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Via E-mail

DATE: 10 May 2017

Letter Reference: OLRT-THALES-0703

Ref. Subcontract No. 507528-P002 for the Supply of Automatic Train Control Systems Subcontracted Works for the Ottawa Light Rail Transit Project ("Subcontract")

Reference: OLRT-THALES-0645, Notice of Extension of Time, January 24, 2017
 OLRT-THALES-0692 Schedule Mitigation Proposal Background & Justification, April 20, 2017
 OLRT-THALES-0684, CBTC Schedule Update – Monthly Progress, 10 April 2017

Subject: Notice of Extension of Time Claim

Frank,

This notice is given pursuant to Sub-clauses 8.4 and 9.6 of the Subcontract and following of the Subcontract. Reference is made to Thales Notice of Extension of Time dated January 24, 2017.

INTRODUCTION:

Since August 2016, OLRT has been revising the access dates for Zones 1 & 2 due to delays in infrastructure development and delayed vehicles (trains) from OLRT's Rolling Stock supplier. Thales has advised OLRT in several communications of the risks and potential impact to the Subcontract Schedule and completion of the Works due to these continued delays.

On 24th of January 2017, Thales notified OLRT that the Subcontract Works will not be completed in time to support the Revenue Service date, due to the delayed access to OLRT's completed infrastructure with CBTC systems installed and commissioned. A Notice of Extension of Time has been provided via Thales' letter OLRT-THALES-0645. At that time, the forecast of Revenue Service Availability Date was 31st October 2018.

One month later, as the completion of the first qualified vehicle Static PICO was further delayed by the Rolling Stock supplier, which result in a further one month slippage on the estimated Revenue Service Availability Date. As vehicle integration with CBTC is on the Critical Path due to the preceeding delays, any vehicle access delays will directly impact vehicle availability in time for Revenue Service.

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OLRT insisted the May 2018 Revenue Service date would be held and requested Thales to mitigate the delays, and provide a recovery plan, on a reasonable effort basis. In response to OLRT request, Thales had a full review of possible mitigation alternatives using our CBTC knowledge and experience, but was unable to generate a credible schedule that could maintain May 2018 Revenue Service Date. As the infrastructure development and vehicle availability delays were considerable, only extraordinary measures would minimize the impact of such extensive delays. However, Thales proposed extraordinary measures on a Variation basis. Unfortunately, OLRT rejected Thales' proposal.

Recently, Thales has updated the Subcontract Schedule as further revised dates received from OLRT for vehicle availability dates and zone access dates. The Schedule showed further slippage on the Revenue Service Availability Date (6 December 2018), due to continuing delays in the completion of the first qualified vehicle Static PICO.

Thales anticipate the forecast for the Completion of the Works based on the updates schedule pursuant to sub-clause 8.3.8, where the revised dates for zone access and vehicle availability are primary input in the monthly updated schedule, and driving the entire current slippage of the Revenue Service availability Date.

Site Access for Zone 1 and 2 and Availability of vehicles have been delayed and the related impact on the Completion of the Works is ongoing. Thales has suffered delays and will likely incur direct losses due to delayed site access and late availability of qualified vehicles. Therefore, this present notice has to be considered as Interim Extension of Time and claim having continuing effect within the meaning and for the purpose of Sub-clauses 8.4, 9.6 and 9.8.

CONTRACT REPRESENTATION

The Subcontractor has a right under the Subcontract to recover additional compensation and receive a time extension as a result of the delays encountered. The following are provisions from the Subcontract that legitimately entitle the Subcontractor to Extension of Time and associated costs.

Sub-clause 2.1

2.1 Right of Access to the Site

If the Subcontractor suffers delay or incurs Direct Loss as a result of a failure by the Construction Contractor to give any such right or possession within such time, the Subcontractor shall give written notice to the Construction Contractor of any Claim by the Subcontractor for:

- (a) an extension of time for any such delay, if Completion is or will be delayed, under Sub-Clause 8.4 of this Subcontract; and
- (b) payment of any such Direct Loss,

Sub-clause 10.2

10.2 Delayed Tests

If the Tests on Completion are being unduly delayed by the Construction Contractor, Project Co, the City, or the Independent Certifier, the Subcontractor shall be entitled to an

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extension of time and any additional incurred costs, in accordance with the provisions of Sub-clause 8.4 and Clause 9.

Sub-clause 11.3

11.3 Interference with Tests on Completion

If the Subcontractor suffers delay and/or incurs Direct Loss as a result of this delay in carrying out the Tests on Completion, the Subcontractor shall give notice to the Construction Contractor and shall be entitled, subject to Clause 19, to:

- (a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4; and
- (b) payment of any such Direct Loss, which shall be added to the Subcontract Price.

SUBCONTRACTOR'S EFFORTS IN RELATION TO THE DELAYS EVENTS

- OLRT's delays on the infrastructure development and vehicle availabilities begun to appear to the Subcontractor in early 2016. Since March 2016, the Subcontractor has been warning OLRT of the threat to Revenue Service attributable to delayed infrastructure development and vehicle availability for CBTC integration testing.
- The delays are solely attributed to OLRT infrastructure construction as acknowledged by OLRT via OLR-THA-00437, and Rolling Stock supplier for vehicle delivery, where the Subcontractor has no control over such deliverables. Also, Subcontractor's Testing and Commissioning activities cannot commence until the CBTC installation is completed in the zones and qualified vehicles made available. Therefore, the occurrence of such events could not be anticipated or avoided by the Subcontractor.
- The Subcontractor has reviewed all reasonable measures to minimize the impact of delays, but no measure would mitigate such impact without incurring additional material expenditure to the Subcontractor. In the endeavor to mitigate OLRT's delays, the Subcontractor has proposed extraordinary measures to OLRT (reference OLR-THALES-0900).
- The Subcontractor has identified the areas of concern and risk to completing the entire suite of tests to support May 2018 Revenue Service within the remaining time available on OLRT's completed guideway infrastructure. The Subcontractor will be unable to complete the entire suite of tests on the guideway due, in particular, to the late completion of Zone 2 and Zone 1. As previously explained to OLRT during our March 2017 schedule review, CBTC field testing is an iterative process that requires the completed guideway infrastructure to test our software in the real integrated field environment. CBTC testing requires the time to perform sequential maturity level testing on a zone-by-zone level basis followed by multi-zone level functionality testing and thereafter system reliability and endurance testing. These are sequential tests that cannot be done in parallel. Our integration test schedule reflects the sequence and duration that cannot be reasonably compressed.

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BASELINE PLAN

Following the original baseline and subsequent Approved Subcontractor Schedules, the Subcontractor should have obtained the access to the Zones 1 and 2, access to qualified vehicles as scheduled in August 2016 Approved Subcontract Schedule. August 2016 Schedule represented the Subcontractor's plan to perform and complete the Subcontract Works by May 2018.

REVISED PLAN BASED ON RECENT OLRT REVISED ACCESS DATES

The Subcontractor has been updating and submitting to OLRT the Subcontract Schedule based on the revised dates provided by OLRT for zones access and vehicle availabilities as a result of continued delays in the infrastructure development and Rolling Stock's vehicle availability projections, these revised dates have caused changes in the Approved Schedule and Completion of the Subcontract Works. The Subcontract Schedules submitted in the last four months (from December 2016 till March 2017) presented the incremental impact on the Revenue Service Date, using the existing level of Subcontract's resources.

The Subcontract Schedule submitted on April 10th, 2016 for the month of March 2017, represents the recent subcontract plan to complete the subcontract Works by December 6th, 2018 using the existing level of resources, and based on the most recent dates provided by OLRT for Zone Access and vehicle availabilities.

In this notice, the Subcontractor's Schedule submitted since December 2016 to April 2017 provide the incremental and advancing impact of OLRT's delays.

MILESTONE	P6 August 2016	P6 April 2017
CBTC wayside equip Installation and PICO complete – Zone 5	21 September 2016	28 April 2017
CBTC wayside equip installation and PICO complete – Zone 4	11 November 2016	24 April 2017 *
CBTC wayside equip installation and PICO complete – Zone 3	28 April 2017	1 June 2017
CBTC wayside equip installation and PICO complete – Zone 2	17 August 2017	25 October 2017
CBTC wayside equip installation and PICO complete – Zone 1	2 October 2017	25 October 2017
Qualified Vehicle #1 Available for Static PICO (1 st vehicle)	2 August 2016	17 April 2017 *
Qualified Vehicle #6 Available for Static PICO (2 nd Vehicle)	20 March 2017	26 April 2017 *
Dynamic PICO on MSF Zone 5 (1 st vehicle)	28 February 2016	30 May 2017
Dynamic PICO Vehicle #34 (last vehicle)	11 – 17 January '18	25 June – 3 July 18
Trial Running (20 days)	23 April – 23 May '18	9 Nov to 6 Dec 2018

* Indicates P6 completion dates that were not achieved to schedule.

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IMPACT OF CONTINUED DELAYS

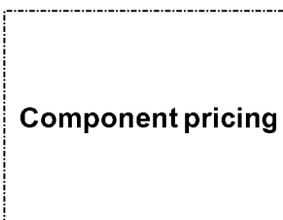
Interim Extension of Time

As OLRT's continued delays have caused the Subcontractor to revise their plan and impacts the Completion of the Subcontract Works until 6th December 2018, the Subcontract claims for an Extension of time to extend the Revenue Service Date to 6th December 2018. This interim entitlement is subject to change in the event that OLRT incurs further delays to the Subcontract Schedule. The forecast dates provided by OLRT via OLR-THA-00453 & OLR-THA-00437 serves as the basis for this interim Extension of Time claim.

Associated Costs

As the Subcontract will suffer extended time to complete the Subcontract Works, additional material expenditure will be incurred to:

- 1- Additional, protracted efforts for engineering teams
- 2- Additional, protracted efforts for Site Test & Commissioning
- 3- Additional, protracted efforts for project management team
- 4- Additional travel and living expenses for the project team



TOTAL:

Since the present notice is an interim Extension of Time and the delay event continues, the assessment of Extension of Time and associated costs will be updated according to the Subcontract provisions. Upon the event or circumstances giving raise to the claim has ceased, the Subcontractor shall provide the final assessment for the Extension of Time including the associated Costs. Thales reserves all its right to update the associated cost in accordance with the final Extension of Time incurred as a result of OLRT's delays.

CONCLUSION:

In light of above and pursuant to Sub-clause 2.1, 8.4, 10.2 & 11.3, Thales is entitled for an Extension of Time for Completion, and additional payment for all associated costs. Also, no LDs shall be applied on 24th of May 2018, as the Delay Liquidated Damage associated with Revenue Service milestone shall be in accordance with the new Completion Date on 6th December 2017.

Pursuant to Sub-clause 9.6 (a), OLRT shall:

- extend the Subcontract Completion Date to, no earlier than, 6th of December 2018
- pay to the Subcontractor all the associated costs
- grant relief to the Subcontractor from it's obligation to pay Delay Liquidated Damages, for the same period of Extension of Time.
- not consider the Subcontractor to be in default of its obligations under this Subcontract to the extent of this entitlement.

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If you have any questions, feel free to contact me.

Sincerely,



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