

**CORPORATION OF THE CITY OF COURTENAY
COUNCIL MEETING AGENDA**

DATE: October 3, 2016
PLACE: City Hall Council Chambers
TIME: 4:00 p.m.

1.00 ADOPTION OF MINUTES

1. Adopt September 19, 2016 Regular Council meeting minutes

2.00 INTRODUCTION OF LATE ITEMS

3.00 DELEGATIONS

Pg #

- 1 1. Presentation by C.V. Project Watershed re: Simms Millennial Park off-channel fish habitat

4.00 STAFF REPORTS/PRESENTATIONS

(a) Engineering Services

- 3 1. 5th Street Complete Streets Project – Implications for Undergrounding the Overhead Utilities
- 9 2. Complete Streets Pilot Project – Cross Section Options
- 21 3. Complete Streets Pilot Project – Pop-Up Intersection

5.00 EXTERNAL REPORTS AND CORRESPONDENCE FOR INFORMATION

6.00 INTERNAL REPORTS AND CORRESPONDENCE FOR INFORMATION

- 27 1. Briefing Note: 5th Street Complete Street Pilot Project

7.00 REPORTS FROM COUNCIL MEMBERS REGARDING CITY RELATED ACTIVITIES INCLUDING REPORTS FROM COUNCIL AND EXTERNAL COMMITTEES

8.00 RESOLUTIONS OF COUNCIL

9.00 UNFINISHED BUSINESS

10.00 NOTICE OF MOTION

11.00 NEW BUSINESS

12.00 BYLAWS

13.00 ADJOURNMENT

NOTE: there will be a Public Hearing scheduled at 5:00 p.m. in relation to Official Community Plan Amendment Bylaw No. 2856 and Zoning Amendment Bylaw No. 2857 for 963 Webb Road

Simms Millennial Park – Courtenay River Side Channel Restoration to Improve Connectivity for Salmonid Rearing and Refuge

The Comox Valley Project Watershed Society received seed money this year to develop an improved restoration prescription for the off-channel fish habitat which was created in Simms Millennial Park. This project involves the re-design and re-working of a high priority habitat restoration project on a tidally influenced section of the Courtenay River. The original project to create off-channel habitat through Simms Millennial Park for salmonids was undertaken by Fisheries and Oceans Canada (DFO) and the City of Courtenay as mitigation for past habitat damage on the system in 2000. It resulted in the development of a blind channel (the 'finger') and a pond connected by a culvert (the pond is then connected by a small culvert/pipe to the Courtenay Slough), in-stream complexing and the addition of substrate. However the project was not entirely successful as the main culvert was installed too high, and flows only at very high tide levels; thus severely limiting salmonid access. It is also not 'fish friendly' as it is very long and small in diameter. As well, the second culvert/pipe connecting the pond to the Slough does not allow for any salmonid access. Despite these limitations our baseline survey work indicates that some juvenile fish still manage to access the inner pond demonstrating the need for this critical off-channel habitat.

We would like to present the City of Courtenay Council with the new restoration design for their information and support. We anticipate to be able to raise the funding necessary to finance the project if it moves ahead; however we will need some in-kind support from City staff.

Project Watershed has already secured support for the project from Fisheries and Oceans Canada, the K'ómoks First Nation and other stakeholders groups which are represented on our Technical Committee.



STAFF REPORT

To: Council

File No.: 8620-01/ 16009

From: Chief Administrative Officer

Date: October 3, 2016

Subject: 5th Street Complete Streets Project – Implications for Undergrounding the Overhead Utilities

PURPOSE:

The purpose of this report is to respond to Council's April 4, 2016, request that staff investigate the removal of the existing utility poles along 5th Street within the limits of the Complete Streets project.

CAO RECOMMENDATIONS:

That based on the October 4, 2016 staff report entitled "5th Street Complete Streets Project – Implications for Undergrounding the Overhead Utilities", that Council approve Option 1 to maintain the existing level of service above ground.

Respectfully submitted,

David Allen, BES, CLGEM, SCLGM
Chief Administrative Officer

BACKGROUND:

On February 12, 2016 the City of Courtenay was awarded \$3.253 million in funding to construct a Complete Streets Pilot Project on 5th Street (Fitzgerald to Menzies Avenue) through the UBCM Gas Tax Program. The Complete Streets enhancements being considered for this corridor include: expanding sidewalk width, installing bike lanes, landscape islands, curb extensions, and new pavement markings. The renovation of the street will also include all underground utilities, including replacing all storm and sanitary sewer and water mains.

At the April 4th, 2016 regular Council meeting, staff and project team members from Urban Systems Ltd presented a project update to Council along with an engagement strategy for the project. During this presentation Council requested that staff investigate the cost and implications of undergrounding the existing overhead third party utilities within the project limits.

DISCUSSION:

5th Street between Fitzgerald and Menzies Avenues currently consists of one through lane and one parking lane in each direction. There is no curb or gutter on either side, and the sidewalks are located between the parking lanes and property lines. Utility poles providing hydro, cable and Telus services to the neighbourhood are located on the edge of the sidewalks within the parking lane on both sides of the road.

In response to Council's request to investigate the costs and implications of undergrounding the existing overhead third party utilities, staff engaged Urban Systems Ltd and PBX Engineering to develop an order of magnitude cost estimate. The cost estimate for this work is approximately \$2.42million. This cost estimates includes undergrounding the overhead utilities within the road right-of-way; undergrounding of wiring from the roadway to the private residences or buildings and installation of street lighting (excluding engineering and including a 30% contingency).

As an alternate option, staff asked PBX to investigate the possibility of undergrounding just the aerial wiring that crosses 5th Street. The utility poles would remain and connection above ground to buildings would also remain, however, the look of the street in cross-section would no longer include the overhead wires above the travelled roadway. The cost estimate for this work is approximately \$830,000 (excluding engineering and including a 30% contingency). None of these costs are included in the Gas Tax grant funding.

BC Hydro has a Beautification Fund that provides financial assistance to Municipalities for the purpose of converting from overhead to underground facilities whereby BC Hydro will contribute up to one-third funding towards approved projects. The program has a fixed annual budget of \$1.0million. Should Council chose to advance this aspect of the project and submit a grant application, the City would be competing against projects from across the province for a portion of this funding which would be a small fraction of the overall cost of this work.

Beyond the cost of the work, the next most significant impact this potential change will have to this project is to the overall schedule. BC Hydro is very busy and projects take a significant amount of time to advance through their design process. They typically don't work to externally imposed deadlines and our project would be subject to their limited available resources. The overall project engineering design will need to advance to a state that Hydro can employ the base plan information in preparing their design. Telus and Shaw operate in sequence to Hydro and will prepare their respective designs once Hydro is complete. It is anticipated that the project would be at the appropriate stage to **start** design works and coordination with Hydro in late spring of 2017.

The next challenge becomes the construction sequence and managing the transition of services to the private property owners. Similar to the design process, Hydro doesn't typically commit to timelines for construction. As a result, scheduling the work on private property will be a challenge to coordinate and maintain services, and the potential for delays to the overall project construction are high as a lag in time may occur when the underground plant is energized but the poles remain in the ground.

The final challenge is to internal staff resources. Adding the full scope of work for undergrounding utilities to the project will stretch staff resources. The project is significantly complex with the current scope and grant reporting requirements. Coordination with Hydro, Telus and Shaw cable, as well as work on private property will be labour intensive for staff and will require additional resources for the term of the project at an additional cost to the City.

Staff recommends that, based on the project schedule to complete the current scope of work within the grant timeframe, the expense to underground the overhead utilities and limited internal resources to manage a project of this complexity, that Council maintain the existing overhead utilities network.

FINANCIAL IMPLICATIONS:

The cost to remove the utility poles was not included in the grant funding received by the City from Strategic Priorities fund under the Federal Gas Tax Fund for this project. Should Council direct staff to proceed with the removal of the overhead wiring and/or the utility poles, the project budget will increase as described in the table below:

	Option 1 – Underground Overhead Utilities (no poles)	Option 2 – Underground Overhead Laterals Only
Construction Cost	\$1.86million	\$635,000
Contingency (30%)	\$560,000	\$195,000
Engineering & Other Fees (15%)	\$360,000	\$125,000
Additional Internal Resources (2 year’s salary & benefits)	\$240,000	n/a
Total Estimated Cost	\$3.05million	\$955,000

If either option 1 or 2 are selected by Council, funding will need to be allocated in the 2017 and 2018 capital budget from General Taxation, borrowing, reserves or alternate approach. As a point of reference, a 1% increase in property taxation equates to approximately \$180,000 in revenue for the City.

ADMINISTRATIVE IMPLICATIONS:

The request by Council for staff to evaluate the cost and implications to the project of undergrounding the overhead wiring and removing the utility poles, added approximately 16 hours of staff time beyond the estimated project work plan.

Should Council direct staff to proceed with the full undergrounding of the existing overhead utilities, staff recommends engaging a Project Engineer (minimum 2-year, full-time, term position) to manage this project internally over the next 2 years, as this change to the project effectively doubles the scope of work and greatly increases the project complexity. This cost would also be over and above the grant funding.

ASSET MANAGEMENT IMPLICATIONS:

Removal of overhead wiring and utility poles will necessitate the installation of City owned street lighting, which will provide a higher level of service than is currently in place on 5th Street through the provision of Hydro lease lights.

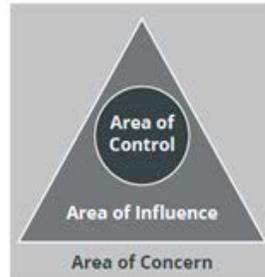
Operation and maintenance costs will increase for this new street lighting system.

STRATEGIC PRIORITIES REFERENCE:

The Complete Streets Pilot Project is a Council priority and supports the 2016-2018 Strategic Priority.

We value multi-modal transportation in our community

- We support developing multi-modal transportation network plans
- As we build new or replace existing transportation infrastructure, we are consistent with what we learn from our Complete Streets Pilot Project
- △ Support our regional transit service while balancing service improvements with costs



- **Area of Control**
The policy, works and programming matters that fall within Council's jurisdictional authority to act.
- ▲ **Area of Influence**
Matters that fall within shared or agreed jurisdiction between Council and another government or party.
- **Area of Concern**
Matters of interest outside Council's jurisdictional authority to act.

OFFICIAL COMMUNITY PLAN REFERENCE:

None.

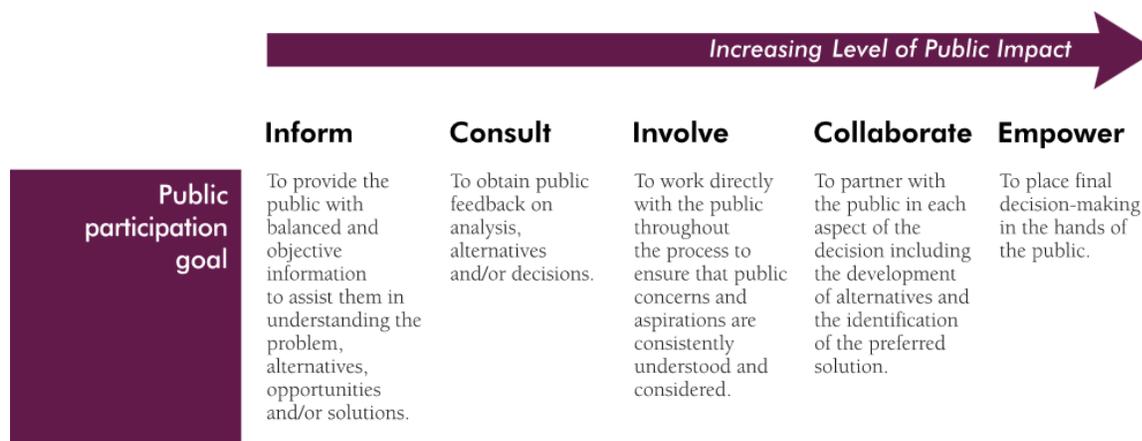
REGIONAL GROWTH STRATEGY REFERENCE:

None

CITIZEN/PUBLIC ENGAGEMENT:

Staff would inform the public of the change to the project scope based on the IAP2 Spectrum of Public Participation:

http://c.ymcdn.com/sites/www.iap2.org/resource/resmgr/imported/IAP2%20Spectrum_vertical.pdf



OPTIONS:

- Option 1: Council maintain the existing overhead level of service for hydro and other 3rd party utilities on 5th Street between Fitzgerald and Menzies Avenue (Recommended)..
- Option 2: Council direct staff to remove only the overhead aerial wiring that laterally cross 5th Street between Fitzgerald and Menzies Avenue in favour of underground infrastructure, and that staff report back on options for funding this initiative.
- Option 3: Council direct staff to remove the utility poles along the Complete Streets corridor in favour of underground infrastructure, and that staff report back on options for funding this initiative

Prepared by:



Lesley Hatch, P.Eng.
Director of Engineering Services



STAFF REPORT

To: Council **File No.:** 8620-01; 16009
From: Chief Administrative Officer **Date:** October 3rd, 2016
Subject: Complete Street Pilot Project - Cross Section Options and Public Engagement Next Steps
(Presentation by Urban Systems Ltd.)

PURPOSE:

The purpose of this report is to present Council with road cross-section design options for 5th Street between Fitzgerald Avenue and Menzies Avenue developed through the public and key stakeholder engagement process.

CAO RECOMMENDATIONS:

That based on the October 3rd, 2016 staff report entitled “Complete Street Pilot Project – Cross-Section Options and Public Engagement Next Steps,” and presentation, Council approve option 1 and direct staff to complete the second phase of public engagement based on presented design options.

Respectfully submitted,

David Allen, BES, CLGEM, SCLGM
Chief Administrative Officer

BACKGROUND:

The City of Courtenay, through the Multi-modal Transportation Strategy (2014), adopted the following vision: “The City of Courtenay supports a transportation network that prioritizes connectivity and access to daily destinations and, through a balanced approach to transportation planning, provides all road users safe choices in their mode of transportation.”

At the April 4, 2016 Regular Council Meeting, Council resolved that:

Moved by Hillian and seconded by Wells that based on the April 4, 2016 staff report entitled “5th Street Complete Streets Pilot Project – Update and Presentation from Urban Systems Ltd,” and presentation, Council approve Option 1 and direct staff to proceed with public engagement as described in this report.

City staff and project team members from Urban Systems Ltd met with key stakeholders groups over the course of May 5 and 6, 2016 to identify interests and aspirations for the project area. Comments were collected from the following key stakeholders:

- Comox Valley Cycling Coalition
- Comox Valley Accessibility Committee

- School District #71 (Active Travel)
- Comox Valley Regional District (Transit), and Watson & Ash
- Comox Valley Conservation Strategy Community Partnership

A Public Information Session was held in the evening of Thursday May 5th, and an online public survey was available between May 5th and 31st for information and feedback. The Public Information Session was attended by approximately 60 people, and the survey received 560 responses, 408 of which were fully completed.

The priorities identified by the public through this engagement process have been used to inform the design of five surface treatment options for 5th Street between Fitzgerald Avenue and Menzies Avenue. The most common theme expressed by the public for the future look/feel of 5th Street was “greener/lush”; the top ranked priority out of a score of 7 for the use of the roadway was “walking” (6.5/7) followed by “cycling” (4.9/7) and “landscaping” (4.5/7).

At the public information session and during the stakeholder meetings, participants were invited to design their own ideal road cross section for 5th Street. This activity involved placing different street components onto a representative road width. All components were to scale, requiring participants to make trade-offs as to what they wanted to include on the street.

Three different groups of participants completed the exercise: the public at the information session, key stakeholders, and members of Council. In total there were 40 cross sections completed: 26 at the public information session, 13 by the key stakeholders, and 1 by Council.

A review of the completed cross sections demonstrated the following preferences:

- Enhanced width sidewalks,
- Protected/separated bicycle lanes (separated from vehicle traffic by landscaping or vehicle parking),
- 2-way vehicle traffic, and,
- Landscaping on both sides.

There was also support for a centre landscaped median and alternating boulevards with parking or street furniture, including bus shelters.

DISCUSSION:

5th Street from Fitzgerald Avenue to Menzies Avenue is a 530m corridor that connects to downtown Courtenay. The road was originally designed primarily for vehicles, with wide lanes and parking on both sides of the street. Sidewalks are provided on both sides of the road and cycling is integrated the vehicle traffic through shared lanes.

The Complete Streets enhancements include expanding sidewalk width, providing bike lanes, curb extensions, and new pavement markings. The renovation of the street will also include all renewal of underground utilities, including replacing all storm and sanitary sewer and water pipes.

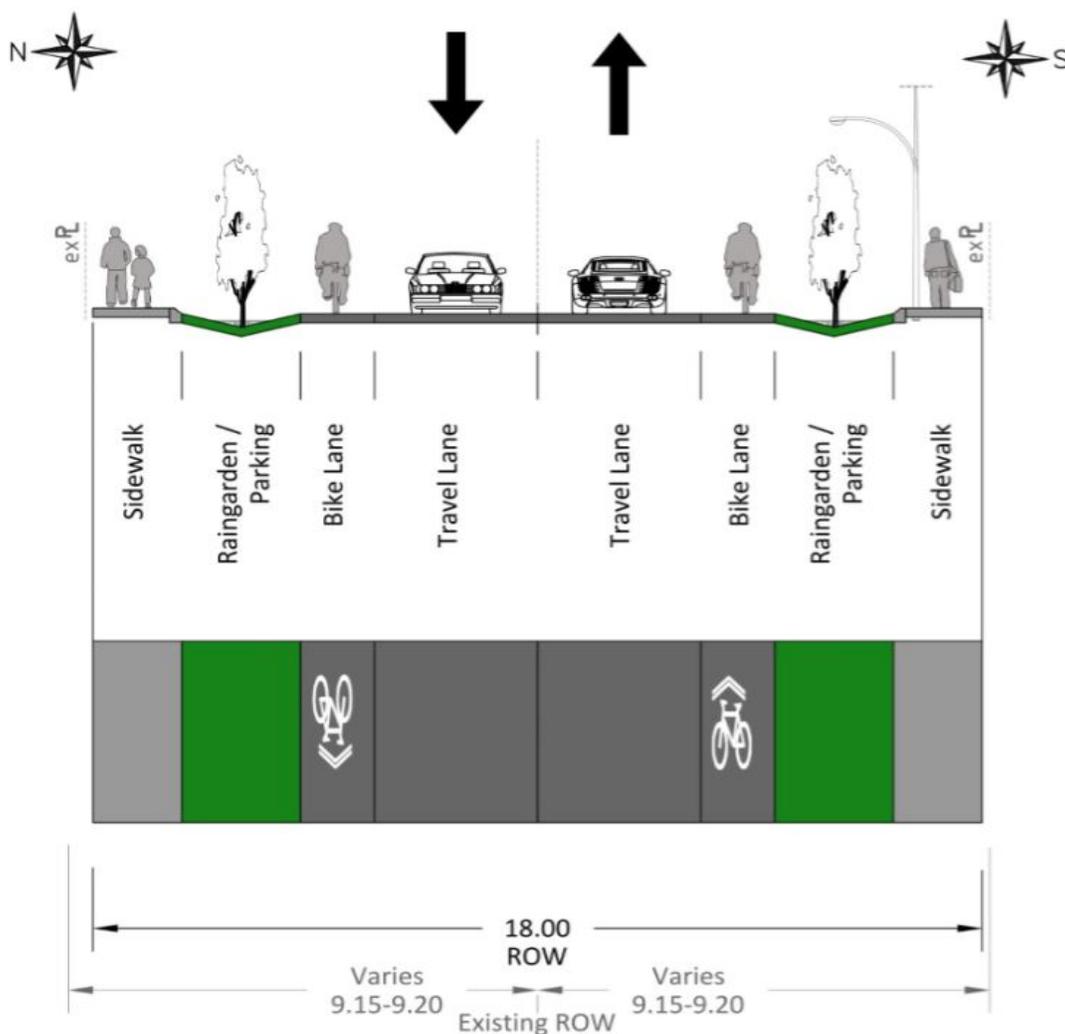
Based on the public and stakeholder engagement sessions undertaken earlier in the year, five surface treatment options have been prepared for Council’s consideration and further public engagement. Each option is summarized in Table 1 below, and sketches are attached to this report to help visualize each cross-section. Option 1 most closely resembles the conceptual cross-section described in the grant application that was the basis for the City obtaining \$3.25million in funding for this project.

Table 1

	Travel Lane	Enhanced Sidewalk	Standard Bike Lane	Enhanced Bike Lane	Raingarden	Parking Lane
Option 1	✓	✓	✓	x	✓	✓
Option 2	✓	✓	✓	x	x	✓
Option 3	✓	✓	x	✓	✓	x
Option 4	✓	✓	x	✓	✓	✓
Option 5	✓	✓	x	✓	✓	x

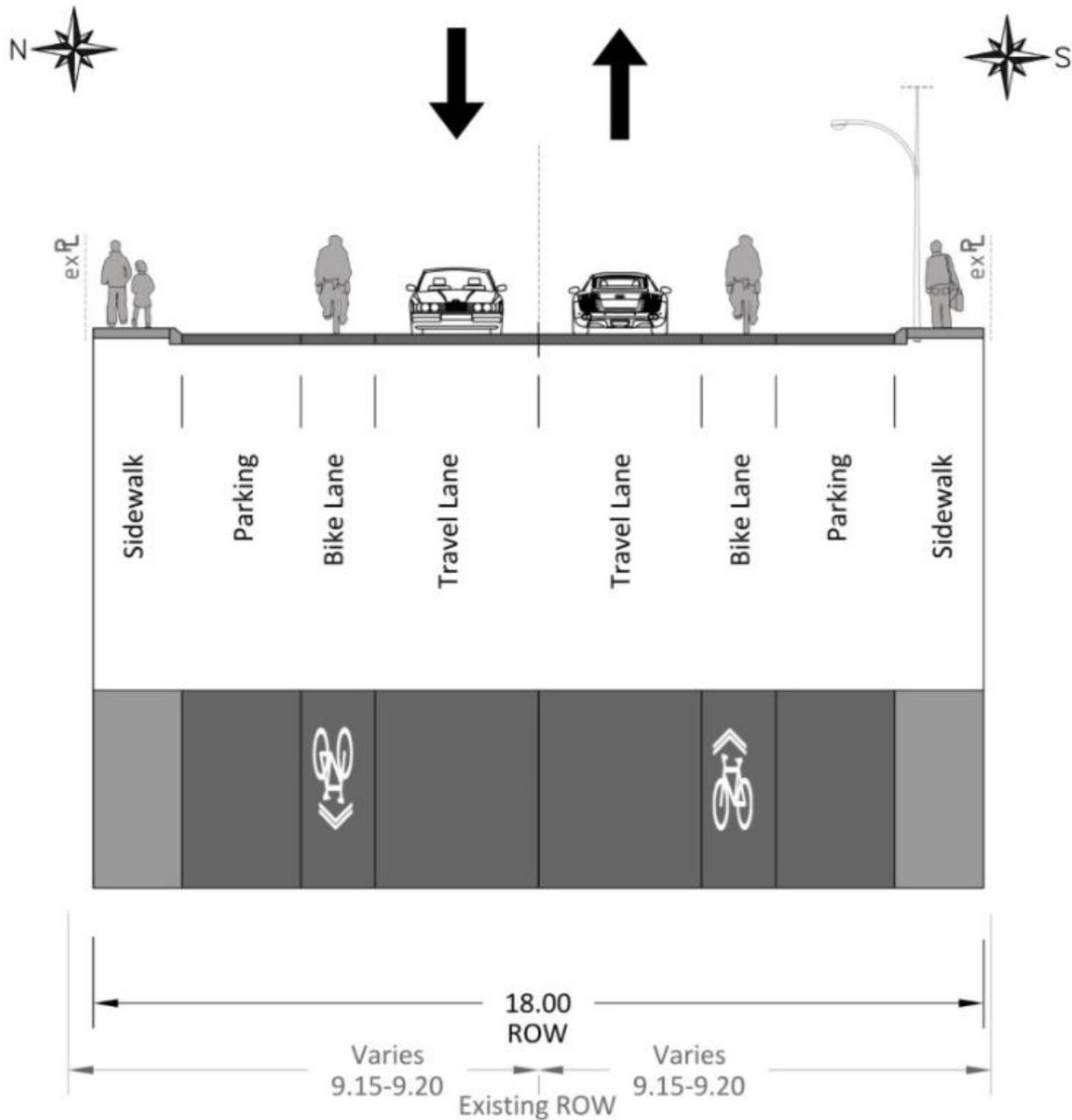
Option 1 – Dedicated Bike Lanes and Parking Alternating with Rain Gardens

This option most resembles the proposed design submitted with the Strategic Priorities fund under the Federal Gas Tax Fund Grant application, and includes two vehicle travel lanes, dedicated bike lanes, parking on both sides alternating with rain gardens, and sidewalks at the property line. This option was used as a baseline for discussions with the community, and to build upon those conversations to design alternative cross-sections accordingly.



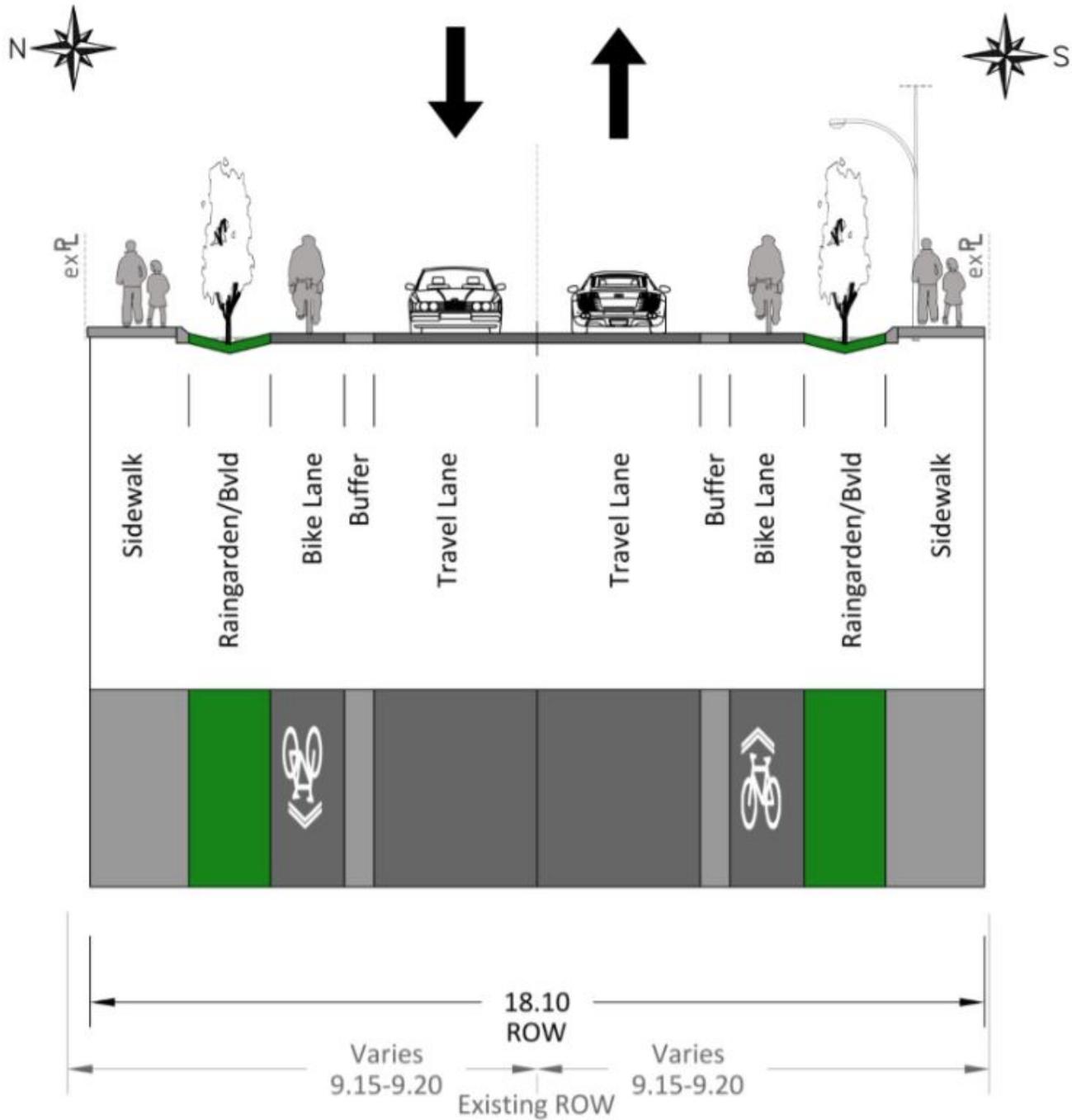
Option 2 – Dedicated Bike Lanes with Parking throughout the Entire Section

This option includes two vehicle travel lanes, dedicated bike lanes, parking on both sides throughout the entire section, as well as sidewalks at the property line. This option can be considered on those blocks where parking is considered important to service fronting commercial properties (e.g. the block between Fitzgerald and Harmston).



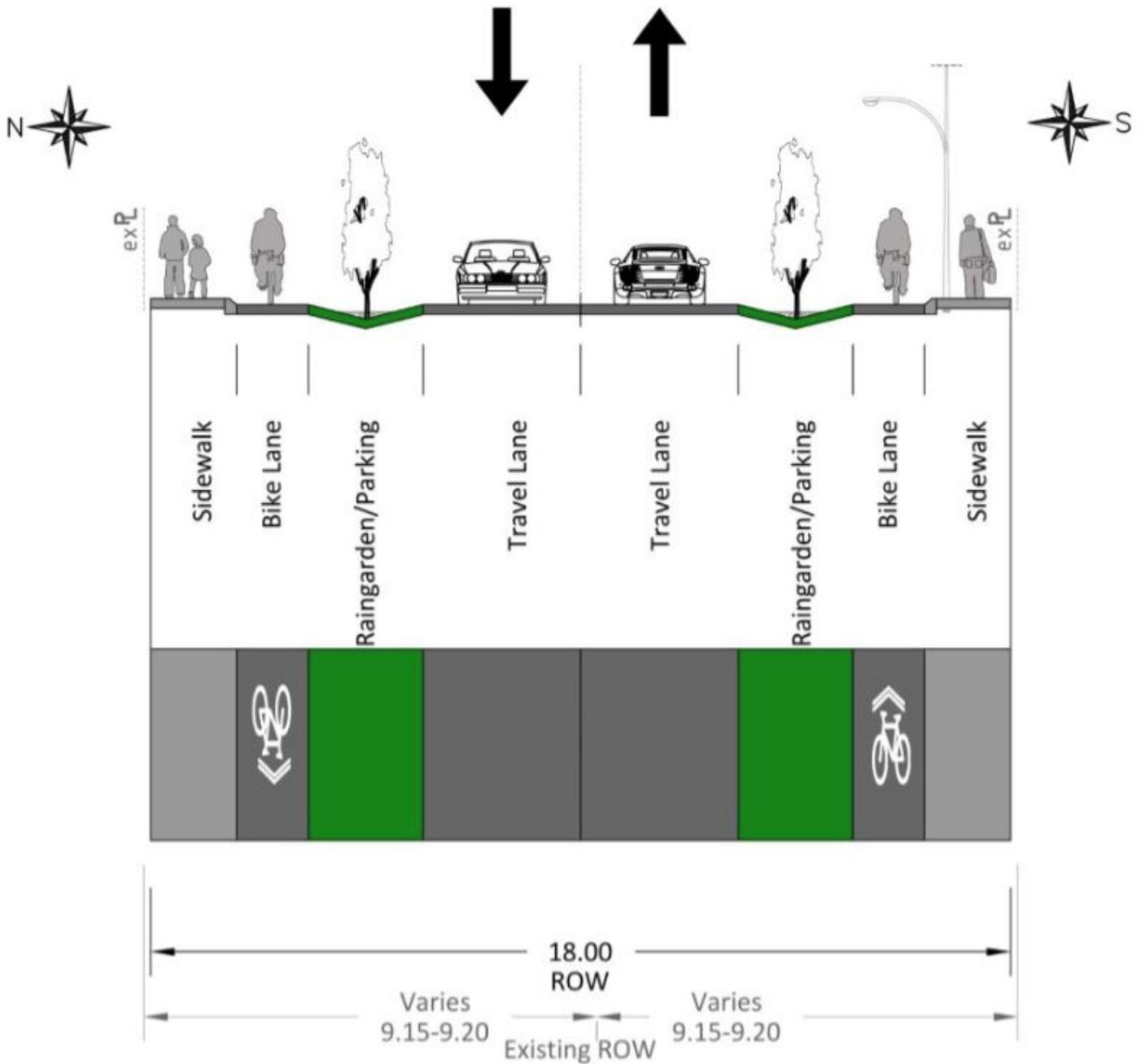
Option 3 – Buffered Bike Lanes with Rain Garden Boulevard and No Parking

This option includes two vehicle travel lanes, bike lanes with a painted buffer, rain garden boulevards, no parking and wider enhanced sidewalks at the property line.



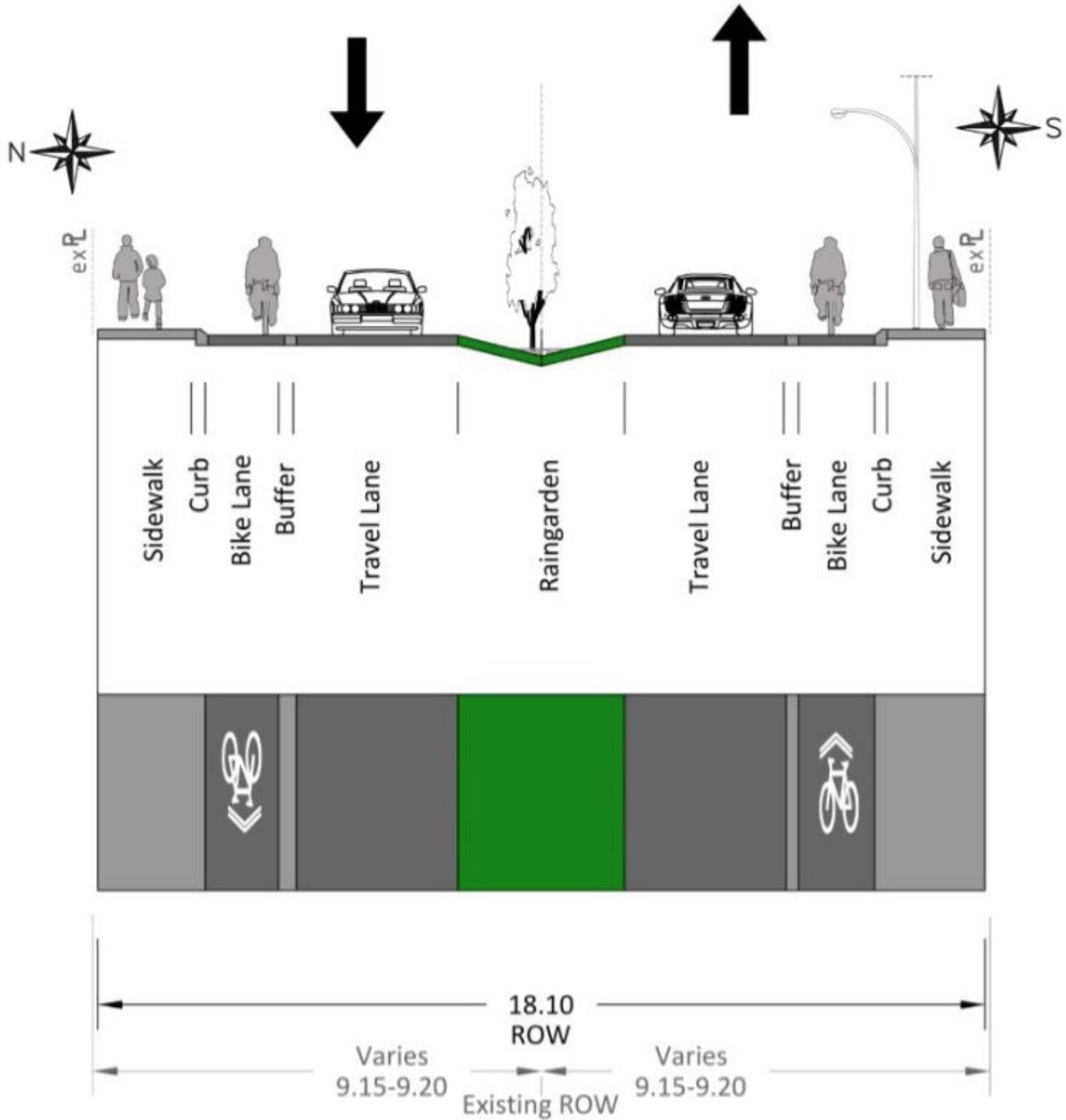
Option 4 – Separated Bike Lanes with Rain Garden Boulevard and Alternating Parking

This option includes two vehicle travel lanes, bike lanes separated from vehicle traffic by rain gardens or parking, and sidewalks at the property line.



Option 5 – Buffered Bike Lanes with Rain Garden Centre Median and No Parking

This option includes two vehicle travel lanes, bike lanes with a painted buffer, a rain garden centre median, no parking, and wider enhanced sidewalks at the property line.



When considering each option in further detail as we work toward the design phase, it should be noted that options with physically separated bike lanes would pose a maintenance challenge for the City. Currently, all street sweeping operations are conducted by one machine designed to manoeuvre in standard roadway lane widths. Special equipment may be required to be purchased to maintain isolated bike lanes on this 500 metre stretch of roadway. Snow clearing operations would require the same consideration.

Parking is another “trade-off” for discussion with Council. Some cross-sections maintain a level of service for parking whether that is parking permitted along the full length of road or partially interspersed, while others remove parking completely in favour of other uses or features.

Dan Huang and Greg Smith from Urban Systems Ltd will be at the October 3rd, 2016 council meeting to review the cross-section options for the project, facilitate discussion with Council regarding the trade-offs for the project conceptual design, and outline project next steps. Urban Systems will also review the project constraints and opportunities shared with those members of Council able to attend the September 22, 2016 project site briefing.

With Council’s support of the presented options, staff will proceed with the second round of public engagement to obtain public feedback on the options based on the following schedule and as established in the April 4th staff report and Council resolution:

Event	Date	Activity
Council	October 3 rd , 2016	A presentation to Council of the Complete Streets conceptual design cross-section options and discussion of trade-offs. This will be an opportunity for Council to ask questions and provide initial input into the concept design.
Public Open House #2	October 2016	Open house with display boards of the 5 conceptual design options for the corridor.
On-line Public Consultation	October - November 2016	Complete Streets conceptual design cross-section options posted on the City of Courtenay website with opportunity to provide feedback.
Council	December 2016	Presentation to Council of top 2 conceptual design options for the corridor and a recommendation.

Council may also elect to direct staff to proceed immediately to detailed design based on one or more of the options provided or an alternate option that best meets their goals for this project.

FINANCIAL IMPLICATIONS:

On February 12, 2016 the City of Courtenay was awarded \$3.253 million in funding to construct a Complete Streets Pilot Project on a section of 5th Street. This funding is from the Strategic Priorities fund under the Federal Gas Tax Fund. This grant provides 100% funding for all eligible costs related to the infrastructure project.

At this conceptual level of design, the five options presented above are variations on the same components of infrastructure and therefore their relative costs are similar. Variations to the cost will occur with buffered bike lanes (i.e. more paint); extents of raingardens (i.e. planting requirements) or “enhanced” sidewalks where more concrete is necessary. Staff will work with whichever option Council selects to manage the project budget within the funding provided.

ADMINISTRATIVE IMPLICATIONS:

This project is part of Staff’s 2016 work plan, and as such the project work is already accounted for.

ASSET MANAGEMENT IMPLICATIONS:

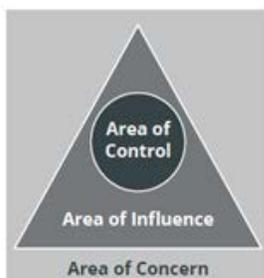
This project will result in the renewal of infrastructure assets including 530 metres of road, sidewalk, drainage system, sewer system and watermain. Condition assessments and a risk analysis workshop have been completed with Urban Systems and City representatives from Engineering and Public Works Departments for the underground utilities. This process has determined that the existing underground assets are near their end of life and/or have capacity constraints necessitating replacement. The existing sidewalk infrastructure is sufficient, however it does not meet current City standards; the asphalt road surface is several years old and considered in satisfactory condition.

STRATEGIC PLAN REFERENCE:

The Complete Streets Pilot Project is a Council priority and supports the 2016-2018 Strategic Priority.

We value multi-modal transportation in our community

- We support developing multi-modal transportation network plans
- As we build new or replace existing transportation infrastructure, we are consistent with what we learn from our Complete Streets Pilot Project
- △ Support our regional transit service while balancing service improvements with costs



- **Area of Control**
The policy, works and programming matters that fall within Council’s jurisdictional authority to act.
- ▲ **Area of Influence**
Matters that fall within shared or agreed jurisdiction between Council and another government or party.
- **Area of Concern**
Matters of interest outside Council’s jurisdictional authority to act.

OFFICIAL COMMUNITY PLAN REFERENCE:

1. The Downtown

Maintain a pedestrian orientation in downtown and integrated transportation planning (i.e., taking all modes of movement into account). (pg 11)

Work with School District 71 to encourage more walking and biking to school, through proper siting and planning of new facilities, provision of necessary facilities on school sites, and through educational efforts. (pg 13)

Transportation

5.2 Goals

2. Development of a transportation system that provides choices for different modes of travel including vehicle, transit, pedestrian, cycling and people with mobility impairments. (pg. 59)

5.3 Policies

7. The City will continue to pursue the development of a continuous, integrated bicycle network in order to promote and encourage cycling as a commuting alternative to the automobile and as a means of active recreation. (pg 60)

REGIONAL GROWTH STRATEGY REFERENCE:

Goal 4 – Transportation (pg 49, 50)

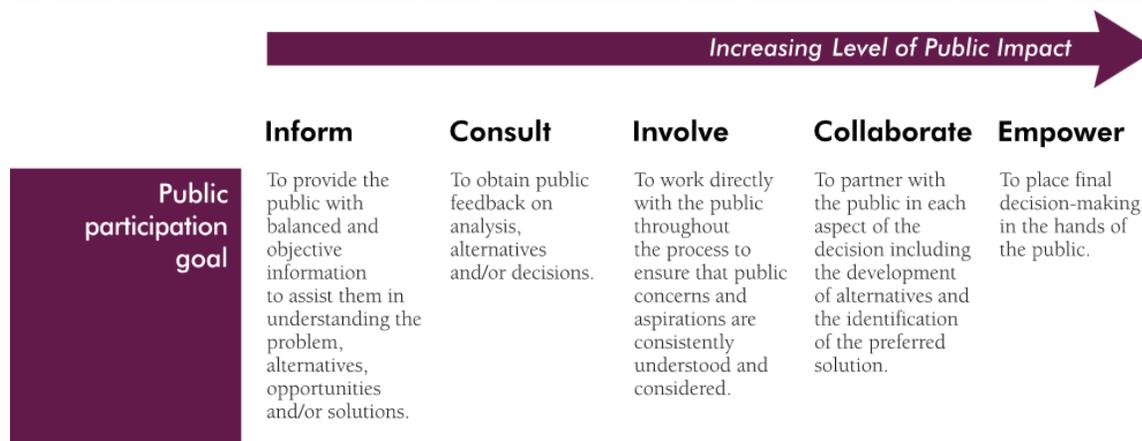
Objective 4-B: Improve bicycle and pedestrian infrastructure to increase the use of active transportation options.

Targets: 20% bicycle and pedestrian commuters by 2030

CITIZEN/PUBLIC ENGAGEMENT:

Staff held key stakeholder meetings, a public information session, and provided an online survey for the public to comment on their aspirations for the Complete Street Pilot Project. Staff will continue to consult with and involve key stakeholders and the public based on the IAP2 Spectrum of Public Participation:

http://c.ymcdn.com/sites/www.iap2.org/resource/resmgr/imported/IAP2%20Spectrum_vertical.pdf



OPTIONS:

Option 1: That Council approve the proposed cross-sections as presented and directs staff to proceed to the second phase of public engagement as described in the report (**Recommended**)

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- Option 2: That Council direct staff to provide revised or additional cross-section options for Council consideration prior to undertaking the second phase of public engagement.
- Option 3: That Council direct staff to proceed to detailed design based on one (or more) of the proposed cross-sections.
- Option 4: That Council direct staff to proceed to detailed design based on an alternate proposed cross-section of their choosing.

Prepared by:

A handwritten signature in black ink, appearing to read "L. Hatch". The signature is written in a cursive, flowing style.

Lesley Hatch, P.Eng.,
Director of Engineering Services



STAFF REPORT

To: Council

File No.: 8620-01; 16009

From: Chief Administrative Officer

Date: October 3, 2016

Subject: Complete Streets Pilot Project - 5th Street and Fitzgerald Avenue Pop-Up Intersection

PURPOSE:

The purpose of this report is to review with Council the opportunity to install a temporary (“pop-up”) intersection at 5th Street and Fitzgerald Avenue in order to better inform the design process for the 5th Street Complete Streets Pilot Project.

CAO RECOMMENDATIONS:

That, based on the October 3, 2016 staff report entitled “*Complete Streets Pilot Project - 5th Street and Fitzgerald Avenue Pop-Up Intersection*”, Council approve Option 1 and direct staff to proceed with installation of the temporary (“pop-up”) intersection at 5th Street and Fitzgerald Avenue in 2017.

Respectfully submitted,

David Allen, BES, CLGEM, SCLGM
Chief Administrative Officer

BACKGROUND:

In February 2016, the City of Courtenay was awarded \$3.253 million to construct a Complete Streets Pilot Project on 5th Street between Fitzgerald Avenue and Menzies Avenue, a distance of approximately 530 metres. The community was involved in the conceptual design process in May of this year, with options to be presented to Council in October 2016.

As part of the project development and conceptual design process, the intersection of 5th Street and Fitzgerald Avenue was identified as an important gateway to Downtown Courtenay, and a transition point between the Complete Streets Pilot Project and the Downtown core. Although full intersection improvements were not specifically included in the grant application there may be opportunities to make some improvements to this intersection as part of the overall project.

DISCUSSION:

The intersection of 5th Street and Fitzgerald Avenue is a multi-lane all-way stop. This configuration permits up to eight vehicles to arrive at the intersection simultaneously, which can be confusing to motorists, particularly when coupled with a high volume of pedestrian crossings. Currently pedestrians are not prioritized appropriately at the intersection. The crossing distance is great, exposing pedestrians to vehicles for longer than necessary, and with multiple lanes in each direction it is difficult for pedestrians to be seen by motorists. The retrofit of 5th Street on the west leg of the intersection will likely introduce

dedicated cycling infrastructure to encourage more multi-modal travel, which will further complicate the intersection operations.

The purpose of the proposed “pop-up” intersection is to understand the impacts to traffic when a shift is made from prioritizing vehicle movements to providing space for bike lanes and improved crossings for pedestrians. The intersection re-configuration would reduce the travel lanes approaches from two to one lane in each direction. While this geometry is more typical of an all-way stop intersection configuration, it may lead to traffic back-ups along both 5th Street and Fitzgerald Avenue. The “pop-up” intersection will give staff some indication of how traffic will react to a change at the intersection geometry and where traffic will re-route to avoid the queues. This information will assist staff in designing the transition back to the existing roadway, better understanding the future design requirements of the intersection, as well as determining what improvements may need to be made at surrounding intersections to accommodate possible traffic volume increases.

As part of this approach, staff has undertaken the following:

- Performed traffic counts at 5th and Fitzgerald
- Performed additional traffic counts on adjacent intersections – 4th and Fitzgerald, 5th and Fitzgerald, 5th and Harmston, and 6th and Fitzgerald – in order to assess the “before” traffic conditions.
- Commissioned Urban Systems to review and provide a recommended temporary intersection design and cost estimate for installation.

Urban Systems has prepared a design for a one lane, 4-leg temporary intersection (provided as Attachment A), which will accommodate all traffic movements as well as all vehicle types, including the Fire Department’s ladder truck. The estimated budget to construct the temporary installation will be approximately \$30,000 - \$50,000, which will include the set-up, take-down, material purchases, and internal staff time and labour costs. Public Works staff, under the direction of Urban Systems, will set-up and take-down the temporary intersection, each of which will take the Roads Crew approximately two days.

Staff is proposing the “pop-up” intersection be installed in spring 2017, and run for approximately three to six months. During this trial period, staff would conduct repeat traffic counts at the key intersections listed above, to determine if traffic patterns change as a result of the modifications to the intersection. A spring installation will give staff time to assess the area while school is in and out of session, during warmer months when pedestrian and cyclist volumes will likely be higher, and ensures that the temporary materials would not be in place during the winter months when they may complicate snow clearing. This time frame also fits with the detailed design phase of the project, enabling staff to use the information collected towards the final design of the intersection.

FINANCIAL IMPLICATIONS:

On February 12, 2016 the City of Courtenay was awarded \$3.253 million in funding to construct a Complete Streets Pilot Project on a section of 5th Street. This funding is from the Strategic Priorities fund under the Federal Gas Tax Fund. This grant provides 100% funding for all eligible costs related to the infrastructure project.

The budget for the temporary intersection installation is estimated at \$30,000 - \$50,000 and may need to be funded outside of the grant project. With Council’s support, staff would add this project to the 2017 capital budget for Council’s endorsement.

ADMINISTRATIVE IMPLICATIONS:

This project will inform the overall 5th Street Complete Streets Pilot Project which is part of Staff's 2016 work plan and as such, the project work is already accounted for.

ASSET MANAGEMENT IMPLICATIONS:

The use of a temporary installation of the 5th / Fitzgerald intersection will provide the supporting data, analysis and community feedback for the final design of the 5th Street Complete Streets Pilot Project. Investing a relatively small amount of budget in advance of the final design will ensure that we build the appropriate infrastructure assets that balance all modes of transportation, consistent with the City's transportation policies and strategic priorities.

STRATEGIC PRIORITIES REFERENCE:

The Complete Streets Pilot Project is a Council priority and supports the 2016- 2018 Strategic Priority

We value multi-modal transportation in our community

- We support developing multi-modal transportation network plans
- As we build new or replace existing transportation infrastructure, we are consistent with what we learn from our Complete Streets Pilot Project
- △ Support our regional transit service while balancing service improvements with costs



- **Area of Control**
The policy, works and programming matters that fall within Council's jurisdictional authority to act.
- ▲ **Area of Influence**
Matters that fall within shared or agreed jurisdiction between Council and another government or party.
- **Area of Concern**
Matters of interest outside Council's jurisdictional authority to act.

OFFICIAL COMMUNITY PLAN REFERENCE:*The Downtown*

Maintain a pedestrian orientation in downtown and integrated transportation planning (i.e., taking all modes of movement into account). (pg 11)

Transportation

5.2 Goals

2. Development of a transportation system that provides choices for different modes of travel including vehicle, transit, pedestrian, cycling and people with mobility impairments. (pg 59)

REGIONAL GROWTH STRATEGY REFERENCE:

Goal 4 – Transportation (pg 49, 50)

Objective 4-B:

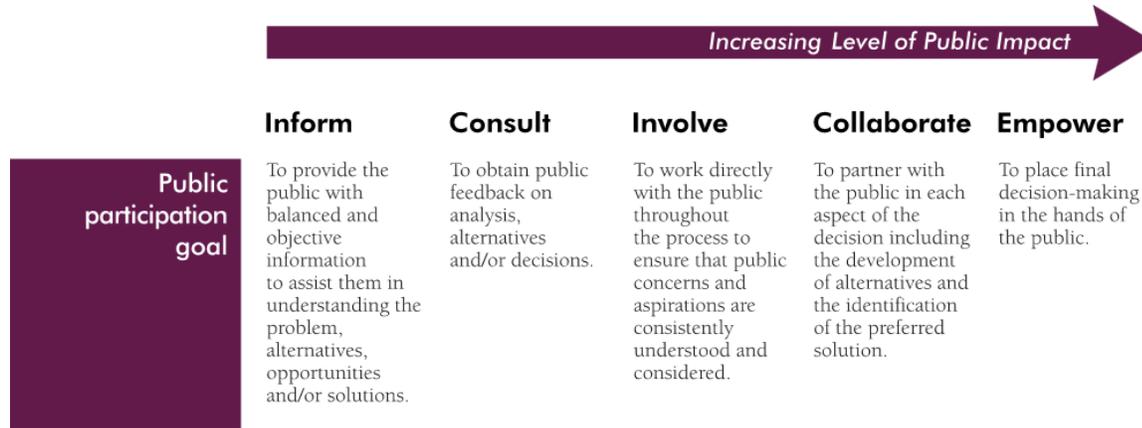
Improve bicycle and pedestrian infrastructure to increase the use of active transportation options.

Targets: 20% bicycle and pedestrian commuters by 2030

CITIZEN/PUBLIC ENGAGEMENT:

Staff will inform and consult with key stakeholders and the public based on the IAP2 Spectrum of Public Participation:

http://c.ymcdn.com/sites/www.iap2.org/resource/resmgr/imported/IAP2%20Spectrum_vertical.pdf



Changes to traffic patterns are not typically well received and staff anticipates some negative feedback especially at the initial stage of the installation. Staff will work to engage with the public by placing project information signage at the intersection to speak to nature of the project and the benefits of the knowledge gained by this undertaking; preparing media releases and newspaper and radio advertising will be prepared well in advance of the installation.

Staff will then monitor traffic patterns over a three to six month period following the installation, in order to compare the “before and after” traffic impacts. The City will also seek feedback from key stakeholders and the community throughout the process. At the end of the temporary installation, Urban Systems Ltd will review the traffic data and community feedback, and incorporate it into the final design of the 5th Street Complete Streets Pilot Project.

OPTIONS:

- Option 1: Council directs staff to proceed with the installation of a temporary intersection at 5th and include this in the 2017 City budget.
- Option 2: That Council does not support with the installation of a temporary “pop-up” intersection at 5th Street and Fitzgerald Avenue.

Prepared by:

Lesley Hatch, P.Eng.
 Director of Engineering Services

ATTACHMENT A - Temporary Intersection Design Option 1 (4-Leg)

5th ST- FITZGERALD AVE INTERSECTION



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 Aug 04 2016
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Client/Project	CITY OF COURTENAY
Scale	1:750
Date	2016-08-04
Figure	SK-02
Title	INTERSECTION DESIGN



BRIEFING NOTE

To: Council
From: Chief Administrative Officer
Subject: 5th Street Complete Streets Pilot Project – Site Briefing

File No.: 8620-01; 16009
Date: September 22, 2016

ISSUE:

This Briefing Note is to provide Council with a summary of the work the City has undertaken to date on the Complete Streets Pilot Project, including proposed cross-section options, details regarding the removal of utility poles, and information regarding a possible pop-up intersection installation at 5th Street and Fitzgerald Avenue.

BACKGROUND:

City Council identified Complete Streets as a ‘Council NOW Priority’ in the 2015 Strategic Priorities. Implementing complete streets also builds on the City’s 25 Year Vision for Multi-Modal Transportation Strategy and subsequent Complete Streets Pilot project options evaluation.

Council further supported multi-modal transportation in the City of Courtenay’s 2016-2018 Strategic Priorities: “As we build new or replace existing transportation infrastructure, we are consistent with what we learn from our Complete Streets Pilot Project.”

At the April 4, 2016 Regular Council Meeting, Council considered staff’s report and resolved that:

Moved by Hillian and seconded by Wells that based on the April 4, 2016 staff report entitled “5th Street Complete Streets Pilot Project – Update and Presentation from Urban Systems Ltd,” and presentation, Council approve Option 1 and direct staff to proceed with public engagement as described in this report.

KEY CONSIDERATIONS:

Priorities identified through the above referenced public engagement process have been used to inform the design of five surface treatment options for 5th Street, between Fitzgerald Avenue and Menzies Avenue. These options take into consideration the space constraints of 5th Street, as well as the priorities identified by the public for the different facilities. Drawings have been attached to this document to demonstrate the five options; elements included in each are described in the table below.

	Travel Lane	Enhanced Sidewalk	Standard Bike Lane	Enhanced Bike Lane	Raingarden	Parking Lane
Option 1	✓	✓	✓	x	✓	✓
Option 2	✓	✓	✓	x	x	✓
Option 3	✓	✓	x	✓	✓	x
Option 4	✓	✓	x	✓	✓	✓
Option 5	✓	✓	x	✓	✓	x

Option 1 most closely resembles the conceptual cross-section described in the UBCM grant application that was the basis for the City obtaining \$3.25M in funding for this project.

When considering each option in further detail as we work toward the design phase, it should be noted that options with physically separated bike lanes pose a maintenance challenge for the City. Currently, all street sweeping operations are conducted by one machine designed to manoeuvre in standard roadway lanes widths. Special equipment may be required to be purchased to maintain isolated bike lanes on this 500 metre stretch of roadway. Snow clearing operations would also require the same consideration.

At the April 4, 2016 Regular Council Meeting, Council asked staff to investigate the possibility of removing the utility poles along the Complete Streets corridor. Staff, through Urban Systems Ltd., engaged PBX Engineering to develop an order of magnitude estimate for the conversion of the existing overhead BC Hydro, Telus, and Shaw Cable wiring to underground for the project. The cost estimate for this work is \$2.42 million. None of this cost is part of the UBCM Grant funding, and it is unclear how this would be funded and on whether this would delay the current approved and funded works.

BC Hydro has a Beautification Fund that provides financial assistance to Municipalities for the purpose of converting from overhead to underground facilities whereby BC Hydro will contribute up to one-third funding towards approved projects. The program has a fixed annual budget of \$1.0M. Should Council chose to advance with this aspect of the project, the City would be competing against projects from across the province for a portion of this funding which would be a small fraction of the overall cost of this work.

Through the public engagement process it was identified that the intersection of 5th Street and Fitzgerald Avenue will serve as an important gateway to the downtown core for residents, businesses, and visitors alike. It was acknowledged that potential changes at this intersection to balance the transportation modes may impact traffic patterns at the intersection and along adjacent routes. One way to test the potential impacts of a transportation change is through a temporary or “pop-up” intersection installation. Through the use of temporary curbs and bollards, signage, and paint markings, we can test the impacts on the transportation network in advance of completing our design, at a fraction of the cost of permanent construction.

Urban Systems Ltd. has provided a conceptual design and estimated the budget to construct the temporary intersection installation will be \$30,000 - \$50,000, which will include the set-up, take-down, material purchases and internal staff time and labour costs. The installation would run approximately six months next year while detailed design of the balance of the roadworks is underway. During this period, staff would conduct traffic counts at key adjacent intersections to determine if traffic patterns change as a result of the modifications to the intersection. Although improvements at the intersection of 5th Street and Fitzgerald Avenue were not included in the original estimate for the UBCM grant, the results of this evaluation would inform the ultimate design of the intersection and the treatment required in connecting the west leg of the intersection. With Council’s support, staff would request this sum be added to the 2017 budget deliberations.

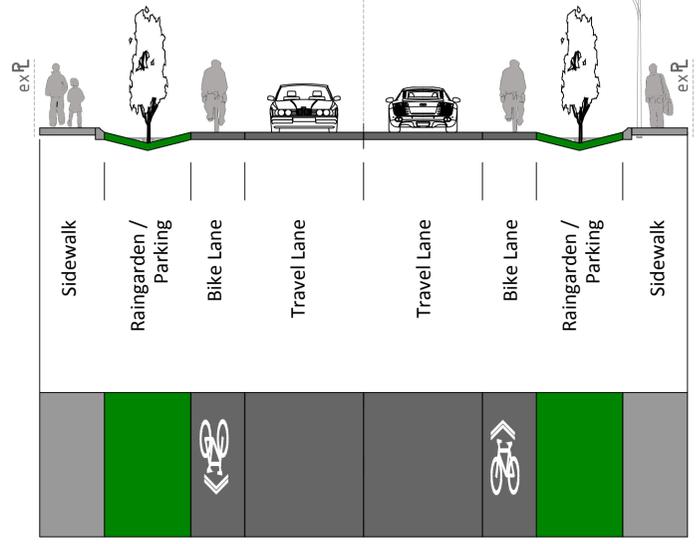
All of these topics will be reviewed onsite and discussed in greater detail at the October 3rd, 2016 regular Council meeting.

Prepared by:

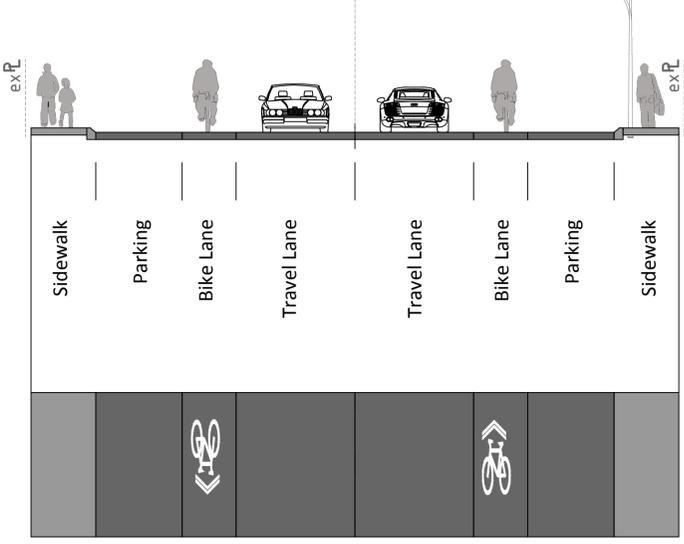


Lesley Hatch, P.Eng.
Director of Engineering Services

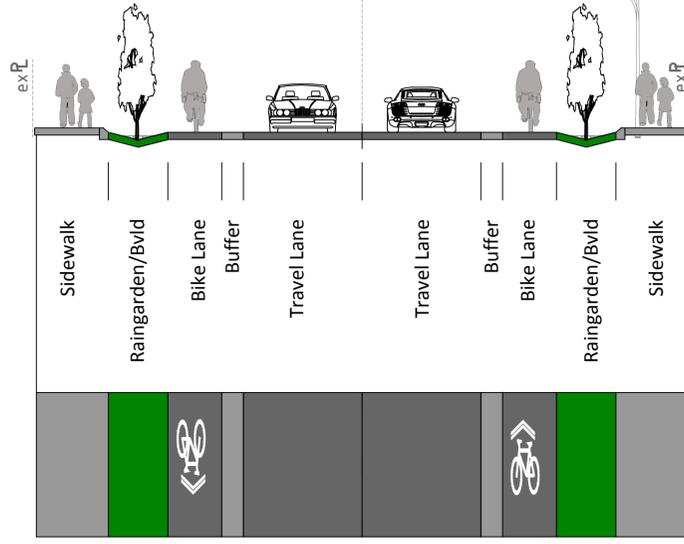
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OPTION 1



OPTION 2



OPTION 3

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CITY OF COURTENAY



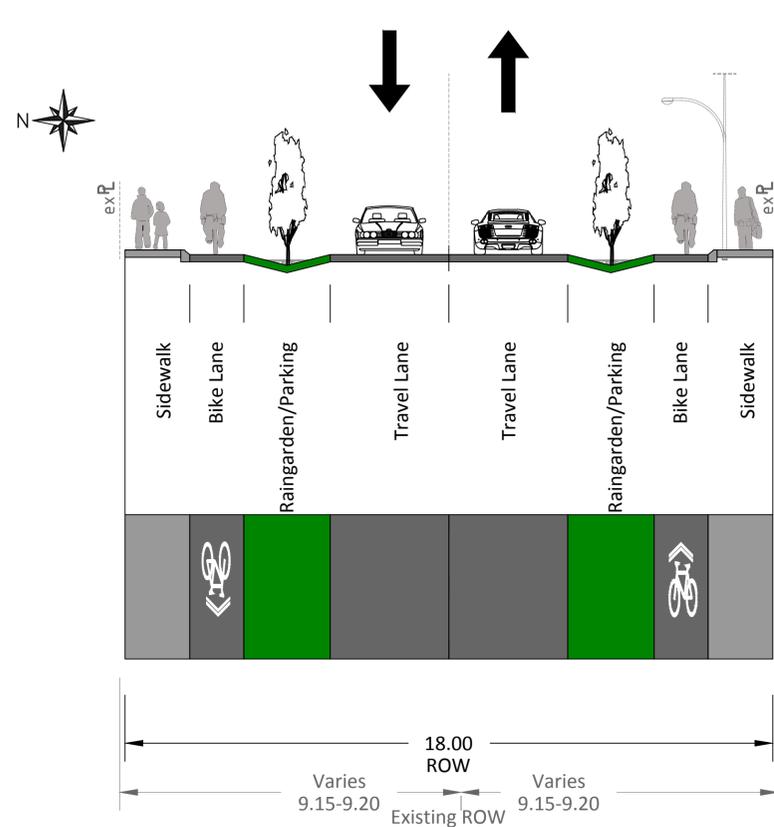
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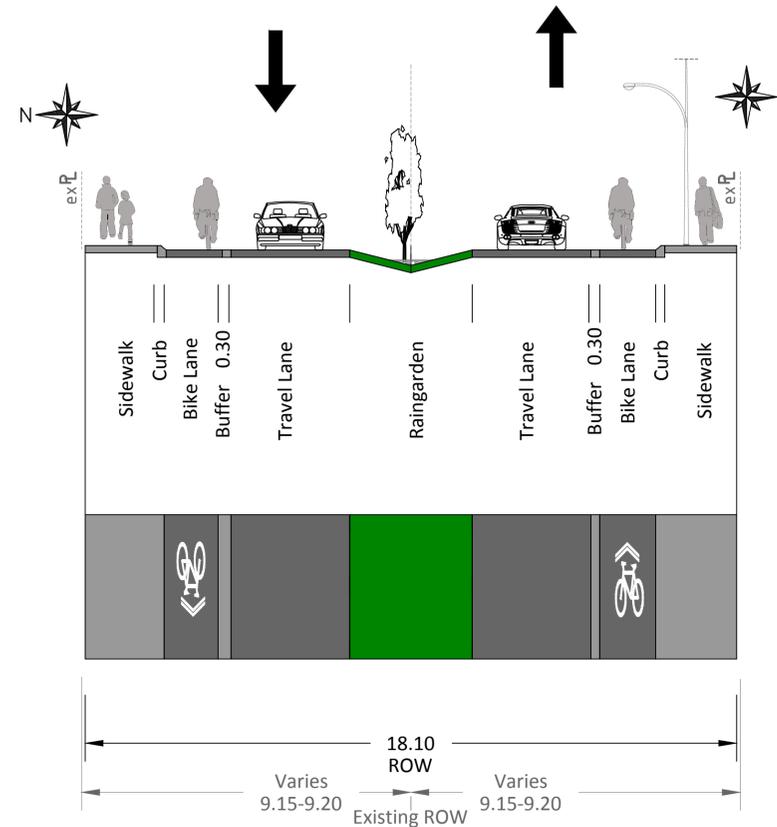
TYP SECTION 5TH STREET- OPT 1,2,3

Sheet Number 1 of 2
Project Number 3222.0014.01 Drawing Number 01 Revision ####

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OPTION 4



OPTION 5

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CITY OF COURTENAY



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Sheet Number 2 of 2
Project Number 3222.0014.01 Drawing Number 2 Revision #####