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**TTC McNicoll Bus Garage – Transit Project Assessment Process  
Scarborough, ON**

**Tree Survey and Vimy Oak Investigation**

**October 2014  
SLR Project No.: 209.40192.00000**



**TREE SURVEY AND VIMY OAK INVESTIGATION**

**TTC MCNICOLL BUS GARAGE**

**SLR Project No.: 209.40192.00000**

Prepared by  
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for

URS CANADA INC. – CONSULTING AND ENGINEERS & GEOSCIENTISTS  
4<sup>TH</sup> FLOOR, 30 LEEK CRESCENT  
RICHMOND HILL, ON, L4B 4N4

October 2014

Prepared by:



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## 1.0 INTRODUCTION

URS Canada Inc. retained SLR Consulting Canada to conduct a Tree Survey and English / Vimy Oak investigation at the proposed TTC McNicoll Bus Garage site in Scarborough, Ontario (**Figure 1**). The proposed activity is to build a garage to store new standard and articulated TTC buses, along with some of the current in service fleet, and for general maintenance and repair on these buses. SLR previously completed a Natural Heritage Characterization in October 2013 for the proposed bus garage site.

The City of Toronto enforces a Private Tree By-law (Municipal Code Chapter 813, Trees, Article III) that aims to preserve significant trees on private property that are 30 cm or more in diameter at 1.4 m above ground level (Diameter Breast Height – DBH). Permitting and an accompanying Arborist Report may be required in the future, but are not part of this report. The purpose of this report is to identify trees on the proposed bus garage site.

There are reports of English / Vimy Oaks planted on the adjacent property to the north of the proposed bus garage site. The English / Vimy Oaks were planted as a tribute to Canadian soldiers that fought at Vimy Ridge in World War I. As these trees have a unique cultural value, special attention was paid to them on the proposed bus garage site and adjacent properties.

## 2.0 METHODOLOGY

On October 23, 2014, Sam Gildiner, a Registered Professional Forester (R.P.F.) and International Society of Arboriculture (I.S.A) Arborist conducted the Tree Survey. The Private Tree By-Law stipulates that trees over 30 cm on the proposed bus garage site (Category 1) and within 6 m of the property boundary (Category 2) be assessed. Trees over 20 cm were also assessed as a best practice, although these individuals are not subject to the Private Tree By-law.

For each surveyed tree 20 cm and over, the following data were collected:

- Species
- Diameter at Breast Height (DBH)
- Health (Good, Fair, Poor)

All surveyed trees were tagged with a metal tag with a unique identifying number. Multi-stemmed trees were identified as such if the stem split below 1.4 m. Diameter of each stem of multi-stemmed trees over 20 cm was measured. If the stems were below 20 cm, they were not measured. Trees with a split above 1.4 m were identified as a single stem. Dead trees were not surveyed.

## 3.0 RESULTS

There are 35 trees over 30 cm in diameter on the proposed bus garage site that are subject to the Tree By-law (**Table 1** and **Figure 1**). Of these trees, the majority are in good health. There are 66 trees between 20 and 20.9 cm that are not subject to the Tree By-law. Please note that Ecological Land Classification (ELC) polygons on **Figure 1** are described in the Natural Heritage Characterization submitted under separate cover in October 2013 and are shown for ecological context in this report.

There is one Vimy / English Oak on the proposed bus garage site. It is located on the southern edge of a small forested area located along the western property boundary. It is 29 cm in diameter, and is in good health. Half of the crown is in full sunlight in an open area and the rest of the crown is within the forested area. Three Vimy / English Oaks were identified on the property to the north and are shown on **Figure 1**. There are likely more on the northern property, but it was not investigated in detail.

Table - 1: Tree Survey Results.

Tag Number	Common Name	Scientific Name	DBH (cm)	Northing	Easting	>30 cm (Subject to Tree By-law)	20-29.9 cm (Not Subject to Tree By-law)	Health	Notes	TPZ Zone Radius (m)	Category
506	Sugar Maple	<i>Acer saccharum</i>	32	4852514	636765	Y		Good		2.4	1
511	Sugar Maple	<i>Acer saccharum</i>	38	4852569	636743	Y		Good		2.4	1
512	Basswood	<i>Tilia americana</i>	38	4852580	636736	Y		Good	Multi Stemmed	2.4	2
514	Sugar Maple	<i>Acer saccharum</i>	40	4852580	636736	Y		Fair		2.4	5
601	Norway Spruce	<i>Picea abies</i>	38.1	4852679	636498	Y		Good		2.4	1
603	Freeman Maple	<i>Acer x freemanii</i>	46.7	4852688	636502	Y		Fair	Three stems split just above DBH	3	1
605	Freeman Maple	<i>Acer x freemanii</i>	41.9	4852690	636511	Y		Good		3	1
606	Freeman Maple	<i>Acer x freemanii</i>	31.3	4852688	636516	Y		Fair		2.4	1
607	Norway Spruce	<i>Picea abies</i>	43.8	4852688	636516	Y		Good		3	1
608	White Ash	<i>Fraxinus americana</i>	44	4852704	636507	Y		Poor - Dying		3	1
610	Black Walnut	<i>Juglans nigra</i>	44	4852692	636513	Y		Fair		3	1
614	Eastern White Cedar	<i>Thuja occidentalis</i>	33.2, 24.5	4852694	636522	Y		Poor	Multi Stemmed	2.4	1
619	Eastern White Cedar	<i>Thuja occidentalis</i>	31.5	4852690	636529	Y		Poor to Fair		2.4	1
625	Crack Willow	<i>Salix x rubens</i>	70	4852637	636507	Y		Good		4.2	5
641	Basswood	<i>Tilia americana</i>	76.4, 65	4852710	636710	Y		Good	Multi Stemmed	4.8	1
642	Basswood	<i>Tilia americana</i>	47.2	4852720	636725	Y		Fair		3	1
645	Basswood	<i>Tilia americana</i>	28.6, 89.4	4852727	636761	Y		Very Poor	Will die soon, large hole	6	1
646	Basswood	<i>Tilia americana</i>	33.3	4852727	636761	Y		Good	Multi Stemmed, coppice	2.4	1
648	Basswood	<i>Tilia americana</i>	31.3	4852728	636764	Y		Good		2.4	1
649	Basswood	<i>Tilia americana</i>	32, 27, 26.2	4852739	636782	Y		Good	Multi Stemmed, coppice	2.4	1
650	Basswood	<i>Tilia americana</i>	30.7	4852611	636730	Y		Good	Multi Stemmed	2.4	1
651	Norway Spruce	<i>Picea abies</i>	34.5, 45.7, 44.9	4852810	636681	Y		Good	Multi Stemmed	3	1
652	Basswood	<i>Tilia americana</i>	30.9	4852649	636718	Y		Good	Multi Stemmed	2.4	1
653	Black Walnut	<i>Juglans nigra</i>	33.1	4852791	636650	Y		Good		2.4	1
654	Norway Spruce	<i>Picea abies</i>	90	4852825	636725	Y		Good		5.4	1
655	Norway Spruce	<i>Picea abies</i>	63.6	4852841	636761	Y		Good		4.2	1
660	Pear	<i>Pyrus communis</i>	32, 25, 32	4852693	636702	Y		Good	Multi Stemmed	2.4	1
661	Basswood	<i>Tilia americana</i>	48.1	4852611	636730	Y		Good	Multi Stemmed	3	1
664	Sugar Maple	<i>Acer saccharum</i>	44.9	4852631	636725	Y		Good		3	1
674	Basswood	<i>Tilia americana</i>	38.5	4852649	636718	Y		Fair	Multi Stemmed	2.4	1
677	Manitoba Maple	<i>Acer negundo</i>	33.7	4852784	636616	Y		Good	Multi Stemmed	2.4	1
683	Pear	<i>Pyrus communis</i>	31.6	4852753	636865	Y		Good	Multi Stemmed	2.4	1
691	Basswood	<i>Tilia americana</i>	25.5, 39.9	4852746	636801	Y		Good		2.4	1
694	Sugar Maple	<i>Acer saccharum</i>	36.4	4852656	636717	Y		Good		2.4	1
700	Basswood	<i>Tilia americana</i>	49.6, 91	4852749	636796	Y		Very Poor	Multi Stemmed	6	1



Tag Number	Common Name	Scientific Name	DBH (cm)	Northing	Easting	>30 cm (Subject to Tree By-law)	20-29.9 cm (Not Subject to Tree By-law)	Health	Notes	TPZ Zone Radius (m)	Category
501	Manitoba Maple	<i>Acer negundo</i>	24.6	4852581	636743		Y	Good	Multi Stemmed		1
502	Basswood	<i>Tilia americana</i>	24.8	4852546	636757		Y	Good	Multi Stemmed		1
503	Basswood	<i>Tilia americana</i>	24.4	4852546	636758		Y	Good	Multi Stemmed		1
504	Basswood	<i>Tilia americana</i>	20	4852546	636758		Y	Good	Multi Stemmed		1
505	Basswood	<i>Tilia americana</i>	20	4852532	636762		Y	Good			1
507	Basswood	<i>Tilia americana</i>	22.5	4852542	636752		Y	Good			1
508	Basswood	<i>Tilia americana</i>	21.1	4852555	636747		Y	Good			1
509	Sugar Maple	<i>Acer saccharum</i>	26.4	4852563	636747		Y	Good			1
510	Sugar Maple	<i>Acer saccharum</i>	29.7	4852562	636745		Y	Good			1
602	Freeman Maple	<i>Acer x freemanii</i>	20.5, 23	4852691	636502		Y	Poor to Fair	Multi Stemmed		1
604	Freeman Maple	<i>Acer x freemanii</i>	26.1	4852689	636504		Y	Fair			1
612	Eastern White Cedar	<i>Thuja occidentalis</i>	20.5	4852700	636505		Y	Fair to Good			1
615	Eastern White Cedar	<i>Thuja occidentalis</i>	22.5	4852690	636522		Y	Very Poor			1
618	Eastern White Cedar	<i>Thuja occidentalis</i>	21	4852688	636529		Y	Good			1
620	Pear	<i>Pyrus communis</i>	25.5, 18.5	4852694	636533		Y	Poor to Fair	Multi Stemmed		1
621	American Elm	<i>Ulmus americana</i>	25	4852673	636527		Y	Good			1
624	English / Vimy oak	<i>Quercus robur</i>	29	4852675	636508		Y	Good	Good condition, leaves had begun to slightly turn, on edge of wooded area, half of crown in full sunlight		
626	American Elm	<i>Ulmus americana</i>	11, 16, 24.5	4852641	636521		Y	Fair	Multi Stemmed, coppice		1
628	Basswood	<i>Tilia americana</i>	23.3, 22	4852641	636521		Y	Good	Multi Stemmed, coppice		1
629	Freeman Maple	<i>Acer x freemanii</i>	22.1, 22.7	4852656	636554		Y	Good	Multi Stemmed, coppice		1
630	Freeman Maple	<i>Acer x freemanii</i>	22.5, 20	4852662	636561		Y	Good	Multi Stemmed, coppice		1
631	Basswood	<i>Tilia americana</i>	21.4	4852662	636561		Y	Good			1
632	Green Ash	<i>Fraxinus pennsylvanica</i>	23	4852666	636570		Y	Fair			1
633	Basswood	<i>Tilia americana</i>	21	4852676	636594		Y	Poor			1
634	Norway Spruce	<i>Picea abies</i>	28.6	4852681	636546		Y	Good			1
635	Common Buckthorn	<i>Rhamnus cathartica</i>	21	4852682	636592		Y	Good			1
636	Basswood	<i>Tilia americana</i>	19.5	4852676	636610		Y	Good	Multi Stemmed, coppice		1
637	Basswood	<i>Tilia americana</i>	28.6	4852703	636693		Y	Good	Multi Stemmed, coppice		1
638	Sugar Maple	<i>Acer saccharum</i>	22	4852703	636696		Y	Good			1
639	Basswood	<i>Tilia americana</i>	22.3	4852704	636697		Y	Good	Multi Stemmed, coppice		1
640	Basswood	<i>Tilia americana</i>	23, 24, 26, 22, 20	4852713	636699		Y	Good	Multi Stemmed, coppice		1
643	Basswood	<i>Tilia americana</i>	26.2	4852724	636738		Y	Good			1
644	Sugar Maple	<i>Acer saccharum</i>	20.3	4852723	636742		Y	Good			1
647	Basswood	<i>Tilia americana</i>	25.5	4852730	636761		Y	Good	Multi Stemmed, coppice		1

Tag Number	Common Name	Scientific Name	DBH (cm)	Northing	Easting	>30 cm (Subject to Tree By-law)	20-29.9 cm (Not Subject to Tree By-law)	Health	Notes	TPZ Zone Radius (m)	Category
656	Basswood	<i>Tilia americana</i>	20.7	4852672	636724		Y	Good	Multi Stemmed		1
658	Manitoba Maple	<i>Acer negundo</i>	28.6	4852838	636768		Y	Good			1
659	Eastern White Cedar	<i>Thuja occidentalis</i>	23.3	4852796	636605		Y	Good	Multi Stemmed		1
662	Basswood	<i>Tilia americana</i>	22.2	4852644	636719		Y	Good	Multi Stemmed		1
663	Basswood	<i>Tilia americana</i>	28.6	4852619	636728		Y	Poor to Fair	Multi Stemmed		1
665	Eastern White Cedar	<i>Thuja occidentalis</i>	20	4852790	636595		Y	Good	Multi Stemmed		1
666	Pear	<i>Pyrus communis</i>	28.8	4852723	636797		Y	Good			1
667	Pear	<i>Pyrus communis</i>	28.3	4852744	636853		Y	Good			1
668	Pear	<i>Pyrus communis</i>	22, 20.2	4852749	636860		Y	Good	Multi Stemmed		1
670	Pear	<i>Pyrus communis</i>	22	4852745	636842		Y	Good			1
672	Pear	<i>Pyrus communis</i>	23.7	4852755	636862		Y	Good			1
673	Pear	<i>Pyrus communis</i>	28, 28.7	4852749	636860		Y	Good	Multi Stemmed		1
675	Pear	<i>Pyrus communis</i>	27, 22, 25, 25.8	4852749	636860		Y	Good	Multi Stemmed		1
678	Pear	<i>Pyrus communis</i>	24.8	4852723	636797		Y	Good			1
679	American Elm	<i>Ulmus americana</i>	28.7, 29.5	4852629	636730		Y	Good			1
680	Manitoba Maple	<i>Acer negundo</i>	23.9	4852788	636607		Y	Good	Multi Stemmed		1
681	Pear	<i>Pyrus communis</i>	25.7, 24.9, 21.7	4852745	636843		Y	Good	Multi Stemmed		1
682	Pear	<i>Pyrus communis</i>	21.9	4852752	636865		Y	Good			1
685	Pear	<i>Pyrus communis</i>	20, 23.6	4852751	636861		Y	Good	Multi Stemmed		1
686	Pear	<i>Pyrus communis</i>	20.8	4852755	636867		Y	Good	Multi Stemmed		1
687	White Ash	<i>Fraxinus americana</i>	25.6	4852852	636849		Y	Poor to Fair			1
688	Basswood	<i>Tilia americana</i>	24.9	4852683	636709		Y	Good	Multi Stemmed		1
689	Black Walnut	<i>Juglans nigra</i>	19.8	4852657	636718		Y	Good			1
690	Pear	<i>Pyrus communis</i>	26.5	4852726	636799		Y	Good			1
692	Pear	<i>Pyrus communis</i>	25.5	4852692	636701		Y	Good	Multi Stemmed		1
693	Basswood	<i>Tilia americana</i>	25.8, 24	4852749	636796		Y	Good			1
695	Basswood	<i>Tilia americana</i>	23.3	4852746	636801		Y	Good			1
696	Pear	<i>Pyrus communis</i>	26.7	4852781	636617		Y	Good			1
696	Pear	<i>Pyrus communis</i>	22.5	4852744	636852		Y	Good	Multi Stemmed		1
696	Manitoba Maple	<i>Acer negundo</i>	23	4852742	636846		Y	Good			1
697	Eastern White Cedar	<i>Thuja occidentalis</i>	27.2, 26.2, 26.5, 27.3, 25	4852806	636667		Y	Good			1
698	Basswood	<i>Tilia americana</i>	25.6	4852668	636710		Y	Good	Multi Stemmed		1
699	Pear	<i>Pyrus communis</i>	22.2, 21.4	4852752	636865		Y	Good	Multi Stemmed		1

**Category #:**  
 1. Trees with diameters of 30 cm or more, situated on private property on the subject site.  
 2. Trees with diameters of 30 cm or more, situated on private property, within 6 m of the subject site.  
 5. Trees of all diameters situated within the City road allowance adjacent to the subject site.

**Tree Protection Zone:** Minimum Tree Protection Zone as mandated by the City of Toronto.

#### **4.0 CONCLUSION**

Permitting is required for injury or removal of the 35 trees over 30 cm, as they are subject to the Private Tree By-law (Municipal Code Chapter 813, Trees, Article III). The Vimy / English Oak is not subject to the Tree By-law but may require special consideration from the City due to its heritage significance.

## **5.0 STATEMENT OF LIMITATIONS**

This report has been prepared and the work referred to in this report has been undertaken by SLR Consulting (Canada) Ltd. (SLR) for URS Canada Inc. hereafter referred to as the "Client". It is intended for the sole and exclusive use of URS Canada Inc. The report has been prepared in accordance with the Scope of Work and agreement between SLR and the Client. Other than by the Client and as set out herein, copying or distribution of this report or use of or reliance on the information contained herein, in whole or in part, is not permitted without the express written permission of SLR.

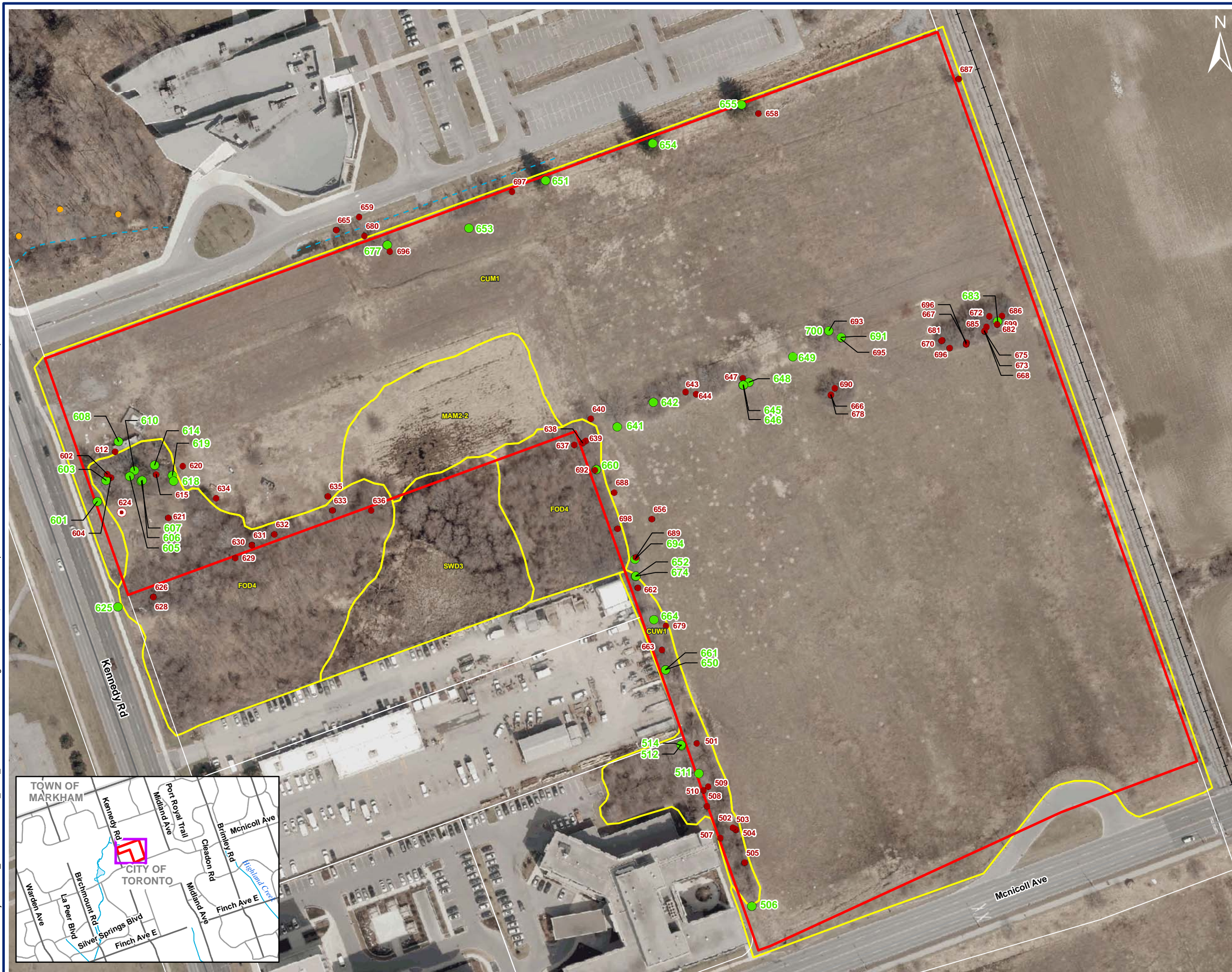
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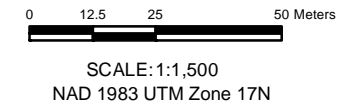
**Figure 1: ELC Polygons and Tree Survey Locations**

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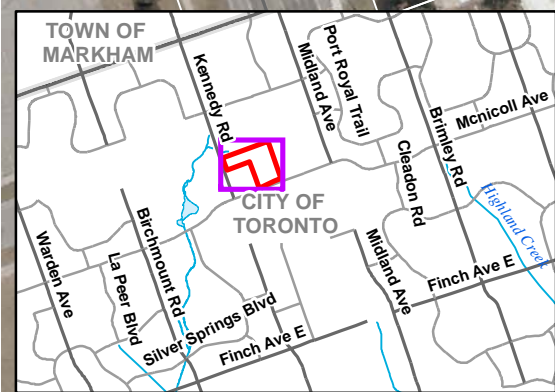


- LEGEND**
- Trees >30 cm (Subject to Private Tree By-law)
  - Trees 20 - 20.9 cm (Not Subject to Private Tree By-law)
  - English/Vimy Oak
  - English/Vimy Oaks on Adjacent Property
  - Study Area
  - ELC
  - Railway
  - Intermittent Watercourse

ELC Code	Description
CUM1	Mineral cultural meadow
CUW1	Mineral cultural woodland
FOD4	Dry-fresh deciduous forest ecosite
MAM2-2	Reed-canary gross mineral meadow marsh type
SWD3	Maple mineral deciduous swamp ecosite



**NOTES**  
 This map is for conceptual purposes only and should not be used for navigational purposes.  
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**URS CANADA INC.**

TTC McNICOLL BUS GARAGE TREE SURVEY

ELC POLYGONS AND TREE SURVEY LOCATIONS

October 29, 2014	Rev 1.0	Figure No.
Project No. 209.40192.00000		<b>1</b>





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