



**Public Works and Transportation Committee
Electronic Meeting**

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

**Wednesday, July 17, 2024
4:00 p.m.**

Pg. # ITEM

MINUTES

PWT-4 *Motion to adopt the **minutes** of the meeting of the Public Works and Transportation Committee held on June 19, 2024.*



NEXT COMMITTEE MEETING DATE

September 11, 2024, (tentative date) at 4:00 p.m. in the Anderson Room.

AGENDA ADDITIONS AND DELETIONS

PLANNING AND DEVELOPMENT DIVISION

- 1. SPRINGFIELD DRIVE – TRAFFIC CALMING**
(File Ref. No. 10-6480-03-01) (REDMS No. 7709842)

PWT-10

See Page PWT-10 for full report

Designated Speaker: Sonali Hingorani

STAFF RECOMMENDATION

That the implementation of two speed cushions on Springfield Drive, as described in the staff report titled “Springfield Drive - Traffic Calming”, dated June 17, 2024, from the Director, Transportation, be endorsed.



2. **STEVESTON VILLAGE LANE PARKING**

(File Ref. No. 0-6500-01) (REDMS No. 7720646)

PWT-15

See Page PWT-15 for full report

Designated Speaker: Beata Ng

STAFF RECOMMENDATION

- (1) *That parking be established in lanes within Steveston Village as outlined in the report titled “Steveston Village Lane Parking”, dated June 26, 2024 from the Director, Transportation;*
- (2) *That a permit parking pilot program be implemented as outlined in Option 3 in the report titled “Steveston Village Lane Parking”, dated June 26, 2024, from the Director, Transportation;*
- (3) *That Traffic Bylaw No. 5870, Amendment Bylaw No. 10585, be given first, second and third readings; and*
- (4) *That lanes between Chatham Street and Bayview Street be established as a permit zone in accordance with Traffic Bylaw No. 5870.*



ENGINEERING AND PUBLIC WORKS DIVISION

3. **FRASER RIVER FRESHET AND FLOOD PROTECTION UPDATE 2024**

(File Ref. No. 10-6000-01) (REDMS No. 7616287)

PWT-23

See Page PWT-23 for full report

Designated Speaker: Jason Ho

STAFF RECOMMENDATION

That the staff report titled “Fraser River Freshet and Flood Protection Update 2024”, dated June 12, 2024, from the Director, Engineering be received for information.



4. **AWARD OF CONTRACT 8321NOITC – MATTRESS AND UPHOLSTERED FURNITURE RECYCLING SERVICES**

(File Ref. No. 10-6370-01) (REDMS No. 7678576)

PWT-32

See Page PWT-32 for full report

Designated Speaker: Kristina Nish

STAFF RECOMMENDATION

- (1) *That Contract 8321NOITC – Mattress and Upholstered Furniture Recycling Services, be awarded to Pacific Mattress Recycling Inc. at an estimated total contract value of \$1,961,629.39 over a maximum five-year term;*
- (2) *That the Chief Administrative Officer and General Manager, Engineering & Public Works, be authorized to negotiate and execute a service contract with Pacific Mattress Recycling Inc. incorporating the key terms outlined in the staff report dated June 12, 2024; and*
- (3) *That a Change Order for contract 6205P – Residential Solid Waste Collection and Recycling Services with Sierra Waste Services Ltd. be issued to include cross-docking and transportation fees for mattresses and upholstered furniture at the unit prices quoted at an additional annual estimated cost of \$203,938.85.*



5. **MANAGER’S REPORT**

ADJOURNMENT





Public Works and Transportation Committee

Date: Wednesday, June 19, 2024

Place: Anderson Room
Richmond City Hall

Present: Councillor Carol Day, Chair
Councillor Michael Wolfe
Councillor Chak Au
Councillor Kash Heed
Councillor Alexa Loo

Also Present: Councillor Andy Hobbs
Councillor Bill McNulty (by teleconference)

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 May 22, 2024, be adopted as circulated.

CARRIED

AGENDA ADDITIONS AND DELETIONS

It was moved and seconded

That Textile Recycling be added to the agenda as Item No. 5A.

CARRIED

PLANNING AND DEVELOPMENT DIVISION

1.

Public Works & Transportation Committee
Wednesday, June 19, 2024

1. **KITTIWAKE DRIVE - TRAFFIC CALMING UPDATE**
(File Ref. No. 10-6460-01) (REDMS No. 7648159)

In response to queries from Committee, staff advised that (i) the 85th percentile speed is an industry standard that indicates the speed at or below which 85 percent of the drivers travel on a road segment and (ii) speed cushions are a traffic calming measure designed to not impede nor slow down emergency response vehicles.

It was moved and seconded

That the two asphalt speed cushions on Kittiwake Drive remain as a permanent condition, as described in the staff report titled “Kittiwake Drive – Traffic Calming Update” dated May 27, 2024 from the Director, Transportation.

CARRIED

ENGINEERING AND PUBLIC WORKS DIVISION

2. **NORTH DIKE UPGRADES CONCEPT PLAN - LYNAS LANE TO NO. 2 ROAD**
(File Ref. No. 10-6050-01) (REDMS No. 7672407)

In response to queries from Committee, staff advised that (i) the recommended action outlined in the Dike Master Plan Phase 2 report includes reduced impacts to environmental habitats, and the North Dike upgrades between Lynas Lane and No. 2 Road do not impede the intertidal area north of the existing pathway, (ii) key external stakeholder groups will be engaged, and other ministries will be included in future engagements if they become involved in the project, (iii) a full environmental assessment will occur at the Works Yard as part of the Works Yard Replacement Project and ongoing coordination between the project teams will continue in order to minimize the impacts resulting from the construction of these two projects, (iv) impacted trees will be assessed for retention and the replanting of impacted trees close to their original location is planned where possible, (v) further dike upgrades to the west may be included in future Capital Budgets, (vi) the existing paved sidewalk will be reinstated south of River Road and a new gravel multi-use pathway will be introduced north of River Road, (vii) the new sidewalk will have adequate space between vehicle traffic and the detailed design process will include trees that act as buffers, and (viii) this project is included in the Government of Canada's Disaster Mitigation and Adaptation Fund grant award and the new multi-use pathway is a partially grant-funded project.

It was moved and seconded

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That the concept plan presented in the staff report titled "North Dike Upgrades Concept Plan -Lynas Lane to No. 2 Road", dated May 16, 2024, from the Director, Engineering be endorsed for the purposes of public consultation.

CARRIED

3. **AWARD OF CONTRACT 8225Q – BIKE REUSE PILOT PROGRAM**
(File Ref. No. 10-6370-01) (REDMS No. 7623493)

In response to queries from Committee, staff advised that (i) the "Pedals for the People" program donated 312 bikes in 2022 and Pedal Foundation proposes to refurbish bikes and bike accessories collected at the Depot to a safe and dependable standard, then donate them to Richmond residents facing ongoing financial hardship or through other initiatives to support the community, (ii) details surrounding statistics of refurbished and reusable bikes will be determined throughout the pilot program and staff will provide summary information on the pilot to Council prior to contract renewal, (iii) the City of Vancouver and Metro Vancouver have similar bike reuse programs, and (iv) as a component of its comprehensive recycling programs, the Recycling Depot collects bikes for recycling as scrap metal.

Discussion ensued regarding other bike recycling and reuse programs and as a result of the discussion, the following **referral motion** was introduced:

It was moved and seconded

That the Award of Contract 8225Q Bike Reuse Pilot Program be referred back to staff for alternative options such as donating bikes to non-profit organizations, schools and individuals who will donate the repurposed bikes to people in need.

The question on the referral motion was not called as discussion ensued regarding (i) bike repurposing, (ii) the prohibition of scavenging, and (iii) a review of other bike recycling and reuse programs in the province.

The question on the referral motion was then called and it was **DEFEATED** with Cllrs. Heed, Loo, and Wolfe opposed.

Discussion ensued regarding (i) bikes collected for recycling as scrap metal through the Large Item Pick Up Program and public drop-off at the Recycling Depot and (ii) a review of the pilot program. As a result of the discussion, the following **motions** were introduced:

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It was moved and seconded

That Contract 8225Q – Bike Reuse Pilot Program as detailed in the staff report titled “Award of Contract 8225Q – Bike Reuse Pilot Program” dated May 14, 2024 from the Director, Public Works Operations be awarded for an initial one-year term effective August 1, 2024 to Pedal Foundation for an estimated total value of \$82,269.

CARRIED

It was moved and seconded

That staff be authorized to extend the initial one-year term up to the maximum total term of five years, for the maximum total amount of \$445,308, as described in the report titled "Award of Contract 8225Q – Bike Reuse Pilot Program” dated May 14, 2024, from the Director, Public Works Operations.

DEFEATED

Opposed: Cllrs. Au, Day, Heed, and Loo

It was moved and seconded

That one-time funding of \$91,000 from the General Solid Waste and Recycling Provision for the Bike Reuse Pilot expenditures be approved and that the Consolidated 5 Year Financial Plan (2024-2028) be amended accordingly.

CARRIED

Opposed: Cllr. Day

4. RICHMOND WATER QUALITY AND CONSERVATION REPORT 2023

(File Ref. No. 10-6000-01) (REDMS No. 7675292)

Discussion ensued regarding a tap map outlining the location of Richmond’s 39 outdoor water fountains located in parks and other public areas providing potable water to the public and the advertisement of fountain locations on a tap map. Also, staff advised that the City is collaborating with TransLink on public awareness of water fountains in transit stations.

It was moved and seconded

(1) That the annual report titled “Richmond Water Quality and Conservation Report 2023” dated May 15, 2024, from the Director of Public Works Operations, be endorsed; and

Public Works & Transportation Committee
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- (2) *That the “Richmond Water Quality and Conservation Report 2023” be made available to the community on the City’s website and through various communication tools including social media channels and as part of community outreach initiatives.*

CARRIED

COUNCILLOR MICHAEL WOLFE

5. **CONNECTING BC**
(File Ref. No.) (REDMS No.)

Discussion ensued regarding the Connecting BC ten-year vision and investment plan for public transit throughout BC.

It was moved and seconded

That the Connecting BC plan be referred to staff for review.

CARRIED

COUNCILLOR CAROL DAY

- 5A. **TEXTILE RECYCLING**
(File Ref. No.) (REDMS No.)

Discussion ensued regarding textile waste in landfills and educating the public on where to recycle textiles in Richmond.

Staff were directed to look into textile recycling options and ways to promote textile recycling to Richmond residents.

6. **MANAGER’S REPORT**

- (i) *Chevron Gas Station at No. 2 Road and Westminster Highway*

Discussion ensued regarding congestion at the intersection of No. 2 Road and Westminster Highway due to surge pricing at the site’s Chevron gas station.

As a result of the discussion, staff were directed to review potential traffic management and enforcement measures, and report back.

ADJOURNMENT

It was moved and seconded

That the meeting adjourn (4:49 p.m.).

CARRIED

Public Works & Transportation Committee
Wednesday, June 19, 2024

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, June 19, 2024.

Councillor Carol Day
Chair

Shannon Unrau
Legislative Services Associate



City of Richmond

Report to Committee

To: Public Works and Transportation Committee

Date: June 17, 2024

From: Lloyd Bie, P.Eng.
Director, Transportation

File: 10-6480-03-01/2024-
Vol 01

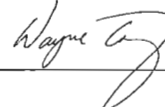

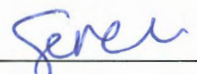
Re: Springfield Drive - Traffic Calming

Staff Recommendation

That the implementation of two speed cushions on Springfield Drive, as described in the staff report titled "Springfield Drive - Traffic Calming" dated June 17, 2024 from the Director, Transportation, be endorsed.

Lloyd Bie, P.Eng.
Director, Transportation
(604-276-4131)

Att. 1

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Engineering Fire Rescue Public Works RCMP	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	
SENIOR STAFF REPORT REVIEW	INITIALS: 	APPROVED BY CAO 

Staff Report

Origin

Residents along Springfield Drive have raised concerns regarding speeding vehicles. This report provides the results of a traffic assessment and the outcome of a residential survey to assess the level of support for speed mitigation along Springfield Drive.

This report supports Council's Strategic Plan 2022-2026 Focus Area #3 A Safe and Prepared Community:

Community safety and preparedness through effective planning, strategic partnerships and proactive programs.

This report supports Council's Strategic Plan 2022-2026 Focus Area #6 A Vibrant, Resilient and Active Community:

Vibrant, resilient and active communities supported by a wide variety of opportunities to get involved, build relationships and access resources.

Analysis

Review of Traffic Calming Request

Springfield Drive is a local street within the neighbourhood north of Steveston Highway and west of No. 1 Road. There is a 50 km/h speed limit on this street.

In January 2024, staff received a request for traffic calming measures along Springfield Drive between No. 1 Road and Fourth Avenue to address vehicle speeding. Further to the request, staff conducted a traffic study and surveyed residents regarding traffic calming on this street.

Speed Study and Crash History

A traffic study was performed to assess the site conditions and quantify operational and safety related concerns including:

- **Traffic Speed Study:** Counts were conducted from February 26 to March 4, 2024 on Springfield Drive. The results indicated over-speeding with an 85th percentile speed of 53 km/h and 89 km/h in the westbound and eastbound directions, respectively.
- **Collision History:** The most recent five-year ICBC data (2018-2022) recorded two vehicle incidents on Springfield Drive. One incident involved a cyclist.

Proposed Traffic Calming Measure

Options for traffic calming on Springfield Drive were reviewed in consideration of roadway geometry, driveway spacing and consultation with Richmond Fire-Rescue.

Speed cushions were determined as the appropriate traffic calming measure to reduce vehicle speeds on Springfield Drive. Speed cushions are similar to speed humps and include cut-outs for passage by fire trucks.

The City has pre-fabricated speed cushions that have proved to be effective during a pilot project on Kittiwake Drive. Staff recommend installing these cushions on Springfield Drive to assess their effectiveness.

Residential Survey

From May 9 to May 31, 2024, residents of Springfield Drive were surveyed to determine the level of support for the proposed pre-fabricated speed cushions (Figure 1).



Figure 1: Proposed Speed Cushions

A total of 39 surveys were mailed to each discrete address; 22 responses were received for a 56 per cent response rate.

Figure 2 provides a breakdown of the survey results. 86 per cent of respondents or 49 per cent of total dwellings on Springfield Drive support the speed cushions.

Next Steps

As the results of the traffic study demonstrates speeding on Springfield Drive, intervention to reduce vehicle speeds are recommended.

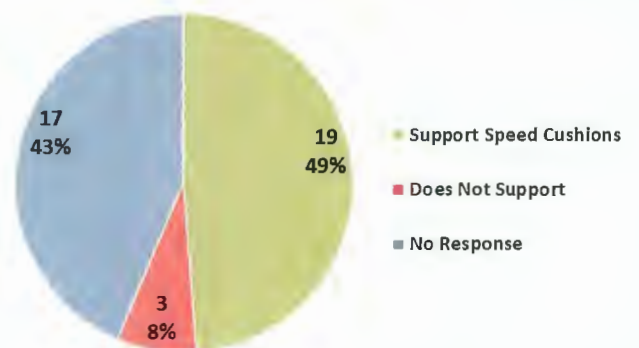


Figure 2: Springfield Drive Traffic Calming Survey Results

Council Policy 7018 (Attachment 1) indicates the Director, Transportation may implement traffic calming measures, without reference to Council, if the measure has the support of the majority of affected residents and the measures are on a local street. As the proposed speed cushions did not have the majority of support by all residents on Springfield Drive (49 per cent of addresses or 86 per cent of respondents), Council approval is required.

Financial Impact

The cost to implement the pre-fabricated speed cushions is \$2,000, which can be funded by the approved 2024 Traffic Calming Program.

Conclusion

Implementation of traffic calming measures on local streets in the City is an inclusive and community-driven program. Following concerns from area residents regarding vehicle speeds on Springfield Drive, a traffic study confirmed speeding. A residential survey resulted in support by 86 per cent of respondents and 49 per cent by all households for the installation of two pre-fabricated speed cushions on Springfield Drive.

Staff recommend installing the speed cushions for three months on Springfield Drive to discourage speeding. The improvements to traffic safety and any feedback from residents will be monitored. Upgrade to asphalt speed cushions will occur following the three month period provided the speed improvements are achieved and there are no concerns from residents.



Sonali Hingorani, P. Eng.
Manager, Transportation Planning and New Mobility
(604-276-4049)

SH:ck

Att. 1: Policy Manual 7018



Page 1 of 1

**Traffic Calming Related Measures – Approval Process for
the Implementation of** **Policy 7018**

Adopted by Council: October 15, 2002

POLICY 7018:

It is Council policy that:

1. The Director, Transportation may implement traffic calming measures, without reference to Council, where the proposed project meets all of the following conditions:
 - a) has the support of the majority of residents affected by the project; and
 - b) will be implemented on a local street or laneway (regardless of whether or not the project involves physical changes to the lane).
2. Where all of the above conditions are not met, or where any of the following conditions apply, Council approval for the implementation of traffic calming measures must be obtained if such project:
 - a) is controversial within the neighborhood affected; or
 - b) requires additional funding beyond the program or project budget for the current year.



City of Richmond

Report to Committee

To: Public Works and Transportation Committee

Date: June 26, 2024

From: Lloyd Bie, P. Eng.
Director, Transportation

File: 10-6500-01/2024-Vol
01

Re: Steveston Village Lane Parking

Staff Recommendations

1. That parking be established in lanes within Steveston Village as outlined in the report titled "Steveston Village Lane Parking" dated June 26, 2024 from the Director, Transportation;
2. That a permit parking pilot program be implemented as outlined in Option 3 in the report titled "Steveston Village Lane Parking" dated June 26, 2024 from the Director, Transportation;
3. That Traffic Bylaw No. 5870, Amendment Bylaw No. 10585 be given first, second and third readings; and
4. That lanes between Chatham Street and Bayview Street be established as a permit zone in accordance with Traffic Bylaw No. 5870.

Lloyd Bie P. Eng.
Director, Transportation
(604-246-4131)

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Law	<input checked="" type="checkbox"/>	
Community Bylaws	<input checked="" type="checkbox"/>	
Fire Rescue	<input checked="" type="checkbox"/>	
Building Approvals	<input checked="" type="checkbox"/>	
Public Works	<input checked="" type="checkbox"/>	
Finance	<input checked="" type="checkbox"/>	
Engineering	<input checked="" type="checkbox"/>	
SENIOR STAFF REPORT REVIEW	INITIALS: 	APPROVED BY CAO

Staff Report

Origin

At the June 11, 2024 Community Safety Committee meeting, the following referral was made:

That staff review, analyze and assess parking in Steveston lanes to determine when and what circumstances and conditions that parking in lanes can occur, and report back.

This report responds to this referral.

This report supports Council's Strategic Plan 2022-2026 Focus Area #1 Proactive in Stakeholder and Civic Engagement:

Proactive stakeholder and civic engagement to foster understanding and involvement and advance Richmond's interests.

A separate referral was made for staff to complete a comprehensive parking study for the Steveston Townsite. Staff will respond to this referral as part of a separate report.

Analysis

Parking within Lanes

Six lanes currently service the commercial area within Steveston Village. These lanes serve multiple purposes including providing two-way vehicular access to parking lots, housing underground utilities to support adjacent buildings, facilitating commercial loading, waste collection, emergency service access and pedestrian access. Parking is currently not permitted within these lanes.

Staff have assessed potential locations where parking may be formalized without impeding the lanes' intended functions. Locations are selected to ensure there is no conflict with truck manoeuvring, parking and building accesses, waste collection areas, utility servicing access, existing infrastructure and loading zones. Approximately 16 parking stalls can be introduced as shown in Figure 1.



Figure 1: Potential Parking Stall Locations within Steveston Village Lanes

Should Council endorse formalizing parking within these lanes, staff will engage with business owners to ensure the proposed parking locations do not impede business operations prior to implementation.

Permit Pilot Program for Lane Parking Stalls

The City’s Traffic Bylaw No. 5870 limits on-street parking between 8:00 a.m. and 6:00 p.m. to 3 hours except for residents or employees of businesses fronting the stalls. To address concerns from business owners regarding a 3-hour time limit, staff have assessed options for a permit parking pilot program to provide all-day parking for business owners and their employees within parking stalls established in the lanes.

Staff recommend that fees associated with this program be consistent with the general City-wide on-street parking permit rate of \$54.00 per calendar month, as established through the City’s Consolidated Fees Bylaw No. 8636. The proposed pilot program would extend for one year. Businesses can subscribe on a monthly basis; however, a 10 per cent discount is available for applications for 11 or more permits (e.g. through an annual application).

Option 1 – No Parking Permits

Through this option, no parking permits are offered for parking stalls in lanes. Business owners and their employees can park for a full day if they are utilizing parking adjacent to their property. Otherwise, parking is limited to a 3-hour duration during the day. The stalls will be available to all users, including business owners, employees and visitors. Because lane parking cannot be accommodated adjacent to all businesses, some businesses will have access to full day parking while others will not, resulting in inequity amongst business owners.

Option 2 – Guaranteed Parking for Permit Holders for Lane Parking

Through this option, the number of permits issued would be limited to the number of stalls available. Permits will be issued on a lottery basis if interest exceeds the number of available stalls, and each business owner will be limited to a maximum of one permit only. All lane parking will be signed to restrict use to permit holder only, as shown in Figure 2.

This option guarantees a parking stall for permit holders, but only select business owners will have access to a permit. Utilization of parking stalls will not be optimized, as stalls will remain empty when a permit holder is not occupying the spot.



Figure 2: No Parking Except with Permit

Option 3 – Parking Permits for all Interested Business Owners (Recommended)

Through this option, parking permits are made available to all interested business owners. Business owners will be notified of this opportunity by mail. Lane parking will be signed to restrict use to permit holders only as shown in Figure 2. This option does not guarantee a parking stall for permit holders, but all business owners will have equal access to a permit. If all lane parking stalls are occupied, a permit holder will be required to use other parking within Steveston and comply with any relevant time restrictions. As the number of permit holders are anticipated to exceed the number of stalls available, the stalls will also be better utilized compared with Option 2.

Recommended Option

Staff recommend that a pilot permit parking program be implemented for one year to provide an option for business owners to have access to full-day parking. Staff recommend Option 3 – that lane parking be signed for use by permit holders only. Parking permits will be made available to all interested business owners. This option is the most equitable and optimizes use of the established parking stalls.

Council endorsement is required to implement the permit system. To implement lane parking in a timely manner, staff recommend endorsement of the recommended permit program with stakeholder engagement occurring during the one-year pilot period. Alternatively, staff can perform the stakeholder engagement in advance of the implementation, however, this would defer the implementation until Q4, 2024.

Staff will engage with business owners on the location of the lane parking spots prior to implementation, as staff has discretion in this regard provided the attached Amendment Bylaw is in place.

This pilot will allow the City to assess the level of interest in a permit parking program. Results of the pilot program, stakeholder consultation and recommendations will be reported to Council at the end of the pilot program.

Amendments to Traffic Bylaw No. 5870

Proposed Amendments to Permit Parking in Lanes

Traffic Bylaw No. 5870 regulates parking within City property. Parking within lanes is not currently permitted except for commercial loading purposes. Staff recommend that Traffic Bylaw No. 5870 be amended to allow parking within lanes where it is designated by signs and road markings, and to prohibit the unauthorized placement of signage or markings that imitates City traffic control devices.

Proposed Amendments to Facilitate Permit Parking

Traffic Bylaw No. 5870 currently limits paid parking and permit parking to a City Centre Parking Management Zone. In order to facilitate permit parking within Steveston Village, staff recommends removing the City Centre Parking Management Zone to allow permit parking outside of this area. The authority to designate areas as paid parking zones and permit zones within the City remains at Council's discretion per the current bylaw. Staff recommend that Council designate lanes between Chatham Street and Bayview Street be established as a permit zone in accordance with Bylaw No. 5870 to facilitate this pilot.

Financial Impact

The cost for signage installation to establish lane parking is approximately \$7,000. This cost can be accommodated through existing Council-approved capital budgets (2024 Annual Asphalt Re-Paving Program – Non-MRN). Ongoing operating impacts of new infrastructure will be reviewed through future budget processes.

Staff anticipates that revenues for the permit program will be sufficient in offsetting operating costs associated with implementation of a pilot program, which will include stakeholder engagement, administration and enforcement. Staff will assess budget impacts upon completion of the program based on program uptake and administration needs at the end of the pilot and will provide recommendations based on the results of this assessment.

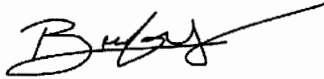
Conclusion

Staff have reviewed potential opportunities to establish parking within Steveston's lanes. Approximately 16 parking stalls can be formalized. Staff also recommend that a one-year permit parking pilot program be implemented to allow all-day parking on the proposed lane parking stalls for business owners and their employees.

June 26, 2024

- 6 -

Staff will engage with businesses owners as part of implementation of the program, and will report back to Council as needed through the pilot and near the end of the pilot on further recommendations.

A handwritten signature in black ink, appearing to read 'Beata Ng', with a long horizontal stroke extending to the right.

Beata Ng, P. Eng.
Manager, Transportation Development and Design
(604-247-4627)

BN:ck



**Traffic Bylaw No. 5870
Amendment Bylaw No. 10585**

The Council of the City of Richmond enacts as follows:

1. **Traffic Bylaw No. 5870**, as amended, is further amended by:
 - a. Adding the following to Section 11:

“11.3 No person shall place, maintain or display upon or in view of any **street** any unauthorized sign, signal, marking or device which purports to be, or is in imitation of or resembles any **traffic control device**.

11.4 No person shall move, remove, deface, damage or alter, nor obstruct the view of, or otherwise interfere with any authorized **traffic control device**.
 - b. Deleting subsection 12.4(a) in its entirety and replacing it with the following:

“(a) in or upon any lane, except:
 - i. for commercial vehicles engaged in loading or unloading of materials for a period of time not to exceed 30 minutes; or
 - ii. where parking is designated by signage and/or road markings.”
 - c. Deleting subsection 12A.1 in its entirety and replacing it with the following:

“12A.1 Certain areas may be designated by Council as **block meter zones**.”
 - d. Deleting subsection 12B.1 in its entirety and replacing it with the following:

“12B.1 Certain areas may be designated by Council as **permit zones**.”
 - e. Deleting Schedule K in its entirety.

This Bylaw is cited as “**Traffic Bylaw No. 5870, Amendment Bylaw No. 10585**”.

FIRST READING

SECOND READING

THIRD READING

ADOPTED

MAYOR

CORPORATE OFFICER

CITY OF RICHMOND
APPROVED for content by originating dept. <i>US</i>
APPROVED for legality by Solicitor <i>LB</i>



City of Richmond

Report to Committee

To: Public Works and Transportation Committee **Date:** June 12, 2024
From: Milton Chan, P.Eng
Director, Engineering **File:** 10-6000-01/2024-Vol 01
Re: Fraser River Freshet and Flood Protection Update 2024

Staff Recommendation

That the staff report titled “Fraser River Freshet and Flood Protection Update 2024”, dated June 12, 2024, from the Director, Engineering be received for information.

Milton Chan, P.Eng
Director, Engineering
(604-276-4377)

Att. 2

REPORT CONCURRENCE		
ROUTED TO: Public Works	CONCURRENCE <input checked="" type="checkbox"/>	CONCURRENCE OF DEPUTY CAO
SENIOR STAFF REPORT REVIEW	INITIALS: 	APPROVED BY CAO

Staff Report

Origin

This report provides Council with a summary of the 2024 Fraser River freshet, along with an update on 2023 rainfall statistics and ongoing works regarding the City's flood protection program.

As detailed in the Flood Protection Management Strategy 2019, the City of Richmond is situated approximately 1.0 metre above sea level and flood protection is integral to protecting the health, safety, and economic viability of the City. Richmond is protected from flooding by infrastructure that includes 49 kilometres of dikes, 598 kilometres of drainage pipes, 61 kilometres of culverts, 155 kilometres of watercourses and 39 drainage pump stations.

This report supports Council's Strategic Plan 2022-2026 Focus Area #3 A Safe and Prepared Community:

Community safety and preparedness through effective planning, strategic partnerships and proactive programs.

3.1 Advance proactive, sustainable, and accelerated flood protection in collaboration with other governments and agencies.

3.3 Ensure the community is collectively prepared for emergencies and potential disasters.

3.4 Ensure civic infrastructure, assets and resources are effectively maintained and continue to meet the needs of the community as it grows.

Analysis

2024 Fraser River Freshet

In recent years, extended periods of drought conditions have occurred throughout the Province due to climate change, which has contributed to reduced snow depth levels in southern BC. For 2024, the Province has advised that average provincial snowpack levels were 57% of normal as of June 1, 2024. This has led to a reduced spring freshet with river flows below a 1-year return period. Low flows in the Fraser River are anticipated to continue into June and based on snow melt conditions and the level of remaining snow, it is anticipated that freshet flows are currently at or near the peak for the year.

The City's diking system is built to withstand a 500-year return period freshet event and no flooding has occurred in Richmond during the 2024 freshet. The City continues to be a leader in flood protection planning and mitigation through Council-endorsed capital projects and the annual dike maintenance program. Predicted climate change impacts, which include more extreme wet and dry weather events, could result in an increased variability in freshet flows in the future. This reinforces the need for the City's continued flood protection upgrade program.

2023 Rainfall

Significant Rainfall Events

Rainfall highlights for 2023 include the following:

- The City received approximately 1,015 mm of rainfall in 2023, which was 19% lower than the average annual rainfall over the last 10 years;
- December was the wettest month of the year, with 246 mm of rainfall measured at the Fire Hall No. 7 rain gauge, which accounted for 24% of the total rainfall measured at Fire Hall No. 7; and
- Six significant rainfall events with return periods of two years or greater were recorded in 2023. The most significant event had a 10-year return period, with 73 mm of rainfall over 24 hours.

The City's drainage system is designed to withstand a 10-year return period rainfall event. The drainage system performed well during winter rainfall events. The total annual rainfall over the last 10 years is included in Attachment 1.

Drainage System Performance

273 service requests related to drainage issues were recorded by Public Works in 2023. This was lower than the average annual number of service requests received over the last 10 years, as identified in Attachment 2.

November 2021 'Atmospheric River' Initiatives

Since the November 2021 'Atmospheric River Event', staff have undertaken a number of initiatives to assess and improve the City's drainage system based on observations and data collected from the event. Some of the completed initiatives include the following:

- Large-scale maintenance activities for canals and drainage pipes in the Horseshoe Slough catchment to significantly improve flow in the area;
- Construction of site drainage improvements and relocation of electrical equipment for the Edgemere Sanitary Pump Station;
- Development of a sandbag staging and distribution program to help protect private properties from potential localized flooding during extreme weather events; and
- Upgrades to fuel supply infrastructure at the City Works Yard, including underground conduit repairs, installation of rain covers, and replacement of fuel dispensers.

Some of the ongoing initiatives include the following:

- Monitoring the results of maintenance activities in the Horseshoe Slough catchment;
- Coordinating with the Province on field testing and assessment of drainage infrastructure at the Highway 99/91 interchange to identify drainage patterns and potential capacity issues and requesting that this area be included for drainage upgrades as part of the George Massey Tunnel Replacement Project; and
- Development of specifications for acquiring fueling trucks and resources to provide access to independent portable fuel supplies during extreme weather events.

Staff will continue to implement flood protection infrastructure upgrades and emergency response protocols to enhance the City's flood resilience during extreme weather events.

2023/2024 Winter Storm Events

Seasonal high tides and king tides were not significant over the winter, and the City's diking system performed well. Erosion and debris run up continue to be addressed as part of the dike maintenance program.

Infrastructure Improvements

The City's flood protection system has a replacement value of \$3.6 billion, comprised of an extensive drainage network and 49 kilometres of perimeter dike. Staff are continuously upgrading and improving flood protection infrastructure to address the impacts of growth, infrastructure age and climate change.

Capital Dike Upgrades

Current climate change science estimates that sea levels will rise approximately 1.0 metre by the year 2100 and 0.2 metres of land subsidence will occur over the same time period. The City's Flood Protection Management Strategy is the guiding framework for continual upgrades and improvements to the City's flood protection system. A key action identified in the City's Flood Protection Management Strategy is to continue raising the City's perimeter dike to 4.7 metres in advance of climate change induced sea level rise.

The following dike improvement projects have been approved through the capital budget and are progressing:

- Design of north dike upgrades between Lynas Lane and No. 2 Road;
- Design of south dike upgrade between No. 4 Road and No. 5 Road; and
- Design of south dike upgrade between No. 2 Road and Gilbert Road.

Funding to construct dike upgrades will continue to be secured through proposed capital projects, which will be brought forward for Council's consideration as part of the annual budget process.

Dike Rehabilitation

Staff have implemented annual inspection and maintenance programs to ensure that the City's dikes are well-protected against issues such as erosion and seepage. Notable inspection and maintenance work completed this year includes the following:

- Responded to 6 high water events over 29 days of patrols;
- Installed new stairs at Lynas Lane and River Road to improve pedestrian accessibility to the north dike;
- Installed 1300 metres of rip rap armoring at various sections of dike throughout the City to reinforce the water side dike slope;
- Installed 5 new gates at dike access points to improve dike access for maintenance activities, dike patrols and emergency situations; and
- Removed 320 tonnes of large, woody debris from shorelines at various sections of dike throughout the City to avoid impacts to rip rap and dike slope stability.

Pump Station Upgrades

Significant progress has been made in upgrading the City's drainage pump stations to accommodate growth and climate change. The total capacity of the City's drainage pump stations has increased by 30% since 2005.

Over the last 20 years, the City has rebuilt or upgraded 19 of its 39 drainage pump stations. Upcoming drainage pump station upgrade projects include the No. 3 Road South and No. 9 Road-Westminster Highway Pump Stations.

During extreme events, a number of older pump stations operate near full capacity. These stations have been identified to require upgrades through capacity analyses. Projects to upgrade or replace these stations are either included in current capital budgets or will be brought forward for Council's consideration as part of future capital budgets.

Box Culvert Repair and Preventative Maintenance

The City has approximately 61 kilometres of culverts, the majority of which are 40 to 50 years in age. Although the box culverts have a design life of 100 years, premature failure of some joints has been observed in recent years.

The City has implemented a preventative box culvert maintenance program to inspect the condition of box culverts and identify sections that require repair or replacement on a 7-year cycle. Staff are proactively managing the condition of box culverts by identifying and repairing deteriorating joints before they cause significant damage. Repair of significant defects identified through the program will continue to be presented to Council for consideration as part of the annual capital budget.

Staff inspected 11.9 kilometres of box culverts within 17 drainage catchments in 2023. Results of each inspection are documented through written reports as well as images and video records. This allows staff to monitor changes to the condition of box culverts, thereby better informing long-term infrastructure improvement planning. In 2023, no significant defects were encountered and all minor defects that were identified have been repaired.

Design for the rehabilitation of the No. 4 Road box culvert from Granville Avenue to Alderbridge Way has been completed. The rehabilitation will include conventional methods along with injection grouting to prevent infiltration into the box culvert and fill potential voids on the outside of the box culvert. Construction for the section of box culvert between Westminster Highway and Alderbridge Way is anticipated to begin in summer 2024. The rehabilitation will help mitigate the deterioration of the box culvert joints and extend the service life of the box culvert.

The Woodward's Slough, Green Slough, Shell Road North, and No. 4 Road North drainage catchment areas are scheduled for inspection in 2024.

Development

The City has successfully partnered with developers to secure dike upgrades through development. In particular, the City is actively pursuing opportunities to construct superdikes, where land supporting development behind the dike is filled to the same elevation as the dike crest. This eliminates visual impacts of a raised dike structure on waterfront views, while providing an enhanced flood protection structure for the City.

Superdikes, constructed through development to date, include sections of dike near the Richmond Olympic Oval, along the north dike near No. 4 Road, along the south dike at Riverport Way, and in Steveston. Superdike construction is underway by Western-Citimark and Vancouver Airport Fuel Facility Corporation.

Financial Impact

None.

Conclusion

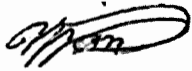
The City observed the second lowest annual rainfall over the last 10 years in 2023 and below average freshet flows in the spring of 2024. The drainage and flood protection system performed well, with negligible freshet flood risk and a below average number of drainage-related service requests.

Demands on the drainage and flood protection system will continue to increase due to climate change and growth. The Flood Protection Management Strategy guides the City to proactively forecast, plan, and improve the City's flood protection system to meet long-term requirements. Through capital improvements and investment in preventative maintenance programs, the City is able to manage flooding risks and maintain a high level of service to Richmond residents.

June 12, 2024

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Significant progress continues to be made in advancing the City's dike planning efforts and implementing infrastructure improvements to the City's flood protection system.



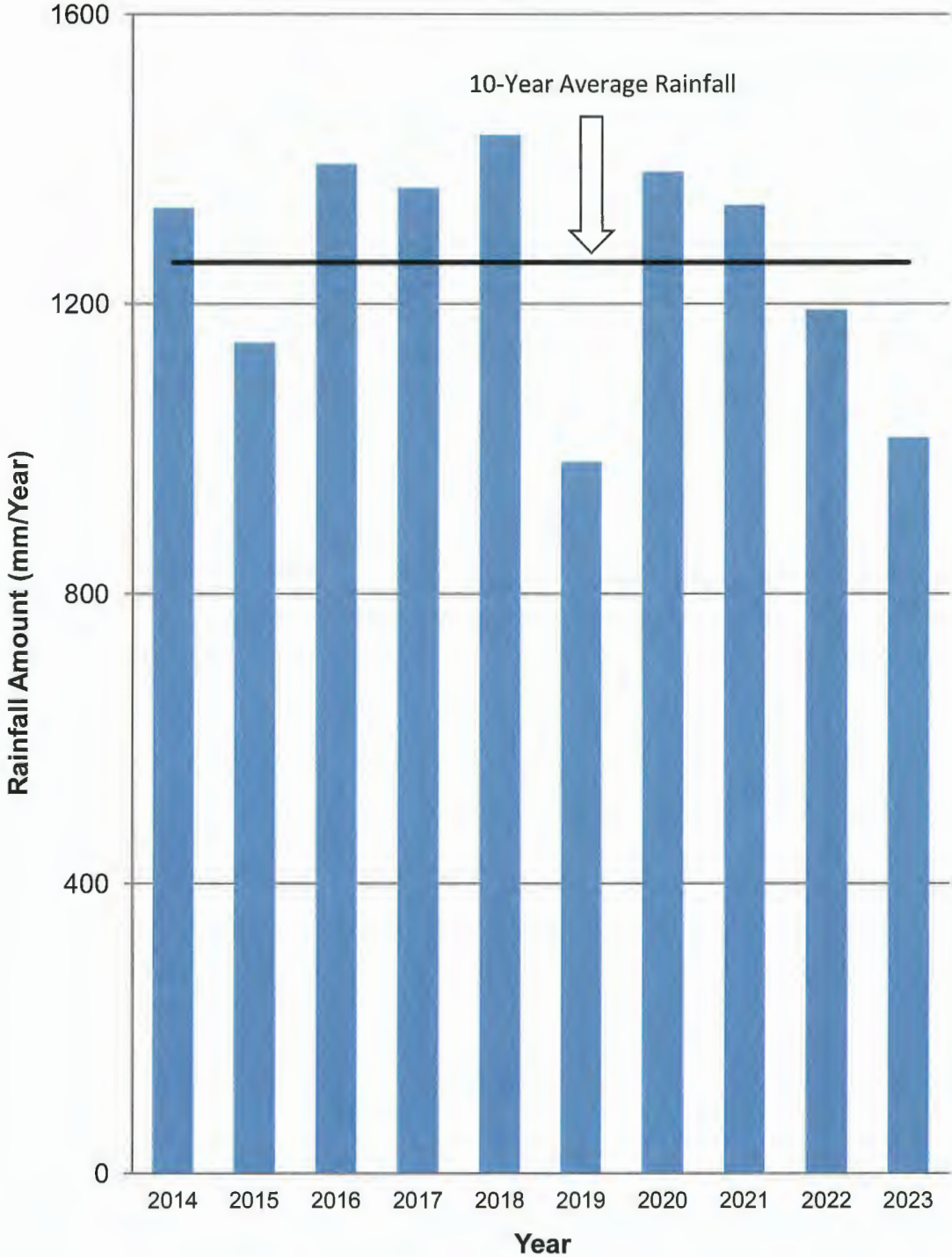
Manraj Gill, EIT
Senior Project Manager, Engineering Planning
(604-247-4460)



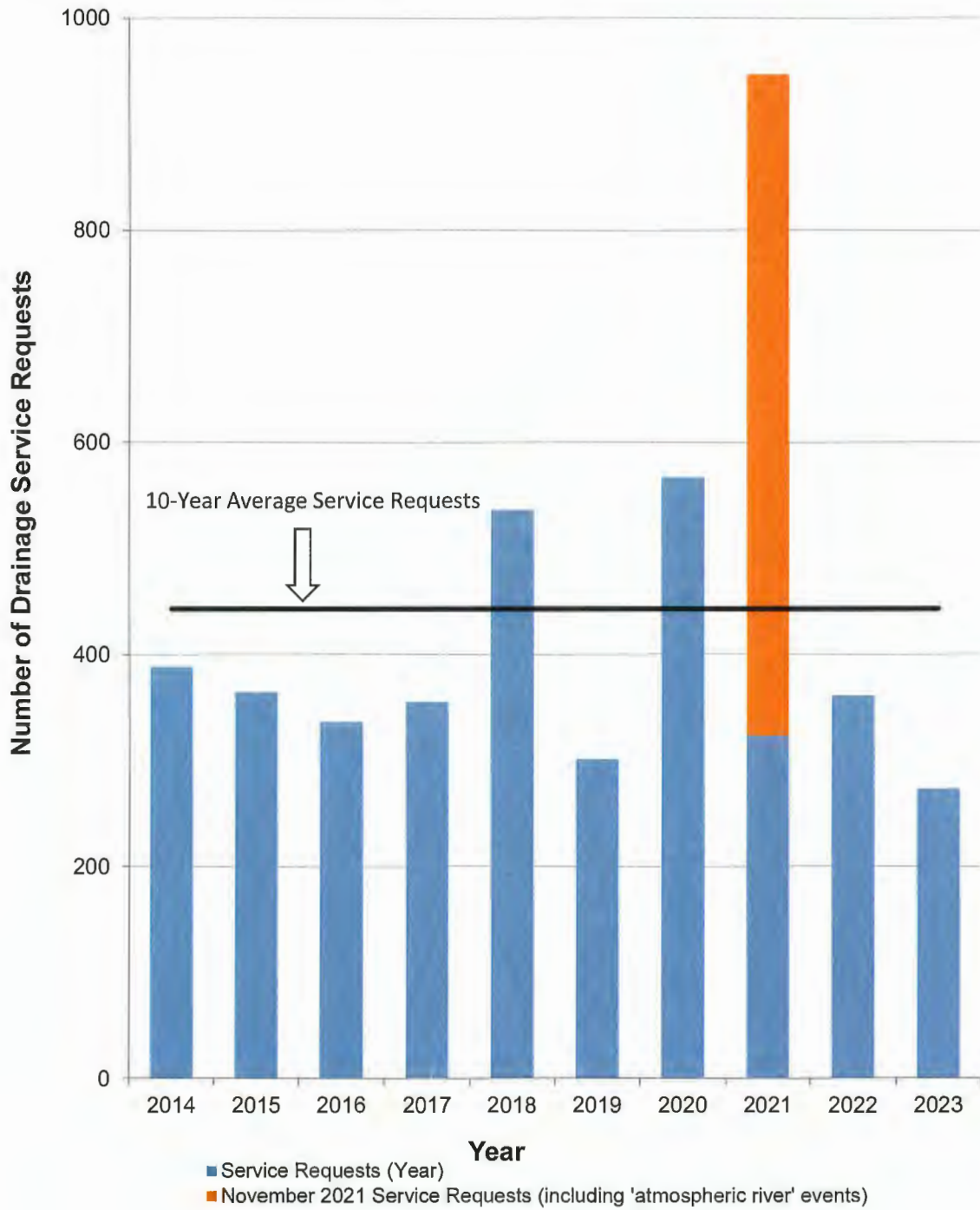
Angelica Quiring, EIT
Project Manager, Engineering Planning
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- Att. 1: Annual Rainfall Data 2014 - 2023
- 2: Annual Drainage Service Requests 2014 - 2023

Annual Rainfall Data 2014-2023



Annual Drainage Service Requests 2014-2023





City of Richmond

Report to Committee

To: Public Works and Transportation Committee **Date:** June 12, 2024
From: Suzanne Bycraft **File:** 10-6370-01/2024-Vol
 Director, Public Works Operations 01
Re: **Award of Contract 8321NOITC – Mattress and Upholstered Furniture
 Recycling Services**

Staff Recommendations

1. That Contract 8321NOITC – *Mattress and Upholstered Furniture Recycling Services* be awarded to Pacific Mattress Recycling Inc. at an estimated total contract value of \$1,961,629.39 over a maximum five-year term;
2. That the Chief Administrative Officer and General Manager, Engineering & Public Works be authorized to negotiate and execute a service contract with Pacific Mattress Recycling Inc. incorporating the key terms outlined in the staff report dated June 12, 2024; and
3. That a Change Order for contract 6205P – *Residential Solid Waste Collection and Recycling Services* with Sierra Waste Services Ltd. be issued to include cross-docking and transportation fees for mattresses and upholstered furniture at the unit prices quoted at an additional annual estimated cost of \$203,938.85.

Suzanne Bycraft
 Director, Public Works Operations
 (604-233-3338)

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

Staff Report

Origin

As a component of its comprehensive recycling program, the City provides services to collect mattresses and furniture items through its Large Item Pick Up program as well as accepting upholstered furniture at the City’s Recycling Depot (“Depot”). The Large Item Pick Up program was approved by Council on November 26, 2012 in response to the Metro Vancouver Disposal Ban on mattresses in the landfill. Council further approved acceptance of upholstered furniture for recycling at the Depot on October 9, 2018.

This report presents the results of the procurement process to provide mattress and upholstered furniture recycling processing services and recommends the award of a contract for a maximum five-year term to Pacific Mattress Recycling Inc.

This report supports Council’s Strategic Plan 2022-2026 Focus Area #5 A Leader in Environmental Sustainability:

Leadership in environmental sustainability through innovative, sustainable and proactive solutions that mitigate climate change and other environmental impacts.

5.1 Continue to demonstrate leadership in proactive climate action and environmental sustainability.

5.3 Encourage waste reduction and sustainable choices in the City and community.

Background

The City is currently under contract 6509P – *Mattress and Upholstered Furniture Recycling Services* with Canadian Mattress Recycling Inc. (“Canadian Mattress”) which is due to expire on October 31, 2024. The scope of materials for this service includes processing and recycling of mattresses, box springs, and upholstered furniture items such as office or dining chairs, armchairs, recliners, loveseats, couches, reclining couches, sectionals, sofa-beds and ottomans. Materials under this contract are transported by the City’s collection service provider, Sierra Waste Services Ltd. (Sierra Waste) under Contract 6205P – *Residential Solid Waste and Recycling Services*. During the last five years, the City has been able to recycle 82,657 items as shown in Table 1.

Table 1: Mattresses and Upholstered Furniture Recycling Quantities

	2019	2020	2021	2022	2023	Total
Mattresses & box springs	3,876	4,782	5,528	3,958	3,718	21,862
Upholstered furniture	8,873	10,100	16,824	12,983	12,015	60,795
Total Items	12,749	14,882	22,352	16,941	15,733	82,657
Total Tonnes	294.53	433.37	524.16	389.69	370.18	2,011.93

Up until January 31, 2024, Canadian Mattress was located on Annacis Island in Delta, BC. On January 19, 2024 the City was notified that Pacific Mattress Recycling Inc. (“Pacific Mattress”) and Canadian Mattress would be merging and all operations would move to Hope, BC, doing business as Pacific Mattress. This change became effective February 1, 2024.

8321 NOITC – Mattress and Upholstered Furniture Recycling Services

With this merger, Pacific Mattress is the only known provider of mattress and upholstered furniture processing and recycling services in the Lower Mainland. Due to this, the City issued a Notice of Intent to Contract (“NOITC”) on BC Bid on April 3, 2024 to notify the market of its intent to enter into an maximum five-year contract with Pacific Mattress which closed on April 17, 2024. No challenges were received during the posting period. As a result, Staff entered into negotiations with Pacific Mattress to negotiate the commercial terms for a new contract. Based on per unit pricing, it is estimated that the contract value will be \$1,961,629.39 over the maximum five-year term as outlined in Table 2.

Table 2: Estimated Five Year Contract Value

Recycling and Processing	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Mattresses & box springs	\$67,392.00	\$67,392.00	\$67,392.00	\$70,087.68	\$72,890.48	\$345,154.16
Upholstered furniture	\$280,800.00	\$280,800.00	\$280,800.00	\$292,032.00	\$303,713.28	\$1,438,145.28
Total	\$348,192.00	\$348,192.00	\$348,192.00	\$362,119.68	\$376,603.76	\$1,783,299.44
Contingency 10%	\$34,819.20	\$34,819.20	\$34,819.20	\$36,211.97	\$37,660.38	\$178,329.95
Total	\$383,011.20	\$383,011.20	\$383,011.20	\$398,331.65	\$414,264.14	\$1,961,629.39

The key terms of the service contract will include:

1. *Services:* Processing and recycling of in-scope mattresses, box springs and upholstered furniture which includes evaluation of materials for the purpose of donation or reuse.
2. *Term:* The initial term of the contract is three years, renewable up to two additional one-year terms, for a maximum term of five years.
3. *Unit price contract:* Costs are based on a per unit amount as quoted for recycling of mattresses, box springs and upholstered furniture. Total value will vary based on the total number of items collected and received through the City’s recycling service programs.
4. *Escalation:* Provisions for years 4 and 5 to be negotiated at amounts not to exceed the annual consumer price index for Vancouver for the prior year.
5. *Transportation:* The City is responsible for delivering materials direct to the Contractor’s recycling facility located in Hope, B.C. Transportation costs to be borne by the City.
6. *Reporting:* Contractor to provide monthly diversion report which includes quantities and tonnage for items recycled.

Transportation

To minimize the cost impact associated with transporting these materials to the Hope facility, alternative arrangements are required to consolidate and cross-dock items in a 53' trailer at the City Works Yard for subsequent transport to Hope. These items are collected by Sierra Waste on behalf of the City under Contract 6205P through the Large Item Pick Up program and through upholstered furniture dropped off at the Depot by residents.

As the Annacis Island location is now closed, the City requires Sierra Waste to consolidate and cross-dock the items from their smaller collection vehicles and from the Depot into the 53' trailer. To maintain operational efficiency, decrease additional handling through a third party, and streamline logistics for this consolidation and transportation, the City sought pricing from Sierra Waste to provide the added scope of services required to handle the consolidation and transportation of the items to Hope.

Staff are therefore requesting authority for Sierra Waste to provide the consolidation and additional transportation at a per unit rate at an estimated incremental annual cost of \$203,938.85, subject to annual increases, in the award of contract to Pacific Mattress. If approved, staff will issue a Change Order to Contract 6205P to reflect this work.

Financial Impact

The total value of the processing contract with Pacific Mattress over the maximum available five-year term is estimated at \$1,961,629.39 and incremental annual transportation costs are estimated to be \$203,938.85 with Sierra Waste. This is a unit price contract that is dependent on the total number of items collected and received through the City's recycling service programs, therefore amounts will vary.

Required funding amounts for the recycling processing services under this contract are included in the annual Sanitation and Recycling Utility budget and rates. The additional transportation costs can be accommodated from savings realized under a separate service contract within the Sanitation and Recycling Utility budget and reported previously to Council.

Conclusion

This report presents the results of *8321 NOITC – Mattress and Upholstered Furniture Recycling Services*. It is recommended that the contract be awarded to Pacific Mattress Recycling Inc. at the unit rates quoted for a maximum five-year term commencing August 1, 2024 and the Chief Administrative Officer and General Manager, Engineering & Public Works be authorized to negotiate and execute a service contract with Pacific Mattress Recycling Inc. based on the key terms as outlined.

This report further recommends that a Change Order be issued for contract *6205P – Residential Solid Waste Collection and Recycling Services* with Sierra Waste Services Ltd. for the associated material consolidation and transportation costs.

June 12, 2024

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The provision of these services aligns with the Metro Vancouver Disposal ban on mattresses and maintains service levels previously approved by Council.



Kristina Nishi
Manager, Recycling and Waste Recovery
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