

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: **8057-BJQRJ4**

Risk Assessment number: **4204-ALMKDF**

Owner:

City of Hamilton
77 James Street North, Suite 400
Hamilton, Ontario
L8R 2K3

Site:

Pier 6 and Pier 7, Hamilton, Ontario

Legal Description:

Road Allowance between Lots 14 and 15, Broken Front Concession, Barton, designated
as Part 47, Plan 62R-21152, City of Hamilton

being all of PIN 17579-0155 (LT)

- and -

Part of Water Lot in Front of Lot 15, Broken Front Concession, Part of Lot 1, Block
41, Part of Lot 5, Part of Unnumbered Lot, Block 11, Registered Plan 127, Part of
Water Lot in Front of Lot 14, Broken Front Concession, Barton, Part of Lot 14, Broken
Front Concession, Barton, designated as Parts 14, 15, 16, 23, 24, and 25, Plan 62R-
21152, City of Hamilton

being part of PIN 17579-0165 (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.*

CPU requirements addressed in Part 4 of the CPU, Director Requirements, include but are not limited to the following:

- | | |
|---|-----|
| a. Installing/maintaining any equipment | Yes |
| b. Monitoring any contaminant | Yes |
| c. Refraining from constructing any Building specified | Yes |
| d. Refraining from using the Property for any use specified | Yes |
| e. Other: see ii below for details | Yes |
- i) Duration of Risk Management Measures identified in Part 4 of the CPU is summarized as follows:
- a. The existing barriers and new hard cap and fill cap barriers installed on the Property are required to be maintained for as long as the Contaminants of Concern are present on the Property;
 - b. The restriction on the construction of Building(s) on Pier 7 unless the Building(s) incorporate either a Storage Garage or a soil vapour mitigation system shall be required for as long as soil vapour Contaminants of Concern identified in the Risk Management Plan are present on Pier 7;
 - c. The health and safety plan for all intrusive work and excavation activities potentially exposing the Contaminants of Concern identified on the Property shall be required for as long as the Contaminants of Concern are present on the Property;
 - d. The soil and groundwater management plan for work that may potentially expose Contaminants of Concern identified on the Property shall be required for as long as the Contaminants of Concern are present on the Property;
 - e. The other Risk Management Measures shall continue indefinitely until the Director amends or revokes the 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;

“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 the Ontario Regulation 332/12; ‘Building Code’ as amended January 1, 2015;

“Capping Soil” means soil that meets the soil criteria identified in: **Table 1: Full Depth Background Site Condition Standards for Residential, Parkland, Institutional, Industrial, Commercial and Community** property 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;

“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” & “COC” has the meaning as set out in Item 3.2 of this CPU;

“CPU” means this Certificate of Property Use Number No. **8057-BJQRJ4** 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;

“Fill Material” means loose, granular material from an Ontario Ministry of Natural Resources and Forestry (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;

“LNAPL” means light non-aqueous phase liquid;

“Licensed Professional Engineer” means a person who has obtained the appropriate education and training and has demonstrated experience and expertise in the areas related to the work required to be carried out in this CPU and holds a licence, limited licence or temporary licence under the *Professional Engineers Act*, R.S.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 **City of Hamilton**, the current owner of the Property, and any subsequent owner of the Property;

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

“Pier 6” means part of the Property that is shown on **Figure 2** of Schedule ‘A’ which is attached to and forms part of this CPU;

“Pier 7” means part of the Property that is shown on **Figure 2** of Schedule ‘A’ which is attached to and forms part of this CPU;

“Property” means the property that is the subject of the CPU described in the “Property” section on page 1 and shown on **Figures 1 and 2** of Schedule ‘A’ all attached to and forming part of this CPU;

“Property Specific Standards” means the property specific standards established for the Contaminants of Concern set out in the Risk Assessment and in Item 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 subsection 5(2) of O. Reg. 153/04;

“Reg. 347” means Ontario Regulation R.R.O. 1990, Reg. 347, “General - Waste Management” made under the Act;

"Risk Assessment" and “RA” means the Risk Assessment No. **4204-ALMKDF** accepted by the Director on **December 10, 2019**, and set out in the following documents:

- **“Risk Assessment, Pier 6 and 7, Hamilton, Ontario”, by Dillon Consulting Limited, dated November 30, 2017;**
- **“Risk Assessment (2nd Submission), Pier 6 & 7, Hamilton, Ontario”, by Dillon Consulting Limited, dated July 2018;**
- **“Risk Assessment, Piers 6 and 7, Hamilton, Ontario”, by Dillon Consulting Limited, dated April 2019;**
- **“Re: RA for Piers 6 and 7, Hamilton; RA1599-17; IDS# 4204-ALMKDF”, email from Brent Loney, Dillon Consulting Limited, received by TASDB on October 22, 2019; and**

- “Re: RA for Piers 6 and 7, Hamilton; RA1599-17; IDS# 4204-ALMKDF”, email from Brent Loney, Dillon Consulting Limited, received by TASDB on November 1, 2019, with following attachment:
 - Revised QPRA Mandatory Certifications; file name: RA 1599-17 Mandatory Certifications_20190430 v2.pdf

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

“Risk Management Plan” means the final version of the risk management plan as set out in Section 7 and Appendix E of the “Risk Assessment” report dated **April, 2019**;

“Storage Garage” has the same meaning as the Building Code and includes a mechanical ventilation system designed to provide a continuous supply of outdoor air at a rate of not less than 3.9 litres per second for each square metre of floor area. The Storage Garage shall comply with all applicable requirements of the Building Code, including the provisions governing:

- i. the design of a mechanical ventilation system as set out in Division B, Article 6.2.2.3. (Ventilation of Storage and Repair Garages) of the Building Code;
- ii. interconnection of air duct systems as set out in Division B, Sentence (2) of Article 6.2.3.9. (Interconnection of Systems) of the Building Code; and
- iii. air leakage as set out in Division B, Section 5.4. (Air Leakage) of the Building Code;

“Sub Slab Vapour Barrier Venting Layer” means an engineered venting layer and associated Venting Components below the foundation floor slab and Vapour Barrier and above the sub-slab foundation layer for building construction, as designed by a Licensed Professional Engineer, which operates in a passive manner but can be converted into an active system if necessary, providing pressure relief, collection and venting of vapours away from a Building;

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

“Vapour Barrier” means a geo-synthetic barrier (including but not limited to geomembrane or spray applied equivalent) meeting the appropriate gas permeability and chemical resistance specifications to be considered impermeable and resistant to the Contaminants of Concern as per the Risk Assessment, and is considered appropriate by the Licensed Professional Engineer and Qualified Person for its installation on the Property;

“Venting Components” means a network of perforated piping/plenums or venting composites embedded in granular materials of sufficient permeability or other venting

products with continuous formed void space that convey vapours and direct these vapours into vent risers that terminate above the roof elevation with wind-driven turbines to support passive venting, or active venting if required.

Part 2: Legal Authority

- 2.1 Section 19 of the Act states that a certificate of property use is binding on the executor, administrator, administrator with the will annexed, guardian of property or attorney for property of the person to whom it was directed, and on any other successor or assignee of the person to whom it was directed.
- 2.2 Subsection 132(1.1) of the Act states that the Director may include in a certificate of property use a requirement that the person to whom the certificate is issued provide financial assurance to the Crown in right of Ontario for any one or more of,
 - a. the performance of any action specified in the certificate of property use;
 - b. the provision of alternate water supplies to replace those that the Director has reasonable and probable grounds to believe are or are likely to be contaminated or otherwise interfered with by a contaminant on, in or under the property to which the certificate of property use relates; and
 - c. measures appropriate to prevent adverse effects in respect of the property to which the certificate of property use relates.
- 2.3 Section 168.6(1) of the Act states that if the Director accepts a risk assessment relating to a property, he or she may, when giving notice under clause 168.5 (1)(a), issue a certificate of property use to the owner of the property, requiring the owner to do any of the following things:
 1. Take any action specified in the certificate that, in the Director's opinion, is necessary to prevent, eliminate or ameliorate any adverse effect on the property, including installing any equipment, monitoring any contaminant or recording or reporting information for that purpose.
 2. Refrain from using the property for any use specified in the certificate or from constructing any Building specified in the certificate on the property.
- 2.4 Subsection 168.6(2) of the Act states that a certificate of property use shall not require an owner of 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 on behalf of the Owner to assess the human health risks and ecological risks associated with the presence or discharge of Contaminants on, in or under the Property and to identify appropriate Risk Management Measures to be implemented to ensure that the Property is suitable for the intended uses: **Residential, Parkland,**

Institutional, Industrial, Commercial or Community as defined in O. Reg. 153/04.

- 3.2 The Contaminants on, in or under the Property that are present either above the applicable **Table 1: Full Depth Background Site Condition Standards for Residential, Parkland, Institutional, Industrial, Commercial or Community** property uses published by the Ministry and dated April 15, 2011, or for which there are no such standards, are set out in the Risk Assessment (Contaminants of Concern). The Property Specific Standards for these Contaminants of Concern are set out in **Table 1A and 1B**, Schedule 'A' which is attached to and forms part of the CPU.
- 3.3 I am of the opinion, for the reasons set out in the Risk Assessment that the Risk Management Measures described therein and outlined in Part 4 of the CPU are necessary to prevent, eliminate or ameliorate an Adverse Effect on the Property that has been identified in the Risk Assessment.
- 3.4 The Risk Assessment indicates the presence of Contaminants of Concern in soil and groundwater which require on-going restriction of land use and pathway elimination. As such, it is necessary to restrict the use of the Property and impose building restrictions and implement Risk Management Measures as set out in the Risk Assessment and in Part 4 of the CPU.
- 3.5 I believe for the reasons set out in the Risk Assessment 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 the section 197 order requirements in Items 4.6 and 4.7 of the 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 Item 4.1, carry out or cause to be carried out the following key elements of the Risk Management Measures:
 - 4.2.1 Prior to occupancy, hard cap and fill cap barriers shall be installed on the Property, or part of the Property under development as set out in the Risk Management Plan. 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. New hard cap barriers and 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, 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, paving stones, armour stones, rubberized surfaces or equivalent or a combination thereof with a minimum combined thickness of 225 mm constructed as shown on **Figure 3**, Schedule 'A' of this CPU.
- ii. The fill cap barrier(s) shall consist of either a minimum of a:
 - (a) 1000 mm thick cover of Capping Soil, Fill Material, or a combination thereof constructed as detailed on **Figure 3**, Schedule 'A' of this CPU;
 - (b) cover of Capping Soil, Fill Material, or a combination thereof for areas that include deep rooting trees constructed as shown on **Figure 3**, Schedule 'A' of this CPU. The Capping Soil should be extended laterally at a thickness of 1500 mm to the expected drip line of the mature tree.
- iii. In relation to Items 4.2.1 i. and ii. 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 COC present on the Property is prevented by either:
 - (a) **Fencing** - a fence barrier that restricts access to those areas of the Property and dust control measures are implemented as necessary.
 - (b) **Maintenance of existing non-soil cover** – if the existing non-soil surface coverings (asphalt, concrete, compacted granular) remain intact and are maintained in a competent condition they can continue to be used as an interim capping measure. This must be verified through completion of a semi-annual site condition assessment to assess the condition of ground surface covers within unfenced areas of the Property and confirm that the underlying soil materials continue to be effectively capped. Semi-annual site condition assessments must continue until such time that these areas are developed in accordance with Items 4.2.1. i. and/or 4.2.1. ii. In addition, if any fenced areas of the Property are used as interim parking areas in the future, a similar condition assessment shall be completed prior to such usage.

- 4.2.2 Within 90 days of completion of the installation of the barriers described by Items 4.2.1. i. and 4.2.1. ii. of this CPU, the Owner shall prepare a written implementation report signed by a Licensed Professional Engineer that the barriers have been installed in accordance with the requirements of the Risk Management Plan and Item 4.2.1 of this CPU along with final design specifications/drawings and or as built drawings that clearly identifies the final location of each of the different barriers.
- 4.2.3 An inspection and maintenance program shall be implemented to ensure the continuing integrity of the barriers described by Items 4.2.1 i. and 4.2.1 ii. of this CPU for as long as COC are present Property. The inspection program shall include semi-annual (spring and fall) inspections of the barrier's integrity in accordance with the inspection and maintenance program set out in the Risk Management Plan. Any barrier deficiencies shall be repaired forthwith in accordance with the Risk Management Plan. 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 no exposure to the COC present on the Property. The restoration of any damaged portions of the barriers shall meet the specifications set out, at minimum, in Item 4.2.1 of this CPU and the Risk Management Plan. In the event of a repair to a barrier, the Owner shall receive written confirmation signed by a Licensed Professional Engineer that the barriers have been repaired in accordance with the requirements of Item 4.2.1 of this CPU and the Risk Management Plan. The written confirmation shall also include a description of any contingency measures put in place and shall be submitted to the Owner 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.
- 4.2.4 The placement of soils within Pier 6 that have been excavated from Pier 7 is prohibited.
- 4.2.5 The construction of any new Building(s) on, in or under Pier 7 is prohibited unless:
- i. The Building(s) is constructed as a slab-on-grade Building complete with a passive soil vapour mitigation system (SVMS) described by the Risk Management Plan below the entire footprint of the Building(s) and incorporates:
 - (a) The sealing of foundation penetrations, a Vapour Barrier, Sub Slab Vapour Barrier Venting Layer and Venting Components as described by the Risk Management Plan and shown on **Figures 4 and 5** of Schedule 'A'.

- (b) The lowest occupied level of the Building(s) should not be lower than the current (pre-development) ground surface elevation.
- (c) The ability to convert the passive SVMS to an active ventilated SVMS.
- (d) Within 90 days of the commissioning of the SVMS, the Owner shall prepare as-built drawings and specifications of the SVMS, including any verification and QA/QC reports, prepared by a Licensed Professional Engineer along with a statement from Professional Engineer that the SVMS meets the requirements and objectives of the Risk Management Plan. The Owner shall retain a copy of these documents for future inspection by a Provincial Officer.
- (e) The Licensed Professional Engineer that designed the SVMS shall prepare an operation, monitoring, inspection and maintenance program for implementation by the Owner prior to first occupancy to ensure the continuing integrity of the SVMS. Inspections shall be conducted on the visibly accessible components of the SVMS semi-annually and include:
 - i. Visual inspections of the floor slab for potential breaches;
 - ii. Visual inspections of the Venting Components for potential breaches or defects;
 - iii. The implementation of contingency actions and the repair of any noted deficiencies forthwith; and
 - iv. The recording of inspection results in a log book maintained by the Owner and available upon request by a Provincial Officer.
- ii. The Building is constructed with an above grade or below grade Storage Garage below the entire footprint of the Building(s) that incorporates:
 - (a) The ventilation and air duct system(s) serving the Storage Garage level(s) of the Building(s) are separate from the ventilation system(s) serving the stories above the Storage Garage level.
 - (b) A Vapour Barrier is applied to the below grade exterior portions of the Storage Garage floors and walls. The Vapour Barrier shall be sealed at all joints and penetrations and be installed as described by the Risk Management Plan.
 - (c) Semi-annual inspections for proper functioning of components such as air intakes, blowers, exhaust ducts and any integrated controls

and the repair of any deficiencies forthwith. The inspection results shall be recorded in a log book maintained by the Owner and available upon request by a Provincial Officer.

- iii. The Building(s) is constructed with a combination of Items 4.2.5.i. and ii. below the entire footprint of the Building(s).

4.2.6 The Owner shall ensure that all individuals/contractors intending to undertake work which could potentially come into contact with or interfere with the SVMS described by this CPU are made aware of the presence of the SVMS and the need to take appropriate precautions to ensure the integrity of the system at all times. If the SVMS is damaged at any time, the Owner shall ensure that it is repaired to meet the design objectives and specifications set out by this CPU and the Risk Management Plan.

4.2.7 Prior to the occupancy of any new Building(s) constructed on Pier 7, the Owner shall implement a sub-slab vapour monitoring program in accordance with the Risk Management Plan. The program shall include, but not be limited to, the following components:

- i. Be overseen by a Qualified Person;
- ii. All sampling and quality control procedures shall be conducted in accordance with the Ministry's "*Draft Technical Guidance, Soil Vapour Assessment*" (2013) and "*Operations Manual for Air Quality Monitoring in Ontario*" (2008).
- iii. Be conducted for the COCs set out on **Table 1C** of Schedule 'A' of this CPU;
- iv. Sub-slab soil vapour monitoring shall be done in accordance with USEPA Method TO-15 with a minimum of two (2) sub-slab soil vapour samples taken from sub-slab soil vapour probes for each Building (not including the quality assessment and quality control samples) and one ambient outdoor sample collected contemporaneously with the sub-slab vapour sample as described in the Risk Management Plan.
- v. Be carried out semi-annually with one interval of sampling conducted during December to February of each year for at least three years.
- vi. If the concentration of any COC measured as a result of the monitoring carried out in accordance with Items 4.2.7 i., ii., iii., iv. and v. of this CPU exceeds the applicable sub-slab trigger values set out on **Table 1C** of Schedule 'A' of this CPU, then the Owner shall notify the Director within 10 business days of receiving the analytical results, and undertake the following actions:

- (a) Within 15 business days of receiving the analytical results, collect additional (confirmatory) sample(s) at the location(s) where the results exceeded the sub-slab criteria set out on **Table 1C** of Schedule 'A';
- (b) If monitoring results from the confirmatory event are below the applicable criteria set out on **Table 1C**, Schedule 'A' of this CPU, provide the results to the Director and carry on monitoring as directed by Items 4.2.7 i., ii., iii., iv. and v. of this CPU.
- (c) If monitoring results from the confirmatory event are above the criteria set out on **Table 1C**, Schedule 'A' of this CPU, then a Licensed Professional Engineer shall be retained by the Owner and within 30 days of the receipt of the analytical results, shall:
 - 1. Develop and submit a work plan with timelines to the Director for further investigations and recommendations (contingency actions) to minimize/mitigate vapour intrusion into the Building; or
 - 2. Develop and submit a report to the Director confirming that the indoor air quality exceedances are due to ambient (outdoor) air sources and continue sampling as directed by Items 4.2.7 i., ii., iii., iv. and v. of this CPU.
- vii. Upon the Owner receiving written approval from the Director regarding the contingency plan submitted as required by Item 4.2.7 vi. (c) 1. of this CPU, the Owner shall forthwith implement the plan and provide confirmation to the Director. The contingency plan shall be completed under the supervision of a Licensed Professional Engineer.
- viii. At the occurrence of three years of monitoring results less than the trigger levels set out on **Table 1C**, Schedule 'A' of this CPU, a written request can be made to the Director in accordance with Item 5.2 of this CPU to alter or revoke the monitoring program. These changes may be implemented by the Owner upon receiving written authorization from the Director.
- ix. The Owner shall keep a copy of all sampling data available for inspection by a Provincial Officer upon request.

4.2.8 A property specific Health and Safety Plan shall be developed in accordance with the Risk Management Plan and be implemented prior to all intrusive activities potentially in contact with or exposing COC identified on the Property or part of the Property and a copy shall be maintained at the

Property for the duration of all intrusive activities. The Health and Safety plan shall be prepared in accordance with applicable Ministry of Labour health and safety requirements to mitigate the potential risks identified in the Risk Management Plan and include, but not be limited to, occupational hygiene requirements, personal protective equipment, contingency plans and contact information. The Owner shall retain a copy of the plan to be available for review by the Ministry upon request.

- 4.2.9 A 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 identified in on-site soils and/or groundwater on the Property as detailed in the Risk Management Plan. A copy of the Plan shall be maintained on the Property for the duration of all planned intrusive activities and include, but not be limited to, the following components as deemed necessary by a Qualified Person:
- i. oversight by a Qualified Person;
 - ii. dust control measures and prevention of soils tracking by vehicles and personnel from the Property;
 - iii. management of excavated soils including cleaning equipment, placement of materials for stockpiling on designated areas lined and covered with a geomembrane (e.g., polyethylene, or other impervious membranes) sheeting, bermed and fenced to prevent access, runoff control to minimize contact and provisions for discharge to sanitary sewers or other approved treatment;
 - iv. storm water management measures to control the potential transport of COCs off-site during on-site construction/redevelopment activities. This shall include, but to not be limited to, silt fences and filter socks on catch-basins and utility covers as necessary;
 - v. characterization of excavated soils to determine if the excavated soils exceed the Property Specific Standards listed in **Table 1A** 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 require off-site disposal in accordance with the provisions of Ontario Regulation 347, as amended, made under the Act;
 - vi. procedures for the management, collection and containment of ground water that may be extracted and/or exposed during future sub-surface work on the Property.
 - vii. characterization of extracted and/or exposed groundwater to determine if the groundwater exceeds the Property Specific Standards listed in **Table**

1B of Schedule 'A' attached to this CPU and/or the applicable generic site condition standards for parameters other than those identified in **Table 1B** and require off-site disposal in accordance with the provisions of Ontario Regulation 347, as amended, made under the Act;

- viii. record keeping, including but not to be limited to, dates and duration of work, weather and site conditions, location and depth of excavation activities/dewatering activities, dust control measures, stockpile management and drainage, all soil and groundwater characterization results obtained as part of the Plan, names of the Qualified Persons, contractors, haulers and receiving sites for any excavated excess soils and groundwater, as a result of dewatering activities, removed from the property and any complaints received relating to site activities; and,
- ix. a copy of the plan and any amendments and the records kept thereunder shall be made available for review by the Ministry upon request.

4.2.10 In the event that any new Building(s) is constructed on the Property in accordance with the Building Code, where the Building's foundation is constructed at or below the groundwater table and that includes a foundation drainage system, a Groundwater Control and Management Plan shall be developed by a Licensed Professional Engineer and implemented by the Owner that addresses the long-term management of groundwater in proximity to the Building foundations. A copy of this plan and any amendments and the records kept thereunder shall be made available for review by the Ministry upon request.

4.2.11 Before March 31st of the year following the year in which the first occupancy of any Building on the Property occurs and annually thereafter, the Owner shall prepare an annual report documenting the activities relating to the Risk Management Measures undertaken during the previous calendar year. This report is to be prepared by a Qualified Person and a copy is to be at the Property for inspection and be made available upon request by the Ministry. The report shall include the following information:

- i. Inspection and maintenance activities in regard to the surface barriers described by Item 4.2.1 of this CPU;
- ii. Inspection and maintenance activities as applicable in regard to the SVMS and/or Storage Garage (s) as described by Items 4.2.5 i. and ii of this CPU;
- iii. Sub-slab vapour monitoring activities as described by Item 4.2.7 of this CPU;
- iv. Soil and ground water management activities described by Item 4.2.9 of this CPU;
- v. Any other information determined to be necessary by the Qualified Person.

Site Changes

- 4.3 In the event of a change in the physical site conditions or receptor characteristics at the Property that may affect the Risk Management Measures and/or any underlying basis for the Risk Management Measures, forthwith notify the Director of such changes and the steps taken, to implement, maintain and operate any further Risk Management Measures as are necessary to prevent, eliminate or ameliorate any Adverse Effect that will result from the presence on, in or under the Property or the discharge of any Contaminant of Concern into the natural environment from the Property. In support of this work, a new risk assessment may need to be completed in accordance with O. Reg. 153/04 and submitted to the Ministry for acceptance. 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

- 4.4 The Owner shall retain a copy of any reports required under the CPU, for a period of seven (7) years from the date the report is created and within ten (10) days of the Director or a Provincial Officer making a request for a report, provide a copy to the requesting Director or Provincial Officer.

Property Requirement

- 4.5 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

- 4.6 Within fifteen (15) 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.
- 4.7 Within five (5) days after registering 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 registration has been completed.

Owner / Occupant Change

- 4.8 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 appurtenant elements on the Property.

Financial Assurance

- 4.9 The Director has not included in the CPU a requirement that the Owner provide financial assurance to the Crown in right of Ontario.

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 the requirements of the CPU constitutes an offence.
- 5.5 The requirements of the CPU are minimum requirements only and do not relieve you from,
a) complying with any other applicable order, statute, regulation, municipal, provincial or federal law; or
b) obtaining any approvals or consents not specified in the CPU.
- 5.6 Notwithstanding the issuance of the CPU, further requirements may be imposed in accordance with legislation as circumstances require.
- 5.7 In the event that, any person is, in the opinion of the Director, rendered unable to comply with any requirements in the CPU because of,
a) natural phenomena of an inevitable or irresistible nature, or insurrections,

- b) strikes, lockouts or other labour disturbances,
- c) inability to obtain materials or equipment for reasons beyond your control, or
- d) any other cause whether similar to or different from the foregoing beyond your control,

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

- 5.8 Failure to comply with a requirement of the CPU by the date specified does not relieve the Owner 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 Items 4.6 and 4.7 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: Hearing before the Environmental Review Tribunal

- 6.1 Pursuant to section 139 of the Act, you may require a hearing before the Environmental Review Tribunal (the "Tribunal"), if within fifteen (15) days after service on you of a copy of the CPU, you serve written notice upon the Director and the Tribunal.
- 6.2 Pursuant to section 142 of the Act, the notice requiring the hearing must include a statement of the portions of the CPU and the grounds on which you intend to rely at the hearing. Except by leave of the Tribunal, you are not entitled to appeal a portion of the CPU or to rely on a ground that is not stated in the notice requiring the hearing.
- 6.3 Service of a notice requiring a hearing must be carried out in a manner set out in section 182 of the Act and Ontario Regulation 227/07: Service of Documents, made under the Act. The address, email address and fax numbers of the Director and the Tribunal are:

The Secretary
Environmental Review Tribunal
655 Bay Street, Suite 1500
Toronto, ON, M5G 1E5

Fax: (416) 326-5370
Fax Toll Free: 1(844) 213-3474
Email: ERTTribunalSecretary@ontario.ca

and

Stephen Burt
Director
119 King Street West, 9th Floor
Hamilton, Ontario
L8P 4Y7

Fax: (905) 521-7806
Email: Stephen.Burt@ontario.ca

- 6.4 Unless stayed by application to the Tribunal under section 143 of the Act, the CPU is effective from the date of issue.
- 6.5 If you commence an appeal before the Tribunal, under section 47 of the Environmental Bill of Rights, 1993 (the “EBR”), you must give notice to the public in the 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 Environment, Conservation and Parks at 777 Bay Street, 5th Floor, Toronto, Ontario M7A 2J3 by the earlier of:

- 6.5.1 two (2) days after the day on which the appeal before the Tribunal was commenced; and
- 6.5.2 fifteen (15) days after service on you of a copy of the CPU.
- 6.6 Pursuant to subsection 47(7) of the EBR, the Tribunal may permit any person to participate in the appeal, as a party or otherwise, in order to provide fair and adequate representation of the private and public interests, including governmental interests, involved in the appeal.
- 6.7 For your information, under section 38 of the EBR, any person resident in Ontario with an interest in the CPU may seek leave to appeal the CPU. Under section 40 of the EBR, the application for leave to appeal must be made to the Tribunal by the earlier of:

6.7.1 fifteen (15) days after the day on which notice of the issuance of the CPU is given in the Environmental Registry of Ontario; and

6.7.2 if you appeal, fifteen (15) days after the day on which your notice of appeal is given in the Environmental Registry of Ontario.

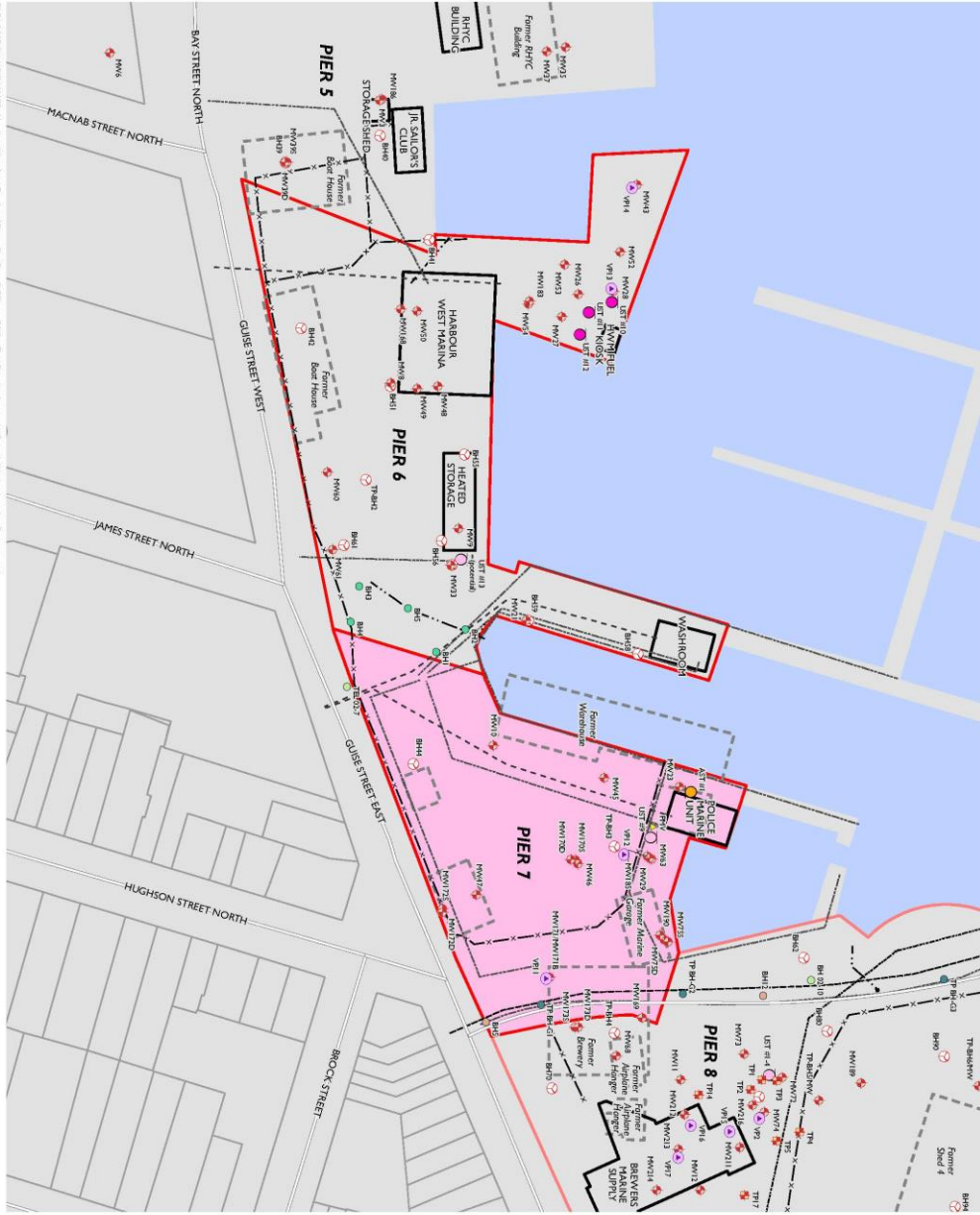
Further information on the requirements of the Tribunal regarding an appeal can be obtained directly from the Tribunal at:

Tel: (416) 212-6349 Fax: (416) 326-5370 www.elto.gov.on.ca

Issued at Hamilton this day of 2020.

Stephen Burt
Director, section 168.6 of the Act

Schedule 'A': Figure 2 – Pier 6 and Pier 7 (not to scale)



PIERS 4, 5, 6, 7, 8
HAMILTON, ONTARIO

SITE PLAN SHOWING AREAS WITH POTENTIAL VAPOUR INTRUSION CONCERN
FIGURE E-4

- Vapour Intrusion (Oltar, 2016-2017)
- Test Pit (Oltar, 2015-2016)
- Borings (Oltar, 2015-2016)
- Petroleum VMS (Oltar, 2015-2016)
- Environmental VMS Sample (Oltar, 2015-2016)
- Emerging Aboveground Fuel Storage Tank
- Existing Underground Fuel Storage Tank
- Former Underground Fuel Storage Tank
- Ecotank Borings, 2001
- Tempco Borings, 2001
- Thicker Borings, 2002
- Test Borings, 1992
- × Internal Fence
- San. Catcher & Inflow Out Pipeline
- Secondary Sewer
- Forecreek
- Storm Sewer
- Watercourse
- Building
- Former Building
- Property Boundary
- Study Area (Pier 4, 7)
- Pier 8

Area of the Site Where Vapour Intrusion Report is Required for Future Buildings

DATE DRAWING APPROVED: _____
DATE CHECKED BY: _____
DATE PREPARED BY: _____
DATE PROJECT/IN. WAS: 08/01/04 ZONE: 17N

DILTON
CONSULTING

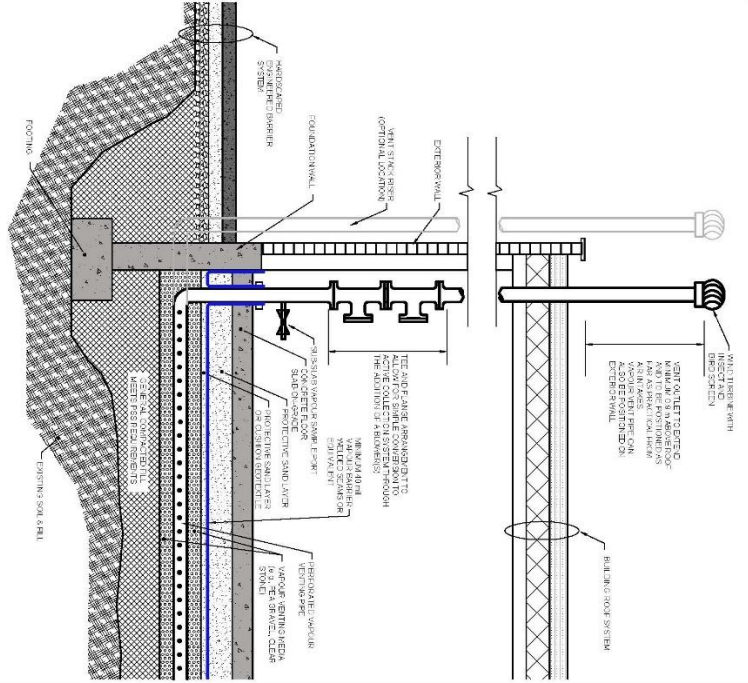
PROJECT: 108774
SITE PLAN FINAL
DATE: 2017-11-24

FILE LOCATION: 108774-1173 - Hamilton Waterfront Transformation - Schedule B, Part 4 - Site Plan Drawing Area with Potential Vapour Intrusion Concerns

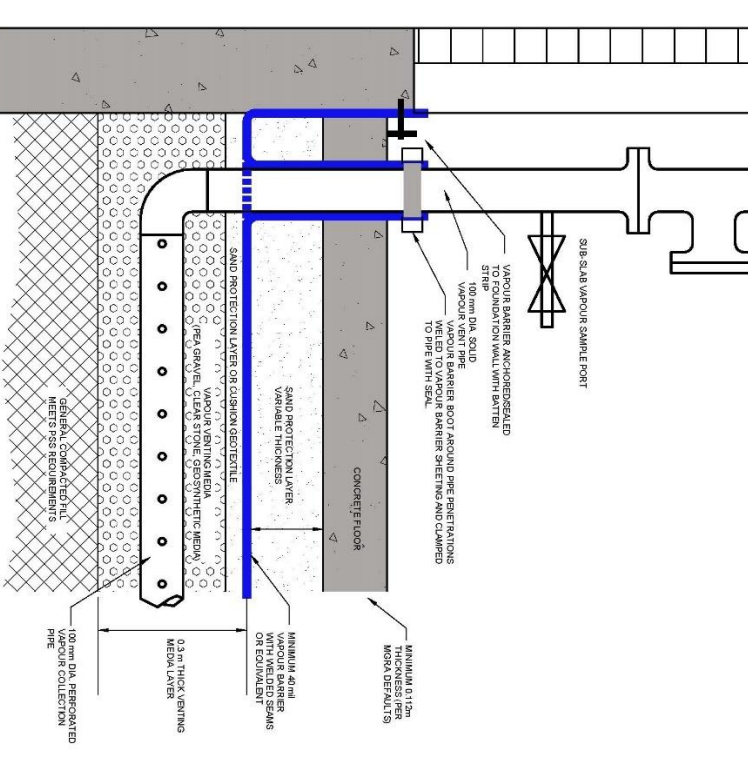
Schedule 'A': Figure 4 – Soil Vapour Intrusion Mitigation System Typical Cross Section (not to scale)

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CONCEPTUAL DESIGN VAPOUR BARRIER AND VENTING SYSTEM - CROSS SECTION N.T.S.



CONCEPTUAL DESIGN VAPOUR BARRIER AND VENTING SYSTEM - CLOSE UP N.T.S.



NOTES:
The conceptual designs are provided as examples of the minimum requirements. These are not detailed design drawings nor construction details. The conceptual design provides the minimum requirements for the Sub-slab Vapour Barrier Collection and Venting system. Final designs will need to consider geotechnical requirements for building foundations and the structural and mechanical designs of the buildings.

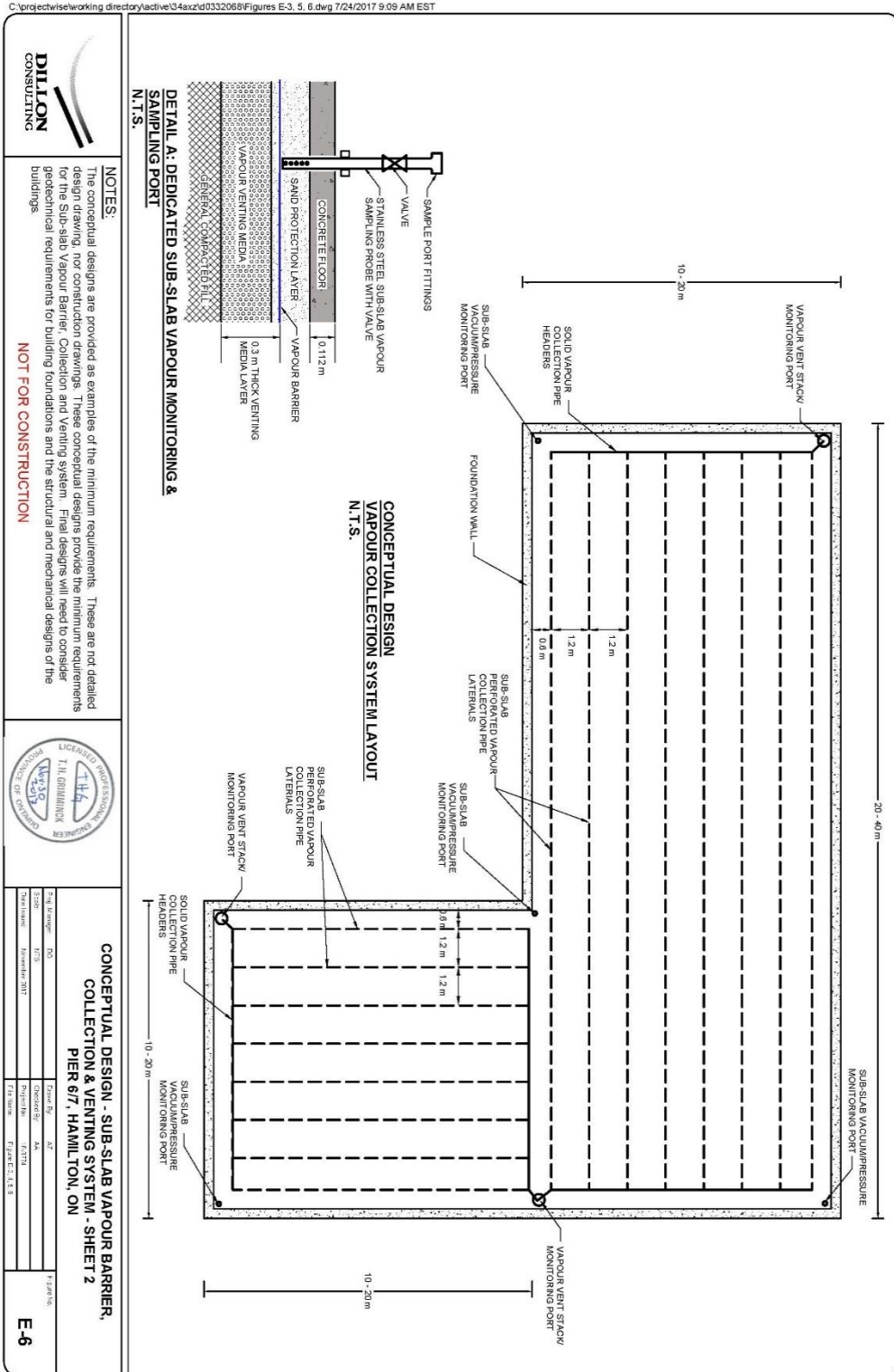


CONCEPTUAL DESIGN - SUB-SLAB VAPOUR BARRIER, COLLECTION & VENTING SYSTEM - SHEET 1
PIER 6/7, HAMILTON, ON

Drawn By:	DD	Checked By:	AE
Scale:	N.T.S.	Orientation:	AS
Date Issued:	November 2017	Project No.:	13781
File Name:	PIER 6/7.dwg	Figure:	E-5

E-5

Schedule 'A': Figure 5 – Soil Vapour Intrusion Mitigation System Typical Layout (not to scale)



Schedule 'A': Table 1A: Property Specific Standards – Soil

All values in micrograms per gram except where indicated

Contaminant of Concern	Property-Specific Standard
Antimony	30
Arsenic	38.4
Barium	501.6
Boron (HWS)	15
Cadmium	4.0
Chromium (III+VI)	108.6
Chromium (VI)	0.9
Copper	198
Lead	1,344
Mercury	3.7
Molybdenum	6.8
Selenium	2.8
Silver	0.6
Zinc	2,568
Electrical Conductivity in micro siemens per centimetre	5.7
Sodium Adsorption Ratio no units	39.5
Benzene	37.2
Toluene	33.2
Ethylbenzene	4.7
Xylenes	157.2
PHC F1	607.2
PHC F2	132
PHC F3	11,520
PHC F4	28,800
1,1-dichloroethylene	0.96
1,2-dichlorobenzene	0.96
Acetone	9.6
Bromodichloromethane	0.96
cis-1,2-dichloroethylene	0.96
Methylene chloride	0.96
Hexane	2.2
Trichloroethylene	1.1
trans-1,2- dichloroethylene	0.96
Vinyl chloride	0.4
Acenaphthene	0.3
Acenphthylene	0.4
Anthracene	1.3
Benzo(a)anthracene	5.9
Benzo(a)pyrene	6.6

All values in micrograms per gram except where indicated

Contaminant of Concern	Property-Specific Standard
Benzo(b/j)fluoranthene	7.8
Benzo(ghi)perylene	4.9
Benzo(k)fluoranthene	3.0
Chrysene	4.8
Dibenzo(a,h)anthracene	1.3
Fluoranthene	9.0
Fluorene	0.24
Indeno(1,2,3-cd)pyrene	5.0
Methylnaphthalene, 2-(1-)	2.1
Naphthalene	1.2
Phenanthrene	3.7
Pyrene	7.9

Schedule 'A': Table 1B – Property Specific Standards - Groundwater

All values in micrograms per litre except where indicated

Contaminant of Concern	Property-Specific Standard
Barium	2,028
Chloride	5,964,000
Copper	9.2
Molybdenum	60.4
Sodium	3,276,000
Benzene	66.4
1,1-dichloroethylene	2.7
1,2 dichlorobenzene	10
cis-1,2-dichloroethylene	702
Trichloroethylene	16.2
trans-1,2-dichloroethylene	23.6
Vinyl chloride	950.5
Benzo(a)pyrene	0.13
Benzo(b/j)fluoranthene	0.18
Chrysene	0.13
Phenanthrene	0.48

Schedule 'A': Table 1C – Sub-slab Vapour Monitoring Trigger Criteria

All values in micrograms per cubic metre except where indicated

Contaminant of Concern	Residential	Commercial
PHC F1	124,500	2,134,800
PHC F2	23,550	403,370
Vinyl chloride	6.5	102
1,1-dichloroethylene	730	12,500
Cis-1,2-dichloroethylene	1,565	26,800
Trans-1,2-dichloroethylene	625	10,720
Methylene chloride	2,420	38,860
Trichloroethylene	13.5	218
Benzene	25.5	406
Toluene	52,000	893,870
Ethylbenzene	10,450	178,770
Xylenes	7,300	125,140
Methylnaphthalene 2-(1-)	38.5	660
Naphthalene	38.5	660

Schedule 'B': Certificate of Requirement

CERTIFICATE OF REQUIREMENT

s.197(2)

Environmental Protection Act

This is to certify that pursuant to **Item 4.5** of Certificate of Property Use number **8057-BJQRJ4** issued by **Stephen Burt**, Director of the Ministry of the Environment, Conservation and Parks, under sections 168.6 and 197 of the Environmental Protection Act, on [REDACTED] **2020**, being a Certificate of Property Use and order under subsection 197(1) of the *Environmental Protection Act* relating to the property municipally known as **Pier 6 and Pier 7, Hamilton** being all of **PIN 17579-0155 (LT)** and part of **PIN 17579-0165 (LT)**, (the "Property") with respect to a Risk Assessment and certain Risk Management Measures and other preventive measure requirements on the Property

City of Hamilton

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.