



Regional Engineering
Engineering Services
4 Welding Way
off Administration Road
P.O. Box 1000
Concord, Ontario, L4K 1B9

Power Line Crossing Application

Applicants shall submit **six (6)** copies of an acceptable plan. Plans shall conform to Canadian Transportation Agency (CTA) General Orders E-11 and E-12, and the latest version of CAN/CSA-C22.3 No. 1 and CAN/CSA-C22.3 No. 7.

The application fee, in the amount of **\$950.00** (+ HST), to cover the cost of reviewing the application and plans, will be invoiced. The Applicant will be charged an additional fee of **\$159.00** (HST included) for each review after the initial application due to inadequate or missing information. Also, an additional fee for an electrical consultant may be charged should the installation warrant these services.

- The Applicant shall indicate the duration of construction on / above / below the CN right-of-way, provide an estimated construction schedule and provide a field contact name and phone number.**

The following information is required on **all** application drawings:

- Drawings must be to scale or have all dimensions shown.
- A site plan showing the location of crossing in relation to a legal description or road allowance or Railway mileage and subdivision.
- Dimension width of CN right-of-way, the number of tracks and the angle of crossing.
- Existing and proposed facilities shall be clearly marked.
- Indicate power circuit voltage.
- Include a caption stating "Construction, maintenance and operation of the line shall be in accordance with CTA General Orders E-11 and E-12 and the latest version of the Canadian Standards Association CAN/CSA-C22.3 No. 1 and CAN/CSA-C22.3 No. 7 as applicable." (CN requires carrier & casing to be designed for cooper E-90 loading)
- Professional Engineer's stamp, date and signature required.
- Contact name, address and phone number of Utility Owner on plan or cover letter.
- Revised drawings shall be marked as revised and state reason for revision.

Additional requirements for **underground** crossing application drawings:

- Supply cables must be protected for the full width of CN's right-of-way.
- Indicate type and details of cable and mechanical protection.
- If cables are to be encased, the casing shall extend the full width of CN's right-of-way.
- Include a profile showing depth of burial from base of rail and ditch bottoms to cable.
- Minimum depth of burial below base of rail is 1.68 m Main Tracks.
- Minimum depth of burial below base of rail is 1.37 m Industrial Tracks.
- Minimum depth of burial below road surface is 1.0 m.
- Minimum depth of burial below ditch bottom is 1.52 m.
- Note intention to install warning markers at each edge of CN right-of-way.
- Note method of installation (i.e. boring / augering).
- Indicate location of nearest excavation from nearest rail.

Additional requirements for **underground 250 mm diameter (10 inches) or greater**:

- Submit a complete copy of the Geotechnical Report, including comments and recommendations with respect to construction methodology.
- Submit a detailed proposal for in-ground settlement monitoring, developed by a Geotechnical Engineer with experience in large diameter pipe installation.
- Provide, in writing, the name and phone number of the qualified site inspector(s) who will be on the job site on a full time basis for the duration of construction, as specified by NTA General Orders.

Additional requirements for **overhead** crossing application drawings:

- ❑ When joint facilities are used, drawings must show information pertaining to both users. Applicants are to ensure that other user(s) are aware and have approved of the proposed joint facility.
- ❑ Indicate location and note all information pertaining to: poles and adjacent structures or towers, anchors, guys, crossarms, insulators and power/communication cables.
- ❑ Indicate minimum clearances under maximum sag above top of rails and Railway Signals and Communication plants. Add 0.3 m to clearance listed in the latest CAN/CSA-C22.3 No. 1 to allow for future track lifts.
- ❑ Horizontal and vertical separation is required between wires and cable.