



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 **\$1,350.00 (+HST)** to cover the cost of reviewing the application and plans, will be invoiced. The Applicant will be charged an additional fee of **\$200.00 (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)
- When casing is used, it must extend the full width of CN's right-of-way or a minimum of fifty (50) feet on each side of the outermost track.
- 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.
- ❑ Does this affect sight line issues, or disrupt sight to CN Signal Mast