



City of Richmond

Report to Committee

To: Public Works and Transportation Committee

Date: January 18, 2021

From: Milton Chan, P.Eng
Director, Engineering

File:

Re: Proposed 2021 Paving Program

Staff Recommendation

That the staff report titled, "Proposed 2021 Paving Program," dated January 18, 2021, from the Director, Engineering be received for information.

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

Att. 3

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

Staff Report

Origin

This report supports Council's Strategic Plan 2018-2022 Strategy #1 A Safe and Resilient City:

Enhance and protect the safety and well-being of Richmond.

1.2 Future-proof and maintain city infrastructure to keep the community safe.

As in previous years, staff are presenting the annual paving program report for information purposes.

Background

The paving program is required to maintain the City's road network to current operating levels as well as reduce the need for costly repairs. Staff have developed a prioritized list of locations that will be included in the 2021 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 preparatory work such as curb and gutter repairs. The Pavement Management System software takes into account items such as the age, structure and current condition of the road. Updated pavement deflection data has been gathered on an assortment of road types (arterial roads, the TransLink Major Road Network, recently resurfaced segments, and sections with substantial surface cracking) to ensure that the Pavement Management System model results are accurate. The deflection data has been analyzed and included in the updated model.

Included in Attachment 1 is a list of the primary paving sites included in the 2021 Paving Program. As with past years, it is possible that identified paving locations may not be completed due to conflict with development projects that are not known at this time. Should the seasonal paving restrictions permit, any deferred primary paving locations would be replaced with the secondary paving locations. These secondary locations are listed in Attachment 2. Two maps of the proposed paving sites (Richmond West and Richmond East) are included in Attachment 3.

The proposed 2021 Paving Program includes approximately 17.4 lane kilometers of arterial and local roads. The anticipated cost of asphalt paving is approximately \$285 per meter of lane.

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.

Procurement

Due to the financial uncertainties caused by COVID-19, procurement for the 2021 Paving Program will commence after approval of the 2021 Consolidated 5 Year Financial Plan (2021-2025) by Council.

Sustainability

The 2021 Paving Program also includes an amendment to the City’s standard tendering practices that reflects upon the City’s environmental initiatives and allows for the use of recycled asphalt. The successful bidder will be encouraged to employ sustainable methodologies, practices and materials that would assist in reducing harmful emissions, in direct alignment with the City’s sustainability goals. The tender will also note that the contract award is subject to approval of the 2021 Capital Budget by Council.

As a part of Richmond’s High Reclaimed Asphalt Pavement Pilot Project in 2020, a four lane wide, 800 meter long stretch of pavement was placed along the 7000 block of No. 5 Road that is made up of 40 percent reclaimed asphalt pavement (RAP). The performance of the RAP on this higher traffic volume arterial road is being monitored, and staff will review a lower traffic density local road for its further application.

TransLink Major Road Network (MRN) Funding

Due to the financial difficulties TransLink experienced in 2020, the amount of funding provided to the City under the 2020 Major Road Network Operations, Maintenance and Rehabilitation payment stream was reduced from \$3,739,300 to \$545,000. This funding fully supports the MRN Asphalt Re-Paving Program as well as maintenance of the MRN road network and traffic signals. As detailed in a May 4, 2020 Memorandum to Mayor and Councillors, this was addressed by using the MRN Provision to fund this 2020 revenue shortfall.

Based on the latest information staff have received from TransLink, the 2021 Major Road Network Operations, Maintenance and Rehabilitation funding will be available in full, in part due to the assistance provided by the Provincial and Federal governments. Staff will continue to liaise with TransLink on the status of this funding in 2021 and future years.

Financial Impact

Capital submissions for the 2021 Paving Program are included as part of the 2021 Consolidated 5 Year Financial Plan (2021-2025) as follows:

Proposed Funding	Amount (\$)
2021 Annual Asphalt Re-Paving Program – MRN	\$ 1,589,211
2021 Annual Asphalt Re-Paving Program – Non-MRN	\$ 3,344,160
Total Proposed Funding	\$ 4,933,371

Should Council approve the 2021 Consolidated 5 Year Financial Plan (2021-2025), procurement of the 2021 Paving Program will follow.

Conclusion

Staff have prepared a list of priority locations for the 2021 Paving Program. Procurement and commencement of paving at these locations will occur once the 2021 Consolidated 5 Year Financial Plan (2021-2025) is approved by Council.



Eric Sparolin, P. Eng.
Manager,
Engineering Design & Construction
(604-247-4915)



Wasim Memon, C.E.T.
Supervisor – Inspections
(604-247-4189)

ES:rd

- Att. 1: 2021 Paving Program – Primary Locations
- 2: 2021 Paving Program – Secondary Locations
- 3: 2021 Paving Program Proposed Locations – Richmond West and Richmond East

2021 PAVING PROGRAM – PRIMARY LOCATIONS

Location	Road Type
2000 Block Ferguson Road	Non-MRN
4151 Williams Road	Non-MRN
Bridgeport Road to Knight Street (East - North Loop)	MRN
Bridgeport Road to Knight Street (East - South Loop)	MRN
Cambie Road (Garden City Road to No. 4 Road)	MRN
Finlayson Drive (Gagnon Place to McLennan Avenue)	Non-MRN
Francis Road (Ash Street to No. 4 Rd)	Non-MRN
Fraserwood Place (Westminster Highway to Gordon Way)	Non-MRN
Great Canadian Way (Sea Island Way to Bridgeport Road)	Non – MRN
Knight Street East/South (Bridge Deck to 50m south)	MRN
Knight Street to Bridgeport Road (North - East Off-Ramp)	MRN
Kwantlen Street (Alderbridge Way to Alexandra Road)	Non-MRN
No. 1 Road (Westminster Highway to Granville Avenue)	Non – MRN
No. 3 Road (Bridgeport Road to River Road)	Non-MRN
Steveston Highway (Highway 99 Off-Ramp to Palmberg Road)	MRN
Vickers Way (Bridgeport Road to Sweden Way)	Non-MRN
Westminster Highway (No. 8 Road to Nelson Road)	Non-MRN

2021 PAVING PROGRAM – SECONDARY LOCATIONS

Location	Road Type
Boundary Road (Westminster Highway to Thompson Gate)	Non-MRN
Fraserwood Way (Fraserwood Place to Dyke Road)	Non-MRN
Garden City Road (Cambie Road to Capstan Way)	Non-MRN
Machrina Way (No. 5 Road to Horseshoe Way)	Non-MRN
Minoru Boulevard (Lansdowne Road to Alderbridge Way)	Non-MRN
No. 3 Road (Finn Road to Dyke Road)	Non-MRN
No. 6 Road (Bridgeport Road to River Road)	Non-MRN
No. 6 Road (Cambie Road to Bridgeport Road)	MRN
No. 6 Road (Highway 91 underpass to Maycrest Way)	MRN
Shell Road (Steveston Highway to Maddocks Road) + Maddocks Road (Shell Road to Aintree Crescent)	Non-MRN
Steveston Highway (Mortfield Gate to Southdale Road)	MRN
Steveston Highway (Shell Road to Coppersmith Place)	MRN
Vulcan Way (No. 5 Road to Sweden Way)	Non-MRN
Westminster Highway (Willet Avenue to Boundary Road)	MRN



