

Ministry of Transportation and Infrastructure

### ELECTRICAL AND TRAFFIC ENGINEERING MANUAL

# Appendix 200.3

### **Developer Approval Process - Lighting**

## Developer Information Sheet – Street Lighting

(Projects that do not include traffic signals)

#### A: How does a development approval application get processed and who is the contact?

The primary contact for a Developer is the District Development Technician (DDT). The DDT is responsible for ensuring that the application is processed, and all appropriate reviews and approvals are obtained from the various business units in the Ministry of Transportation and Infrastructure (MoTI). These business units consist of Traffic Engineering, Electrical Engineering, Electrical Maintenance, Highway Engineering, District Operations, Property Services and Pavement Markings.

#### B: What must be done to ensure the application is processed efficiently?

The sequence of events that must occur to successfully process a development approval application that may include new or modified street lighting or other minor electrical work is as follows (Note: If the development requires a traffic signal the Developer Approval Process for Traffic Signals should be followed):

- 1) The Developer contacts the local Ministry District Office with the application for development. The District office assigns a DDT to administer the process.
- Based on the Developer application, the DDT determines whether a Traffic Impact Study (TIS) needs to be done. The Terms of Reference for the TIS are prepared by the Developer, Traffic Engineering and Planning departments, and then submitted to the DDT for acceptance.
- 3) The Developer arranges for the TIS to be completed by a qualified Transportation Engineer or Engineering firm and then returns it to the DDT.
- 4) The DDT arranges for the TIS to be reviewed by the Ministry Traffic Engineering and Planning groups. The DDT accepts the preliminary scope and extent of the works based on the TIS and Traffic Engineering input. The DDT may request the Developer to submit preliminary drawings at this stage.
- 5) The DDT notifies all Provincial agencies, local governments, and utilities that may be impacted by the development or may be planning construction, rehabilitation or maintenance activities in the development area.
- 6) In situations where the project spans multiple jurisdictions the DDT arranges to confirm the jurisdictional boundaries with the municipality and receive a letter from the municipality agreeing to the boundaries.
- 7) Ministry departments may be required to recover costs from the Developer. If so, the Ministry department will provide these cost estimates to the DDT who will then advise the Developer of these charges.
- 8) The DDT advises the Developer that they may proceed with the civil design of the project. The Developer requests the existing record drawings from the DDT.
- 9) The Developer:
  - i) Arranges to have their Engineering Consultant prepare a civil design for the project showing the existing and proposed geometric improvements; existing and proposed guide, regulatory, warning and guide signing; and existing and proposed pavement markings. The drawings shall be signed and sealed by a professional engineer.
  - ii) Arranges to have their Traffic Engineering Consultant prepare a TAC Rural Intersection Lighting warrant, if applicable.

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- 10) The DDT forwards the civil design drawings to Ministry Highway Design engineering who will either accept the design or identify deficiencies and return them to the DDT. If the design is not accepted the DDT advises the Developer to arrange for changes through their Engineering Consultant and resubmit to the DDT.
- 11) Once the civil drawings are accepted, the DDT advises the Developer that they may proceed with the electrical design. Electrical designs proceeding beyond this point without Ministry accepted civil drawings may result in additional costs to the Developer due to changes required to meet Ministry standards.
- 12) The Developer:
  - i) Arranges to have the electrical design completed by their Electrical Design Consultant based on the approved civil design drawings and lighting warrants. The Developer is responsible for providing a set of preliminary electrical drawings to the DDT who will submit the design to Electrical and ITS Engineering for review.
  - Submits one full size set of signed and sealed electrical design drawings including digital ACAD and lighting design files as well as an Electrical Design Folder to the DDT (Refer to Section 200, Electrical Design Submissions).
  - iii) Arranges for Irrevocable Line of Credit in the Ministry's name.
- 13) The DDT forwards the final electrical design drawings, lighting warrants, digital files and design folder to Ministry Electrical and ITS Engineering for review and acceptance.
- 14) If the drawings are not accepted, Ministry Electrical and ITS Engineering will advise the DDT that the developer must resubmit. Once the drawings are accepted, Ministry Electrical and ITS Engineering informs the DDT. The DDT requests the Developer to submit a single set of final full-size, hard copy signed and sealed drawings. The DDT will forward the final drawings to Ministry Electrical and ITS Engineering. Ministry Electrical and ITS Engineering will distribute the final drawings to the Manager, Electrical Services and the Senior Traffic Operations Engineer.
- 15) The Manager, Electrical Services obtains an estimate for the work to be undertaken by the Electrical Maintenance Contractor, based on the breakdown of work prepared by the Electrical Consultant. The Manager, Electrical Services forwards copies of the scope of work and costs to the DDT. The DDT will forward the costs and scope of work to the developer.
- 16) The Developer submits to the DDT a Traffic Management Plan, construction schedule and appropriate financial security for the complete project construction. The Ministry will recover from the Developer all Ministry costs for the development (inspections done by the electrical maintenance contractor, paint marking, Ministry supplied materials, design review, etc.).
- 17) The Developer submits to the DDT a letter from the city agreeing to cost sharing of electrical power and maintenance incurred by the Ministry in situations where the project spans multiple jurisdictions.
- 18) The DDT issues the appropriate construction permits. The DDT outlines to the Developer the conditions of acceptance of installation and closure of the project. The permits issued are based on the approved construction drawings and specifications. Changes to the design during construction due to unforeseen circumstances or Developer initiated changes must be resubmitted to the Ministry for approval and modification of the construction permit. Development work that does not conform to these requirements may have a stop work order issued until they comply.
- 19) The Developer:

Arranges with the DDT a pre-construction meeting with the Developer's Contractor, the Electrical Maintenance Contractor, the Manager, Electrical Services and the Electrical Design Consultant. Key issues will include:

- a) Schedule of Work
- b) Lines of Communication
- c) Traffic Control
- d) List of materials and suppliers
- e) Proceeds with the construction.
- 20) The Developer contacts the DDT to arrange billing with the electrical utility and cost sharing arrangements with the municipality. The Developer will be required to coordinate service connections with electrical utility and coordinate all service applications through the Manager, Electrical Services. The Manager, Electrical Services shall apply for the service based on information provided by the Developer. This work shall occur at the design stage to reduce delay.
- 21) The Developer advises the DDT when work is complete.
- 22) The DDT advises Ministry District Operations and the Manager, Electrical Services that the site is ready for inspection.
- 23) The DDT reviews input from the above and advises the Developer of any required corrections.
- 24) Once all corrections have been completed and inspected, the Developer submits signed and sealed civil and electrical record drawings as well as the associated digital files (in AutoCAD format) to the DDT. The DDT forwards these drawings to the District Operations (civil) and Electrical and ITS Engineering (electrical drawings) for acceptance. If drawings are not in compliance, the DDT advises the Developer who arranges for any corrections and resubmits to the DDT. Once the drawings are accepted, Electrical and ITS Engineering will forward drawings to the Manager, Electrical Services.
- 25) Once drawings are accepted by the Ministry, the DDT charges back all cost recoverable charges from the Ministry to the Developer.
- 26) The DDT releases the Developer's financial security for the completed project.

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The following provisions shall form part of the Development Approval Permit

- A. All electrical work shall conform to the current edition of the Canadian Electrical Code and the B. C. amendments.
- B. The Manager, Electrical Services shall coordinate all electrical inspections.
- C. All electrical fees and permits associated with the project are the responsibility of the electrical contractor.
- D. All electrical work shall conform to the current Ministry Standard Specifications for Highway Construction available at:

https://www2.gov.bc.ca/gov/content/transportation/transportation-infrastructure/engineering-standards-guidelines/standard-specifications-for-highway-construction

E. All electrical designs shall conform to the latest version of the Ministry Electrical and Traffic Engineering Manual with associated Technical Bulletins, specifications and materials and be accepted and signed by the Ministry Electrical Engineering Representative:

Electrical and Traffic Engineering Manual:

http://www.th.gov.bc.ca/publications/eng\_publications/electrical/electrical\_and\_traffic\_eng/ElectricalSignin g\_Design\_Manual/tableofcontents.htm

Technical Bulletins:

https://www2.gov.bc.ca/gov/content/transportation/transportation-infrastructure/engineering-standards-guidelines/technical-bulletins/bulletins-traffic-electrical

- F. All geometric, paving marking and signing designs shall conform to the latest TAC Guidelines, B.C. Supplement to TAC Guidelines, Ministry Pedestrian Crossing Manual and Ministry Sign and Pavement Marking Standards Manual.
- G. All materials utilized in the construction of Ministry electrical installations shall be from the Ministry Recognized Products List:

https://www2.gov.bc.ca/gov/content/transportation/transportation-infrastructure/engineering-standardsguidelines/recognized-products-list

- H. Prior to commencement of any electrical construction, the electrical contractor shall contact the Manager, Electrical Services or his designate, in order to establish an inspection schedule, and to ensure that they are aware of construction standards, specifications and approved materials.
- I. The electrical contractor shall advise the Manager, Electrical Services of the intended start date a minimum of one week in advance.
- J. The electrical contractor shall not access any Ministry electrical installation without prior approval of the Manager, Electrical Services.\_
- K. The project will not be considered complete until a final acceptance inspection is completed by the Manager, Electrical Services, or his designate.
- L. The project will not be considered complete until all electrical utilities have been properly connected.
- M. The project will not be considered complete until the Developer's Electrical Design Consultant has submitted a final set of signed and sealed record electrical drawings (including digital ACAD drawings) to the DDT.
- N. The project will not be considered complete until the appropriate electrical utility and cost sharing agreement information has been submitted and signed.
- O. The electrical contractor will be notified in writing of any deficiencies within 14 days of the inspection by the Manager, Electrical Services.
- P. The Developer's electrical contractor shall correct any deficiencies within 14 days of notification from the Manager, Electrical Services.
- Q. After 14 days, the Manager, Electrical Services will arrange to have the deficiencies completed and charged back to the Developer.