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June 12, 2023

Mr. John Elvidge, City Clerk
City Clerk's Office
100 Queen Street West
12th Floor, West Tower
Toronto, ON M5H 2N2

Dear Mr. Elvidge,

Re: Administrative Inquiry Regarding Military Trail Road Reconstruction

Councillor Paul Ainslie submitted an Administrative Inquiry to seek information on the Military Trail Road reconstruction. This letter provides a response to this request. It has been developed in collaboration with Engineering & Construction Services.

Introduction

Sanscon Construction was awarded Contract 19ECS-TI-105LR to undertake road reconstruction and slope stabilization on Military Trail from Ellesmere Road to Highcastle Road and Military Trail bridge rehabilitation over Upper East Highland Creek. Full time inspection was carried out by the respective Consultants for this contract, Morrison Hershfield for the bridge work and R.V. Anderson (RVA) for the road work. The consultants reported to the City Project Manager from Engineering & Construction Services.

The Substantial Performance date (the date at which a project is substantially completed, with only minor finishing works still required) was initially August 22, 2022, which was formally extended to September 9, 2022. However, the work is still not complete and the road remains closed to vehicles and pedestrians.

Response

Please find below responses to each of the questions submitted.

1. Provide a detailed explanation as to why the originally planned completion date in 2022 was not met.

The planned completion date in 2022 was not met as a result of schedule management challenges with the contractor and as-built concerns and deficiencies.

Schedule management:

The Order to Commence start date was February 2, 2022 at which time construction started. The Substantial Performance date was initially August 22, 2022, which was formally extended to September 9, 2022.

Throughout the course of this project, there were multiple instances of the contractor either not producing an adequate construction schedule or not meeting the agreed upon construction schedule. In each instance a request was made to Sanscon, seeking explanation for the delay and clarification on if or how the delay would impact the Substantial Performance date. The requests were made and documented during progress meetings, various emails and then, more formally on September 6, 2022, in a Letter of Concern to Sanscon, asking for a timeline for completion and highlighting the possibility of liquidated damages for delay in completion.

Sanscon provided a request for an extension of the contract time on September 13, 2022, and provided details for some of the delays. Sanscon identified that the delays were caused by adverse weather conditions and additional requirements from Enbridge, which involved performing test pits near the vital gas main that crosses the work area. Based on this, an extension was granted, and the Substantial Performance date was extended to September 9, 2022.

Sanscon advised there were further delays related to repair work being carried out by Enbridge on the vital gas main and other minor changes to the scope. The City has not been able to validate this due to a lack of supporting documents from Sanscon.

As-built concerns and deficiencies:

In addition to the above-noted delays, work was also paused for periods of time due to what was suspected, and has since been proven, to be deficiencies in the work.

For context, it is important to note that due to the topography of this project (largely a winding single road in a ravine area), issues pertaining to grade and elevation are not easily discernible to the unaided eye. However, once the contractor's work started to become integrated with other infrastructure components, the grade and elevation issues started to become evident.

In August 2022, subsequent to the installation of the curb and sidewalk, it was noted that a particular section near the bridge exhibited an elevation higher than what was originally designed.

To address this, on September 6, 2022, a formal letter expressing concern was sent to Sanscon, requesting them to provide an as-built survey. Despite numerous subsequent follow-ups and requests, the requested survey documentation was not provided by Sanscon.

Without providing prior notification, on September 14, 2022, Sanscon's paving sub-contractor, arrived at the site to commence the installation of the base asphalt. The on-site inspector attempted to contact Sanscon to halt the work but was unable to contact anyone at the company and the subcontractor proceeded with the base asphalt.

Subsequent to the laying of the base asphalt, repeated efforts were made by the contract administrator on behalf of the City to obtain the as-built survey from Sanscon. In response, Sanscon provided partial and incomplete submittals, which were deemed unreliable upon review by the contract administrator and City staff.

An as-built survey was required to substantiate the grading and elevation concerns and, if found valid, force corrective action. The City, acting through RVA, made the decision to engage an independent survey consultant to conduct a topographical survey of the as-built conditions. The survey consultant conducted an initial topographic survey of the as-built sidewalk, curb and base asphalt in September 2022. The analysis concluded that the surveys Sanscon provided were inaccurate and the grade of the as-built road was not in accordance with the design.

2. Outline the reasons why the construction completion for Summer 2023 is now threatened.

As noted in greater detail in the responses below, substantial reconstruction of the road is necessary to ensure it can be opened safely.

The City is faced with various potential scenarios and will make every effort to have the work completed as soon as possible. Should cooperation not be forthcoming, the City will pursue its remedies under the contract as appropriate with the possibility that the work may not be completed until 2024. One possible outcome of this is that the deficiency correction work would need to be re-tendered as a new contract for completion in 2024.

3. Provide an explanation of the deficiencies which have been identified, necessitating the continued closure of the road and brand-new installed pedestrian sidewalks for public use.

The following deficiencies have been identified.

The curb and sidewalk elevations deviate from the original design grades. North of the bridge the variations from the design were +/-90mm, while south of the bridge variations were +/- 250mm from the design. If curbs are too low, they do not function to separate traffic from pedestrian areas and protect pedestrians, and can also cause drainage issues with water over-topping the low curbs. Alternatively, if curbs are too high, they can pose a tripping hazard to pedestrians crossing the road.

The roadway grade deviates from the original design grades. In some instances, the deviation is +/-250mm from the proposed design. This creates safety concerns, especially as drivers navigate the sharp turns on Military Trail.

The approach to the bridge also deviates from the original design. The concrete approach slabs on both sides of the Highland Creek bridge were poured approximately 100mm higher than the design. This could further impact road users.

The Eco-Raster (French drain) feature, which serves as the Low Impact Development feature to capture and remove stormwater from the road, will need to be adjusted once the grade of the road is corrected.

4. Inform when these deficiencies were first noticed, and what measures have been taken to address them.

As noted in the response to question one, the deficiencies were first suspected in August 2022. As also noted in the response to question one, an as-built survey was required to substantiate the grading and elevation concerns, and if substantiated, require corrective action. It is important to have factual data to substantiate deficiencies before stopping work, otherwise, the City could potentially be liable for delay and cost claims from the contractor.

After the contractor would not provide a reliable as-built survey, the City ultimately hired a surveyor through RVA to conduct the work. This was done in September 2022.

In December, more than two months after receiving a copy of the survey results and analysis that concluded the as-built road was not in accordance with the design, Sanscon agreed that remediation was required. They provided a cut-and-fill proposal to make the necessary adjustments to the existing base asphalt in order to align it with the original design.

Staff reviewed Sanscon's proposal and explored other remediation options with the primary goals of ensuring road safety, minimizing the need for reconstruction, and expediting the reopening of the road.

It was determined that more detailed survey information was needed. Subsequently, in January and February 2023, additional survey work was done to obtain more detailed information on the new construction.

In March and April 2023, with the comprehensive survey data Sanscon's proposal was further evaluated, alongside an additional alternative design developed by RVA. RVA's option aimed to address the existing work through a minimal cut-and-fill approach.

The analysis found that Sanscon's proposal focused solely on road grades and failed to consider the integration of adjacent curbs, sidewalks, and other relevant infrastructure. It was determined by City staff that both RVA's and Sanscon's proposals could create potential safety risks. Consequently, the City cannot approve either solution due to their non-compliance with guidelines and engineering standards.

In conclusion, substantial reconstruction is necessary to ensure the safety of future road users.

5. Outline, the oversight measures which were in place during the project and explain how the work was allowed to proceed despite remediated known deficiencies.

Full-time inspection was carried out by Morrison Hershfield for the bridge work and RVA for the road work. The consultants reported to the City Project Manager from Engineering & Construction Services.

As noted in the response to question one, due to the topography of this project (largely a winding single road in a ravine area), issues pertaining to grade and elevation are not easily discernible to the unaided eye. However, once the contractor's work became integrated with other infrastructure components, the grade and elevation issues started to become evident.

Throughout the project, oversight also included biweekly progress meetings, regular communications via email and phone, and Letters of Concern. The Letters of Concern covered a variety of topics and were sent as follows:

January 31, 2022: Letter of Concern re Contract noncompliance and outstanding submittals

- Non-compliance of Submission of Initial Schedule and Baseline Schedule
- Issuance of Order to Commence and Direction in Writing to Start Construction
- Non-Compliance of temporary Road Closure on January 27, 2022

February 4, 2022: Letter of Concern re Non-Compliance Response

- Non-compliance of Submission of Initial Schedule and Baseline Schedule
- Issuance of Order to Commence and Direction in Writing to Start Construction
- Non-compliance of temporary Road Closure on January 27, 2022

March 3, 2022: Letter of Concern re Tree Removals

September 6, 2022: Letter of Concern re Site Status and Delay Liquidated Damages

- Delays in Project Schedule and potential Liquidated Damages
- Silt Control and Tree Protection Zone Maintenance
- Site Security
- Issues Related to Constructed Elevation of Curb and Sidewalk
- Undermining of Curb and Sidewalk along Eco-raster (French drain system)

January 31, 2023 – Letter of Concern- Site Status and Delay Liquidated Damages

- Request to submit information for extension of Contract

On May 15, 2023, a deficiency letter was sent to Sanscon, requiring them to correct the deficient work as per the General Conditions of the Contract, by reconstructing the road, sidewalk and curbs. On June 9, the City received a response to the May 15 Deficiency Letter from Sanscon. In the response, Sanscon questions or disputes deficiencies raised by RVA in the Deficiency Letter. Engineering & Construction Services staff are working with Legal Services and RVA to review Sanscon's response and determine next steps.

6. Clearly advise on the future course of action for the road/sidewalk reconstruction to ensure it can be opened for public use as soon as possible.

The priority is to ensure that the road is completed both promptly and is safe for public use.

As noted in the response to question two, the City is currently faced with at least two scenarios – work with Sanscon to reconstruct the road to the required standards or seek to enforce the

contract if they will not take the required action to correct the deficiencies, which could result in a re-tender of a new contract for that work.

7. Provide details regarding any efforts being made to expedite the remaining work required to complete the road and open it for public use.

As noted in the response to question four, significant efforts were made to identify a solution for remediating the work that had been previously carried out, with the primary goals of ensuring road safety, minimizing the need for reconstruction, and expediting the reopening of the road. However, the detailed analysis demonstrated that substantial reconstruction is necessary to ensure the safety of future road users.

Of the various possible scenarios to move this project forward, having Sanscon reconstruct the road would likely be the fastest.

8. A commitment regarding the expected timeline for safely opening the road to the public by the summer of 2023.

As noted above, Engineering & Construction Services staff are working with Legal Services and RVA to review Sanscon's response of June 9 and determine next steps. The ultimate objective is the timely completion of the road while ensuring public safety.

Working with the Councillor, staff will issue a Notice Update to the community and hold a virtual meeting for residents to help address their questions.

City staff will review this project in order to identify and implement process enhancements that will help prevent similar issues in the future.

Sincerely,

Paul Johnson
City Manager

cc:

Will Johnston, Interim Deputy City Manager, Infrastructure and Development Services
Judy Tse, Interim Chief Engineer and Executive Director, Engineering and Construction Services
Barbara Gray, General Manager, Transportation Services
Geneviève Sharkey, Chief Procurement Officer
Wendy Walberg, City Solicitor