



Public Works and Transportation Committee

**Anderson Room, City Hall
6911 No. 3 Road**

**Wednesday, June 21, 2017
4:00 p.m.**

Pg. # ITEM

MINUTES

PWT-6 *Motion to adopt the **minutes** of the meeting of the Public Works and Transportation Committee held on May 17, 2017.*



NEXT COMMITTEE MEETING DATE

July 19, 2017, (tentative date) at 4:00 p.m. in the Anderson Room

PLANNING AND DEVELOPMENT DIVISION

1. **RIVER ROAD – PROPOSED ROAD SAFETY ENHANCEMENT MEASURES**

(File Ref. No. 10-6450-09-01) (REDMS No. 5224217 v. 7)

PWT-10

See Page PWT-10 for full report

Designated Speaker: Victor Wei

STAFF RECOMMENDATION

- (1) *That the proposed traffic enhancement measures on River Road between No. 6 Road and Westminster Highway, except for the installation of speed humps, as described in the staff report titled “River Road – Proposed Road Safety Enhancement Measures” dated June 6, 2017 from the Director, Transportation, be endorsed for implementation as part of the on-going city-wide effort to improve safety for road users;*

- (2) *That staff be directed to consult with the area residents and businesses on River Road between No. 6 Road and Westminster Highway on the proposed installation of speed humps and report back with the outcome; and*
- (3) *That staff review the feasibility of widening River Road between No. 6 Road and Westminster Highway with a view to further enhancing road safety as part of the long-term concept for the phased Dike Master Plan process.*



2. **ESTABLISHMENT OF MOBILITY PRICING INDEPENDENT COMMISSION**

(File Ref. No. 01-0154-06-01) (REDMS No. 5398123 v. 2)

PWT-16

See Page PWT-16 for full report

Designated Speaker: Victor Wei

STAFF RECOMMENDATION

That the staff report titled “Establishment of Mobility Pricing Independent Commission” dated June 6, 2017, from the Director, Transportation, to provide recommendations to TransLink and the Mayors’ Council on a coordinated approach for regional road usage charging in Metro Vancouver, be received for information.



ENGINEERING AND PUBLIC WORKS DIVISION

3. **OVAL VILLAGE DISTRICT ENERGY UTILITY BYLAW NO. 9134, AMENDMENT BYLAW NO. 9725**

(File Ref. No. 10-6125-01) (REDMS No. 5360360 v. 4B)

PWT-21

See Page PWT-21 for full report

Designated Speaker: Peter Russell

STAFF RECOMMENDATION

That the Oval Village District Energy Utility Bylaw No. 9134, Amendment Bylaw No. 9725 be introduced and given first, second and third readings.



4. **CORPORATE CAR SHARING PILOT PROGRAM RESULTS**
(File Ref. No. 10-6375-01) (REDMS No. 5384627 v. 3)

PWT-30

See Page PWT-30 for full report

Designated Speaker: Suzanne Bycraft

STAFF RECOMMENDATION

- (1) *That the agreement with Modo Co-operative for Car Sharing Services under Contract 5385 EOI, for the term August 1, 2016 through July 31, 2019, with the ability to extend on a year to year basis up to five years, be approved and that the Chief Administrative Officer and General Manager, Engineering and Public Works, be authorized to approve each annual renewal; and*
- (2) *That the approach outlined under Option 1 in the staff report dated June 2, 2017 from the Director, Public Works Operations titled “Corporate Car Sharing Pilot Program Results”, be approved.*



5. **NO. 2 ROAD SOUTH DRAINAGE PUMP STATION**
(File Ref. No. 10-6340-20-P.15305) (REDMS No. 5341702 v. 6)

PWT-41

See Page PWT-41 for full report

Designated Speaker: Milton Chan

STAFF RECOMMENDATION

That the design concept for the No. 2 Road South Drainage Pump Station Upgrade as detailed in Attachment 1 of the staff report titled, “No. 2 Road South Drainage Pump Station,” be endorsed



6. **STATUTORY RIGHT-OF-WAY ACQUISITION AND SERVICING AGREEMENT FOR DEVELOPMENT AT 13201 RIVER ROAD**
(File Ref. No. 10-6060-01) (REDMS No. 5210114 v. 3)

PWT-46

See Page PWT-46 for full report

Designated Speakers: Lloyd Bie and Jason Ho

STAFF RECOMMENDATION

- (1) *That a utilities statutory right-of-way (SRW) be acquired from Sun Life Assurance Company of Canada over a portion of 13331 Vulcan Way, at no cost to the City; and*

- (2) *That the Chief Administrative Officer and the General Manager, Engineering & Public Works, be authorized to execute a servicing agreement with Spire Construction Inc., the tenant of 13201 River Road, to install water and drainage works within City dedicated land and the proposed SRW area, based on the material terms and conditions set out in the staff report titled, “Statutory Right-of-Way Acquisition and Servicing Agreement for Development at 13201 River Road,” dated May 1, 2017 from the Director, Engineering.*



7. **AGEING FACILITY INFRASTRUCTURE - UPDATE**

(File Ref. No. 06-2050-01) (REDMS No. 5395882 v. 3)

PWT-50

See Page PWT-50 for full report

Designated Speaker: Jim Young

STAFF RECOMMENDATION

That staff utilize the attached “Ageing Facility Infrastructure – Update” report dated May 24, 2017 from the Director, Engineering, as input in the annual capital and operating budget preparation process.



8. **AWARD OF CONTRACT 5856Q, SUPPLY AND DELIVERY OF BULK ROAD SALT 2016/2017**

(File Ref. No. 10-6360-13) (REDMS No. 5401803 v. 7)

PWT-56

See Page PWT-56 for full report

Designated Speaker: Larry Ford

STAFF RECOMMENDATION

- (1) *That Contract 5856Q Supply and Delivery of Bulk Road Salt 2016/2017 be awarded to Mainroad Maintenance Products LP at the unit rates quoted up to a total estimated contract value of \$650,000 for the term December 8, 2016 through December 7, 2017, with the ability to extend for an additional two one-year periods to a maximum of three years, and that the Chief Administrative Officer and General Manager, Engineering and Public Works, be authorized to approve each annual renewal; and*
- (2) *That the 5 Year (2017-2021) Financial Plan be amended accordingly.*



Pg. # ITEM

9. **MANAGER'S REPORT**

ADJOURNMENT





Public Works and Transportation Committee

Date: Wednesday, May 17, 2017

Place: Anderson Room
Richmond City Hall

Present: Councillor Chak Au, Chair
Councillor Harold Steves
Councillor Derek Dang
Councillor Carol Day
Councillor Alexa Loo

Also Present: Councillor Linda McPhail

Call to Order: The Chair called the meeting to order at 4:00 p.m.

MINUTES

It was moved and seconded

That the minutes of the meeting of the Public Works and Transportation Committee held on April 20, 2017, be adopted as circulated.

CARRIED

NEXT COMMITTEE MEETING DATE

June 21, 2017, (tentative date) at 4:00 p.m. in the Anderson Room

Public Works & Transportation Committee
Wednesday, May 17, 2017

ENGINEERING AND PUBLIC WORKS DIVISION

1. BC ENERGY STEP CODE FOR NEW PRIVATE BUILDINGS

(File Ref. No. 10-6125-07-02) (REDMS No. 5367037 v. 8)

It was moved and seconded

- (1) *That the stakeholder consultation program in the report titled "BC Energy Step Code for New Private Buildings" dated April 11, 2017, from the Director, Engineering, be endorsed for the purpose of gaining feedback on how the Energy Step Code can be implemented in Richmond;*
- (2) *That the air barrier installation training program identified in the report titled "BC Energy Step Code for New Private Buildings" dated April 11, 2017, from the Director, Engineering, be approved with \$60,350 funding from the Carbon Tax Provision; and*
- (3) *That the funding for the air barrier installation training program be included as an amendment to the 5 Year Financial Plan (2017-2021).*

CARRIED

2. AWARD OF CONTRACT 5757 EOI – RECYCLING DEPOT CONTAINER COLLECTION AND RECYCLING SERVICES

(File Ref. No. 10-6370-04-01) (REDMS No. 5374675)

It was moved and seconded

- (1) *That Contract 5757 EOI, Recycling Depot Container Collection and Recycling Services, be awarded as follows:*
 - (a) *Cascades Recovery Inc. – the container collection and recycling services for the following commodities at the unit rates quoted: newspaper, mixed paper and cardboard; and*
 - (b) *Super Save Group – the container collection and recycling services for the following commodities at the unit rates quoted: tin, scrap metal, aluminium, plastic and yard waste;*
- (2) *That staff be authorized to extend the contract in one-year increments up to five years in total, and if required, extend the contract beyond the five-year term on a month-by-month basis until such time as a new contract can be advertised and awarded; and*
- (3) *That the Chief Administrative Officer and General Manager, Engineering and Public Works, be authorized to execute the above contracts.*

CARRIED

2.

Public Works & Transportation Committee
Wednesday, May 17, 2017

3. **AMENDMENT TO WATER USE RESTRICTION BYLAW**
(File Ref. No. 10-6160-07-06) (REDMS No. 5352786)

In response to a query from Committee, Kimberley Armour, Environmental Coordinator, advised that the European chafer beetle has impacted the Lower Mainland.

It was moved and seconded

That the Water Use Restriction Bylaw No. 7784, Amendment Bylaw No. 9704 be introduced and given first, second and third readings.

CARRIED

4. **2016 ANNUAL WATER QUALITY REPORT**
(File Ref. No. 10-6000-01) (REDMS No. 5371641)

It was moved and seconded

That the staff report titled "2016 Annual Water Quality Report" dated April 13, 2017 from the Director, Public Works Operations, be endorsed and made available to the community through the City's website and through various communication tools including social media and as part of community outreach activities.

CARRIED

5. **2016 CLIMATE ACTION REVENUE INCENTIVE PROGRAM AND CARBON NEUTRAL PROGRESS REPORT**
(File Ref. No. 10-6125-07-03) (REDMS No. 5372171 v. 12)

In reply to a query from Committee, Suzanne Bycraft, Manager, Fleet and Environmental Programs, advised that the City currently does not require that its contractors utilize "green" fleet; however, staff are aware of alternative fuel options and this could be considered in the future.

It was moved and seconded

(1) *That the 2016 Climate Action Revenue Incentive Program (CARIP) and Carbon Neutral Progress Report from the Director, Engineering dated April 27, 2017, be received for information; and*

(2) *That, in accordance with Provincial requirements, the CARIP Report and Carbon Neutral Progress Report be posted on the City's website for public access.*

CARRIED

Public Works & Transportation Committee

Wednesday, May 17, 2017

6. MANAGER'S REPORT

(1) No. 2 Road Multi-Use Pathway

Milton Chan, Manager, Engineering Design and Construction, provided an update on the progress of the No. 2 Road Multi-Use Pathway, noting that staff are currently examining alignment options that minimizes impact to trees in the area.

(2) Harvest Power

John Irving, Director, Engineering, commented on the recent decision by the Environmental Appeal Board with regard to Harvest Power's appeal.

(3) Public Works

Tom Stewart, Director, Public Works Operations, spoke on National Public Works Week and highlighted that the Public Works Open House was successful with over 5,000 people attending the event.

Committee thanked staff for all their efforts in volunteering and hosting a success event.

ADJOURNMENT

It was moved and seconded

That the meeting adjourn (4:13 p.m.).

CARRIED

Certified a true and correct copy of the Minutes of the meeting of the Public Works and Transportation Committee of the Council of the City of Richmond held on Wednesday, May 17, 2017.

Councillor Chak Au
Chair

Hanieh Berg
Legislative Services Coordinator



City of Richmond

Report to Committee

To: Public Works and Transportation Committee

Date: June 6, 2017

From: Victor Wei, P. Eng.
Director, Transportation

File: 10-6450-09-01/2017-
Vol 01

Re: River Road - Proposed Road Safety Enhancement Measures

Staff Recommendation

1. That the proposed traffic enhancement measures on River Road between No. 6 Road and Westminster Highway, except for the installation of speed humps, as described in the staff report titled "River Road – Proposed Road Safety Enhancement Measures" dated June 6, 2017 from the Director, Transportation, be endorsed for implementation as part of the on-going city-wide effort to improve safety for road users.
2. That staff be directed to consult with the area residents and businesses on River Road between No. 6 Road and Westminster Highway on the proposed installation of speed humps and report back with the outcome.
3. That staff review the feasibility of widening River Road between No. 6 Road and Westminster Highway with a view to further enhancing road safety as part of the long-term concept for the phased Dike Master Plan process.

Victor Wei, P. Eng.
Director, Transportation
(604-276-4131)
Att. 1

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Parks	<input checked="" type="checkbox"/>	
Engineering	<input checked="" type="checkbox"/>	
RCMP	<input checked="" type="checkbox"/>	
Fire-Rescue	<input checked="" type="checkbox"/>	
Finance	<input checked="" type="checkbox"/>	
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS: 	APPROVED BY CAO

Staff Report

Origin

At the November 7, 2016 General Purposes Committee, staff were directed to “examine the circumstances and the area around the accident that occurred on River Road on November 6, 2016 and report back.” This report responds to the referral and recommends the implementation of a package of measures as an immediate step to improve traffic safety in this location.

This report supports Council’s 2014-2018 Term Goal #1 A Safe Community:

Maintain emphasis on community safety to ensure Richmond continues to be a safe community.

This report supports Council’s 2014-2018 Term Goal #3 A Well-Planned Community:

3.3. Effective transportation and mobility networks.

Analysis

Richmond RCMP Investigations

The Richmond RCMP investigation of the November 6, 2016 crash on River Road is substantially completed. The investigation concluded that roadway design did not play a factor in the crash and the likely cause is driver error.

Subsequent to the November 6, 2016 crash, two separate single vehicle off-road crashes occurred on January 9, 2017 in the section of River Road between the CN Rail Bridge and Westminster Highway. Richmond RCMP indicate that icy road conditions were a factor in both crashes.

Current Conditions on River Road

River Road between No. 6 Road and Westminster Highway is a collector road approximately 8.5 km in length used by local residents as well as large truck operators and employees accessing industrial properties on the south bank of the North Arm of the Fraser River. On weekdays, some commuters may use the route to avoid traffic congestion on Highway 91 and Westminster Highway while on weekends the roadway is a popular destination for cyclists, particularly cycling clubs with larger groups of cyclists. The typical pavement width is 6.5 m. Maximum speed limits are 50 km/h for cars and 30 km/h for trucks and a 9-tonne load limit is in effect between No. 7 Road and Westminster Highway.

During the five year period of 2011 to 2015 (the most recent available crash data from ICBC), a total of 94 crashes (injury, fatality and property damage only) were recorded within this section of River Road with approximately 70 per cent of these crashes occurring between No. 6 Road and No. 7 Road (including 25 crashes at No. 6 Road) and 30 percent between No. 7 Road and Westminster Highway (including 16 crashes at Westminster Highway).

Richmond RCMP further advise that from 2011 to present, there have been four driving-related fatalities on this same section of roadway with one occurring each year in 2013 to 2016

inclusive. Of these fatalities, speed was a factor in two crashes (including impairment in one crash) and driver error was attributed to the other two crashes.

Over the past 15 years, as part of the City's continual efforts to enhance traffic safety, a number of traffic and pedestrian safety measures have been implemented along this corridor including:

- Installation of additional road signs, hazard markers and delineator posts to advise drivers of potential traffic conditions and hazards. Oversized speed limit signs are used at the start of all speed limit zones to increase driver awareness.
- Servicing and re-lamping of existing streetlights leased from BC Hydro to improve street lighting levels.
- Removal of on-street parking from sections of River Road where the shoulder of the roadway is narrow and any parked vehicles would impede through traffic.
- Construction of an asphalt walkway (1.2 metres wide, 300 metres in length) on the south side of the 22,000-block of River Road that provides safer pedestrian access to the Queen Road right-of-way for area residents.
- Installation of six speed humps in the 18,000-block of River Road where a 30 km/h speed zone is in effect.

Proposed Road Safety Measures

This section of River Road is one of few rural-like roadways in the Lower Mainland that is regarded as a popular scenic route for weekend touring cyclists. Accordingly, in evaluating possible options of improvements, staff applied the primary principle of retaining the roadway as such while exploring cost-effective measures that could be implemented immediately to enhance its safety for both cyclists and motorists.

Given that the crash investigation report from Richmond RCMP did not identify roadway design as a factor and the potential challenges of widening River Road (discussed further below), staff reviewed the existing signage, road markings and other safety measures along the section of River Road between No. 6 Road and Westminster Highway and have identified the following combination of cost-effective road safety measures that are proposed for implementation as part of the City's on-going effort to enhance road safety:

- (1) Replacement of existing "Share the Road" signage with new "Single File" signage at more frequent intervals (e.g., every 400 m) along with complementary "sharrow" pavement markings (Attachment 1). The new signage would advise motorists that the travel lanes are too narrow for side-by-side operation and that they should change lanes safely to pass cyclists.
- (2) Conversion of the existing solid double yellow centreline to a dashed single yellow centreline at select locations where it is safe for motorists to change lanes safely to pass.
- (3) Installation of new "Caution" signs at suitable intervals (e.g., every 1 km) to advise motorists to expect large volumes of cyclists on the roadway during weekends (Attachment 1).
- (4) Removal of remaining raised pavement markers (cat's eyes) that are located adjacent to the white edge line along the north side of the roadway as contact with the raised surface when riding can potentially cause cyclists, especially with touring bikes with narrow tires, to lose their balance. As the markers were installed to help highlight the edge of the roadway

during foggy conditions, they would be replaced with reflective delineator posts mounted in the gravel shoulder with adequate shy distance away from the travelled paved portion.

Staff discussed these proposed immediate measures with the Richmond Active Transportation Committee (advisory committee to Council) as well as representatives of other cycling organizations and clubs (including HUB Cycling, BC Cycling Coalition, Velo Vets). The proposed signage incorporates refinements suggested by the groups, who are supportive of the implementation of the proposed measures.

Recommendation: Staff recommend that the proposed measures in this section of River Road be endorsed for implementation as part of the City's on-going effort to improve road safety. Should they be endorsed, the effectiveness of the "Single File" and "Caution" signage would be monitored, including seeking feedback from cyclists, and if judged effective, would be deployed on other two-lane rural roads in Richmond that are known to be frequented by cycling groups on weekends (e.g., Sidaway Road, Dyke Road, Finn Road).

Potential Future Road Safety Improvements

Staff also reviewed the feasibility of the following additional potential road safety improvements for this section of River Road.

Speed Humps

Feedback from cyclists and area residents has consistently identified vehicle speeds as a primary concern. Speed humps are a proven albeit permanent measure to help ensure that motorists respect the 50 km/h speed limit. A spacing of 300 m for the speed humps is recommended based on feedback from Richmond Fire-Rescue, as a closer spacing (e.g., every 150 m) would dramatically affect response times. Based on this spacing, the number of speed humps required would be 12 with an estimated total cost of \$42,000.

Recommendation: Staff recommend that residents and businesses in the affected roadway section be consulted and given an opportunity to provide their feedback. Staff would report back on the results with recommendations prior to any further action.

Widened and Paved Road Shoulders

Based on a high-level review of the feasibility of adding paved shoulders to River Road in this section, staff identified the following road geometric challenges:

- The physical constraints of the North Arm of the Fraser River to the north and the large canal to the south may limit the extent to which any road widening can be achieved. The open canal on the south side is used by adjacent cranberry farmers during harvesting.
- The roadway is located on top of the City's perimeter dike system such that any widening would be significantly more complex and costly.
- The foreshore along the entire length is a designated Environmentally Sensitive Area and the roadway is within a designated Riparian Management Area.
- High potential for private property impacts including the need to reconstruct driveways on the south side.

- Potential for a significant loss of trees, particularly on the north side.

Recommendation: The majority of River Road between No. 6 Road and Westminster Highway sits on top of the dike. This section of dike will be reviewed in Phase 4 of the Dike Master Plan process, which is scheduled to begin in 2018 following the completion of Phases 2 and 3. The review process will develop options for the complete reconstruction of River Road to further improve road safety and facilitate dike raising over the 30-year time frame.

Financial Impact

As shown in Table 2, the proposed road safety measures for implementation have a total estimated cost of \$67,000 and would be funded from the following existing approved budgets.

Table 2: Cost Estimates and Funding Sources

Item	Cost Estimate	Funding Source
Signage	\$25,000	2015 Active Transportation Improvement Program
Pavement Markings ("Sharrows")	\$12,000	
Removal of Pavement Markers & New Roadside Delineator Posts	\$30,000	2016 Traffic Calming Program
Total	\$67,000	

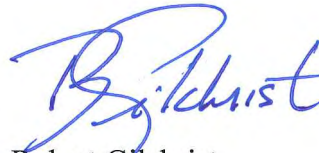
Conclusion

The proposed signage and pavement markings would raise the awareness for both motorists and cyclists that River Road between No. 6 Road and Westminster Highway is a popular cycling route, particularly on weekends, and remind both road users to proceed safely when sharing the road. The removal of the raised pavement markers would further enhance cycling safety.

Staff will report back on the future potential installation of additional speed humps on River Road as a further road safety improvement, along with the associated costs.



Joan Caravan
Transportation Planner
(604-276-4035)



Robert Gilchrist
Supervisor, Traffic Operations
(604-247-4697)

Att. 1: Illustration of Proposed Road Safety Signage and Pavement Markings

**Proposed Signage and Pavement Markings for
River Road: No. 6 Road-Westminster Highway**



Existing "Share the Road"
Signage



New "Single File" Signage



Caution Signage



"Sharrows" Pavement
Marking



City of Richmond

Report to Committee

To: Public Works and Transportation Committee

Date: June 6, 2017

From: Victor Wei, P. Eng.
Director, Transportation

File: 01-0154-06-01/2017-
Vol 01



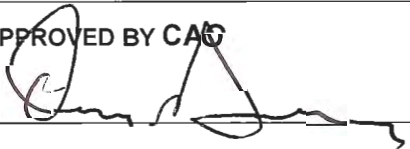
Re: Establishment of Mobility Pricing Independent Commission

Staff Recommendation

That the staff report titled "Establishment of Mobility Pricing Independent Commission" dated June 6, 2017, from the Director, Transportation, to provide recommendations to TransLink and the Mayors' Council on a coordinated approach for regional road usage charging in Metro Vancouver, be received for information.

Victor Wei, P. Eng.
Director, Transportation
(604-276-4131)

Att. 1

REPORT CONCURRENCE	
CONCURRENCE OF GENERAL MANAGER 	
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS: 
APPROVED BY CAO 	

Staff Report

Origin

In November 2016, the Mayors' Council on Regional Transportation and the TransLink Board of Directors jointly established a Joint Steering Committee (the Committee) to oversee preparatory work to establish a Mobility Pricing Independent Commission (the Commission). Following the formal launch of the Commission announced on June 6, 2017 (Attachment 1), this report provides an overview of the Commission's mandate, authority and membership as jointly established by the Mayors' Council and the TransLink Board of Directors.

Analysis

Mobility Pricing

As outlined in the 10-Year Vision and the Regional Transportation Strategy, TransLink has committed to developing a mobility pricing strategy for Metro Vancouver as an efficient, fair and sustainable method of helping to pay for the regional transportation system.

As defined by the Committee and endorsed by the Mayors' Council, mobility pricing *“refers to the range of fees and charges for using everyday transportation services. It can include things like road usage charges (tolls, fuel sales tax, or vehicle permit and insurance fees), transit fares, and charges for using shared use services like taxis, bike sharing, car sharing or ride hailing.”*

The three key regional objectives of mobility pricing are to:

- Manage Congestion: for example, by giving drivers off-peak discounts to relieve choke points at busy times of the day;
- Maximize Fairness: remedy the current uncoordinated approach to tolling some but not all crossings in the region; and
- Support Investment: establish a more sustainable funding source to replace fuel sales tax, which is increasingly unreliable due to the growth of more fuel efficient, hybrid and electric vehicles.

Mobility Pricing Independent Commission

The mandate of the Commission is to:

- recommend a coordinated approach for regional road usage charging, and
- assess the implications of the recommended approach with respect to consistency, compatibility and coordination with other mobility pricing mechanisms in the region including transit fares and charges for shared mobility services (e.g., car-sharing, bike-sharing).

The analysis will include whether or not only new projects are tolled, if the cost of infrastructure projects should be spread across the region and if new infrastructure should be differentiated from old infrastructure.

The Commission's work is anticipated to include engagement with a variety of stakeholders, regulators and levels of government as well as citizens and businesses. A website has been established, www.mobilitypricing.ca, that will provide information on the Commission and how the public can become involved. The Commission will begin its work in June 2017 and is expected to submit its findings and recommendations in Spring 2018. TransLink and the Mayors' Council will consider the recommendations when deciding how to move forward with any changes to the way transportation is priced in the region.

The Commission will comprise about 12 members, including a Chair and Vice-Chair, who were selected to be "*eminent and unaffiliated local citizens and community leaders and represent the socioeconomic, demographic, and geographic diversity of Metro Vancouver.*" The selected Chair and Vice-Chair were announced at the launch:

- Chair: Allan P. Seckel, who is the Chief Executive Officer of Doctors of BC and prior was a Deputy Minister and Head of the BC Public Service for the Province of BC; and
- Vice-Chair: Joy MacPhail, who is an owner and former Chair of OUTtv and served as an MLA for 14 years.

The remaining Commission members will be announced shortly and come from varied backgrounds (e.g., business, education, social service, labour, industry) and geographic regions of Metro Vancouver.

TransLink and the Mayors' Council will coordinate and collaborate with the provincial Ministry Responsible for TransLink throughout the process to ensure that the provincial government is kept apprised of the work. During the past provincial election, the B.C. Green party platform included support for mobility pricing and an alteration in bridge tolling. The NDP's position on mobility pricing is not clear and while the party has expressed support for the Mayors' Council 10-Year Plan, they have also said they would eliminate bridge tolls in their first budget.

Financial Impact

None.

Conclusion

The launch of the Mobility Pricing Independent Commission is a key step for the Mayors' Council and TransLink to advance the study of mobility pricing as a strategy to help achieve the goals of the 10-Year Plan. The recommendations of the Commission will help provide municipal, regional and provincial decision-makers with a potential long-term funding strategy that is tailored to Metro Vancouver and reflects the views of residents, stakeholders and businesses.



Joan Caravan
Transportation Planner
(604-276-4035)

JC:jc



Sonali Hingorani, P. Eng.
Transportation Engineer
(604-276-4049)

Att. 1: Media Release announcing Mobility Pricing Independent Commission



FOR IMMEDIATE RELEASE

June 6, 2017

Metro Vancouver Mayors, TransLink Launch Mobility Pricing Independent Commission

Independent Commission will provide made-in-Metro-Vancouver recommendations to reduce congestion and improve fairness in how we pay for transportation.

VANCOUVER, BC – TransLink's Board of Directors and the Mayors' Council on Regional Transportation today officially launched the Mobility Pricing Independent Commission and announced its Chair and Vice-Chair who will lead its work to examine how pricing could potentially solve key transportation challenges in the Metro Vancouver region. Today's launch was set in motion in November, 2016 with the approval of the Phase One Plan of the 10-Year Vision for Metro Vancouver Transit and Transportation.

With the Metro Vancouver economy booming, leading Canada's economic growth, one million more people will move here over the next 30 years. On some key commuter routes, today it is taking drivers an additional 10 to 15 minutes longer to get to work than it did 10 years ago. Without changes to our transportation approach, congestion, travel times, and environmental impacts will continue to worsen.

The 10-Year Vision committed the region to exploring mobility pricing in order to reduce congestion, promote fairness and support transportation investment. Mobility pricing would build on and support other elements of the 10-Year Vision, including new investments in transit and transportation infrastructure throughout the region.

The Chair and Vice-Chair were selected last month to lead the Independent Commission:

- **Chair: Allan P. Seckel.** Mr. Seckel is the Chief Executive Officer for Doctors of B.C.; before that he was a Deputy Minister and Head of the BC Public Service for the Province of B.C.
- **Vice-Chair: Joy MacPhail.** Ms. McPhail is an owner and former Chair of OUTtv. She served as a member of the B.C. Legislative Assembly for 14 years, holding a number of cabinet portfolios and leading the opposition for four years.

Commission members will be announced shortly once notifications are complete. They come from across the region, with backgrounds in business, education, social service, labour and industry.



The Independent Commission will evaluate mobility pricing options based on the following objectives:

- **Reduce traffic congestion** on roads and bridges across the region, so people and goods can keep moving and businesses can thrive and be competitive.
- **Promote fairness** to address concerns around our long-standing approach to tolling some bridges but not others.
- **Support transportation investment** to improve the current transportation system in Metro Vancouver for all users.

Different approaches to pricing have been successfully applied in a number of jurisdictions around the world, such as Stockholm, Singapore and Oregon. The Independent Commission will examine a variety of models — from minor tweaks of the existing system to a broad reimagining. The Commission is invited to rethink all approaches and explore new ways of doing things that are fair and make the transportation system work better everyone.

A small expert staff team, supported by technical consultants, will support the research, analysis and public engagement. This team will be led by internationally-recognized mobility pricing expert, Daniel Firth, who has been appointed Executive Director.

The Commission will deliver recommendations to the TransLink Board and the Mayors' Council by Spring 2018.

Members of the public will have the opportunity to take part in the Independent Commission's work at public meetings in communities across Metro Vancouver and online at www.mobilitypricing.ca.

-30-



City of Richmond

Report to Committee

To: Public Works and Transportation Committee

Date: May 25, 2017

From: John Irving, P.Eng., MPA
Director, Engineering

File: 10-6125-01/2017-Vol
01

Re: Oval Village District Energy Utility Bylaw No. 9134, Amendment Bylaw No.
9725

Staff Recommendation

That the Oval Village District Energy Utility Bylaw No. 9134, Amendment Bylaw No. 9725 be introduced and given first, second and third readings.

John Irving, P.Eng., MPA
Director, Engineering
(604-276-4140)

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Development Applications	<input checked="" type="checkbox"/>	
Law	<input checked="" type="checkbox"/>	
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS: 	APPROVED BY CAO

Staff Report

Origin

In 2014, Council adopted the Oval Village District Energy Utility Bylaw No. 9134 (Bylaw) establishing the service area for Phase 1 development of the Oval Village District Energy Utility (OVDEU).

The purpose of this report is to recommend expansion of the service area to include one new development site adjacent to an existing interim energy plant.

This report supports Council's 2014-2018 Term Goal #4 Leadership in Sustainability:

Continue advancement of the City's sustainability framework and initiatives to improve the short and long term livability of our City, and that maintain Richmond's position as a leader in sustainable programs, practices and innovations.

4.1. Continued implementation of the sustainability framework.

4.2. Innovative projects and initiatives to advance sustainability.

Background

In 2013, under Council direction, the Lulu Island Energy Company (LIEC) was established as a wholly-owned corporation of the City for the purposes of managing district energy utilities on the City's behalf. A District Energy Utilities Agreement between the City and the LIEC was executed in 2014, assigning the LIEC the function of providing district energy services on behalf of the City.

In April 2014, Council approved the material terms of a Concession Agreement ("Agreement") for the purpose of endorsing LIEC and Corix entering into the Agreement. Subsequently, LIEC and Corix executed the Agreement whereby LIEC would own the OVDEU and its infrastructure, and Corix would design, construct, finance, operate and maintain the OVDEU, subject to the City, as the sole shareholder of LIEC, setting rates for customers.

Also in April 2014, Council adopted the Oval Village District Energy Utility Bylaw No. 9134 establishing the service area for Phase 1 of the OVDEU. The Phase 1 service area defined in the bylaw included all active developments in the Oval Village area at the time of the Bylaw adoption. Staff indicated in the accompanying report that as other developments emerge in the neighbourhood, staff would bring options to Council for the expansion of the OVDEU service area boundary.

In October 2015, following a recommendation from the LIEC Board, Council expanded the service area to include two new developments, in order to secure their commitment to connect to OVDEU.

Under LIEC's oversight, Corix has been successful in delivering Phase 1 of the OVDEU project. Phase 1 for the first six connections (Onni Riva 1 and Riva 2, Polygon Carrera, Amacon Tempo, Cressey Cadence and Intracorp River Park Place) and associated infrastructure was completed on time and under budget. Corix will continue construction on the infrastructure necessary to connect more developments in the current year. All work is projected to be completed on time and within budget.

Analysis

In order to leverage economies of scale and realize the long-term social, economic and environmental benefits of the DEU, expansion to service future development is a key opportunity. Direct benefits from expansion are:

- Maintaining low rates to OVDEU customers
- Increasing distribution piping efficiency
- Balancing energy demand and load requirements across a broader customer base
- Maximizing potential for introducing waste heat as an energy source
- Maximizing potential for greenhouse gas emissions reduction

A new development, Park Residences at 6351 Minoru Boulevard (Attachment 1), directly adjacent to the Carrera building and LIEC's interim energy plant near the Bowling Green, is now in the process of preparing a Development Permit submission. This 28,300 m² development will be connected to the district energy through the current Concession Agreement with Corix. The DP application is expected to be submitted in the near future.

City and LIEC staff met with the developer's representative and discussed the opportunity to connect the development to the district energy. The original building mechanical design is already compatible and able to be connected to the district energy system. Staff presented the following benefits of connecting to the district energy system:

- Floor Area Ratio exemption for compatible in-building heating systems
- Buildable space in the penthouse that results from not having to place a boiler on the rooftop
- Reduced construction costs since an in-building boiler is not needed

The developer raised some concerns about connecting to the OVDEU system which staff have addressed in Table 1.

Table 1: Summary of developer's input

	Staff Response
District energy is unproven technology and risky.	Staff presented facts during the meeting and also via a follow up email, clearly indicating that district energy is a tried-and-tested technology. Staff also pointed out that LIEC and its partner (Corix) have been successfully implementing district energy systems in the OVDEU service area, including the servicing the Carrera building near the site.
District energy requirements will add to the already existing requests from other City departments and the infrastructure does not exist yet.	Staff indicated that they would guide the developer through the specific district energy requirements, so that the process runs smoothly, and the district energy implementation will not delay the development.

Another consideration relates to feedback from other developers at the inception of OVDEU. Ultimately, developers wanted the City and LIEC to maintain a 'level playing field' whereby all developers had the same district energy connection requirements in the same market area.

Staff are confident that the developer's concerns have been addressed with the information presented during and after the meeting. It is important to expand the service area to include this site in order to secure their commitment to connect to OVDEU.

The LIEC Board of Directors has reviewed this opportunity and recommends expanding the Oval Village District Energy Utility (OVDEU) service area to include the development located at 6351 Minoru Blvd (Attachment 2 and Attachment 3).

Financial Impact

None. If approved, the established process is that Corix will present a capital plan to LIEC to consider and approve. Costs will be recovered through customer rates which, per Council's objective, will be competitive with conventional utility customer rates for the same level of service.

Conclusion

The expansion of the service area creates an opportunity for the City to further its sustainability goals. Furthermore, by leveraging economies of scale, this opportunity would help maintaining the utility rates for the end users competitive with conventional energy costs, based on the same level of service.

A handwritten signature in dark ink, consisting of several overlapping loops and a long horizontal stroke extending to the right.

Peter Russell, MCIP, RPP
Senior Manager Sustainability and District Energy
(604-276-4130)

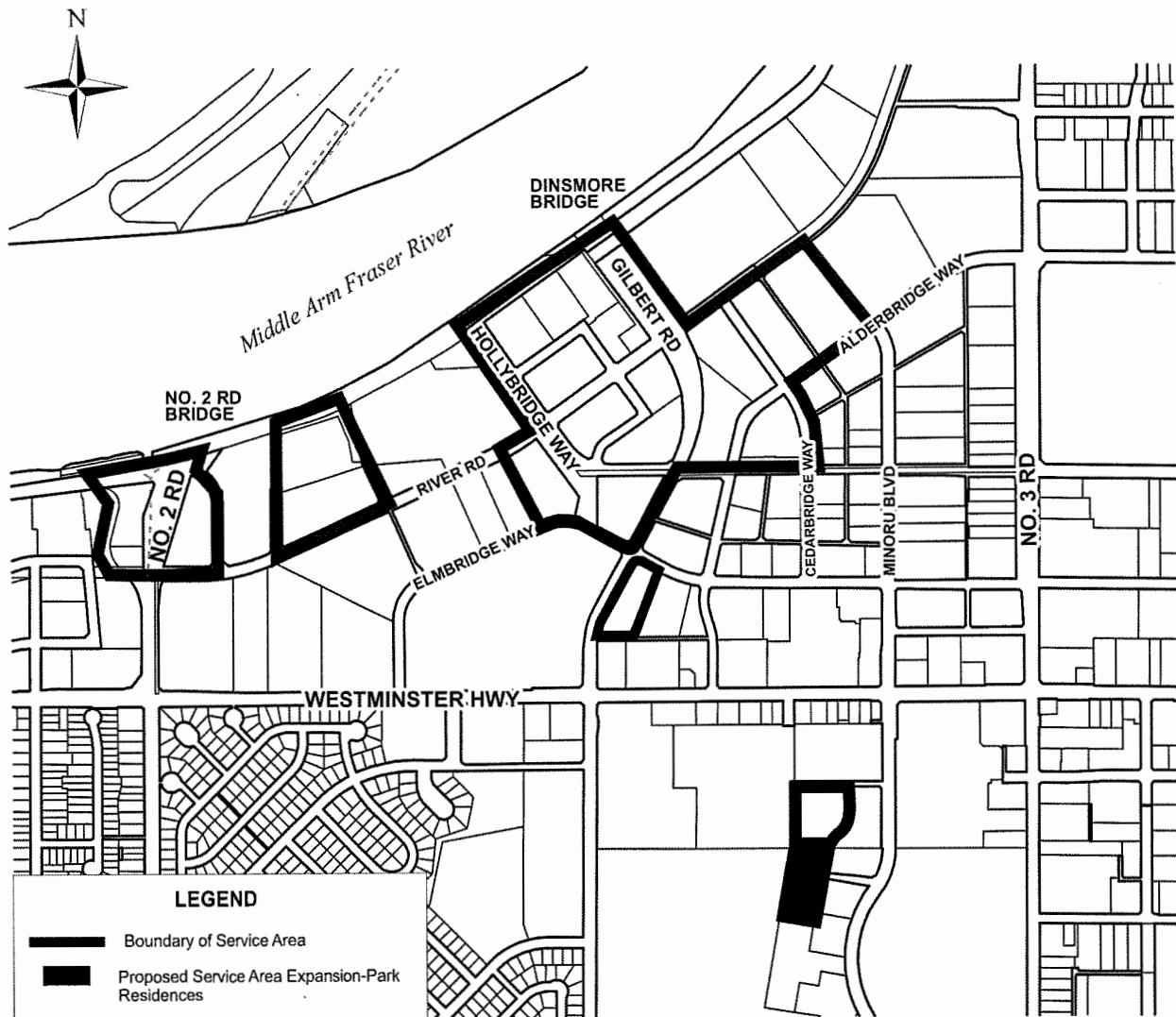
Attachment 1: Proposed Expansion of the Oval Village Service Area

Attachment 2: Excerpt from the Minutes of LIEC's Board

Attachment 3: Oval Village District Energy Utility Bylaw No. 9134, Amendment Bylaw No. 9725

May 25, 2017

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Attachment 1 – Proposed Expansion of the Oval Village Service Area

May 25, 2017

- 7 -

Attachment 2 – Excerpt from the Minutes of LIEC’s Board

LULU ISLAND ENERGY COMPANY

**Excerpt from the Minutes of the Board of Directors meeting of the Company
held in the Richmond City Hall on May 18, 2017**

Agenda Item 5. Oval Village DEU Service Area Expansion (6351 Minoru Blvd)
Staff presented a report dated May 18, 2017 titled “Oval Village DEU Service Area Expansion (6351 Minoru Blvd)” to the Board (5369247) and recommended that the Board recommend to Council expanding the Oval Village District Energy Utility (OVDEU) service area to include the development located at 6351 Minoru Blvd. The Board instructed staff to continue to consult the developer to ensure that the requirement for DEU will not delay the developer.

BE IT RESOLVED THAT the Board recommend to Council expanding the Oval Village District Energy Utility (OVDEU) service area to include the development located at 6351 Minoru Blvd.

CARRIED UNANIMOUSLY



City of Richmond

Bylaw 9725

Oval Village District Energy Utility Bylaw No. 9134 Amendment Bylaw No. 9725

The Council of the City of Richmond enacts as follows:

1. The **Oval Village District Energy Utility Bylaw No. 9134** is amended by deleting **Schedule A (Boundaries of Service Area)** of the Bylaw in its entirety and replacing it with a new Schedule A as attached as Schedule A to this Amendment Bylaw.
2. This Bylaw will come into force and take effect on the date of adoption shown below.
3. This Bylaw is cited as "**Oval Village Energy Utility Bylaw No. 9134, Amendment Bylaw No. 9725**".

FIRST READING

SECOND READING

THIRD READING

ADOPTED

_____	<div style="border: 1px solid black; padding: 2px;"> CITY OF RICHMOND APPROVED for content by originating dept. <i>M</i> APPROVED for legality by Solicitor <i>BDS</i> </div>

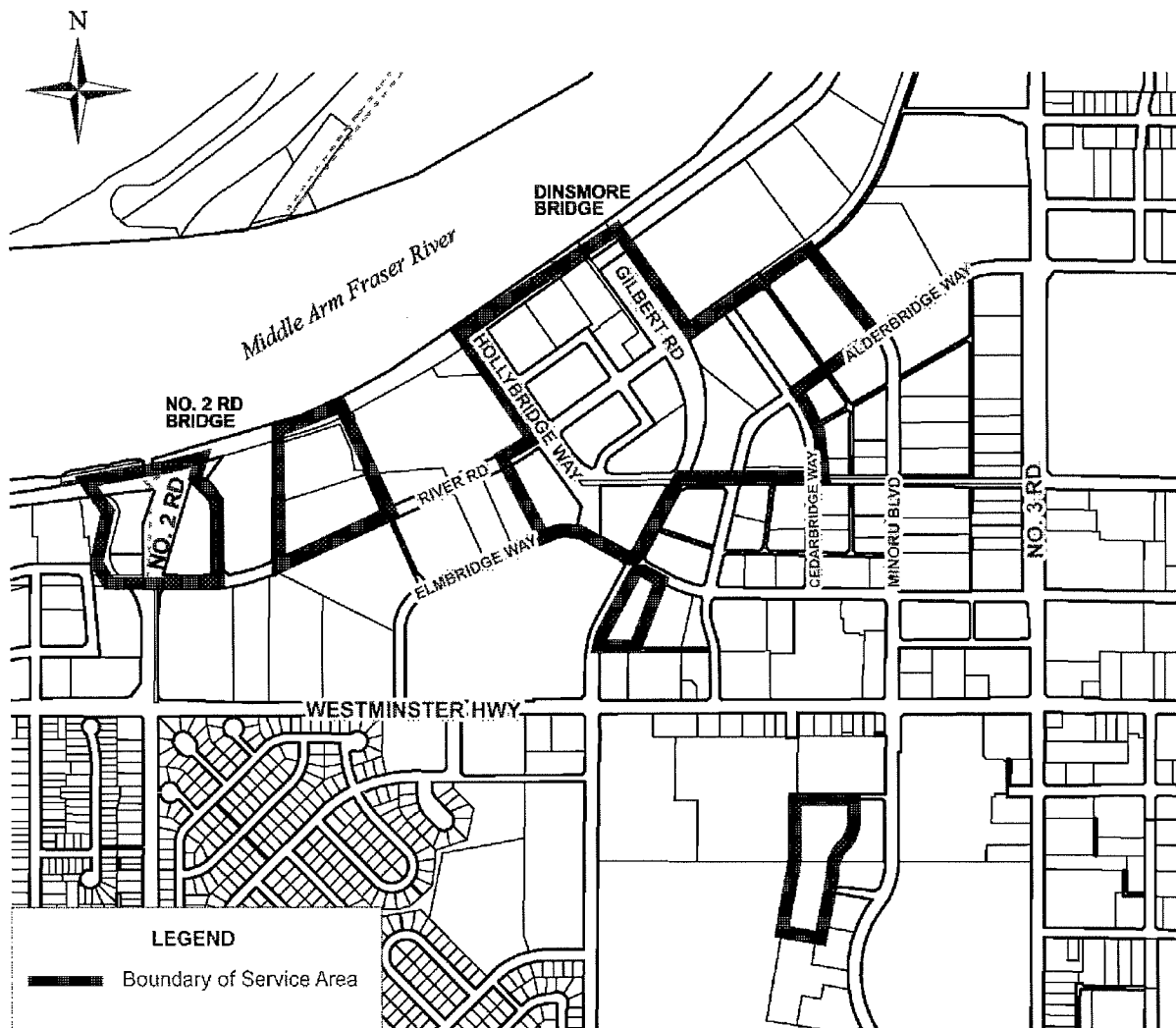
MAYOR

CORPORATE OFFICER

Schedule A to Amendment Bylaw No. 9725

SCHEDULE A

Boundaries of Service Area





City of Richmond

Report to Committee

To: Public Works and Transportation Committee
From: Tom Stewart, ASCT.
Director, Public Works Operations
Date: June 2, 2017
File: 10-6375-01/2017-Vol
01
Re: Corporate Car Sharing Pilot Program Results

Staff Recommendation

1. That the agreement with Modo Co-operative for Car Sharing Services under Contract 5385 EOI, for the term August 1, 2016 through July 31, 2019, with the ability to extend on a year to year basis up to five years, be approved and that the Chief Administrative Officer and General Manager, Engineering and Public Works, be authorized to approve each annual renewal.
2. That the approach outlined under Option 1 in the staff report dated June 2, 2017 from the Director, Public Works Operations titled "Corporate Car Sharing Pilot Program Results", be approved.

Tom Stewart, ASCT.
Director, Public Works Operations
(604-233-3301)

REPORT CONCURRENCE		
ROUTED TO: Transportation	CONCURRENCE <input checked="" type="checkbox"/>	CONCURRENCE OF GENERAL MANAGER
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS: 	APPROVED BY CAO

Staff Report

Origin

At the October 28, 2013 meeting, Council approved the City's Green Fleet Action Plan. This plan established a target to reduce Greenhouse Gas Emissions (GHG) emissions by 20% by 2020. A variety of strategies will be required to meet this objective. One option to advance toward this target involves removing or deferring acquisition of vehicles from the City's fleet and instead making vehicles owned by car share companies available for use by City staff. To test the feasibility of this approach, a car sharing pilot program was implemented in August, 2016.

This report provides an overview of this pilot initiative and outlines potential future considerations for expanded car sharing.

This report supports Council's 2014-2018 Term Goal #4 Leadership in Sustainability:

Continue advancement of the City's sustainability framework and initiatives to improve the short and long-term livability of our City, and that maintain Richmond's position as a leader in sustainable programs, practices and innovations.

4.1. Continued implementation of the sustainability framework.

Analysis

Background

Car sharing is a community sustainability approach to mobility. It allows individuals and businesses, through a membership, to access a network of vehicles on a short-term basis. The goal is to help reduce vehicle ownership; foster better use of land (less parking); work as an affordable complement to walking, cycling and transit; reduce greenhouse gas emissions (GHG); reduce traffic congestion and travel time. One million new residents are expected in the Metro Vancouver region by 2041 and that could increase the number of vehicles on the roads by up to 700,000 based on current ownership rates. Car sharing can help to reduce the overall number of vehicles on City roads and associated GHG emissions.

Practically, car sharing is a form of car rental. What makes it different is that it is designed for people who require a vehicle for short term use only, i.e. a few hours, and users pay only for the time the vehicle is allocated to them. Under a car sharing model, the vehicle is owned by the car sharing service provider, and all expenses such as fuel, insurance and maintenance are the car sharing company's responsibility. Users must register with the car sharing service provider and provide their driver's abstract and licensing information.

Once approved/registered, users are charged based on how long they have the vehicle, and/or the distance travelled. Registered users are provided with a fob, which allows access to the vehicle once it has been booked for a specified location and time. Under some car sharing models, vehicles are returned to the exact location of pick up. Under other models, vehicles can be left at various locations, provided they are within the car sharing company's area. Bookings are done

online or by phone. An overview of the various car sharing companies and models is provided in Attachment 1.

Pilot Program

To test car sharing as an alternative for City vehicle use needs, a pilot initiative was introduced in August, 2016 under 5385 EOI, with Modo Co-operative. The scope included removal of two low use units from the City's fleet (Unit 1555 – 2006 Smart Car allocated to Human Resources and Unit 1296 – 2005 Honda Civic Hybrid allocated to Customer Service and Licencing). The units were located at the City Hall Annex site and were replaced with two Modo Co-operative vehicles.

Under the terms of the agreement with Modo, the City provides designated parking for the units. The City pays a premium for these vehicles to be strictly available for use by City staff during the workday from 7:00 a.m. to 5:30 p.m. Monday through Friday (excluding statutory holidays and the week between Christmas and New Year's). After hours and on weekends, they are available for use by any other registered Modo user. Personal items cannot be left in the vehicle; the inside must be left in clean condition (all waste removed); and drivers must use the fuel card located in the vehicle to fuel at designated gas stations when the fuel tank is at one quarter tank or less.

The contract with Modo has a term of six months and commenced August 1, 2016. The term can be extended for a period up two years and six months, for a total of three years. After this time, if the parties continue to deal with each other following expiry, it can be deemed to be extended on all of the same terms and conditions on a year to year basis.

All fuel, insurance, maintenance, cleaning, 24-hour road side assistance, local bridge tolls, staff training and telephone support are included in Modo pricing.

In relation to GHG reduction credits or offsets, Modo conveys all right, title and interest in and to GHG credits to the City during the course of this contract.

Pilot Program Results to Date

The results of the pilot program through the end of March, 2017 are summarized below:

- 17 employees are registered as Modo users.
- The vehicles were booked 91 times.
- The vehicles were driven 1,368 km and signed out for 239.5 hours.
- The total fees paid to Modo were \$2,995.21 or \$2.19 per km driven.

These results show that the cost of the Modo program for these two units is less than half that of the departmental charges assessed for dedicated/owned City vehicles. Due to low usage on both units 1296 and 1555, the cost per km based on the two years of operating data (2014 & 2015) was \$5.82 per km driven.

In addition to the two dedicated units involved in the pilot program, Modo had previously installed two vehicles at the new City Centre Community Centre for general public use. In conjunction with the City Hall Annex pilot car sharing initiative, 13 City Centre Community Centre staff opted to participate in Modo as registered users in place of seeking an additional level funding request for a dedicated City vehicle. Over the same period of the pilot, the Modo vehicles at the City Centre Community Centre were booked by City Centre Community Centre staff 44 times for 106 hours, and travelled 358 km at a cost of \$1,122.09, or \$3.13/km. The Modo units have met community centre staff needs, therefore, a dedicated City vehicle is not required. This is a positive example of how car sharing can be used to avoid needing to acquire new vehicles to meet growing departmental needs.

The table in Attachment 2 summarizes the overall usage of the two dedicated City Hall Annex units as well as the two general community use car share vehicles located at the City Centre Community Centre.

In association with this pilot, it is also of interest to note that Modo Co-operative previously installed three general community use units located at the Brighthouse, Lansdowne and Bridgeport SkyTrain stations as part of the 'Reserved On-Street Parking Spaces for Car Share Vehicles Program' approved by Council on September 24, 2012. Modo currently has 155 general public registered users in Richmond (an increase of 12% over the prior year). The table in Attachment 3 shows the average weekday and weekend percentage utilization of all Modo units in Richmond.

Challenges

From the City's side, user feedback has included the following concerns:

- *Vehicle Availability:* Staff of the two departments where the low use City vehicles were removed in place of the Modo vehicles for the pilot have commented that they no longer have a dedicated vehicle that can be taken without notice such as for emergency use (i.e. required to book the dedicated Modo vehicle);
- *Vehicle Marking:* The Modo unit does not contain official City markings to help identify staff on official City business;
- *Equipment/Supply Storage:* Equipment and materials cannot be left in the Modo vehicle;
- *Administration:* The Modo program requires staff time associated with administering the program (managing distribution of fobs, processing invoices, allocating charges, staff training, etc.);
- *Dedicated Parking:* The City is required to provide dedicated, marked parking spaces for Modo units that could otherwise be used for City vehicles. The parking must be in locations accessible by the general public (to be able to access vehicles during those hours not allocated for City use).

From the car sharing service providers' perspective, Modo has indicated that the usage rate for the two units during the day is too low (8% usage) to meet their required criteria for exclusive

daily city access during the day. To be sustainable for Modo, daily access must either be opened up to other registered Modo users or the exclusive daily fee increased from \$3/vehicle per day to \$15/vehicle per day.

Opportunities

To address some of the challenges identified by staff, the following could be pursued:

- *Vehicle Availability:* There are six general City pool vehicles available at City Hall that can also be booked through Outlook by staff if the Modo units are not available. These units could be added to the Modo booking service, which would avoid the need for staff to flip between the Modo and Outlook booking systems. This is not recommended at this time, however, as there is an additional one time hardware installation cost of \$200/vehicle, plus a monthly cost of \$150 per unit. This would be equal to \$1,200 in hardware costs and \$10,800 in annual operating costs for the six vehicles. The service could be added later, should this be considered beneficial to the overall car sharing program.
- *Vehicle Marking:* The challenge of vehicles used for City business containing designated City markings could be addressed by producing magnetic signs to place over the Modo signage. This would be an inconvenience to staff who would have to bring and store the signage each time they take the vehicle, so may not be suitable for certain functions (inspections, bylaws, etc.).
- *Equipment/Supply Storage:* Staff would need to carry materials with them or use lockers that could be made available in the underground parking at City Hall.
- *Administration/Parking:* Other issues such as administration and parking requirements are components of the program that need to be managed (within Public Works Operations).

To address the challenge of under-utilization of the two existing Modo units, access to the units by the general public during the day could also be made available (similar to other City programs that Modo partners with). Further, access to the two Modo units could be increased by making the program available to other City Hall and City Hall Annex staff.

Under their program, Modo provides additional vehicles to the City when average utilization rates reach/surpass their established thresholds. Modo is also willing to provide different styles of passenger vehicle units suitable to the City's needs, i.e. vans, pickup trucks, etc. provided Modo considers there is sufficient public demand for these types of units (outside of City usage needs).

Summary

Car sharing models may be appropriate for some applications within the City, for example:

- units that are generally used for staff to travel to and from meetings;

- low usage units;
- in place of fleet growth, i.e. where additional units are being sought due to added staff positions (lower resistance expected versus removing allocated vehicles due to low usage).

Car share vehicles are less appropriate for enforcement functions where official City decaling is important and enforcement requires more timely access to a vehicle for response, for functions where supplies generally need to be left in vehicles (i.e. janitorial functions), or for specialized working units (i.e. Public Works functions/operations).

Options

There are three options to consider relative to car sharing.

1. *Continue with the Modo Program, with Modifications and Graduated Expansion*
(Recommended)

Under this option, the Modo car sharing program could be continued, with the program opened up to multiple City staff users at both the City Hall Annex and City Hall sites. This would help to expand use of the two existing Modo vehicles and allow staff to become more accustomed to the car sharing concept. The existing Modo units will also be opened to general public use during the day to address the issue of under-utilization.

The Modo program would be expanded as opportunities become available, i.e. during evaluation of low usage units; as vehicles generally used to transport staff to and from meetings become eligible for replacement, when additional vehicles are requested associated with additional staff positions, etc. Each instance would have to be reviewed to determine whether Modo/car sharing is appropriate to meet departmental needs.

2. *Discontinue the Modo Program* (Not recommended)

Under this option, the agreement with Modo would cease and the two Modo units returned. The units that were taken from the Human Resources and Customer Service and Licencing departments would be returned (units 1555 and 1296).

This option would satisfy the user department's preference for dedicated units and allocate the reserved Modo vehicle parking for City vehicles instead.

This option is not recommended as the user departments' usage is low and does not warrant allocation of dedicated units. This approach would also not serve to showcase the City as a leadership example in promoting the car sharing concept within the community as part of sustainable approaches/transportation demand side management.

3. *Expand the Program to Include Additional Vehicles and Downsize the City's Fleet* (Not recommended)

Under this option, the existing two Modo units would remain and the six City Hall pool vehicles could be downsized and replaced with an appropriate number of Modo units (based on usage). The downsized units would be reallocated to other departments for dedicated use (where there is need) or removed entirely from the City's fleet.

This option is not recommended as it is likely to result in resistance from staff due to the lack of convenience. In addition, many of the City Hall pool vehicles are used after hours by staff for community events or meetings. This could prove challenging with Modo units, which may not be available due to community use.

This approach is likely better pursued in a more gradual fashion (as recommended under Option 1) as staff become more exposed to the Modo car sharing program and user acceptance expands.

Financial Impact

The financial benefit of car sharing are that users pay based on use only. There are no direct costs to the user for purchasing vehicles, fuel, maintenance or insurance. For the low use vehicles used in this pilot, costs for the Modo program averaged less than half that of the departmental charge assessed for dedicated City vehicles, i.e. \$2.19/km vs. \$5.82 for City vehicles. For the vehicles used by City Centre Community Centre association staff, the cost to use the Modo units averaged \$3.13/km.

The total costs paid to Modo for the pilot program are \$2,995.21 as of March 31, 2017. These costs were funded by the Fleet Operations budget as part of the pilot. Due to this initiative being a pilot, the Modo costs represented an additional expense.

The cost of the City Centre Community Centre staff use of the Modo program at that location (\$1,122.09) is funded directly from their operating budget.

Going forward, all departments that participate in the Modo Ride Share Program will be assessed their charges based on usage.

Conclusion

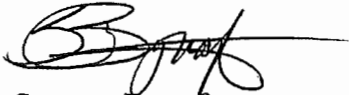
Car sharing is an important mobility strategy designed to help reduce vehicle ownership, GHG emissions, community demands for use of land (less parking), and as a complement to walking, cycling and transit. By employing car sharing as part of the City's vehicle fleet where feasible, the City is helping to lead by example as well as work toward engaging cost-effective approaches to provide vehicle resource needs to meet growing demands.

This report presents the results of a pilot program involving two car sharing units, which indicated costs of approximately half of traditional ownership models (for low usage vehicles). Car sharing is not expected to result in immediate financial benefits, but rather as a sound approach to reduce costs associated with future fleet management needs.

June 2, 2017

- 8 -

It is recommended that car sharing be continued and promoted for appropriate vehicle units as a sustainable and cost effective component of the City's fleet, and as part of working toward the City's Green Fleet Action Plan targets.



Suzanne Bycraft
Manager, Fleet and Environmental Programs
(604-233-3338)

- Att. 1: Various Car Sharing Models/Programs
2: Modo/Car Sharing Summary Usage/Cost Information
3: Utilization Summary of all Modo Cars Located in Richmond

Attachment 1

Various Car Sharing Models/Programs

Car Share Provider	Pick up/Drop off Location	Weekday Charge	Evening Charge	Weekend Charge	Additional Charges	Fee Includes	User Access	Data Hosted in Canada
Modo the Car Co-op	Same designated spot	<ul style="list-style-type: none"> • \$6/hour • Maximum charge of \$54 per 24 hours • Daytime maximum of \$36 for non-profit organizations • Weekdays from 6 a.m. to 6 p.m. 	<ul style="list-style-type: none"> • \$6/hour • Maximum charge of \$54 per 24 hours 	<ul style="list-style-type: none"> • \$8/hour • Maximum charge of \$72 per 24 hours 	<ul style="list-style-type: none"> • Each booking includes 200 km per booking • Additional kilometres cost \$0.25 each • Additional \$3 per day to make block bookings • Deposit will be waived as per Modo • One time registration fee for each driver \$20 	<ul style="list-style-type: none"> • Insurance, fuel, mileage up to 200 km per day • Cleaning maintenance, Lower Mainland toll bridges, and permit-only and resident-only parking in the City of Vancouver 	FOB	Yes
Zipcar	Same designated spot	<ul style="list-style-type: none"> • \$7.75/hour • 7 a.m. to 7 p.m. business day \$56 • Full day \$66 	<ul style="list-style-type: none"> • \$7/month driver fee • \$7.75/hour • \$73/day 	<ul style="list-style-type: none"> • \$7/month driver fee • \$7.75/hour • \$73/day 	<ul style="list-style-type: none"> • One time business account set up fee \$75 • Individual driver annual fee \$30 	<ul style="list-style-type: none"> • Gas, insurance and up to 200 km per day 	FOB	No
Car2go	Any site in the home area	<ul style="list-style-type: none"> • \$0.41/minute • \$14.99/hour maximum • \$84.99/day maximum 	<ul style="list-style-type: none"> • \$0.41/minute • \$14.99/hour maximum • \$84.99/day maximum 	<ul style="list-style-type: none"> • \$0.41/minute • \$14.99/hour maximum • \$84.99/day maximum 	<ul style="list-style-type: none"> • Each booking includes 200 km per booking • Additional kilometres cost \$0.45 each • \$35 registration fee • \$2 annual fee 	<ul style="list-style-type: none"> • Parking, fuel, insurance, maintenance, cleaning, GPS navigation, 24/7 customer support and roadside assistance 	Smart Phone	No
EVO (BCAA)	Any site in the home area	<ul style="list-style-type: none"> • \$0.41/minute • \$14.99/hour • \$89.99/day maximum 	<ul style="list-style-type: none"> • \$0.41/minute • \$14.99/hour • \$89.99/day maximum 	<ul style="list-style-type: none"> • \$0.41/minute • \$14.99/hour • \$89.99/day maximum 	<ul style="list-style-type: none"> • Each booking includes 200 km per booking • Additional kilometres cost \$0.45 each • \$35 one time registration fee • \$2 annual ICBC car share fee • No monthly fees 	<ul style="list-style-type: none"> • Gas insurance and parking 	Smart Phone	Yes

Attachment 2

Modo/Car Sharing Summary Usage/Cost Information

Department	Number of Registered Users	Number of Bookings: August 2016 – March 31, 2017	Usage Cost of Modio Pilot (August, 2016 – March 31, 2017) Including all taxes	Total Distance (km)	Total Hours	Avg. Cost/ km	Average Distance/Trip (km)
City Hall Annex - Two Modio Units in Pilot Program (Dedicated for City use during business day)							
Human Resources: Suspended use of unit 1555	9	89	\$2,083.53	1,347	235	\$1.55	15.13
Customer Service and Licensing: Suspended use of unit 1296	3	2	\$23.52	21	4.5	\$1.12	7
Film and Major Events	1	0	\$0.00	0	0	\$0.00	0
Engineering and Public Works – Fleet: (exclusive use charges paid by Fleet during pilot)	4	0	\$888.16	0	0	\$0.00	0
Total daily fees (\$3 x 2 units)							
<i>Total</i>	17	91	\$2,995.21	1,368	239.5	\$2.19	15.03
City Centre Community Centre (Two units installed by Modio for general community use)							
City Centre Community Centre In place of additional unit request	13	44	\$1,122.09	358	106	\$3.13	8.17
TOTAL: City Hall Annex and City Centre Community Centre	30	135	\$4,117.30	1,726 km	345	\$2.38	12.79 km

Attachment 3**Utilization Summary of all Modo Cars Located in Richmond**

Location	Weekday	Weekend	Weekday Evening	Weekend Evening	Overnight (7pm-9am)
Richmond City Hall ¹ (Two units)	8%	30%	11%	17%	5%
City Centre Community Centre (Two units)	33%	31%	24%	28%	17%
Brighthouse SkyTrain station (One unit)	73%	63%	57%	61%	44%
Landsdowne SkyTrain station (One unit)	33%	41%	35%	32%	23%
Bridgeport SkyTrain station (One unit)	37%	67%	54%	53%	46%

¹Weekend usage at Richmond City Hall has been comparable to the other Richmond cars, but weekday and overnight usage is far lower. The two cars averaged just 1.9 bookings per week. In an average week, each car was used for less than 5 hours and driven less than 25KM.



City of Richmond

Report to Committee

To: Public Works and Transportation Committee

Date: May 23, 2017

From: John Irving, P.Eng. MPA
Director, Engineering

File: 10-6340-20-
P.15305/Vol 01

Re: No. 2 Road South Drainage Pump Station

Staff Recommendation

That the design concept for the No. 2 Road South Drainage Pump Station Upgrade as detailed in Attachment 1 of the staff report titled, "No. 2 Road South Drainage Pump Station," be endorsed.

John Irving, P.Eng. MPA
Director, Engineering
(604-276-4140)

Att. 1

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Parks Services	<input checked="" type="checkbox"/>	
Sewerage & Drainage	<input checked="" type="checkbox"/>	
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS: 	APPROVED BY CAO

Staff Report

Origin

The No. 2 Road South Drainage Pump Station was constructed in the early 1960's. Council approved the replacement of this drainage pump station as part of the 2016 Capital Program. Staff have advanced the preliminary design to the point whereby the general layout and architectural features for the pump station have been identified.

The purpose of this report is to provide Council information regarding the intended pump station layout, including potential architectural features.

This report supports Council's 2014-2018 Term Goal #6 Quality Infrastructure Networks:

Continue diligence towards the development of infrastructure networks that are safe, sustainable, and address the challenges associated with aging systems, population growth, and environmental impact.

Analysis

The City's extensive flood protection and drainage system includes 49 kilometres of dikes, a series of ditches/canals, underground pipe and 41 drainage pump stations. The drainage system is designed to prevent the City from flooding during up to a 1:10 year rainfall event.

The existing No. 2 Road South Drainage Pump Station services areas adjacent to No. 2 Road, roughly bounded by the south dike, Francis Road and Railway Avenue. This station was constructed in the early 1960's, was subsequently upgraded in 1999 and is in need of a pumping capacity increase to adequately meet current flood protection standards.

The design of the upgraded No. 2 Road South Drainage Pump Station has now advanced to a point whereby a preferred new location and layout for the pump station has been identified (Attachment 1). The proposed location is in London's Landing Park at the south end of No. 2 Road.

In general, the pump station has been designed to reflect the location's proximity to the adjacent waterfront park and is consistent with the coupling of dike and pump station infrastructure with the dike trail and waterfront park space throughout the City. In order to preserve the water view corridor along No. 2 Road and from nearby residences, the pump station will be located mostly underground with the exception of the above ground generator enclosure and access stairway located along the west boulevard area. A public look-out/viewing area has also been included on the roof of the generator enclosure.

The above ground pump station elements are visualized to be appealing and complimentary to the existing park and trails while at the same time providing the necessary means for pump station operations and maintenance activities. The pump station will be located within the dike that had been already raised to 4.7 metres geodetic, which is consistent with the City's Long Term Flood Management Strategy to address sea level rise.

May 23, 2017

- 3 -

Subject to Council's endorsement, a public input process will be initiated shortly to solicit feedback on the proposed pump station concept. It is anticipated that detailed design for No. 2 Road South Drainage Pump Station will be completed by Fall 2017, with construction to follow thereafter.

Financial Impact

Funding to complete the No. 2 Road South Drainage Pump Station upgrade has been approved by Council as part of the 2016 Capital Program.

This project is included in the 2016 Flood Protection Program. The Province of British Columbia is providing the City with \$16.63M for the replacement of 4 drainage pump stations and approximately 1.2km of dike upgrades. The provincial funding is based on a 2/3 to 1/3 provincial to municipal share of eligible costs.

Conclusion

The No. 2 Road South Drainage Pump Station was approved in the 2016 Capital Program. Design has progressed to the point where the proposed preferred waterside location within the No. 2 Road corridor south of London Road and No. 2 Road intersection has been identified. Subject to Council's support and public consultation, work will continue on advancing the design concept to a full detailed design.



Elena Paller, P.Eng.
Project Engineer
(604-276-4023)



Milton Chan, P.Eng.
Manager, Engineering Design and Construction
(604-276-4377)

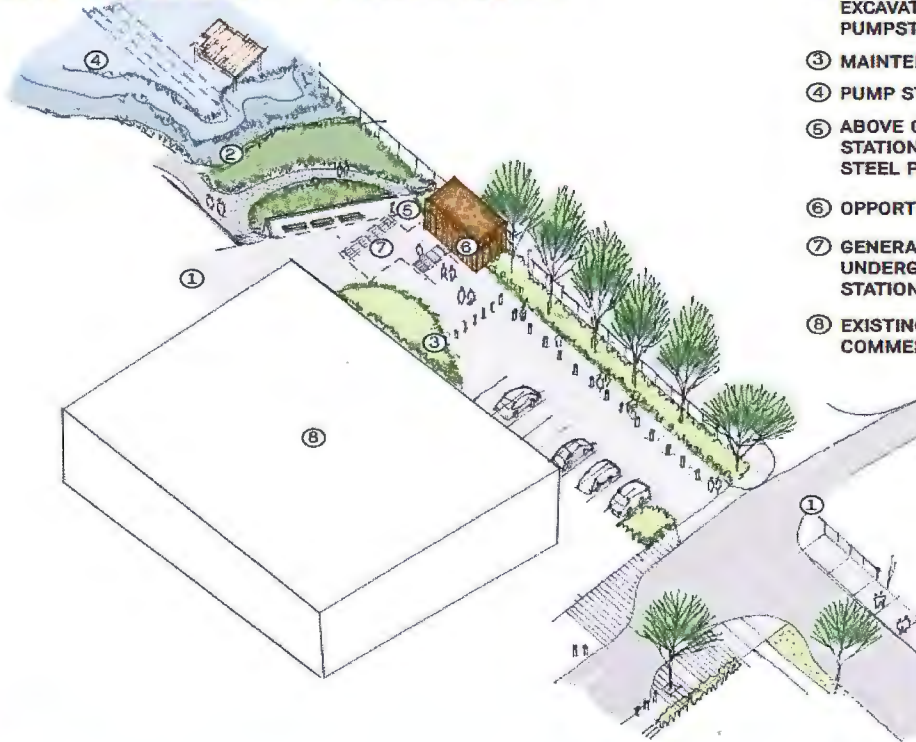
EP:ep

Att. 1: No. 2 Road South Drainage Pump Station – Design Images

Attachment 1 – No. 2 Road South Drainage Pump Station – Design Images

1. General Site Location

NO 2 ROAD SOUTH PUMP STATION STATIONHOUSE - WATERSIDE



- ① DIKE TRAIL/ACCESS ROAD
- ② EXISTING PARK TO REMAIN, LIMITED EXCAVATION REQUIRED FOR NEW PUMPSTATION
- ③ MAINTENANCE ACCESS
- ④ PUMP STATION OUTFLOW
- ⑤ ABOVE GROUND PORTION OF PUMP STATION WITH CORTEN/WOOD/STEEL PANEL ENCLOSURE
- ⑥ OPPORTUNITY FOR SIGNAGE
- ⑦ GENERAL LOCATION OF UNDERGROUND PORTION OF PUMP STATION
- ⑧ EXISTING RESIDENTIAL/COMMERCIAL BUILDING

2. Viewing Platform and Above Ground Portion of Pump Station (looking west)



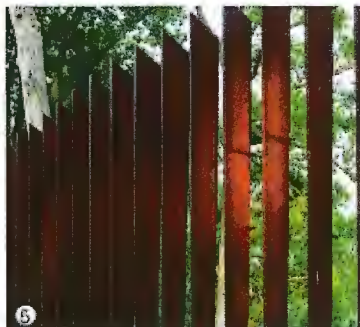
3. Site View (Looking South along No. 2 Road)



4. Site View (Looking West Along Dyke Trail)



5. Examples of Corten Screening and Signage






City of Richmond

Report to Committee

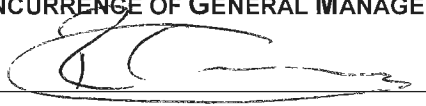


To: Public Works and Transportation Committee
From: John Irving, P.Eng. MPA
Director, Engineering
Date: May 1, 2017
File: 10-6060-01/2017-Vol
01
Re: **Statutory Right-of-Way Acquisition and Servicing Agreement for
Development at 13201 River Road**

Staff Recommendation

1. That a utilities statutory right-of-way (SRW) be acquired from Sun Life Assurance Company of Canada over a portion of 13331 Vulcan Way, at no cost to the City; and
2. That the Chief Administrative Officer and the General Manager, Engineering & Public Works, be authorized to execute a servicing agreement with Spire Construction Inc., the tenant of 13201 River Road, to install water and drainage works within City dedicated land and the proposed SRW area, based on the material terms and conditions set out in the staff report titled, "Statutory Right-of-Way Acquisition and Servicing Agreement for Development at 13201 River Road," dated May 1, 2017 from the Director, Engineering.


John Irving, P.Eng. MPA
Director, Engineering
(604-276-4140)

Att. 1

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Water Services	<input checked="" type="checkbox"/>	
Sewerage & Drainage	<input checked="" type="checkbox"/>	
Law	<input checked="" type="checkbox"/>	
Development Applications	<input checked="" type="checkbox"/>	
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS: 	APPROVED BY CAO 

Staff Report

Origin

Spire Construction Inc. has requested a servicing agreement with the City to install water and drainage works, in order to provide water and drainage service to their proposed development at 13201 River Road, which is owned by the Vancouver Fraser Port Authority.

The purpose of this report is to obtain Council approval to acquire a utilities statutory right-of-way (SRW) over a portion of 13331 Vulcan Way, and to enter into a servicing agreement with Spire Construction Inc.

This report supports Council's 2014-2018 Term Goal #6 Quality Infrastructure Networks:

Continue diligence towards the development of infrastructure networks that are safe, sustainable, and address the challenges associated with aging systems, population growth, and environmental impact.

6.2. Infrastructure is reflective of and keeping pace with community need.

Analysis

Spire Construction Inc. is entering into a long-term lease agreement with the Vancouver Fraser Port Authority to develop a 73,000 ft² light industrial facility, including 7,100 ft² of office space, at 13201 River Road. The property is zoned light industrial.

In order for Spire Construction Inc. to construct the proposed servicing agreement works and provide water service to the development, a SRW must be acquired from the neighbouring property at 13331 Vulcan Way (owned by Sun Life Assurance Company of Canada). The proposed SRW acquisition, which would be negotiated between Spire Construction Inc. and Sun Life Assurance Company of Canada, would be at no cost to the City and would be substantially in the City's standard form. This SRW would benefit the City by also providing access to an existing City sanitary main located on private property.

The following are the key terms and conditions of the proposed servicing agreement with Spire Construction Inc.:

- Spire Construction Inc. to install a new watermain within the proposed SRW area south of 13201 River Road;
- Spire Construction Inc. to install a drainage service connection and watercourse crossing at the northwest corner of 13201 River Road;
- Spire Construction Inc. to complete the works within a defined schedule, to be determined through the servicing agreement process;

- Spire Construction Inc. to provide financial security for the City to complete any unfinished works, amount to be determined through the servicing agreement process; and,
- Spire Construction Inc. to indemnify the City.

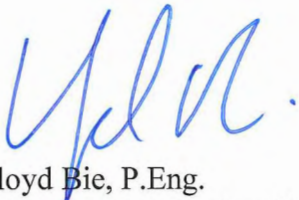
Attachment 1 shows a schematic of the proposed SRW area and water and drainage works required to service 13201 River Road.

Financial Impact

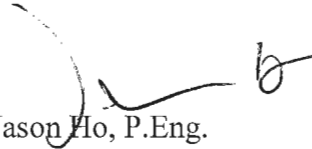
None.

Conclusion

Spire Construction Inc. has requested a servicing agreement with the City to install water and drainage works, in order to provide water and drainage service to their proposed development at 13201 River Road. In order for servicing agreement works to be constructed, a SRW must be acquired over a portion of 13331 Vulcan Way. Staff recommend support for the works and request Council approval to acquire the SRW and enter into a servicing agreement.



Lloyd Bie, P.Eng.
Manager, Engineering Planning
(4075)

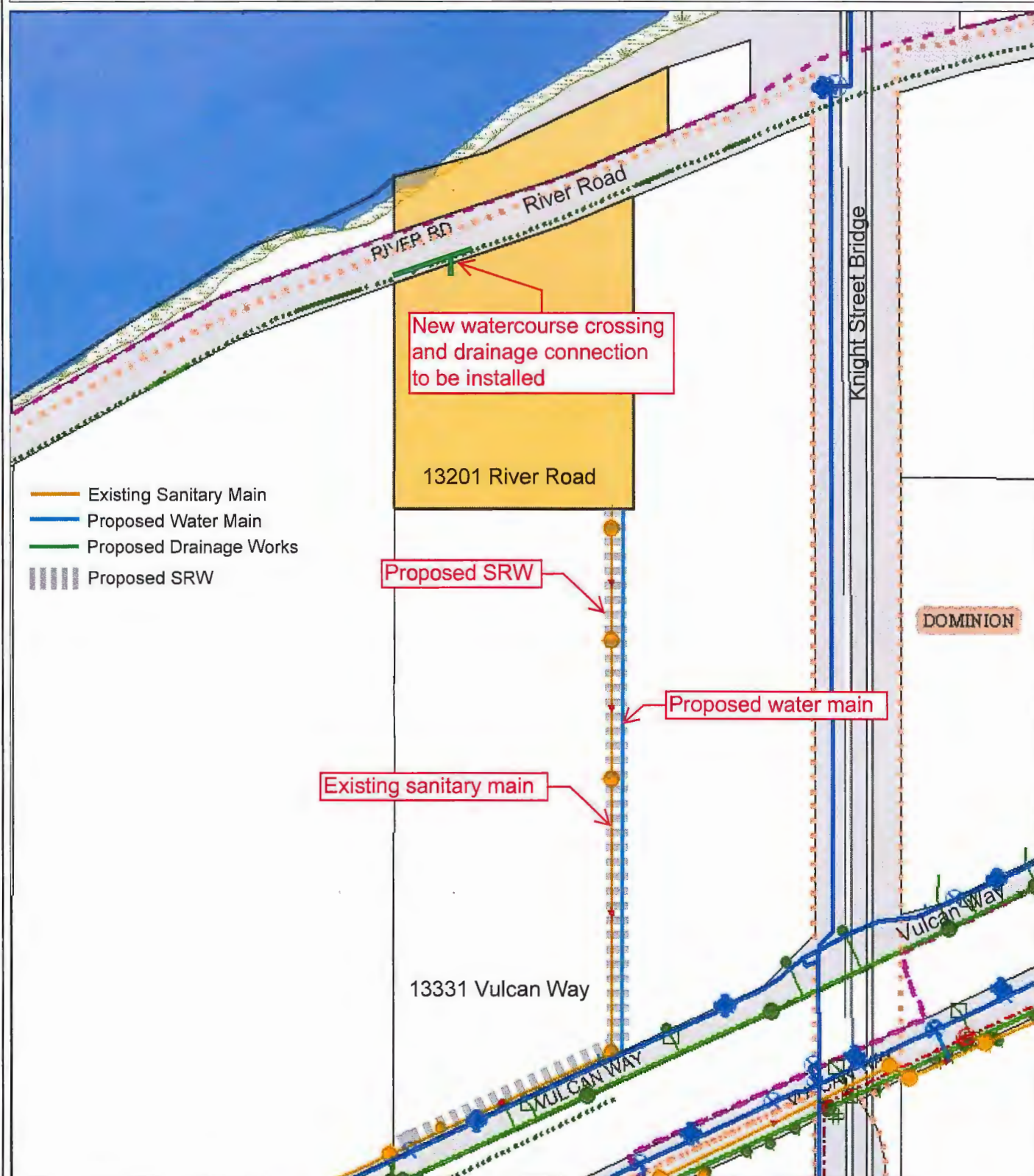


Jason Ho, P.Eng.
Project Engineer
(1281)

LB;jh

Att. 1: Proposed Servicing Agreement Works for 13201 River Road

Proposed Servicing Agreement Works for 13201 River Road



115.0 0 57.50 115.0 Meters

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

THIS MAP IS NOT TO BE USED FOR NAVIGATION

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City of Richmond

Report to Committee

To: Public Works and Transportation Committee

Date: May 24, 2017

From: John Irving, P.Eng. MPA
Director, Engineering

File: 06-2050-01/2017-Vol
01

Re: Ageing Facility Infrastructure - Update

Staff Recommendation

That staff utilize the attached "Ageing Facility Infrastructure – Update" report dated May 24, 2017 from the Director, Engineering, as input in the annual capital and operating budget preparation process.

John Irving, P.Eng. MPA
Director, Engineering
(604-276-4140)

Att. 1

REPORT CONCURRENCE		
ROUTED TO: Finance Division	CONCURRENCE <input checked="" type="checkbox"/>	CONCURRENCE OF GENERAL MANAGER
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS: CS	APPROVED BY CAO

Staff Report

Origin

On June 27, 2015 staff submitted an ageing facility infrastructure report to Council for information. The report provided a facility condition summary and options to better maintain the City's buildings inventory, currently comprising approximately 1,617,000 square feet of total building area.

This report provides an update to the overall condition of City facilities and building maintenance and replacement programs currently in place.

This report supports Council's 2014-2018 Term Goal #6 Quality Infrastructure Networks:

Continue diligence towards the development of infrastructure networks that are safe, sustainable, and address the challenges associated with aging systems, population growth, and environmental impact.

6.1. Safe and sustainable infrastructure.

6.2. Infrastructure is reflective of and keeping pace with community need.

Background

The City's general buildings and leased facilities inventory consists of 154 buildings.

City facilities are critical to the delivery of a broad range of services to the public. Several of the facilities are unique to Richmond and establish an important and positive cultural or iconic identity, such as those with heritage status (i.e., Britannia Shipyards National Historic Site, Branscombe House, Seine Net Loft, etc.) and the Richmond Olympic Oval.

Construction of City owned facilities is accomplished through Council approved capital programs and/or agreements with developers. For capital projects, staff define a scope of work in consultation with the user groups and the public leading to construction through the public procurement process. A similar process is followed with developer related facilities, whereby the developer often assumes the role of design/construction lead and City staff assumes a review/approval role.

It is necessary to fund and perform day-to-day operations and maintenance activities at all facilities to enable their intended uses including janitorial services and minor repairs/replacements such as light bulb replacements. It is also necessary to fund and complete preventative maintenance programs which may include items such as roof replacement, boiler replacement, new paint for the building interior/exterior, etc., to ensure continuity of service.

The practical life expectancy of a facility is generally 45 years or more, however, with regular preventive maintenance is the life of a quality building can be extended indefinitely. The City currently has funded operations/maintenance, preventative maintenance and capital replacement

programs in place as approved by Council. The Capital Building and Infrastructure Reserve has been built to fund facility capital repair and replacement.

On an ongoing basis, staff develop and update a comprehensive plan for capital repair and improvements. This plan considers the condition of all current infrastructure assets such as buildings and equipment, and is used to plan infrastructure replacement and repair needs in the future, within available capital and operating funding levels.

Analysis

The City currently has Council approved annual funding of approximately \$3.7M for preventative maintenance programs. For 2017, the City received facility related funding of \$6.9M through the capital program, and \$2.5M as a one-time expenditure, to complete major repair/restorations of buildings such as Minoru Chapel, the Library Cultural Centre, City Hall, Minoru Arenas and South Arm Pool.

The City generally completes annual physical audits of 20% of City facilities through detailed site visits. The findings are used to update past information in the City's facility condition assessment computer model, Vanderwell Facility Advisors (VFA), to develop a Facility Construction Index (FCI) which has become an evaluation tool used by cities internationally.

FCI is an industry standard designation of facility condition where 0.00 to 0.05 is good, 0.06 – 0.10 is fair, and higher than 0.10 is considered poor. While this index is an excellent facility management tool, it is not a direct measure of user experience in the building. For example, a boiler that is old, inefficient and at risk of failure, will generate a poor condition score, but it may still be providing adequate heat in a building, so a building user today would not be impacted by that poor condition.

The current FCI average for all City facilities is 0.05, indicating an overall good condition, in part due to the recent completion of City Centre Community Centre and Fire Hall No. 3. Attachment 1 provides a graphical representation of the City's current building inventory and condition as well as a 2018 projection which considers completion of the remaining Phase I Major Facilities program (Minoru Complex, and Fire Hall No. 1 and demolition of the existing Minor Aquatic Centre). The 2018 projection highlights the effectiveness of Council's proactive approach concerning the City's building infrastructure replacement.

A large portion of City buildings were constructed in the last 35 years and this later building stock is entering a phase of accelerated ageing. This is highlighted in particular in the 1980's and older buildings in Attachment 1. As a result, maintaining the current good condition score will require continued support for Capital and Operations Maintenance funding programs as outlined in the City's 5-Year plan, including possible increases as facilities enter the phase of accelerated ageing.

Consequence of Facility Deterioration

A generally accepted industry observation related to facilities is that it costs five times as much to repair a facility as compared to having a preventative maintenance program, and that it costs five times as much to replace a non-maintained facility than what it would have cost to complete

the maintenance proactively, notwithstanding the impacts related to service disruption. While facility replacement is an excellent solution to address growth needs and implement modern systems and design, those facilities that are intended for long term use greatly benefit from the City's preventative maintenance programs.

Significant deficiencies would be anticipated should City facilities be allowed to deteriorate over the next 20 years. An example that may be typical of non-functional facility infrastructure after 20 years includes failure of roofs, boilers and HVAC systems; similar to the recent chiller failure at the RCMP building. The consequence of these items no longer functioning are significant and could lead to facility closure, service level interruption, loss of City revenue, and incurrence of significant costs to react to emergency conditions.

The current service level can be maintained through preventative maintenance funding and capital funding for building rehabilitation and replacement as follows.

Capital Replacement

The Council approved Major Facilities Phase 1 projects represent over \$129.8M in capital investment for the replacement of Minoru Aquatics, Older Adults Centre, City Centre Community Centre, Fire Hall No. 1 and Fire Hall No. 3. On December 12, 2016, Council also approved Advanced Design and Planning funding to commence the Richmond Major Facilities Phase 2 program. This includes the replacement or expansion of the Richmond Animal Shelter, Richmond Lawn Bowling Club, City Centre Community Centre North, Steveston Community Centre and restoration of the remainder of Britannia Shipyards. The new facilities will provide medium term relief from the increasing cost of maintaining the old facilities and introduce service level improvements. Investing in the capital replacement of buildings is a key strategy for maintaining overall facility condition and addressing growing service level demands.

Capital Repair/Rehabilitation

In 2016, Council approved \$36.5M through the 5-Year capital program to complete major repairs and rehabilitation. The 2017 program for Capital and one-time expenditures includes approximately \$9.3M funding to complete major repairs and upgrades to City facilities. Staff will continue to prepare 5-Year capital programs with required levels of funding for Council consideration and approval.

Operating Maintenance and Minor Capital

Current facility infrastructure replacement, improvement and annual maintenance funding is approximately \$3.7M. Going forward, it is estimated that this level of funding would need to increase by approximately \$1M to keep pace with inflation and to maintain the current facility condition index score.

It is recommended that staff utilize the preceding analysis and information outlined in preparation of future operating and capital budgets with the objective of maintaining the current level of overall facility condition.

Financial Impact

None.

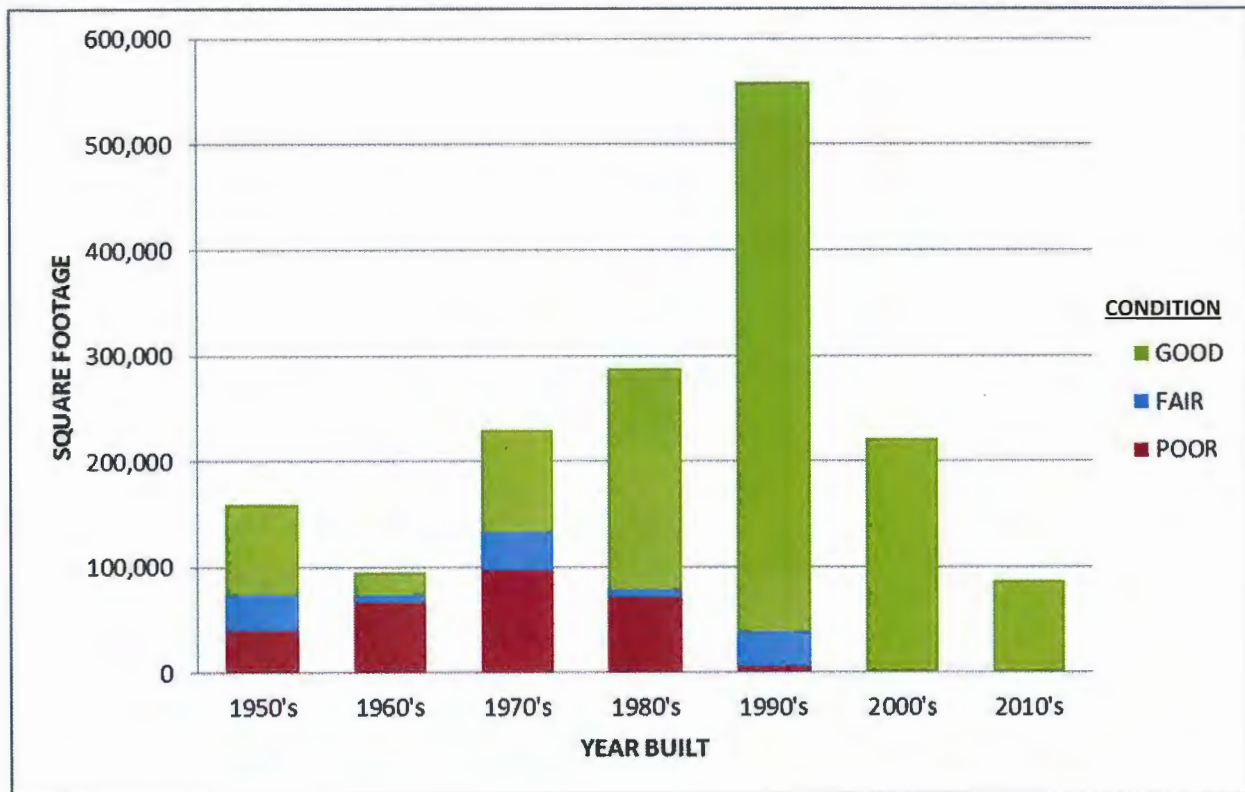
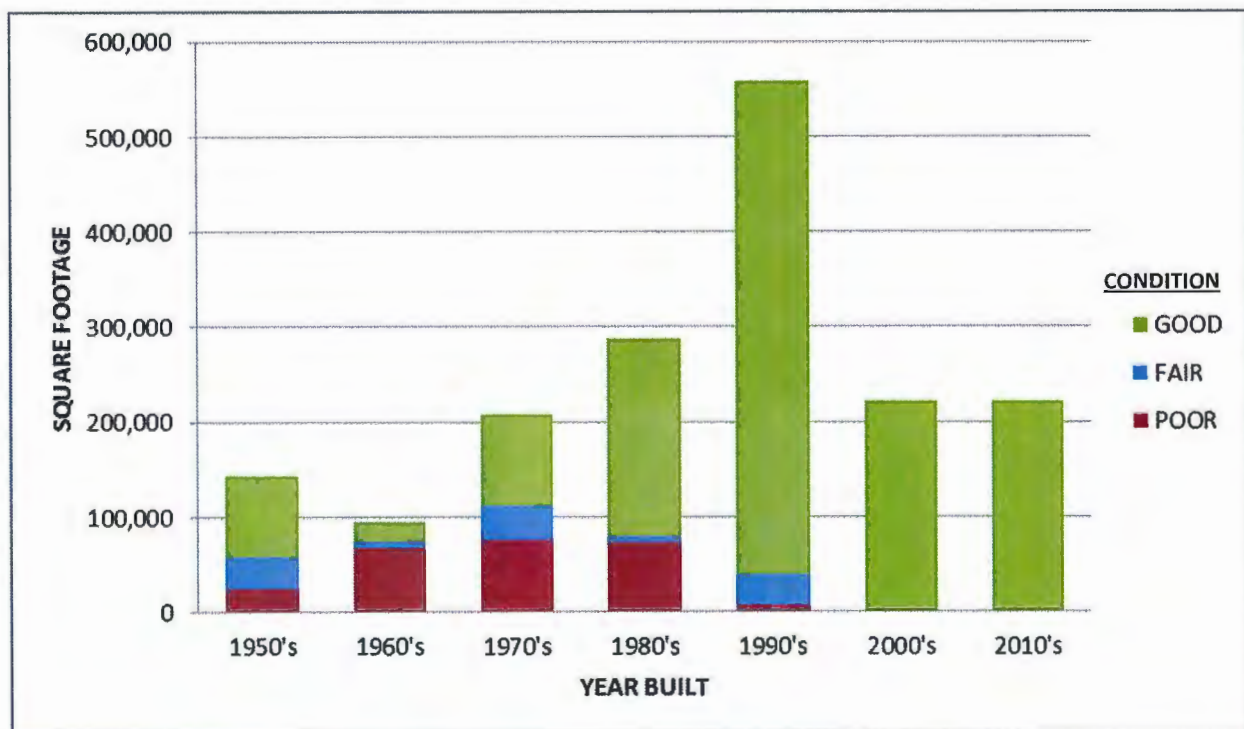
Conclusion

The City's building infrastructure is currently in good condition, however, due to age many buildings are anticipated to deteriorate at an accelerated rate. In order to maintain the current average facility condition and service levels, additional funding will be required through the City's operating and capital budgets.



Jim V. Young, P. Eng.
Senior Manager, Project Development
(604-247-4610)

Att. 1: Ageing Infrastructure – Facilities

Ageing Infrastructure – Facilities (Current Status)**Ageing Infrastructure – Facilities (2018)**



City of Richmond

Report to Committee

To: Public Works and Transportation Committee **Date:** June 7, 2017
From: Tom Stewart, ASCT.
Director, Public Works Operations **File:** 10-6360-13/2017-Vol
01
Re: **Award of Contract 5856Q, Supply and Delivery of Bulk Road Salt 2016/2017**

Staff Recommendation

1. That Contract 5856Q Supply and Delivery of Bulk Road Salt 2016/2017 be awarded to Mainroad Maintenance Products LP at the unit rates quoted up to a total estimated contract value of \$650,000 for the term December 8, 2016 through December 7, 2017, with the ability to extend for an additional two one-year periods to a maximum of three years, and that the Chief Administrative Officer and General Manager, Engineering and Public Works, be authorized to approve each annual renewal; and,
2. That the 5 Year (2017-2021) Financial Plan be amended accordingly.

Tom Stewart, ASCT.
Director, Public Works Operations
(604-233-3301)

REPORT CONCURRENCE		
ROUTED TO: Finance Department	CONCURRENCE <input checked="checked" type="checkbox"/>	CONCURRENCE OF GENERAL MANAGER
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS: 	APPROVED BY CAO

Staff Report

Origin

Weather conditions for the 2016/2017 winter season were considerably colder and more prolonged than usual, resulting in the need for increased response efforts, including the acquisition of bulk road salt.

Contract 5856Q was awarded to Mainroad Maintenance Products LP for salt purchases, however, expenditures have reached maximum authorized approval levels under Officer and General Manager Bylaw No. 8215 (\$500,000) and therefore Council approval is required.

This report supports Council's 2014-2018 Term Goal #6 Quality Infrastructure Networks:

Continue diligence towards the development of infrastructure networks that are safe, sustainable, and address the challenges associated with aging systems, population growth, and environmental impact.

6.1. Safe and sustainable infrastructure.

Analysis

Background

Winter conditions from December, 2016 through March, 2017 have been among the worst in recent years. This resulted in response efforts significantly beyond that of typical seasons to ensure routes were proactively salted and ploughed to enhance driver and public safety. This included large quantities of salt purchases at various stages of the season. To date, 4,971 tonnes of salt has been used. This compares with less than 800 tonnes during a typical year.

Attachment 1 provides a comparison of the 2016/2017 winter season to other years, as well as summary statistics and other information relating to snow and ice operations.

Supply of Road Salt

Bulk road salt supply was secured through the regular competitive bid process under Contract 5856Q - Supply and Delivery of Bulk Road Salt. The contract was awarded to the lowest responsive and responsible bidder - Mainroad Maintenance Products on December 8, 2016.

The initial contract was approved under Officer and General Manager Bylaw 8215 for \$75,000 annually. To keep pace with inventory demands, subsequent change orders for \$200,000 and \$110,000 were required, increasing the total expenditure approval to \$385,000. Salt purchases beyond these amounts were required, with an outstanding amount of \$160,000 due to Mainroad Maintenance Products LP, for a total amount of \$545,000. This amount exceeds authorized approval levels under Bylaw 8215; therefore, subsequent Council approval is required for the contract award to Mainroad Maintenance Products LP. This is a unit price contract and therefore total expenditure amounts are estimated. It is projected that total expenditures under this contract will reach \$650,000 over the term, or an amount of \$265,000 above the current expenditure approval.

Staffing and Equipment

Costs for the overall response efforts, including labour and equipment, are currently being reviewed in relation to 2017 budget allocations. Funding requirements to address associated expenditures will be presented to Council separately as part of third quarter report.

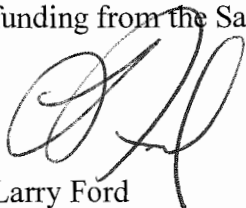
Financial Impact

Council has established the Sanding and Salting provision as a funding source to address situations of this nature. This provision has a current balance of \$629,970. It is recommended that the additional amount of \$265,000 needed for current and projected salt purchase expenditures be funded from this provision and that the 5 Year Financial Plan (2017-2021) be amended accordingly.

Conclusion

Winter conditions in 2016/2017 were among the worst in recent years. This has resulted in increased expenditures for material salt purchases above authorized approval levels under Officer and General Manager Bylaw No. 8215. Council approval is sought to award Contract 5856Q to Mainroad Maintenance Products at the units rates quoted for an estimated amount of \$650,000 for the term starting December 8, 2016 for a one-year period, with annual renewals as authorized by the Chief Administrative Officer and General Manager, for a total contract term of up to three years.

An additional amount of \$265,000 to fund salt purchase requirements is also requested, with funding from the Sanding and Salting provision.



Larry Ford
Manager, Roads and Construction Services
(604-244-1209)

LF:sjb

2016/2017 Winter Season Comparison and Statistics

Comparison

When compared with the 2015/2016 winter season where there were no snow events and 28 ice events, the severe weather during the 2016/2017 season resulted in 9 snow events and 41 ice events.

The table below highlights the considerable increase in snowfall accumulations and event days in 2016/2017 to date when compared with the average over 1981-2010:

Table 1 – Winter Weather Statistics December, 2016 Through March, 2017

	Average (1981 -2010)	2016/2017	Difference
Snowfall	34.6 cm	55.4 cm	160% of average
Days With Snowfall	7.1 days	17 days	239% of average
Rain	541 mm	382.4 mm	71% of average
Days with Rainfall	73.7 days	55 days	75% of average
Days Below 0 Degrees Celsius	48.1	64	133% of average

Operational Response Statistics

City staff, including professional drivers, equipment operators, supervisors, mechanics, welders, and labourers worked an extensive number pre-scheduled and emergency call out shifts to respond to snow and ice events. In many cases, 24-hour shift coverage was put in place, with staff working 12 hour shifts to provide maximum levels of service in salting/snow response operations. Some key statistics during the 2016/2017 event to date include:

- 14,069 lane km of first and second priority routes were ploughed;
- 658 lane km of third priority routes were ploughed;
- 4,971 tonnes of salt were used;
- 29,402 lane km of first, second and third priority routes were pre-treated with salt;
- 8,720 lane km of first and second priority routes were pre-treated with brine (brine is a liquid anti-icing agent used to pre-treat roads during dry road conditions with sub-zero temperatures forecasted).

Community Feedback

The City's proactive response was applauded by the public, with 300 responses on Facebook, Twitter and other communications media. The words of appreciation from the public were a significant indicator of Council's support and leadership commitment to service levels. The public kudos also meant a great deal to the City staff who worked tirelessly during this time.