

BC MINISTRY OF TRANSPORTATION

Electrical Maintenance Specification E-150 (Version 6 – May/05)

LANE CONTROL SYSTEM MAINTENANCE

1. OBJECTIVE

To ensure that Lane Control Systems are operational and function in accordance with their design and Ministry standards.

2. GENERAL PERFORMANCE SPECIFICATIONS

2.1 Routine Maintenance Services

The Contractor must:

- a) repair Lane Control Systems;
- b) perform preventative maintenance of Lane Control Systems;
- c) replace non-functioning Lane Control System equipment and components, including all connected equipment and components;
- d) remove graffiti;
- e) ensure visibility;
- f) implement new timing plans;
- g) document all Lane Control System activities.

2.2 Additional Services

The Contractor must as and when required by the Ministry:

- a) Modify Existing Lane Control System equipment as determined by the Ministry.

3. DETAILED PERFORMANCE SPECIFICATIONS

3.1 Routine Maintenance Services

The Contractor must:

- a) repair or replace Lane Control Systems and their components;
- b) perform preventative maintenance;
- c) replace non-LED lamps;
- d) replace LED signal head light sources;
- e) test all conflict monitors;
- f) notify the PHCC of any malfunctioning Lane Control System causing a traffic disruption and inform the PHCC when repaired;
- g) remove or cover graffiti in accordance with the *Highway Maintenance Specification – Litter collection and Graffiti Removal*;
- h) implement Lane Control System timing plans; and
- i) document all activities related to electrical maintenance of Lane Control Systems including but not limited to field inspections, patrols, testing, complaints received / responses made, and all changes made to the controller equipment and operations, as per Section 600 of the *Traffic Controller Design Manual*.

3.1.1 Performance Time Frames

The following establishes the maximum time, from the time the deficiency was detected or reported to the Contractor, within which the Contractor must Respond and initiate repairs:

- a) repair or replace Lane Control Systems and their components that constitute or have the potential to constitute a safety hazard to the Highway User within 1 hour;

- b) repair or replace Lane Control Systems and their components that create traffic disruptions within 1 hour;
- c) repair or replace Lane Control Systems and their components that do not operate as per their original design, but are not immediate safety hazards or causing traffic disruptions, within 7 working days;
- d) repair or replace Lane Control Systems and/or their components that do not create a safety hazard, do not cause traffic disruptions, and are structurally sound but have identified deficiencies within 3 months;

The Contractor must:

- a) perform preventative maintenance as required;
- b) replace all non-LED lamps of signal heads once every 12 months;
- c) replace LED signal head light sources as required;
- d) test all conflict monitors once every 12 months;
- e) notify the PHCC of any malfunctioning Lane Control System causing a traffic disruption within 5 minutes from the time the malfunction was detected by or reported to the Contractor and inform the PHCC when repaired;
- f) remove or cover graffiti in accordance with the Performance Time Frames listed in the *Highway Maintenance Specification – Litter Collection and Graffiti Removal*;
- g) implement Lane Control System timing plans within 7 days of receiving the plan or as directed by Manager, Electrical Services; and
- h) document all activities related to electrical maintenance of Lane Control Systems immediately.

3.2 Additional Services

The Contractor must as and when required by the Ministry:

- a) Modify existing operational field Lane Control System hardware as determined by the Ministry

3.2.1 Performance Time Frames

The Contractor must:

- a) Modify existing operational field Lane Control System hardware to meet the implementation schedule for the project as determined by the Manager, Electrical Services;

3.3 Materials

Refer to the Introduction.