Prepared By: Andrea Orr

Date: April 19, 2022

Reviewed By: Jaclyn Rodo

No. 211-14010-00

Prepared For: Ottawa South United Soccer Association

Subject: **Site Plan Control Application for New Clubhouse Construction, Ottawa South United Soccer Association – Tree Information Report**

1.0 INTRODUCTION

Ottawa South United Soccer Association (OSU) retained WSP Canada Inc. (WSP) to complete a Tree Information Report (TIR) for the construction of a new clubhouse at 5650 Mitch Owens Road in Mantotick, Ontario. The project occurs within Municipal lands, owned by the City of Ottawa. As such, the trees on site are classified as City Trees and it is anticipated that the project requires a TIR to determine the extent of impacts to City Trees and if a permit may be required. The TIR provided herein complies with the City of Ottawa's Tree Protection By-law (No. 2020-340) (City of Ottawa, 2020).

2.0 CONTACT INFORMATION

2.1 OWNER / LEASEE CONTACT INFORMATION

Name	Bill Michalopulos, President
Company	Ottawa South United Soccer Association
Address	1128 Clapp Lane, Manotick, ON K4M 1A4
Phone	613-692-4179
Email	osugm@osu.ca

2.2 ARBORIST CONTACT INFORMATION

Name	Andrea Orr, Terrestrial Ecologist
Company	WSP - Golder
Address	2611 Queensview Dr., Ottawa, ON K2B 8K2
Phone	613-690-4060
Email	andrea.orr@wsp.com

2.3 CONTRACTOR INFORMATION

Name	PCL Constructors Canada Inc
Address	49 Auriga Drive, Nepean, ON K2E 8A1
Phone	613-255-6130

3.0 TREE INFORMATION

Table 1: Tree inventoried / assessed at 5650 Mitch Owens Road – OSU New Clubhouse

Tree #	Common Name	*Scientific Name*	Size (cm) (DBH)	Ownership	Condition of Tree	Reason for Removal	Arborist Recommendation
001	Honey Locust	*Gleditsia triacanthos*	10	City Tree	**Structural Integrity** = Good **Vigour** = Good, 0% deadwood at time of assessment	N/A	Tree to be retained and CRZ to be protected where possible and follow the City's Tree Protection Specification.
002	Honey Locust	*Gleditsia triacanthos*	14	City Tree	**Structural Integrity** = Good **Vigour** = Good, 0% deadwood at time of assessment	N/A	Tree to be retained and CRZ to be protected where possible and follow the City's Tree Protection Specification.
003	Common Hackberry	*Celtis occidentalis*	4	City Tree	**Structural Integrity** = Good **Vigour** = Good, 0% deadwood at time of assessment	N/A	Tree to be retained and CRZ to be protected where possible and follow the City's Tree Protection Specification.
004	Honey Locust	*Gleditsia triacanthos*	6	City Tree	**Structural Integrity** = Good **Vigour** = Good, 0% deadwood at time of assessment	N/A	Tree to be retained and CRZ to be protected where possible and follow the City's Tree Protection Specification.
005	Honey Locust	*Gleditsia triacanthos*	10	City Tree	**Structural Integrity** = Good **Vigour** = Good, 0% deadwood at time of assessment	N/A	Tree to be retained and CRZ to be protected where possible and follow the City's Tree Protection Specification.
006	Freeman's Maple	*Acer x freemanii*	7	City Tree	**Structural Integrity** = Good **Vigour** = Good, 0% deadwood at time of assessment	N/A	Tree to be retained and CRZ to be protected where possible and follow the City's Tree Protection Specification.
007	Freeman's Maple	*Acer x freemanii*	4	City Tree	**Structural Integrity** = Good **Vigour** = Good, 0% deadwood at time of assessment	N/A	Tree to be retained and CRZ to be protected where possible and follow the City's Tree Protection Specification.

Tree #	Common Name	*Scientific Name*	Size (cm) (DBH)	Ownership	Condition of Tree	Reason for Removal	Arborist Recommendation
008	Freeman's Maple	*Acer x freemanii*	5	City Tree	**Structural Integrity** = Good **Vigour** = Good, 0% deadwood at time of assessment	N/A	Tree to be retained and CRZ to be protected where possible and follow the City's Tree Protection Specification.

3.0 PLANS SHOWING TREE LOCATIONS (SITE PLAN)

A plan showing the tree locations, including locations of City Trees with their Critical Root Zones (CRZ) in relation to the proposed site plan / development footprint is shown in **Figure 1**. As discussed, the trees are all municipally owned and are to be retained. The retained trees will be subject to protection and mitigation measures as outlined below.

The location of the tree protection fencing will occur around the CRZs of Trees 006, 007, 008 and follow the City of Ottawa's Tree Protection Specification (**Attachment A**). It is anticipated that Trees 001 to 005 will not be impacted by the proposed works.

4.0 TREE PROTECTION AND MITIGATION MEASURES

The following tree protection and mitigation measures will be applied and implemented to those trees identified as retained/protected in **Table 1** and shown on **Figure 1**:

- Prior to any work activity, tree protection fencing must be installed around the outer edge of the CRZ on those trees identified to be retained (Trees 006 to 008), as shown on **Figure 1**. The fencing shall remain in place until the work is complete.

- The tree protection fencing shall be at least 1.2 metres (m) in height and installed in such a way that the fence cannot be altered. Such as the use of orange plastic web snow fencing on a T-bar frame. The T-bar spacing is to be 1.8 m on-centre (O.C).

- Additional measures, as detailed on the City of Ottawa's Tree Protection Specification (**Attachment A**) must also be implemented.

4.1 IMPACTS TO CRITICAL ROOT ZONES (CRZ)

If, in the event, it is anticipated that the proposed works will encroach into the CRZs of any given tree on site, the following mitigation measures shall be applied and as directed by an arborist / Approved Practitioner:

- Plywood, wood chips, or steel plating shall be placed over the roots
- When roots are encountered, proper pruning procedures shall be followed
- Activities of tunnelling and/or boring shall be implemented when excavating within a CRZ

More specifically:

- **Hydro-excavation** is recommended to minimize root damage within a CRZ. This applies to any trees in which an injury may occur due to construction activities. The following methods are to be applied where hydro-excavation is recommended:
    - Prior to construction, hydro-excavate to a depth of 150 millimetres (mm) along the length of the CRZ and at a width of 0.5 m to expose roots
    - Prune any roots in this area using good arboricultural practices or under the supervision of a Certified Arborist
    - Backfill with excavated material and reinstate to original condition, or better
    - Upon completion, reinstate tree protection fencing to original location
    - Water trees as needed during construction. Consult a Certified Arborist for watering requirements for each tree species and in each area
    - At the completion of construction, apply 100 mm depth shredded bark mulch at a minimum 2 m radius around the tree (may vary depending on tree location). Consult a Certified Arborist for specific mulching requirements.

- **Air spading** can be used in lieu of hydro-excavation to expose vulnerable roots outside of the CRZ. This method uses compressed air, rather than water to wash away the soil surrounding the roots.

Following this method, roots outside of the CRZ should be pruned using good arboricultural practices, or under the supervision of a Certified Arborist. This will help reduce negative impacts to the trees caused by the construction activities, thus helping to also reduce the need for additional mitigation and compensation measures.

- **Horizontal Root Protection** can be used in conjunction with hydro-excavation or air spading to reduce the potential for compaction. Root protection is to include:
    - Application of 75 mm-deep shredded bark mulch base over the area between the targeted tree and the limit of the construction area
    - Installation of 120 cm x 250 cm plywood boards (minimum 30 cm thick) over mulch, trimming as necessary to fit available space
    - Application review and approval by the contract administrator prior to installation
    - When construction is complete, remove boards and spread mulch in a 2-m diameter radius around the trunk and reinstate tree protection fencing to original location.

- **Additional Mitigation Measures:**
    - Prune any roots exposed during grading using good arboricultural practices, such as a depth of 150 mm along the length of the CRZ distance and at a width of 0.5 m to expose roots
    - Prune any roots in this area using good arboricultural practices or under the supervision of a Certified Arborist
    - To minimize damage to roots it is recommended that excavators scrape soil within the same direction as the roots and not across. Any roots exposed are to be pruned neatly and cleanly
    - Water trees periodically during construction
    - Apply radial aeration where compaction will occur within reduced CRZs. To be determined prior to, during, and after construction under the supervision and recommendations of a Certified Arborist
    - Apply a slow-release fertilizer in locations where root pruning will occur and where a hard surface or wall will prevent the growth of roots beyond the dripline. To be determined prior to, during, and after construction under the supervision and recommendations of a Certified Arborist
    - Apply a 100-mm depth layer of mulch within the work zone outside of the CRZ where hydro-excavation and horizontal root protection are not feasible to prevent compaction
    - Apply planting soil where grade changes will occur, and roots will be exposed
    - After construction is complete, it is recommended that a 75-mm depth layer of mulch be placed in a 2-m radius around the trunks of these trees.

4.2 GENERAL PROHIBITIONS

Unless approved by the City of Ottawa's General Manager, the following activities are generally prohibited to occur within the CRZ of a protected tree:

- No materials or equipment, including outhouses shall be placed within the CRZ
- Do not raise or lower the existing grade within the CRZ
- Do not extend any hard surfaces nor significantly change landscaping

In general, the following shall be adhered to for the protection of retained trees on site:

- No signs, notices, or posters (except as required by the by-law) shall be attached to any protected tree
- Do not damage the root system, trunk, or branches of a protected tree
- Do not direct exhaust fumes from equipment toward a tree canopy

5.0 BOUNDARY CONFIRMATION AND CONSENT

No Boundary Trees have been identified to occur on site. Therefore, this section is not applicable, and the Property Owner / Leasee can proceed with the proposed works without written consent from adjacent property owners.

6.0 TREE REPLACEMENT INFORMATION

The trees inventoried on site are proposed for retention / protection. Therefore, replacement plantings are not anticipated.

7.0 FEDERAL AND PROVINCIAL REGULATIONS

The construction of a new OSU Clubhouse at 5650 Mitch Owens Road in Manotick, Ontario shall abide by all Federal and Provincial Regulations. This includes: the *Endangered Species Act*, 2007 (ESA) when encountering a Species at Risk on site, such as Butternut trees (*Juglans cinerea*); as well as the *Migratory Bird Convention Act*, 1994 (MBCA) when development / vegetation removal is planned to occur during the breeding bird season from April 1 – August 31.

During the March 22, 2022, tree inventory and health assessment at 5650 Mitch Owens Road, no Species at Risk were encountered; however, as a precautionary measure, the following mitigation strategies are recommended:

- If a Species at Risk is encountered, work should cease immediately. If the species was passing through the work area, it should be allowed an opportunity to leave the site on its own. If the species does not leave the work area or is determined to inhabit the area, the Ministry of Environment, Conservation and Parks (MECP) shall be contacted for further direction. The species should not be handled.

To avoid contravention of the MBCA, 1994, works shall avoid removing vegetation from April 1 – August 31. Should any vegetation clearing be required during the breeding bird season window, nest searches conducted by a qualified biologist must be completed within 48 hours prior to clearing activities. If nests are found, an appropriate setback will be established by the qualified professional. No work will be permitted within this setback in accordance with the federal MBCA, 1994.

8.0 SELF-DECLARATION STATEMENT / SUMMARY

Based on the proposed Site Plan / development footprint, no City Trees are anticipated to be impacted and/or removed to accommodate project works, therefore, a City of Ottawa Tree Permit is not required at this time.

If Site Plan / development footprint is altered and City Trees will be impacted, a permit will be required prior to construction activities and the TIR as well as the online application form must be signed by the Property Owner / Leasee, Arborist / Approved Practitioner, and Contractor (i.e., PCL), which confirms that all parties agree with the information provided and will respect the proposed work and mitigation measures.

It has been acknowledged and understood by the Property Owner / Leasee that an Inspector may enter the property at any reasonable time for the purpose of carrying out an inspection. It is also acknowledged and understood that failure to abide by the recommendations of the approved TIR, and damaging or destructing trees identified for protection, that the Property Owner / Leasee is responsible to bear fully the cost of compensation, removal, and replacement.

It is also the Property Owner / Leasee's responsibility to ensure that all protection and mitigation measures described in this TIR are followed, and where necessary are done so under the supervision of an Arborist / Approved Practitioner.

Yours sincerely,

Andrea Orr
Terrestrial Ecologist
Phone: (613) 690-4060
Email: andrea.orr@wsp.com

Attachments:

Figure 1: Tree Locations and Critical Root Zones
Attachment A: City of Ottawa's Tree Protection Specification
Attachment B: Photographic Records

SELF-DECLARATION

I, the Property Owner / Leasee and the Contractor acknowledge, understand, and agree with the information provided in the Tree Information Report, dated April 19, 2022, for the purposes of the construction of a new OSU Clubhouse, and will respect the mitigation measures proposed within the Tree Information Report in order to undergo works.

Property Owner / Leasee

Bill Michalopulos, President, Ottawa South United Soccer Association

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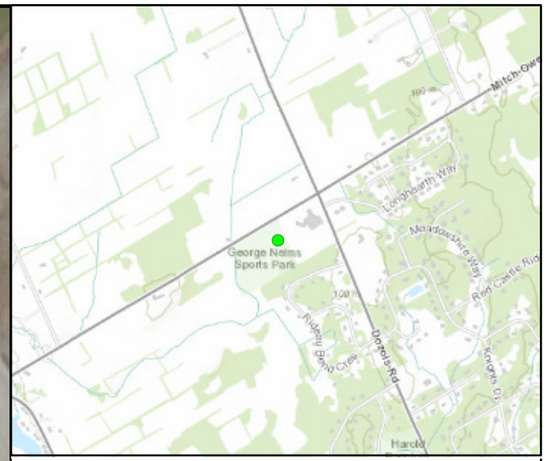
Contractor

PCL

Prepared By: Tanya.Peterson



LEGEND:

- PROPOSED FIELDHOUSE
- MUNICIPAL TREE
- CRITICAL ROOT ZONE

TREE #	COMMON NAME	SCIENTIFIC NAME	DBH (cm)	CRZ (cm)	HEALTH
1	HONEY LOCUST	*GLEDITSIA TRIACANTHOS*	10	100	GOOD OVERALL CONDITION
2	HONEY LOCUST	*GLEDITSIA TRIACANTHOS*	14	140	GOOD OVERALL CONDITION
3	COMMON HACKBERRY	*CELTIS OCCIDENTALIS*	4	40	MODERATE OVERALL HEALTH
4	HONEY LOCUST	*GLEDITSIA TRIACANTHOS*	6	60	GOOD OVERALL CONDITION
5	HONEY LOCUST	*GLEDITSIA TRIACANTHOS*	10	100	GOOD OVERALL CONDITION
6	FREEMAN'S MAPLE	*ACER X FREEMANII*	7	70	GOOD OVERALL CONDITION
7	FREEMAN'S MAPLE	*ACER X FREEMANII*	4	40	GOOD OVERALL CONDITION
8	FREEMAN'S MAPLE	*ACER X FREEMANII*	5	50	GOOD OVERALL CONDITION

TITLE:
TREE INVENTORY

PROJECT:
OTTAWA SOUTH UNITED SOCCER ASSOCIATION - NEW CLUBHOUSE
5650 MITCH OWENS ROAD, MANOTICK, ONTARIO

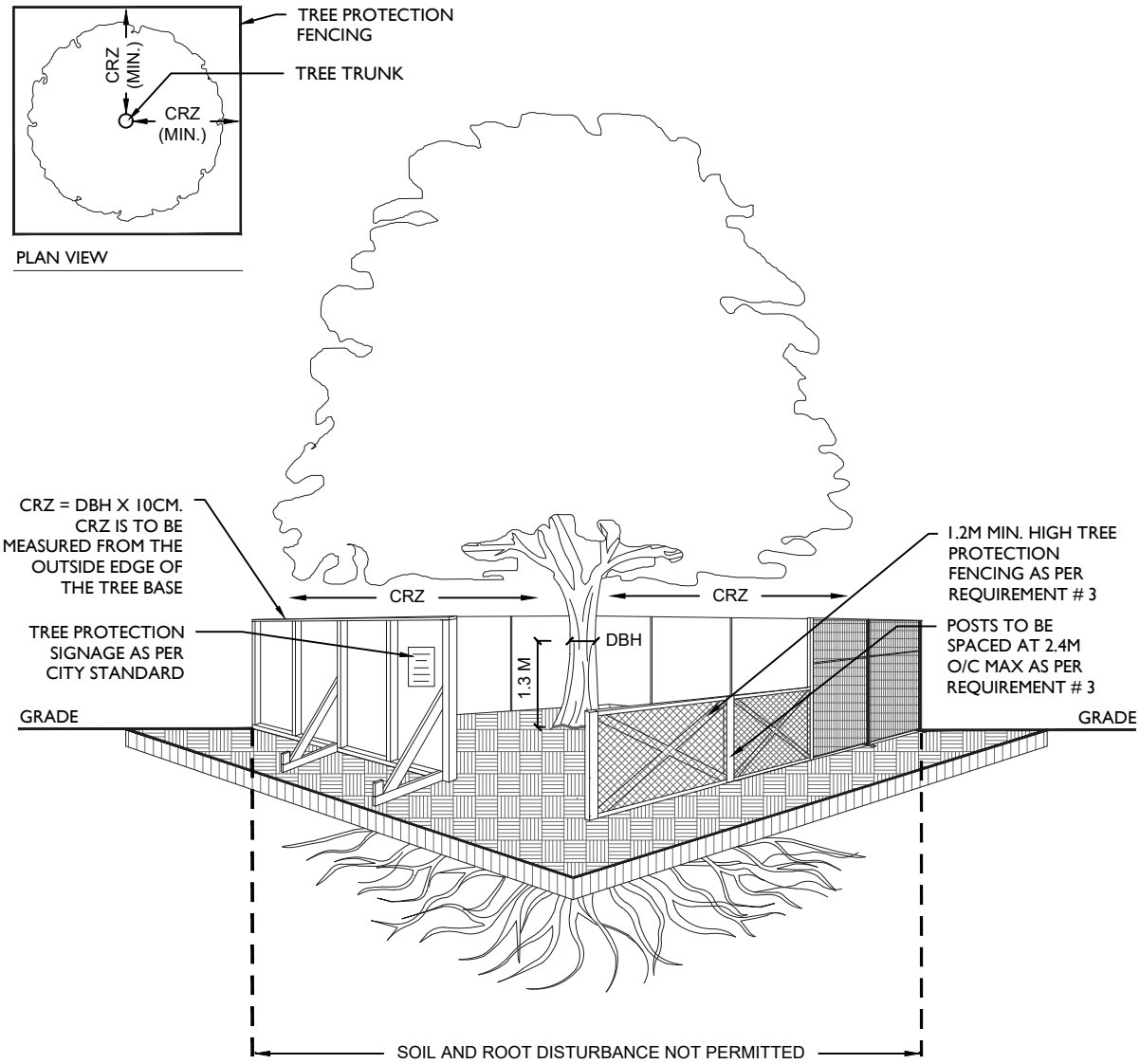
CLIENT:
OTTAWA SOUTH UNITED SOCCER ASSOCIATION

PROJECT NO.:	REVIEWED BY:
211-13935-00	AO
DATE: APRIL 2022	FIGURE: 1

D:\aProjects\211-13935-00\MXD\211-13935-00 Figure 1 Tree Inventory.mxd

Attachment A

City of Ottawa Tree Protection Specification



TREE PROTECTION REQUIREMENTS:

1. PRIOR TO ANY WORK ACTIVITY WITHIN THE CRITICAL ROOT ZONE (CRZ = 10 X DIAMETER) OF A TREE, TREE PROTECTION FENCING MUST BE INSTALLED SURROUNDING THE CRITICAL ROOT ZONE, AND REMAIN IN PLACE UNTIL THE WORK IS COMPLETE.
2. UNLESS PLANS ARE APPROVED BY CITY FORESTRY STAFF, FOR WORK WITHIN THE CRZ:
   - DO NOT PLACE ANY MATERIAL OR EQUIPMENT - INCLUDING OUTHOUSES;
   - DO NOT ATTACH ANY SIGNS, NOTICES OR POSTERS TO ANY TREE;
   - DO NOT RAISE OR LOWER THE EXISTING GRADE;
   - TUNNEL OR BORE WHEN DIGGING;
   - DO NOT DAMAGE THE ROOT SYSTEM, TRUNK, OR BRANCHES OR ANY TREE;
   - ENSURE THAT EXHAUST FUMES FROM ALL EQUIPMENT ARE NOT DIRECTED TOWARD ANY TREE CANOPY.
   - DO NOT EXTEND HARD SURFACE OR SIGNIFICANTLY CHANGE LANDSCAPING
3. TREE PROTECTION FENCING MUST BE AT LEAST 1.2M IN HEIGHT, AND CONSTRUCTED OF RIGID OR FRAMED MATERIALS (E.G. MODULOC - STEEL, PLYWOOD HOARDING, OR SNOW FENCE ON A 2"X4" WOOD FRAME) WITH POSTS 2.4M APART, SUCH THAT THE FENCE LOCATION CANNOT BE ALTERED. ALL SUPPORTS AND BRACING MUST BE PLACED OUTSIDE OF THE CRZ, AND INSTALLATION MUST MINIMISE DAMAGE TO EXISTING ROOTS. (SEE DETAIL)
4. THE LOCATION OF THE TREE PROTECTION FENCING MUST BE DETERMINED BY AN ARBORIST AND DETAILED ON ANY ASSOCIATED PLANS FOR THE SITE (E.G. TREE CONSERVATION REPORT, TREE INFORMATION REPORT, ETC). THE PLAN AND CONSTRUCTED FENCING MUST BE APPROVED BY CITY FORESTRY STAFF PRIOR TO THE COMMENCEMENT OF WORK.
5. IF THE FENCED TREE PROTECTION AREA MUST BE REDUCED TO FACILITATE CONSTRUCTION, MITIGATION MEASURES MUST BE PRESCRIBED BY AN ARBORIST AND APPROVED BY CITY FORESTRY STAFF. THESE MAY INCLUDE THE PLACEMENT OF PLYWOOD, WOOD CHIPS, OR STEEL PLATING OVER THE ROOTS FOR PROTECTION OR THE PROPER PRUNING AND CARE OF ROOTS WHERE ENCOUNTERED.

THE CITY'S TREE PROTECTION BY-LAW, 2020-340 PROTECTS BOTH CITY-OWNED TREES, CITY-WIDE, AND PRIVATELY-OWNED TREES WITHIN THE URBAN AREA. PLEASE REFER TO WWW.OTTAWA.CA/TREEBYLAW FOR MORE INFORMATION ON HOW THE TREE BY-LAW APPLIES.

ACCESSIBLE FORMATS AND COMMUNICATION SUPPORTS ARE AVAILABLE, UPON REQUEST

Ottawa

TREE PROTECTION SPECIFICATION

TO BE IMPLEMENTED FOR RETAINED TREES, BOTH ON SITE AND ON ADJACENT SITES, PRIOR TO ANY TREE REMOVAL OR SITE WORKS AND MAINTAINED FOR THE DURATION OF WORK ACTIVITIES ON SITE.

SCALE:	NTS
DATE:	MARCH 2021
DRAWING NO.:	1 of 1

Attachment B

Photographic Record

Photo 1: Tree 001: Honey Locust, Municipal tree, facing east, northeast end of property. March 22, 2022.

Photo 2: Tree 002: Honey Locust, Municipal tree, facing east, northeast end of property. March 22, 2022

Photo 3: Tree 003: Common Hackberry, Municipal tree, facing east, northeast end of property. March 22, 2022

Photo 4: Tree 004: Honey Locust, Municipal tree, facing north, northeast side of property. March 22, 2022

Photo 5: Tree 005: Honey Locust, Municipal tree, facing west, northeast side of property. March 22, 2022

Photo 6: Tree 006: Freeman's Maple, Municipal tree, facing east, east end of property. March 22, 2022

Photo 7: Tree 007: Freeman's Maple, Municipal tree, facing west, east end of property. March 22, 2022

Photo 8: Tree 008: Freeman's Maple, Municipal tree, facing northeast, east end of property. March 22, 2022