

# THALES

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*Via E-mail*

**DATE:** 29 February 2016

**Letter Reference:**      **OLRT-THALES-0473**

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

**Subject:**      **Integrated Schedule gaps and omissions**

**Reference:**      **OLR-THA-0322, T&C Planning, 5 Feb 2016**  
                          **OLR-THA-0327, PICO Dates, 23 Feb 2016**  
                          **OLR-THA-0329, OLRT Schedule, 24 Feb 2016**

Dear Alex,

The schedule and summary dates provided under the reference letters does not constitute an integrated schedule that enables THALES to organize its software development, site test & commissioning schedules to support our mutual objective of Revenue Service in May 2018.

As Systems Integrator, THALES is dependent upon OLRT to integrate our CBTC test & commissioning schedule with OLRT's master civil construction schedule and all other subsystems that will interface with CBTC. THALES continues to be concerned that OLRT does not have the requisite resources with the skills to integrate CBTC, vehicle and communication subsystems into the infrastructure development schedule for a cohesive, executable schedule.

Notwithstanding, THALES has undertaken a preliminary review of OLRT's revised schedule dates provided in the above mentioned letters and identified gaps in the schedule that illustrates and reinforce our concerns. These schedules require clarification from OLRT that include, but not limited to:

- OLRT's schedule does not specify the date for when the first qualified vehicle will be available for THALES to begin its System Acceptance Test (SAT) activities. In the program handed to THALES in the February 17th workshop, the date shown was 25th January 2017. OLRT is requested to formally confirm this date or confirm a revised date and integrate them within the OLRT integration schedule. Apparent in the following bullets, this is a critical date for THALES.
  - CBTC SAT for MSF & Yard' [OLRT Activity ID SYS.7220] is scheduled to start before the completion of installation and PICO tests, however THALES cannot begin SAT tests until both activities are completed.
  - CBTC SAT' for MSF & Yard and Zone 4 [OLRT Activity IDs SYS.7220 and SYS.2700] is shown to be complete before the delivery of the first qualified vehicle to site. However, the majority of SAT tests cannot start without a fully qualified CBTC equipped train.
  - Due to the late availability of first qualified vehicle, there will be a significant period of time where MSF & Yard and Zone 4 will be ready for SAT tests, but THALES will not be able to test the system.
  - VOBC software integration, [OLRT Activity ID VS3090] is shown to start on 5th October 2016 but a qualified vehicle is required for this activity.

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- In the schedule, it is unclear when any integrated testing between the CBTC system and other systems will take place.

SCADA and any other external communications that interface with CBTC must be added to and integrated with CBTC test and commissioning schedule.

Lastly, CBTC test and commissioning activities must be complete by December 2017 to allow sufficient time for OLRT safety validation, preparation of the THALES Safety Case and Trial Run prior to Revenue Service in May 2018.

In view of THALES' observations, we propose this issue be included on the agenda for our commercial meeting 1 March 2016 as we need to discuss how we can resolve as all previous schedule meetings has failed to achieve an integrated schedule.

Sincerely,



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