
Subject: Martindale Road Contract 2018-T-101 Purchase Order Amendment

Report to: Public Works Committee

Report date: Tuesday, February 19, 2019

Recommendations

1. That the original Contract amount of \$5,747,378 (including 13% HST) awarded to Rankin Construction Inc. **BE INCREASED** by \$480,250 (including 13% HST), for a total revised Contract of \$6,227,628 (including 13% HST) for the Reconstruction of Regional Road 38 (Martindale Road) from the South Service Road to Barton Street, in the City of St. Catharines.

Key Facts

- Contract 2018-T-101 (RN 18-01) was awarded by Regional Council to Rankin Construction Inc. on April 12, 2018 at a bid price of \$5,086,175 (excluding taxes).
- This past year (2018), the reconstruction of Regional Road 38 (Martindale Road) was 90% completed by Rankin Construction Inc. Appendix A displays the location of the project.
- The current Purchase Order 0000041485 in the amount of \$5,086,175 (excluding taxes), requires an amendment to increase the Purchase Order amount by \$425,000 (excluding taxes) to address items related to public safety, unknown buried utility conflicts, and the asphalt cement price fluctuation.
- \$11,990,000 has been approved in the Capital Budget for Transportation under project 10RC0627 and \$650,000 in the Capital Budget for Water/Wastewater under project 10CW1308, for a total of \$12,640,000 pertaining to this work.

Financial Considerations

The Purchase Order 0000041485 was issued to Rankin Construction Inc. in the amount of \$5,175,692 (including 1.76% non-refundable HST), following Regional Council approval for the award of Contract 2018-T-101 (RN 18-01). The \$5,175,692 (including 1.76% non-refundable HST) represented Rankin's bid submission in response to the Region's request for Tender. This amount included a contingency value of \$500,000.

The original tender award cost sharing (including 1.76% non-refundable HST) was as follows: Transportation Division share - \$4,537,450, Water/Wastewater Division share - \$533,448 and City of St. Catharines share - \$104,794.

During construction there are many unknown costs that may occur. The major items initiating this Purchase Order Amendment are identified in the Key Facts section. The

Purchase Order increase request in the amount of \$432,480 (including 1.76% non-refundable HST), is for the Transportation Division's portion of the project, (10RC0627). These funds will be required to complete the construction and finalize the Contract between the Region and Rankin Construction Inc. There are sufficient funds available in project 10RC0627 to address the Purchase Order amendment.

The Transportation Division requested \$16,100,000 in the 2019 capital budget to complete Phase 2 of this project. The total estimated cost for both Phase 1 and Phase 2 pertaining to the Transportation Division works is \$28,090,000. Cost sharing for Phase 2 will be finalized at tender award.

Appendix B – Total Estimated Project Cost provides a full budget breakdown.

Analysis

The reconstruction of Regional Road 38 (Martindale Road) was subject to a Municipal Class, Schedule "C" Environmental Assessment. The reconstruction of Phase 1, Regional Road 38 (Martindale Road) from the South Service Road to Barton Street is 90% complete. Phase 2 of the Regional Road 38 (Martindale Road) reconstruction, Barton Street to Regional Road 77 (Fourth Avenue) is currently under detailed design and will be tendered through procurement in 2019.

During construction the need for a temporary traffic signal was identified for the Martindale Road and Erion Road intersection to increase public safety. The previous signal infrastructure was not physically capable to provide proper signal head alignment such as the signal mast arms being too short and the existing poles not strong enough to support longer mast arms. The signal head relocations were required to address the adjusted temporary lane configurations. The temporary lane configurations were required to provide one lane of traffic in each north and south bound direction for the duration of the project. The temporary lane configurations were provided to minimize the disturbances to the public and allow a more seamless movement of traffic during construction avoiding many lengthy delays. The temporary signal minimized the risk to the Region by providing the safest intersection configuration during this temporary condition.

Throughout construction Rankin's project management team worked with the utility companies and the Region's project management team to address many unknown buried utility conflicts. Buried utility conflicts were discovered while completing the road reconstruction works, and all stakeholders worked closely to avoid costly and timely additional utility relocations.

As part of all road reconstruction projects there exists the potential for cost variations in hot mix asphalt.. The fluctuations in the asphalt cement index, can affect project costs.

Although there is always an anticipated variation in the asphalt cement index, the actual cost of asphalt cement was higher than anticipated at the time the hot mix asphalt was placed. This asphalt cement index pricing is a provincial mandate, and is impacted by the market price of petroleum. Asphalt is a major item in Regional projects and can often have a significant impact on the overall project costs.

Alternatives Reviewed

The previous signal and infrastructure could have been utilized with the temporary lane re-alignments, but this situation would have put the safety of the public at risk, as the signal heads were not in proper alignment with the travelled lanes. The existing signal could have been controlled by construction flag persons, but the impact on the travelling would have been such that there would have been lengthy delays causing driver frustration and potentially creating an unsafe situation. The impacts of the construction on the local businesses would have been more severe if a temporary signal was not utilized.

The proposed road works had direct conflicts with buried infrastructure. The road works could have been halted and Rankin could have removed their crews from the construction site to allow the utility companies access to the site to complete the relocation of their infrastructure. This alternative would have added months to the project duration thus impacting the projects overall costs and schedule. These utilities were protected and minor relocations were completed by Rankin to allow the road reconstruction to continue while maintaining the integrity of the road structure, and the construction schedule was maintained reducing the impact to the public.

Relationship to Council Strategic Priorities

This project, as mentioned in the previous award report, does align with strategic priority “Moving people and goods”. Improving capacity and addressing road conditions is an essential part of maintaining the Region’s road network and this vital program. This road section is a major commercial corridor. With increased road capacity and condition, this will assist the Region with strategic priority “Positioning Niagara Globally”. Staff have put forward considerable effort to ensure a timely project to mitigate the impact on the public.

Other Pertinent Reports

PW 16-2018 Award of Contract 2018-T-101 (RN18-01) Reconstruction of Regional Road 38 (Martindale Road) from South Service Rd to Barton St, in the City of St. Catharines

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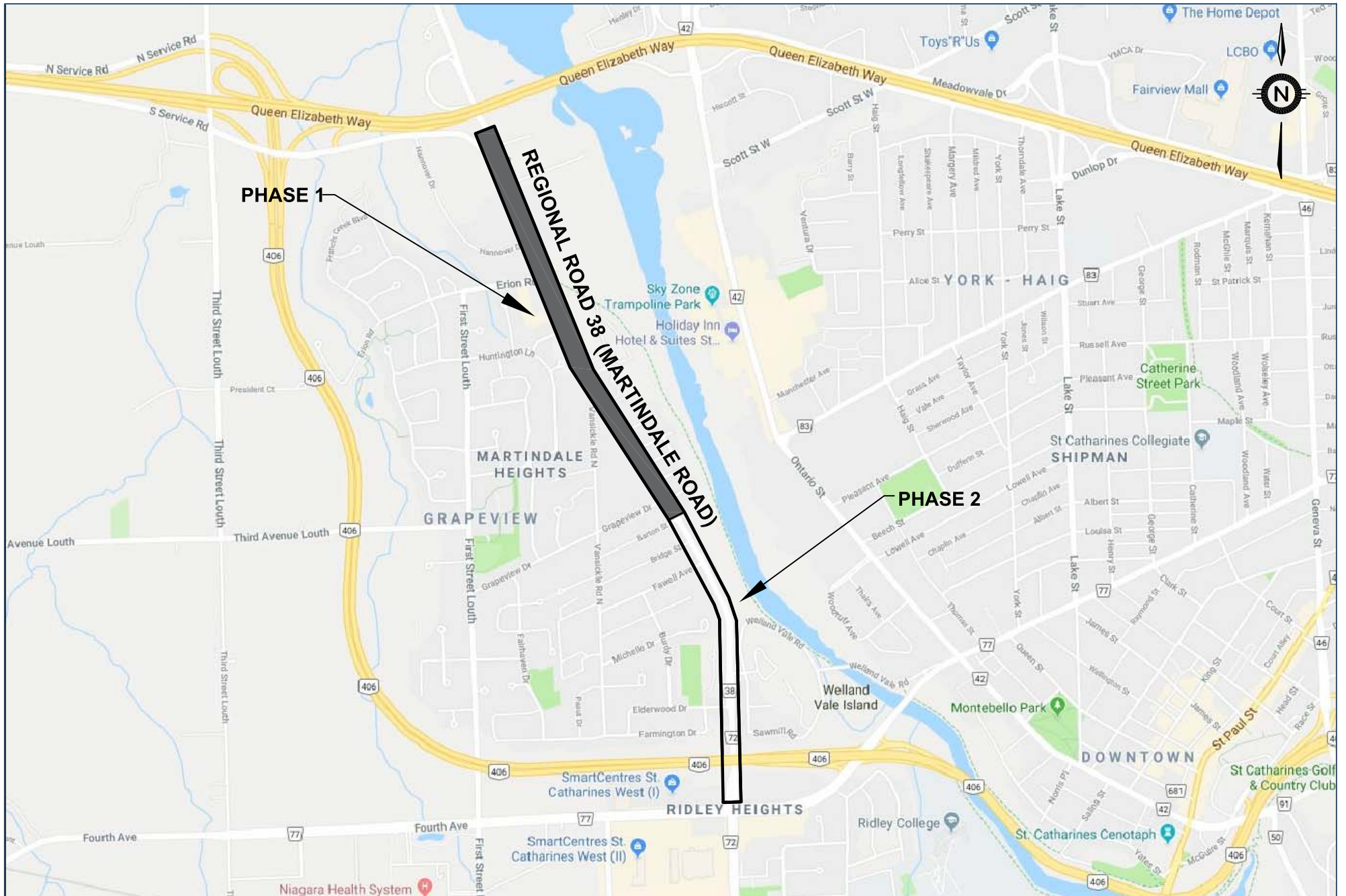
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This report was prepared in consultation with Brian McMahon, Program Financial Specialist, and reviewed by Carolyn Ryall, Director of Transportation.

Appendices

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PW 12-2019 APPENDIX B
Total Estimated Project Cost
Purchase Order Amendment

Contract 2018-T-101 (RN18-01) Reconstruction of Regional Road 38 (Martindale Rd), from South Service Rd to Barton St, in the City of St. Catharines

	Council Approved Budget (A)	Expended & Committed as of 01/23/19 (B)	Change to Contract Award/ Forecast (C)	Budget Remaining (D) = (A)-(B)- (C)
<u>Total Estimated Project Cost (10RC0627)*</u>				
(a) Construction (including Construction Contingency and 1.76% non-refundable HST)**	7,000,000	4,575,955	432,480	1,991,565
(b) Project Contingency	770,000			770,000
(c) Property Acquisition	1,050,000	789,916		260,084
(d) Consulting Engineering Services	910,000	957,939		(47,939)
i. Detailed Design	-			-
ii. Contract Administration & Inspection	155,000			155,000
iii. Geotechnical Service-Quality Control	-	39,481		(39,481)
(e) Project Management (In-House) and Operations	205,000	179,258		25,742
(f) Traffic Signals and Signs	700,000	334,591		365,409
(g) Utility Relocation	1,200,000	1,555,105		(355,105)
(h) Subsurface investigation	-			-
(i) Miscellaneous		30,910		(30,910)
Sub Total Estimated Project Cost	11,990,000	8,463,154	432,480	3,094,366
<u>Total Estimated Project Cost (10CW1308)*</u>				
(a) Construction (including Construction Contingency and 1.76% non-refundable HST)	500,000	599,737		(99,737)
(b) Project Contingency	-			-
(c) Property Acquisition	-			-
(d) Consulting Engineering Services	150,000			150,000
i. Detailed Design	-			-
ii. Contract Administration & Inspection	-			-
iii. Geotechnical Service-Quality Control	-			-
(e) Project Management (In-House) and Operations	-	42,113		(42,113)
(f) Traffic Signals and Signs	-			-
(g) Utility Relocation	-			-
(h) Subsurface investigation	-			-
(i) Miscellaneous	-			-
Sub Total Estimated Project Cost	650,000	641,850	-	8,150
Total Estimated Project Cost	12,640,000	9,105,004	432,480	3,102,516

*All costs include 1.76% non-refundable HST

** Total Revised Purchase Order is equal to i) \$5,511,175 before tax; ii) \$5,608,172 including 1.76% non-refundable HST; iii) \$6,227,628 including 13% HST

** Adjusted Purchase Order is equal to i) \$425,000 before tax; ii) \$432,480 including 1.76% non-refundable HST; iii) \$480,250 including 13% HST