



Ministry of
Environment

CERTIFICATE OF COMPLIANCE
(Pursuant to Section 53 of the *Environmental Management Act*)

THIS IS TO CERTIFY that as of the date indicated below, the site identified in Schedule A of this Certificate of Compliance has been satisfactorily remediated to meet the applicable Contaminated Sites Regulation remediation standards.

This Certificate of Compliance is qualified by the requirements and conditions specified in Schedule B.

The substances for which remediation has been satisfactorily completed and for which this Certificate of Compliance is valid are listed in Schedule C.

I have issued this Certificate of Compliance based on a review of relevant information including the documents listed in Schedule D. I, however, make no representation or warranty as to the accuracy or completeness of that information.

A Director may rescind this Certificate of Compliance if requirements and conditions imposed in the Certificate of Compliance are not complied with or any fees payable under Part 4 of the Act or regulations are outstanding.

This Certificate of Compliance should not be construed as an assurance that there are no hazards present at the site.

The substances to which this Certificate of Compliance applies migrated to the site from a neighbouring source. It should not be assumed that this Certificate of Compliance certifies the remediation of all contaminants at the site.

July 23, 2014
Date Issued

L. Zanini
Lavinia Zanini
For Director, *Environmental Management Act*

Schedule A

The site covered by this Certificate of Compliance is located at 111 Princess Avenue (Formerly 522 and 590 Alexander Street), Vancouver, British Columbia which is more particularly known and described as:

Lot D Block 42 District Lot 196 Group 1 New Westminster District Plan BCP47280

PID: 028-456-874

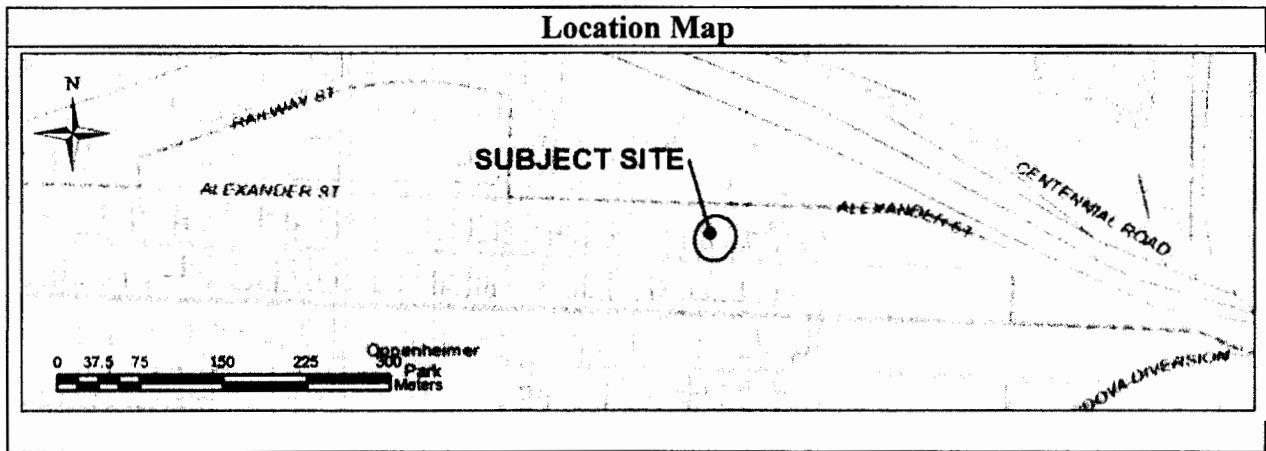
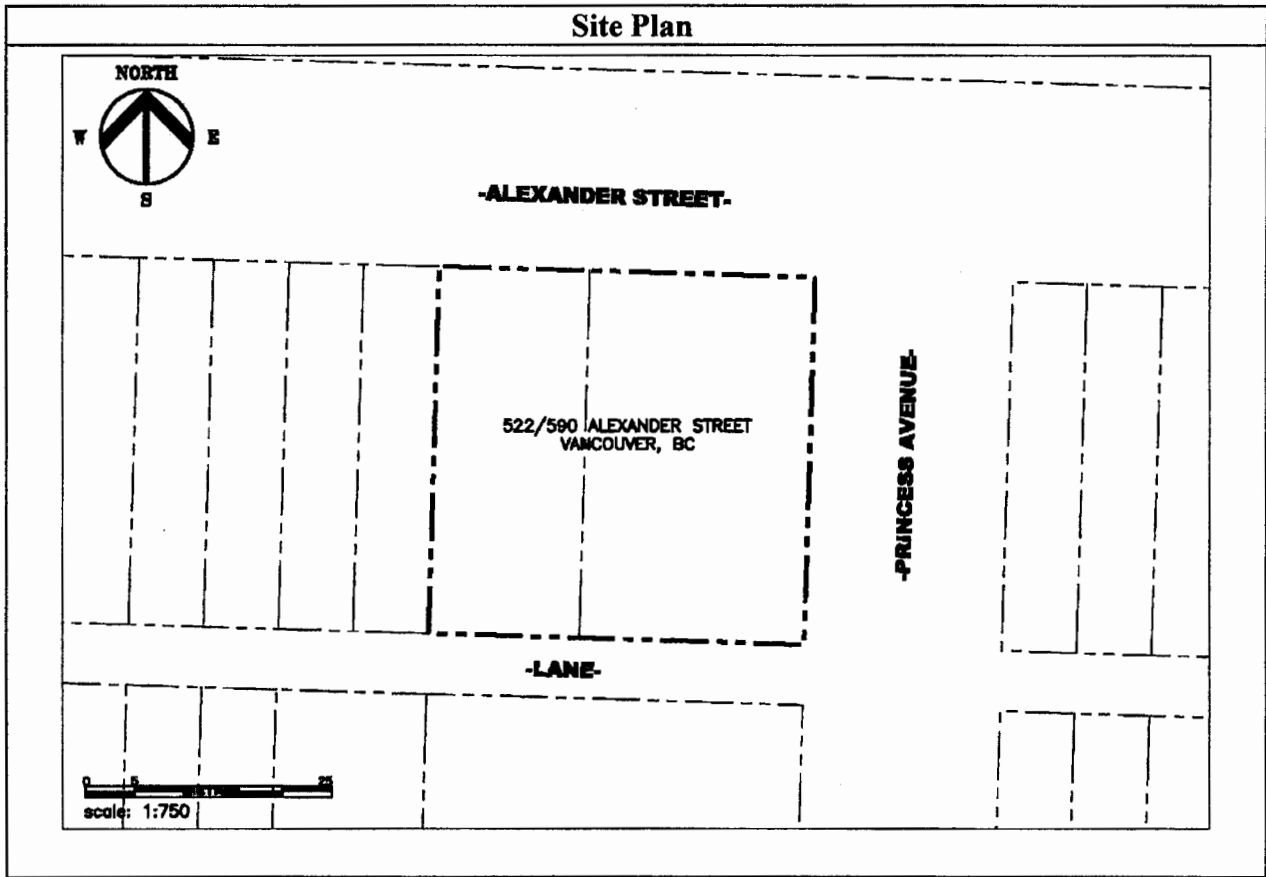
The approximate centre of the site using the NAD (North American Datum) 1983 convention is:

Latitude: 49° 17' 2.22"

Longitude: 123° 05' 30.52"

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Schedule B

Requirements and Conditions

1. Any changes in land, vapour, or water uses must be promptly identified by the responsible persons in a written submission to the Director. An application for an amendment or new Certificate of Compliance may be necessary. The uses to which this condition applies are described in Schedule C and in the site investigation documents listed in Schedule D.
2. The principal risk controls which must be present or implemented and must be maintained at the site include the following:
 - (a) *The building must be equipped with an engineered vapour management system;*
 - (b) *Building must remain in its current location covering contaminated soil and groundwater;*
 - (c) *No deep rooting plants will be planted in landscaped areas;*
 - (d) *Groundwater will not be used for irrigation or drinking water purposes. Measures will be implemented to prevent contaminated groundwater from entering sewers;*
 - (e) *A worker health and safety plan with provisions to prevent vapour inhalation exposures must be developed in the event that trenches (excavations that are deeper than they are wide, > 1 m below grade and suitable for human entry) are advanced at the Site; and*
 - (f) *A worker health and safety plan with provisions to prevent vapour inhalation exposures must be developed in the event that entry into confined spaces beneath the building slab is necessary.*
3. If requested by the Director, the responsible persons must provide a signed statement indicating whether the principal risk controls listed in clause 2 of this Schedule have been and continue to be met. This may include providing a signed statement by an Approved Professional.
4. Performance verification must be undertaken as specified in the Performance Verification Plan listed in Schedule D or as specified in a modification of the plan approved by the Director.
5. Where required under a Performance Verification Plan for the site, records of performance verification actions and results must be maintained by the responsible person<s> or their agent. The records must be available for inspection by the Director.

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6. Institutional and engineering controls required in clause 2 of this Schedule must be undertaken as specified in the Operation and Maintenance Plan listed in Schedule D.
7. The Director must be notified promptly by the persons responsible for the site if performance verification actions indicate that any institutional and engineering controls required in clause 2 of this Schedule are not being met. The following information must be submitted to the Director with the notification, or as soon as practicable thereafter:
 - (a) The time period over which institutional and engineering controls did not meet the requirements of Schedule B;
 - (b) The nature of the excursions;
 - (c) The temporary or permanent corrective measures implemented or to be implemented;
 - (d) An implementation schedule; and
 - (e) Supporting documentation.
8. A statement signed by an Approved Professional on whether the institutional and engineering controls required in clause 2 of this Schedule have been implemented and are being met must be submitted to the Director annually within 90 days of the anniversary of the date of issuance of this Certificate of Compliance or as otherwise approved by the Director.
9. If requested by the Director, a report signed by an Approved Professional must be submitted for review to the Director and must include the following:
 - (a) An evaluation of the performance of the institutional and engineering controls;
 - (b) Recommendations for modification of any plans referenced above, along with supporting rationale;
 - (c) Interpretation of current and cumulative results of the performance verification actions undertaken according to the plans described in clause 4 above; and
 - (d) Supporting documentation.

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Schedule C

Substances and Uses

Substances remediated in soil for residential land soil use:

To meet risk-based remediation standards:

- Tetrachloroethylene and trichloroethylene .

Substances remediated in vapour for residential land vapour use:

To meet numerical remediation standards:

- Xylenes.

To meet risk-based remediation standards:

- Benzene, VPHv, chloroform, tetrachloroethylene, trichloroethylene, 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene.

Substances remediated in water for drinking water use:

To meet risk-based remediation standards:

- 1,2-dichlorobenzene, 1,4-dichlorobenzene, tetrachloroethylene and trichloroethylene.

Substances remediated in water for marine/estuarine aquatic life use:

To meet risk-based remediation standards:

- VPHw, tetrachloroethylene and trichloroethylene.

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Schedule D

Documents

Summary of Site Condition, 111 Princess Avenue (522 and 590 Alexander Street), Vancouver, BC, prepared by John DeCesare, Ph.D., Eng.L. (BC), SNC-Lavalin, and David Williams, Ph.D., P.Eng., Millennium EMS Solutions Ltd., dated May 20, 2014;

Performance Verification Plan, 111 Princess Avenue (522/590 Alexander Street), Vancouver, BC, prepared by Chris Lach, P.Eng., SNC-Lavalin, and Ross Wilson, M.Sc., DABT, dated May 20, 2014;

Letter of Assurance, 111 Princess Avenue (522 and 590 Alexander Street), Vancouver, BC, prepared by Chris Lach, P.Eng., SNC-Lavalin, dated May 15, 2014;

Site Risk Classification Report, 111 Princess Avenue (522/590 Alexander Street), Vancouver, BC, prepared by Colin Dunwoody, P.Eng., SNC-Lavalin, dated May 14, 2014;

Confirmation of Remediation – 111 Princess Avenue (522 and 590 Alexander Street), Vancouver, BC, prepared by Calin Nan, P.Eng., Vijay Kallur, P.Eng., SNC-Lavalin, dated April 9, 2014;

Remediation Status Update Report Submitted to MoE, prepared by Vijay Kallur, P.Eng., SNC-Lavalin, dated February 27, 2014;

Human Health and Ecological Risk Assessment, 111 Princess Avenue, Vancouver, BC, prepared by Ross Wilson, M.Sc., DABT, SNC-Lavalin, dated October 4, 2011;

Site Investigations and Remediation Plan, 111 Princess Avenue, Vancouver, BC, prepared by Calin Nan, P.Eng., Vijay Kallur, P.Eng., SNC-Lavalin, dated September 30, 2011; and

Design Basis for Vapour Mitigation Proposed Development for Social Housing at 111 Princess Avenue, Vancouver, BC, prepared by Chris Lach, P.Eng., Vijay Kallur, P.Eng., SNC-Lavalin, dated September 29, 2011.

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