
BULLETIN 2001-008-BU/EL

Revised July 13, 2015

ELECTRICAL PLAN REVIEW

The Canadian Electrical Code, Part 1 (CE Code) requires owners or their agents to submit plans and specifications for acceptance by the inspection department before work is commenced. CEC Rule 2-014 contains the requirements for the submittal of plans to the City of Vancouver for electrical plan review. Section 5.5 of the Vancouver Electrical By-law No. 5563 mandates that as a condition precedent to the issuance of any permit, the City Electrician may require that any plans, specifications or drawings required by this By-law be approved by the City Electrician. The existing City process of electrical plan review is linked to the corresponding building permit process for projects involving both building and electrical work. The intent of this bulletin is to provide clarification for the electrical plan review process and requirements.

BUILDING PERMIT SUBMISSION

Where the submission of electrical plans and specifications are required during the application for a building permit, an applicant for a building permit needs to provide three sets of sealed and signed electrical plans together with the required Schedule B letter of assurance. A completed Electrical Plan Examiner's Transmittal Form is required (see attached). The BC Hydro overhead transformers and conductors clearance Checklist must also be provided at the building permit application stage, please see Bulletin 2015-002-AD/EL for additional information. Please note, Bulletin 2006-004-BU/EL and Bulletin 2008-002-BU/EL provide additional clarification for the permit submission requirements which linked to the corresponding electrical permit process for projects involving electrical plan review.

ELECTRICAL PERMIT SUBMISSION

Two sets of complete electrical plans and specifications intended for construction purposes shall be submitted by an electrical contractor to the Trades Permits Counter of the Enquiry Centre for application intake for the electrical permit. These plans shall be sealed and signed by the Registered Professional responsible for the electrical design. Where the building permit is under the CP program, plans and specifications shall be provided with the CP stamp as well.

ELECTRICAL PERMIT, PLAN REVIEW PROCESS AND REQUIREMENTS

Where the submitted plans have not yet been approved, the City Electrician may issue a permit separate from the application for a full permit for a limited period of time described as an "interim permit" subject to such terms and conditions as deemed appropriate, the fee for an interim permit must be based on the cost of work including materials and labour as estimated by the contractor responsible for the installation and established to the satisfaction of the City Electrician in accordance with the Vancouver Electrical By-law.

In cases of multi-staged CP based construction projects where complete electrical drawings have not been submitted for a full electrical plan review, an electrical contractor may apply for a partial electrical installation permit to perform a limited scope of work for the installation of electrical service and system grounding under slab. Such an application shall be accompanied with the necessary plans and documents corresponding to the scope of the intended work. The referenced drawings shall be prepared and sealed by the Registered Professional responsible for the electrical design. To complete the electrical work, a second electrical permit application is required for the remainder of the project in accordance with the conditions described above.

Upon completion of the electrical plan review, one set of drawings stamped by the electrical plan examiner will be returned to the applicant. These plans are to be used as field construction drawings. The applicant's set of drawings shall be kept on site and made available for review by the City's Electrical Inspection staff, the second set to be used by the district electrical inspector retained for City permanent records. If the electrical contractor deviates from the accepted plans during the installation, a Project Change Notice from the responsible Registered Professional shall be submitted to the City by the electrical contractor along with the applicable re-inspection fee. All essential deviations (change of service and distribution equipment, change of grounding means, change of conductors and O/C protective devices size and other similar amendments) must be accompanied by two new sets of drawings submitted to City. Resubmission of the amended plans for further evaluation by electrical plan examiner is subject to the fees based on time actually spent on the additional plan review in accordance with Section 4 of Fee Schedule 'A' of the Vancouver Electrical By-law.

Electrical plans and specifications for building electrical installations, fire protection and life safety systems are reviewed for compliance with applicable electrical and building codes, bylaws, standards and regulations. The issuance of electrical permits is based on acceptability of the submitted information, the acceptance of any plans, specifications or drawings and the issuance of any permits shall not in any way relieve the owner or an agent of the owner from full compliance with the provisions of the By-laws.

Submission of electrical plans and specifications is required during the application for an electrical permit where the electrical installation involves:

- wiring installations of new public buildings, industrial establishments, factories, and other new buildings in which public safety is involved (CEC Rule 2-014, Section 5.5 of Vancouver Electrical By-law No. 5563);
- high voltage installations - any voltage exceeding 750V (Section 36 of CEC, Bulletin 2000-045-EL, Bulletin 2005-004-EL, Bulletin 2000-048-EL);
- installations of electrical equipment in hazardous locations(CEC Section 18, Bulletin 2000-026-EL);
- installations of electrical wiring and equipment within patient care areas of health care facilities (Section 24 of CEC, Bulletin 2008-001-EL);
- upgrade of existing fire alarm systems in conformance with Bulletin 2006-004-BU/EL;
- upgrade of existing fire alarm systems to accommodate automatic emergency recall for emergency operation of elevator(s) (or installation of DDRS) - Bulletin 2008-002-BU/EL;
- installations of services - 3 $\emptyset \geq 800$ Amp and 1 $\emptyset \geq 800$ Amp;
- installations of feeder conductors - 3 $\emptyset \geq 600$ Amp, 1 $\emptyset \geq 800$ Amp;
- installations of transformers equal or greater than 225 KVA;

- installations of renewable energy systems - large solar photovoltaic systems, stand-alone systems and interactive systems (Section 64 & Section 84 of CEC);
- installation of large electric vehicle charging systems (Section 86 of CEC);
- installations of fire alarm systems, electric fire pumps, emergency generators / transfer switches;
- installation of large apparatus: general purpose generators, switchboards, storage batteries; and
- other installations as may be prescribed by the City Electrician.

(Original signed by)

W. White
Deputy City Electrician
Manager, Trades Inspection

(Original signed by)

P. Ryan, M.Sc., P.Eng.
Chief Building Official
Director, Building Code and Policy

Attachment

**BULLETIN 2001-008 BU/EL
(Attachment)**

Electrical Plan Examiner's Transmittal Form

**February 9, 2017
Revised**

(To be completed by a CP / Electrical Engineer and submitted to the Electrical Plan Examiner with Electrical Plans)

Address: _____ Building Permit #: _____

Building Classification: _____ VBBL Article: _____

New Construction: Addition: Alteration:

Yes	No	(Please check the appropriate boxes accordingly.)
<input type="checkbox"/>	<input type="checkbox"/>	Schedule B provided - Subsection 2.2.7. Division C of the VBBL
<input type="checkbox"/>	<input type="checkbox"/>	Building is required to be of non-combustible construction - VBBL 3.2.2.
<input type="checkbox"/>	<input type="checkbox"/>	High building - VBBL 3.2.6.
<input type="checkbox"/>	<input type="checkbox"/>	Building on Designated Flood Plain - Needs to protect electrical equipment - VBBL 2.2.9.
<input type="checkbox"/>	<input type="checkbox"/>	Electrical equipment & wiring in plenum spaces - VBBL 3.6.4.3.; VBBL 3.2.4. / 3.1.5.
<input type="checkbox"/>	<input type="checkbox"/>	Smoke alarms are required - VBBL 3.2.4.21.
<input type="checkbox"/>	<input type="checkbox"/>	Permanently connected carbon monoxide alarms are require - VBBL 6.2.4.1.
<input type="checkbox"/>	<input type="checkbox"/>	Fire alarm system is required - VBBL 3.2.4.
<input type="checkbox"/>	<input type="checkbox"/>	2-stage fire alarm system is provided - VBBL 3.2.4.3.
<input type="checkbox"/>	<input type="checkbox"/>	Voice communication is required - VBBL 3.2.4.22. and 3.2.6.8.
<input type="checkbox"/>	<input type="checkbox"/>	Signal to fire department is required - VBBL 3.2.4.8.
<input type="checkbox"/>	<input type="checkbox"/>	Hold-open devices <input type="checkbox"/> / electromagnetic door locks <input type="checkbox"/> - VBBL 3.1.8.12. / 3.4.6.16.
<input type="checkbox"/>	<input type="checkbox"/>	Commercial kitchen-connection to fire alarm system-NFPA 96-Bulletin 2007-005-BU/PL/EL/EV/AD
<input type="checkbox"/>	<input type="checkbox"/>	Strobe lights / visual signals - are provided - VBBL 3.2.4.20.; VBBL 3.8.2.28 / 29 / 30 / 31.
<input type="checkbox"/>	<input type="checkbox"/>	Manual switches for operation of smoke control & smoke venting equipment at CACF - VBBL 3.2.5.19.(1); 3.2.6.7. / 3.2.6.2.(5)
<input type="checkbox"/>	<input type="checkbox"/>	Emergency Lighting is required - VBBL 3.2.7.3.
<input type="checkbox"/>	<input type="checkbox"/>	Exit signs are required - VBBL 3.4.5.1.
<input type="checkbox"/>	<input type="checkbox"/>	Emergency power supply - Required duration: 30 min <input type="checkbox"/> 1 h <input type="checkbox"/> 2 h <input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	Protection of emergency conductors is required - VBBL 3.2.7.10.
<input type="checkbox"/>	<input type="checkbox"/>	Emergency generator is required - VBBL 3.2.7.9. / CE Code Rule 24-306
<input type="checkbox"/>	<input type="checkbox"/>	By-pass isolation in a transfer switch is required - CSA C282
<input type="checkbox"/>	<input type="checkbox"/>	Sprinklers are required - VBBL 3.2.5.12
<input type="checkbox"/>	<input type="checkbox"/>	Heat trace of sprinkler system is required - Bulletin 2000-016- EL/PL/SP
<input type="checkbox"/>	<input type="checkbox"/>	Standpipe system required-separate trouble signal is provided on annunciator - VBBL 3.2.4.10.(2)
<input type="checkbox"/>	<input type="checkbox"/>	VBBL Alternative Solution related to the above systems
<input type="checkbox"/>	<input type="checkbox"/>	Electric motor-driven fire pump is required. If Yes, indicate the number of pumps required: _____ - VBBL 3.2.5.18.(1)
<input type="checkbox"/>	<input type="checkbox"/>	Bulletin 2015-002-AD/EL (Item 6.6 SCHEDULE B)
<input type="checkbox"/>	<input type="checkbox"/>	1. Clearance of overhead conductors is in compliance with CE Code Table 33
<input type="checkbox"/>	<input type="checkbox"/>	2. Distance from pole-mounted transformers is in compliance with CE Code Rule 26-014(1)(2)(3)
<input type="checkbox"/>	<input type="checkbox"/>	Series rated system conforming to CE Code Rule 14-014 is utilized
<input type="checkbox"/>	<input type="checkbox"/>	Available fault current calculation is provided - CE Code 14-012
<input type="checkbox"/>	<input type="checkbox"/>	HV installation <input type="checkbox"/> Installation in HC facility <input type="checkbox"/> Installation in hazardous location <input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	Electrical Room - is designed to have sufficient space to accommodate future installation of electrical equipment for the purpose of electric vehicle charging - VBBL Sentence 10.2.3.2.(1)
<input type="checkbox"/>	<input type="checkbox"/>	Pre-wired outlet boxes for enhanced accessibility - VBBL 3.8.2.27.(5); Bulletin 2002-006-BU/EL
<input type="checkbox"/>	<input type="checkbox"/>	Dwelling units are designed to conform with Adaptable Housing Requirements for the installation of outlets, switches and controls - VBBL 3.8.5.7.
<input type="checkbox"/>	<input type="checkbox"/>	Dwelling units are provided with special outlets boxes and cover plates specifically designed and wired for strobe lights - VBBL 3.8.2.27.(3), 3.2.4.20.(7) & (8)
<input type="checkbox"/>	<input type="checkbox"/>	Building is designed to conform with energy efficiency for lighting controls - VBBL 10.2.1.2.(1)
<input type="checkbox"/>	<input type="checkbox"/>	Building is designed to conform with the design requirements for controls - VBBL 3.8.3.21.(1)
<input type="checkbox"/>	<input type="checkbox"/>	Building is electrically designed to conform with ASHRAE 90.1-2010; VBBL 10.2
<input type="checkbox"/>	<input type="checkbox"/>	Building is electrically designed to conform with firefighters paths of travel - VBBL 3.2.5.5.(3)
<input type="checkbox"/>	<input type="checkbox"/>	Life safety systems and fire protection systems conform with the code consultant's report
<input type="checkbox"/>	<input type="checkbox"/>	Owner is advised that when the construction is completed for building's service KVA rating exceeds 500 must apply for and obtain an annual permit in conformance with the Vancouver Electrical By-law No.5563

(Affix professional stamp here)

CP/Electrical Engineer: _____

Date: _____