

Certificate of Property Use - DRAFT

Issued under the authority of the Environmental Protection Act, R.S.O. 1990, c. E.19, sections 168.6 (CPU) and 197 (Order)

Certificate of property use number: 3020-BCKNDQ
Risk assessment number: 3636-948QXM

Owner:

(Owner)

Sun Life Assurance Company of Canada

c/o Bentall Kennedy (Canada) Limited Partnership
1 York Street, Suite 3100
Toronto, ON, M5J 0B6

Site:

(Property)

180 King Street South, Waterloo

With a Legal Description of:

Part Lot 46, Christian Kumpf Survey, Plan 498, City of Waterloo; Part Lot 47 Christian Kumpf Survey, Plan 498; City of Waterloo, Parts 1, 2 and 4, 58R-2675; Waterloo.

PIN: 22416-0027 (LT)

The conditions of this Certificate of Property Use (CPU) address the Risk Management Measures in the Risk Assessment noted above and described in detail in Part 1 below (Risk Assessment). In the event of a conflict between the CPU and the Risk Assessment, the conditions of the CPU take precedence.

Summary:

Refer to Part 1 of the CPU, Interpretation, for the meaning of all the defined capitalized terms that apply to the CPU.

Risk Management Measures (RMMs) that are required to be implemented are found in Part 4 of the CPU, Director Requirements. Key RMMs specified in Part 4 include, but are not limited to:

- Inspecting and maintaining any existing barriers and installing, inspecting and maintaining any new hard cap and shallow soil cap barriers on the Property as per Section 4.2 (a) and 4.2 (e) of this CPU;
- Prohibiting the construction of any Building (s) on the Property unless the new Building (s) is constructed as specified in Section 4.2 (f) of this CPU;

- Implementing a soil and groundwater management plan during any intrusive activities undertaken on the Property potentially in contact with COCs in soil and groundwater that have been identified in the RA at concentrations that exceed the applicable site condition standards as per Section 4.2 (j) of this CPU.
- Implementing a health and safety plan during any intrusive activities undertaken on the Property potentially in contact with COCs in soil and groundwater that have been identified in the RA at concentrations that exceed the applicable site condition standards as specified in Section 4.2 (k) of this CPU;
- Implementing a groundwater monitoring program as specified in Section 4.2 (l);
- Prohibiting the use of groundwater in on or under the Property as per Section 4.3 of this CPU; and,
- Registering a certificate on the Property title in accordance with Section 197 of the Environmental Protection Act and that before dealing with the Property in any way, a copy of the CPU is to be given to any person who will acquire an interest in the Property as per Section 4.7 and 4.8 of this CPU.

Part 1: Interpretation

In the CPU the following terms shall have the meanings described below:

“Adverse Effect” has the same meaning as in the Act; namely,

- (a) impairment of the quality of the natural environment for any use that can be made of it,
- (b) injury or damage to property or to plant or animal life,
- (c) harm or material discomfort to any person,
- (d) an adverse effect on the health of any person,
- (e) impairment of the safety of any person,
- (f) rendering any property or plant or animal life unfit for human use,
- (g) loss of enjoyment of normal use of property, and
- (h) interference with the normal conduct of business;

“Act” means the Environmental Protection Act, R.S.O. 1990, c. E. 19, as amended;

“Active SVIMS” means a soil vapour intrusion mitigation system designed and operated to collect and remove soil vapour from below a Building and convey the soil vapour through vent risers to the outside air by means of one or more electrical fan powered vents drawing air from below the Building.

“Applicable Site Condition Standards” and “ASCS” means soil and groundwater that meets the soil or groundwater criteria identified in **Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition (medium/fine textured soils)** of the Soil, Ground Water and Sediment Standards for Use under Part XV.1 of the Act published by the Ministry and dated April 15, 2011.

“Building (s)” means an enclosed structure (s) occupying an area greater than ten square metres consisting of a wall or walls, roof and floor.

“Building Area” means the horizontal area of a Building at Grade within the outside surface of the exterior wall or walls.

“Building Code” means Ontario Regulation 332/12 (Building Code) as amended to January 1, 2015, made under the Building Code Act, 1992, S.O. 1992, c. 23.

“Competent Person” has the same meaning as set out in the Occupational Health and Safety Act R.S.O. 1990, c.O.1, as amended;

“Contaminant” has the same meaning as in the Act; namely any solid, liquid, gas, odour, heat, sound, vibration, radiation or combination of any of them, resulting directly or indirectly from human activities that may cause an Adverse Effect;

“Contaminant of Concern” and “COC” has the meaning as set out in section 3.2 of the CPU;

“CPU” means this Certificate of Property Use Number No. **3020-BCKNDQ** as may be amended from time to time;

"Director" means the undersigned Director or any other person appointed as a Director for the purpose of issuing a certificate of property use;

“EBR” means the Environmental Bill of Rights, 1993, S.O. 1993, c.28, as amended;

“Environmental Compliance Approval” has the same meaning as set out in the Environmental Protection Act, R.S.O. 1990, Chapter E.19;

“Intrusive Activities” means any intrusive activity undertaken at the Property, such as excavating or drilling into soil or ground water, which may disturb or expose Contaminants of Concern at the Property.

“Licensed Professional Engineer” means a person who holds a license, limited license or temporary license under the Professional Engineers Act, R.R.O. 1990, c.P.28, as amended;

"Ministry" means Ontario Ministry of the Environment, Conservation and Parks;

“OHSA” means the Occupational Health and Safety Act, R.S.O. 1990, c.O.1, as amended from time to time;

“Owner” means **Sun Life Assurance Company of Canada**, the current owner of the Property, and any future Property Owner (s);

"OWRA" means the Ontario Water Resources Act, R.S.O. 1990, c.0.40, as amended;

“Property” means the property that is the subject of the CPU and described in the “Property” section on page 1 above, and illustrated in Figure 1 of Schedule A which is attached to and forms part of this CPU;

“Property Management Oversight” means management, on an ongoing basis, of all structural, mechanical, electrical, ventilation and other Building and Property services that relate to the installed Active SVIMS for the Property as set out in section 7 of the Risk Assessment report including oversight of operation, inspection, monitoring, maintenance and repair activities, and of operational and reserve funding for these activities, by a property manager or management company engaged by the Owner or, in the case of collective ownership, by an authorized representative or representatives of the collective ownership of the Building and Property, such as a condominium board.

“Property Specific Standards” and “PSS” means the property specific standards established for the Contaminants of Concern set out in the Risk Assessment and in section 3.2 of the CPU;

"Provincial Officer" means a person who is designated as a provincial officer for the purposes of the Act;

“Qualified Person” means a person who meets the qualifications prescribed in O. Reg. 153/04, as amended, made under the Act;

"Risk Assessment" and “RA” means the Risk Assessment No. **3636-948QXM** accepted by the Director on **April 18, 2019**, and set out in the following final documents:

- **Risk Assessment, 180 King Street South, Waterloo, Ontario. Prepared by Golder Associates Ltd. for Sun**

Life Assurance Company of Canada dated April 3, 2014;

- **Addendum to Risk Assessment, 180 King Street South, Waterloo, Ontario. Prepared by Golder Associates Ltd. for Sun Life Assurance Company of Canada dated October 24, 2014;**
- **Addendum 2 to Risk Assessment, 180 King Street South, Waterloo, Ontario. Prepared by Golder Associates Ltd. for Sun Life Assurance Company of Canada dated January 2017;**
- **Addendum 3 to Risk Assessment, 180 King Street South, Waterloo, Ontario. Prepared by Golder Associates Ltd. for Sun Life Assurance Company of Canada dated June 4, 2018; and**
- **“RE: Request for additional information for 180 King Street South, Waterloo; RA1283-13; IDS#3636-948QXM”, e-mail from Tammie Morgan-Gray, Golder Associates, received by TASDB on December 19, 2018, with the following document attached:**
 - *11-1185-0128 RA_Resp to MECP Request for Info.pdf.*

“Risk Management Measures” and “RMMs” means the risk management measures specific to the Property described in the Risk Assessment and/or Part 4 of the CPU;

“Tribunal” has the same meaning as in the Act; namely, the Environmental Review Tribunal;

Part 2: Legal Authority

- 2.1 Section 19 of the Act states that a certificate of property use is binding on the executor, administrator, administrator with the will annexed, guardian of property or attorney for property of the person to whom it was directed, and on any other successor or assignee of the person to whom it was directed.
- 2.2 Subsection 132(1.1) of the Act states that the Director may include in a certificate of property use a requirement that the person to whom the certificate is issued provide financial assurance to the Crown in right of Ontario for any one or more of,
 - a. the performance of any action specified in the certificate of property use;
 - b. the provision of alternate water supplies to replace those that the Director has reasonable and probable grounds to believe are or are likely to be contaminated or otherwise interfered with by a contaminant on, in or under the property to which the certificate of property use relates; and
 - c. measures appropriate to prevent adverse effects in respect of the property to which the certificate of property use relates.
- 2.3 Section 168.6 (1) of the Act states that if the Director accepts a risk assessment relating to a property, he or she may, when giving notice under clause 168.5 (1)(a), issue a certificate of property use to the owner of the property, requiring the owner to do any of the following things:
 1. Take any action specified in the certificate that, in the Director’s opinion, is necessary to prevent, eliminate or ameliorate any adverse effect on the property, including installing any equipment, monitoring any contaminant or recording or reporting information for that purpose.
 2. Refrain from using the property for any use specified in the certificate or from constructing any building specified in the certificate on the property.
- 2.4 Subsection 168.6(2) of the Act states that a certificate of property use shall not require an owner of the property to take any action that would have the effect of reducing the concentration of a contaminant on, in or under the property to a level below the level that is required to meet the standards specified for the contaminant in the risk assessment.
- 2.5 Subsection 168.6(3) of the Act states that the Director may, on his or her own initiative or on application by the owner of the property in respect of which a certificate has been issued under subsection 168.6(1),
 - a. alter any terms and conditions in the certificate or impose new terms and conditions; or

- b. revoke the certificate.
- 2.6 Subsection 168.6(4) of the Act states that if a certificate of property use contains a provision requiring the owner of the property to refrain from using the property for a specified use or from constructing a specified building on the property,
- a. the owner of the property shall ensure that a copy of the provision is given to every occupant of the property;
 - b. the provision applies, with necessary modifications, to every occupant of the property who receives a copy of the provision; and
 - c. the owner of the property shall ensure that every occupant of the property complies with the provision.
- 2.7 Subsection 196(1) of the Act states that the authority to make an order under the Act includes the authority to require the person or body to whom the order is directed to take such intermediate action or such procedural steps or both as are related to the action required or prohibited by the order and as are specified in the order.
- 2.8 Subsection 197(1) of the Act states that a person who has authority under the Act to make an order or decision affecting real property also has authority to make an order requiring any person with an interest in the property, before dealing with the property in any way, to give a copy of the order or decision affecting the property to every person who will acquire an interest in the property as a result of the dealing.
- 2.9 Subsection 197(2) of the Act states that a certificate setting out a requirement imposed under subsection 197(1) may be registered in the proper land registry office on the title of the real property to which the requirement relates, if the certificate is in a form approved by the Minister, is signed or authorized by a person who has authority to make orders imposing requirements under subsection 197(1) and is accompanied by a registrable description of the property.
- 2.10 Subsection 197(3) of the Act states that a requirement, imposed under subsection 197(1) that is set out in a certificate registered under subsection 197(2) is, from the time of registration, deemed to be directed to each person who subsequently acquires an interest in the real property.
- 2.11 Subsection 197(4) of the Act states that a dealing with real property by a person who is subject to a requirement imposed under subsection 197(1) or 197(3) is voidable at the instance of a person who was not given the copy of the order or decision in accordance with the requirement.

Part 3: Background

- 3.1 The Risk Assessment (RA) was undertaken for the Property to establish the risks that the Contaminants identified in the Risk Assessment may pose to future users and to identify appropriate Risk Management Measures to be implemented to ensure that the Property is suitable for the intended use: **commercial use** as defined in O. Reg. 153/04, as amended, made under the Act.
- 3.2 The Contaminants on, in, or under the Property that are present either above **Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition (medium/fine textured soils)** for Use under Part XV.1 of the Act published by the Ministry and dated April 15, 2011 or for which there are no such standards, are set out in the Risk Assessment (Contaminants of Concern). The Property Specific Standards for these Contaminants of Concern are set out in **Table 1A and 1B of Schedule 'A'** which is attached to and forms part of the CPU.
- 3.3 I am of the opinion, for the reasons set out in the Risk Assessment that the Risk Management Measures described therein and outlined in Part 4 of the CPU are necessary to prevent, eliminate or ameliorate an Adverse Effect on the Property.
- 3.4 The Risk Assessment indicates the presence of Contaminants of Concern in soil and groundwater which requires on-going restriction of land use and pathway elimination. As such, it is necessary to restrict the use

of the Property and impose building restrictions and implement Risk Management Measures as set out in the Risk Assessment and in Part 4 of the CPU.

Part 4: Director Requirements

Pursuant to the authority vested in me under section 168.6(1) of the Act, I hereby require the Owner to do or cause to be done the following:

Risk Management Measures

- 4.1 Implement, and thereafter maintain or cause to be maintained, the Risk Management Measures.
- 4.2 Without restricting the generality of the foregoing in Section 4.1, carry out or cause to be carried out the following key elements of the Risk Management Measures:

Existing Barriers and New Hard Cap and Shallow Soil Cap Barriers:

- a) The existing barriers, and new hard cap or shallow soil cap barriers that are to be installed, are required over the entire Property and are required to be inspected and maintained on the Property so as to prevent exposure to the COCs on the Property and shall be maintained for as long as the COCs are present on the Property at concentrations that exceed the Applicable Site Condition Standards for soil. In the event that any new hard cap and or shallow soil cap barriers are required to be installed on the Property, the new hard cap and shallow soil cap barriers shall be installed in accordance with Section 7.2.4 of the RA.

The new hard cap barrier and the shallow soil cap barriers shall consist of the following, at minimum:

- i. The hard cap barrier (s) shall consist of: Granular 'A' or equivalent material overlain by a cover of asphalt, concrete (including Building foundation/floor slab), pavers or stone with a combined minimum thickness of 225 millimeters (mm); and,
 - ii. The shallow soil cap barrier (s) shall consist of; a minimum of 0.5 m thick cover, consisting of at least 0.5 m of soil that meets the Applicable Site Condition Standards underlain by a geotextile marker layer that sits immediately above the impacted soil.
- b) Within 90 days of completion of the installation of any new hard cap and or shallow soil cap barriers on the Property, and upon issuance of this CPU, the Owner shall submit to the Director written confirmation signed by a qualified Licensed Professional Engineer that the barriers have been installed in accordance with the requirements of Section 7.2.4 of the RA and Section 4.2(a)(i) and 4.2 (a)(ii) of this CPU along with final design specifications/drawings and or as built drawings.
 - c) Within 90 days of completion of the installation of any new hard cap and or shallow soil cap barriers on the Property, the Owner shall submit to the Director a site plan that clearly identifies the final location of each of the different barriers.
 - d) In relation to Section 4.2 (a) of this CPU, areas of the Property that are ***not in use*** or ***not under development***, hard cap and shallow soil cap barriers are not required as long as exposure to the COCs at concentrations that exceed the Applicable Site Condition Standard is prevented by a fence barrier that restricts access to those areas of the Property and a dust control plan is implemented.
 - e) An inspection and maintenance program shall be implemented to ensure the continuing integrity of the existing barriers and new hard cap and shallow soil cap barriers, as long as the COCs are present on the Property at concentrations that exceed the Applicable Site Condition Standards. The inspection program shall include semi-annual (spring and fall) inspections of the barrier's integrity in accordance with the

inspection and maintenance program as detailed in Section 7.2.4 of the RA. Any barrier deficiencies shall be repaired within a reasonable period of time in accordance with Section 7.2.4 of the RA. If cracks, breeches or any loss of integrity in the barriers cannot be repaired or addressed in a timely manner, contingency measures shall be implemented to ensure no exposure to the COCs that have been observed on the Property. The restoration of any damaged portions of the *existing barriers* shall meet the original conditions, at minimum, or for *newly installed barriers*, restoration shall meet the design specifications, at minimum, as detailed in Section 7.2.4 of the RA along with Section 4.2 (a)(i) and (a)(ii) of this CPU. The Owner shall submit to the Director written confirmation prepared and signed by a qualified Licensed Professional Engineer that the barriers have been repaired in accordance with the applicable requirements of this CPU. The written confirmation shall also include a description of any contingency measures put in place and shall be submitted to the Director within 30 days of the completion of any barrier repairs and/or restorations. The Owner shall keep records of the inspections and maintenance and make them available for review by the Ministry upon request.

Enclosed New Building (s) (new Building (s)):

- f) Refrain from constructing any **new Building (s)** on, in or under the Property unless the new Building (s) is:
- i. of similar construction to the existing Building (building of similar dimensions with underground parking garage of similar or shallower depth below ground surface with no interception of the groundwater table); or,
 - ii. is constructed as a slab on grade building and includes an Active SVIMS, and the Active SVIMS meets the following requirements:

DESIGN, INSTALLATION AND OPERATION:

- a. Design, install and operate an Active SVIMS for the Building, designed by a Licensed Professional Engineer in consultation with a Qualified Person and installed by a person acceptable to and under the supervision of a Licensed Professional Engineer, so as to remove soil vapour from below the Building and prevent soil vapour containing the Contaminants of Concern from entering the Building air, including the following requirements and components for the Active SVIMS:

SYSTEM REQUIREMENTS:

- 1) the Active SVIMS is to;
 - i. be designed, installed and operated with the objective of achieving during all seasons at least a 6 Pascal lower air pressure differential below the foundation floor slab, relative to the indoor air pressure within the Building, across at least 90% of the Building Area; and
 - ii. have in place, measures, as appropriate based on an assessment carried out in accordance with ASTM E1998.

SUB-SLAB FOUNDATION LAYER:

- 2) throughout the Building Area below the foundation floor slab, a sub-slab foundation layer, above soil containing the Contaminants of Concern, designed by a Licensed Professional Engineer for the Building constructor in consultation with the Licensed Professional Engineer for the Active SVIMS;

SOIL VAPOUR VENTING LAYER:

- 3) throughout the Building Area below the foundation floor slab and above the sub-slab foundation layer, a soil vapour venting layer designed for collection and venting of soil vapour from below the floor slab to vent risers for venting to the outdoor air, with the soil vapour venting layer consisting of:
- i. perforated collection pipes or geocomposite strips of sufficient size or diameter, frequency and locations to promote efficient collection and venting, embedded in granular materials of sufficient air permeability and depth; or, other soil vapour collection and venting products used to construct a soil vapour venting layer with continuous open void space, such as an aerated sub-floor below the floor slab and around the exterior walls, which provides similar or greater air permeability and collection and venting efficiency;
 - ii. for a Building with isolated soil vapour venting layer areas caused by interior grade beams or areas of thickened slabs, ventilation pipes to connect the isolated areas or a soil vapour venting layer that extends below these elements of the Building foundation; and
 - iii. clean-outs, drains or openings to ensure drainage and removal of condensate or water, including any entrained dust, that may enter collection pipes, geocomposite strips or vent risers, and, if required, to ensure drainage or dewatering of the soil vapour venting layer in Property areas with a shallow ground water table;

SOIL VAPOUR BARRIER MEMBRANE

- 4) throughout the Building Area, a continuous leak free soil vapour barrier membrane, such as a sheet geomembrane or spray applied membrane, below the foundation floor slab and above the soil vapour venting layer, and below and along the walls of any subsurface structures such as a sump, and which:
- i. is of appropriate thickness and meets the appropriate gas permeability and chemical resistance specifications to be considered substantially impermeable to the soil vapour, in accordance with the appropriate ASTM standards such as D412 and D543, as applicable; and
 - ii. has a suitable protective geotextile, or other suitable protective material, such as a sand layer, immediately below or above the soil vapour barrier membrane, as considered appropriate by the Licensed Professional Engineer;

VENT RISERS

- 5) vent risers shall be of sufficient size or diameter, frequency and locations to promote efficient venting and that terminate above the roof of the Building, to convey soil vapour from the soil vapour venting layer to the outdoor air above the roof of the Building and that discharge at an appropriate distance from Building air intakes and openable windows, doors and other openings through which exhausted vapours could be entrained in Building air and, consistent with the separation provisions in ASTM E2121 but modified as appropriate for the characteristics of the soil vapour and Building, including:

- i. at least one vent riser per isolated section of the soil vapour venting layer caused by interior grade beams or thickened slabs, unless analysis or testing indicates a lesser number of vent risers is required;
- ii. vent pipe riser diameter that is greater than the collection pipe diameter, to promote efficient venting;
- iii. vent risers located within the Building, where appropriate, to promote temperature induced convective venting during colder weather; and
- iv. electrical powered fan on each vent riser, and an automated monitoring system of fan operation which remotely detects and indicates system malfunctions.

MONITORING DEVICES

- 6) monitoring devices shall be installed below the foundation floor slab across the Building Area to measure the (lower) air pressure differential, relative to the indoor air pressure within the Building, being achieved by the soil vapour venting layer, with the number and locations of the monitoring devices installed being as considered appropriate by the Licensed Professional Engineer in consultation with the Qualified Person, taking into account factors such as the Building Area and the design and configuration of the Building foundation;

LABELING OF EQUIPMENT

- 7) equipment for the Active SVIMS shall be clearly labelled, and include information such as the installer's name, date of installation and identification of all visible piping, consistent with the labeling provisions in ASTM E1465 but modified as appropriate for the characteristics of the soil vapour and Building; and

UTILITY SEALING

- 8) where utilities or subsurface Building penetrations are a potential conduit for soil vapour migration, conduit seals constructed of closed cell polyurethane foam, or other inert gas-impermeable material shall be installed at the termination of all utility conduits and at subsurface Building penetrations, such as sumps, to reduce the potential for vapour migration along the conduit to the interior of the Building;

QUALITY ASSURANCE / QUALITY CONTROL

- b. Prepare and implement a quality assurance and quality control program, prepared by a Licensed Professional Engineer and to be retained by the Owner, and be available for inspection upon request by a Provincial Officer, so as to ensure that the Active SVIMS is being, and has been, properly installed and the installation documented, including inspections, verification testing and documenting of the installation as it is carried out, including at a minimum:
 - i. procedures and timing for implementing the program, by a person acceptable to and under the supervision of a Licensed Professional Engineer;
 - ii. daily inspections of the installation of the Active SVIMS, including of the quality assurance and quality control measures and procedures undertaken by the installer;
 - iii. undertaking, at a minimum, the following quality control measures and verification testing of the soil vapour barrier membrane:
 1. daily inspection reports noting any deficiencies and corrective actions taken;

2. smoke testing of the soil vapour barrier membrane, or equivalent alternative testing method that provides comparable results;
 3. verification of the type and thickness of the soil vapour barrier membrane through testing of representative samples of materials used, including destructive testing and repair of portions of the membranes to be conducted in a manner and at a frequency that meets or exceeds manufacturer's recommendations;
 4. verification of field seams of sheet geomembranes as being continuous and leak free, through vacuum or pressure testing, geophysical testing or other appropriate means; and
 5. verification that appropriate measures to prevent post-construction damage or degradation to the soil vapour barrier membrane have been taken, including at a minimum, appropriate preparation of the sub-slab foundation layer, placement of a protective geotextile, or other suitable protective material, below or above the soil vapour barrier membrane, if included in the design, and work practices to prevent post-construction damage;
- iv. noting any deficiencies in the materials or installation of the Active SVIMS;
 - v. ensuring the prompt repair of any deficiencies, to the design specifications;
 - vi. preparing a written report of all inspections, quality control measures and verification testing undertaken, and any deficiencies and repairs, prepared by the Licensed Professional Engineer and to be retained by the Owner, and be available for inspection upon request by a Provincial Officer;
and which are,
 - vii. delivered to the Owner before installation of the Active SVIMS begins; and
 - viii. updated and delivered to the Owner within 30 days of making any alteration to the program;

AS CONSTRUCTED PLANS

- c. Prepare as constructed plans of the Active SVIMS , prepared by a Licensed Professional Engineer and to be retained by the Owner, and be available for inspection upon request by a Provincial Officer, showing the location of the Building and the location and specifications of the installed Active SVIMS, including cross-sectional drawings specifying the design and the vertical and lateral extent of the Active SVIMS relative to the Building and the ground surface, and which is:
 - i. delivered to the Owner before use of all or any part of the Building begins, or within 90 days following completion of installation of the Active SVIMS, whichever is earlier; and
 - i. updated and delivered to the Owner within 30 days following making any alteration to the Active SVIMS, or other relevant feature shown on the plans;

Active SVIMS Inspection and Maintenance:

- g) Prepare and implement a written inspection and maintenance program, prepared by a Licensed Professional Engineer and to be retained by the Owner, and be available for inspection upon request by a Provincial Officer, to ensure the continued integrity and effectiveness of the Active SVIMS, including, at a minimum:
 - i. procedures and timing for implementing the program, by a person meeting the qualifications as set out in the program;
 - ii. maintenance and calibration of operational, monitoring and other equipment, as appropriate;
 - iii. inspections of the Active SVIMS including:
 1. semi-annual inspections, in spring and fall, of the visible areas of the foundation floor slab or subsurface walls in contact with soil, to identify any cracks, breaches or other deficiencies that may allow soil vapour to enter the Building;

2. semi-annual inspections, in spring and fall, the visible components of the Active SVIMS, to identify any cracks, breaches or other deficiencies that may hinder the collection or venting of soil vapour from below the Building;
 3. additional inspections, on a more frequent basis as appropriate, of the electrical powered fans to confirm they turn freely, to confirm the automated monitoring system of fan operation is operational and to confirm operational parameters such as amperage levels are within appropriate ranges; and
 4. additional inspections during winter, as appropriate, to identify any significant accumulation of snow or ice requiring removal;
- iv. noting any deficiencies with the floor slab and Active SVIMS identified during any inspection, or at any other time;
 - v. repairing promptly any deficiencies, including under the supervision of a Licensed Professional Engineer for a deficiency referred to in Section (g) (iii.) (2), above;
 - vi. factors and considerations for determining if additional inspections or monitoring should be undertaken;
 - vii. a contingency plan to be implemented in the event the deficiencies cannot be repaired promptly, including prompt notification of the Ministry if such deficiencies, along with operational monitoring results and any additional lines of evidence suggest that soil vapour intrusion into the Building may occur, as determined by a Licensed Professional Engineer; and
 - viii. preparing a written report of all inspections, deficiencies, repairs and maintenance, and of implementation of the contingency plan if necessary, prepared by a Licensed Professional Engineer and to be retained by the Owner, and be available for inspection upon request by a Provincial Officer;
- and which are,
- ix. delivered to the Owner before use of all or any part of the Building begins, or within 90 days following completion of installation of the Active SVIMS, whichever is earlier; and
 - x. updated and delivered to the Owner within 30 days following making any alteration to the program;

Active SVIMS Operational Monitoring:

- h) Prepare and implement a written program for monitoring of the operation of the installed Active SVIMS, prepared by a Licensed Professional Engineer in consultation with a Qualified Person and to be retained by the Owner, and be available for inspection upon request by a Provincial Officer, to ensure the continued integrity and effectiveness of the Active SVIMS as detailed in Section 7.4.2.1 of the RA, including, at a minimum:
 - i. procedures and timing for implementing the program, by a person meeting the qualifications as set out in the program;
 - ii. locations and description of the devices and equipment used, or tested, for each monitoring event;
 - iii. procedures for undertaking the testing, measurement and evaluation during a monitoring event, including calibration of operational, monitoring and other equipment, as appropriate;
 - iv. undertaking operational monitoring, including recording of the monitoring results, in accordance with the following:
 1. at least once before occupancy and as considered appropriate by a Licensed Professional Engineer after occupancy has commenced, vacuum testing of the soil vapour venting system by conducting pilot testing using the powered fan(s), including with respect to the soil vapour venting layer being able to achieve a 6 Pascal lower air

- pressure differential objective below the foundation floor slab across the Building Area, relative to the indoor air pressure within the Building; and
2. at least once before occupancy and semi-annually after occupancy has commenced, measuring of the (lower) air pressure differential below the foundation floor slab across the Building Area, relative to the indoor air pressure within the Building, being achieved by the soil vapour venting layer, using all of the monitoring devices;
- v. for each year, undertaking an assessment and preparing a written monitoring report, by a Licensed Professional Engineer in consultation with a Qualified Person and to be retained by the Owner, and be available for inspection upon request by a Provincial Officer, on the operational monitoring undertaken and its results and findings with respect to the integrity and effectiveness of the installed Active SVIMS, including taking into account previous monitoring undertaken, and with recommendations and any follow-up actions to be taken, such as:
1. the need to repeat or undertake additional or follow-up operational monitoring and assessment, or additional inspections;
 2. changes to the frequency or nature of the monitoring;
 3. the need to make repairs or changes to the design or operation of the Active SVIMS; and
 4. if necessary, implementation of the contingency plan in the event needed repairs or changes to the Active SVIMS cannot be made promptly, including notification of the Ministry if the operational monitoring results and any additional lines of evidence suggest that soil vapour intrusion into the Building may occur, as determined by a Licensed Professional Engineer;
- and which are,
- vi. delivered to the Owner before use of all or any part of the Building begins, or within 90 days following completion of installation of the Active SVIMS, whichever is earlier; and
 - vii. updated and delivered to the Owner within 30 days of following making any alteration to the program;

Active SVIMS Intrusive Activities Caution:

- i) Prepare and implement written procedures, prepared by a Qualified Person and to be retained by the Owner, and be available for inspection upon request by a Provincial Officer, for written and oral communication to all persons who may be involved in Intrusive Activities at the Property that may disturb an installed Active SVIMS, so as to ensure the persons are made aware of the presence and significance of the Active SVIMS and the Contaminants of Concern at the Property and the precautions to be taken to ensure the continued integrity of the Active SVIMS when undertaking the Intrusive Activities, and if damaged, to ensure the Active SVIMS is repaired promptly to the original design specifications, or if it cannot be repaired promptly, to ensure the contingency measures are implemented, and records kept, as specified in the inspection and maintenance program; and which are,
 - i. delivered to the Owner before any Intrusive Activities are undertaken at the Property; and
 - ii. updated and delivered to the Owner within 30 days following making any alteration to the procedures.

Soil and Groundwater Management Plan:

- j) The property specific soil and groundwater management Plan (Plan) shall be developed for the Property and implemented during all intrusive activities potentially in contact with or exposing COCs in soil or

groundwater that exceed the Applicable Site Conditions Standards on the Property as detailed in Section 7.2.5 of the RA. A copy of the Plan shall be maintained on the Property for the duration of all planned intrusive activities. Any short term intrusive activities required for the purposes of emergency repairs (i.e. for repairs to underground utilities etc.) will not require the submission of the Plan prior to undertaking the short term emergency repairs. For planned intrusive activities, this Plan shall be submitted to the Director by the Owner at least 14 calendar days prior to any such intrusive activities being undertaken and shall be consistent with the measures specified in Section 7.2.5 of the RA. The Plan shall include, but not be limited to, the following key components as deemed necessary by a Qualified Person:

- (i) oversight by a Qualified Person;
- (ii) include dust control measures and prevention of soils tracking by vehicles and personnel from the Property;
- (iii) management of excavated soils including cleaning equipment, placement of materials for stockpiling on designated areas lined and covered with polyethylene sheeting, bermed and fenced to prevent access, runoff control to minimize contact and provisions for discharge to sanitary sewers or other approved treatment;
- (iv) storm water management measures to control the potential transport of COCs off-site during on-site construction/redevelopment activities. This shall include, but to not be limited to, silt fences and filter socks on catch-basins and utility covers as necessary;
- (v) characterization of excavated excess soils and groundwater, obtained as a result of dewatering activities, to determine if the excavated excess soils or groundwater exceed the Property Specific Standards listed in Table 1A and Table 1B of Schedule "A" attached to this CPU (Table 1A and Table 1B) and/or the Applicable Site Condition Standards for parameters other than those identified in Table 1A and Table 1B and require off-site disposal in accordance with the provisions of Ontario Regulation 347, as amended, made under the Act;
- (vi) include record keeping. Record keeping is to include, but not to be limited to, dates and duration of work, weather and site conditions, location and depth of excavation activities/dewatering activities, dust control measures, stockpile management and drainage, all soil and groundwater characterization results obtained as part of the soil and groundwater management plan, names of the Qualified Persons, contractors, haulers and receiving sites for any excavated excess soils, and groundwater, as a result of dewatering activities, removed from the property and any complaints received relating to site activities; and,
- (viii) copy of the plan and any amendments and the records kept thereunder shall be made available for review by the Ministry upon request.

Health and Safety Plan:

- k) A property specific health and safety plan (plan) shall be developed for the Property and implemented during all planned intrusive activities undertaken potentially in contact with COCs in soil and groundwater that have been identified in the RA at concentrations that exceed the Applicable Site Condition Standard for both soil and groundwater as detailed in Section 7.2.3 of the RA. A copy of the plan shall be maintained on the Property for the duration of all intrusive activities. The Owner shall ensure that the plan takes into account the presence of the COCs and is implemented prior to any intrusive activities being undertaken on the Property or portion (s) of the Property in order to protect workers from exposure to the

COCs. The plan shall be prepared in accordance with applicable Ministry of Labour health and safety regulations, along with all potential risks identified in the RA and include, but not limited to, occupational hygiene requirements, personal protective equipment, contingency plans and contact information. Prior to initiation of any Project (on the Property or portion (s) of the Property), the local Ministry of Labour office shall be notified, where so prescribed under the OHSA, of the proposed activities and that COCs have been identified in soils and or groundwater on the Property. The plan shall be overseen by a Competent Person to review the provisions of the plan with respect to the proposed site work and conduct daily inspections. The Owner shall retain a copy of the plan to be available for review by the Ministry upon request.

Groundwater Monitoring Program:

- l) Upon issuance of this CPU, the groundwater monitoring program shall be implemented by the Owner in accordance with Section 7.4.5 of the RA. Specifically, the groundwater monitoring program shall include, but not be limited to, the following components:
 - i. Be overseen by a Qualified Person;
 - ii. Consist of the measurement of groundwater levels, the measurement of free product and the collection of groundwater samples from the groundwater monitoring network. Specifically, BH101 (replacement), MW12-02, MW12-03, BH11-3, BH102, BH104, BH105, BH/MW15-01 and BH/MW15-02 or suitable replacement (s) as deemed appropriate by a Qualified Person and approved by the Director as identified in Schedule A: **Figure 2- Location of Existing Permanent Barrier and Groundwater Monitoring Network** (Figure 2), which is attached to and forms part of this CPU;
 - iii. The measurement of groundwater levels, the measurement of free product and the collection of groundwater samples shall occur semi-annually (spring/summer and fall/winter) for a minimum of two years and until written approval to discontinue the monitoring program is received by the Owner from the Director;
 - iv. Groundwater samples shall be sent to a Certified Laboratory and analyzed for the list of COCs in groundwater as specified in Schedule 'A': Table 1B: Property Specific Standards (PSS) - Groundwater (Table 1B), which is attached to and forms part of this CPU;
 - v. An annual report detailing the sample results, sample locations along with an evaluation of the temporal trends in groundwater quality and an assessment of the potential for the mobilization of residual light non-aqueous phase liquid/ free product shall be submitted to the Director on or before **March 31st** following each year of monitoring until written approval to discontinue the program from the Director is received by the Owner;
 - vi. Any changes to the groundwater monitoring program as specified in Section 7.4.5 of the RA must be requested in writing by the Qualified Person and these changes shall only be implemented by the Owner upon receiving approval from the Director; and,
 - vii. In accordance with the contingency plan detailed in Section 7.4.5 of the RA, and summarized as follows:
 1. In the event that groundwater concentrations are observed to exceed their respective Property Specific Standard identified in Table 1B or free product is observed at any location, the Owner shall notify the Director in writing within 14 calendar days of the Owner receiving the laboratory analysis. Written notification shall be prepared by a Qualified Person and include the groundwater data, laboratory certificates of analysis and timeline for the implementation of the confirmatory monitoring program.
 2. Within 30 days of the Owner receiving the laboratory analysis, the confirmatory groundwater monitoring program shall be implemented by a Qualified Person.
 3. In the event that the groundwater concentrations continue to be observed to exceed their respective PSS or free product continues to be observed, the Owner shall notify the Director in writing within 14 calendar days of the Owner receiving the laboratory analysis. Written notification shall be prepared by a

Qualified Person and include the groundwater data, laboratory certificates of analysis and timeline for the submission of a DRAFT Action Plan.

4. Within 30 days of the Owner receiving the laboratory analysis, the Owner shall submit to the Director a DRAFT Action Plan for review and approval. The DRAFT Action Plan shall be prepared by a Qualified Person and include, but not be limited to, a detailed interpretation of the available data collected to date along with recommendations for any additional investigation/ monitoring as may be required and or recommendations for the implementation of additional remedial measures and or mitigation measures.
5. Upon the Owner receiving written approval from the Director, the Owner shall implement the approved Action Plan.
6. Within 30 days of completion of the Action Plan, the Owner shall submit written confirmation, along with supporting documentation, prepared by a Qualified Person that the Action Plan has been completed.

Prohibition of potable groundwater wells:

- 4.3 The Owner shall,
- a. refrain from using groundwater in or under the Property as a source of water;
 - b. properly abandon any wells on the Property, as defined in section 35. (1) of O. Reg. 153/04, according to R.R.O. 1990, Regulation 903 (Wells), as amended, made under the Ontario Water Resources Act, R.S.O. 1990, c. O.40; and
 - c. refrain from constructing on the Property any wells as defined in section 35. (1) of O. Reg. 153/04.

Site Changes

- 4.4 In the event of a change in the physical site conditions or receptor characteristics at the Property that may affect the Risk Management Measures and/or any underlying basis for the Risk Management Measures, forthwith notify the Director of such changes and the steps taken, to implement, maintain and operate any further Risk Management Measures as are necessary to prevent, eliminate or ameliorate any Adverse Effect that will result from the presence on, in or under the Property or the discharge of any Contaminant of Concern into the natural environment from the Property. An amendment to the CPU will be issued to address the changes set out in the notice received and any further changes that the Director considers necessary in the circumstances.

Reports

- 4.5 Retain a copy of any reports required under the CPU, the Risk Assessment and any reports referred to in the Risk Assessment (until otherwise notified by the Director) and within ten (10) days of the Director or a Provincial Officer making a request for a report, provide a copy to the Director or Provincial Officer.

Property Requirement

- 4.6 For the reasons set out in the CPU and pursuant to the authority vested in me under subsection 197(1) of the Act, I hereby order you and any other person with an interest in the Property, before dealing with the Property in any way, to give a copy of the CPU, including any amendments thereto, to every person who will acquire an interest in the Property, as a result of the dealing.

Certificate of Requirement

- 4.7 Within fifteen (15) days from the date of receipt of a certificate of requirement, issued under subsection 197(2) of the Act, register the certificate of requirement on title to the Property in the appropriate Land Registry Office.
- 4.8 Immediately after registration of the certificate of requirement, provide to the Director written verification that the certificate of requirement has been registered on title to the Property.

Owner / Occupant Change

- 4.9 While the CPU is in effect, forthwith report in writing to the Director any changes of ownership, of the Property, except that while the Property is registered under the Condominium Act, 1998, S.O. 1998, c.19, as amended, no notice shall be given of changes in the ownership of individual condominium units or any related common elements on the Property.

Financial Assurance

- 4.10 Within fifteen (15) days of receipt of this CPU, the owner shall provide financial assurance to the Crown in the right of Ontario in the amount of **forty one thousand two hundred dollars (\$41,200.00)**The financial assurance shall be in the form of a certified cheque payable to the Ontario Minister of Finance or an irrevocable letter of credit issued by a Canadian Chartered Bank as outlined in the Ministry's *Financial Assurance Guideline* revised November 2005. This amount is to cover the costs associated with the Groundwater Monitoring Program as specified in Section 4.2 (l) of this CPU for a period of two years.
- 4.11 The amount of financial assurance required in Section 4.10 of this CPU shall be reviewed every **two years**, for as long as the groundwater monitoring program is required, by a Qualified Person, for the Owner, and an updated cost estimate shall be included in the annual report as required by Section 4.2 (l)(v) of this CPU.

Part 5: General

- 5.1 The requirements of the CPU are severable. If any requirement of the CPU or the application of any requirement to any circumstance is held invalid, the application of such requirement to other circumstances and the remainder of the CPU shall not be affected thereby.
- 5.2 An application under sub section 168.6(3) of the Act to,
a) alter any terms and conditions in the CPU or impose new terms and conditions; or
b) revoke the CPU;
shall be made in writing to the Director, with reasons for the request.
- 5.3 The Director may amend the CPU under subsections 132(2) or (3) of the Act to change a requirement as to financial assurance, including that the financial assurance may be increased or provided, reduced or released in stages. The total financial assurance required may be reduced from time to time or released by an order issued by the Director under section 134 of the Act upon request and submission of such supporting documentation as required by the Director.
- 5.4 Subsection 186(3) of the Act provides that non-compliance with the requirements of the CPU constitutes an offence.
- 5.5 The requirements of the CPU are minimum requirements only and do not relieve you from,
a) complying with any other applicable order, statute, regulation, municipal, provincial or federal law;
or
b) obtaining any approvals or consents not specified in the CPU.

5.6 Notwithstanding the issuance of the CPU, further requirements may be imposed in accordance with legislation as circumstances require.

5.7 In the event that any person is, in the opinion of the Director, rendered unable to comply with any requirements in the CPU because of,

- a) natural phenomena of an inevitable or irresistible nature, or insurrections,
- b) strikes, lockouts or other labour disturbances,
- c) inability to obtain materials or equipment for reasons beyond your control, or
- d) any other cause whether similar to or different from the foregoing beyond your control,

the requirements shall be adjusted in a manner defined by the Director. To obtain such an adjustment, the Director must be notified immediately of any of the above occurrences, providing details that demonstrate that no practical alternatives are feasible in order to meet the requirements in question.

5.8 Failure to comply with a requirement of the CPU by the date specified does not absolve you from compliance with the requirement. The obligation to complete the requirement shall continue each day thereafter.

5.9 In the event that the Owner complies with provisions of Sections 4.7 and 4.8 of the CPU regarding the registration of the certificate of requirement on title to the Property, and then creates a condominium corporation by the registration of a declaration and description with respect to the Property pursuant to the *Condominium Act*, 1998, S.O. 1998, c.19, as amended, and then transfers ownership of the Property to various condominium unit owners, the ongoing obligations of the Owner under this CPU may be carried out and satisfied by the condominium corporation by and on behalf of the new Owners of the Property.

Part 6: Hearing before the Environmental Review Tribunal

6.1 Pursuant to section 139 of the Act, you may require a hearing before the Environmental Review Tribunal (the "Tribunal"), if within fifteen (15) days after service on you of a copy of the CPU, you serve written notice upon the Director and the Tribunal.

6.2 Pursuant to section 142 of the Act, the notice requiring the hearing must include a statement of the portions of the CPU and the grounds on which you intend to rely at the hearing. Except by leave of the Tribunal, you are not entitled to appeal a portion of the CPU or to rely on a ground that is not stated in the notice requiring the hearing.

6.3 Service of a notice requiring a hearing must be carried out in a manner set out in section 182 of the Act and Ontario Regulation 227/07: Service of Documents, made under the Act as they may be amended from time to time. The address, email address and fax numbers of the Director and the Tribunal are:

The Secretary

Environmental Review Tribunal

655 Bay Street, Suite 1500
Toronto, ON, M5G 1E5

Fax: (416) 326-5370

Fax Toll Free: 1(844) 213-3474

Email: ERTTribunalSecretary@ontario.ca

and

Amy Shaw, Director

Ministry of the Environment, Conservation and Parks
1 Stone Rd. West, 4th Floor
Guelph, ON
N1G 4Y2

Fax: 519-826-4286
Email: amy.shaw@ontario.ca

- 6.4 Unless stayed by application to the Tribunal under section 143 of the Act, the CPU is effective from the date of issue.
- 6.5 If you commence an appeal before the Tribunal, under section 47 of the Environmental Bill of Rights, 1993 (the “EBR”), you must give notice to the public in the EBR registry. The notice must include a brief description of the CPU (sufficient to identify it) and a brief description of the grounds of appeal.
- The notice must be delivered to the Minister of the Environment, Conservation and Parks who will place it on the EBR registry. The notice must be delivered to the Minister of the Environment, Conservation and Parks at 777 Bay Street, 5th Floor, Toronto, Ontario M7A 2J3 by the earlier of:
- 6.5.1 two (2) days after the day on which the appeal before the Tribunal was commenced; and
 - 6.5.2 fifteen (15) days after service on you of a copy of the CPU.
- 6.6 Pursuant to subsection 47(7) of the EBR, the Tribunal may permit any person to participate in the appeal, as a party or otherwise, in order to provide fair and adequate representation of the private and public interests, including governmental interests, involved in the appeal.
- 6.7 For your information, under section 38 of the EBR, any person resident in Ontario with an interest in the CPU may seek leave to appeal the CPU. Under section 40 of the EBR, the application for leave to appeal must be made to the Tribunal by the earlier of:
- 6.7.1 fifteen (15) days after the day on which notice of the issuance of the CPU is given in the EBR registry; and
 - 6.7.2 if you appeal, fifteen (15) days after the day on which your notice of appeal is given in the EBR registry.

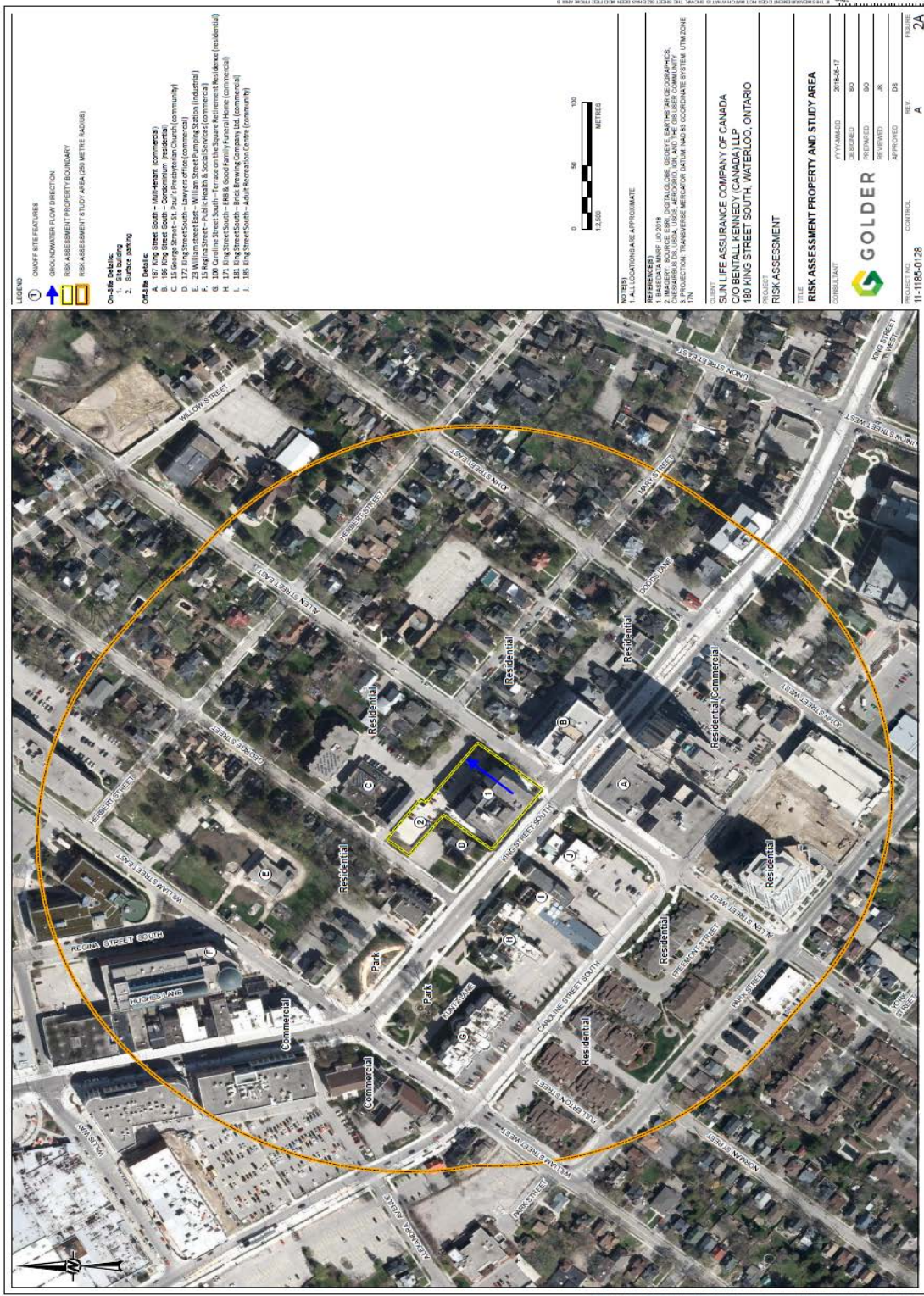
Issued at Guelph this **XXXXXX** day of **XXXXXX 2019**.

Original Signed By

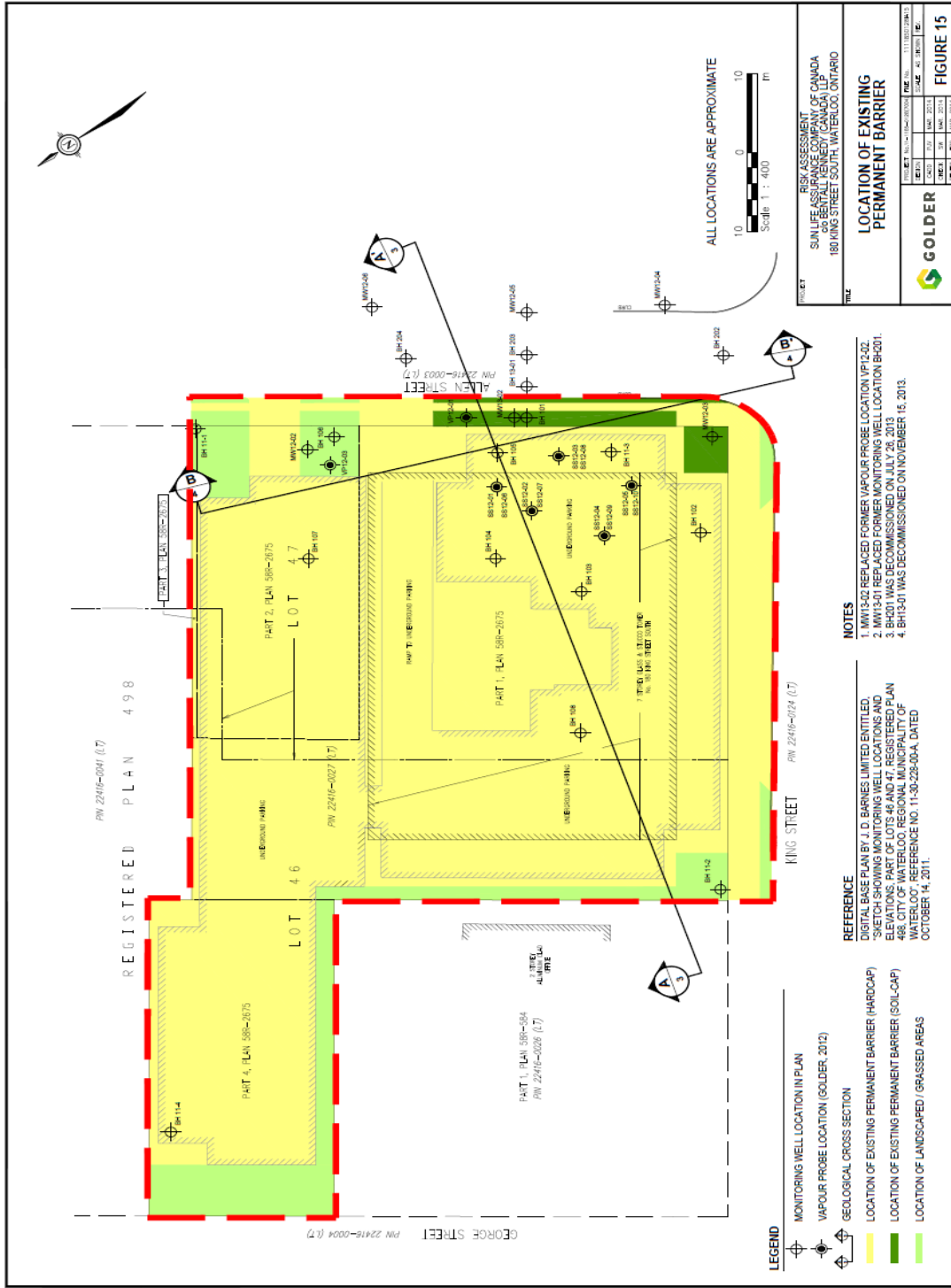
DRAFT

Amy Shaw,
Director, section 168.6 of the Act

Schedule 'A': Figure 1- Site Plan (not to scale)



Schedule 'A': Figure 2- Location of Existing Permanent Barrier and Groundwater Monitoring Network (not to scale)



Schedule 'A': Table 1A: Property Specific Standards (PSS) – Soil

<i>Soil Contaminant of Concern (COC)</i>	<i>PSS (µg/g)</i>
Volatile Organic Compounds (VOCs)	
Benzene	5.0
Toluene	564
Ethylbenzene	156
Xylenes (Total)	624
Hexane	216
Petroleum Hydrocarbons Fractions (PHC F)	
PHC F1 (C6-C10 Hydrocarbons)	4800
PHC F2 (C10-C16 Hydrocarbons)	384

Schedule 'A': Table 1B: Property Specific Standards (PSS) - Groundwater

<i>Groundwater Contaminant of Concern (COC)</i>	<i>PSS (µg/L)</i>
VOCs	
Benzene	10080
Toluene	34800
Ethylbenzene	5520
Xylenes (Total)	21600
1,2-Dichloroethane	8.5
Hexane	540
Tetrachloroethylene	4.8
Styrene	10
Metals	
Vanadium	24
PHC F	
F1 (C6-C10) Hydrocarbons)	43200
F2 (C10-C16 Hydrocarbons)	5520