

Appendix F:
Desktop Environmental Site Assessment

DATE October 23, 2015**PROJECT No.** 1404896**TO** Christopher A. Gordon, P.Eng.
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trobertson@golder.com**DESKTOP ENVIRONMENTAL SITE ASSESSMENT, DOWNTOWN OTTAWA TRUCK TUNNEL
OTTAWA, ONTARIO**

Golder Associates Ltd. (Golder) was retained by Parsons Inc. (Parson) to carry out a screening desktop Environmental Site Assessment (desktop ESA) for the proposed Downtown Ottawa Truck Tunnel as part of the on-going feasibility study carried out for the truck tunnel. It is understood that a preferred alignment for the Downtown Ottawa Truck Tunnel was selected (as determined by the study team) which is shown on Figures 1a and 1b ("the Site"). The purpose of this memorandum is to present the findings of the screening desktop ESA identifying historical and current activities of potential environmental concern within the study area which may have the potential to contribute to subsurface contamination along the selected tunnel alignment as input to the on-going feasibility study. The study area for the purpose of the screening desktop ESA included the Site and the surrounding properties within approximately 100 m of both sides of the Site (as shown on Figures 1a and 1b). It is understood that the Downtown Ottawa Truck Tunnel will be constructed as a watertight structure within the bedrock with two portals to be constructed between King Edward Avenue and the McDonald Cartier Bridge (north portal) and at North River Road at Coventry Road near the Vanier Parkway and Highway 417 interchange (south portal). The tunnel will be constructed at depths ranging from about 5 to 20 metres below the bedrock surface. Depending on the selected tunnel construction method and final lining configuration, tunnel excavation and construction could result in some temporary (or permanent) groundwater drawdown along and adjacent to the tunnel alignment.

The screening desktop ESA of the selected Downtown Ottawa Truck Tunnel alignment is a part of a larger planning and feasibility study which will also include geotechnical, hydrogeological, archaeological, and cultural heritage studies carried out for the Site.

1.0 OBJECTIVE

As part of the on-going feasibility study, an understanding of the existing soil and groundwater conditions in the study area for the selected alignment is required in order to identify potential risks and constraints to the project from a contaminated sites perspective. The objective of this screening desktop ESA is to assess the baseline conditions at the study area to support the on-going feasibility study being undertaken for the study area and to assist in the preliminary project planning by identifying the areas of known or suspected contamination within the study area which may result in material impact on project costs or feasibility.



2.0 SCOPE OF WORK

The screening desktop ESA included a desktop review of the study area in order to identify existing and former operations/activities (referred to as potentially contaminating activities (PCAs)) that may have impacted soil and/or groundwater quality in the study area. The screening desktop ESA included a review of the following data for the study area:

- 1) Previous environmental reports completed for the study area by Golder for the City of Ottawa;
- 2) City of Ottawa Historical Land Use Inventory (HLUI);
- 3) City of Ottawa Waste Disposal Site Inventory, 2004;
- 4) Ontario Ministry of Environmental and Climate Change (MOECC) Waste Disposal Site Inventory, June, 1991;
- 5) Fire Insurance Plans (FIPs); and,
- 6) Historical aerial photographs of the study area.

3.0 METHODOLOGY

Information collected from the above resources was evaluated to identify any PCAs based on the nature of the PCA, distance and location (hydraulically down-gradient, up-gradient, or trans-gradient) with respect to the Site. In addition, given that the truck tunnel will be constructed underground into the bedrock (with the exception of the two portals at both ends), the PCAs and the associated chemicals of concern (COCs) located within the study area along the tunnel section of the Site (to be constructed into the bedrock) were evaluated based on the physical and chemical properties of the COCs in terms of their mobility in the subsurface and the potential for downward migration into the bedrock that can result in impacts to the groundwater in the bedrock. Subsurface conditions in the area where the PCAs were identified such as depth to the bedrock and hydraulic conductivities of the geological units (based on the geological maps) were also taken into consideration in evaluating the potential for subsurface impacts on the Site. PCAs identified within the study area were retained for further consideration.

The identified PCAs retained for further consideration were ranked as having high, medium and low risk of impact and implication on the construction of the proposed Downtown Ottawa Truck Tunnel project based on the potential for subsurface impacts to the study area.

The following rationale was generally used to rank the PCAs related to the tunnel section of the Site which will be constructed into the bedrock and where no excavation will be required:

- High: PCAs associated with COCs that are dense, tend to sink, are relatively soluble in groundwater and have a higher potential for downward migration into fractured bedrock (i.e., chlorinated solvents)- dry cleaning facilities, industrial facilities or garages where chlorinated solvents were used as degreasers.
- Medium: PCAs located on the site or in immediate vicinity of the Site that are associated with COCs that are light, tend to float on the water table, with relatively low solubility that have lower potential to migrate downward and impact groundwater in the bedrock (i.e., petroleum hydrocarbons) - gasoline service stations, auto and bus garages with underground storage tanks (USTs).
- Low: PCAs ranked as having medium risk of potential for impacts if these PCA are generally located 50 m and more down or cross-gradient of the Site and PCAs with COCs that tend to sorb on organic matter and/or fine soil particle with low solubility and low mobility (i.e., polycyclic aromatic hydrocarbons (PAHs), metals).

Note: The above rationale for the risk ranking was used to evaluate the potential for impacts only on the tunnel section of the Site which will be constructed into bedrock at depths from about 5 to 20 m below the bedrock surface and where no excavation will be required and is based on the assumptions that: 1) the tunnel will be built as a watertight structure, and 2) if during the construction of the tunnel, temporary groundwater pumping will be required, the groundwater in the overburden will not be drawn-down within the bedrock. Should groundwater pumping be required to drain the tunnel during the construction resulting in drawing the overburden groundwater along with potential contaminants into the bedrock (if the overburden and bedrock groundwater are hydraulically connected) or mobilization of contaminants from one property to another, additional evaluation of the risk ranking would be required.

The potential for subsurface impacts associated with the PCAs related to the tunnel portal sections and the artificial tunnelling of the Site where excavation will be required were ranked based on:

- The nature of the PCAs and the associated COCs;
- Distance and location (hydraulically down-gradient, up-gradient, or trans-gradient) with respect to the portal and artificial tunnel sections of the Site; and,
- Whether the areas where the PCAs were identified have been redeveloped implying that potentially contaminated materials might have been removed during the redevelopment.

4.0 RESULTS

4.1 Review of Previous Environmental Reports

The following previous reports completed for the City of Ottawa for the study area or for areas located in close proximity to the study were reviewed to identify potentially contaminating activities that may have impacted the subsurface along the project alignment:

- Phase I ESA report #05-1120-171 (1000) entitled “*Phase I Environmental Site Assessment, North River Road (Montreal Road to Wright Street), Ottawa, Ontario*”, dated November 2005 and Phase II ESA report #05-1120-171 (4000) entitled “*Phase II Environmental Site Assessment, Proposed Rideau River Collector Partial Twinning, North River Road Wright Street to Montreal Road, Ottawa, Ontario*” dated May 2006. Both reports were completed by Golder for R.V. Anderson Associates Ltd on behalf of the City of Ottawa.

The study area of the Phase I and II ESAs included North River Road and Right of Way (ROW) from Montreal Road to Wright Street and was outside of the study area of the current assessment. However, due to the close proximity of the south end of the area studied in the Phase I and II ESAs to the south section of the truck tunnel alignment, the Phase I and II ESA reports were reviewed as part of this assessment. The review of the above Phase I and II ESA reports indicated the following:

- The Phase I ESA report identified a number of issues of potential environmental concern for the area studied in the Phase I ESA report including vehicle servicing, dry cleaning, industrial/manufacturing, printing, fuel storage tanks, former Sewer-Matic (liquid industrial waste services company) de-icing materials and a buried oil insulated hydro line. However, all identified potential issues of concern were located at distances greater than 260 m from the south part of the Site. The closest issue of potential environmental concerns identified in the Phase I ESA was Sewer-Matic operated in 1988/89 which was located at 1089 North River (between Prince Albert Street and Drouin Avenue) and the oil insulated hydro-line which is located in the same area, from Glynn Avenue to Prince Albert Street (approximately 260 m north of the Site).

- In order to address the issues of potential environmental concern identified in the Phase I ESA, a Phase II ESA was completed for the North River Road from Wright Street to Montreal Road. The Phase II ESA included soil and groundwater sampling from nine out of the eighteen boreholes drilled as part of the field program and analysis of the COCs. No exceedances of MOE Table 3 for the COCs analyzed were identified in soil or groundwater samples with the exception of a groundwater sample collected from a monitoring well installed on North River Road just north of Washington Street which exceeded MOE Table 3 Standards for petroleum hydrocarbons. This monitoring well is located approximately 1 km north of the Site.

Summary of the Phase I and II ESA review: The issues of potential environmental concern identified in the Phase I ESA report are not considered to represent PCAs for the Site given the distance between these PCAs (approximately 260 m north of the southeast portal of the Site) and their locations with respect to the Site (hydraulically cross-gradient to down-gradient). In addition, no soil or groundwater impacts exceeding MOE Table 3 Standards were identified in the Phase II ESA with the exception of one location located about 1 km north of the southeast portal of the tunnel alignment where petroleum hydrocarbons (PHCs) exceedances were identified. Furthermore, the groundwater quality in the locations meeting the MOE Table 3 Standards also met the City of Ottawa sanitary sewer discharge criteria for the parameters analyzed with the exception of the total suspended solids. As such, the PCAs identified in the above reports are not considered to represent an issue of potential environmental concern for the Site and were not retained for further consideration.

- Report #03-1120-801 entitled "*Ur-34-Borderleau Park Landfill Data Gap Analysis, Old Landfill Management Strategy, City of Ottawa*" prepared by Golder for the City of Ottawa, dated January 2004 (2004 Golder Data Gap Analysis Report).

The former Borderleau Park landfill identified as Ur-34 in the City of Ottawa 2004 *City of Ottawa Waste Disposal Sites Inventory* is located immediately east of the central section of the Site. The former landfill is located at the northeast corner of Rose Street and Bruyere Street (refer to PCA 1 on Figure 1a). The review of the above report indicated the following:

- The data gap analysis included: 1) analysis of eight shallow soil samples collected from the upper 0.05 m for metals, PHCs and polycyclic aromatic hydrocarbons (PAHs), and 2) groundwater sampling of three monitoring wells installed within the footprint of the landfill and analysis for general chemistry, metals, PAHs and volatile organic compounds (VOCs).
- The subsurface conditions at the former landfill consisted of topsoil with a thickness of approximately 0.15 m underlain by fill comprised of a mixture of silty sand, some gravel, cinder, ash, coal and waste consisting of trace brick, asphalt, wood, metal, concrete, and glass (waste fill). The thickness of the waste fill encountered at the drilled boreholes ranged between 1 m and 4.4 m.
- The results of the shallow soil sampling indicated that the concentrations of benzo(a)pyrene and dibenzo(a,h)anthracene in six of the 8 soil samples were above the applicable standards at the time and above the component value for direct soil contact. Lead was also found to exceed the applicable standards at the time for one sample. The concentrations of the above mentioned chemicals also exceed the current relevant MOE Standards (MOE Table 9, non-potable groundwater conditions, April 15, 2011).
- The groundwater results indicated that all three groundwater samples exceeded for one or more PAH parameters the applicable standards at the time and the current relevant MOE Standards (MOE Table 9, non-potable groundwater conditions, April 15, 2011). The groundwater samples were collected from monitoring wells installed in fill containing cinder, coal and ash. It was indicated that the PAH

exceedances in groundwater could be associated with the presence of sediment and/or organic carbon in the groundwater samples onto which PAH adsorbed given that the PAH concentrations in groundwater exceeding the standards were above the solubility limits of the parameter's solubility in water. It was recommended to re-sample the monitoring and ensuring no sediment inclusion in the laboratory analysis and to complete additional drilling program to assess the presence/absence of PAHs in groundwater below the cinder and ash fill.

Summary of the Data Gap Analysis report review:

The PAH exceedances in the surface soil at the former Borderleau Park landfill located immediately east of the Site are not considered to represent an environmental risk to the Site as no excavation through the soil will be carried out for this section of the alignment. The data gap analysis report also indicated PAH impacts in the overburden groundwater located in the waste fill. Given the low solubility of the PAHs and their tendency to adsorb onto organic matter and particle surfaces, it is considered that PAHs identified in the overburden groundwater is most likely associated with the presence of sediment in groundwater rather than associated with the dissolved phase of the PAHs. Due to low mobility of the PAHs it is considered that the groundwater impacts are limited to the groundwater within the fill containing ash and cinder and that the likelihood of migration of the PAHs to the groundwater in the bedrock is low. As such, the former Borderleau Park landfill (PCA 1) is considered to represent a low risk of potential subsurface impacts on the Site.

- Report #11-1121-0291/3000-2 entitled "*Phase II Environmental Site Assessment, Orleans Watermain Link-West, Ottawa, Ontario*" prepared by Golder for Robinson Consultants Inc. on behalf of the City of Ottawa, dated May 2013 (2013 Golder Phase II ESA Report).

The 2013 Golder Phase II ESA was completed as part of the design of the Orleans Watermain Link (OWL) West, which included the installation of a large diameter watermain from St. Laurent Boulevard in the east, along Coventry Road to the Vanier Parkway, crossing to Wright Street and ending at the intersection of Wright Street and the Rideau River. This report also included information compiled for a future portion of the alignment which included the section of North River Road south of Wright Street, running along the Rideau River to a terminus south of Highway 417 which is located in close proximity to the southeast artificial tunnel and tunnel portal and is part of the study area of the current assessment.

Based on the review of the 2013 Golder Phase II ESA report the following was noted in relation to the Site under the current assessment:

- The Phase II ESA was completed to investigate the potential for soil and/or groundwater impacts associated with the issues of potential environmental concern identified in a Phase I ESA that was previously completed as part of the OWL project. These issues included: 1) several USTs associated with retail fuel outlets, garages and automotive repair shops, 2) reported spills, 3) industrial activities such as, printing, bottling plants and bulk fuel distribution, 4) former snow dump; 5) presence of closed waste disposal sites. The above identified issues of concern are not relevant to the Site under the current assessment as they are located along Coventry Road and St. Laurent Boulevard or south of highway 417.
- The Phase II ESA scope of work included drilling and soil sampling of thirteen (13) geo-environmental boreholes, analysing for metals, PHCs, VOCs, and/or PAHs in selected soil samples recovered from geo-environmental boreholes, installing monitoring wells in ten (10) of the geo-environmental boreholes and analysing groundwater for metal, PHC, VOC and PAH;

- One of the geo-environmental boreholes (BH12-128) was drilled on the south end of North River Road which is located at the southeast end of the Site under the current assessment (near the southeast tunnel portal) (see Figure 1b for the borehole location). The results of the Phase II ESA indicated that the fill at BH12-128 contained ash, slag and pieces of metal, brick, concrete and brick and the concentrations of lead, mercury and 16 PAHs in a fill sample collected from BH12-128 from a depth between 0.8 to 1.3 metres below ground surface (mbgs) exceeded MOE Table 3 Standards. A geo-environmental borehole (BH12-133) drilled further to the south of BH12-128 outside of the study area of the current assessment but in the general area also contained fill with ash, mortar, metal and brick (see Figure 1b for the borehole location). The concentration of acenaphthylene in a soil sample collected from BH12-133 which was a mixture of fill, organic, and glacial till exceeded MOE table 3 Standards. The fill in BH12-128 and BH12-133 ranged from approximately 1 m to 3 m in thickness.
- No monitoring wells were installed in BH12-128 located on the south part of the study area nor in BH12-133 located south of the study area and as such, no groundwater quality data are available for these borehole locations.

Summary of the 2013 Golder Phase II ESA report review:

Poor quality fill material which contains ash, slag, pieces of brick, metal and concrete and which exceeded MOE Table 3 Standards for lead, mercury and 16 PAH parameters is present in the area at North River Road at the southeast section of the Site, just east of the Rideau River (PCA 14 on Figure 1b). Based on the current tunnel design, excavation will be performed in the part of the Site where the poor quality fill was identified as part of the construction of the artificial tunnel and the portal in the southeast end of the Site. Given that there will be excavation in the area where the metal and PAH impacted fill was identified, it is considered that PCA 14 represents a high risk of potential impacts on the project in terms of management of contaminated soils and/or potentially contaminated groundwater if encountered during the construction.

4.2 Review of Old Landfill Management Strategy – Phase I – Identification of Sites, City of Ottawa

The review of the *2004 City of Ottawa Waste Disposal Sites Inventory* as described in the report entitled “*Old Landfill Management Strategy, Phase 1-Identification of Sites, City of Ottawa, Ontario*”, completed by Golder for the City of Ottawa, dated October 2004 indicated that the former Borderleau Park landfill identified in the *2004 City of Ottawa Waste Disposal Sites Inventory* as Ur-34 is located in immediate vicinity east of the central section of the Site (refer to section 4.1 of this memorandum where this landfill (PCA 1) was discussed).

4.3 Review of the MOECC Waste Disposal Site Inventory, June, 1991

The review of the MOECC Waste Disposal Inventory, June, 1991 indicated that there are no active or closed waste disposal sites within the study area other than the former Borderleau Park landfill (Ur-34) discussed above.

4.4 Review of Fire Insurance Plans (FIPs)

Golder conducted a search of the in-house available Fire Insurance Plans (FIPs) obtained from the National Archives in Ottawa, Ontario. Fire insurance plans from 1912, 1925 (revised in 1948) and 1956 were available for the Site. Information obtained from the review of the available FIPs, is summarized in the table below.

Table 1: Summary of FIPs Review

Date of the FIPs	Description of Structures and Other Improvements noted on the FIPs	Comments/Potentially Contaminating Activities (PCAs)
1912	<p>North tunnel portal:</p> <p>The lands where the north tunnel portal will be constructed are occupied by Metcalfe Square, residential dwellings and Canadian Pacific Railway (CPR) which is located along the former McTaggart Street north of Botelier Street.</p> <p>Tunnel section of the Site between the two portals:</p> <p>In general, the section of the Site between Boteler Street and North River Road is located in areas occupied by an ice house, residential houses, public school, apartment building, St. Anne's school, church, park, and a car shed.</p> <p>Southeast tunnel portal:</p> <p>No FIPs are available for the section of the Site east of Rideau River where the southeast tunnel portal will be constructed.</p>	<p>The study area is located in a residential surrounding. The area of the former CPR tracks is redeveloped and currently is occupied by embassies, RBC building, Union Street and a bridge.</p> <p>No issues of potential environmental concern associated with the historical land use of the study area were identified.</p>
1925 revised 1948	<p>North tunnel portal:</p> <p>The lands where the north tunnel portal will be constructed are occupied by: 1) Metcalfe Square, 2) a gasoline service station with four underground storage tanks (USTs) at the northeast corner of Sussex Drive and the former Baird Street, 3) residential dwellings and apartment buildings, 4) roofer suppliers, 5) Gamble & Robinson Ltd. Fruit and Vegetables, 6) railway sidings, 7) a garage with two USTs at 80 Dalhousie Street between Boteler Street and the former Redpath Street, and, 8) Bruce Coal Ltd. and associated coal piles, flour warehouse and one UST from 27 to 89 Boteler Street (between Boteler and the former Redpath Street).</p> <p>Tunnel section of the Site between the two portals:</p> <p>This section is located in an area occupied by: 1) residential houses and apartment buildings, 2) an ice house, 3) an ice house and a wood yard with one UST at 346 Bruyere Street (shown as 333-335 Andrew Street on the FIP) between Rose Street and the former St. Joseph Street (approximately 40 m east of the Site), 4) a garage with 2 USTs at 33 Augusta Street, just across Myrand Avenue (approximately 100 m east of the Site), 5) St. Anne's</p>	<p>A former gasoline service station with 4 USTs was located at 175 Sussex Street, immediately east of north tunnel portal, at the southeast corner of Sussex Drive and the north tunnel portal (PCA2 on Figure 1a). This area is now redeveloped with the DFAIT building. Given that the lands are now redeveloped with the DFAIT government building and most likely any potentially contaminated materials (if were present) have been excavated and removed during the redevelopment of these lands PCA 2 represents a medium risk of potential subsurface impacts on the construction of the north tunnel portal.</p> <p>A garage with 2 USTs was located immediately west of the north tunnel portal at 80 Dalhousie Street between Boteler and Sussex Street (PCA3 on Figure 1a). This area is now redeveloped with Aga Khan Foundation Canada building and a Record of Site Condition (RSC) was filed with the Ontario Ministry of the Environment in August, 2006 (RSC#3671). Given that PCA 3 is redeveloped with the current Aga Khan Foundation Canada building and embassy</p>

Date of the FIPs	Description of Structures and Other Improvements noted on the FIPs	Comments/Potentially Contaminating Activities (PCAs)
	<p>church and a school with a UST at 528 Old St. Patrick Street, 6) a garage with 2 USTs at 538 Rideau Street between Charlotte and Cobourg Street (approximately 60 m northeast of the Site), 7) Chinese laundry at 168 Charlotte Street between Rideau and Besserer Street (approximately 80 m northeast of the Site) and, 8) Percy Carriere auto-dealer with associated used car parking lot, repairs and auto storage at 160 Charlotte Street, approximately 110 m east of the Site (shown as 565 Rideau Street on the FIP).</p> <p>Southeast tunnel portal:</p> <p>The lands are occupied by: 1) residential dwellings, 2) St. Joan of Arc Catholic school, and 3) CPR tracks.</p>	<p>building and that a RSC was filed for the Site, PCA 3 represents a low risk of potential subsurface impacts on the construction of the north tunnel portal.</p> <p>A former industrial type facility (Bruce Coal Ltd. with associated coal storage and one UST was located between 27 and 89 Boteler Street between 100 m and 230 m west of the north tunnel portal (PCA 4 on Figure 1a). Given the distance between PCA 4 and the Site and that the area is now redeveloped with the embassy of Saudi Arabia and the Aga Khan Foundation Canada building it is considered that PCA 4 represents a low risk of potential subsurface impacts on the construction of the north tunnel portal.</p> <p>An ice house and a wood yard with one UST were located on 346 Bruyere Street, between Rose Street and former St. Joseph Street (approximately 40 m east of the Site) (PCA5 on Figure 1a). The area where the UST was located is currently occupied by green space. There is potential for soil and groundwater contamination associated with UST leaks. Based on the review of the geological maps, the subsurface conditions in this area consist of clay and silt underlying erosional terraces and the depth to the bedrock is from 5 to 10 m. Given that the UST was located down-gradient of the Site (the inferred groundwater direction is towards Rideau River, east of the Site), the overburden is silty clay which has low hydraulic conductivity, the bedrock is at a depth from 5 to 10 m, and that the truck tunnel will be constructed into the bedrock at this area, it is considered that PCA 5 represents a low risk of potential subsurface impacts on the Site.</p> <p>A former garage with 2 USTs is located on 40 Cobourg (formerly 33 Augusta Street) just across Myrand Avenue (PCP6 on Figure 1a). PCA 6 is considered to represent a low risk to the Site given the subsurface conditions as described above, that PCA 6 is located down-gradient of the Site, it is located at a distance of approximately 100 m east of the Site and the area is currently redeveloped with a community building.</p>

Date of the FIPs	Description of Structures and Other Improvements noted on the FIPs	Comments/Potentially Contaminating Activities (PCAs)
		<p>An UST associated with the St. Anne's church and school is located at 528 Old St. Patrick Street (approximately 100 m east of the Site) (PCA 10 on Figure 1a). This property is still occupied by a church. It is unknown if the UST was removed or it is still present on the property. Given the distance between the Site and the UST, that the UST is located hydraulically down-gradient and given the subsurface conditions at the Site, PCA 10 is considered to represent a low risk of potential subsurface impacts to the Site.</p> <p>A former garage with 2 USTs is located at 538 Rideau Street between Charlotte and Cobourg Street (approximately 60 m northeast of the Site) (PCA 7 on Figure 1a). PCA 7 is considered to represent a medium risk to the Site given the close proximity to the Site. The area where the USTs were located currently appears to be used as a construction staging area.</p> <p>A Chinese laundry was located at 168 Charlotte Street approximately 80 m northeast of the Site (PCA 8 on Figure 1a). There is a potential for subsurface impacts on the Site associated with the potential use and improper disposal of chlorinated solvents at this facility if dry cleaning operations were performed. Given the close proximity of this facility to the Site and the physical and chemical properties of the chlorinated solvents (dense non-aqueous liquids with low solubility that sink and migrate below the water table and that do not necessarily move in the direction of groundwater flow), PCA 8 is considered to represent a high risk of potential subsurface impacts on the Site.</p> <p>The lands occupied by the Percy Carriere Auto-dealer located at 160 Charlotte Street, approximately 110 m east are currently occupied by a high-rise residential building. Given that this facility is located down-gradient of the Site location, the distance between the Site and the former auto-dealer and that the lands are redeveloped with a high-rise building, it is considered that this property does not represent a potential environmental risk to the Site.</p>

1956	<p>North tunnel portal:</p> <p>The lands where the north tunnel portal will be constructed are occupied by the same facilities as observed on the 1925 (revised 1948) FIPs.</p> <p>Tunnel section of the Site between the two portals:</p> <p>This section is located in an area occupied by: 1) residential houses and apartment buildings, 2) an UST located at 346 Bruyere Street (shown as 333-335 Andrew Street on the FIP) between Rose Street and former St. Joseph Street (approximately 40 m east of the Site), 3) a gasoline service station with 5 USTs at 501 Old St. Patrick Street (located on the alignment), 4) St. Anne's church and a school with UST at 528 Old St. Patrick Street, 5) schools, 6) churches, 7) an auto body repair garage at 40 Cobourg Street (formerly 33 Augusta Street), 8) Ottawa Transportation Bus garage with one UST at 123 Augusta Street (located on the alignment and adjacent lands to the east Between Couburg and Augusta Street), 9) two gasoline service stations each with 2 USTs and an oiling facility located at 479 and 490 Rideau Street, respectively, 10) a garage with 2 USTs at 538 Rideau Street between Charlotte and Cobourg Street (approximately 60 m northeast of the Site), 11) Percy Carriere Auto-dealer with associated used car parking lot, repairs and auto storage at 160 Charlotte Street, approximately 110 m east of the Site (shown as 565 Rideau Street on the FIP), 12) apartment buildings, and 13) embassies.</p> <p>Southeast tunnel portal:</p> <p>The lands where the southeast tunnel section will be constructed are occupied by: 1) residential dwellings, 2) Roman Catholic church and school, and 3) the CPR tracks.</p>	<p>The gas station with 4 USTs located at 175 Sussex Street, immediately east of the north tunnel portal, at the southeast corner of Sussex Drive and McDonalds Cartier Bridge (PCA 2 on Figure 1a) observed on the 1925 (1948) FIP is still present on the 1956 FIPs.</p> <p>The UST located at 346 Bruyere Street, between Rose Street and former St. Joseph Street (PCA 5 on Figure 1a) observed on the 1925 (1948) FIP is still present on the 1956 FIP</p> <p>A former gasoline service station with 5 USTs is located at 501 Old St. Patrick Street in immediate vicinity of the alignment (PCA 9 on Figure 1a). The area is currently re-developed with Da La Salle public secondary school. The subsurface conditions in the area of the former gasoline station consist of silty clay and the depth to the bedrock is between 5 and 10 m. Given that the tunnel will be built into the bedrock and that the former gasoline station was located on the Site, it is considered that PCA 9 represents a medium risk of potential subsurface impacts on the Site.</p> <p>The garage with the 2 USTs located on 40 Cobourg (PCA 6 on Figure 1a) which was also noted on the 1925 FIP is occupied by an auto body repair garage on the 1956 FIP and the 2 USTs are no longer present.</p> <p>The UST associated with the St. Anne's church and school located at 528 Old St. Patrick Street (approximately 100 m east of the Site) (PCA 10 on Figure 1a) also observed on the 1925 (1948) FIP is still present on the 1956 FIP.</p> <p>Ottawa Transportation Bus Garage with one UST (PCA 11 on Figure 1a) is located at 123 Augusta Street on the alignment and on the adjacent lands to the east. These lands are currently redeveloped with residential buildings. Given that PCA 11 was located on the alignment, it is considered that this PCA represents a medium risk of potential subsurface impacts on the Site.</p> <p>A gasoline service station with 2 USTs and an oiling facility (PCA 12 on Figure 1a) is located at 479 Rideau Street (approximately 100 m west of the Site at the northwest corner of Rideau and Augusta Street). Another gasoline service station with 2 USTs and oiling facility</p>
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Date of the FIPs	Description of Structures and Other Improvements noted on the FIPs	Comments/Potentially Contaminating Activities (PCAs)
		<p>(PCA 13 on Figure 1) is located at 490 Rideau Street across from PCA 12 (approximately 100 m west of the Site, at the southeast corner of Rideau and Augusta Street). Due to the distance and the subsurface conditions in the area (depth to bedrock between 15 to 25 m and silty clay overburden) PCAs 12 and 13 are considered to represent a low risk of potential subsurface impacts to the Site.</p> <p>The garage with 2 USTs (PCA 7 on Figure 1a) located at 538 Rideau Street also observed on the 1925 FIP is still present on the 1956 FIP.</p>

4.5 Review of the City of Ottawa Historical Land Use Inventory (HLUI)

The City of Ottawa provided a copy of the Historical Land Use Inventory ("HLUI") for the study area (refer to copy of the HLUI in Appendix A). The noteworthy findings obtained from the review of the HLUI are summarized in Table 2 below:

Table 2: Summary of the HLUI Review

Activity as per HLUI	Address/Location of the activity with respect to the Site	Comments/PCA # on Figures 1a and 1b
Twin City Ice Co. Ltd., E.A. subsequently Bourque Ltd. & Co. (coal, wood & tinsmith) also shown as ice dealer. Bourque Brothers Ltd. was also listed as petroleum products wholesaler.	Formerly 333-339 St. Andrew Street, between Rose Street and former St. Joseph Street, approximately 40 m east of the Site.	This facility was identified during the FIPs review as having one fuel UST, a wood yard and an ice house (PCA 5 with low risk of impacts).
Joe's Auto Sales (motor vehicle repair shop).	84 King Edward Street, approximately 15 m west of the tunnel section of Site.	This property appears to be currently occupied by a residential building. The review of the 1956 FIP indicated that this address was occupied by a garage associated with the residential buildings located on the surrounding lands and there was no indication that auto repair activities were carried out in the garage. Given that the property was redeveloped, that the garage was most likely associated with the vehicles parking and that this activity is located near the tunnel section, it is not considered to represent an issue of potential environmental concern for the Site.
Lloyd's Service Station and Ron Di Labio White Rose Service Station.	490 Rideau Street, at the southeast corner of Rideau and Augusta Street, approximately 100 m west of the Site.	This retail fuel outlet was identified during the review of the FIPs (PCA 13 with low risk of impacts).

Activity as per HLUI	Address/Location of the activity with respect to the Site	Comments/PCA # on Figures 1a and 1b
Craig Cleaners Ltd. (Laundries and Cleaners).	497 Rideau Street, at the northeast corner of Rideau and Augusta Street, approximately 100 m west of the Site.	<p>The former presence of the dry cleaning facility is considered to represent a high risk of potential impacts to the subsurface at the Site (PCA 15).</p> <p>This property appears to be currently occupied by a retail building.</p>
Rideau Street Garage (motor vehicle repair shops). The same facility was identified also as Moloughney's Van & Storage Ltd. gasoline service station.	538-560 Rideau Street, between Cobourg Street and Charlotte Street (approximately 60 m northeast of the Site).	This facility was identified during the FIPs review as a former auto garage with two USTs (PCA 7 with medium risk of impacts).
Pioneer Petroleum, Anchor motel (1974) Ltd. and Capital City Gas gasoline service stations, Charlebois Body Shop, Independent Taxi Garage, and Pennock Motors.	479-481 Rideau Street at the northwest corner of Rideau Street and Augusta Street (approximately 100 m west of the Site).	This facility was identified during the FIPs review as a former gasoline service station with 2 USTs and an oiling building (PCA 12 with low risk of impacts).
Aquarius Beverages (soft drink industry), National Dairy, National Milk Co. Ltd. (dairy products industries).	136-144 Boteler Street, approximately 90 m southwest of the Site.	This property is currently redeveloped with the Korean Embassy. Given the distance between this activity (PCA 16) and the Site and that the lands were redeveloped it is considered that PCA 16 represents a low risk of potential subsurface impacts to the Site.
Commercial Cleaner Ltd. (Laundries and Cleaners).	529 and 460 St. Patrick Street (currently 501 Old St. Patrick Street), approximately 80 m east of the Site.	<p>This property is currently redeveloped with Da La Salle public secondary school.</p> <p>The former commercial cleaner facility is considered to represent a high risk of potential subsurface impacts on the Site (PCA 17 on Figure 1a).</p>
Lauzon Service Centre and Rouleau Service Centre (Motor Vehicle Repair Shops).	479 St. Patrick Street (currently 501 Old St. Patrick Street), approximately 100 m east of the Site).	<p>This property is currently redeveloped with Da La Salle public secondary school. PCA 9 (former gas station with 5 USTs) and PCA 18 (former commercial cleaner) are indicated to be located at the same address.</p> <p>Given the distance between this activity (PCA 18) and the Site and that the section of the Site located near PCA 18 will be in the bedrock, PCA 18 is considered to represent a low risk of potential subsurface impacts on the Site (PCA 18 on Figure 1a).</p>

Activity as per HLUI	Address/Location of the activity with respect to the Site	Comments/PCA # on Figures 1a and 1b
<p>Pennock's Garage (Motor Vehicle Repair Shop). The same address was also listed as Buckingham Dairy, Comet Press Printing, Nelson Printers.</p>	<p>5 Nelson Street (currently 455 Old St. Patrick Street), approximately 50 m west of the Site.</p>	<p>This property is currently re-developed with a residential building.</p> <p>Given the distance between this activity (PCA 19 on Figure 1a) and the Site, that no excavations will be performed at this part of the Site and that the lands were redeveloped it is considered that PCA 19 represents a low risk of potential subsurface impacts to the Site.</p>
<p>Shell Service Station.</p>	<p>495 St. Patrick Street (currently 501 Old St. Patrick Street) located on the Site and immediate vicinity of the Site.</p>	<p>This activity was identified during the FIPs review as a former gasoline service station with 5 USTs (PCA 9 with medium risk of impacts).</p>
<p>Percy Carriere (Motor Vehicle Repair Shops).</p>	<p>565 Rideau Street, currently 160 Charlotte Street, approximately 110 m east of the Site.</p>	<p>This activity was identified during the FIPs review as Percy Carriere auto-dealer with associated used car parking lot, repairs and auto storage.</p> <p>The lands where the former motor vehicle shop was located are currently occupied by a high-rise residential building. Given that this facility is located down-gradient of the Site, the distance between the Site and the former auto-dealer and that the lands are redeveloped with a high-rise building, it is considered that this property does not represent a potential environmental risk to the Site.</p>
<p>Monson's Cleaners (Laundries and Cleaners).</p>	<p>167 Charlotte Street, currently 168 Charlotte Street between Rideau and Besserer Street (approximately 80 m northeast of the Site).</p>	<p>This activity was identified during the FIPs review as a former Chinese laundry (PCA 8 with high risk of impacts).</p>
<p>Joseph Dolan and Sons Ltd.(Lumber and Building Materials, Wholesale).</p>	<p>135 Chapel Street (approximately 60 m west of the Site).</p>	<p>According to the information provided in HLUI this facility was occupied by a coal and wood yard which was located behind 137-143 Chapel Street, 134-135 Augusta Street and 461-473 Rideau Street. Golder's review of the FIPs did not indicate the presence of a wood and coal yard at this address. The address and nearby addresses are occupied by schools, residential buildings and a former Jewish community centre.</p>

Activity as per HLUI	Address/Location of the activity with respect to the Site	Comments/PCA # on Figures 1a and 1b
		The property appears to be currently occupied by a school. Given the distance between this facility and the Site and the nature of the activities, this property is not considered to represent an issue of potential environmental concern for the Site.
C. Racicot, Hector Ferland Garage and Lavigne Brothers Ltd. motor vehicle repair shops.	292 Guigues Avenue (currently 262 Guigues Avenue), approximately between 180 m west of the Site.	This property was observed on the 1925 (1948) FIP as auto workshop and it is located outside the study area. This property is currently occupied by a residential complex. Given the distance between the Site and the former auto repair shop and that the lands are currently redeveloped, this activity is not considered an issue of potential environmental concern for the Site.
J. Berthiaume Garage, King Edward Garage, Parfield Oils Ltd.	Listed as located at 367 St. Patrick Street (northeast corner of King Edward and St. Patrick Street), approximately 240 m west of the Site.	The HLUI indicates that King Edward Garage was listed in 1920, the service station - Parfield Oils Ltd. was listed in 1940, and the address was under construction in 1950. Given the distance between the facility and the Site and that no excavations are planned at this part of the Site, this former facility is not considered an issue of potential environmental concern for the Site.
Ger-Ray's Garage and Parfield Oils Ltd. Warehouse and Domestic Service Station.	80 Dalhousie Street or 215 Sussex Street (both addresses refer to the same location), immediately west of the north tunnel portal, between Boteler Street and Sussex Street.	This facility was previously identified during the review of the FIPs (PCA 3 – a former garage with two USTs with medium risk of impacts).
Beatie's Imperial Service Station, Imperial Oil Service Station, Scott Garage.	At 175 Sussex Drive or at the former 30 Redpath Street (both addresses refer to the same location), immediately east of the north tunnel portal at the southeast corner of Sussex Drive and the north tunnel portal.	This facility was previously identified during the review of the FIPs, (PCA 2 - a former gas station with 4 USTs with medium risk of impacts).
McColl Bros. Ltd. (petroleum products, wholesale).	67 Boteler Street, approximately between 130 m west of the north tunnel portal.	This property was located on the lands between 27 and 89 Boteler Street where the former Bruce Coal Ltd. was located (PCA 4 identified during the review of the FIPs).

Activity as per HLUI	Address/Location of the activity with respect to the Site	Comments/PCA # on Figures 1a and 1b
Lowertown Service Garage.	At 40 Cobourg (formerly 33 Augusta Street), just across Myrand Avenue (approximately 100 m east of the Site).	<p>The HLUI indicated that there was a blacksmith located at this address in 1930 and a spring manufacturer in 1940.</p> <p>This facility was previously identified during the review of the FIPs (PCA 6 – auto garage with two USTs and subsequently auto body repairs).</p>

4.6 Review of the Aerial Photographs

Aerial photographs for years 1965, 1976, 1991, 1999 and 2014 from the City of Ottawa on-line geo-map were reviewed for the Site. The review of the aerial photographs was conducted to develop a general history of the development of the Site and the study area. Information obtained from the aerial photographs is summarized as follows:

Date	Observations of the study area (the tunnel alignment and adjacent lands within 100 m from both sides of the alignment)
	<p>North tunnel portal:</p> <p>The lands appear to be under re-development or occupied by residential houses. PCA 2 (former gasoline service station and associated 4 USTs), PCA 3 (a former garage with two USTs) and PCA 4 (former Bruce Coal Ltd. and associated coal piles and one fuel UST) observed on the FIPs are no longer present on the 1965 aerial photograph.</p> <p>Tunnel section of the Site between the two portals:</p> <p>In general this section is located in areas occupied by residential houses, some institutional buildings (churches and schools) and commercial buildings. In addition, several fuel outlets and possible garages which were identified during the review of the FIPs were observed and are discussed below. The following was noted on the 1965 aerial photograph in respect to PCAs identified during the records review:</p> <p>1965 PCA 1 (closed Borderleau Park landfill (ID# Ur-34)) – the lands are occupied by a park (grass and trees are noted in this area).</p> <p>PCA 5 (a former wood yard with one UST located at 346 Bruyere Street) – the lands are occupied by a commercial type building and associated parking lot and residential buildings.</p> <p>PCA 6 (a former auto garage with two USTs and subsequently auto body repair shop at 40 Cobourg Street) – the lands appear to be occupied by commercial type buildings.</p> <p>PCA 7 (a former auto garage with two USTs at 538 Rideau Street) – the lands are noted to be occupied by a commercial type building and cars that could be associated with the garage observed during the FIP review.</p> <p>PCA 8 (Chinese laundry at 168 Charlotte Street) – the lands are occupied by a commercial type building with a parking lot.</p>

Date	Observations of the study area (the tunnel alignment and adjacent lands within 100 m from both sides of the alignment)
	<p>PCA 9 (a gasoline service station with 5 USTs at 501 Old St. Patrick Street) – the lands appear still to be occupied by a retail fuel outlet.</p> <p>PCA 10 (an UST associated with the St. Anne's church and a school at 528 Old St. Patrick Street) – the lands are noted to be occupied by the church and the school.</p> <p>PCA 11 (Ottawa Transportation Bus Garage with one UST at 123 Augusta Street) – the lands are occupied by residential type buildings and a parking lot.</p> <p>PCA 12 and PCA 13 (the two gasoline stations with oiling facilities at 479 and 490 Rideau Street) –the lands appear still to be occupied by the retail fuel outlets.</p> <p>PCA 15 – (former Craig Cleaners Ltd.)- the lands are occupied by a commercial type building and residential structures.</p> <p>PCA 16 – (former Aquarius Beverages (soft drink industry), National Dairy, National Milk Co. Ltd.) – the lands are occupied by residential and commercial buildings. It is unclear if the commercial type building is associated with the former soft drink and milk industries.</p> <p>PCA 17 – (former commercial cleaner) – the lands appear to be occupied by residential and commercial buildings.</p> <p>PCA 18 – (former Lauzon Service Centre and Rouleau Service Centre) - the lands appear to be occupied by residential and commercial buildings.</p> <p>PCA 19 – (former Pennock's Garage) – the lands appear to be occupied by a commercial building with parking lot with cars and could be associated with the former garage.</p> <p>Southeast tunnel portal:</p> <p>The lands are occupied by residential buildings, a school, CPR tracks and the Royal Canadian Mounted Police (RCMP) buildings.</p>
1976	<p>North tunnel portal:</p> <p>The lands to the east of the portal where PCA 2 was identified (a former gasoline service station and associated 4 USTs) are redeveloped with the DFAIT government building. The lands to the west previously occupied by a garage with two USTs (PCA 3) and Bruce Coal Ltd. with one UST (PCA 4) are green spaces and the lands to the south are occupied by residential houses and some commercial buildings.</p> <p>Tunnel section of the Site between the two portals:</p> <p>In general this section is located in areas occupied by residential houses, some institutional and commercial buildings. In addition, several fuel outlets and possible garages which were identified during the review of the FIPs were observed and are discussed below. The following was noted on the 1976 aerial photograph in respect to the identified PCAs:</p> <p>PCA 1 (closed Borderleau Park landfill (ID# Ur-34)) - similar to the 1965 aerial photograph. The lands are occupied by a park.</p> <p>PCA 5 (a former wood yard with one UST located at 346 Bruyere Street) - similar to the 1965</p>

Date	Observations of the study area (the tunnel alignment and adjacent lands within 100 m from both sides of the alignment)
	<p>aerial photograph. The lands are occupied by a commercial type building with a parking lot and residential buildings.</p> <p>PCA 6 (a former auto garage with two USTs and subsequently auto body repair shop at 40 Cobourg Street) – the lands appear to be redeveloped with the current community building.</p> <p>PCA 7 (former auto garage with two USTs at 538 Rideau Street) – the lands are redeveloped with a commercial or residential building.</p> <p>PCA 8 (Chinese laundry at 168 Charlotte Street) –the lands are occupied by commercial and residential buildings with a parking lot.</p> <p>PCA 9 (a former gasoline service station with 5 USTs at 501 Old St. Patrick Street) –the lands appear to be redeveloped with the current Da La Salle public secondary school.</p> <p>PCA 10 (an UST associated with the St. Anne's church and a school at 528 Old St. Patrick Street) - similar to 1965 aerial photograph. The lands are occupied by a church which appears to be similar to the church shown on the FIPs</p> <p>PCA 11 (Ottawa Transportation Bus Garage with one UST at 123 Augusta Street) –the lands are occupied by residential type buildings, a parking lot and additional high rise apartment building.</p> <p>PCA 12 and PCA 13 (the two gasoline stations with oiling facilities at 479 and 490 Rideau Street) - similar to the 1965 aerial photograph. The lands are still occupied by the retail fuel outlets.</p> <p>PCA 15- (former Craig Cleaners Ltd.) - similar to the 1965 aerial photograph.</p> <p>PCA 16 – (former Aquarius Beverages (soft drink industry), National Dairy, National Milk Co. Ltd.) – the lands are redeveloped with green space and a parking lot associated with a building located on adjacent lands.</p> <p>PCA 17 – (former commercial cleaner) – the lands are redeveloped with the current Da La Salle public secondary school.</p> <p>PCA 18 – (former Lauzon Service Centre and Rouleau Service Centre) - the lands are redeveloped with the current Da La Salle public secondary school.</p> <p>PCA 19 – (former Pennock's Garage) – the lands are redeveloped with the current Da La Salle public secondary school.</p> <p>Southeast tunnel portal:</p> <p>The land use is similar to the 1965 aerial photograph with the addition of more RCMP buildings. The CPR tracks are no longer present on this aerial photograph.</p>
1991	<p>North tunnel portal:</p> <p>Similar to the 1976 aerial photograph.</p> <p>Tunnel section of the Site between the two portals:</p>

Date	Observations of the study area (the tunnel alignment and adjacent lands within 100 m from both sides of the alignment)
	<p>The land use is similar to the 1976 aerial photograph. The following was noted on the 1991 aerial photograph in respect to the identified PCAs:</p> <p>PCA 1 (closed Borderleau Park landfill (ID# Ur-34)) - similar to the 1965 aerial photograph. The lands are occupied by a park.</p> <p>PCA 5 (a former wood yard with one UST located at 346 Bruyere Street) – the lands appear as at the present and are occupied by green space. The surrounding lands are developed with residential buildings</p> <p>PCA 6 (a former auto garage with two USTs and subsequently auto body repair shop at 40 Cobourg Street) – similar to 1976 aerial photograph. The lands are occupied by the current community building.</p> <p>PCA 7 (former auto garage with two USTs at 538 Rideau Street) – The lands are occupied by a commercial type building with a parking lot.</p> <p>PCA 8 (Chinese laundry at 168 Charlotte Street) – similar to the 1976 aerial photograph. The lands are occupied by a commercial building and a parking lot and appear as at the present.</p> <p>PCA 9 (a former gasoline service station with 5 USTs at 501 Old St. Patrick Street) – similar to the 1976 aerial photograph. The lands are occupied by Da La Salle public secondary school and appear as at the present.</p> <p>PCA 10 (an UST associated with the St. Anne's church and a school at 528 Old St. Patrick Street)- similar to the 1976 aerial photograph and are occupied by a church.</p> <p>PCA 11 (Ottawa Transportation Bus Garage with one UST at 123 Augusta Street) – the lands are occupied by high rise residential buildings and a parking lot.</p> <p>PCA 12 and PCA 13 (the two gasoline stations with oiling facilities at 479 and 490 Rideau Street, respectively) – appear to be still occupied by the retail fuel outlets.</p> <p>PCA 15- (former Craig Cleaners Ltd.) - similar to the 1976 aerial photograph.</p> <p>PCA 16 – (former Aquarius Beverages (soft drink industry), National Dairy, National Milk Co. Ltd.) – the lands that were observed to be green space are developed with the Korean Embassy.</p> <p>PCA 17 – (former commercial cleaner) – as per the 1976 aerial photograph</p> <p>PCA 18 – (former Lauzon Service Centre and Rouleau Service Centre) - as per the 1976 aerial photograph</p> <p>PCA 19 – (former Pennock's Garage) – as per the 1976 aerial photograph</p> <p>Southeast tunnel portal:</p> <p>Similar to the 1976 aerial photograph with the addition of more RCMP buildings.</p>

Date	Observations of the study area (the tunnel alignment and adjacent lands within 100 m from both sides of the alignment)
1999	<p>North tunnel portal:</p> <p>Similar to the 1991 aerial photograph.</p> <p>Tunnel section of the Site between the two portals:</p> <p>The land use is similar to the 1991 aerial photograph. The following was noted on the 1999 aerial photograph in respect to the identified PCAs:</p> <p>PCA 1 (closed Borderleau Park landfill (ID# Ur-34)) - similar to 1991 aerial photograph. The lands are occupied by a park.</p> <p>PCA 5 (a former wood yard with one UST located at 346 Bruyere Street) – similar to the 1991 aerial photograph. The lands appear as at the present and are occupied by green space. The surrounding lands are developed with residential buildings.</p> <p>PCA 6 (a former auto garage with two USTs and subsequently auto body repair shop at 40 Cobourg Street) – similar to the 1991 aerial photograph. The lands are occupied by the current community building.</p> <p>PCA 7 (former auto garage with two USTs at 538 Rideau Street) – The lands are occupied by a parking lot. The commercial building observed in the 1991 aerial photograph is no longer present.</p> <p>PCA 8 (Chinese laundry at 168 Charlotte Street) – similar to the 1991 aerial photograph. The lands are occupied by commercial building and a parking lot and appear as at the present.</p> <p>PCA 9 (a former gasoline service station with 5 USTs at 501 Old St. Patrick Street) – similar to the 1991 aerial photograph. The lands are occupied by Da La Salle public secondary school and appear as at the present.</p> <p>PCA 10 (an UST associated with the St. Anne's church and a school at 528 Old St. Patrick Street) - similar to the 1991 aerial photograph and are occupied by a church.</p> <p>PCA 11 (Ottawa Transportation Bus Garage with one UST at 123 Augusta Street) – similar to the 1991 aerial photograph. The lands are occupied by high rise residential buildings and a parking lot.</p> <p>PCA 12 and PCA 13 (the two gasoline stations with oiling facilities at 479 and 490 Rideau Street, respectively) – The quality of the aerial photograph of the lands where PCA 12 and 13 were located is poor and as such, no observations can be made.</p> <p>PCA 15- (former Craig Cleaners Ltd.)- similar to the 1991 aerial photograph.</p> <p>PCA 16 – (former Aquarius Beverages (soft drink industry), National Dairy, National Milk Co. Ltd.) – similar to the 1991 aerial photograph.</p> <p>PCA 17 – (former commercial cleaner) – as per the 1991 aerial photograph.</p> <p>PCA 18 – (former Lauzon Service Centre and Rouleau Service Centre) - as per the 1991 aerial photograph.</p>

Date	Observations of the study area (the tunnel alignment and adjacent lands within 100 m from both sides of the alignment)
	<p>PCA 19 – (former Pennock's Garage) – as per the 1991 aerial photograph.</p> <p>Southeast tunnel portal:</p> <p>Similar to the 1991 aerial photograph.</p>
2014	<p>North tunnel portal:</p> <p>Similar to the 1999 aerial photograph with the addition of the Saudi Arabia embassy on the lands to the west where PCA3 (former garage with two USTs) and PCA 4 (former Bruce Coal Ltd. with one UST) were previously located.</p> <p>Tunnel section of the Site between the two portals:</p> <p>The land use is similar to the 1991 aerial photograph. The following was noted on the 1999 aerial photograph in respect to the identified PCAs:</p> <p>PCA 1 (closed Borderleau Park landfill (ID# Ur-34)) - similar to the 1999 aerial photograph. The lands are occupied by a park.</p> <p>PCA 5 (former wood yard with one UST located at 346 Bruyere Street) – similar to the 1999 aerial photograph. The lands appear as at the present and are occupied by green space. The surrounding lands are developed with residential buildings.</p> <p>PCA 6 (a former auto garage with two USTs and subsequently auto body repair shop at 40 Cobourg Street) – similar to the 1999 aerial photograph. The lands are occupied by the current community building.</p> <p>PCA 7 (former auto garage with two USTs at 538 Rideau Street) – The lands appear to be either under construction or were used as a construction staging.</p> <p>PCA 8 (Chinese laundry at 168 Charlotte Street) – similar to the 1999 aerial photograph. The lands are occupied by a commercial building and a parking lot and appear as at the present.</p> <p>PCA 9 (a former gasoline service station with 5 USTs at 501 Old St. Patrick Street) – similar to the 1999 aerial photograph. The lands are occupied by Da La Salle public secondary school and appear as at the present.</p> <p>PCA 10 (an UST associated with the St. Anne's church and a school at 528 Old St. Patrick Street) - similar to the 1999 aerial photograph and are occupied by a church.</p> <p>PCA 11 (Ottawa Transportation Bus Garage with one UST at 123 Augusta Street) – similar to the 1999 aerial photograph. The lands are occupied by high rise residential buildings and a parking lot.</p> <p>PCA 12 and PCA 13 (the two gasoline stations with oiling facilities at 479 and 490 Rideau Street, respectively) – The retail fuel outlets are no longer present on the 2014 aerial photograph. The property where PCA 12 was located (479 Rideau Street) is occupied by Econo Lodge motel and a parking lot and the property where PCA 13 was located (490 Rideau Street) is occupied by small commercial building (Quickie store) and a parking lot.</p> <p>PCA 15- (former Craig Cleaners Ltd.)- similar to the 1999 aerial photograph. The lands still appear occupied by a commercial building and residential structures.</p>

Date	Observations of the study area (the tunnel alignment and adjacent lands within 100 m from both sides of the alignment)
	<p>PCA 16 – (former Aquarius Beverages (soft drink industry), National Dairy, National Milk Co. Ltd.) – the lands are occupied by the Korean Embassy and a residential development is visible on adjacent lands to east.</p> <p>PCA 17 – (former commercial cleaner) – as per the 1999 aerial photograph. The lands are redeveloped with the current Da La Salle public secondary school.</p> <p>PCA 18 – (former Lauzon Service Centre and Rouleau Service Centre) - as per the 1991 aerial photograph. The lands are redeveloped with the current Da La Salle public secondary school.</p> <p>PCA 19 – (former Pennock's Garage) – as per the 1991 aerial photograph. The lands are redeveloped with the current Da La Salle public secondary school.</p> <p>Southeast tunnel portal:</p> <p>Similar to the 1999 aerial photograph. The lands are occupied by a church, RCMP buildings and residential houses.</p>

5.0 SUMMARY OF THE LISTINGS OF POTENTIAL ENVIRONMENTAL CONCERN

A summary of the identified potentially contaminating activities that may have impacted the subsurface within the study area is presented in the Table 3 below and the locations of the PCAs are shown on Figures 1a and 1b.

Table 3: Potentially Contaminating Activities (PCA)

ID on the Figures 1a and 1b	Potentially Contaminating Activities	Location	Potential Risk of subsurface impact on the study area	Source of Information
North tunnel portal and artificial tunnel				
PCA2	<p>Former presence of a gasoline service station and associated 4 USTs.</p> <p>The lands are re-developed and are currently occupied by the DFAIT government building.</p>	At 175 Sussex Street, immediately east of the north tunnel portal at the southeast corner of Sussex Drive and the north tunnel portal.	Medium	1925 (1948) FIP, 1956 FIP, HLUI
PCA3	<p>Former presence of a garage with two USTs.</p> <p>This area is now redeveloped with the Aga Khan Foundation Canada building.</p>	Immediately west of the north tunnel portal, at 80 Dalhousie Street between Boteler Street and Sussex Street.	Low	1925 (1948) FIP, 1956 FIP, HLUI, RCS#3671

ID on the Figures 1a and 1b	Potentially Contaminating Activities	Location	Potential Risk of subsurface impact on the study area	Source of Information
PCA4	<p>Former Bruce Coal Ltd. and associated coal piles and one fuel UST.</p> <p>The area is now redeveloped with the embassy of Saudi Arabia.</p>	Between 27 and 89 Boteler Street, approximately between 100 m and 230 m west of the north tunnel portal, between Boteler and Sussex Street. The former fuel UST was located at the corner of Boteler and Sussex Street (approximately 230 m west of the Site and outside the study area).	Low	1925 (1948) FIP, 1956 FIP, HLUI
Tunnel Section (to be constructed into the bedrock)				
PCA1	<p>Former Borderleau Park landfill (ID# Ur-34).</p> <p>The lands are currently occupied by Bordeleau park.</p>	Immediately east of the north section of the Site at the northeast corner of Rose Street and Bruyere Street.	Low	(2004 Golder Data Gap Analysis Report), MOE Waste Disposal Inventory, 1991, 2004 City of Ottawa Waste Disposal Sites Inventory
PCA5	<p>Former fuel UST associated with a wood yard or an ice house.</p> <p>The lands are currently occupied by green space and residential buildings on the surrounding lands.</p>	At 346 Bruyere Street (formerly 333-335 St. Andrew Street), between Rose Street and former St. Joseph Street (approximately 40 m east of the Site).	Low	1925 (1948) FIP and 1956 FIP, HLUI
PCA 6	<p>Former auto garage with two USTs and subsequently auto body repairs.</p> <p>The area is currently redeveloped with a community building.</p>	At 40 Cobourg (formerly 33 Augusta Street), just across Myrand Avenue (approximately 100 m east of the Site).	Low	1925 (1948) FIP 1956 FIP, HLUI
PCA 7	<p>A former auto garage with two USTs.</p> <p>The area where the USTs were located currently appears to be used as a construction staging area.</p>	538 Rideau Street, between Cobourg Street and Charlotte Street (approximately 60 m northeast of the Site).	Medium	1925 (1948) FIP 1956 FIP, aerial photographs, HLUI
PCA 8	A former Chinese laundry where potentially dry cleaning operations might have been performed.	At 168 Charlotte Street between Rideau and Besserer Street	High	1925 (1948) FIP, HLUI

ID on the Figures 1a and 1b	Potentially Contaminating Activities	Location	Potential Risk of subsurface impact on the study area	Source of Information
	The area is currently occupied by a commercial office building with associated parking lot.	(approximately 80 m northeast of the Site).		
PCA 9	A former gasoline service station with 5 USTs. The area is currently developed with Da La Salle public secondary school.	At 501 Old St. Patrick Street located on the Site and immediate vicinity of the Site.	Medium	1956 FIP, HLUI
PCA 10	An UST associated with the St. Anne's church and a school. This property is currently still occupied by a church. It is unknown if the UST was removed or it still exists on the property.	At 528 Old St. Patrick Street (approximately 100 m east of the Site).	Low	1925 (1948) FIP and 1956 FIP
PCA 11	Former Ottawa Transportation Bus Garage with one UST. The lands are currently re-developed with residential buildings.	At 123 Augusta Street on the alignment and on the adjacent lands to the east of the alignment.	Medium	1956 FIP
PCA 12	A former gasoline service station with 2 USTs and an oiling building. This property is currently occupied by the parking lot associated with the Econo Lodge motel.	At 479 Rideau Street at the northwest corner of Rideau Street and Augusta Street (approximately 100 m west of the Site).	Low	1956 FIP, aerial photographs, HLUI
PCA 13	A former gasoline service station with 2 USTs and an oiling building. This property is currently occupied by a commercial retail building.	At 490 Rideau Street, at the southeast corner of Rideau and Augusta Street (approximately 100 m west of the Site).	Low	1956 FIP, aerial photographs, HLUI
PCA 15	Former Craig Cleaners Ltd. (Laundries and Cleaners).	497 Rideau Street, at the northeast corner of Rideau and Augusta Street,	High	HLUI

ID on the Figures 1a and 1b	Potentially Contaminating Activities	Location	Potential Risk of subsurface impact on the study area	Source of Information
	The property appears to be occupied by a retail building.	approximately 100 m west of the Site.		
PCA 16	Former Aquarius Beverages (soft drink industry), National Dairy, National Milk Co. Ltd. (dairy products industries). The property is currently occupied by the Korean Embassy.	136-144 Boteler Street, approximately 90 m southwest of the Site.	Low	HLUI
PCA 17	Former Commercial Cleaner Ltd. (Laundries and Cleaners). The property is currently developed with Da La Salle public secondary school.	529 and 460 St. Patrick street (currently 501 Old St. Patrick Street), approximately 80 m east of the Site.	High	HLUI
PCA 18	Former Lauzon Service Centre and Rouleau Service Centre (Motor Vehicle Repair Shops). The property is currently developed with Da La Salle public secondary school.	479 St. Patrick Street (currently 501 Old St. Patrick Street), approximately 100 m east of the Site).	Low	HLUI
PCA 19	Former Pennock's Garage (Motor Vehicle Repair Shop) This property is currently occupied by a residential building.	5 Nelson Street (currently 455 Old St. Patrick Street), approximately 50 m west of the Site.	Low	HLUI
Southeast tunnel portal and artificial tunnel				
PCA 14	Presence of fill of poor quality containing ash, slag, pieces of brick, concrete, and metal and exceeding MOE Table 3 Standards for lead, mercury and 16 PAH parameters. The thickness of the fill ranged from approximately 1 m to 3 m.	On the south section of North River Road where the road crosses the southeast part of the Site and just east of Rideau River.	High	2013 Golder Phase II ESA report

In order to address the above mentioned PCAs it is recommended to conduct a Phase II ESA consisting of soil and/or groundwater sampling and analysis of chemical of concern at the areas along the Site which are located near the PCAs identified as having high or medium risk of impacts on the study area. The purpose of the Phase II ESA will be to identify whether the soil and/or groundwater at these areas have been impacted by the identified

PCAs in order to 1) assist in the planning of the management of potentially contaminated soils and/or groundwater if encountered during the construction and 2) timely address potential implications on the cost and schedule of the project if contaminated soil and/or groundwater is encountered.

6.0 CONSIDERATIONS REGARDING THE MANAGEMENT OF THE EXCAVATED TUNNEL MUCK

In addition to the PCAs identified that may have impacted soil and/or bedrock at the Site, naturally occurring compounds may be present within the excavated tunnel spoils which would need to be considered with respect to potential off-Site re-use options. The applicable regulations concerning the offsite disposal of tunnel spoil ("muck") are dependent on whether the muck is considered by the Ministry of Environment and Climate Change, Ontario (MOECC) to be a "soil" or "rock". As per the definition outlined in O.Reg. 153/04, "soil" means *"except for the purposes of shallow soil property as defined in section 43.1, unconsolidated naturally occurring mineral particles and other naturally occurring material resulting from the natural breakdown of rock or organic matter by physical, chemical or biological processes that are smaller than 2 millimetres in size or that pass the US #10 sieve"*. Materials meeting this definition would be subject to the soil classification standards used for excess soil management (e.g., MOE Tables 1 and 3). There is no equivalent standard for disposal of excavated "rock" muck but, under the Environmental Protection Act (EPA), "rock" muck would need to be evaluated for "adverse effects" before being disposed of. Some of the items to consider when determining adverse effects for the excavated rock include, but are not limited to, the rock's propensity to leach chemicals, generate solids in runoff (applicable to receiving sites where surface water may become effected) and the rock's ability to generate extreme pH (acidic or basic) when mixed with water.

The gradation of the tunnel muck, and thus the applicable standards for disposal and reuse, would be dependent on the excavation method (e.g. conventional or mechanized excavation). Consultation with the MOECC may be required to determine if it would be treated as a rock or soil. If the gradation of the muck was such that it would be considered a "soil", then it should be noted that naturally occurring compounds may be present within the excavated tunnel spoils which would need to be considered with respect to potential off-Site disposal and re-use options. For example, the limestone bedrock which is present in the north and central sections of the tunnel alignment has the potential to contain naturally occurring metal concentrations that may exceed MOE Table 3 Standards. The shale bedrock which is present in the south section of the site has the potential to contain metals and/or organic compounds in concentrations exceeding MOE Table 3 Standards and, when exposed to air and water, the shale is potentially acid generating.

7.0 CLOSURE

The summary provided in this technical memorandum is intended only for use as a preliminary screening of the potential environmental issues and risks associated with the Downtown Ottawa Truck Tunnel project. The locations and issues which have been identified are based solely on a review and interpretation of limited data obtained by Golder as described in this technical memorandum and as reported herein. No assurance is made regarding the accuracy and completeness of these data. No Site visit was undertaken in preparing this technical memorandum and no soil, water, liquid, gas, mould, product or chemical sampling and analytical testing at or in the vicinity of the Site was conducted as part of this assessment.

This technical memorandum was prepared for the exclusive use of Parsons Inc. and the City of Ottawa and is intended to provide Parsons Inc. and the City of Ottawa with an assessment of the current environmental conditions for the EA study. Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of the third parties. Should additional parties require reliance on this report, written authorization from Golder will be required. Golder disclaims responsibility for consequential financial effects on transactions or property values, or requirements for follow-up actions and costs.

In evaluating the EA study area, Golder has relied in good faith on information obtained and reviewed as noted in this technical memorandum. We assumed that the information provided is factual and accurate. We accept no responsibility for any deficiency, misstatement or inaccuracy contained in this technical memorandum as a result of references indicated.

We trust that this memorandum provides sufficient information for your present requirements. If you have any questions concerning this memorandum, please don't hesitate to contact us.

Yours truly,

GOLDER ASSOCIATES LTD.



For Maria Staneva, M.Eng., P.Eng.
Environmental Engineer



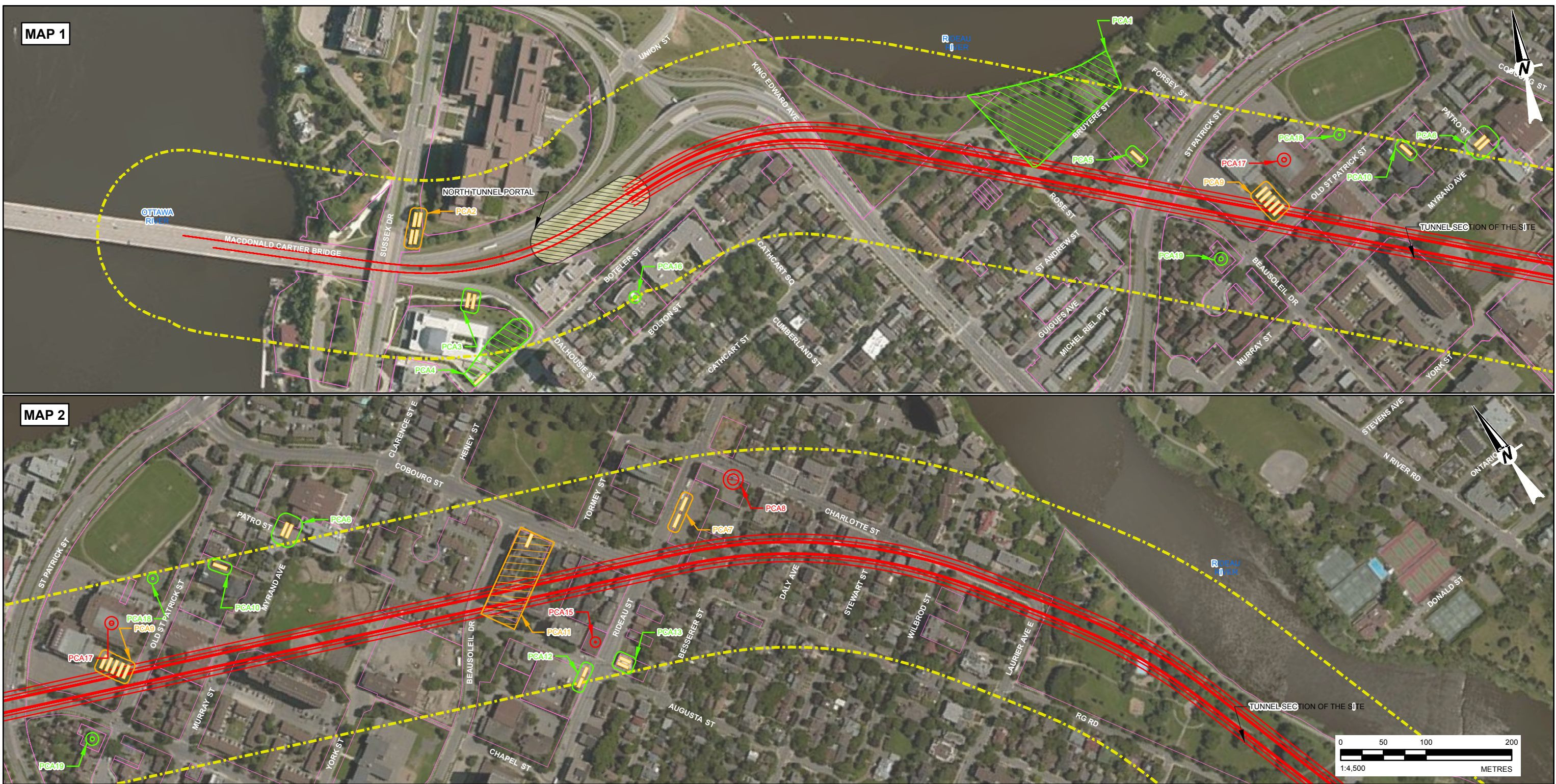
Tim Robertson, P.Eng.
Environmental Engineer/Associate

MS/TDR/ESO/md/ob

n:\active\2014\1121 - geotechnical\1404896 parsons downtown ottawa truck tunnel\environmental\esa memo\final oct 23, 2015 desktop esa, truck tunnel, 1404896.docx

Attachments: Figures 1a and 1b – Potentially Contaminating Activities
Appendix A – City of Ottawa Historical Land Use Inventory

Path: N:\Active\Spatial_Maps\Parsons\DowntownOttawaTruckTunnel\09_PCA\1404896_Parsons_Visual\00_POD\Phase2000_Environmental\1404896-2000-2100_01_PCA1404896.mxd



LEGEND

— SITE

- - - STUDY AREA (100 m BUFFER)

UNDERGROUND STORAGE TANK (UST)

PORTAL AREA

HLUI

POTENTIALLY CONTAMINATING ACTIVITIES (PCAs)

 HIGH RISK OF SUBSURFACE IMPACTS ON THE SITE

 MEDIUM RISK OF SUBSURFACE IMPACTS ON THE SITE

 LOW RISK OF SUBSURFACE IMPACTS ON THE SITE

POTENTIALLY CONTAMINATING ACTIVITIES (PCAs)

PCA1 - FORMER BORDERLEAU PARK LANDFILL (ID# UR-34).

PCA2 - FORMER PRESENCE OF A GASOLINE SERVICE STATION AND ASSOCIATED 4 USTs.

PCA3 - FORMER PRESENCE OF A GARAGE WITH TWO USTs.

PCA4 - FORMER BRUCE COAL LTD. AND ASSOCIATED COAL PILES AND ONE FUEL UST.

PCA5 - FORMER FUEL UST ASSOCIATED WITH A WOOD

PCA6 - FORMER AUTO GARAGE WITH TWO USTs AND SUBSEQUENTLY AUTO BODY REPAIRS.

PCA7 - A FORMER AUTO GARAGE WITH TWO USTs.

PCA8 - A FORMER CHINESE LAUNDRY WHERE POTENTIALLY DRY CLEANING OPERATIONS MIGHT HAVE BEEN PERFORMED.

PCA9 - A FORMER GASOLINE SERVICE STATION WITH 5 USTs.

PCA10 - AN UST ASSOCIATED WITH THE ST. ANNES CHURCH AND A SCHOOL.

PCA11 - FORMER OTTAWA TRANSPORTATION BUS GARAGE WITH ONE UST.

PCA12 - A FORMER GASOLINE SERVICE STATION WITH 2 USTs AND AN OILING BUILDING.

PCA13 - A FORMER GASOLINE SERVICE STATION WITH 2 USTs AND AN OILING BUILDING.

PCA15 - FORMER CRAIG CLEANERS LTD.

PCA16 - FORMER AQUARIUS BEVERAGES (SOFT DRINK INDUSTRY), NATIONAL DAIRY, NATIONAL MILK CO. LTD.

PCA17 - FORMER COMMERCIAL CLEANER LTD.

PCA18 - FORMER LAUZON SERVICE CENTRE AND ROULEAU SERVICE CENTRE (MOTOR VEHICLE REPAIR SHOPS)

PCA19 - FORMER PENNOCK'S GARAGE (MOTOR VEHICLE REPAIR SHOP)

NOTE(S)

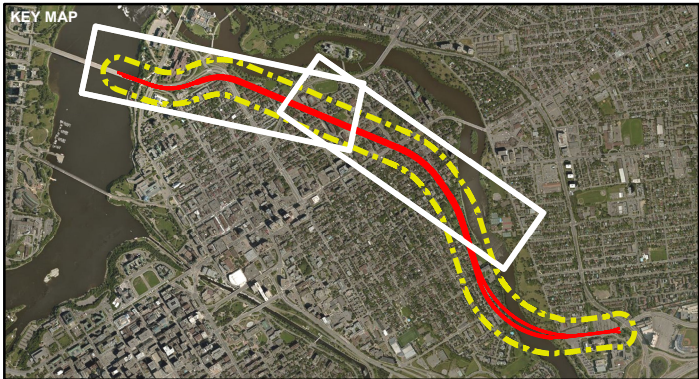
1. THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 1404896-2000.

REFERENCE(S)

1. LAND INFORMATION ONTARIO (LIO) DATA PRODUCED BY GOLDER ASSOCIATES LTD. UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2014

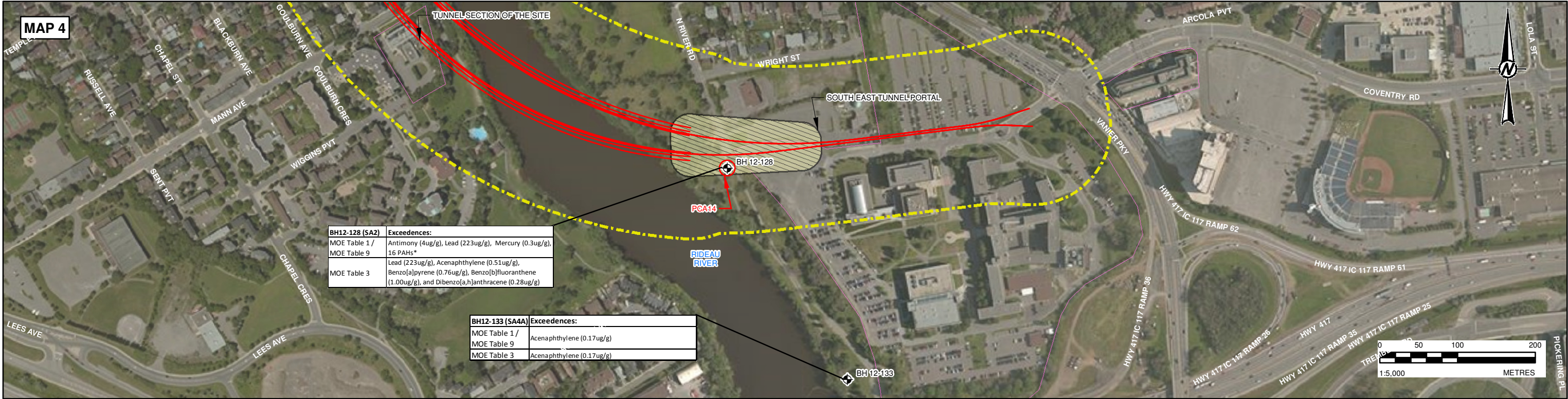
2. PROJECTION: TRANSVERSE MERCATOR DATUM: NAD 83

COORDINATE SYSTEM: MTM ZONE 9 VERTICAL DATUM: CGVD28



CLIENT		PARSONS	
PROJECT		DOWNTOWN OTTAWA TRUCK TUNNEL	
TITLE		POTENTIALLY CONTAMINATING ACTIVITIES, DOWNTOWN OTTAWA TRUCK TUNNEL	
CONSULTANT		YYYY-MM-DD	2015-10-21
		DESIGNED	---
		PREPARED	JEM/BR
		REVIEWED	MS
		APPROVED	TDR
PROJECT NO.	PHASE	REV.	FIGURE
1404896	2000	0	1a

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: 28mm



LEGEND

- GEO-ENVIRONMENTAL BOREHOLES (2013 GOLDER, PHASE II ESA) WHERE METALS AND/OR PAHs EXCEEDANCES ABOVE MOE TABLE 3 STANDARDS WERE IDENTIFIED IN THE FILL.
- SITE
- STUDY AREA (100 m BUFFER)
- PORTAL
- HLUI

POTENTIALLY CONTAMINATING ACTIVITIES (PCAs)

- HIGH RISK OF SUBSURFACE IMPACTS ON THE SITE
- MEDIUM RISK OF SUBSURFACE IMPACTS ON THE SITE
- LOW RISK OF SUBSURFACE IMPACTS ON THE SITE

POTENTIALLY CONTAMINATING ACTIVITIES (PCAs)

PCA14 - PRESENCE OF FILL OF POOR QUALITY CONTAINING ASH, SLAG, PIECES OF BRICK, CONCRETE, AND METAL AND EXCEEDING MOE TABLE 3 STANDARDS FOR LEAD, MERCURY AND 16 PAH PARAMETERS. THE THICKNESS OF THE FILL RANGED FROM APPROXIMATELY 1 m TO 3 m.

NOTE(S)

1. THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 1404896-2000.
2. * DUE TO LARGE NUMBER OF EXCEEDANCES INDIVIDUAL PARAMETERS ARE NOT LISTED.

REFERENCE(S)

1. LAND INFORMATION ONTARIO (LIO) DATA PRODUCED BY GOLDER ASSOCIATES LTD. UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2014
2. PROJECTION: TRANSVERSE MERCATOR DATUM: NAD 83
COORDINATE SYSTEM: MTM ZONE 9 VERTICAL DATUM: CGVD28



CLIENT
PARSONS

PROJECT
DOWNTOWN OTTAWA TRUCK TUNNEL

TITLE
POTENTIALLY CONTAMINATING ACTIVITIES, DOWNTOWN OTTAWA TRUCK TUNNEL

CONSULTANT

YYYY-MM-DD	2015-10-21
DESIGNED	----
PREPARED	JEM/BR
REVIEWED	MS
APPROVED	TDR

PROJECT NO. 1404896

PHASE 2000

REV. 0

FIGURE **1b**

Golder Associates

R:\Info\Geo\Spatial\Map\Parsons\DowntownOttawaTruckTunnel\09_PCO1404896_Parsons_Versions\00_PPCD Phase2000_Environmental\1404896-2000-2-100_01_PCA2a2d2.mxd

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: 25mm



APPENDIX A

Historical Land Use Inventory

HLUI2008ID	PIN	ACTIVITY_I	COMPANY_NA	FACILITY_T	STREET_NUM	STREET_NAM	STREET_SUF	COMMENTS1	COMMENTS2
__679CND	042180140	3453	Twin City Ice Co. Ltd.	Other Manufactured Products Industries	333	ST. ANDREW	STREET	FIP1901, FIP1922 - vacant lot FIP1912 - 333 vacant lot & 335 - 341 as Charlebois Ice Supply M. 1922 - vacant lot & 335 as Twin City Ice Co. Ltd. FIP1948 - lists E.A. Bourque Ltd. & Co. (coal, wood & tinsmith) also as ice dealer	
__679COM	042180099	14449	Water Street Salvage	Waste Materials, Wholesale	277	BRUYERE	STREET	FIP1901, FIP1922 - residence M. 1922 - vacant building M. 1948 - vacant lot M. 1956 lists as 279 Bruyere (rear) - at rear of property behind residence @ 279 - 285	
__679E88	042170044	7469	Joe's Auto Sales	Motor Vehicle Repair Shops	0	KING EDWARD	AVENUE	82-84	
__679E8X	042120006	12295	Lloyd's Service Station	Gasoline Service Stations	490	RIDEAU	STREET		
__679E8X	042120006	12295	Ron Di Labio White Rose Service Station	Gasoline Service Stations	490	RIDEAU	STREET		
__679EHC	042180001	5310	F. McCulloch	Leather and Allied Products Industries	0	CATHCART	STREET	Pits noted in the area	328 to 332
__679ENC	042120235	11797	Royal Canadian (Out of Business)	Combined Publishing and Printing Industries	488	WILBROD	STREET	Generator #ON0880300 (waste generator)	
__679EWQ	042130191	3819	Craig Cleaners Ltd.	Laundries and Cleaners	497	RIDEAU	STREET		
__679F14	042180008	8371	Louis Guerard	Railway Transport and Related Service Industries	277	GUIGUES	AVENUE	- listed as 277 Church Street in Mights Directories from 1900-1920. Chruch St. renamed Guigues St. after ca. 1920. _ lists Edmond Guerard (Louisiane) in 1920, 1930	
__679FCK	042180127	13943	Unnamed Slaughter House	Meat and Poultry Products Industries	0	ST. ANDREW	STREET	Business runs depth of block to Water (Bruyere) St. Residence facing street	359 to 361
__679FCK	042180127	2305	Bourque Brothers Ltd.	Petroleum Products, Wholesale	339	ST. ANDREW	STREET		
__670H0T	042120017	11668	Rideau Street Garage	Motor Vehicle Repair Shops	560	RIDEAU	STREET	Moloughney's Van & Storage Ltd. was listed at this address in M.1955.	
__670H0T	042120017	8778	Moloughney's Van & Storage Ltd. (warehouse)	Gasoline Service Stations	560	RIDEAU	STREET		
__670H63	042130188	12987	Talos Construction	Highway and Heavy Construction	150	AUGUSTA	STREET		
__670HB4	042130189	11476	PIONEER PETROLEUMS	Motor Vehicles, Wholesale	481	RIDEAU	STREET		
__670HB4	042130189	167	ANCHOR MOTEL (1974) LIMITED	Gasoline Service Stations	481	RIDEAU	STREET		
__670HB4	042130189	6944	Capital City Gas	Motor Vehicle Repair Shops	481	RIDEAU	STREET	FIP1901, FIP1922 - vacant lot M. 1948 - lists as grocery store but FIP1948 shows gas & auto repair garage - oiling noted in garage	
__670HB4	042130189	6944	Charlebois Body Shop	Motor Vehicle Repair Shops	481	RIDEAU	STREET	FIP1901, FIP1922 - vacant lot M. 1948 - lists as grocery store but FIP1948 shows gas & auto repair garage - oiling noted in garage	
__670HB4	042130189	6944	Independent Taxi Garage	Motor Vehicle Repair Shops	481	RIDEAU	STREET	FIP1901, FIP1922 - vacant lot M. 1948 - lists as grocery store but FIP1948 shows gas & auto repair garage - oiling noted in garage	

HLUI2008ID	PIN	ACTIVITY_I	COMPANY_NA	FACILITY_T	STREET_NUM	STREET_NAM	STREET_SUF	COMMENTS1	COMMENTS2
__670HB4	042130189	6944	Pennock Motors	Motor Vehicle Repair Shops	481	RIDEAU	STREET	FIP1901, FIP1922 - vacant lot M. 1948 - lists as grocery store but FIP1948 shows gas & auto repair garage - oiling noted in garage	
__670HB4	042130189	6944	Pioneer Petroleums (Quinte) Service Station	Motor Vehicle Repair Shops	481	RIDEAU	STREET	FIP1901, FIP1922 - vacant lot M. 1948 - lists as grocery store but FIP1948 shows gas & auto repair garage - oiling noted in garage	
__670HBL	042170008	236	Aquarius Beverages	Soft Drink Industry	0	BOTELER	STREET	National Milk Co. Ltd. also listed at this address in 1971 at the same time as Aquarius Beverages.	138 to 144
__670HBL	042170008	9551	National Dairy	Dairy Products Industries	0	BOTELER	STREET	Aquarius Beverages (soft drink bottlers) also listed at this location in M.1971. Transformer in south east corner	136 to 144
__670HBL	042170008	9551	National Milk Co. Ltd.	Dairy Products Industries	0	BOTELER	STREET	Aquarius Beverages (soft drink bottlers) also listed at this location in M.1971. Transformer in south east corner	136 to 144
__670HCE	042130063	9196	MICREL SEMICONDUCTOR	Electrical and Electronic Machinery, Equipment and Supplies, Wholesale	488	OLD ST. PATRICK	STREET		
__670HCG	042130066	15015	Ste. Anne's Church	R.C. Church	0	ST. PATRICK	ST	FIP1901, FIP1912, FIP1922 - no tank	526 - 544
__670HCG	042130066	3459	Charles Digonny	Sash, Door and Other Millwork Industries	546	ST. PATRICK	STREET		
__670HF2	042550170	12090	Region of Ottawa-Carleton	Other Utility Industries n.e.c.	300	COVENTRY	ROAD		
__670HJE	042180175	1060	Alfred Gregoire Roofing	Asphalt Roofing Industry	55	DALHOUSIE	STREET	FIP1901 - grocery M. 1920 - no listing FIP1912, FIP1922 - vacant lot FIP1956, M. 1956 - residence	
__670HJE	042180175	2844	Cartier Coal Co.	Railway Transport and Related Service Industries	0	CUMBERLAND	STREET	97 - 99	
__670HJE	042180175	6641	Grey Dort Motors Ltd.	Other Storage and Warehousing Industries	0	REDPATH	STREET	20 to 22	
__670HJE	042180175	9024	McAuliffe-Davis Lumber Company	Lumber and Building Materials, Wholesale	0	REDPATH	STREET		
__670HJS	042070098	12802	Isolation Hospital	Hospitals	0	RANGE	ROAD	Listed on Salisbury Ave. in M.1910	
__670HJS	042070098	12802	Strathcona Hospital	Hospitals	0	RANGE	ROAD	Listed on Salisbury Ave. in M.1910	
__670IQU	042130061	11346	PUBLIC WORKS AND GOVERNMENT SERVICES CANADA	Other Storage and Warehousing Industries	0	ST. ANDREW	STREET	SIR CHARLES TUPPER BUILDING	
__670IQU	042130061	11346	Public Works Department	Other Storage and Warehousing Industries	0	ST. ANDREW	STREET	SIR CHARLES TUPPER BUILDING	
__670IQU	042130061	11783	Lauzon Service Centre	Motor Vehicle Repair Shops	479	ST. PATRICK	STREET	M. 1922 - residences FIP1948 - lists as tenemants	
__670IQU	042130061	11783	Rouleau Service Centre	Motor Vehicle Repair Shops	479	ST. PATRICK	STREET	M. 1922 - residences FIP1948 - lists as tenemants	

HLUI2008ID	PIN	ACTIVITY_I	COMPANY_NA	FACILITY_T	STREET_NUM	STREET_NAM	STREET_SUF	COMMENTS1	COMMENTS2
__670IQU	042130061	15047	Javel Water Bottling	Bottling of cleaning compounds	100			Property located between Rideau River and St. Patrick St. (on the north and South) located between Rinard and Notre Dame on the e.ast and west Potentially located on St. Andrew St.?	
__670IQU	042130061	2849	CEP - DE LA SALLE	Elementary and Secondary Education	501	OLD ST. PATRICK	STREET	ECOLE SECONDAIRE DE LA SALLE	
__670IQU	042130061	2849	ECOLE SECONDARY PUBLI DE LA SALLE	Elementary and Secondary Education	501	OLD ST. PATRICK	STREET	ECOLE SECONDAIRE DE LA SALLE	
__670IQU	042130061	3350	Commercial Cleaner Ltd.	Laundries and Cleaners	529	ST. PATRICK	STREET		
__670IQU	042130061	3350	Commercial Cleaners	Laundries and Cleaners	529	ST. PATRICK	STREET		
__670IQU	042130061	4338	David Edmond	Exterior Close In Work	487	ST. PATRICK	STREET		
__670IQU	042130061	4361	Daylight Oil Burner	Heating Equipment Industry	537	ST. PATRICK	STREET		
__670IQU	042130061	557	Adelard Goulet	Other Non Metallic Mineral Products Industries	40	ST. JOSEPH	STREET	This portion of St. Joseph St. is now closed off.	
__670IQU	042130061	6552	H. Pion & Sons	Plumbing, Heating and Air Conditioning, Mechanical Work	39	FRIEL	STREET	M. 1922 _ lists residence @ # 31 & Co. @ # 43 FIP1948 - lists as residence	
__670IQU	042130061	6552	L. Pion & Brothers	Plumbing, Heating and Air Conditioning, Mechanical Work	39	FRIEL	STREET	M. 1922 _ lists residence @ # 31 & Co. @ # 43 FIP1948 - lists as residence	
__67904U	042130111	10229	OTTAWA-CARLETON DISTRICT SCHOOL BOARD - YORK STREET PUBLIC SCHOOL	Elementary and Secondary Education	310	YORK	STREET	York Street PS	
__67908Z	042180043	578	ACE GARAGE DOORS	Lumber and Building Materials, Wholesale	258	BRUYERE	STREET	3	
__6790M2	042180408	2551	CABLES ETC INC.	Non Residential Building and Development	293	ST. ANDREW	STREET		
__6799AW	042070128	3310	CENTRE YOVILLE CENTRE	Elementary and Secondary Education	150	MANN	AVENUE	SAINT-PIE-X	
__6799AW	042070128	3310	CONSEIL DES ECOLES CATHOLIQUES DE LANGUE	Elementary and Secondary Education	150	MANN	AVENUE	SAINT-PIE-X	
__679AX8	042120233	7934	LADY MAID SVC	Service Industries Incidental to Air Transport	474	WILBROD	STREET		
__679AXL	042120008	13035	SOS SPECIALIZED CLEANING	Service Industries Incidental to Air Transport	506	RIDEAU	STREET		
__679AXM	042120011	14247	UNI-PRO PHOTOGRAPHIC SERVICES ART STUDIO	Photographers	512	RIDEAU	STREET		
__679AYE	042080087	10182	OTTAWA-CARLTON, REGIONAL MUNICIPALITY OF	Protective Services	50	RANGE	ROAD	WATT'S CREEK SEWAGE TREATMENT PLANT	

HLUI2008ID	PIN	ACTIVITY_I	COMPANY_NA	FACILITY_T	STREET_NUM	STREET_NAM	STREET_SUF	COMMENTS1	COMMENTS2
__679BAL	042130061	11346	PUBLIC WORKS AND GOVERNMENT SERVICES CANADA	Other Storage and Warehousing Industries	0	ST. ANDREW	STREET	SIR CHARLES TUPPER BUILDING	
__679BAL	042130061	11346	Public Works Department	Other Storage and Warehousing Industries	0	ST. ANDREW	STREET	SIR CHARLES TUPPER BUILDING	
__679BAL	042130061	11783	Lauzon Service Centre	Motor Vehicle Repair Shops	479	ST. PATRICK	STREET	M. 1922 - residences FIP1948 - lists as tenemants	
__679BAL	042130061	11783	Rouleau Service Centre	Motor Vehicle Repair Shops	479	ST. PATRICK	STREET	M. 1922 - residences FIP1948 - lists as tenemants	
__679BAL	042130061	15047	Javel Water Bottling	Bottling of cleaning compounds	100			Property located between Rideau River and St. Patrick St. (on the north and South) located between Rinard and Notre Dame on the e.ast and west Potentially located on St. Andrew St.?	
__679BAL	042130061	2849	CEP - DE LA SALLE	Elementary and Secondary Education	501	OLD ST. PATRICK	STREET	ECOLE SECONDAIRE DE LA SALLE	
__679BAL	042130061	2849	ECOLE SECONDARY PUBLI DE LA SALLE	Elementary and Secondary Education	501	OLD ST. PATRICK	STREET	ECOLE SECONDAIRE DE LA SALLE	
__679BAL	042130061	3350	Commercial Cleaner Ltd.	Laundries and Cleaners	529	ST. PATRICK	STREET		
__679BAL	042130061	3350	Commercial Cleaners	Laundries and Cleaners	529	ST. PATRICK	STREET		
__679BAL	042130061	4338	David Edmond	Exterior Close In Work	487	ST. PATRICK	STREET		
__679BAL	042130061	4361	Daylight Oil Burner	Heating Equipment Industry	537	ST. PATRICK	STREET		
__679BAL	042130061	557	Adelard Goulet	Other Non Metallic Mineral Products Industries	40	ST. JOSEPH	STREET	This portion of St. Joseph St. is now closed off.	
__679BAL	042130061	6552	H. Pion & Sons	Plumbing, Heating and Air Conditioning, Mechanical Work	39	FRIEL	STREET	M. 1922 _ lists residence @ # 31 & Co. @ # 43 FIP1948 - lists as residence	
__679BAL	042130061	6552	L. Pion & Brothers	Plumbing, Heating and Air Conditioning, Mechanical Work	39	FRIEL	STREET	M. 1922 _ lists residence @ # 31 & Co. @ # 43 FIP1948 - lists as residence	
__679BDR	042130001	10739	Pennock's Garage	Motor Vehicle Repair Shops	5	NELSON	STREET	Musty's Delivery in 1950	
__679BDR	042130001	12364	Samuel Lampert and Co. Ltd.	Machine Shop Industry	0	ROSE	STREET	30 to 50	
__679BDR	042130001	2100	Buckingham Dairy	Dairy Products Industries	0	ST. PATRICK	STREET		435-437
__679BDR	042130001	3340	Comet Press Printing	Commercial Printing Industries	5	NELSON	STREET	FIP1922 - residence M. 1922 - Fortunat Gareau, blacksmith	
__679BDR	042130001	3340	Nelson Printers	Commercial Printing Industries	5	NELSON	STREET	FIP1922 - residence M. 1922 - Fortunat Gareau, blacksmith	
__679BDR	042130001	3352	Commercial Cleaners and Dyers	Laundries and Cleaners	460	ST. PATRICK	STREET		
__679BDR	042130001	7462	Joseph Weinstein Butcher	Meat and Poultry Products Industries	431	ST. PATRICK	STREET	FIP1922 - vacant lot M. 1956, FIP1956 - lists butcher shop only	

HLUI2008ID	PIN	ACTIVITY_I	COMPANY_NA	FACILITY_T	STREET_NUM	STREET_NAM	STREET_SUF	COMMENTS1	COMMENTS2
__679BJ6	042170009	10114	OTTAWA-CARLETON CATHOLIC SCHOOL BOARD	Elementary and Secondary Education	140	CUMBERLAND	STREET		
__679BK5	042070400	10684	PUBLIC WORKS AND GOVERNMENT SERVICES CANADA	General Administrative Services	1200	VANIER	PARKWAY		FEDERAL STUDY CENTRE
__679BK5	042070400	5342	FED-RCMP	Protective Services	1200	VANIER	PARKWAY		
__679BK5	042070400	5342	FORENSIC LABORATORY SERVICES	Protective Services	1200	VANIER	PARKWAY		
__679BU3	042120021	2487	CANADIAN GOVERNMENT EXECUTIVE MAGAZINE	Combined Publishing and Printing Industries	505	BESSERER	STREET		
__679BVU	042120018	1657	BIO-TEST LABORATORY INC.	Medical and Other Health Laboratories	168	CHARLOTTE	STREET		
__679BVV	042130186	13290	SUBURBAN DRYWALL	Exterior Close In Work	151	CHAPEL	STREET		
__679BZ6	042130064	1659	BIO-TEST RADIOLOGY SERVICES	Medical and Other Health Laboratories	500	OLD ST. PATRICK	STREET		
__679BZ6	042130064	1659	CENTRE MEDICAL STE-ANNE (1992) INC.	Medical and Other Health Laboratories	500	OLD ST. PATRICK	STREET		
__679C1F	042120103	12304	Robillard, H and Son	Ornamental and Architectural Metal Products Industries	383	DALY	AVENUE		
__679CM5	042130006	12441	Shell Service Station	Gasoline Service Stations	495	ST. PATRICK	STREET		
__679CND	042180140	2304	Bourque Brothers Ltd.	Lumber and Building Materials, Wholesale	333	ST. ANDREW	STREET	FIP1901, FIP1922 - vacant lot FIP1948 - lists as E.A. Bourque Ltd. & Co. also is ice dealer, shows large coal storage building & coal shed	
__679CND	042180140	3453	Charlebois Ice Supply	Other Manufactured Products Industries	333	ST. ANDREW	STREET	FIP1901, FIP1922 - vacant lot FIP1912 - 333 vacant lot & 335 - 341 as Charlebois Ice Supply M. 1922 - vacant lot & 335 as Twin City Ice Co. Ltd. FIP1948 - lists E.A. Bourque Ltd. & Co. (coal, wood & tinsmith) also as ice dealer	
__679FDB	042360062	10776	Percy Carriere	Motor Vehicle Repair Shops	565	RIDEAU	STREET	FIP1901, FIP1922 - residence M. 1922 - lists as Lady Stanley Institute Annes	
__679FEV	042130195	10213	Ottawa Electric Railway Co.	Public Passenger Transit Systems Industries	0	COBOURG	STREET	FIP1901 - vacant lot M. 1922 - lists as Ottawa Electric Railway Car Barn M. 1948 - lists as Ottawa Electric Railway Co. FIP1922, FIP1948 - no tank	106 - 110
__679FEV	042130195	10213	Ottawa Street Railway	Public Passenger Transit Systems Industries	0	COBOURG	STREET	FIP1901 - vacant lot M. 1922 - lists as Ottawa Electric Railway Car Barn M. 1948 - lists as Ottawa Electric Railway Co. FIP1922, FIP1948 - no tank	106 - 110
__679FEV	042130195	10213	Ottawa Transportation Commission	Public Passenger Transit Systems Industries	0	COBOURG	STREET	FIP1901 - vacant lot M. 1922 - lists as Ottawa Electric Railway Car Barn M. 1948 - lists as Ottawa Electric Railway Co. FIP1922, FIP1948 - no tank	106 - 110

HLUI2008ID	PIN	ACTIVITY_I	COMPANY_NA	FACILITY_T	STREET_NUM	STREET_NAM	STREET_SUF	COMMENTS1	COMMENTS2
__679FGE	042130220	6006	Frank Low	Machine Shop Industry	509	RIDEAU	STREET	The business is at the rear of the property & faced 138 Cobourg. M.1922 lists Frank Low (machine shop) & Ottawa Vacuum Cleaner Mfg. Co.	
__679FGE	042130220	9905	Ottawa Vacuum Cleaning Manufacturing Company Ltd.	Small Electrical Appliance Industry	509	RIDEAU	STREET	This vacuum manufacturing company extends to the rear of the property. M.1922 lists Frank Low (machine shop) at this location.	
__679FKZ	042070014	8795	Monson's Cleaners	Laundries and Cleaners	167	CHARLOTTE	STREET		
__679FKZ	042070014	9555	NATIONAL PLUMBING	Highway and Heavy Construction	588	RIDEAU	STREET		
__679G2L	042130110	2626	CECLF - SAINTE-ANNE	Elementary and Secondary Education	340	YORK	STREET	SAINTE-ANNE	
__679G2L	042130110	7442	Joseph Dolan and Sons Ltd.	Lumber and Building Materials, Wholesale	135	CHAPEL	STREET	Coal and Wood Large Property 3/4 of a block in depth The yard runs behind #137-143 Chapel St. It also runs behind #134-135 Augusta and 461-473 Rideau St.	
__679G4T	042180010	12819	St. Jacques Freres Roofing and Sheet Metal	Exterior Close In Work	23	MCGEE SIDE	STREET		
__679G4T	042180010	2537	C. Racicot	Motor Vehicle Repair Shops	292	GUIGUES	AVENUE	1920 - just painter listed 1930 - also listed as residence	
__679G4T	042180010	2537	Hector Ferland Garage	Motor Vehicle Repair Shops	292	GUIGUES	AVENUE	1920 - just painter listed 1930 - also listed as residence	
__679G4T	042180010	2537	Lavigne Brothers Ltd.	Motor Vehicle Repair Shops	292	GUIGUES	AVENUE	1920 - just painter listed 1930 - also listed as residence	
__679G4T	042180010	2537	Leduc Automatic Transmission	Motor Vehicle Repair Shops	292	GUIGUES	AVENUE	1920 - just painter listed 1930 - also listed as residence	
__679G4T	042180010	4446	Dominion Bakery	Bakery Products Industries	419	ST. PATRICK	STREET	Grocer at this location in 1950	
__679G4T	042180010	5218	Empire Brass Manufacturing Co. Ltd.	Other Metal Fabricating Industries	0	ST. PATRICK	STREET	M. 1922 - lists #363 as a butcher, #365 as a plumber, #367 - 377 as J. Berthiaume Garage M. 1948 - list #363-365 as St. Patrick, Thos. Robertson plumber supplies, #367-377 St. Patrick, Double A Supply Co., auto supplies	363 to 377
__679G4T	042180010	7275	Imperial Garage	Motor Vehicle Repair Shops	0	ST. PATRICK	STREET	1920 - lists King Edward Garage @ 367 1940 - service station - Parfield Oils Ltd. 1950 - under construction	367 to 377
__679G4T	042180010	7275	J. Berthiaume Garage	Motor Vehicle Repair Shops	0	ST. PATRICK	STREET	1920 - lists King Edward Garage @ 367 1940 - service station - Parfield Oils Ltd. 1950 - under construction	367 to 377
__679G4T	042180010	7275	King Edward Garage	Motor Vehicle Repair Shops	0	ST. PATRICK	STREET	1920 - lists King Edward Garage @ 367 1940 - service station - Parfield Oils Ltd. 1950 - under construction	367 to 377
__679G4T	042180010	7275	Parfield Oils Ltd.	Motor Vehicle Repair Shops	0	ST. PATRICK	STREET	1920 - lists King Edward Garage @ 367 1940 - service station - Parfield Oils Ltd. 1950 - under construction	367 to 377
__679G4T	042180010	7444	Joseph Guerard	Paint and Varnish Industry	286	GUIGUES	AVENUE	Residence @ 288 Church 1920 - changed to Guiges St. - Chruch St. renamed Guigues St. after ca. 1920.	
__679G7Y	042130001	10739	Pennock's Garage	Motor Vehicle Repair Shops	5	NELSON	STREET	Musty's Delivery in 1950	
__679G7Y	042130001	12364	Samuel Lampert and Co. Ltd.	Machine Shop Industry	0	ROSE	STREET	30 to 50	

HLUI2008ID	PIN	ACTIVITY_I	COMPANY_NA	FACILITY_T	STREET_NUM	STREET_NAM	STREET_SUF	COMMENTS1	COMMENTS2
__679G7Y	042130001	2100	Buckingham Dairy	Dairy Products Industries	0	ST. PATRICK	STREET		435-437
__679G7Y	042130001	3340	Comet Press Printing	Commercial Printing Industries	5	NELSON	STREET	FIP1922 - residence M. 1922 - Fortunat Gareau, blacksmith	
__679G7Y	042130001	3340	Nelson Printers	Commercial Printing Industries	5	NELSON	STREET	FIP1922 - residence M. 1922 - Fortunat Gareau, blacksmith	
__679G7Y	042130001	3352	Commercial Cleaners and Dyers	Laundries and Cleaners	460	ST. PATRICK	STREET		
__679G7Y	042130001	7462	Joseph Weinstein Butcher	Meat and Poultry Products Industries	431	ST. PATRICK	STREET	FIP1922 - vacant lot M. 1956, FIP1956 - lists butcher shop only	
__679G95	042130057	10418	Oscar Leclair Ltd.	Meat and Poultry Products Industries	0	CLARENCE	STREET	Storage Facilities, Ice houses, Packing house, Smoke house, Slaughter house.	358 to 364
__679G95	042130057	3362	Commercial Tiresale Co./Dunlop Canada Ltd.	Motor Vehicle Repair Shops	360	CLARENCE	STREET	Manufacture & Retail Tires & Rubber Products	
__679G95	042130057	7932	Lacroix Jos Furniture Manufacturer	Household Furniture Industries	367	CLARENCE	STREET		
__679G95	042130057	7932	Lacroix Cabinet Maker	Household Furniture Industries	367	CLARENCE	STREET		
__679G99	042160137	10917	Ger-Ray's Garage	Other Storage and Warehousing Industries	80	DALHOUSIE	STREET	FIP1901, FIP1912, FIP1922 - no listing M. 1955 - lists Parfield Oils Ltd. Warehouse	
__679G99	042160137	10917	Parfield Oil Ltd.	Other Storage and Warehousing Industries	80	DALHOUSIE	STREET	FIP1901, FIP1912, FIP1922 - no listing M. 1955 - lists Parfield Oils Ltd. Warehouse	
__679G99	042160137	2082	Brantford Coach and Body Ltd.	Other Transportation Equipment Industries	81	BOTELER	STREET	1930 - carriage & body builder	
__679G99	042160137	2082	Canada Carriage & Body Co. Ltd.	Other Transportation Equipment Industries	81	BOTELER	STREET	1930 - carriage & body builder	
__679G99	042160137	4318	Domestic Service Station D.	Gasoline Service Stations	0	SUSSEX	DRIVE	1940 - there is a gas station at 215 Sussex, just before CPR freight yards	
__679G99	042160137	6404	Hare Equipment Limited	Other Storage and Warehousing Industries	89	BOTELER	STREET		
__679G99	042160137	6993	Hygrade Garage	Dairy Products Industries	222	REDPATH	STREET	1920, 1940, 1950 - #'s not listed as such	Unit 22
__679G99	042160137	6993	Moyneur Co-operative Creamery	Dairy Products Industries	222	REDPATH	STREET	1920, 1940, 1950 - #'s not listed as such	Unit 22
__679GF9	042360365	2417	Catholic Contagious Hospital	Hospitals	0	COBOURG	STREET	1910 - not listed here 1920+ - MacDonald Garden Park	
__679GGV	042180176	1858	Beatie's Imperial Service Station	Gasoline Service Stations	0	SUSSEX	DRIVE	In 1930 there is an oil service station located at #175 Sussex, which falls just before Baird St.	
__679GGV	042180176	1862	Beattie's Imperial Service Station	Motor Vehicle Repair Shops	30	REDPATH	STREET		
__679GGV	042180176	1862	Bert Steele Service Station	Motor Vehicle Repair Shops	30	REDPATH	STREET		
__679GGV	042180176	1862	Imperial Oil Service Station	Motor Vehicle Repair Shops	30	REDPATH	STREET		
__679GGV	042180176	1862	Scott Garage	Motor Vehicle Repair Shops	30	REDPATH	STREET		

HLUI2008ID	PIN	ACTIVITY_I	COMPANY_NA	FACILITY_T	STREET_NUM	STREET_NAM	STREET_SUF	COMMENTS1	COMMENTS2
__679GGV	042180176	4449	Dominion Building Materials Garage	Motor Vehicles, Wholesale	30	REDPATH	STREET		
__679GGV	042180176	4449	Ontario Ready-Mix Concrete Ltd.	Motor Vehicles, Wholesale	30	REDPATH	STREET		
__679GGV	042180176	5262	EPRINT IT	Commercial Printing Industries	125	SUSSEX	DRIVE	Bg227	
__679GGV	042180176	5318	FED-PUBLIC WORKS	General Administrative Services	125	SUSSEX	DRIVE	SIR CHARLES TUPPER BUILDING	
__679GGV	042180176	5827	Gatineau Company	Lumber and Building Materials, Wholesale	0	SUSSEX	DRIVE	Blacksmith shop also noted onsite in FIP1901.	
__679GGV	042180176	5827	W.C. Edwards & Company Ltd.	Lumber and Building Materials, Wholesale	0	SUSSEX	DRIVE	Blacksmith shop also noted onsite in FIP1901.	
__679GKJ	042180177	10336	Peter's Garage	Motor Vehicle Repair Shops	169	BOTELER	STREET	Unsure about address	
__679GM8	042160136	10444	Dominion Building Material Ltd	Lumber and Building Materials, Wholesale	51	MCTAGGART	STREET		
__679GM8	042160136	10444	Ontario Ready Mix Concrete Ltd	Lumber and Building Materials, Wholesale	51	MCTAGGART	STREET		
__679GM8	042160136	13946	Unnamed Storage Facility	Gasoline Service Stations	225	SUSSEX	DRIVE		
__679GM8	042160136	2832	Tudhope Carriage Company	Other Transportation Equipment Industries	59	BOTELER	STREET		
__679GM8	042160136	7558	Kirby Brothers Supply Co. Ltd.	Exterior Close In Work	215	SUSSEX	DRIVE	Name taken from M.1921. M.1921 lists as 213 Sussex.	
__679GM8	042160136	7558	Kirby T. Sydney & Co. Ltd. Contractors	Exterior Close In Work	215	SUSSEX	DRIVE	Name taken from M.1921. M.1921 lists as 213 Sussex.	
__679GM8	042160136	7942	Lake of the Woods Milling Co. Ltd.	Flour, Prepared Cereal Food and Feed Industries	223	SUSSEX	DRIVE		
__679GM8	042160136	9052	McColl Bros. Ltd.	Petroleum Products, Wholesale	67	BOTELER	STREET		
__679GM8	042160136	9621	Ogilvie Flour Mills	Flour, Prepared Cereal Food and Feed Industries	0	BOTELER	STREET	Company listed at #27 Boteler St. in 1950	27 to 35
__679GM8	042160136	9621	Ogilvie Flour Mills Company Ltd.	Flour, Prepared Cereal Food and Feed Industries	0	BOTELER	STREET	Company listed at #27 Boteler St. in 1950	27 to 35
__679GRZ	042130082	10464	Ottawa Automobile Spring Works	Motor Vehicle Parts and Accessories Industries	33	AUGUSTA	STREET	A blacksmith was located here in 1930. This section of Augusta St. is now called Petro St.	
__679GRZ	042130082	8573	Lowertown Service Garage	Motor Vehicle Repair Shops	33	AUGUSTA	STREET	There was a blacksmith located here in 1930 and a spring manufacturer here in 1940. This section of August St. is presently Petro St.	
__679GUG	042800061	13365	THE OTTAWA RIVERBOAT CO. LIMITED	Water Transport Industries	10	LADY GREY	DRIVE		
__679GUG	042800061	13365	The Ottawa Riverboat Co. Ltd.	Water Transport Industries	10	LADY GREY	DRIVE		