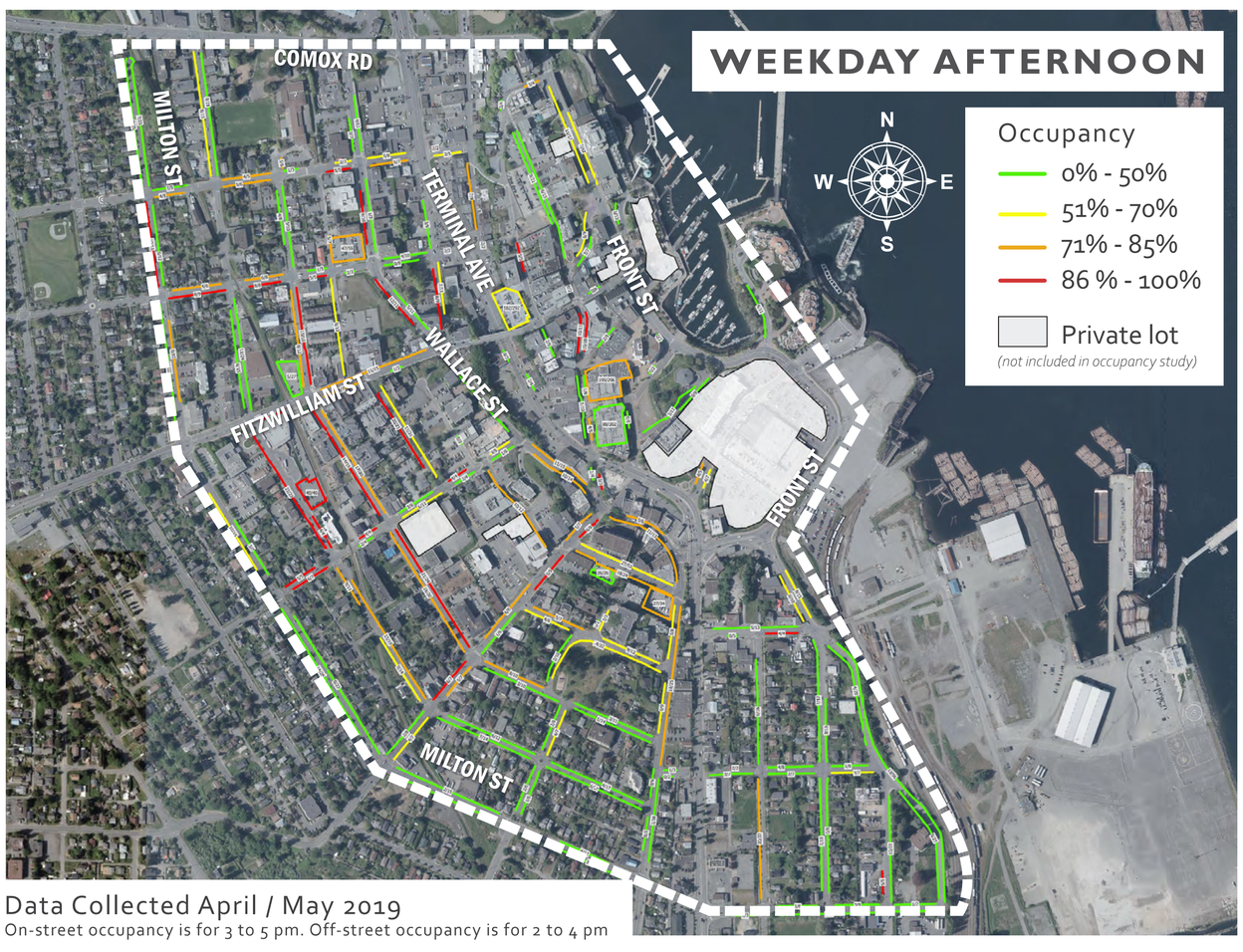
- Off-street public parking is highly influenced by events in downtown (i.e., concerts, conferences, festivals, etc.)
- During special events, wayfinding for available parking could direct people to less used parking lots / parkades



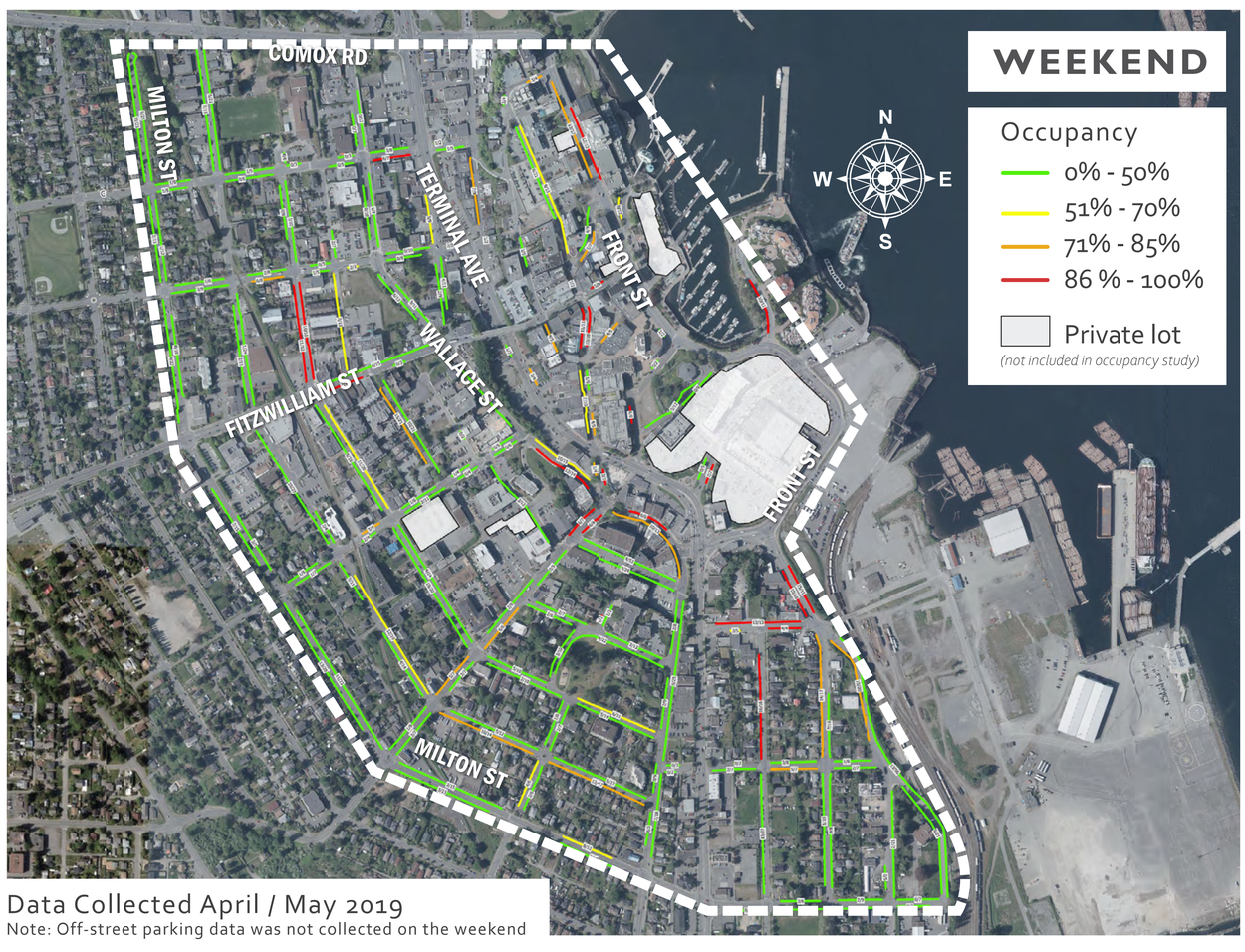
Data Collected April / May 2019
On-street occupancy is for 8 to 10 am. Off-street occupancy is for 9 to 11 am



Data Collected April / May 2019
Note: Off-street parking data was not collected at midday



Data Collected April / May 2019
On-street occupancy is for 3 to 5 pm. Off-street occupancy is for 2 to 4 pm



Data Collected April / May 2019
Note: Off-street parking data was not collected on the weekend

PARKING STRATEGY
KEY EMERGING DIRECTIONS

Nanaimo Downtown Mobility Hub Project
linking it all together

1 Improve Parking Wayfinding and Information

Why?

- The difficulty many drivers face when searching for parking is not caused by a lack of available parking, but rather by a lack of information on where parking is
- The Transportation Master Plan encourages wayfinding to help reduce the amount of time drivers spend searching for parking

What Could this Include?

- Digital signs at parkades or lots providing real-time information on the number of spaces available
- Better signage to guide people to lots and parkades; parking management during special events; temporary signage or flaggers to direct drivers to available parking
- Collaboration with the technology sector to increase online information that allows advance trip preparation

Digital parking signage directs people to where parking is available

Interesting!

One US study estimated that the average driver wastes more than 17 hours per year searching for parking, resulting in wasted time, fuel, emissions, and congested roads.

2 Develop Parking Strategies for Downtown Events

Why?

- Parking capacity in downtown Nanaimo is typically much higher than demand, except when multiple or large events take place
- It's more efficient and cost-effective to manage these infrequent events, rather than increase parking supply

What Could this Include?

- Online information, temporary signs, and volunteers directing event attendees to available parking
- Off-site parking with shuttles to events
- Increased transit during events
- Secure and convenient special event bike parking to encourage people to ride


Event shuttles could move people from off-site parking to downtown

Bike valets at community events encourage alternatives

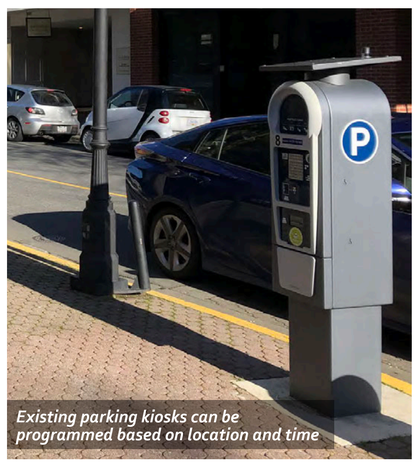
3 Manage Parking Fees to Balance Demand and Availability

Why?

- Managing fees helps parking turnover and therefore helps ensure in-demand spaces like those in the downtown core are available for people visiting businesses
- The Transportation Master Plan recommends allocating the highest parking restrictions and pricing to spaces in greatest demand

What Could this Include?

- Increased paid parking for high-demand locations during busy times
- Lower rates or restrictions in locations away from downtown
- Reduced rates or free parking during lower-use times like evenings
- More parking and special rates for alternative modes such as electric vehicles, motorcycles, bicycles
- Expansion of the 'pay-by-plate' payment method


Existing parking kiosks can be programmed based on location and time

Designated parking for alternative modes can encourage use

YOUR THOUGHTS

Do you have a comment, question, or concern about this these emerging parking directions? Post it here. Feedback will be used to evaluate and refine the directions before they are advanced.