
Certificate of Property Use

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: 7073-C7NLHC
Risk assessment number: 6417-B9XQGZ

Owner:

The Corporation of the City of Guelph

(Owner)

1 Carden Street
Guelph, ON, N1H 3A1

Property:

200 Beverley Street, Guelph

(Property)

With a Legal Description of:

PART LOT 1, 2 & 3, RANGE 3, DIVISION F, CITY OF GUELPH (FORMERLY TOWNSHIP OF GUELPH); PART BEVERLY STREET, PLAN 343, CLOSED BY DEP2184; AS INSTRUMENT RO706184 NOW DESCRIBED AS PART 1, REFERENCE PLAN 61R-7850.

Being All of PIN: 71343-0074 (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:

- Installing, inspecting and maintaining hard cap and fill cap barriers on the Property as per Sections 4.2 (a) and 4.2 (e) of this CPU;

- Prohibiting the construction of any Building (s) on the Property unless a soil vapour intrusion assessment is completed and or the new Building (s) is constructed with a vapour mitigation system as per Section 4.2 (f) of this CPU;
- Implementing a groundwater control and management plan in the event that any new Building (s) constructed on the Property are constructed where the basement and or building foundation intersects the water table as per Section 4.2 (q) of this CPU;
- Implementing a groundwater monitoring program on the Property as per Section 4.2(r) of this CPU;
- Implementing a soil and groundwater management plan during any intrusive activities undertaken on the Property potentially in contact with or exposing COCs in soil that exceed the Target Capping Soil specified in Schedule 'A': Table 2A: Target Capping Soil Concentrations (**Table 2A**) which is attached to and forms part of this CPU or the ASCS as determined by a Qualified Person, the COCs in groundwater that exceed the ASCS and or residual Nonaqueous Phase Liquid (NAPL) has been observed as per Section 4.2(s) 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 along with potential residual NAPL that have been identified in the RA at concentrations that exceed either the ASCS for groundwater or the Target Capping Soil specified in **Table 2A** as detailed in as per Section 4.2(t) of this CPU;
- Appropriately construct and seal any new utility corridors installed on the Property as per Section 4.2(u) of this CPU;
- Inspecting and maintaining existing fencing around the entirety of the Property prior to the Property or any portions of the Property being redeveloped as per Section 4.2 (v) of this CPU;
- Inspecting and maintaining existing asphalt and landscaped/vegetated areas on the Property prior to the Property or any portions of the Property being redeveloped and new hard cap and or fill cap barriers have been installed as per Section 4.2 (w) of this CPU;
- Implementing a post-construction groundwater monitoring Plan on the Property or portions of the Property as per Section 4.2 (x) of this CPU;
- Prohibiting the construction of Building (s) that include a basement or occupied below-grade structures in areas in which NAPL has been identified on the Property as per Section 4.3 of this CPU;
- Prohibiting the use of groundwater in on or under the Property as per Section 4.4 of this CPU;
- Prohibiting the planting of fruit and vegetables for consumption, other than those planted in above ground containers such that they are isolated from the subsurface conditions as per Section 4.5 of this CPU;
- All residential use freehold dwellings/Buildings constructed on the Property or portions of the Property shall have Property Management Oversight as per Section 4.6 of this CPU;
- Restricting the Commercial use of the Property or any portion of the Property as specified in Section 4.7 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 Sections 4.10, 4.11 and 4.12 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;

“Applicable Site Condition Standards” and “ASCS” means soil and groundwater that meets the soil or groundwater criteria identified in **Table 6 Generic Site Condition Standards for Shallow Soils in a Potable Ground Water Condition (coarse textured soils) (residential/institutional and parkland use)** 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 Code” means Ontario Regulation 332/12 (Building Code) made under the *Building Code Act, 1992*, S.O. 1992, c. 23.

“Capping Soil” mean:

- Unimpacted Soil; or
- Soil that meets the Target Capping (**Table 2A**) which is attached to and forms part of this CPU.

“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;

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

“CPU” means this Certificate of Property Use Number No. **7073-C7NLHC** 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;

“Environmental Compliance Approval” has the same meaning as set out in the Act;

“Fill Material” means loose, granular material from an Ontario Ministry of Natural Resources (MNR)-licensed quarry or other non-soil material or commercial products such as compost bark chips, concrete, unshrinkable fill, crushed concrete, concrete-based materials or equivalent.

“Grade” has the same meaning as in the Building Code.

“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;

"Ministry" means the ministry of the government of Ontario responsible for the administration of the Act, currently named the Ministry of the Environment, Conservation and Parks;

“O. Reg. 153/04” means Ontario Regulation 153/04 (Record of Site Condition – Part XV.1 of the Act), made under the Act;

“Owner” means **The Corporation of the City of Guelph.**, the current registered owner of the Property, and any subsequent Property Owner(s);

"OWRA" means the *Ontario Water Resources Act*, R.S.O. 1990, c.O.40;

“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 vapour mitigation system as specified in Section 4.2 (i) of this CPU and in accordance with Section 7.2.3.4 of the RMP 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;

"Risk Assessment" and “RA” means the Risk Assessment **No. 6417-B9XQGZ** accepted by the Director on **SEPTEMBER 21, 2021** and set out in the following final documents:

- **Risk Assessment Pre-Submission Report for 200 Beverley Street, Guelph, Ontario, Prepared by CH2M Hill Canada Limited, for the Corporation of the City of Guelph dated February, 2019;**
- **Risk Assessment Report for 200 Beverley Street, Guelph, Ontario. Prepared by Jacobs Engineering Group Inc., for the Corporation of the City of Guelph dated June 2020;**
- **Revised Risk Assessment Report for 200 Beverley Street, Guelph, Ontario. Prepared by Jacobs Engineering Group Inc., for the Corporation of the City of Guelph dated November, 2020;**
- **Risk Assessment for 200 Beverley Street, Guelph, Ontario Rev 2. Prepared by Jacobs Engineering Group Inc. for the Corporation of the City of Guelph dated May 2021; and,**
- **Email RE: Request for Additional Information - RA for 200 Beverley Street, Guelph, Ontario [RA1748-19c; IDS#6417-B9XQGZ]. From Katherine Appleby, Jacobs Engineering Group Inc., received by TASDB on September 14, 2021, with the following documents attached:**
 - **IMICO_RA_Sec4-HHRA_14Sept2021**
 - **IMICO_RA_Fig7-2_AdminReqs_NAPL_14Sept2021**

“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;

“Risk Management Plan” and “RMP” means the risk management plan detailed in Section 7.0 and Appendix I of the RA (Rev2) dated May, 2021;

“Tribunal” has the same meaning as in the Act; namely, the Ontario Land Tribunal; and,

“Unimpacted Soil” means soil that meets the Applicable Site Condition Standards (ASCS).

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 Subsection 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 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.

- 2.8 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.
- 2.9 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.
- 2.10 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 RA may pose to future users and to identify appropriate Risk Management Measures (RMMs) to be implemented to ensure that the Property is suitable for the intended use: **commercial, community, residential, institutional and parkland use** as defined in O. Reg. 153/04.
- 3.2 The Contaminants on, in, or under the Property that are present either above **Table 6: Generic Site Condition Standards for Shallow Soils in a Potable Ground Water Condition (coarse 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 RA (Contaminants of Concern). The Property Specific Standards for these Contaminants of Concern are set out in **Table 1A and Table B 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 RA that the RMMs described therein and outlined in Part 4 of the CPU are necessary to prevent, eliminate or ameliorate an Adverse Effect on the Property that has been identified in the RA.
- 3.4 The RA 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 RMMs as set out in the RA and in Part 4 of the CPU.
- 3.5 I believe for the reasons set out in the RA that it is also advisable to require the disclosure of this CPU and the registration of notice of the CPU on title to the Property as set out in section 197 order requirements in Section 4.10, Section 4.11 and Section 4.12 of this CPU.

Part 4: Director Requirements

Pursuant to the authority vested in me under subsection 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 RMMs:

Hard cap and fill cap barriers:

- a) Hard cap and or fill cap barriers are required to be installed over the entire Property so as to prevent exposure

to the Contaminants of Concern (COCs) identified on the Property and shall be maintained for as long as the COCs are present on the Property at concentrations that exceed the Target Capping Soil concentrations identified in Table 2A or the ASCS as determined by a Qualified Person or that residual NAPL is present. The hard cap and fill cap barriers shall be installed in accordance with Section 7.2.2, Table 7-4, Appendix I, Section I.1 and Figures I-1, I-2 and I-3 of the RMP.

Hard cap barrier and the fill cap barriers shall consist of the following, at minimum:

- i. The hard cap barrier (s) shall consist of a cover of asphalt, concrete, compacted granular aggregate, cobbles, paving stones, armour stones, rubberized surfaces or equivalent, a building slab (or building foundation and floor slab) consisting of at least 150 millimeters (mm) of Granular "A" or equivalent material overlain by at least 75 mm of hot mix asphalt, concrete, compacted granular aggregate, cobbles, paving stones, armour stones, rubberized surfaces or equivalent or a combination thereof with a minimum combined thickness of 225 mm as detailed in Schedule 'A': Figure 2- Conceptual Design of Typical Hard Cap Barrier (**Figure 2**), which is attached to and forms part of this CPU.
 - ii. The fill cap barrier (s) shall consist of either:
 - a minimum of 1000 mm thick cover of Capping Soil, Fill Material or a combination therefore for *landscaped areas (except treed areas) on the Property* as detailed in Schedule 'A': Figure 3 – Conceptual Design of Typical Fill Cap Barrier (**Figure 3**) which is attached to and forms part of this CPU; or,
 - a minimum of 1500 mm thick cover of Capping Soil, Fill Material, or a combination thereof for *landscaped areas (new treed areas) on the Property* as detailed in Schedule 'A' Figure 4 – Conceptual Design of Typical Fill Cap Barrier (New Treed Areas) (**Figure 4**) which is attached to and forms part of this CPU.
 - iii. Capping requirements for buried utilities (utility corridors) shall meet the minimum specifications for hard cap barriers and or for fill cap barriers as detailed in Section 4.2 (a) (i) and (ii) of this CPU along with the following additional requirements:
 - an additional 500 mm of Capping Soil, Fill Material or a combination thereof below the base of each new utility pipe installed below 1,000 mm below Grade;
 - 600 mm of Capping, Fill Material or a combination thereof on either side of new utility pipes that have a diameter of 900 mm or less; and or,
 - 1,300 mm of Capping Soil, Fill Material or a combination thereof on either side of new utility pipes with a diameter greater than 900 mm.
- b) Within 90 days of completion of the installation of any new hard cap and or fill cap barriers, including any buried utilities, on the Property or portion of the Property, 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 7.2.2, Table 7-4 and Section I.1 along with Figures I-1, I-2 and I-3 of the RMP and Section 4.2(a)(i), 4.2 (a)(ii) and 4.2 (iii) 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 fill cap barriers, including the installation of any buried utilities, on the Property or portion(s) of 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 fill cap barriers are not required as long as exposure to the COCs at concentrations that exceed the Target Capping Soil as specified in Table 2A or the ASCS (as determined by a Qualified Person) is prevented by a fence barrier that restricts access to those areas of the Property and a dust control plan is implemented as may be necessary.

- e) An inspection and maintenance program shall be implemented to ensure the continuing integrity of the hard cap and fill cap barriers as long as the COCs are present on the Property at concentrations that exceed the Target Capping Soil specified in Table 2A or the ASCS (as determined by a Qualified Person). 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 7.4.2 of the RMP. Any barrier deficiencies shall be repaired within a reasonable period of time in accordance with Section 7.4.2 of the RMP. If cracks, breaches or any loss of integrity in the barriers cannot be repaired or addressed in a timely manner, contingency measures shall be implemented to ensure that no exposure to the COCs that have been observed on the Property at concentrations that exceed the Target Capping Soil specified in Table 2A or the ASCS (as determined by a Qualified Person) occurs. For the restoration of any damaged portions of the barriers, restoration shall meet the original design specifications, at minimum, as detailed in Section 7.2.2 and Section I.1 along with Figures I-1, I-2 and I-3 of the RMP along with Section 4.2(a)(i) and (a)(ii) of this CPU. For significant breaches that are identified to potentially expose the COCs that are present on the Property at concentrations that exceed the Target Capping Soil concentrations specified in Table 2A or the ASCA (as determined by a Qualified Person), the Owner shall submit to the Director written confirmation prepared and signed by a qualified Licensed Professional Engineer, in consultation with a Qualified Person, 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.

New Enclosed Building (s) (new building):

- f) The construction of any new Building (s) on, in or under the Property is prohibited with the following exceptions:
- i. a soil vapour intrusion assessment is completed in accordance with Section 7.2.1 of the RMP and Section 4.2(g) and (h) of this CPU, in which the Owner has received written approval of the final report from the Director, that documents soil vapour concentrations are below the Target Soil/Sub-Slab Vapour concentrations identified in Schedule 'A': Table D: Target Soil/Sub-Slab Vapour Concentrations (**Table D**) which is attached to and forms part of this CPU; or
 - ii. any new Building (s) is constructed with a vapour mitigation system in accordance with Section 7.2.1 along with Appendix I, Section I.2 of the RMP and Section 4.2(i) of this CPU.
- g) Prior to the implementation of a soil vapour intrusion assessment identified in Section 4.2(f)(i) above, the Owner shall submit to the Director, for review and approval, a DRAFT soil vapour intrusion assessment plan prepared by a Qualified Person in accordance Section 7.2.1 of the RA. Specifically, the soil vapour intrusion assessment shall include, but not be limited to, the following key components:
- i. be overseen by a Qualified Person;
 - ii. include the area of the proposed building footprint (s) plus the area within 30 m of the proposed building foot print (s);
 - iii. the completion of a minimum of two rounds of consecutive soil vapour sampling separated by a minimum of a 3-month time period with one round being required to be completed under winter-like conditions (i.e. under frozen ground conditions);
 - iv. the number, location and installation depths of the soil vapour probes to be installed. A detailed rationale must be provided that clearly indicates that sufficient data will be collected to support the future building scenario (i.e. design/type of Building to be constructed must be known and taken into consideration in preparing the plan); and,
 - v. any other work as deemed necessary by the Qualified Person.
- h) Upon receiving written approval from the Director, the Owner shall implement the soil vapour intrusion assessment prepared in accordance with Section 4.2(g) of this CPU. Within 90 calendar days of the completion of the soil vapour intrusion assessment, the Owner shall submit a final report for approval of the Director, prepared by a Qualified Person, documenting the completion of the soil vapour intrusion assessment. The final report shall include, but not be limited to, the following key components:

- (a) Soil vapour probe installation details, locations and logs;
 - (b) Laboratory results and laboratory certificates of analysis;
 - (c) All field logs, leak testing results and documentation of QA/QC;
 - (d) Discussion and interpretation of the results in comparison to the respective Target Soil Vapour Concentration as listed in **Table D**; and,
 - (e) Conclusions and recommendations with respect to the need for additional and/or continued monitoring as may be warranted.
- i) As specified in Section 4.2(f) (ii), any new Building (s) constructed on the Property that requires a vapour mitigation system shall be constructed in accordance with Section 7.2.1 along with Appendix I, Section I.2 of the RMP. The vapour mitigation system shall be designed by an appropriately qualified Licensed Professional Engineer in consultation with a Qualified Person in accordance with the *applicable conceptual design* as detailed in Section 7.2.1, Figure 7-1 and Table 7-3 along with Appendix I, Section I.2 of the RMP, as determined by the building-type and location, and shall also include the following components:
- i. The design of the vapour mitigation system shall be specific to the type of Building to be constructed and consistent with the approaches as detailed in Schedule ‘A’: Figure 7 - Vapour Intrusion RMM – Design, Construction and Monitoring & Maintenance Process (**Figure 7**) and Schedule ‘A’: Table 1F - Building Types and Applicable Mitigation Approaches (**Table F**), which are attached to and forms part of this CPU;
 - ii. The Owner shall obtain an Environmental Compliance Approval, as necessary, and any other permits or approvals as may be required;
 - iii. The installation of the vapour mitigation system shall be completed under the supervision of a qualified Licensed Professional Engineer and a Qualified Person;
 - iv. In the event that a passive vapour mitigation system design has been selected, the passive system shall be designed and installed such that it can easily be converted to an active system; and,
 - v. A quality assurance/quality control (QA/QC) program shall be undertaken during the installation of the vapour mitigation system and shall be completed by, and clearly documented in a report prepared by, a qualified contractor and overseen by a qualified Licensed Professional Engineer and Qualified Person.
- j) Within 90 calendar days of the installation of the vapour mitigation system as detailed in Section 7.2.1 along with Appendix I, Section I.2 of the RMP and Section 4.2 (i) of this CPU, in any new Building (s) on the Property, the Owner shall submit to the Director as-built drawings and detailed design specifications of the vapour mitigation system, including any verification and QA/QC reports, prepared by the qualified Licensed Professional Engineer along with a statement from the qualified Licensed Professional Engineer that the vapour mitigation system has been installed in accordance with the original design specifications and that it has been designed to meet the requirements and objectives of Section 7.2.1 along with Appendix I, Section I.2 of the RMP and Section 4.2(i) of this CPU.
- k) The vapour mitigation system detailed in Section 7.2.1 along with Appendix I, Section I.2 of the RMP and Section 4.2 (i) shall be operated, monitored and maintained by the Owner for as long as the COCs are present on the Property. As detailed in Section 7.4.1 the RMP, the qualified Licensed Professional Engineer that designed the vapour mitigation system shall prepare an operation, monitoring, and maintenance program, including a contingency plan, that is to be implemented by the Owner, prior to first occupancy, and shall be made available by the Owner to the Ministry upon request.
- l) An inspection, monitoring and maintenance program specified in Section 7.4.1 of the RMP and Section 4.2(k) of this CPU shall be implemented to ensure the continued integrity of the building floor slab and vapour mitigation system for as long as the COCs are present on the Property. The inspection program will be conducted semi-annually for the first year and annually thereafter. The inspection program shall include, at minimum, inspections of the integrity of the building floor slab and monitoring of the vapour mitigation system

in accordance with the monitoring and maintenance program specified in Section 4.2(k) of this CPU. Any cracks, breaches or loss of integrity observed in the building floor slab or any observed deficiencies or necessary maintenance requirements with the vapour mitigation system shall be repaired forthwith to the original design specification, at minimum. Repairs or maintenance shall be made by an appropriately qualified contractor, under the supervision of a qualified Licensed Professional Engineer as necessary. If repairs to the building floor slab or the vapour mitigation system cannot be completed in a timely manner, the Owner shall ensure that the contingency measures prepared by a qualified Professional Engineer, as specified in Section 4.2(k) of this CPU, are implemented. All repairs are to be inspected by a qualified Licensed Professional Engineer and signed documentation shall be provided to the Owner that states that the repairs meet the original design specifications, at minimum. The Owner shall submit to the Director the written confirmation, prepared and signed by a qualified Licensed Professional Engineer, that the vapour mitigation system has been repaired to meet the original design specifications, at minimum. The written confirmation shall also include a description of any contingency measures that were put in place and shall be submitted to the Director within 30 calendar days of the completion of any repairs to the vapour mitigation system. The Owner shall keep records of the inspections, monitoring and maintenance program, along with documentation of all repairs that were required to be undertaken and these records shall be made available by the Owner to the Ministry for review upon request.

- m) The Owner shall ensure that all individuals/contractors intending to undertake work which could potentially come into contact with or interfere with the vapour mitigation system specified in Section 7.2.1 along with Appendix I, Section I.2 of the RMP and Section 4.2(i) of this CPU are made aware of the presence of the vapour mitigation system and the need to take appropriate precautions to ensure the integrity of the vapour mitigation system at all times. If the vapour mitigation system is damaged at any time, the Owner shall ensure that it is repaired forthwith by a qualified contractor, under the supervision of a qualified Licensed Professional Engineer as necessary, to the original design specifications, at minimum. If repairs to the vapour mitigation system cannot be completed in a timely manner, the Owner shall ensure that the contingency measures prepared by a qualified Professional Engineer, as specified in Section 4.2(k) of this CPU are implemented. All repairs to the vapour mitigation system are to be inspected by a qualified Licensed Professional Engineer and signed documentation shall be provided to the Owner that states that the repairs meet the original design specifications, at minimum. The Owner shall submit to the Director the written confirmation, prepared and signed by a qualified Licensed Professional Engineer, that the vapour mitigation system has been repaired to meet the original design specifications, at minimum. The written confirmation shall also include a description of any contingency measures that were put in place and shall be submitted to the Director within 30 calendar days of the completion of any repairs to the vapour mitigation system. The Owner shall maintain records of all activities and repairs in relation to the vapour mitigation system and these records shall be made available by the Owner to the Ministry for review upon request.
- n) Once the final design of the vapour mitigation system is completed as specified in Section 7.2.1 along with Appendix I, Section I.2 of the RMP and Section 4.2(i), the Owner shall submit to the Director, for review and approval, a performance monitoring program. The performance monitoring program shall be prepared by a qualified Licensed Professional Engineer in consultation with an appropriately Qualified Person in accordance with Section 7.4.1.1 of the RMP. Specifically, the performance monitoring program shall include the following key components:
- i. Be overseen by a qualified Licensed Professional Engineer;
 - ii. Monitoring approach shall be consistent with Schedule 'A': Table G: Vapour Intrusion Risk Management Monitoring Requirements (**Table G**), which is attached to and forms part of this CPU;
 - iii. The indoor air and sub-slab vapour samples, as required, shall be sent to an accredited laboratory and analyzed for the Indoor Air Target Analytes listed in Schedule 'A': Table C: Target Indoor Air Concentrations (**Table C**) which is attached to and forms part of this CPU and Target Soil/Sub-Slab Analytes listed in **Table D**;
 - iv. An annual report documenting the performance monitoring program shall be prepared by a qualified Licensed Professional Engineer and submitted to the Director on or before **March 31st** following each year of monitoring until written approval to discontinue the program is received by the Owner from the Director. The annual report shall include, but not be limited to:
 - (a) Laboratory results and laboratory certificates of analysis;
 - (b) Field logs, leak testing (as necessary) and documentation of QA/QC;

- (c) Discussion and interpretation of the results in comparison to the respective Target Indoor Air Concentration and or Target Soil/Sub-Slab Vapour concentrations as listed in **Table C and Table D**, respectively; and,
 - (d) Conclusions and recommendations with respect to the need for additional and/or continued monitoring as may be warranted.

- o) Upon completion of the installation of the vapour mitigation system as specified in Section 4.2(i) of this CPU, and prior to first occupancy, the Owner shall implement the performance monitoring program, that has been approved in writing by the Director, as required by Section 4.2(n) of this CPU for a minimum of two years and until the Owner receives written approval from the Director to discontinue the program. Any changes to the monitoring program as required by Section 4.2(n) of this CPU, (i.e. sampling frequency, locations, methodology etc.) must be requested in writing by a qualified Licensed Professional Engineer and these changes shall only be implemented upon the Owner receiving written approval from the Director.

- p) In the event that the performance monitoring program detailed in Section 4.2(n) of this CPU identifies one or more of the Target Analytes at concentrations above the Target Indoor Air Concentrations in **Table C** and or Target Soil/Sub-Slab Vapour Concentrations in **Table D**, *and where the concentrations of the observed Target Analytes are determined by the qualified Licensed Professional Engineer in consultation with a Qualified Person to be a result of soil vapour intrusion*, the Owner shall implement the contingency measures detailed in Section 7.4.1.3 of the RMP and as follows:
 - i. Written notice shall be submitted to the Director by the Owner within 14 calendar days of the Owner's receipt of the laboratory analysis. This written notice shall include the indoor air and sub-slab vapour sampling results (as necessary), the laboratory certificates of analysis and the anticipated timeline for the implementation of the confirmatory sampling program along with any additional work as may be deemed necessary by a qualified Licensed Professional Engineer. Confirmatory sampling shall occur within 14 calendar days from the date of the Owner's receipt of the laboratory analysis and be completed by a qualified Licensed Professional Engineer.

 - ii. In the event that the confirmatory indoor air sampling verifies the exceedances of one or more of the Target Analytes concentrations above the Target Indoor Air Concentration in **Table C**, the Owner shall:
 - (a) Submit written notice to the Director within 14 calendar days of the Owner's receipt of the laboratory analysis. This written notice shall include the confirmatory indoor air results, the laboratory certificates of analysis and the details of, and the anticipated timeline to implement contingency measures consistent with Section 7.4.1.3 of the RMP along with the implementation of further evaluation/assessment of the vapour mitigation system as may be deemed necessary by a qualified Licensed Professional Engineer. The implementation of contingency measures, along with the implementation of a confirmatory indoor air sampling program shall occur within 14 calendar days of the Owner's submission of the written notice of the exceedance to the Director;
 - (b) Within 30 calendar days of the implementation of the contingency plan, the Owner shall submit to the Director an update report prepared by a qualified Licensed Professional Engineer documenting the implementation of contingency measures, results of the implementation of the confirmatory indoor air sampling program along with the details and timelines for the implementation of performance indoor air and or sub-slab vapour monitoring program. The update report shall include, but not be limited to:
 - i. Laboratory results and laboratory certificates of analysis;
 - ii. Field logs, leak testing (as necessary) and documentation of QA/QC;
 - iii. Discussion and interpretation of the results in comparison to the respective Target Indoor Air Concentrations as listed in **Table C**; and,
 - iv. Conclusions and recommendations with respect to the performance of the vapour mitigation system along with the need for additional work and/or continued monitoring as may be deemed warranted.

Groundwater Control and Management:

- q) In the event that any new Building (s) is constructed on the Property where the Building's foundation is constructed at or below the groundwater table, in accordance with the Building Code, a Groundwater Control and Management Plan shall be developed by a qualified Licensed Professional Engineer and implemented by the Owner in accordance with Section 7.2.3.3 of the RMP.

Groundwater Monitoring Program:

- r) Within 90 calendar days of the issuance of this CPU, the groundwater monitoring program specified in Section 7.4.3 of the RMP shall be implemented by the Owner in order to monitor the groundwater quality on the Property. The groundwater monitoring program shall include, but not be limited to, the following key components:
- i. Be overseen by a Qualified Person;
 - ii. Consist of the measurement of groundwater levels, the monitoring for residual nonaqueous phase liquid (NAPL) and sampling from the proposed groundwater monitoring network as detailed in Section 7.4.3.1 of the RMP and as identified in Schedule 'A': Figure 6 Groundwater Monitoring Network (**Figure 6**), which is attached to and forms part of this CPU, and as specified in Schedule 'A': Table 3E: Proposed Groundwater Monitoring Program Summary (**Table 3E**) or suitable replacement (s) as deemed appropriate by a Qualified Person and approved by the Director;
 - iii. The measurement of groundwater levels, the monitoring for NAPL and the collection of groundwater samples shall occur quarterly (every three months) for a minimum of two years;
 - iv. Groundwater samples shall be sent to an accredited laboratory and analyzed for the Target Analytes specified in **Table B** and Schedule 'A': Table 1E: Target Groundwater Monitoring Concentrations (**Table 1E**) which is attached to and forms part of this CPU;
 - v. The groundwater monitoring program shall occur for a minimum of two years and until written approval to reduce or discontinue the groundwater sampling program from the Director is received by the Owner;
 - vi. An annual report detailing the sample results, sample locations, borehole logs/monitoring well construction details along with an evaluation of the statistical trends in groundwater concentration using Mann-Kendall methods (or similar analysis) in groundwater quality and an assessment of the potential for off-property migration of impacted groundwater shall be submitted to the Director on or before **March 31st** following each year of monitoring or until written approval to discontinue the program from the Director is received by the Owner;
 - vii. Any changes to the groundwater monitoring program as specified in Section 7.4.3 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,
 - viii. In accordance with the contingency plan detailed in Section 7.4.3 of the RA, and summarized as follows:
 1. In the event that the groundwater monitoring program identifies one or more of the following:
 - a. the Target Analytes at concentrations above the Target Groundwater Quality Concentration in **Table 1E** within the Downgradient Property Boundary Wells as specified in Table 3E;

- b. the presence of NAPL is observed above the NAPL Thickness Triggers as specified in Schedule 'A': Table 2E: NAPL Thickness Triggers (**Table 2E**) within the wells specified in Table 3E; or
- c. one or more of the Target Analytes are observed at a concentration above the applicable PSS for groundwater in **Table B** in any of the groundwater monitoring wells specified in Table 3E,

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 groundwater sampling program.

2. Within 30 days of the Owner receiving the laboratory analysis, the confirmatory groundwater sampling program shall be implemented by a Qualified Person.
3. In the event that the confirmatory groundwater monitoring program identifies one or more of the following::
 - a. Groundwater concentrations continue to exceed their respective Target Groundwater Quality Concentrations in **Table 1E** within the Downgradient Property Boundary Wells as specified in **Table 3E** and a statistically significant increasing trend using Mann-Kendall methods (or similar analysis) is observed;
 - b. NAPL measurements which exceeded the NAPL Thickness Triggers as specified in Section 4.2 (r)(viii)(1) above, in **Table 1E**, NAPL continues to be present at thicknesses that exceed the triggers specified in **Table 2E**; or,
 - c. the groundwater concentrations continue to be observed to exceed the applicable PSS in **Table B**,

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 proposed groundwater action plan.

4. Within 30 days of the Owner receiving the laboratory analysis, the Owner shall submit to the Director a proposed groundwater action plan for review and approval. The proposed groundwater 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 one or more of the following:
 - a. any additional investigation/ monitoring on or off Property as may be required;
 - b. recommendations for the completion of a groundwater remedial option feasibility study; or
 - c. the implementation of a groundwater remedial action plan which may include the implementation of additional remedial/mitigation measures as may be necessary.
5. Upon the Owner receiving written approval from the Director, the Owner shall implement the approved groundwater action plan.

6. Within 30 calendar days of implementation of the groundwater action plan, the Owner shall submit written confirmation, along with supporting documentation, prepared by a Qualified Person that the groundwater action plan has been implemented.
7. In the event that one or more of the of the following is recommended:
 - a. additional investigation/monitoring off Property as per Section 4.2(r)(viii)(4)(a);
 - b. the completion of a groundwater remedial options feasibility study as per Section 4.2(r)(viii)(4)(b);or,
 - c. , the implementation of a groundwater remediation action plan is recommended as per Section 4.2(r)(viii)(4)(c); and or as may be required by the Director,

the Owner shall submit a public communication and consultation plan to the Director for review and approval.

Upon the Owner receiving written approval from the Director, the Owner shall implement the approved public communication and consultation plan prior to the submission of any proposed additional investigations off-property, any remedial options feasibility studies and/ or any proposed remedial/mitigation measures as may become necessary as part of the approved groundwater action plan as specified in Section 4.2 (r) (viii)(5).

A summary of all comments received as a result of the implementation of the approved public communication and consultation plan, including a description of how the public comments were considered, shall be incorporated into any proposed work plan for the completion of any additional investigations off-property, any remedial options feasibility studies that may be completed and or any proposed remedial/mitigation measures as may be required to be submitted to the Director for review and approval as part of the groundwater action plan.

Soil and Groundwater Management Plan:

- s) 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 that exceed the Target Capping Soil specified in Table 2A or the ASCS as determined by a Qualified Person, the COCs in groundwater that exceed the ASCS and or residual NAPL on the Property as detailed in Section 7.2.3.2 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. In the event that NAPL is encountered during any short-term intrusive work, the Owner shall notify the Director in writing within 24 hours of the residual NAPL being encountered. The written notice shall also include an action plan for dealing with residual NAPL that is encountered. 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 7.2.3.2 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. odour control measures including, weather monitoring (temperature, humidity, wind), monitoring with a photoionization detector (PID), ambient air quality sampling (depending on the extent and duration of the excavation actives), specifications regarding the size of open excavations, wetting of soil with

- potable water, implementation of atomization equipment or foam suppression, tarping odourous soil, or ceasing work to reassess the source of odour and to evaluate the appropriate control measure;
- iv. 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;
- v. management measures and an action plan (including appropriate disposal options) for NAPL if encountered. If NAPL is encountered, the Owner shall notify the Director in writing within 24 hours of the NAPL being encountered;
- vi. 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;
- vii. characterization of excavated excess soils or groundwater to determine if the excavated excess soils or groundwater exceed the Property Specific Standards listed in Table 1A and Table B of Schedule "A" attached to this CPU and/or the applicable generic site condition standards for parameters other than those identified in Table 1A and Table B of Schedule "A" attached to this CPU and require off-site disposal in accordance with the provisions of Ontario Regulation 347, as amended, made under the Act;
- viii. characterization and management of groundwater as a result of dewatering activities. Characterization of groundwater as a result of dewatering shall include, but not be limited to, adequate groundwater sampling prior to dewatering activities along with appropriate sampling of the groundwater collected during dewatering activities. Where dewatering is required, dewatering activities will be conducted in accordance with Section 7.2.3.3 of the RA.
- ix. 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, odour control measures, stockpile management and drainage, NAPL management and disposal, 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, groundwater, as a result of dewatering activities, and NAPL removed from the property and any complaints received relating to site activities; and,
- x. 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:

- t) A property specific health and safety plan shall be developed for the Property and implemented during all planned intrusive activities undertaken potentially in contact with COCs in soil and groundwater along with potential residual NAPL that have been identified in the RA at concentrations that exceed either the ASCS for groundwater or the Target Capping Soil specified in Table 2A as detailed in Section 7.2.3.1 of the RA and a copy shall be maintained on the Property for the duration of all intrusive activities. The Owner shall ensure that the health and safety plan takes into account the presence of the COCs along with potential residual NAPL 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 health and safety 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 along with potential residual NAPL on the Property. The health and safety 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.

Utility Corridors:

- u) The Owner shall ensure that any new utilities/ utility corridors or subsurface infrastructure (utilities) that are excavated for installation or maintenance are excavated and backfilled with the Capping Soil or Fill Material that is appropriate material for structural purposes as detailed in Appendix I, Section I.1.4 of the RMP and as specified in Section 4.2 (a) (iii) of this CPU. Where new utilities are to be installed on the Property in areas where COCs are found in soil that exceed the Target Capping Soil is **Table 2A** or the ASCS (as determined by a Qualified Person), in groundwater above the ASCS, or in areas where residual NAPL has been observed, one or more of the following mitigation measures as may be applicable and as determined by a qualified Licensed Professional Engineer shall be implemented:
- i. Trench Plugs: consisting of low-permeability materials such as compacted clay or bentonite, or other low permeable material such as concrete or unshrinkable fill, shall be installed across the trench cross-section so as to prevent migration of COCs into the permeable backfill material along any buried piping, cable or duct banks. Clay seals (plugs) are required to be installed where utilities are to be installed near or below the groundwater table and shall consist of clay compacted at appropriate moisture contents that is extended for a minimum of 750 mm along the utility trench, across the full width and extend to the base of the overlying cap barrier;
 - ii. Anti-seep Collars: barriers made of any ridged impermeable material (e.g. concrete, steel or geomembranes);
 - iii. Trench Liners: impermeable liner placed at the bottom and sides of the utility trench; and or
 - iv. Watertight Shoring: shoring at the trench walls be supplemented by lining the bottom of the trench with impermeable liner or low-permeability materials;

Where new utilities in areas of impacted groundwater or impacted soil are connected to existing City of Guelph utilities or enclosed structures, trench mitigation measures shall be installed, except where utilities are installed above the high groundwater level, utilities are less than 1 m deep below Grade and or the utilities are directionally drilled.

Existing Conditions (prior to redevelopment):

- v) Prior to the Property or any portions of the Property being redeveloped, the Owner shall inspect and maintain existing fencing around the entirety of the Property in order to prevent access by unauthorized personnel (i.e. trespassers) or large terrestrial receptors (i.e. mammals). The Owner shall inspect the existing fencing on a semi-annual basis (spring and fall) for deficiencies that may allow unauthorized access to any portion of the Property until such time as the redevelopment of the Property or portions of the property is completed. Any identified deficiencies shall be repaired within a reasonable period of time to the original design specifications. Owner shall keep records of the inspections and maintenance and make them available for review by the Ministry upon request.
- w) Prior to the Property or any portions of the Property being redeveloped, and new hard cap and or fill cap barriers have been installed in accordance with Section 4.2 (a) (i) and 4.2 (a) (ii) of this CPU, and are not fenced in accordance with Section 4.2 (v) of this CPU, the Owner shall inspect and maintain the existing asphalt and landscaped/vegetated areas (existing barriers) on the Property. The inspection program shall include semi-annual (spring and fall) inspections of the existing barrier's integrity. Any barrier deficiencies shall be repaired within a reasonable period of time. If cracks, breaches or any loss of integrity in the barriers cannot be repaired or addressed in a timely manner, contingency measures shall be implemented to ensure that no exposure to the COCs that have been observed on the Property or portions of the Property occurs. For the restoration of any damaged portions of the existing barriers, restoration shall meet the original conditions at minimum. The Owner shall keep records of the inspections and maintenance if the existing barriers and make them available for review by the Ministry upon request.

Post-Construction Groundwater Monitoring Plan:

- x) Once plans have been finalized for, and prior to the construction of, any new Building (s) on the Property or portion of the Property, the Owner shall submit written notification, to the Director for review and approval. The written notice shall be prepared and signed by a Qualified Person that includes the location (s) of the new Building (s) on the Property and a detailed summary of the specifications of the Building (s) to be constructed on the Property or portion of the Property along with an evaluation of the need to develop and implement a post-construction groundwater monitoring plan. The primary objective of the post-construction groundwater monitoring plan shall be to evaluate potential changes in groundwater flow direction and or changes in groundwater quality with respect to the groundwater COCs identified in **Table B** with emphasis on potential for impacted groundwater to migrate off-Property. In the event that a post-construction groundwater monitoring plan is deemed necessary by the Qualified Person, **or as required by the Director**, the Owner shall submit to the Director a proposed post-construction groundwater monitoring plan that is prepared by the Qualified Person, in consultation with the Ministry's Guelph District Engineer, that is based upon the location and specifications of the new Building (s) for review and approval prior to the completion of the construction of any new Building (s) on the Property or portion of the Property. The proposed post-construction groundwater monitoring plan shall include, but not be limited the following key components:
- i. Be overseen by a Qualified Person;
 - ii. Consist of the measurement of groundwater levels (quarterly at minimum) and groundwater sampling (semi-annually at minimum) of an appropriate number of key groundwater monitoring well locations and depths that are dependent upon the location and specifications of the new Building (s) to be constructed on the Property;
 - iii. Groundwater samples shall be sent to an accredited laboratory and analyzed for the Target Analytes specified in **Table B**;
 - iv. A monitoring report detailing the sample results, sample locations, borehole logs/monitoring well construction details along with an evaluation of the statistical trends in groundwater concentration using Mann-Kendall methods (or similar analysis) in groundwater quality and an assessment of the potential for off-property migration of impacted groundwater shall be submitted to the Director on an annual basis (at minimum) or until written approval to discontinue the post-construction groundwater monitoring plan from the Director is received by the Owner;
 - v. Proposed trigger values for the Target Analytes specified in **Table 1B** and a contingency plan as deemed necessary by the Qualified Person and in consultation with the Ministry's Guelph District Engineer; and,
 - vi. Any other work as may be deemed necessary by the Qualified Person.

Upon the Owner receiving written approval from the Director, the Owner shall implement the approved post-construction groundwater monitoring plan within 90 days of the completion of the construction of the new Building (s). The post-groundwater monitoring plan shall occur for a minimum of two years and until written approval to reduce the frequency of or discontinue the groundwater sampling plan from the Director is received by the Owner. Any changes to the approved post-construction groundwater monitoring plan 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.

Prohibiting the construction of building(s) in areas where NAPL has been observed:

- 4.3 The Owner shall refrain from constructing any Building (s) that include basements or other occupied below grade structures (not including subsurface utility corridors or similar structures) in areas where NAPL is observed to have a consistent and measurable presence on the Property as identified in Schedule 'A': Figure 5 – Construction Restrictions (**Figure 5**) which is attached to and forms part of this CPU. Further,

any materials used for slab-on-grade buildings (including vapour barriers) and any subgrade structures (including utility conduits) constructed in the area identified in **Figure 5** shall take into consideration the potential presence of NAPL and the design and construction of any utility corridors shall limit the potential for NAPL migrations along these corridors. For any subsurface utility corridor or similar structure that may be constructed on the Property in the area identified in **Figure 5**, air quality monitoring will be required to be included in any health and safety plan. The construction of any Building (s) that include basements or other occupied below grade structures in area identified in **Figure 5** is prohibited as specified in Section 7.2.3.5 of the RMP for as long as NAPL remains present.

Prohibition of potable groundwater wells:

- 4.4 The Owner shall,
- i. refrain from using the groundwater in, on or under the Property as a source of water;
 - ii. except as may be required for continued use as a groundwater monitoring well, properly abandon any wells on the Property, according to R.R.O. 1990, Regulation 903 (Wells), made under the OWRA; and,
 - iii. except as maybe required for use as a groundwater monitoring well, refrain from constructing any new wells on the Property.

Prohibition of planting of fruit and vegetables for consumption:

- 4.5 The Owner shall refrain from planting fruit and vegetables for consumption on the Property unless planted in above ground containers such that the plants are isolated from the subsurface conditions. The planting of fruit and vegetables for consumption on the Property is prohibited for as long as the COCs in soil and groundwater remain present.

Property Use Restriction

- 4.6 The Owner shall ensure that all residential use freehold dwellings/ Buildings constructed on the Property or portions of the Property have Property Management Oversight. Residential use freehold dwellings/Buildings constructed on the Property or portions of the Property that do not have Property Management Oversight is prohibited.
- 4.7 The Owner shall refrain from using the Property or any portion of the Property for Commercial uses that include gas stations, automotive repair garages, bulk liquid dispensing facilities (including gasoline outlets), dry cleaning operations or any other similar types of Commercial uses. The use of the Property or any portion of the Property for Commercial uses that include gas stations, automotive repair facilities, bulk fuel stations, dry cleaning operations or any other similar types of Commercial uses is prohibited.

Site Changes

- 4.8 In the event of a change in the physical site conditions or receptor characteristics at the Property that may affect the RMMs and/or any underlying basis for the RMMs, forthwith notify the Director of such changes and the steps taken, to implement, maintain and operate any further RMMs 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

4.9 The Owner shall 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

4.10 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

4.11 Within fifteen (15) calendar days from the date of receipt of a certificate of requirement, issued under subsection 197(2) of the Act, completed as outlined in Schedule 'B', register the certificate of requirement on title to the Property in the appropriate land registry office.

4.12 Within five (5) calendar days after registering of the certificate of requirement, provide to the Director a copy of the registered certificate and of the parcel register (s) for the Property confirming that the certificate of requirement has been registered on title to the Property.

Owner Change

4.13 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, no notice shall be given of changes in the ownership of individual condominium units or any related common elements on the Property.

Financial Assurance

4.14 Subject to Sections 4.15, 4.16 and 4.17 of this CPU, the Director has not included in the CPU a requirement that the current Owner, ***The Corporation of the City of Guelph***, provide financial assurance to the Crown in right of Ontario.

4.15 Within 30 calendar days of the Property being sold, the new Owner shall provide financial assurance to the Crown in the right of Ontario in the amount of **Five Hundred Seventy Two Thousand Canadian Dollars (\$572,000.00)**. 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 F-15 *Financial Assurance Guideline* as amended from time to time. This amount is to cover the costs associated with the inspection and maintenance requirements for the hard and fill cap barriers, the inspection and maintenance of the vapour mitigation system as may be required in any new Building (s) along with the implementation of an performance monitoring program of the vapour migration system and groundwater monitoring program for a **two year period** as required by Sections 4.2 (e), 4.2 (l), 4.2 (o) and 4.2 (r) of this CPU.

4.16 The amount of financial assurance required in Section 4.15 of this CPU shall be reviewed every **two years** by a Qualified Person, for the Owner, and the updated cost estimate shall be submitted to the Director starting two years after the date financial assurance was submitted to the Crown in right of Ontario and every two years thereafter.

4.17 Prior to the submission of financial assurance as required by Section 4.15 of this CPU, the new Property

Owner may submit a request to the Director, which includes appropriate supporting documentation, to reevaluate the need for or to modify the amount of financial assurance that is required to be provided. Upon receipt of written approval of the Director, the submission of financial assurance as stipulated in Section 4.15 may be modified or deleted as specified in the approval of the Director.

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, such finding does not invalidate or render unenforceable the requirement in other circumstances nor does it invalidate or render unenforceable the other requirements of the CPU.
- 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 failure to comply with a requirement 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 relieve the Owner(s) 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 4.8 and 4.9 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, 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: Information regarding a Hearing before the Ontario Land Tribunal

With respect to those provisions relating to my authority in issuing a certificate of property use under section 168.6 and an order under section 197 of the Act:

- 6.1 Pursuant to section 139 of the Act, you may require a hearing before the Ontario Land 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. The contact information for the Director and the Tribunal is the following:

Registrar

Ontario Land Tribunal

655 Bay Street, Suite 1500
Toronto, ON, M5G 1E5
Email: OLT.Registrar@ontario.ca

and

Jeff Burdon P.Eng., Director

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

Fax: 519-826-4286
Email: jeff.burdon@ontario.ca

The contact information of the Ontario Land Tribunal and further information regarding its appeal requirements can be obtained directly from the Tribunal at: Tel: (416) 212-6349 or Toll Free 1 (866) 448-2248 or www.olt.gov.on.ca.

Further information regarding service can be obtained from e-Laws at www.ontario.ca/laws. Please note where service is made by mail, it is deemed to be made on the fifth day after the date of mailing and choosing service by mail does not extend any timelines.

- 6.4 Unless stayed by 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 Environmental Registry of Ontario. 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 Environmental Registry of Ontario. The notice must be delivered to the Minister of the Ministry of the Environment, Conservation and Parks, College Park 5th Flr, 777 Bay St, Toronto, ON M7A 2J3 by the earlier of:

- (a) two (2) days after the day on which the appeal before the Tribunal was commenced; and
- (b) 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 Pursuant to section 38 of the EBR, any person resident in Ontario with an interest in the CPU may seek leave to appeal the CPU. Pursuant to section 40 of the EBR, the application for leave to appeal must be made to the Tribunal by the earlier of:

- (a) fifteen (15) days after the day on which notice of the decision to issue the CPU is given in the Environmental Registry of Ontario; and
- (b) if you appeal, fifteen (15) days after the day on which your notice of appeal is given in the Environmental Registry of Ontario.

6.8 The procedures and other information provided in this Part 6 are intended as a guide. The legislation should be consultant for additional details and accurate reference. Further information can be obtained from e-Laws at www.ontario.ca/laws

Issued at Guelph this **20** day of **April, 2022**.

ORIGINAL SIGNED BY:

Jeff Burdon P.Eng.,
Director, section 168.6 of the Act

Schedule 'A': Figure 2- Conceptual Design of Typical Hard Cap Barrier (not to scale)

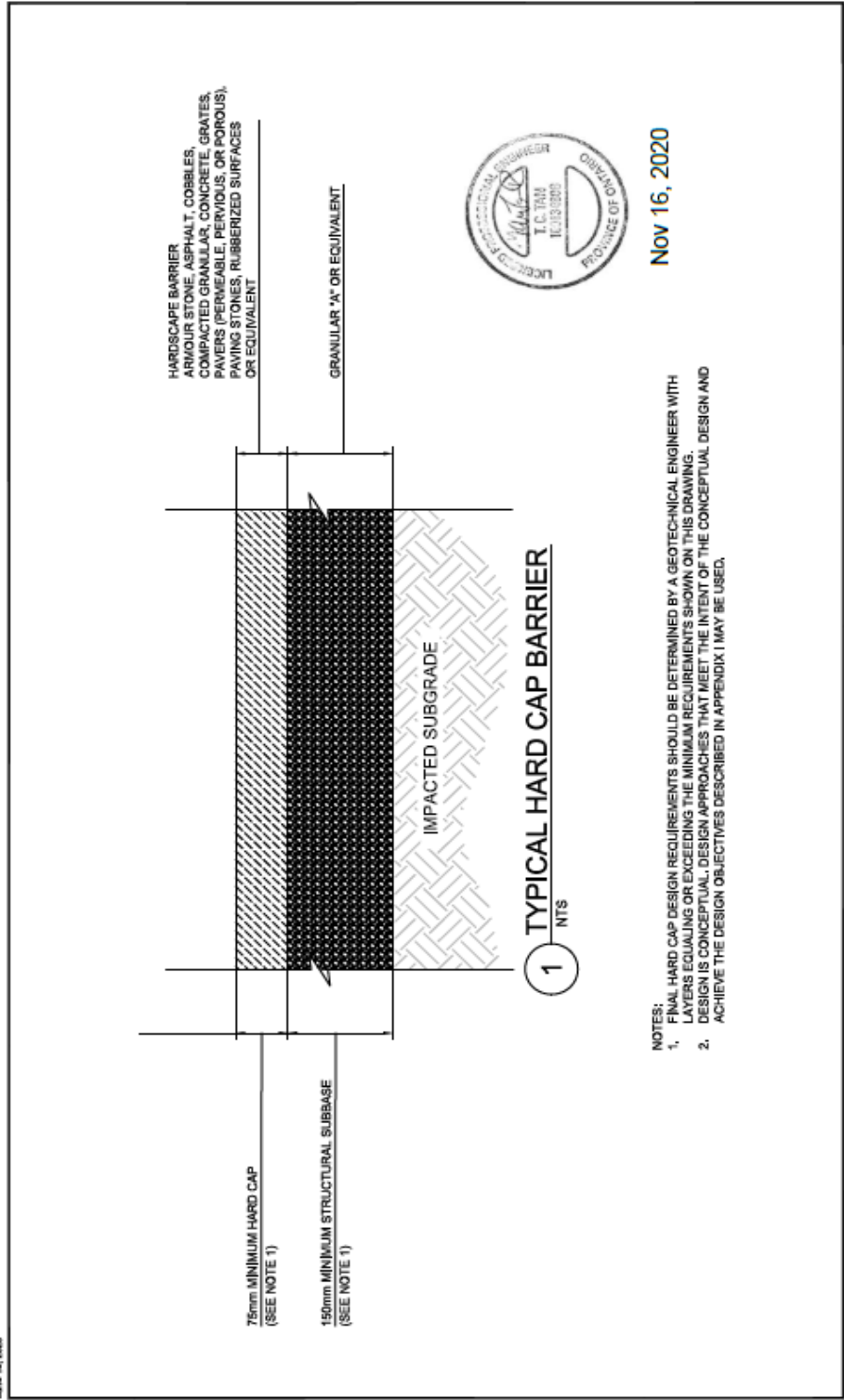


FIGURE 1-1
Conceptual Design of Typical Hard Cap Barrier

200 Beverly Street,
Guelph, Ontario



NOT TO SCALE
#M151_F011A18

Schedule 'A': Figure 3 – Conceptual Design of Typical Fill Cap Barrier (not to scale)

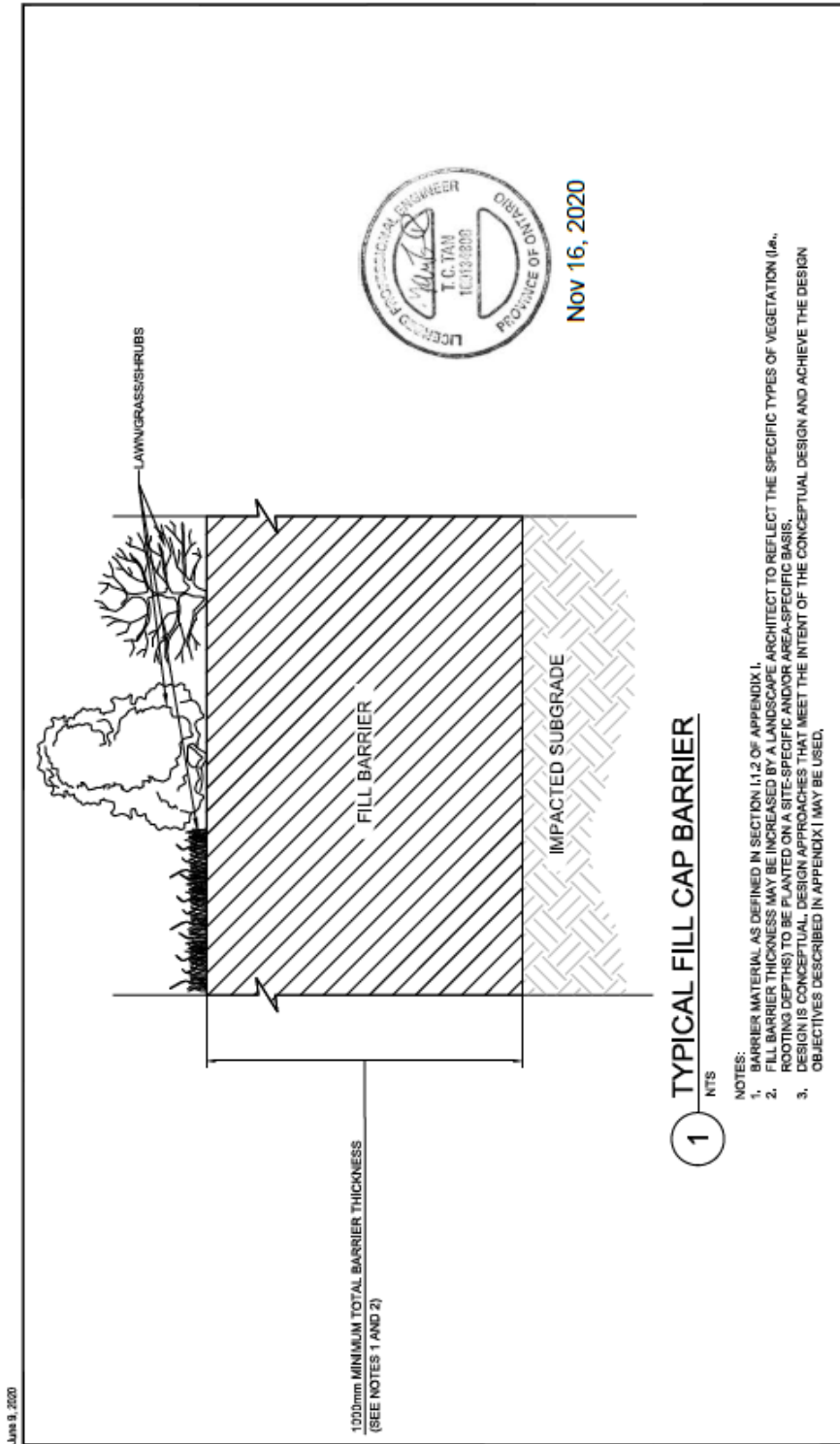


FIGURE I-2
 Conceptual Design of Typical Fill Cap Barrier

200 Beverly Street,
 Guelph, Ontario



NOT TO SCALE
 6/15/2020/ang

Schedule 'A': Figure 4 – Conceptual Design of Typical Fill Cap Barrier (New Treed Areas)
(not to scale)

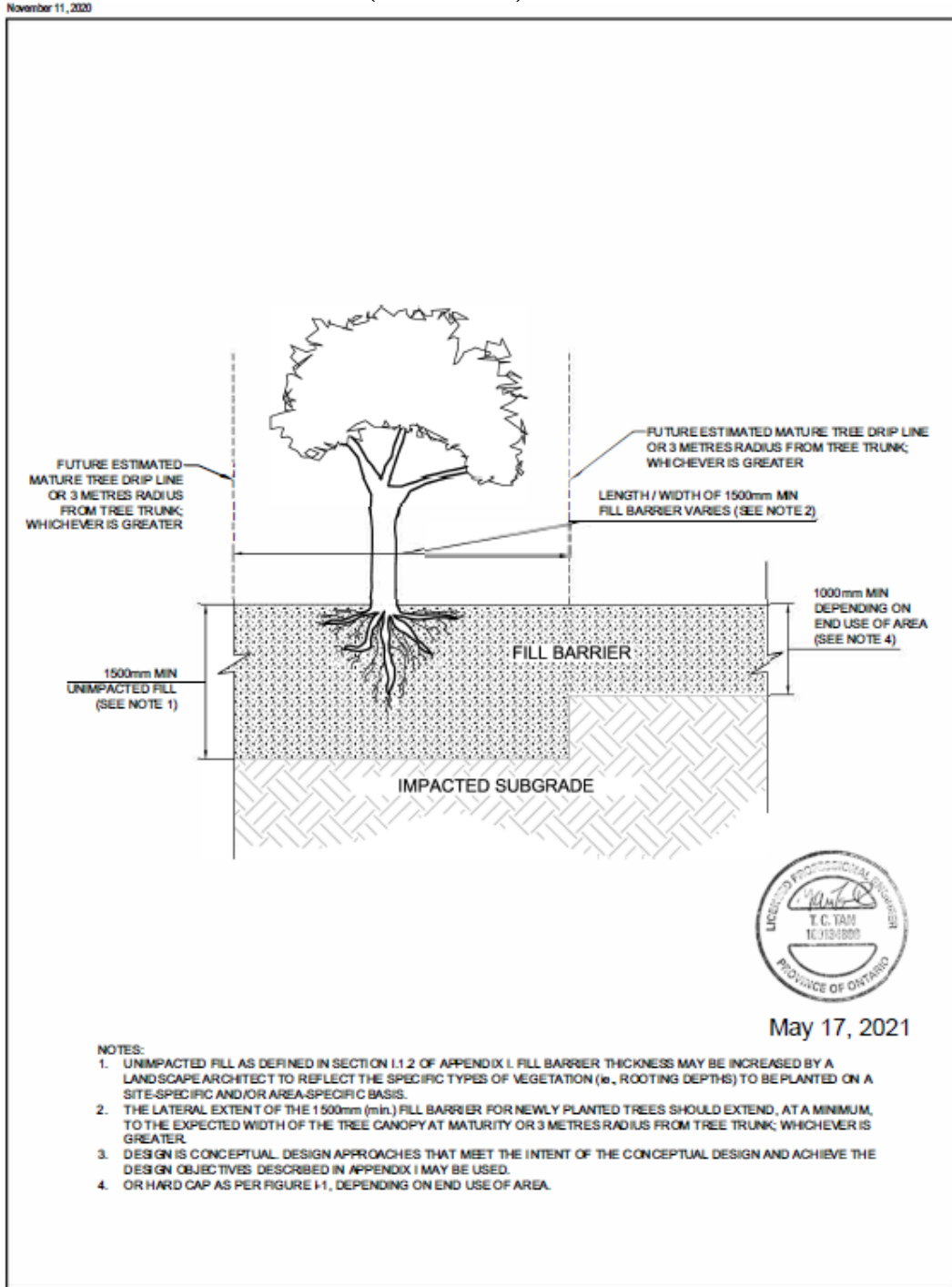


FIGURE I-3
Conceptual Design of Typical Fill Cap Barrier
New Treed Areas

200 Beverly Street,
Guelph, Ontario

NOT TO SCALE
094.757_F-003b.dwg

Jacobs

Schedule 'A': Figure 5 –Construction Restrictions (not to scale)



Figure 7-2
Administrative Requirements - NAPL
Risk Management Plan
Former MICO Foundry Facility
200 Beverly Street, Guelph, Ontario

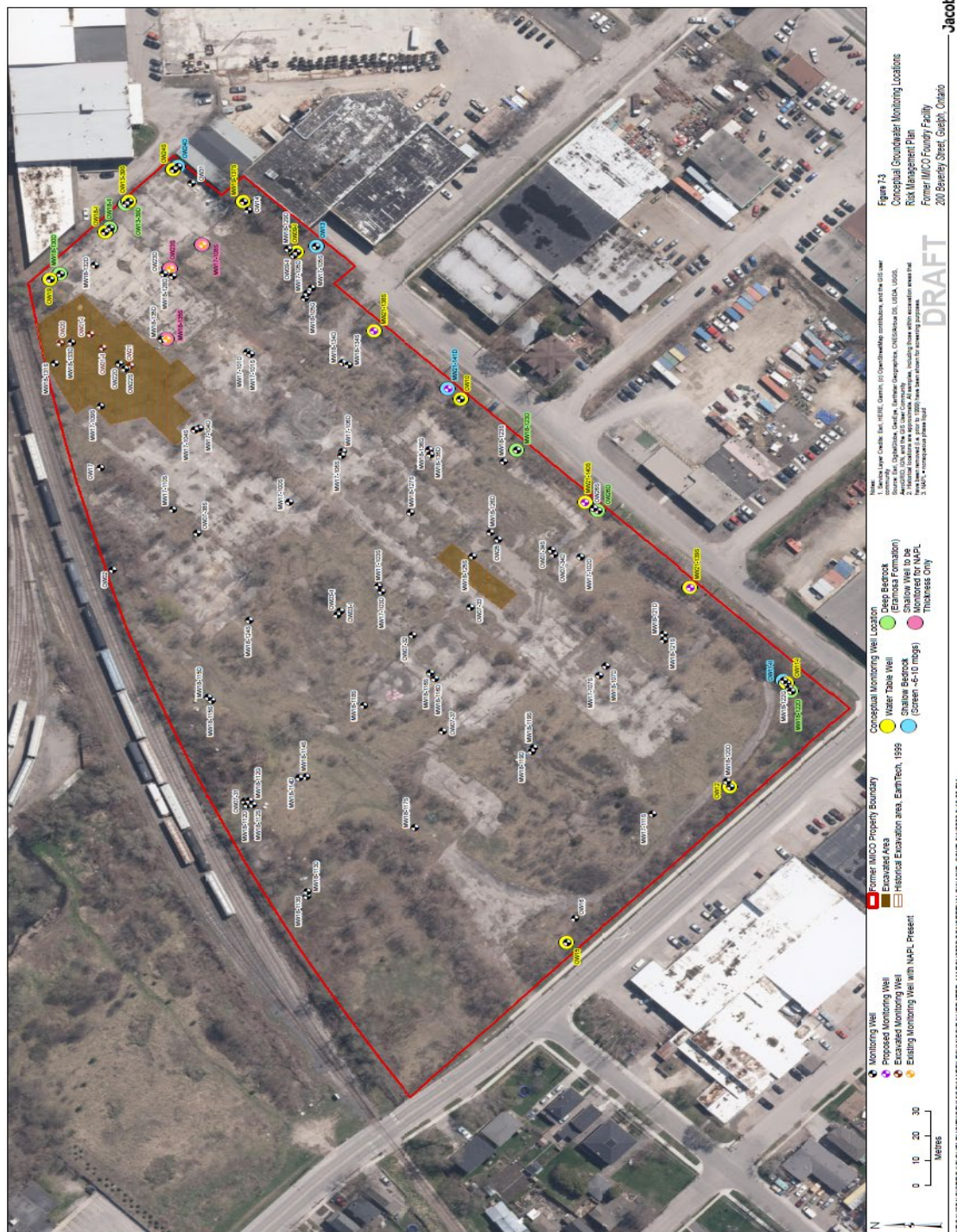
NOTE:

1. Service Layer Credits: ENR, HERSI, Geomix, iC, CoreStream, contributions, and the GIS user.
2. Aerial imagery is from Google Earth Pro, 2019.09.23, 12:18:37 PM. The imagery is from the year 2019. The imagery is from the year 2019. The imagery is from the year 2019.
3. NAPL = non-aqueous phase liquid.

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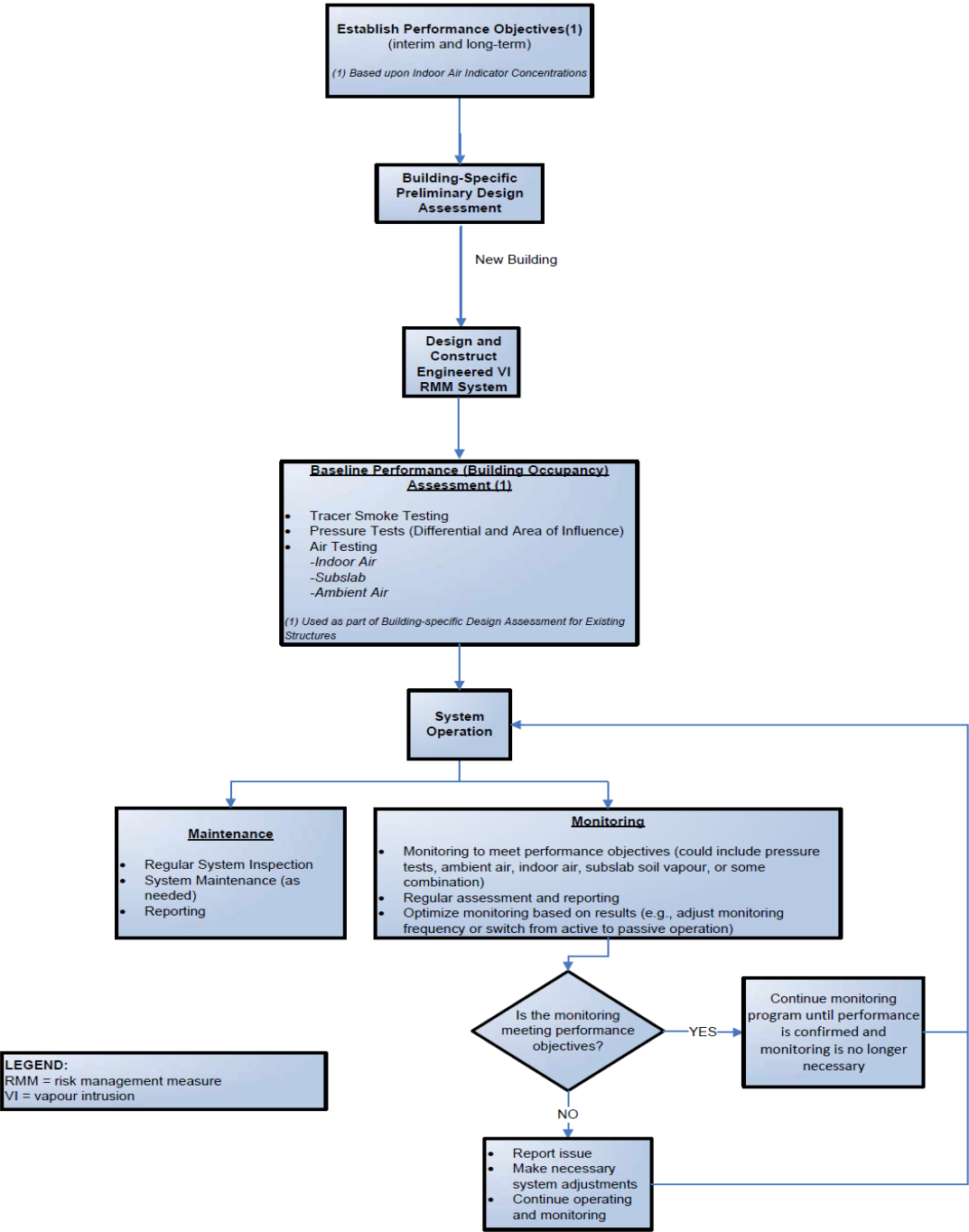
Jacobs

Schedule 'A': Figure 6 – Groundwater Monitoring Network (not to scale)



Schedule 'A': Figure 7 – Vapour Intrusion RMM – Design, Construction and Monitoring & Maintenance Process

Figure 7-1 Vapor Intrusion RMM – Design, Construction, and Monitoring and Maintenance Process



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

<i>Soil Contaminant of Concern (COC)</i>	<i>PSS (µg/g)</i>
2-(1-)Methylnaphthalene	5.9
Acenaphthene	110
Acenaphthylene	2
Anthracene	190
Antimony	22
Arsenic	27
Benzene	0.31
Benzo(a)anthracene	240
Benzo(a)pyrene	150
Benzo(b)fluoranthene	220
Benzo(g,h,i)perylene	84
Benzo(k)fluoranthene	79
Bismuth	180
Cadmium	100
Calcium	260000
Chrysene	210
Cobalt	470
Copper	2900
Dibenzo(a,h)anthracene	31
Electrical Conductivity (unitless)	2.6
Ethylbenzene	4.9
Fluoranthene	790
Fluorine	180
Indeno(1,2,3-Cd)Pyrene	96
Iron	150000
Lead	12000
Magnesium	140000
Mercury	0.38
Molybdenum	42
Naphthalene	260
Nickel	140
PCB, Total	1.9
PHC F2	4300
PHC F3	27000
PHC F4	8700
Phenanthrene	1000
Pyrene	560
Thallium	7.2
Trichloroethylene	42

<i>Soil Contaminant of Concern (COC)</i>	<i>PSS (µg/g)</i>
Vanadium	120
Xylenes, Total	4.6
Zinc	80000

Schedule 'A': Table 2A: Target Capping Soil Concentrations¹

<i>Soil Contaminant of Concern (COC)</i>	<i>Target Capping Soil Concentrations (µg/g)¹</i>
2-(1-)Methylnaphthalene	4.9
Acenaphthene	15
Acenaphthylene	0.15
Anthracene	0.67
Antimony	19
Arsenic	18
Benzene	0.21
Benzo(a)anthracene	0.5
Benzo(a)pyrene	0.57
Benzo(b)fluoranthene	1.1
Benzo(g,h,i)perylene	6.6
Benzo(k)fluoranthene	1.1
Bismuth	20
Cadmium	1.9
Calcium	54000
Chrysene	7
Cobalt	22
Copper	140
Dibenzo(a,h)anthracene	0.57
Electrical Conductivity (unitless)	0.7
Ethylbenzene	4.0
Fluoranthene	0.69
Fluorene	62
Indeno(1,2,3-Cd)Pyrene	0.38
Iron	11000
Lead	120
Magnesium	17000
Mercury	0.27
Molybdenum	6.9
Naphthalene	0.6
Nickel	100
PCB, Total	0.35
PHC F2	98
PHC F3	300
PHC F4	2800
Phenanthrene	6.2
Pyrene	78
Thallium	1.0

<i>Soil Contaminant of Concern (COC)</i>	<i>Target Capping Soil Concentrations (µg/g)¹</i>
Trichloroethylene	0.061
Vanadium	86
Xylenes, Total	3.1
Zinc	340

NOTE: 1 – Target Capping Soil Concentrations apply to soil existing on the Property at the time the RA was accepted. Any imported soil to the Property or any portions of the Property, shall meet the ASCS for the Property.

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

<i>Groundwater Contaminant of Concern (COC)</i>	<i>PSS (µg/L)</i>
1,1,1-Trichloroethane	44
1,1-Dichloroethane	35
1,1-Dichloroethene	76
2-(1-)Methylnaphthalene	330
Acenaphthene	48
Anthracene	37
Arsenic	54
Benzene	80
Benzo(a)anthracene	25
Benzo(a)pyrene	2.8
Benzo(b&j)fluoranthene	10
Benzo(k)fluoranthene	10
Chrysene	45
cis-1,2-Dichloroethene	1100
Ethylbenzene	10
Fluoranthene	28
Lead	20
Naphthalene	32
n-Hexane	8.9
PHC F1	660
PHC F2	250000
PHC F3	1000000
PHC F4	44000
Phenanthrene	130
Pyrene	70
Tetrachloroethene	1.3
trans-1,2-Dichloroethene	97
Trichloroethylene	9400
Vinyl Chloride	990
Zinc	5400

Schedule 'A': Table C: Target Indoor Air Concentrations*

<i>Indoor Air Target Analytes</i>	<i>Target Indoor Air Concentration (µg/m³)</i>	
	<i>Residential/Parkland/Institutional</i>	<i>Commercial/Community</i>
Acenaphthene**	1.9	6
Benzene	0.51	1.6
1,1-Dichlorethane	0.7	2.2
1,1-Dichlorethene	15	50
Cis-1,2-Dichloroethene	13	43
Trans-1,2-Dichloroethene	13	43
n-Hexane	150	500
2-(1-) Methyl naphthalene**	10	36
Mercury**	0.0063	0.021
Naphthalene	0.77	2.6
Tetrachloroethene	4.3	14
1,1,1-Trichloroethane	210	720
Trichloroethylene	0.27	0.4
Vinyl Chloride	0.13	0.43
Xylenes, Total	150	500
PHC F1	2500	8500
PHC F2	470	1600

Note: * Some target concentration may not be achievable; TO-15 Method Reporting Limit (6-L canister) is reported to be 0.5 µg/m³. Discussion with MECP prior to the development and initiation of sampling program is recommended in order to confirm approach for COCs for which the target concentration cannot be achieved by commercial laboratories.

** Target parameter not able to be sampled using TO-15 and alternative sampling techniques will need to be considered.

Schedule 'A': Table D: Target Soil /Sub-Slab Vapour Concentrations

<i>Soil/Sub-Slab Vapour Target Analytes</i>	<i>Target Soil/Sub-Slab Vapour Concentration ($\mu\text{g}/\text{m}^3$) Residential/Parkland /Institutional</i>	<i>Target Soil /Sub-Slab Vapour Concentration ($\mu\text{g}/\text{m}^3$) Commercial/Community</i>
Acenaphthene	95	1500
Benzene	26	400
1,1-Dichlorethane	35	550
1,1-Dichlorethene	750	13,000
Cis-1,2-Dichloroethene	650	11,000
Trans-1,2-Dichloroethene	650	11,000
n-Hexane	7,500	130,000
2-(1-) Methyl-naphthalene	500	9,000
Mercury	0.32	5.3
Naphthalene	39	650
Tetrachloroethene	220	3,500
1,1,1-Trichloroethane	11,000	180,000
Trichloroethylene	14	100
Vinyl Chloride	6.5	110
Xylenes, Total	7,500	130,000
PHC F1	130,000	2,100,000
PHC F2	24,000	400,000

Schedule 'A': Table 1E: Target Groundwater Monitoring Concentrations

<i>Groundwater Target Analytes</i>	<i>Target Groundwater Concentrations (µg/L)</i>			
	A¹	B²	C³	D⁴
1,1,1-Trichloroethane	NA	23	NA	NA
1,1-Dichloroethane	190	11	5	NA
1,1-Dichloroethene	1.2	0.5	14	NA
2-(1-)Methylnaphthalene	NA	7.2	12	NA
Acenaphthene	NA	17	4.1	NA
Anthracene	NA	NA	1	NA
Arsenic	NA	NA	25	10
Benzene	2.8	0.5	5	NA
cis-1,2-Dichloroethene	1.2	0.5	20	NA
trans-1,2-Dichloroethene	1.2	0.5	20	NA
Ethylbenzene	NA	57	2.4	NA
n-Hexane	5.9	5	NA	NA
Naphthalene	NA	4.4	NA	58
Pyrene	NA	NA	4.1	NA
Tetrachloroethene	NA	0.5	NA	NA
Trichloroethylene	0.5	0.5	5	2.3
Vinyl Chloride	0.5	0.5	2	11
PHC F1	58	3.4	420	NA
PHC F2	97	5.7	150	15000
Zinc	NA	NA	890	NA

NOTES:

- 1 – Protective of Commercial Off-Site Indoor Air Risk**
- 2 – Protective of Residential Off-Site Indoor Air Risk**
- 3 – Protective of Off-Site Aquatic and Potable Water Receptors (NOTE: the most conservative component value of the three pathways were selected as the Target Concentration)**
- 4 – Protective of Off-Site Construction/ Utility Worker**
- NA- NOT APPLICABLE – pathway not assessed for COC or no potential risk indicated for off-site**

Schedule 'A': Table 2E: Proposed NAPL Thickness Targets

<i>Groundwater Monitoring Well ID</i>	<i>NAPL Thickness Triggers (cm)</i>
MW17-108S	107
MW18-135S	20
OW23S	103

Schedule 'A': Table 3E: Proposed Groundwater Monitoring Program Summary

<i>Groundwater Monitoring Well ID</i>	<i>Location</i>	<i>Monitoring Requirements</i>	<i>Groundwater Monitoring Analytes and Target Concentrations</i>
OW19, OW18-I, OW18-II, OW24S, OW24D; OW13-39S, OW13-39D & MW18-130D	Upgradient Property Boundary Wells – Groundwater entering RA Property	<ul style="list-style-type: none"> • Waterlevel measurements, • NAPL Monitoring (except OW18-II, OW24D & OW13-39D), and • Groundwater Sampling 	<ul style="list-style-type: none"> • Table B – all wells
MW19-137S, OW09-I; OW10; OW11-I; OW12; OW15; MW21-138S; MW21-139S & MW21-140S	Downgradient Property Boundary Wells (Groundwater exiting RA Property)– Shallow Wells	<ul style="list-style-type: none"> • Waterlevel measurements, • NAPL Monitoring, and • Groundwater Sampling 	<ul style="list-style-type: none"> • Table B- all wells; • Table 1E (C & D) – all wells; • Table 1E (A) – OW19-137S; OW09-I; OW10; OW21-139S; OW21-138S & OW15); and, • Table 1E (B) – OW11-I; OW12 & OW21-140S
OW13, OW26D; MW18-123D; OW11-II; MW18-122D & MW21-141D	Downgradient Property Boundary Wells (Groundwater exiting RA Property)_ – Deep Wells	<ul style="list-style-type: none"> • Waterlevel measurements, and • Groundwater Sampling 	<ul style="list-style-type: none"> • Table B- all wells; and, • Table 1E (C) – all wells
MW17-108S, MW18-135S & OW23S	Existing NAPL	<ul style="list-style-type: none"> • NAPL Thickness and Stability Monitoring 	<ul style="list-style-type: none"> • Table 2E – all wells

Schedule ‘A’: Table F: Building Types and Applicable Mitigation Approaches^c

<i>Building Type – New Construction</i>	<i>Is Building Foundation in Contact with Groundwater?</i>	<i>Vapour Mitigation Approach(es)^{a,b}</i>
Building with Slab-on-grade construction - Occupied and or constructed with vertical, belowgrade foundation walls, or both	Possibly	Vapourproof barrier (and sealing of foundation penetrations, where required), and passive subslab venting system. Additional strategic placement of passive suction pit (plenum box), or vapour cut-off trench within the affected portion of the building may be used, where applicable.
Parking garages under Building	Yes	Vapourproof and waterproof barrier; sealing of foundation penetrations; and moisture protection and passive subslab venting system.
Parking garages under Building	No	Sealing of foundation, vapourproof barrier, and passive subslab venting system.
Other subsurface structures (basement) under Building other than parking garages (storage garages)	Yes	Passive submembrane venting layer and venting at the periphery of the foundation, vapour- and waterproof barrier, sealing of foundation penetrations; and moisture protection.
Other Basement - other belowgrade structures other than parking garages (storage garages)	No	Vapourproof barrier (and sealing of foundation penetrations, where required), and passive subslab venting system. Additional strategic placement of passive suction pits (or plenum boxes), or vapour cut-off trench within the affected portion of the building may be used, where applicable.
Any Building/Structure constructed with a sump	Yes	Sealing, secured access, appropriate venting to exterior of structure

NOTES:

- a. Detailed design will be based on actual building type/configuration and will be required to be designed and sized appropriately by a qualified Licensed Professional Engineer.
- b. Standard construction practices (that is, waterproofing versus sealing) may address vapour intrusion management requirements. It will be the responsibility of the qualified Licensed Professional Engineer to determine the acceptance of this approach.
- c. To be used in conjunction with Schedule ‘A’: Figure 7 - Vapour Intrusion RMM – Design, Construction and Monitoring & Maintenance Process

Schedule ‘A’: Table G: Vapour Intrusion Risk Management Monitoring Requirements^{a, d}

<i>Monitoring Approach/Applicability</i>	<i>Performance Monitoring</i>	<i>Frequency</i>	<i>Target Conc.</i>	<i>Measure of VI RMM effectiveness</i>	<i>Contingency Activities (monitoring and Risk Management)</i>
Baseline (Year 1)					
All Building Types	Indoor air and or Soil/Sub-Slab Vapour Ambient air	One event before use and three subsequent quarterly events over 1 year ^b	Table 1C (Indoor Air) or Table 1D (Soil/Sub-Slab Vapour)	Effective if Indoor Air or Soil/Sub-Slab Vapour Target Concentrations are met or other secondary sources (for example building interior sources) are determined to be the cause of exceedances of Indoor Air Targets	If Table 1C (Indoor Air) and or Table 1D (Soil/Sub-Slab Vapour) targets are exceeded: <ol style="list-style-type: none"> 1. Evaluate data and determine if the concentrations of the observed Target Analytes are a result of soil vapour intrusion 2. If observed concentrations are determined to be a result of soil vapour intrusion, resample to confirm within 10 business days (if negative, continue monitoring on regular schedule) 3. If confirmation samples test positive, evaluate potential sources, modify the system, or implement contingency RMMs (for example make passive venting active) to address issue^c 4. Retest, as appropriate to demonstrate that Indoor Air or Soil/Sub-Slab Vapour Target concentrations are met and the system is effective 5. Continue monitoring on regular schedule

<i>Monitoring Approach/Applicability</i>	<i>Performance Monitoring</i>	<i>Frequency</i>	<i>Target Conc.</i>	<i>Measure of VI RMM effectiveness</i>	<i>Contingency Activities (monitoring and Risk Management)</i>
Confirmatory^c					
All Building Types	Indoor air Soil/Sub-Slab Vapour Ambient air	Three events per year	Table 1C (Indoor Air) or Table 1D (Soil/Sub-Slab Vapour)	Same as above	If Table 1C (Indoor Air) and or Table 1D (Soil/Sub-Slab Vapour) targets are exceeded: <ol style="list-style-type: none"> 1. Retest within 10 business days to confirm results; 2. If confirmation samples test positive, evaluate potential sources, modify the system, or implement contingency RMMs (for example make passive venting active) to address issue^{b,c} 3. Retest, as appropriate to demonstrate that Indoor Air or Soil/Sub-Slab Vapour Target concentrations are met and the system is effective 4. Continue monitoring on regular schedule

Notes:

RMM – risk management measure

- a. Buildings must be monitoring for a minimum of 2 years (inclusive of baseline and confirmation periods)**
- b. If VI RMM contingencies are required, then:**
 - i. confirmatory indoor air sampling must be preformed after implementation; and,**
 - ii. performance indoor air sampling and sub-slab vapour sampling must be undertaken thereafter for a minimum of two events following implementation of contingency measures identified in Section 7.4.1.3 of the RMP;**
- c. At the end of two years, inclusive of baseline performance assessment, the decision may be made in consultation with a Qualified Person, to cease monitoring, if supported by data**
- d. To be used in conjunction with Schedule ‘A’: Figure 7 - Vapour Intrusion RMM – Design, Construction and Monitoring & Maintenance Process**

SCHEDULE 'B'

CERTIFICATE OF REQUIREMENT

s.197(2)

Environmental Protection Act

This is to certify that pursuant to Section 4.7 of Certificate of Property Use number **7073-C7NLHC** issued by **Jeff Burdon P.Eng.**, Director of the Ministry of Environment, Conservation and Parks under subsections 168.6(1) and 197(1) of the Environmental Protection Act, dated **April 20, 2022**, being a Certificate of Property Use and order under section 197(1) of the Environmental Protection Act relating to the property municipally known as **200 Beverley Street, being all of PIN 71343-0074 (LT) (the "Property")** with respect to a Risk Assessment and Risk Management Measures and other preventive measure requirements,

The Corporation of the City of Guelph

and any other persons having an interest in the Property, are required before dealing with the Property in any way, to give a copy of the Certificate of Property Use, including any amendments thereto, to every person who will acquire an interest in the Property.

Under subsection 197(3) of the Environmental Protection Act, the requirement applies to each person who, subsequent to the registration of this certificate, acquires an interest in the Property.