

Report to Committee

To:

Public Works and Transportation Committee

Date:

October 23, 2024

From:

Milton Chan, P.Eng

File:

10-6000-01/2024-Vol

Director, Engineering

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Re:

Proposed 2025 Paving Program

Staff Recommendation

That the staff report titled, "Proposed 2025 Paving Program," dated October 23, 2024, from the Director, Engineering be received for information.

Milton Chan, P.Eng

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

Att. 3

REPORT CONCURRENCE					
ROUTED TO:	CONCURRENCE		CONCURRENCE OF GENERAL MANAGER		
Roads & Construction			Doeland Zwaaz		
SENIOR STAFF REPORT REVIEW		INITIALS:	APPROVED BY CAO		
		SB	Gun.		

Staff Report

Origin

This report supports Council's Strategic Plan 2022-2026 Focus Area #2 Strategic and Sustainable Community Growth:

Strategic and sustainable growth that supports long-term community needs and a well-planned and prosperous city.

- 2.3 Ensure that both built and natural infrastructure supports sustainable development throughout the city.
- 2.4 Enhance Richmond's robust transportation network by balancing commercial, public, private and active transportation needs.

The annual Paving Program is required to maintain the City's road network at current operating levels, as well as reduce the need for costly repairs. Staff have developed a prioritized list of locations to be included in the 2025 Paving Program.

Analysis

The scope of work includes the milling and paving of roads and asphalt surfaces in priority order, as identified by the City's Pavement Management System and staff. This also includes ancillary work such as curb and gutter repairs. The Pavement Management System takes into account items such as the age, structure and current condition of the road. Updated data is gathered to ensure that the Pavement Management System model results are accurate. The data is being gathered on an assortment of road types including arterial roads, the TransLink Major Road Network (MRN), recently resurfaced segments, and sections with substantial surface cracking. TransLink provides funding for the MRN projects, based on the length of lane-kilometers of MRN roadway within the City, and adjusted annually per TransLink's inflationary estimates. Non-MRN projects are funded by the City.

Attachment 1 provides a list of the primary paving sites to be included in the 2025 Paving Program. As with past years, some of the identified paving locations may not be able to be completed due to conflicts with development projects, which are unknown at this time. Any deferred primary paving locations would be replaced with the secondary paving locations, as listed in Attachment 2. Maps showing primary and secondary paving locations for Richmond West and Richmond East are included in Attachment 3. The paving schedule for these paving locations has flexibility which will allow coordination with the construction of capital and development projects to ensure minimized impact to the travelling public. For example, repaving No. 2 Road between Steveston Highway and Williams Road will occur following the completion of the watermain replacement, new multi-use pathway and development projects currently underway in this area.

In most years, some paving work is required to address unforeseen road condition issues that arise during the year, such as settling utility trenches.

These are added to the Paving Program throughout the course of the year. Since the specific locations are not known at this time they are not shown on the attached location maps.

Escalation of paving costs has exceeded annual budget increases due to the increase in global oil and gas prices, supply chain issues and inflation. Recent years have also seen accelerated road deterioration, which results in increased costs due to the additional rehabilitation and gravel base repair work required to repair and repave the roadway. This deterioration is a result of high traffic volumes and harsh winter conditions and is compounded by deferral of repair works. As a result of these increased costs, some project locations, including on the City's Major Road Network (MRN) have been deferred to future years.

The Ageing Utility and Road Infrastructure Planning – 2022 Update report, presented to Public Works and Transportation Committee on July 20, 2022, identified the required annual funding levels for roads and road assets. To manage funding gaps it was noted that staff will bring forward paving program funding recommendations that will include on-going capital funding, combined with one-time allocation of surpluses to meet the five year capital needs of the roadway paving program. Aligned with this, staff are preparing additional capital submission for consideration through the 2025 Capital Budget process that would allow for completion of all the priority locations identified in this report.

The procurement of this year's Paving Program is scheduled to commence in November 2024. Historically, early procurement of this program has resulted in increased competitiveness, and lower costs to the City. By soliciting this work early, staff are taking measures to ensure that paving contract procurements receive competitive pricing and provide good value to the City. This includes monitoring the market to ensure ideal timing to conduct procurement, and the potential of including a variable cost, commodity price indexing structure in the paving contracts. If market conditions indicate that favourable pricing would be received by issuing to the market early, the procurement process will note that the contract award is subject to approval of the 2025 Capital Budget by Council.

The 2025 Paving Program also reflects the City's environmental initiatives by allowing the use of up to 40% reclaimed asphalt. In alignment with the City's sustainability goals, the pavement evaluation criteria will consider sustainable methodologies, practices and materials that would assist in reducing green house gas emissions.

Financial Impact

Proposed funding for the 2025 Paving Program has been submitted as part of the 2025 Capital Budget as follows:

Table 1. Proposed 2025 Paving Program Budgets

Proposed Funding	Amount (\$)
2025 Annual Asphalt Re-Paving Program – MRN	\$ 1,771,825
2025 Annual Asphalt Re-Paving Program – Non-MRN	\$ 4,136,685
Total Proposed Funding	\$ 5,908,510

Procurement will commence in November 2024 but award of the 2025 Paving Program will occur only after the 2025 Capital Budget is approved by Council.

Conclusion

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Staff have prepared a list of priority locations for the 2025 Paving Program and the procurement documents are being prepared. Contract award and commencement of paving will occur once the 2025 Capital Budget is approved by Council.

Kevin Roberts, P. Eng. Senior Project Manager, Engineering Design & Construction (604-204-8512) Wasim Memon Supervisor – Inspections (604-247-4189)

Att. 1: Proposed 2025 Paving Program - Primary Locations

2: Proposed 2025 Paving Program – Secondary Locations

3: 2025 Paving Program Proposed Locations - Richmond West and Richmond East

PROPOSED 2025 PAVING PROGRAM – PRIMARY LOCATIONS

Location	Road Type
No. 2 Road (Steveston Highway to Williams Road)	MRN
No. 3 Road (Alderbridge Way to Cambie Road)	MRN
No. 3 Road (Cambie Road to Capstan Way)	MRN
No. 3 Road (Capstan Way to Sea Island Way)	MRN
Bridgeport Road (No. 5 Road to Sweden Way)	MRN
No. 5 Road (Seacliff Road to Kingsbridge Drive)	Non-MRN
No. 6 Road (Bridgeport Road to River Road)	Non-MRN
Moncton Street (Railway Avenue to No. 2 Road)	Non-MRN
Francis Road (Gilbert Road to No. 3 Road)	Non-MRN
Francis Road (Railway Avenue to No. 2 Road)	Non-MRN
River Road (Cambie Road to Capstan Way)	Non-MRN
Westminster Highway (No. 7 Road to No. 8 Road)	Non-MRN
Vulcan Way (No. 5 Road to No. 6 Road)	Non-MRN
Boeing Avenue (Catalina Crescent to Wellington Crescent)	Non-MRN
Catalina Crescent (Wellington Crescent to Airport Road)	Non-MRN
Douglas Crescent (Wellington Crescent to North end of road)	Non-MRN
Hudson Avenue (Wellington Crescent to Airport Road)	Non-MRN

PROPOSED 2025 PAVING PROGRAM – SECONDARY LOCATIONS

Location	Road Type
Bridgeport Road (St. Edwards Drive to Shell Road)	MRN
Steveston Highway (No. 5 Road to Hwy 99 limits)	MRN
Steveston Highway (Highway 99 limits to No. 6 Road)	MRN
Cambie Road (No. 4 Road to Shell Road)	MRN
No. 4 Road (Granville Avenue to Westminster Highway)	Non-MRN
No. 5 Road (Bridgeport Road to Vulcan Way)	Non-MRN
No. 5 Road (Greenland Drive to Bridgeport Road)	Non-MRN
Shell Road (River Drive to River Road)	Non-MRN
Wallace Road (Kozier Gate to No. 2 Road)	Non-MRN
Williams Road (Parsons Road to Gilbert Road)	Non-MRN
Machrina Way (Horseshoe Way to No. 5 Road)	Non-MRN
Trumond Avenue (Wellmond Road to Gormond Road)	Non-MRN
Garden City Road (Capstan Way to Bridgeport Road)	Non-MRN
Boundary Road (Thompson Gate to Westminster Highway)	Non-MRN
Kwantlen Street (Alderbridge Way to Alexandra Road)	Non-MRN



