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URBAN FORESTRY & FOREST MANAGEMENT CONSULTING

February 9, 2022

Silver Hotels (Kanata) Inc.
Suite 100, 5830 Campus Road
Mississauga, ON
L4V 1G2

RE: TREE CONSERVATION REPORT FOR 1305 MARITIME WAY, OTTAWA

This Tree Conservation Report (TCR) was prepared by IFS Associates Inc. (IFS) on behalf of Silver Hotels (Kanata) Inc. in support of the proposed development of 1305 Maritime Way in Ottawa. The need for this TCR is related to the construction of a six-storey hotel and surrounding surface parking and amenity areas.

The need for this report is related to trees protected under the City of Ottawa's Tree Protection By-law (By-law No. 2020-340). The By-law reflects Section 4.8.2. of the City of Ottawa's Official Plan (pending approval in 2022) which calls for the retention of the City's urban forestry canopy.

Under the Tree Protection By-law a TCR is required for all Plans of Subdivision, Site Plan Control Applications, Common Elements Condominium Applications, and Vacant Land Condominium Applications where there is a tree of 10 cm in diameter at breast height (DBH) or greater on a site and/or if there is a tree on an adjacent site that has a critical root zone (CRZ) extending onto a development site. Trees of any size on adjacent City lands must also be documented in a TCR. A "tree" is defined in the By-law as any species of woody perennial plant, including its root system, which has reached or can reach a minimum height of at least 450 cm at physiological maturity. The CRZ is calculated as DBH x 10 cm.

The approval of this TCR by the City of Ottawa and the issuing of a permit by them authorize the removal of approved trees. **Importantly, although this report may be used to support the application for a City tree removal permit, it does not by itself constitute permission to remove trees or begin site clearing activities. No such work should occur before a tree removal permit is issued by the City's General Manager authorizing the injury or destruction of a tree in accordance with the by-law. Further, if any trees fully on or shared with adjacent private property are to be removed written consent of the neighbouring property owner must first be obtained.**

The subject property totals 0.898 hectares, or 2.22 acres, and is located between Canadian Shield Avenue and Maritime Way (see TCR plans on pages 5 and 6 of this report). A road extension in the near future will join these two roads, thereby isolating the property from the adjoining forest which is now contiguous on all but the south and east sides.

METHODOLOGY

An inventory of the forest was conducted via a series of sample plots in which the overstory trees and visible understory vegetation was assessed for species, size (average diameter) and general health condition. This information was then compiled so that stands (areas of similar tree age and species composition) could be delineated. These areas are shown on the plans on pages 5 and 6.

FOREST INVENTORY

From a review of historic aerial photography it is apparent the majority of the subject property has always been in a natural forested state. The elevated topography, exposed bedrock and thin soils would not have allowed for successful cultivation over much of the site. However, a lower, more flat area on the east side of the property was obviously cleared for some objective in the past and then abandoned. Evidence of cedar and barbed wire fences in this area indicates that it may have been part of a pasture at one time. Also, a significantly-sized area in southeast corner of the property was cleared in the recent past and now holds a cultural meadow – a vegetation type without any sizable woody vegetation.

Due to the lack of disturbance the majority of the site is of late-successional species. However, the more recent movement of invasive species onto the site has had a major impact on species composition. The most widespread non-native species present is buckthorn (*Rhamnus* spp.). These species, common buckthorn (*Rhamnus cathartica*) and glossy buckthorn (*Rhamnus frangula*), both introduced and highly invasive, are present throughout the site, but especially in the lower areas. However, all of the individuals present are under 10cm in diameter. The presence of buckthorn is not surprising as site disturbance in such peri-urban areas encourages the spread of non-native (alien), invasive and naturalized species. The only other non-native tree species present is Manitoba maple (*Acer negundo*). While some individual trees are over 10cm in diameter their infrequency meant they did not appear in any sample plots. Being intolerant of shade this species was found only along forest edges or in open areas. Manitoba maple is a frequent urban species which was not present pre-settlement but now is naturalized throughout Eastern Ontario.

Four distinct forest stands were identified on the property: 1) a tolerant upland hardwood stand dominated by ironwood (*Ostrya virginiana*), beech (*Fagus grandifolia*) and sugar maple (*Acer saccharum*); 2) a stand dominated by basswood (*Tilia americana*) and ironwood (and dense buckthorn in parts of the understory); 3) a stand dominated by ash (*Fraxinus* spp.) (and dense buckthorn throughout the understory – this is the one area of the property cleared in the past) and, 4) a stand of white pine (*Pinus strobus*). In terms of the overall forest composition, the most frequent tree species present are ironwood and sugar maple. Also present in lesser numbers are bur oak (*Quercus macrocarpa*), yellow birch (*Betula alleghaniensis*), eastern white cedar (*Thuja occidentalis*) and black cherry (*Prunus serotina*), white elm (*Ulmus americana*). Many of these latter species are infrequent and so did not appear in the inventory.

In terms of forest health, many elms show signs of infection by Dutch elm disease (*Ophiostoma ulmi* and *Ophiostoma novo-ulmi*), including some which are standing dead. The ash which are >10cm have almost all suffered the same fate – dead due to emerald ash borer (*Agrilus planipennis*). Although survivorship among smaller, younger ash is greater than those 10cm, many of these trees are showing signs of infestation by this introduced pest.

Table 2 below details the composition of the four stands found on the subject property:

Table 1. Forest Stands at 1305 Maritime Way

Tree species	Average Diameter (cm)	Percent occupancy ¹
<u>Stand 1- Tolerant Upland Hardwood</u>		
Ironwood	17	50
Sugar maple	21	36
Beech	56	12
Ash ²	23	2
<u>Stand 2 – Basswood/Ironwood</u>		
Basswood	27	34
Ironwood	19	30
Ash	27	21
Sugar maple	11	15
<u>Stand 3 – Ash (and buckthorn)</u>		
Ash	21	59
White elm	19	27
Sugar maple	11	8
Buckthorn	10	6
<u>Stand 4 – White Pine</u>		
White pine	27	87
White elm	12	10
Sugar maple	12	2
Bur oak	10	1

¹ by stem count; ² includes both living and standing dead trees

Typical vegetative conditions within the subject property are shown in Pictures 1 through 5 on pages 4, 7 and 8 of this report.

STREET TREE INVENTORY

A total of eleven street trees, two honey-locusts (*Gleditsia triacanthos*) and nine Freeman maples (*Acer x freemanii*), were found on City of Ottawa property adjacent to Maritime Way. All are maturing (with an average diameter of 15cm) and are in generally good health condition. One maple will be lost as a result of the proposed entranceway to the hotel (see plans on pages 5 and 6).

USE OF EXISTING VEGETATION

Retention of existing vegetation within the subject property is impossible given the level of disturbance required for the construction of the proposed hotel and surrounding parking and amenity areas. However, with the exception of the one City tree, all vegetation off the property will be preserved and protected by employing the preservation and protection measures detailed in this report.

ENDANGERED SPECIES

A total six butternuts (*Juglans cinerea*) were found on and adjacent to the subject property. Five of these trees are within 50m of the clearing work now being proposed. This tree species is listed as endangered under the Province of Ontario's Endangered Species Act (ESA) and so is protected from harm.

Each tree was assessed following ESA protocol. The results of the butternut health assessments found three trees to be Category 1, or non-retainable, and two to be Category 2, retainable. As a result of two trees being retainable, a Notice of Butternut Impact Form was completed and sent to the Ontario Ministry of the Environment, Conservation and Parks, the ministry which oversees the ESA. To fulfill the requirements of the ESA, the Rideau Valley Conservation Authority was engaged to provide compensation services in relation to removal of these two trees as part of the site clearing work proposed in this TCR.

PRESERVATION AND PROTECTION MEASURES

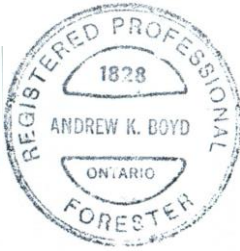
Preservation and protection measures intended to mitigate damage during construction will be applied for the trees to be retained adjacent to the subject property. The following measures are the minimum required by the City of Ottawa to ensure tree survival during and following construction:

1. Erect a fence at the critical root zone (CRZ¹) of trees;
2. Do not place any material or equipment within the CRZ of the tree;
3. Do not attach any signs, notices or posters to any tree;
4. Do not raise or lower the existing grade within the CRZ without approval;
5. Tunnel or bore when digging within the CRZ of a tree;
6. Do not damage the root system, trunk or branches of any tree;
7. Ensure that exhaust fumes from all equipment are NOT directed towards any tree's canopy.

¹ The critical root zone (CRZ) is established as being 10 centimetres from the trunk of a tree for every centimetre of trunk Diameter at breast height (DBH). The CRZ is calculated as DBH x 10 cm.

Please do not hesitate to contact me if you have any questions concerning this TCR

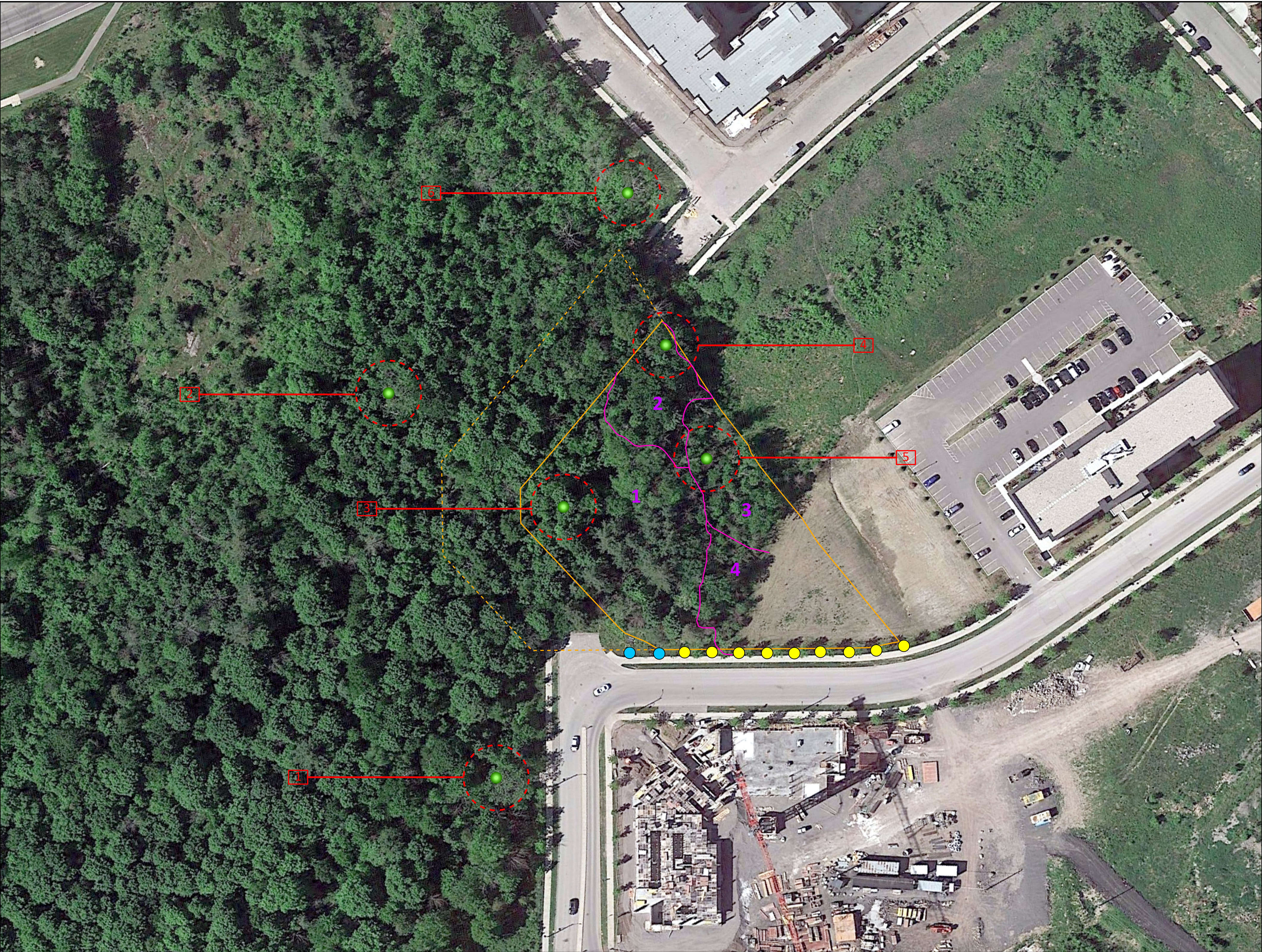
Yours,



Andrew K. Boyd, B.Sc.F, R.P.F. (#1828)
ISA Certified Arborist #ON-0496A and TRAQualified
Butternut Health Assessor #513
Consulting Urban Forester

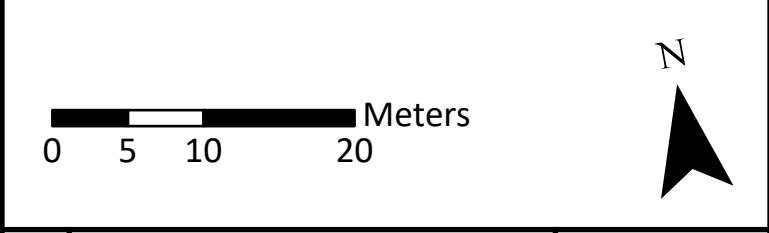


Picture 1. Street trees on City of Ottawa property adjacent to 1305 Maritime Way.



GENERAL NOTES
Maxar, MicrosoftAdditional imagery provided by Google Earth

- LEGEND**
- Part1
 - Part 2
 - Community Boundary
 - Freemans Maple
 - Honey Locust
 - Butternut

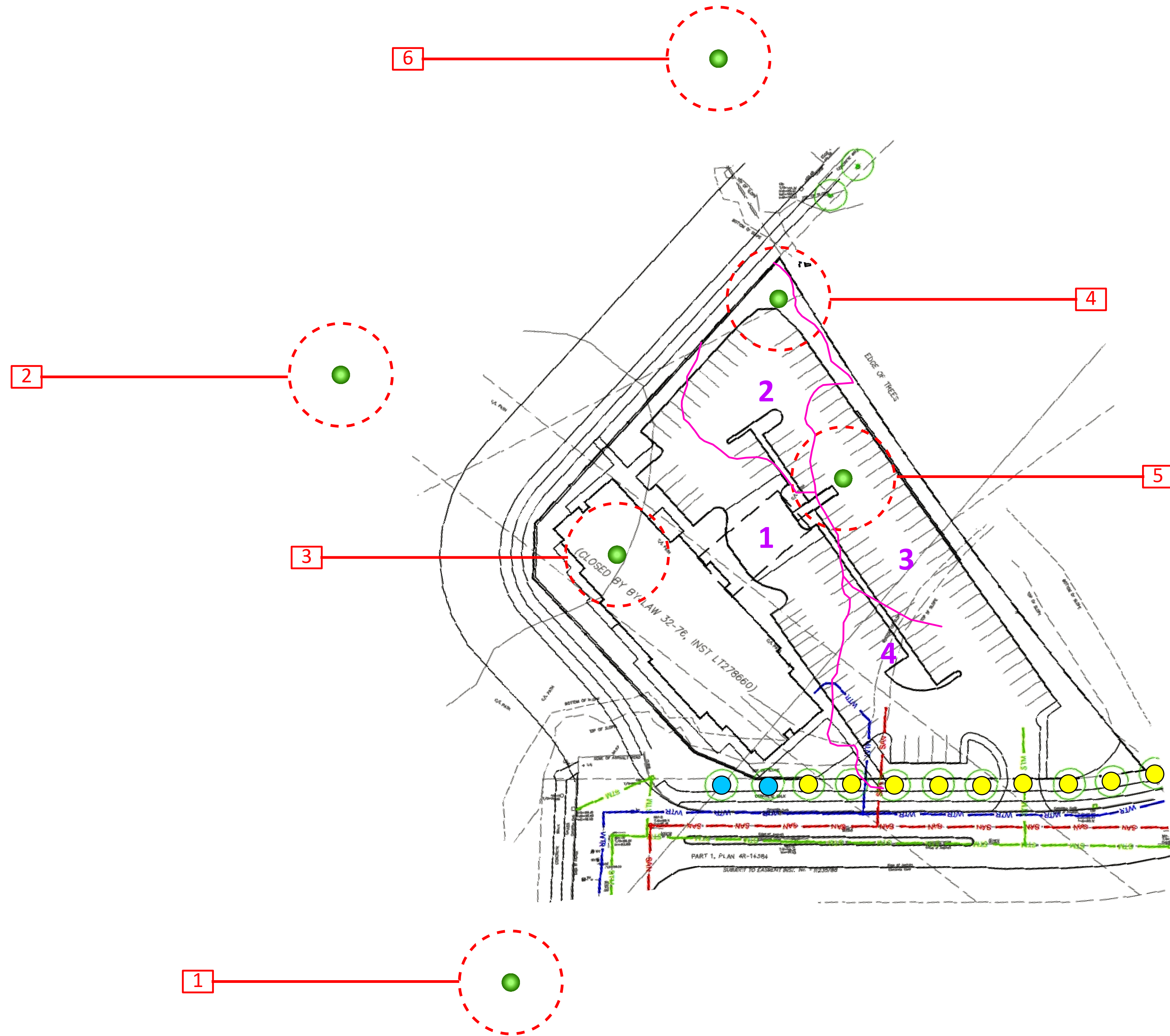


NO.	REVISION	DATE (W/M/D)
DRAWING: Tree Conservation Plan		

PROJECT: GEO. TOWNSHIP OF MARCH
FORMERLY CITY OF KANATA
CURRENTLY CITY OF OTTAWA



SCALE: 1:500	DRAWING NO.
DATE: 2022-02-02	M W A Y
DRAWN BY: SS	
SHEET NO. 1	

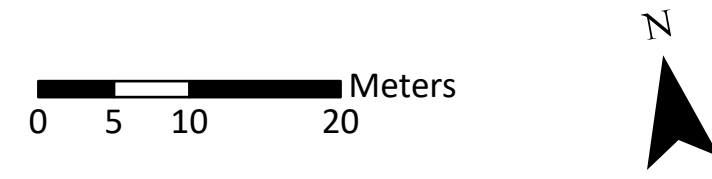


GENERAL NOTES

Additional imagery provided by Google Earth

LEGEND

- Community Boundary
- Freemans Maple
- Honey Locus
- Butternut



NO.	REVISION	DATE (Y/M/D)

DRAWING:
Tree Conservation Plan

PROJECT:
GEO. TOWNSHIP OF MARCH
FORMERLY CITY OF KANATA
CURRENTLY CITY OF OTTAWA



SCALE: 1:500	DRAWING NO. M W A Y
DATE: 2022-02-02	
DRAWN BY: SS	
SHEET NO. 1	



Picture 2. Typical conditions within the stand #1 at 1305 Maritime Way.



Picture 3. Typical conditions within the stand #2 at 1305 Maritime Way.



Picture 4. Typical conditions within the stand #3 at 1305 Maritime Way.



Picture 5. Typical conditions within the stand #4 at 1305 Maritime Way.