



Media Release: Immediate

Regional Municipality of Waterloo

Consolidated

Council Agenda

Wednesday, September 19, 2018

Closed Session 6:30 p.m.

Waterloo County Room

7:00 p.m.

Regional Council Chamber

Frederick Street, Kitchener, Ontario

* Denotes item(s) not part of original agenda

1. Moment of Silence

2. Roll Call

3. Motion to go into Closed Session

That a closed meeting of Council be held on Wednesday, September 19, 2018 at 6:30 p.m. in the Waterloo County Room in accordance with Section 239 of the Municipal Act, 2001, for the purposes of considering the following subject matters:

- a) receiving of advice subject to solicitor-client privilege, negotiations on behalf of the municipality and proposed or pending disposition of land in the Township of Woolwich

4. Motion to Reconvene Into Open Session

5. Declarations of Pecuniary Interest under the “Municipal Conflict Of Interest Act”

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6. Presentations

7. Petitions

8. Delegations

9. Minutes of Previous Meetings

- a) Council – August 23, 2018
- b) Community Service – September 11, 2018
- c) Administration and Finance – September 11, 2018
- d) Planning and Works – September 11, 2018
- e) Closed Committee – September 11, 2018

10. Communications

- a) Council Information Package – September 14, 2018 **(Distributed Electronically)**

11. Motion To Go Into Committee Of The Whole To Consider Reports

12. Reports

Committee Reports

- a) [Community Services](#) - attached & marked SS-180911

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- b) [Administration & Finance](#) - attached & marked FS-180911

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- c) [Planning & Works](#) - attached & marked PS-180911

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- * [Closed Planning & Works](#) – attached & marked PS-180911

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Chief Administrative Officer

Regional Chair

Regional Clerk**13. Other Matters Under Committee Of The Whole**

- * a) [TES-RTS-18-08](#), ION Vehicle and Testing Update (Information)

Page 13**14. Motion For Committee Of The Whole To Rise And Council Resume****15. Motion To Adopt Proceedings Of Committee Of The Whole****16. Motions****17. Notice of Motion****18. Unfinished Business****19. Other Business****20. Questions****21. Enactment Of By-laws – First, Second & Third Readings**

- a) A By-law to Amend By-law Number 58-87, as Amended, Being a By-law to Designate and Regulate Controlled-Access Roads (Regional Road #58 (Fischer-Hallman Road), City of Waterloo)
- b) A By-law to Dedicate Certain Lands as a Part of the Highway Known as King Street East (Regional Road #8) in the City of Kitchener, Regional Municipality of Waterloo
- c) A By-law to Confirm the Actions of Council – September 19, 2018

22. Adjourn

SS-180911

The Regional Municipality of Waterloo

Community Services Committee

Summary of Recommendations to Council

The Community Services Committee recommends as follows:

1. That the Regional Municipality of Waterloo take the following action with respect to the Immigration Partnership Programs of the Community Services Department as outlined in report CSD-IP-18-01 dated September 11, 2018:
 - a) Approve an increase to the 2018 Operating Budget for the Immigration Partnership in the amount of \$109,300 gross and \$0 net regional levy for expenditures related to marketing, promotion, materials, public education, training and networking events funded 100% by Immigration, Refugees and Citizenship Canada and the United Way Waterloo Region Communities.

September 11, 2018

The Regional Municipality of Waterloo

Administration and Finance Committee

Summary of Recommendations to Council

The Administration and Finance Committee recommends as follows:

1. That the Regional Municipality of Waterloo approve the pre-budget procurement of 46 vehicles and pieces of equipment which are scheduled for replacement in 2019, with funding from the appropriate vehicle/equipment reserves, as set out in report COR-FFM-18-13/COR-TRY-18-83 dated September 11, 2018.
2. That Regional Municipality of Waterloo advance \$80,000 from the 2020 Vehicle Replacement Capital Program to 2018 for the early replacement of eight (8) Volkswagen vehicles as part of the Volkswagen/Audi 2.0 Litre TDI Emissions Class Action Settlement Program as set out in report COR-FFM-18-14/COR-TRY-18-84 dated September 11, 2018.

September 11, 2018

The Regional Municipality of Waterloo

Planning and Works Committee

Summary of Recommendations to Council

The Planning and Works Committee recommends as follows:

1. That The Regional Municipality of Waterloo direct and authorize the Regional Solicitor to take the following actions with respect to the expropriation of lands for the proposed reconstruction of Fischer-Hallman Road (Regional Road No.58), extending from approximately 500 metres south of Bleams Road (Regional Road No.56) to Plains Road, in the City of Kitchener in the Regional Municipality of Waterloo as detailed in report PDL-LEG-18-61 dated September 11, 2018:

1. Complete application(s) to the Council of The Regional Municipality of Waterloo, as may be required from time to time, for approval to expropriate land, which is required for the reconstruction of Fischer-Hallman Road (Regional Road No. 58), extending from approximately 500 meters south of Bleams Road (Regional Road No.56) to Plains Road and described as follows:

Fee Simple Partial Taking:

- i. Part of Lot 9, Beasley's New Survey, being Part 6 on 58R-19939, Part of PIN 22723-0026 (LT) (380-388 Plains Road, City of Kitchener);
- ii. Part of Lots 152 and 153, German Company Tract, being Parts 1, 2 and 3 on 58R-19938, Part of PIN 22723-0078 (LT) (1384 Huron Road, City of Kitchener);
- iii. Part of Lot 153, German Company Tract, being Parts 4 and 5 on 58R-19938, Part of PIN 22723-0078 (LT) (1384 Huron Road, City of Kitchener);
- iv. Part of Block 1, Plan 58M-466, being Part 6 on 58R-19941, Part of PIN 22607-1650 (LT) (Part of Vacant Land, Corner of Fischer-Hallman Road and Seabrook Drive, City of Kitchener);
- v. Part of Lot 5, Registrar's Compiled Plan 1471, being Parts 7, 8, 9, 10, 11 and 12 on 58R-19942, Part of PIN 22607-2284 (LT) (1340 Fischer-Hallman Road, City of Kitchener);

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- vi. Part of Lot 158, German Company Tract, being Parts 1, 2, 3, 4, 5, 6, 8, 10 and 11 on 58R-19936, Part of PIN 22607-1250 (LT) (945 Huron Road, City of Kitchener);
- vii. Part of Lot 6, Registrar's Compiled Plan 1471, being Part 2 on 58R-19941, Part of PIN 22607-2190 (LT) (Vacant Land, Fischer-Hallman Road, City of Kitchener);
- viii. Part of Lot 156, German Company Tract, being Part 4 on 58R-19941, Part of PIN 22607-1644 (LT) (1548 Fischer-Hallman Road, City of Kitchener);

Permanent Easement – Hydro Anchor:

The right and easement, being an easement in gross, for itself, its successors and assigns and anyone authorized by it, in perpetuity to, at any time enter upon the following properties for purposes of constructing, laying down, installing, inspecting, repairing, altering, enlarging, replacing, correcting, operating, and maintaining hydro installations and infrastructure, both under ground and overhead, including cables, pipes, conduits of all kinds, all necessary poles, supporting wires and braces and other equipment and appurtenances thereto, herein referred to as the utility plant, which may be determined necessary from time to time through, over, upon, along and across the lands, and for all such purposes the free, unimpeded and unobstructed access for itself, its successors and assigns, servants, agents, contractors, workers and anyone authorized by it, and vehicles, supplies and equipment at all times and for all purposes and things necessary for or incidental to the exercise and enjoyment of the right and easement:

- ix. Part of Block 1, Plan 58M-466, being Part 7 on 58R-19941, Part of PIN 22607-1650 (LT) (Part of Vacant Land, Corner of Fischer-Hallman Road and Seabrook Drive, City of Kitchener);

Temporary Easement:

The right and easement, being a temporary easement in gross, for the free and unobstructed, right, interest and easement terminating on the 30th day of November, 2025, subject to renewal as may be required, for itself, its successors and assigns, and anyone authorized by it, on, over, under and through the following properties for the purposes of archaeological studies, excavation, construction, installation, replacement, alteration, grading, and landscaping as required in connection with construction of the road improvements, and all related improvements, and works ancillary thereto and for such purposes, the free, unimpeded and unobstructed access to the lands

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at all times by employees, agents, contractors, workers and anyone authorized by it, and vehicles, supplies and equipment at all times and for all purposes and things necessary for or incidental to the exercise and enjoyment of the right and easement:

- x. Part of Lot 9, Beasley's New Survey, being Part 7 on 58R-19939, Part of PIN 22723-0026 (LT) (380-388 Plains Road, City of Kitchener);
 - xi. Part of Lots 152 and 153, German Company Tract, being Part 6 on 58R-19938, Part of PIN 22723-0078 (LT) (1384 Huron Road, City of Kitchener);
 - xii. Part of Block 1, Plan 58M-466, being Part 5 on 58R-19941, Part of PIN 22607-1650 (LT) (Part of Vacant Land, Corner of Fischer-Hallman Road and Seabrook Drive, City of Kitchener);
 - xiii. Part of Lot 5, Registrar's Compiled Plan 1471, being Parts 1, 2, 3, 4, 5, and 6 on 58R-19942, Part of PIN 22607-2284 (LT) (1340 Fischer-Hallman Road, City of Kitchener);
 - xiv. Part of Lot 158, German Company Tract, being Parts 7 and 9 on 58R-19936, Part of PIN 22607-1250 (LT) (945 Huron Road, City of Kitchener);
 - xv. Part of Lot 6, Registrar's Compiled Plan 1471, being Part 1 on 58R-19941, Part of PIN 22607-2190 (LT) (Vacant Land, Fischer-Hallman Road, City of Kitchener);
 - xvi. Part of Lot 156, German Company Tract, being Part 3 on 58R-19941, Part of PIN 22607-1644 (LT) (1548 Fischer-Hallman Road, City of Kitchener);
2. Serve notices of the above applications(s) required by the Expropriations Act (the "Act");
 3. Forward to the Chief Inquiry Officer any requests for a hearing that may be received within the time prescribed by the Act;
 4. Attend, with appropriate Regional staff, at any hearing that may be scheduled;
 5. Discontinue expropriation proceedings or any part thereof, in respect of the above described lands, or any part thereof, upon the registration on title of the required documentation to complete a transaction whereby the required interests in the lands are conveyed or if otherwise deemed appropriate in the opinion of the Commissioner of Transportation and Environmental Services and the Regional Solicitor; and

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6. Do all things necessary and proper to be done and report thereon to Regional Council in due course.

2. That Regional Council approve the installation of two wildlife tunnels and directional fencing to address the two highest priority turtle crossing locations along Roseville Road at Barrie's Lake, as per option 2 as recommended in report TES-TRP-18-12, dated September 11, 2018.

3. That the Regional Municipality of Waterloo approve the Oversize Load Policy to regulate vehicles and/or loads on Regional roads that exceed recommended weight, length, width and height dimensions, as outlined in Appendix B of Report TES-TRP-18-13, dated September 11, 2018, with an effective date of January 1, 2019.

4. That the Regional Municipality of Waterloo approve an amendment to Controlled Access By-law #58-87 for a maintenance access on the east side of Regional Road #58 (Fischer-Hallman Road), approximately 355 meters north of Regional Road #09 (Erb Street West) in the City of Waterloo, as described by Report PDL-CPL-18-36, dated September 11, 2018.

5. That the Regional Municipality of Waterloo pass a by-law to add to the Regional Road System to form part of Regional Road 8 (King Street East, City of Kitchener) the lands described as:
 - Part of Lots 14 and 15, Plan 986, designated as Parts 1 and 4 on Reference Plan 58R-2205, in the City of Kitchener, being Part of PIN 2258-0082(LT)

That the Regional Solicitor be directed to register notice of such by-law on title to the lands that are the subject of the by-law.

6. That the Regional Municipality of Waterloo pass a by-law to add to the Regional Road System to form part of Regional Road 17 (Sawmill Road, Township of Woolwich) the lands described as:
 - Part of Lot 70, German Company Tract, (formerly Township of Waterloo), Township of Woolwich, as more particularly described in Instrument

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Number B-29995.

And That the Regional Solicitor be directed to register notice of such by-law on title to the lands that are the subject of the by-law.

7. That the Regional Municipality of Waterloo direct and authorize the Regional Solicitor to take the following actions with respect to the expropriation of lands for the proposed reconstruction of Bridge Street (Regional Road No.52) in the Cities of Kitchener and Waterloo in the Regional Municipality of Waterloo as detailed in report PDL-LEG-18-51 dated September 11, 2018.
 1. Complete application(s) to the Council of The Regional Municipality of Waterloo, as may be required from time to time, for approval to expropriate land, which is required for the reconstruction of Bridge Street, in the Cities of Kitchener and Waterloo and described as follows:

Fee Simple Partial Taking:

- i. Part of Lot 60, German Company Tract, being Part 1 on 58R-20248, Part of PIN 22343-0268 (LT) (207 Bridge Street, City of Waterloo);
2. Serve notices of the above applications(s) required by the Expropriations Act (the "Act");
3. Forward to the Chief Inquiry Officer any requests for a hearing that may be received within the time prescribed by the Act;
4. Attend, with appropriate Regional staff, at any hearing that may be scheduled;
5. Discontinue expropriation proceedings or any part thereof, in respect of the above described lands, or any part thereof, upon the registration on title of the required documentation to complete a transaction whereby the required interests in the lands are conveyed or if otherwise deemed appropriate in the opinion of the Commissioner of Transportation and Environmental Services and the Regional Solicitor; and

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6. Do all things necessary and proper to be done and report thereon to Regional Council in due course.

8. That the Regional Municipality of Waterloo accept the proposal of Avia NG Inc. for C2018-17 Implementation of the Airport Master Plan project in the amount of \$1,168,130.06 plus all applicable taxes as set out in report PDL-AIR-18-07/COR-TRY-18-82 dated September 11, 2018.

September 11, 2018

The Regional Municipality of Waterloo Planning and Works Committee

Summary of Closed Recommendations to Council

The Planning and Works Committee recommends as follows:

1. That the Regional Municipality of Waterloo endorse the following Regional volunteers as proposed nominees for the 2018 Ontario Heritage Trust Recognition Awards, namely Lawrence Lamb and Cheri Drung (teacher) and the students of Cameron Heights Collegiate Institute who support the Waterloo Wellington Children's Groundwater Festival.



Report: TES-RTS-18-08

Region of Waterloo
Transportation and Environmental Services
Rapid Transit

To: Chair Ken Seiling and Members of the Regional Council

Date: September 19, 2018

File Code: A02-30/PW

Subject: ION Vehicle and Testing Update

Recommendation:

For information.

Summary:

Good progress is being made in the installation of the specialized equipment on to the Bombardier vehicles and first vehicles are very close to achieving preliminary acceptance (a significant step in being ready to carry passengers). The first vehicle with the specialized equipment installed was shipped to the Region on September 17, 2018 and is expected to arrive late this week or early next week. This vehicle will allow GrandLinq to continue to test the integration of the tracks and controls systems with the train.

Staff, Bombardier and GrandLinq continue to work towards the goal of achieving start of service in December 2018.

To prepare for start of service the public outreach program to educate the public on the ION train system continues - in particular how to be safe around the trains. The fall will also see a number of events that will allow the public to see and board an ION train, in conjunction with various community events.

Report:

As requested by Council on April 18, 2018, Region staff are providing this update on ION LRT vehicles and testing status for the period July 19, 2018 to September 17, 2018.

This update provides a status on vehicles in Waterloo and Kingston, testing and training status on the Project and events that are scheduled for this fall.

Waterloo Vehicles

Eight vehicles are currently in Waterloo Region. Three vehicles are undergoing on-board equipment installation. Installation of this equipment is expected to be complete in late September/early October. Another five vehicles are being used for testing and training purposes in rotation. Installation of the specialized equipment for these vehicles will start following the initial three.

To begin service, vehicles must go through an acceptance process. This process has started with a demonstration burn-in starting in late August 2018.

Table 1 shows the current status of vehicles in Waterloo Region.

Kingston Vehicles

Six vehicles have remained in Kingston. These vehicles are not required to support the current testing or driver training in Waterloo and there has been no impact to the schedule from these vehicles remaining in Kingston. The Kingston facility was designed for vehicle assembly and is the best location for making the required modifications (upgrades) to the trains. The staff that assembled the train are best able to make modifications to the train.

Assembly of the six vehicles in Kingston, at Bombardier's production facility is complete. There are still modifications (upgrades) being made to the vehicles. The installation of the specialized equipment is a major modification. Of the remaining vehicles in Kingston Vehicle 501 requires the most modifications. Vehicle 501 was sent to Kingston facility to undergo major production upgrades in early 2018, and work on this vehicle has been rescheduled to allow Bombardier to focus on GrandLinq On-board Equipment Installations on other vehicles.

Vehicle 511 has completed on-board equipment installation and was shipped to the Region on September 17, 2018. It is expected to arrive late this week or early next week. Two other vehicles in Kingston are in the process of on-board equipment installation. Two other vehicles are being used for multi-vehicle testing.

Table 2 shows the current status of vehicles at Bombardier's Kingston Facility.

On-Board Equipment Installation

Prior to going into service it is necessary to install certain specialized on-board equipment on each of the vehicles. As part of the Project, GrandLinq is responsible for ensuring the finished vehicle integrates seamlessly with the built system. On-board equipment includes radios, antennas and on-board systems to control gates, crossings, and traffic signals. This also allows the vehicles to communicate with ION Control Centre. With this equipment, ION can run at service speeds and at consistent times throughout operations.

The Region has finalized an agreement with Bombardier to install GrandLinq's on-board equipment and to make the necessary onboard modifications to accommodate the equipment on each train. Some of the trains are in process of retrofit or will be retrofitted in Waterloo, with the remainder completed in Kingston. To expedite installation one train (Vehicle 510) will remain in Kingston for on-board installations, rather than complete installations in Waterloo as originally planned.

The first vehicle from Kingston (Vehicle 511) has been retrofitted, and was shipped on September 17, 2018 and will arrive in Waterloo late this week or early next week. The next vehicle in Kingston (Vehicle 512) is expected to be inspected the week of September 24, 2018, and ship shortly after. Bombardier is anticipating completing on-board equipment installation on four vehicles in the next five weeks.

On-board equipment installation is the next vital step to getting to service start. After the equipment is installed, extensive testing needs to be completed by GrandLinq to ensure the system is working correctly. Following installation of on-board equipment, the vehicles go through an acceptance process. The first step is to achieve a Preliminary Acceptance Certificate.

To achieve a Preliminary Acceptance Certificate on any vehicle, the following needs to be complete:

- Qualification Testing on Pilot Vehicles (in Kingston);
- Vehicles are fully assembled;
- Modifications are completed on the vehicles. Modifications are constantly being implemented to ensure reliability of the vehicle fleet; and
- Each vehicle is inspected and completes routine tests. Routine tests are done on every vehicle to make sure all the components of the vehicle work properly.

The next step following Preliminary Acceptance is to achieve Final Acceptance Certificate on the vehicle. Once this is complete, the vehicle is ready to carry passengers.

To achieve a Final Acceptance Certificate on any vehicle, the following needs to be complete after a Preliminary Acceptance:

- Check and Acceptance Tests;
- 600 kilometer "burn-in" test to make sure there are no reliability issues on the vehicle; and
- Finalization of documentation and safety certification

Testing Status

To get to revenue service, a significant amount of testing needs to be completed by Bombardier and GrandLinq.

Bombardier is completing qualification testing on pilot vehicles in Kingston. In addition, Bombardier is doing some additional qualification testing in the Region. These tests are to show the vehicle performs correctly to the specifications.

At the same time, GrandLinq is completing System Integration Testing in Waterloo Region. System Integration Testing is where both the built infrastructure and the vehicle are checked to make sure they work together. The next System Integration Tests involve on-board equipment. After Vehicle 511 is in Waterloo Region, extensive testing will be completed by GrandLinq. This is the last set of tests to confirm the built system infrastructure and the vehicle are working together. Successful completion of these tests is critical to achieving start of service in December 2018.

GrandLinq is also completing rework activities through this reporting period.

Bombardier has started dry run tests for burn-in on some vehicles. These dry run tests will not count to official burn in mileage, but will help identify any vehicle reliability issues as soon as possible. This will help ensure reliable service once ION light rail becomes operational.

On a typical day there are two vehicles being used for testing activities.

Table 3 shows the current status of testing.

Training Status

GrandLinq/Keolis continues training on the first of three sets of train operators. Once trained, drivers will be supporting the ongoing testing and burn in programme and system demonstration tests as well as ongoing driving to maintain skill levels. There are currently 10 drivers being trained. Four LRV's have been allocated specifically for the training and qualification of GrandLinq/Keolis Operators. Two to three of the vehicles are being used everyday for training these drivers and it has become commonplace for three vehicles to be operating on the right of way during the same time period throughout the day. A fourth LRV serves as a hot spare available for replacing one of the other training vehicles if required.

The Bombardier vehicles are complex vehicles that require routine maintenance as well as any necessary repairs or emergency repairs. Training of the staff that will be doing these repairs is continuing. These staff are currently helping to support the vehicles during the testing programme.

Events

An ION vehicle will be present at some upcoming community events. The vehicle will be parked at an ION station during these events, providing residents an opportunity to view and board a vehicle. ION staff will be on hand to provide safety information, service information and to answer any questions from residents. GRT staff will also be available to provide information on network changes and light rail integration.

These events include:

- September 6 – Waterloo Fest (Waterloo Public Square station)
- September 19 – University of Waterloo station (University of Waterloo station)
- October 4 – Oktoberfest (Waterloo Public Square station)
- October 26 – UW convocation (University of Waterloo station)
- TBD – ION staff are working on an additional event in Kitchener
- December 7 – Christkindl Market (Kitchener City Hall station)

These events have been reviewed, approved and timed to not impact any testing or training that could impact start of service.

Summary

Assembly is complete on all of the vehicles, good progress is being made in the installation of the specialized equipment, and first vehicles are very close to achieving preliminary acceptance (a significant step in being ready to carry passengers). The first vehicle with the specialized equipment installed was shipped to the Region on September 17, 2018 and is expected to arrive late this week or early next week. This vehicle will allow GrandLinq to continue to test the integration of the tracks and controls systems with the train.

Grandlinq / Keolis are actively working on driver and mechanic training, and system testing.

Staff, Bombardier and GrandLinq continue to work towards the goal of achieving start of service in December 2018. Staff continue to monitor Grandlinq and Bombardier's progress, with a focus on critical items that could impact this goal. Some of these issues include: delivery of ready for service vehicles; system integration and/or testing issues; driver and mechanic training; and safety certification.

To prepare for start of service the public outreach program to educate the public on the ION train system continues - in particular how to be safe around the trains. The fall will also see a number of events that will allow the public to see and board an ION train, in conjunction with various community events.

Corporate Strategic Plan:

The report supports Focus Area 3.1 of Council's Strategic Focus: Develop an implementation plan for light rail transit including corridor and station area planning.

Financial Implications:

The approved capital budget for the LRT project totals \$868 million, with funding provided by the Federal Government (\$265 million), Provincial government (\$325 million) with the balance funded by the Region including the repayment over the next 30 years of \$131 million of funding provided by GrandLinq.

Currently it is anticipated that the schedule changes and associated costs can all be accommodated within the approved project budget. As has been noted in previous reports the Region will seek to recover from Bombardier any additional costs incurred as a result of the delays in vehicle delivery.

Other Department Consultations/Concurrence:

This report was prepared with input from Corporate Services.

Attachments:

Table 1: Current Status of Vehicles in Waterloo Region

Table 2: Current Status of Vehicles in Kingston

Table 3: Testing Status

Prepared By: Thomas Schmidt, Commissioner, Transportation and Environmental Services

Approved By: Thomas Schmidt, Commissioner, Transportation and Environmental Services

Table 1: Current Status of Vehicles in Waterloo Region

Vehicle Number	Ownership	Status	GrandLinq On-board Equipment Installation
502	Bombardier owned vehicle	Vehicle undergoing GrandLinq On-board Equipment Retrofit, started on July 16, 2018	51% complete
503	Bombardier owned vehicle	Vehicle undergoing GrandLinq On-board Equipment Retrofit, started on July 16, 2018	51% complete
504	Bombardier owned vehicle	Vehicle undergoing GrandLinq On-board Equipment Retrofit, started on July 16, 2018	51% complete
505	Bombardier owned test and training vehicle	Vehicle is assembled. Propulsion and braking routine testing 100% complete. Modifications are ongoing. Vehicle used for system testing and driver training.	Not yet installed
506	Bombardier owned test and training vehicle	Vehicle is assembled. Propulsion and braking routine testing 100% complete. Modifications are ongoing. Vehicle used for system testing and driver training.	Not yet installed
507	Bombardier owned test and training vehicle	Vehicle is assembled. Propulsion and braking routine testing 100% complete. Modifications are ongoing. Vehicle used for system testing and driver training.	Not yet installed
508	Bombardier owned test and training vehicle	Vehicle is assembled. Propulsion and braking routine testing 100% complete. Modifications are ongoing. Vehicle used for system testing and driver training.	Not yet installed
509	Bombardier owned test and training vehicle	Vehicle is assembled. Propulsion and braking routine testing 100% complete. Modifications are ongoing. Vehicle used for system testing and driver training.	Not yet installed

Table 2: Current Status of Vehicles in Kingston

Vehicle Number	Vehicle Assembly	Routine Testing Status	Production Status and Notes	GrandLinq On-board Equipment Installation
501	Vehicle almost complete. Upgrades on hold.	Routine Testing paused	Vehicle modifications on hold - focus on GrandLinq On-board Equipment Installations on other vehicles.	Not yet installed
510	Complete and inspected	93%	Being used in vehicle Qualification Testing	Not yet installed
511	Complete and inspected	97%	On-board equipment is installed. Functional testing completed. Departure from Kingston: September 17, 2018	Installed
512	Complete and inspected	94%	Currently undergoing retrofits for On-board equipment	48%
513	Complete and inspected	94%	Currently undergoing retrofits for On-board equipment	27%
514	Complete and inspected	94%	Being used in vehicle Qualification Testing	Not yet installed

Table 3: Testing Status

Location	Test	Status	Notes
Kingston	Bombardier Qualification	On going	Multi (coupled) vehicle testing is ongoing.
Waterloo Region	Bombardier Qualification	On going	Vehicle communications and signage testing.
	GrandLinq System Integration	On going	Continue testing of grade crossing warning systems and start of ride quality testing. Preparations for on-board equipment testing.
	Vehicle Burn-in	Not started	Planned to be started once reliability modifications are completed on vehicles.
		Dry-run	Bombardier to advance “dry-run” burn-in on some vehicles to begin to identify any vehicle reliability issues as soon as possible. Planned now to start in September.
	Simulation / Demonstration	Not started	System is run as if it was in service, but will not be picking up passengers. Last step in test process, all other tests need to be completed first.