



**Public Works and Transportation Committee
Electronic Meeting**

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

**Wednesday, January 22, 2025
4:00 p.m.**

Pg. # ITEM

MINUTES

PWT-3 *Motion to adopt the **minutes** of the meeting of the Public Works and Transportation Committee held on December 18, 2024.*



NEXT COMMITTEE MEETING DATE

February 19, 2025, (tentative date) at 4:00 p.m. in the Anderson Room.

AGENDA ADDITIONS AND DELETIONS

ENGINEERING AND PUBLIC WORKS DIVISION

- 1. PROPOSED SPEED MITIGATION MEASURES ON DYKE ROAD AND LONDON/PRINCESS AREA**
(File Ref. No. 10-6450-15-01) (REDMS No. 7859884)

PWT-7

See Page PWT-7 for full report

Designated Speaker: Sonali Hingorani

STAFF RECOMMENDATION

- (1) *That Option 2 to reduce the posted speed limit on Dyke Road from 50 km/h to 30 km/h as described in the staff report titled “Proposed Speed Mitigation Measures on Dyke Road and London/Princess Area”, dated December 12, 2024 from the Director, Transportation be endorsed;*
- (2) *That Option 3 to implement the physical traffic calming measures as described in the staff report titled “Proposed Speed Mitigation Measures on Dyke Road and London/Princess Area”, dated December 12, 2024 from the Director, Transportation be endorsed; and*
- (3) *That Traffic Bylaw No. 5870, Amendment Bylaw No. 10623, to revise the posted speed limit be introduced and given first, second and third readings.*

2. **TRASH SKIMMING DEVICE PILOT PROJECT UPDATE**

(File Ref. No. 10-6370-01) (REDMS No. 7907814)

PWT-15

[See Page PWT-15 for full report](#)

Designated Speaker: Kristina Grozdanich

STAFF RECOMMENDATION

That the staff report titled, “Trash Skimming Device Pilot Project Update,” dated January 3, 2025, from the Director, Public Works Operations be received for information.

3. **MANAGER’S REPORT**

ADJOURNMENT



Public Works and Transportation Committee

Date: Wednesday, December 18, 2024

Place: Anderson Room
Richmond City Hall

Present: Councillor Carol Day, Chair
Councillor Michael Wolfe
Councillor Chak Au
Councillor Kash Heed (entered the meeting at 4:03 p.m.)
Councillor Alexa Loo

Also Present: Mayor Malcolm Brodie
Councillor Laura Gillanders
Councillor Andy Hobbs (by teleconference)
Councillor Bill McNulty

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 November 20, 2024, be adopted as circulated.

CARRIED

NEXT COMMITTEE MEETING DATE

January 22, 2025, (tentative date) at 4:00 p.m. in the Anderson Room.

DELEGATION

1. Nathan Davidowicz spoke on ameliorating the SkyTrain and bus systems specifically examining funding sources, additional elevators at stations, accessibility of stations, and upgrading bus services.

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Councillor Kash Heed entered the meeting (4:03 p.m.).

Direction was provided to staff to provide Mr. Davidowicz's submission on TransLink.

ENGINEERING AND PUBLIC WORKS DIVISION

2. **TRANSPORTATION DEMAND MANAGEMENT (TDM) RESERVE FUND ESTABLISHMENT**

(File Ref. No. 10-6500-00) (REDMS No. 7836018)

In response to queries from Committee, staff advised that (i) funds collected in the Transportation Demand Management (TDM) reserve fund can be used by the City to support future active transportation programs and infrastructure to promote increased walking and cycling trips in the City, (ii) the staff report outlines a cash-in-lieu option for developers in addition to the TDM measures, and (iii) the proposed change provides developers with options.

It was moved and seconded

- (1) *That the Transportation Demand Management Reserve Fund Establishment Bylaw No.10563 as described in the staff report titled "Transportation Demand Management (TDM) Reserve Fund Establishment" dated November 19, 2024, from the Director, Transportation be introduced and given first, second and third readings; and*
- (2) *That Richmond Zoning Bylaw No. 8500, Amendment Bylaw No. 10616 to include the provision of a Transportation Demand Management Reserve Fund, be introduced and given first reading.*

CARRIED

3. **TRANSLINK 2025 COST-SHARE FUNDING APPLICATIONS – TRANSPORTATION PROJECTS**

(File Ref. No. 10-6500-01) (REDMS No. 7831660)

It was moved and seconded

- (1) *That the submission of road, pedestrian and bicycle improvement projects as part of the TransLink 2025 Cost-Share Programs, as described in the report titled "TransLink 2025 Cost-Share Funding Applications – Transportation Projects", dated November 18, 2024, from the Director, Transportation be endorsed;*

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- (2) *That the Chief Administrative Officer and General Manager, Engineering and Public Works be authorized to execute the successful funding agreements; and*
- (3) *Should the grant applications be successful, the budget of the capital projects will be increased to reflect the external contributions and will be included in a Consolidated 5Year Financial Plan accordingly.*

CARRIED

4. **8205Q - AWARD OF CONTRACT FOR FIVE ELECTRIC ICE RESURFACERS**

(File Ref. No. 02-0780-01) (REDMS No. 7570819)

Staff highlighted that Engo Equipment Sales Ltd. (i) provided multiple demonstrations of their electric ice resurfacer units, (ii) meets all City specifications and had the lowest cost submission, (iii) has the several machine enhancements that other companies do not, and (iv) has the best overall value while meeting Richmond arena's unique operations.

In reply to queries from Committee, staff advised that (i) the old units will be retired and go to auction, and (ii) Engo Equipment Sales Ltd. provides a 2 year warranty for parts and labour for the entire unit and a 5 year warranty for parts and labour for the battery.

It was moved and seconded

- (1) *That Contract 8205Q, for the supply and delivery of five electric ice resurfacers be awarded to Engo Equipment Sales Ltd. for a total cost of \$971,000 excluding taxes as described in the staff report entitled "8205Q – Award of Contract for Five Electric Ice Resurfacers" dated November 7, 2024, from the Director, Public Works Operations;*
- (2) *That staff be authorized to issue change orders as required up to an additional \$50,000 for contingency, for a maximum total value of \$1,021,000, excluding taxes; and*
- (3) *That the Chief Administrative Officer and the General Manager, Finance and Corporate Services be authorized to execute the contracts and all related documentation with Engo Equipment Sales Ltd.*

CARRIED

5. **MANAGER'S REPORT**

None.

Public Works & Transportation Committee
Wednesday, December 18, 2024

ADJOURNMENT

It was moved and seconded
That the meeting adjourn (4:20 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, December 18, 2024.

Councillor Carol Day
Chair

Sarah Goddard
Legislative Services Associate



City of Richmond

Report to Committee

To: Public Works and Transportation Committee **Date:** December 12, 2024
From: Lloyd Bie, P. Eng.
Director, Transportation **File:** 10-6450-15-01/2024-Vol 01
Re: **Proposed Speed Mitigation Measures on Dyke Road and London/Princess Area**

Staff Recommendations

1. That Option 2 to reduce the posted speed limit on Dyke Road from 50 km/h to 30 km/h as described in the staff report titled "Proposed Speed Mitigation Measures on Dyke Road and London/Princess Area, dated December 12, 2024 from the Director, Transportation be endorsed;
2. That Option 3 to implement the physical traffic calming measures as described in the staff report titled "Proposed Speed Mitigation Measures on Dyke Road and London/Princess Area, dated December 12, 2024 from the Director, Transportation be endorsed; and
3. That Traffic Bylaw No. 5870, Amendment Bylaw No.10623, to revise the posted speed limit be introduced and given first, second and third readings.

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

Att. 1

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Engineering	<input checked="" type="checkbox"/>	<i>Debra Zwarg</i>
Public Works	<input checked="" type="checkbox"/>	
RCMP	<input checked="" type="checkbox"/>	
Law	<input checked="" type="checkbox"/>	
Richmond Fire-Rescue	<input checked="" type="checkbox"/>	
SENIOR STAFF REPORT REVIEW	INITIALS: <i>LB</i>	APPROVED BY CAO <i>Severin</i>

Staff Report

Origin

At the May 28, 2024 Parks, Recreation and Cultural Services Committee, the following referral motion was moved and seconded:

That staff investigate the process to reduce the motor vehicle speed to 30km/h along Dyke Road from No.2 Road to No.5 Road.

Staff also received requests from residents on Dyke Road to mitigate observed speeding on the section of Dyke Road between No. 2 Road and No. 3 Road.

This report responds to this referral. The section of Dyke Road between No. 3 Road and No. 5 Road is the subject of a separate report anticipated to be brought forward to City Council in Q1 2025.

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.

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

To assess the need and support for speed mitigation measures, staff undertook the following:

- Speed studies;
- Reviewed collision data; and
- Conducted a public engagement process to receive feedback from the neighbourhood.

Existing Traffic Conditions

Study Area

The study area in Figure 1 focused on the section of Dyke Road between No. 2 Road and No. 3 Road. The roads within this study area are classified as local roads. The default speed limit in the study area is 50 km/h which is the typical speed limit throughout Richmond.



Figure 1: Study Area

Speed Study and Collision History

Further to the request by residents for speed management, staff conducted a traffic study to assess the site conditions and quantify any operational and safety related concerns on Dyke Road including:

Speed Studies: Speed studies were conducted on Dyke Road from March 5 to March 12, 2024. The results indicated an average speed of 51 km/h with 85 per cent of the traffic travelling at or below 60 km/h.

Collision History: The most recent five-year ICBC collision data (2019-2023) recorded 28 vehicle collisions over a five year period on this section of Dyke Road. No incidents involved a pedestrian or cyclist and none of the collisions were related to speeding.

Neighbourhood Engagement

Resident Information Session

Staff held a meeting with area residents on Wednesday, September 4, 2024 at the Steveston Community Centre. Twenty-one residents attended the session. The results of staff's technical assessment along with potential traffic calming measures were presented for feedback.

Stakeholder feedback at the meeting indicated support for:

- 30 km/h speed limit on Dyke Road to support pedestrian crossing movements.
- Expansion of the proposed 30 km/h speed zone within the London/Princess neighbourhood.
- Installation of a raised crosswalk and speed cushions on Dyke Road.

Resident Survey

Residents were surveyed from September 10 to October 20, 2024 to seek feedback on speed limit reduction and interest in potential traffic calming measures.

The engagement process included a Let's Talk Richmond online survey and a letter mail out to 258 discrete addresses in the study area. A total of 137 responses (87 by mail and 50 online) were received for a 53 per cent response rate. Results of the resident survey are summarized in Table 1 below.

Table 1: Resident Survey Feedback

Topic	Survey Results
30 km/h Speed Limit	<ul style="list-style-type: none"> • 71% (97/137) of respondents supported reducing the existing 50 km/h posted speed limit to 30 km/h on all roads in the neighbourhood.
Physical Traffic Calming Measures	<ul style="list-style-type: none"> • 80% (110/137) of respondents supported traffic calming measures.
Combined Approach (30 km/h Speed Limit & Physical Traffic Calming Measures)	<ul style="list-style-type: none"> • 64% (88/137) of respondents were in favour of 30km/h speed limit and physical traffic calming measures.
Additional Traffic-related Feedback	<ul style="list-style-type: none"> • 13% (18/137) of respondents were not in favour of any speed mitigation measures in the neighbourhood.

Speed Management Options

Option 1: Status Quo

While the traffic study and accident data do not support operational changes in the study area, there is a demonstrated desire by a majority of respondents for speed interventions on Dyke Road. As such, staff do not recommend this option.

Option 2: 30 km/h Speed Limit Reduction (Recommended)

This option responds to the residents' interest in a lower speed limit by installing regulatory 30km/h speed limit signage in place of the current 50km/h speed limit. Comments received indicated support for slower vehicle speeds to improve safety for people walking and cycling.

Based on resident feedback in support of the reducing the posted speed limit (71 per cent of respondents), staff recommend this option. Establishing an enforceable 30 km/h speed limit requires Council approval to amend Traffic Bylaw No. 5870.

Option 3: Physical Traffic Calming Measures (Recommended)

This option proposes installation of two asphalt speed cushions and one raised crosswalk on Dyke Road (Attachment 1). A lower profile speed cushion of 7 cm is proposed for these devices. Lower profile speed cushions and raised crosswalks have been successful in addressing vibration and noise emission. These physical measures are effective at achieving speed reduction on streets with lower speed limits.

Based on resident feedback in support of the combined approach involving physical traffic calming measures (80 per cent of respondents), staff recommend the installation of physical traffic calming measures. Council approval for the implementation of this traffic calming measure is required as a simple majority of all residents in the study area was not achieved (43 per cent).

Next Steps

Should Council endorse the recommended speed mitigation measures, implementation of the 30 km/h speed limit signs will be installed following bylaw adoption. A tab will be added to the new signage for the first month to alert motorists of the changes in the area (Figure 2).



Figure 2: New Sign Temporary Tab

Construction of the traffic calming devices will be undertaken in Q1 2025 as weather permits. A Traffic Advisory notice will also be published on the City's website regarding the speed reduction and traffic calming measures in the area.

This section of Dyke Road is identified for future dike upgrades as part of the City's Dike Master Plans to increase the current flood protection needs in this area. Any speed mitigation works endorsed by Council will be integrated into the future dike upgrade project.

Financial Impact

The total estimated cost to implement two asphalt speed cushions, a raised crosswalk and speed limit signage is \$50,000. Funding will be accommodated within the Council approved 2025 Neighbourhood Traffic Calming Program capital project.

Conclusion

Staff assessed speeding and engaged with local residents on potential speed mitigation measures on Dyke Road between No. 2 Road and No.3 Road. A traffic study indicated that no operational changes are required for the streets within the neighbourhood. However, 71 per cent of survey respondents support reducing the posted speed limit to 30 km/h and 80 per cent of respondents support installing traffic calming measures on Dyke Road. As such, staff recommend amendments to Traffic Bylaw No. 5870 and the implementation of 30 km/h speed limit signs on

December 12, 2024

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Dyke Road and the streets within the London/Princess area. Staff also recommend the introduction of two speed cushions and a raised crosswalk on Dyke Road as traffic calming devices.

Vision Zero, TransLink's Transport 2050 plan and the BC Community Road Safety Toolkit support measures to lower vehicle speeds on local roads. Research on vehicle speeds and road safety show strong correlations between lower speeds and improved safety.



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

SH:sh

Att: 1 Proposed Dyke Road Traffic Calming

Proposed Dyke Road Traffic Calming





Traffic Bylaw No. 5870
Amendment Bylaw No. 10623

The Council of the City of Richmond enacts as follows:

- 1. Traffic Bylaw No. 5870, as amended, is further amended by adding the following to Schedule B to Traffic Bylaw No. 5870:

“16. Dyke Road from No. 3 Road to London Road.”

“17. London Road, Princess Street, and Princess Lane”

This Bylaw is cited as “Traffic Bylaw No. 5870, Amendment Bylaw No. 10623”.

FIRST READING

SECOND READING

THIRD READING

ADOPTED

Four horizontal lines for signatures

CITY OF RICHMOND
APPROVED for content by originating dept.
APPROVED for legality by Solicitor
LB

MAYOR

CORPORATE OFFICER



City of Richmond

Report to Committee

To: Public Works and Transportation Committee **Date:** January 3, 2025
From: Suzanne Bycraft **File:** 10-6370-01/2024-Vol
Director, Public Works Operations 01
Re: Trash Skimming Device Pilot Project Update

Staff Recommendation

That the staff report titled, "Trash Skimming Device Pilot Project Update," dated January 3, 2025, from the Director, Public Works Operations be received for information.

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

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

Staff Report

Origin

In 2023, the City installed the Collec'Thor trash-skimming device and has been piloting the technology's ability to retrieve or collect solid waste that floats on the water's surface within Fisherman's Wharf. The goal of the pilot was to assess the effectiveness of the water based trash-skimming device in removing harmful plastics and other non-organic materials from waterways. This report provides an update on the Collec'Thor device and advises of the conclusion of the pilot.

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.

5.2 Support the preservation and enhancement of Richmond's natural environment.

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

Analysis

Background

A pilot project to collect floating debris from the waters within Steveston Harbour was approved as a part of the 2022 Utility Budget report. The original concept was to use the "Seabin" device, however, the company transitioned to a service based model, with minimum commitment costs of over \$1 million US to initiate. In the 2023 Utility Budget report, staff identified an alternative device called the "Collec'Thor" which was purchased and installed in June 2023.

The Collec'Thor is a water-based trash-skimming device that was installed at the Fisherman's Wharf located at 3800 Bayview Street to test the new technology and provide a better understanding of the types of materials being collected from our waterways through a waste characterization study. This site was chosen due to its proximity to an electrical power source, which the device requires to operate for pumping purposes, and in an area with limited currents and a slower moving body of water. This is the design basis for these units, which collect waste that accumulates in low flowing water bodies by pumping it through the device and skimming off any floating plastic and non-organic materials.



Figure 1: Staff servicing Collec'Thor device

To facilitate this pilot, the City worked with the Steveston Harbour Authority and Ocean Wise Conservation Association (Ocean Wise). The pilot also worked in close conjunction with the City's Rethink Waste campaign to share messaging about the importance of saying "no" to single-use items, and recycling materials correctly.

Materials Retrieved by Collec'Thor

To gain a better understanding of the types of materials the device was able to recover, three waste characterization audits were undertaken by Ocean Wise with support from City operations staff. A total of 670 kg of material was pulled from the device from August 2023 to November 2024. Findings from the audits show the vast majority of items recovered being material commonly expected to be found in a river environment such as driftwood and seaweed. These materials are categorized as "river organics," and comprise 99% of all material collected from the device. Of the non-river organic material recovered, the next largest category by weight was rigid plastic followed by plastic film, however plastic was a very small component of the materials captured by the trash skimming device. Of the plastic material captured, all, or 100% of the audit samples, contained expanded polystyrene (EPS) pieces, commonly known as Styrofoam. This result suggests EPS is leaking into the environment from a main source, likely from aging EPS docks.

To address the prevalence of EPS from docks, staff note there is a private member's motion awaiting additional support in the House of Commons titled, *M-80 Styrofoam in Aquatic Infrastructure*, that moves to take immediate measures to ban the use of EPS and extruded polystyrene (XPS) in construction of floating structures in the aquatics environment, encased or not, under the *Canadian Environmental Protection Act, 1999*. This legislative measure would represent a progressive step toward reducing these harmful plastics since the presence of EPS and XPS materials in the marine environment is particularly harmful to aquatic life who consume it by mistaking it as a food source.

Operational Considerations

The trash-skimming device has experienced regular issues which have required more intervention than expected. Staff have found the device is prone to pump blockages, breakdowns and often malfunctions, tripping the power to the shared dock. With limited support from manufacturers, City staff have retrofitted or made custom parts to provide ad-hoc repairs throughout the course of the pilot. As of early December, the device is currently out-of-order due to damage sustained along the front panel from driftwood debris and severe fraying of the cord that hoists the device in and out of the water. The quick-moving water has proven to be very hard on this type of equipment, rendering it generally ineffective and difficult to maintain.

Pilot Project Outcomes and Next Steps

The pilot did not prove effective in achieving the stated objectives of removing harmful plastics and other non-organic material:

- Minimal quantities of materials were recovered or 670 kg.
- 99% or over 660 kg of the material recovered was river organics, or material commonly expected in the aquatic environment.

- Operational challenges led to frequent breakdowns, malfunctions and the power being tripped to the shared dock.

The unit deployed for this pilot project is a stationary trash skimmer designed for marine environments. Trash skimmers like the Collec'Thor are generally more effective in calmer waters, such as lakes, lagoons, or large marinas, rather than in dynamic locations like the Fisherman's Wharf. The combination of the wharf's environment, fast-moving water, and large debris created significant difficulties. Additionally, the harsh conditions of the marine environment, along with the need to submerge the unit, pose challenges for any equipment of this kind.

As with any environmentally harmful products such as plastic, waste prevention is the most important aspect of the waste management hierarchy. Legislative measures, such as through the private member's motion *M-80 Styrofoam in Aquatic Infrastructure*, would serve to reduce EPS and XPS from the marine environment, thereby avoiding the need to attempt to capture and remove these harmful plastics. This, coupled with other regulatory efforts to reduce prevalence of single-use and other plastics, are effective tools to address the challenge of plastic waste.

Financial Impact

There are no financial impacts associated with this report. The total cost of the pilot project was \$65,000 funded from the Sanitation and Recycling operating budget.

Conclusion

The Collec'Thor trash-skimming device pilot did not meet the stated objectives and the technology has proven not effective. As a result, the trash-skimming device will be removed and decommissioned. Staff will continue to investigate alternative technologies and solutions for removing plastic debris from waterways that are better suited to Richmond's river-based environment, and will provide updates as necessary.



Kristina Grozdanich
Manager Recycling and Waste Recovery
(604-244-1280)