

Confederation Line Update: Rideau Transit Group Performance Plan

Update to Council

Transportation Services Department
May 13, 2020



Process – Background

- The City issued a Notice of Project Co Events of Default to Rideau Transit Group (RTG) on March 10, 2020.
- The notice to RTG included the reference to the contractual requirement for RTG to provide a plan to address the performance of the system.
- In response, the City received a plan and schedule (Plan) from RTG on March 31, 2020. RTG's Plan responded to the elements in the City's letter.
- The City undertook a careful review of the Plan provided by RTG with support from its external technical advisors which identified areas which required further discussion and details from RTG.
- The City asked for a revised Plan to be submitted by April 24, 2020 in order to address concerns regarding timelines, resourcing, and prioritization of technical issues.

Process – Current Status

- The City received an updated Plan from RTG on April 24, 2020.
- The City undertook a careful review of the Plan provided by RTG with support from its external technical advisors.
- RTG's Plan continued to be heavily qualified by potential anticipated impacts from the COVID-19 pandemic.
- The revised plan provides additional prioritization for key technical elements that drive performance; however, the overall timeframe to achieve necessary service improvements was unclear.
- While the City has ongoing concerns with the Plan, the City is working with RTG to accelerate the work as much as possible and working to identify additional elements of the plan that can be brought forward.

Corrective Action Plan – Status (1)

- In their updated submission, RTG focused on prioritization of the following seven elements as key drivers of reliability improvements:
 1. Vehicle Brakes
 2. Overhead Catenary System
 3. Switch Heater Failures
 4. Vehicle Traction Power (inductors, line contactors, circuit breakers)
 5. Vehicle Passenger Doors
 6. Vehicle Auxiliary Power (CVS units)
 7. Vehicle HVAC
- The revised plan provided additional details on each of the failure root causes, mitigations, and rough timelines for permanent repairs.
- Many underlying tasks are scheduled for completion this summer; however, a number of tasks continue into late 2020.

Corrective Action Plan – Status (2)

- Further to these technical issues, RTG identified the following key activities to enable the success of the performance improvement:
 1. Expedite delivery of spare vehicles from Stage 2
 2. Expedite the priority technical improvements
 3. Implement a system reliability growth plan
 4. Stabilize resourcing
 5. Stabilize supply chains
 6. Institute a governance structure for the reliability program
 7. Create a master schedule for all reliability improvement activities
- In addition to the specific technical issues, RTG has appointed a Project Manager to lead the deployment of these works and is working closely with RTM to increase the level of support available to undertake the work.

Corrective Action Plan – Vehicles (1)

- Starting in April 2020, the peak period train levels were reduced to 9 trains in response to the COVID-19 pandemic.
- The reduction in peak hour trains created a situation where additional trains became available for maintenance; however, the ability for RTG to respond was influenced by impacts from the COVID-19 pandemic.
- Availability of rotating stock such as CVS units (auxiliary power) has been diminished and the availability of modification parts and spare materials from European suppliers has also been diminished.
- Despite the supply chain impacts, RTG has completed and the City has accepted two vehicles from the Stage 2 order bringing the total operational fleet count to 36 vehicles.
- Further testing is underway on additional Stage 2 vehicles.

Corrective Action Plan – Vehicles (2)

Thirty-four (34) vehicles completed at Revenue Service Availability



Two (2) Stage 2 Vehicles Completed and In Service



Corrective Action Plan – Vehicles (3)

Current Fleet: 36 Vehicles (18 double trains)

In Service: 9 double trains



In Maintenance: 7 double trains



Spares: 2 double trains



Corrective Action Plan – Infrastructure

- In order to respond to the required work on the infrastructure, the City worked with RTG to establish a 2-day shutdown and a 5-day shutdown.
- The shutdown periods were used to implement critical works related to the seven reliability issues noted by RTG. Specifically, the following critical tasks were initiated during the shutdowns:
 - i. Testing of updated train software control to improve vehicle and system performance and reduce the incidence of wheel flats. Note that further testing is required and the software is still to be installed;
 - ii. Detailed cleaning and inspection of the overhead catenary system to remove buildup of road chemicals and to replace compromised parafil units where necessary;
 - iii. Inspections, adjustments, and maintenance of the overhead catenary system to optimize the positioning of the wires and rigid rails;
 - iv. Routine track inspections, switch heater tests, routine tunnel ventilation testing, station cleanup and washing, and other maintenance; and,
 - v. Additional vehicle maintenance and modification work.

Reliability Improvement Timelines

- The City is focused on service outcomes and understanding when the key technical improvements will culminate in performance improvements.
- RTG's Plan does not provide a date for the overall service improvement but does provide timelines for individual items. A number of the timelines for individual items extend through to the end of the year.
- The City is pressing RTG to accelerate works as much as possible to ensure that we have leveraged the current period of low ridership and to ensure that service reliability improves at the very latest by the end of August.
- As mentioned, the City allowed RTG to proceed with a 2-day shutdown and a 5-day shutdown to accelerate works that are directly linked to performance improvements.
- We expect to undertake additional shutdown periods this summer in order to aggressively advance the performance improvements.

- Staff will continue to work closely with RTG to ensure that their entire organization remains focused on improving the service and to assess if additional shutdowns are required to help accelerate further work.
- In order to correct the Project Co Events of Default, RTG will need to deliver and execute on a plan that eliminates the performance issues encountered during the first six months of service and provides the reliability the City is entitled to under the PA. The Project Co Events of Default will continue to persist in this interim period.
- The City is focused on achieving a step change in performance before the end of the summer while keeping an eye on the key reliability improvements that must be demonstrated during next winter's service.
- Additional updates will be provided to Council in June 2020.