

September 17, 2018

Project No. 18108893

Tanya Rowe

Riverside South Development Corporation
2193 Arch Street
Ottawa, Ontario
K1G 2H5

**PHASE I ENVIRONMENTAL SITE ASSESSMENT UPDATE
980 EARL ARMSTRONG ROAD (BLOCK 221 OF REGISTERED PLAN 4M-1573)
OTTAWA, ONTARIO**

Dear Ms. Rowe

Further to the request from Riverside South Development Corporation ("RDSC" or the "Client"), Golder Associates Ltd. (Golder) is pleased to provide this Phase I Environmental Site Assessment (ESA) Update for Block 221 of Registered Plan 4M-1573, part of the municipal address 980 Earl Armstrong Road in Ottawa, Ontario (the "Site"). A Phase I ESA to the Ontario Regulation 153/04 standard (O.Reg. 153/04) was conducted at the Site in August 2015 by Golder ("2015 Phase I ESA"). The 2015 Phase I ESA was conducted for the entire 980 Earl Armstrong Road property parcel. Block 221 is in the north-central portion of the original 980 Earl Armstrong Road Property Parcel. The Site boundaries for this Phase I ESA Update can be found in the attached plan of survey (Attachment A). The Site currently consists of vacant and undeveloped land.

Activities carried out in association with this Phase I ESA Update consisted of the following:

- A review of the previous Phase I ESA completed in 2015;
- A Site visit in order to update the Site conditions since the last report in 2015;
- Completion of this Phase I ESA Update letter memo.

The purpose of the work is to provide an update of the O.Reg 153/04 Phase I ESA conducted previously at the Site, in support of the City of Ottawa Site Plan Application process. This memo should be read in conjunction with the 2015 Phase I ESA report.

OVERVIEW OF THE 2015 PHASE I ESA

A Phase I ESA was conducted at the Site in August 2015 by Golder for the entire 980 Earl Armstrong Road property parcel (the "Parcel"). The findings and recommendations of the 2015 Phase I ESA (Golder Project #14-1122-0011/2000) were documented in a report entitled "*Phase I Environmental Site Assessment, 980 Earl Armstrong Road, Ottawa, Ontario*" prepared by Golder for Riverside South Development Corporation and dated August 2015.

At the time of the site reconnaissance, conducted January 31, 2014, the Parcel consisted of 27.84 hectares of vacant land. No aboveground or underground storage tanks were reported or observed on the Parcel. The topography of the Parcel and surrounding areas was generally flat. Surface water runoff was anticipated to flow towards ditches along Earl Armstrong Road and Spratt Road.

Based on aerial photography, the Parcel historically included a farm house until sometime between 1973 and 1985, however the farm house was not within the current Site (Block 221) boundaries. Surficial debris was noted off-site of the Parcel during the previous Phase I ESA. The surrounding properties primarily included a fire hall, residential properties and forest to the north; vacant land, forest, or farmland to the east and south; and various stages of residential development to the west.

Based on the information obtained and reviewed as part of the 2015 Phase I ESA, two potentially contaminating activities (PCAs) were identified: 1) the historic farm house on Parcel with a potential AST; and 2) the off-site presence of surficial debris in the study area. These PCAs were previously addressed by 1) a 2009 shallow test pit investigation, conducted by Golder, in which shallow test pits were excavated to investigate the potential impacts of a possible AST located in the area of the historic farm house; and 2) a 2009 documentation of removal of surface debris, conducted by Golder, in which Golder documented the removal of debris from the study area. Thus no on-site or off-site PCAs were identified that may have resulted in areas of potential environmental concern (APECs) for the Parcel. It should also be noted that the area of former farmhouse is not located on the Site of the current Phase I ESA.

SEPTEMBER 2018 SITE RECONNAISSANCE

Mr. James Doyle, Environmental Consultant with Golder, completed the Site visit on September 12, 2018 and subsequently interviewed Ms. Tanya Rowe of RSDC (the "Site representative"). The Site visit consisted of a visual assessment of the Site by walking around the Site; as well as viewing of adjacent properties from publicly accessible areas (refer to photographs in Attachment B). Noteworthy findings from the Site visit and interview, as well as noted changes from the Site condition at the time of the 2015 Phase I ESA are discussed below:

- At the time of the Site visit, weather conditions were sunny and approximately 25°C. No evidence of stains, sheens, or stressed vegetation was observed by Golder at the Site.
- The Site was vacant and remained undeveloped, as was reported in the 2015 Phase I ESA.
- The Site representative was not aware of any changes on the Site since the 2015 Phase I ESA.
- A stockpile of soil was located in the southern portion of the Site (see Attachment B for Site photographs). The Site representative indicated that it was soil excavated for residential foundations from the adjacent properties (which were part of the original 980 Earl Armstrong Road Parcel), currently under construction. As such, the stockpile is from a known source and is not considered a potentially contaminating activity.
- The surrounding properties remain largely unchanged from the 2015 Phase I ESA:
 - North: Earl Armstrong Road, followed by residential properties.
 - East: Residential properties, at various stages of development.
 - South: Residential properties, at various stages of development.
 - West: Ralph Hennessy Avenue, followed by vacant land and residential properties, at various stages of development, to the southwest.

SUMMARY OF FINDINGS

Issues of potential environmental concern were divided into issues related to subsurface impacts on *soil and/or groundwater* and *building related issues*. Relevant information regarding the environmental condition of the Site, based on the Phase I ESA Update, is summarized below:

- No issues of potential environmental concern related to *soil and/or groundwater* were identified at the Site based on the September 12, 2018 Site reconnaissance.
- No issues of potential environmental concern related to the Site Buildings were identified based on the September 12, 2018 Site reconnaissance.

This Phase I ESA Update concludes that no changes affecting the environmental conditions of the Site have taken place since the last Phase I ESA in August 2015.

STUDY LIMITATIONS

This report was prepared for the exclusive use of Riverside South Development Corporation and is intended to provide an assessment of the current environmental conditions for the property described as Block 221 of Registered Plan 4M-1573, part of the municipal address 980 Earl Armstrong Road (see Attachment A). Any use which another party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of the other parties. Should additional parties require reliance on this report, written authorization from Golder Associates Ltd. will be required. No assurance is made regarding the accuracy and completeness of the data obtained from other parties. Golder Associates Ltd. disclaims responsibility for consequential financial effects on transactions or property values, or requirements for follow-up actions and costs.

The report is based on data and information collected during the Phase I ESA Update visit of the Site conducted by Golder Associates Ltd. It is based solely on conditions of the Site encountered at the time of the Site visit on September 12, 2018, supplemented by a review of historical information and data obtained by Golder Associates Ltd. as described in this report. No soil, water, liquid, gas, mould, product or chemical sampling and analytical testing at or in the vicinity of the Site were conducted as part of this assessment.

In evaluating the Site, Golder Associates Ltd. has relied in good faith on information provided by others noted in this report. We have assumed that the information provided is factual and accurate. We accept no responsibility for any deficiency, misstatement or inaccuracy contained in this report as a result of omissions, misinterpretations or fraudulent acts of persons contacted.

If new information is discovered during future work, including but not limited to, Site assessment, excavations, borings or other studies, Golder Associates Ltd. should be requested to re-evaluate the conclusions presented in this report and to provide amendments as required.

CLOSURE

We trust the above meets with your current requirements. Should you have any comments, questions, or require additional information, please do not hesitate to contact this office.

Yours truly,

Golder Associates Ltd.



James Doyle, B.Eng., M.A.Sc.
Environmental Consultant



Don Plenderleith, P.Eng., QP_{ESA}
Principal - Senior Environmental Engineer

JD/DHP/hw

[https://golderassociates.sharepoint.com/sites/32838g/deliverables/phase i esa update 980 earl armstrong - september 2018.docx](https://golderassociates.sharepoint.com/sites/32838g/deliverables/phase%20i%20esa%20update%20980%20earl%20armstrong%20-%20september%202018.docx)

Attachments: Figure 1 – Phase I Update Property Boundary and Study Area
Attachment A – Plan of Survey
Attachment B – Site Photographs



LEGEND

ROADWAY

PHASE I STUDY AREA

PHASE I SITE

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

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

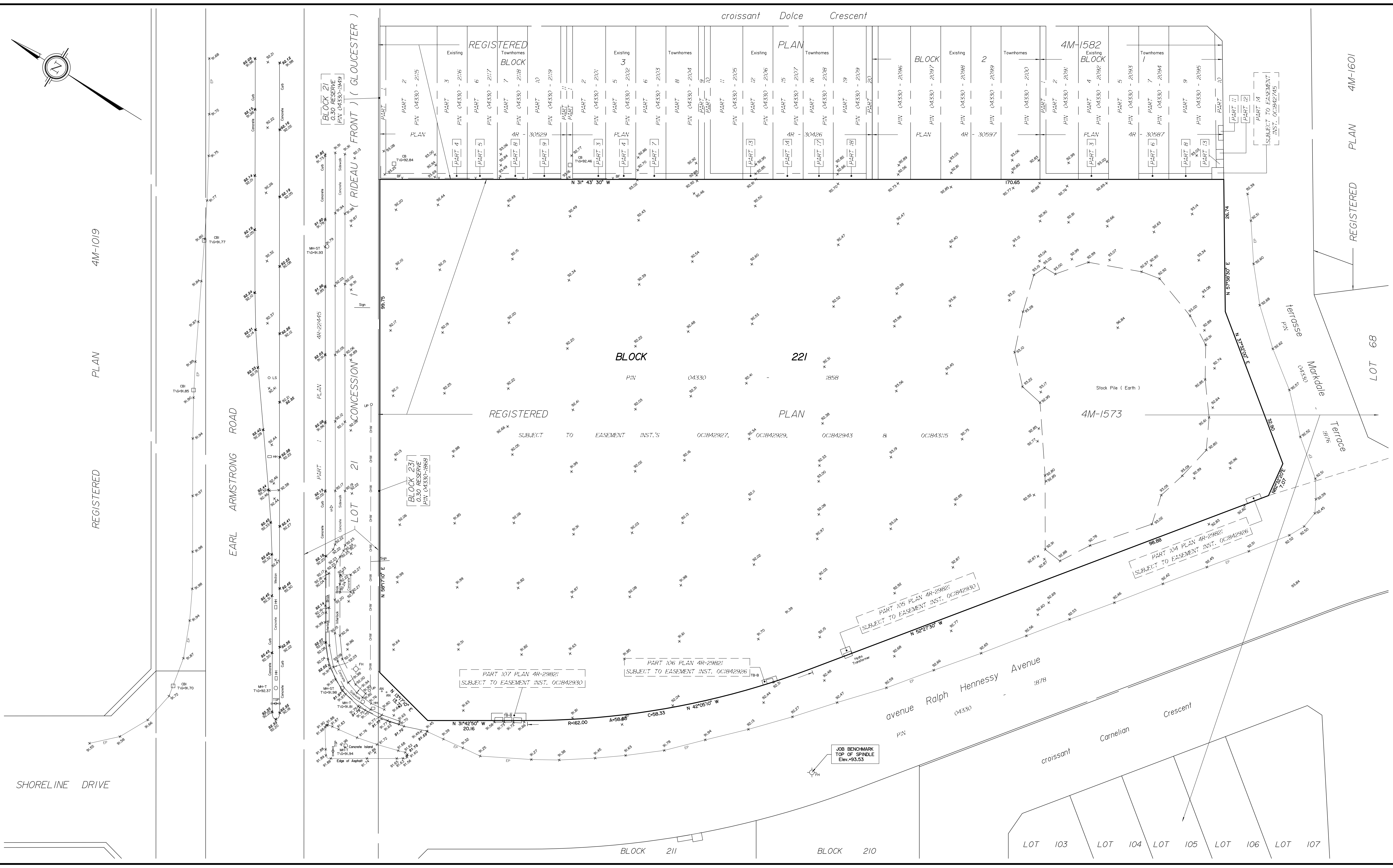
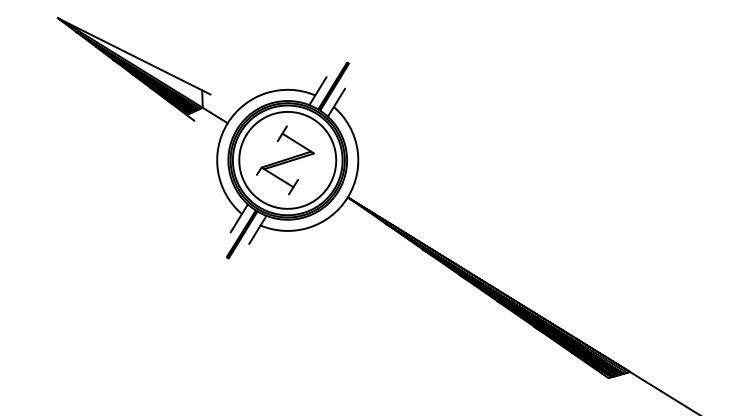
2. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83, COORDINATE SYSTEM: MTM ZONE 9, VERTICAL DATUM: CGVD28



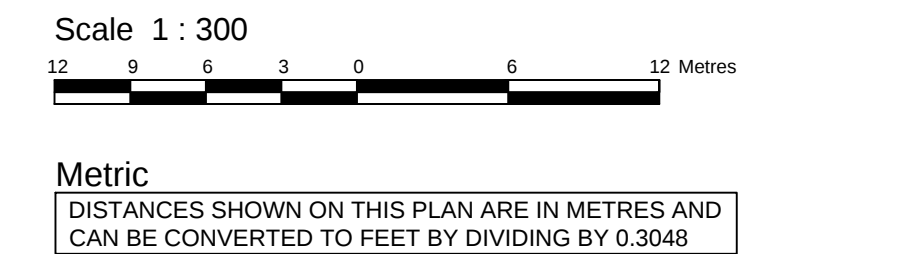
CLIENT			
RIVERSIDE SOUTH DEVELOPMENT CORPORATION			
PROJECT			
PHASE I ESA - RSDC PHASE 8 LANDS			
980 EARL ARMSTRONG ROAD, OTTAWA, ONTARIO			
TITLE			
PHASE I UPDATE PROPERTY BOUNDARY AND STUDY AREA			
CONSULTANT			
YYYY-MM-DD		2018-09-12	
DESIGNED		---	
PREPARED		JEM	
REVIEWED		JTD	
APPROVED		DHP	
PROJECT NO.		CONTROL	REV.
18108893		0001	0
FIGURE			1

ATTACHMENT A

Plan of Survey



TOPOGRAPHICAL PLAN OF
BLOCK 221
REGISTERED PLAN 4M-1573
CITY OF OTTAWA
Prepared by Annis, O'Sullivan, Vollebakk Ltd.
Field Work Completed 15 August 2018



Notes & Legend

○ TH	Denotes	Fire Hydrant
○ MH-ST	-	Maintenance Hole (Storm Sewer)
□ CB	-	Catch Basin
□ CBI	-	Catch Basin Inlet
□ HH	-	Handhole
□ TB-B	-	Bell Terminal Box
□ TSP	-	Traffic Signal Post
△ S	-	Sign
○ UP	-	Utility Pole
• AN	-	Anchor
○ LS	-	Light Standard
+ 65.00	-	Location of Elevations
+ 65.00	-	Top of Concrete Curb Elevation
C/L	-	Centreline
EP	-	Edge of Pavement
— OHW	-	Overhead Wires
—	-	Property Line

SITE AREA = 16 516.0 m²

BOUNDARY INFORMATION COMPILED FROM REGISTERED
PLAN 4M-1573.

ELEVATION NOTES

1. Elevations shown are geodetic and are referred to the CGVD28 geodetic datum.
2. It is the responsibility of the user of this information to verify that the job benchmark
has not been altered or disturbed and that it's relative elevation and description
agrees with the information shown on this drawing.

UTILITY NOTES

1. This drawing cannot be accepted as acknowledging all of the utilities and it will
be the responsibility of the user to contact the respective utility authorities for
confirmation.
2. Only visible surface utilities were located.
3. A field location of underground plant by the pertinent utility authority is
mandatory before any work involving breaking ground, probing, excavating etc.

ATTACHMENT B

Site Photographs



Photo 1: View of northern portion of Site, facing east from Ralph Hennessy Avenue.



Photo 2: View of southern portion of Site, facing south from center of Site.



Photo 3: View of southern end of Site and residential south of Site, south of roadway.



Photo 4: View of disturbed soil on Site, facing west.



Photo 5: Intersection of Earl Armstrong Road and Ralph Hennessy Avenue, northwest of Site, facing northwest.



Photo 6: View of residential development east of Site, facing southeast.



Photo 7: View of northern portion of Site, facing southwest.



Photo 8: View of southwest corner of Site, some construction materials present on Site, facing southwest.