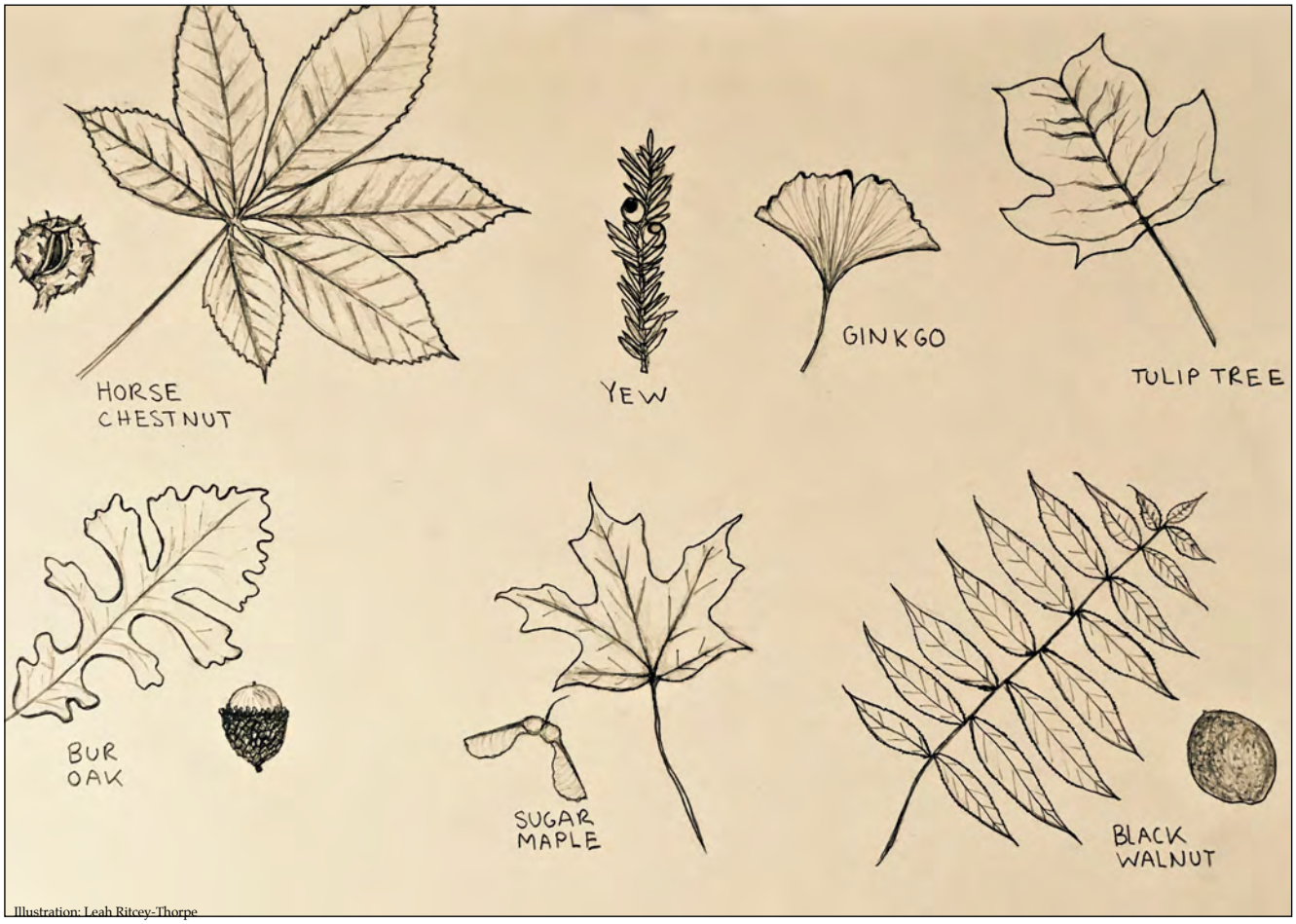
Harbord Village Tree Inventory

2018 Preliminary Report



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Harbord Village Residents Association

Introduction

With over half of the world's population living in urban areas (UN DESA, 2018), it has become vital to monitor, aid and grow one of our most valuable resources: urban forests. Urban forests contribute distinctly by providing cultural, ecological and economic benefits (Escobedo et al 2010). Urban forests service cities in many ways from improving air quality and absorbing pollutants, sequestering carbon dioxide, regulating temperature, reducing stormwater runoff and more (Millward & Sabir 2011).

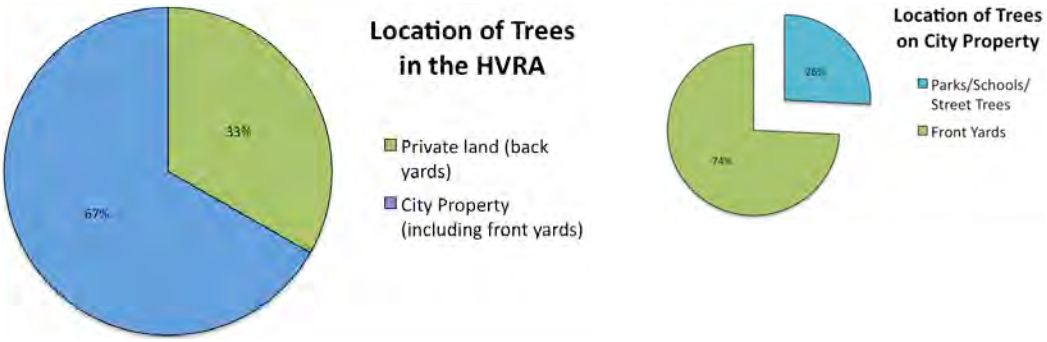
The goal of the 2018 inventory project was to produce a completed tree inventory of the Harbord Village. The inventory follows the Neighbourwoods protocol and includes the types of species, their DBH (diameter at breast height), height and width measurements, simple assessments of health, coordinates, and more. The inventory includes schools, parks, alley ways, back yards, front yards and street side property. In addition the locations of plantable spaces were recorded, and not purposefully planted trees (some may say "weed" trees) were inventoried. Shrubs such as lilacs and roses of sharon that exceeded 5cm in DBH were also included on the inventory. The following paper will report on any clear trends and interesting findings of the 2018 project and includes final maps of the trees.

How Many Trees Are There?

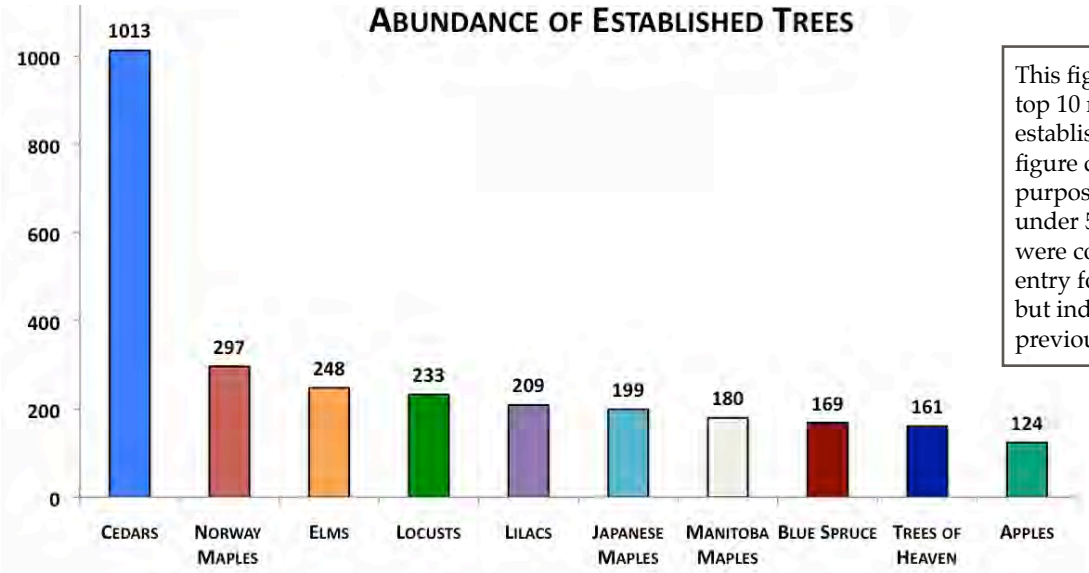
The Harbord Village is home to an estimated 4493 trees. This number does not include shrubs under 5cm DBH and not purposefully planted trees under 5cm DBH (such as elms and trees of heaven that pop up in alleyways). This is because these trees may be removed at any time. All trees over 1 m in height are included in this number.

Where Are They Located?

Most of the trees in the Harbord Village are located in front yards and back yards. An estimated 33% of trees are located in backyards. Of the 67% of trees located on city property, 74% are in front yards. An estimated 51% of the dead and removed trees are located in back yards.



What Kinds of Trees Are There?



This figure represents the top 10 most abundant established trees. This figure does not include not purposefully planted trees under 5 cm DBH. Hedges were counted as a single entry for 2017 and 2018, but individually for previous years.

It is no surprise that the most popular tree in the village is the cedar. Cedars are popular nursery items, and are often used to create hedges. Cedars were counted as hedges in the inventory only if there were 5 or more trees planted in a row for 2017 and 2018. It is important to note that the cedars often planted are small cultivars such as the emerald cedar. Some of these small cultivars can be considered more shrub-like than tree-like. Cedars may be more abundant due to their size and popularity as a hedge.

The most abundant species of tree is the Cedar. The second most abundant tree is the Norway Maple.

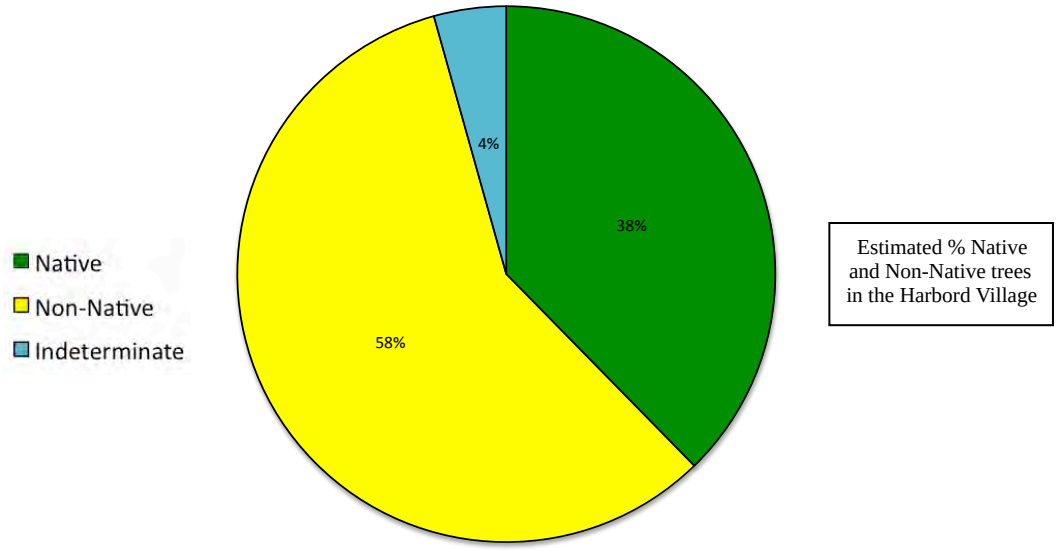
The next most abundant tree, and perhaps a better representation for a tree than many of the cedars, is the Norway maple. Norway maple is considered an invasive species in many urban areas (Lapointe & Brisson 2011). Norway maple is also non-native, as many of the top 10 most abundant species are.


canadiantreetours.org

Not sure if it's a Norway Maple or Sugar Maple? Look for a milky sap when the leaf stalk is broken in the summer.

Native vs Non-native

An estimated 58% of the total urban forest is non-native. Estimated using information from the Ontario tree atlas. Available at ontario.ca

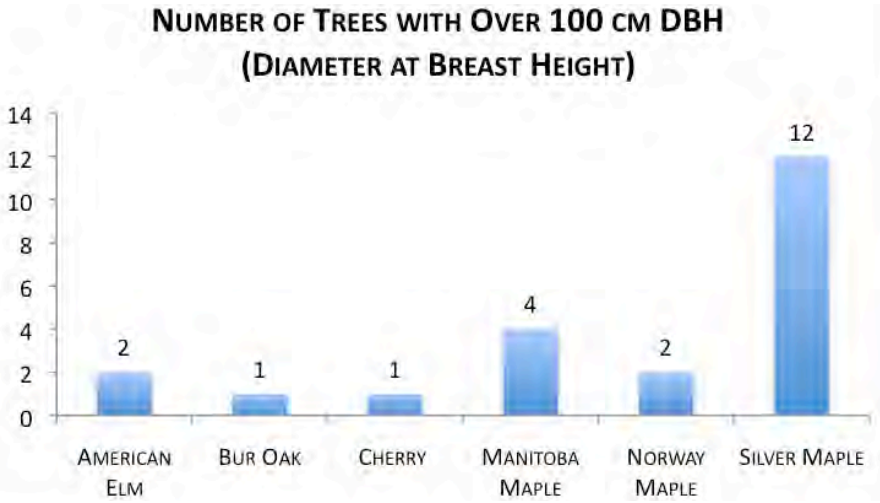


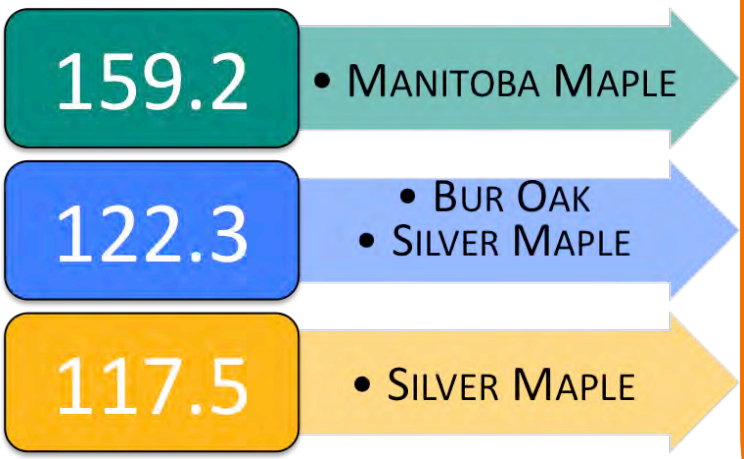
Age

This is an estimation of the age of the trees in the harbord village based on DBH and adjusted for species. This figure does not include not purposefully planted trees under 5 cm DBH.

Size

This figure represents the number of species with over 100 cm DBH. Note that 12 of the largest trees are silver maples.



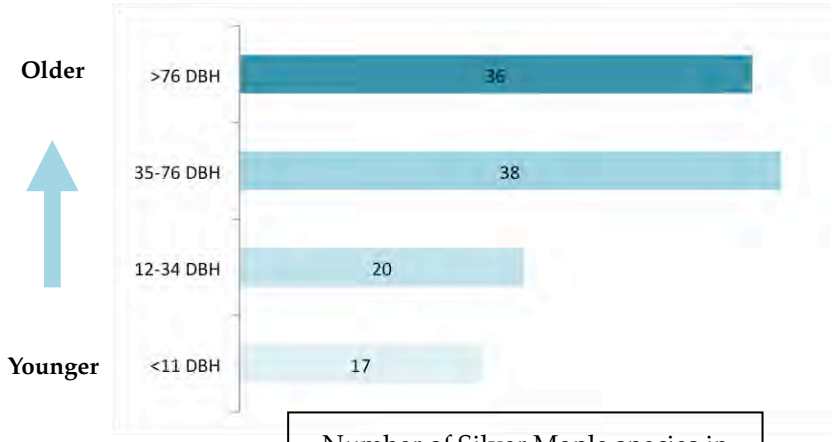


<u>These are the largest trees in the harbord village!</u>

159.2 cm DBH:
- Manitoba Maple, back yard, Harbord St.

122.3 cm DBH:
- Bur Oak, back yard, Brunswick St. (note: DBH likely larger but could not measure properly)
- Silver Maple, Central Tech School

117.5 cm DBH:
- Silver Maple, front yard, Robert St.

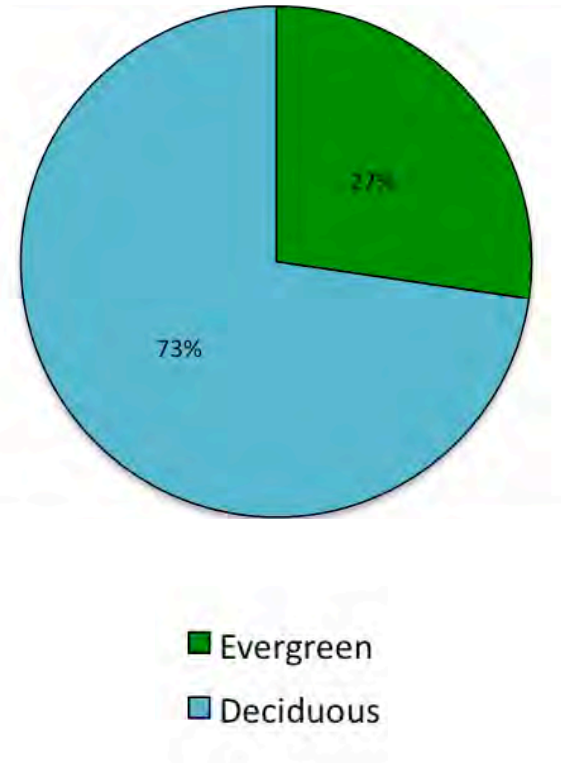


Number of Silver Maple species in the village and their respective DBH.

A trend the team has observed is the planting of many ornamental species and dwarf species.

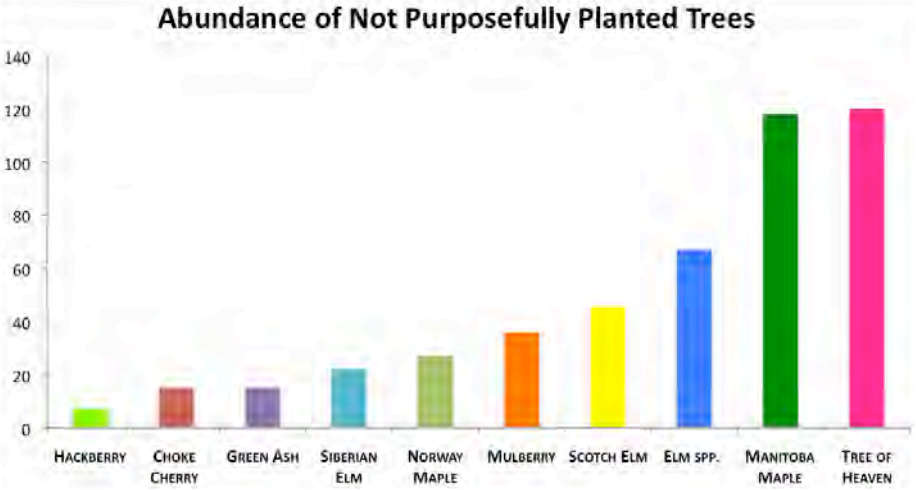
Silver maples make up many of the largest species in the village. However, many are old trees that have reduced canopies as a result of heavy trimming and cracked limbs and fewer new silver maples are being planted.
The silver maple is an important native species that processes many ecological and economical benefits (Millward & Sabir 2011). Residents may be deterred from planting large species such as the silver maple due to fear of falling branches and upsetting neighbours. A possible alternative medium to large sized tree are columnar species such as oaks and beeches that are tall but remain narrow.

Evergreen vs Deciduous



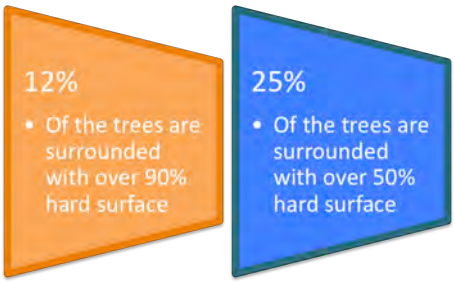
The majority of trees in the Harbord Village are deciduous.

Not Purposefully Planted Trees



This figure represents the number of not purposefully planted trees over 1 m in height in the Harbord Village. These are trees that have popped up in front yards, alleyways and elsewhere of their own volition. This data may be used to quantify how many not purposefully planted trees are cut down and how many survive. Of the trees that were inventoried, Trees of Heaven and Manitoba Maples were the most numerous. Elms were also abundant, and if grouped together become the most numerous.

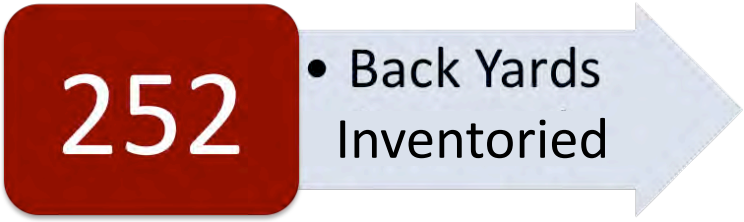
% Hard Surface



Hard surface is impermeable material covering the roots of trees. 25% of the trees are surrounded with over 50% hard surface.

Private Land: How Many Back Yards Did We Inventory in 2018?

These are the trees that we were not able to record information on this summer.



A total of 252 back yards were inventoried in the summer of 2018. We want to thank the residents of the harbord village and the HVRA for facilitating this project, and welcoming us into their yards.

Maps

Completed Inventory: The final map includes the locations of all of the living trees in the harbord village. It also includes the location of dead or removed trees, and not purposefully planted trees.

Largest Trees: This map represents the location of the largest trees in the village based on DBH. Trees with 90 cm DBH and over are included.

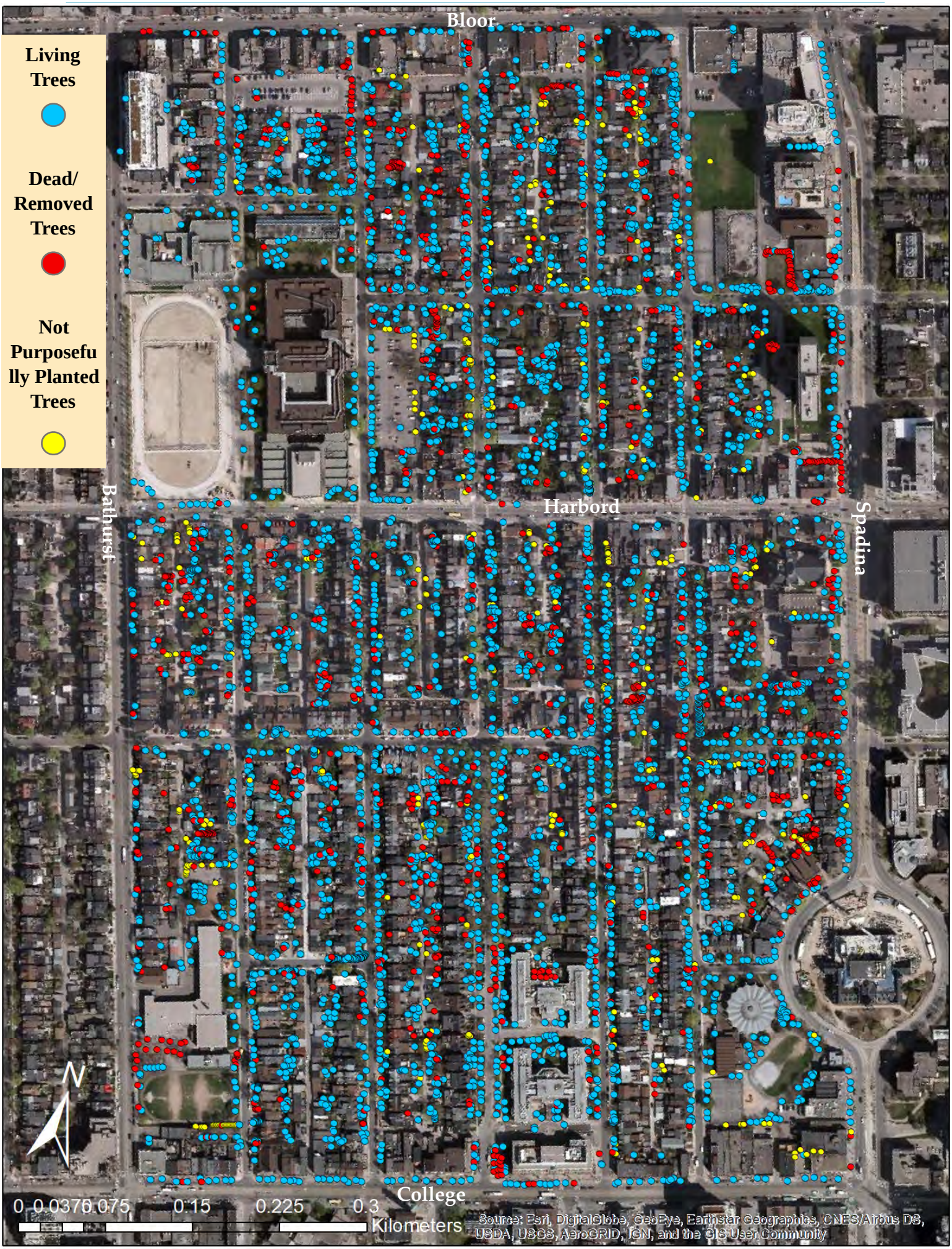
Ash Trees: This map illustrates the location of ash trees.

Fruit Trees: This map shows the locations of all of the fruit trees. Among this list are **121 mulberries, 58 tree form serviceberries, 55 pears, 55 apples, 39 cherries, 14 apricots, and 19 plums**. The harbord village is full of fruit!

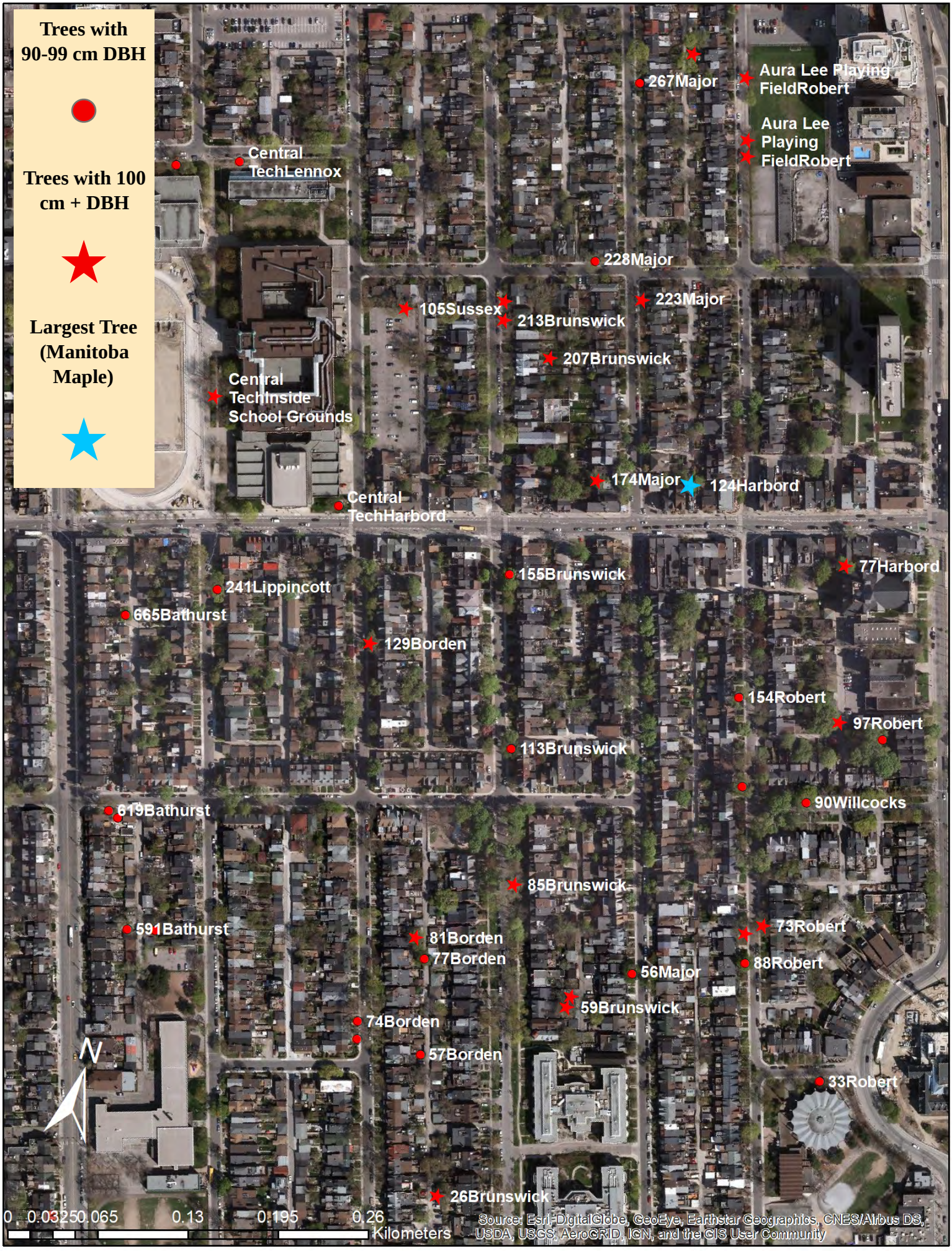
Plantable Space: This map shows the location and estimated size of available plantable spaces. Plantable space was only evaluated for front yards and street side property. Parks, schools and back yards were not included. Extra small plantable spaces are small sections of land suitable for small shrubs. Small spaces are suitable for shrubs and small trees such as dogwoods, Japanese maples, elderberries or shrub serviceberries. Medium spaces are suitable for medium sized tree species such as columnar beech trees, some weeping species, apples and crabapples, magnolias, and smaller maple cultivars. Large spaces are suitable for larger species such as maples, elms, birches, and oaks. Extra large spaces are spaces with a lot of room for root growth and are suitable for most large species.

Unique Trees: This map provides the location of any unique species. Included in the list are the largest and oldest smoke bushes, the largest elderberry, and the largest golden chain tree (laburnum). In addition, species that were rare in the inventory are mapped. Note the two dawn redwoods (metasequoia).

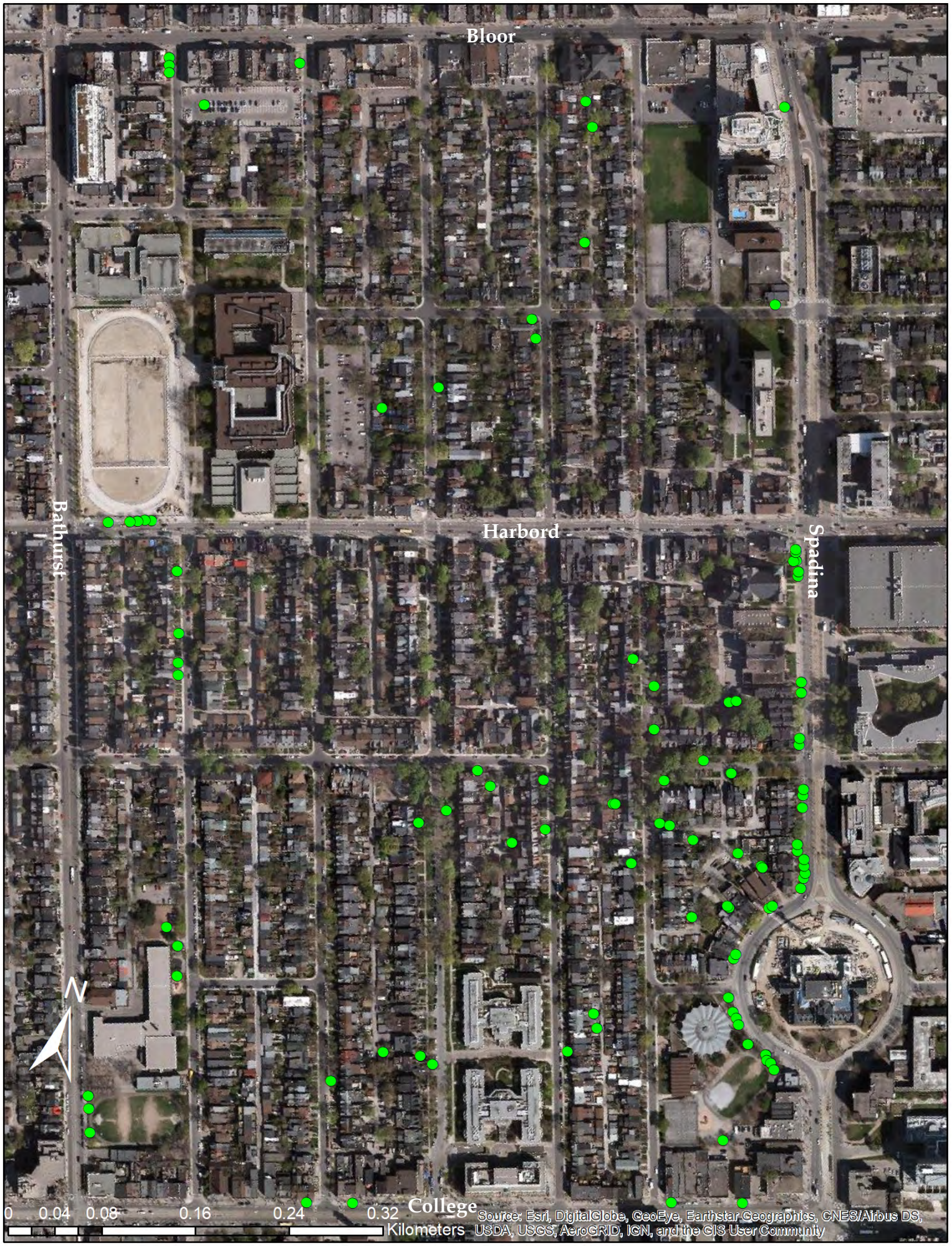
Completed Inventory



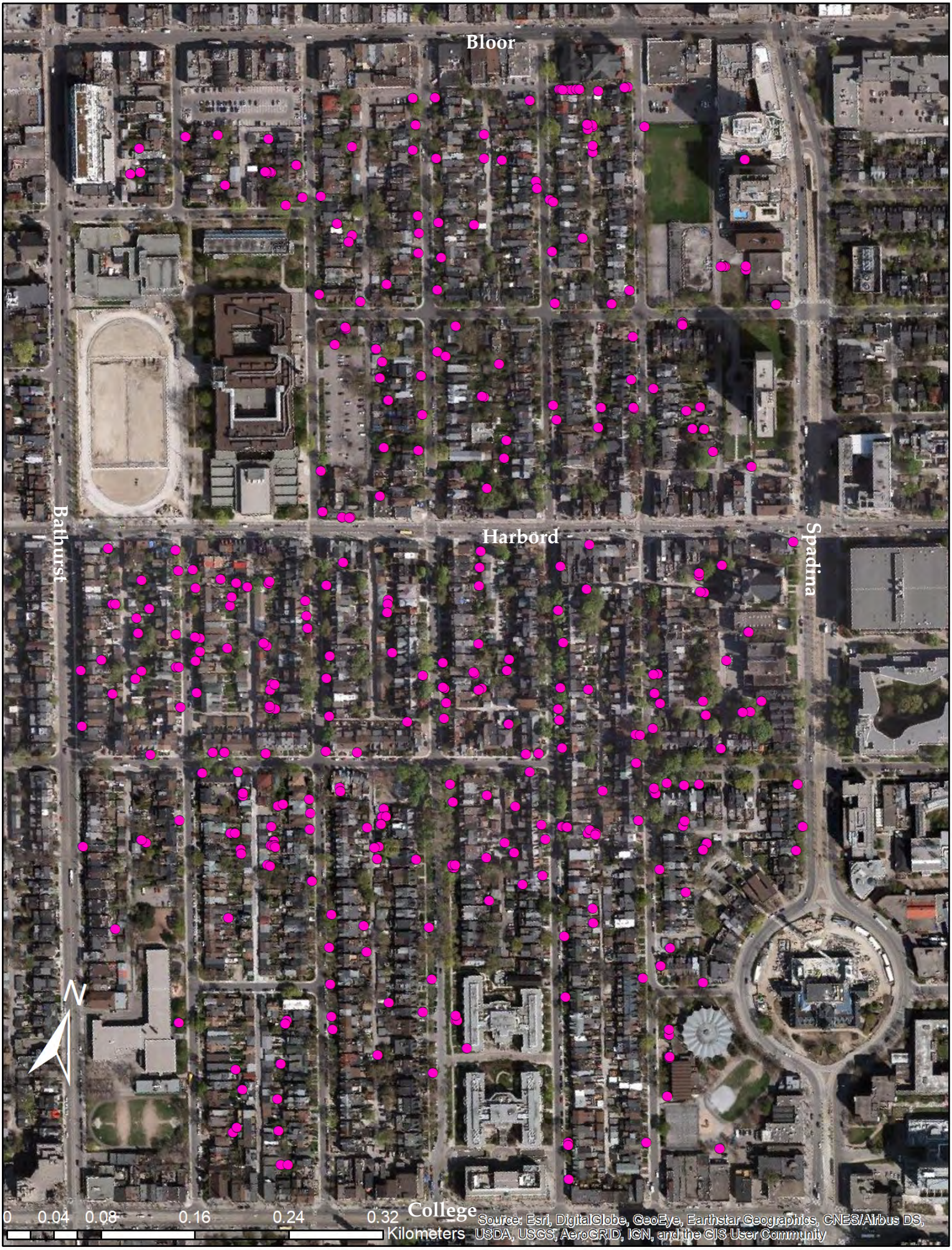
Largest Trees



Ash Trees


Bloor
Harbord
Bathurst
Spadina
College
N
0 0.04 0.08 0.16 0.24 0.32
Kilometers
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Fruit Trees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Plantable Space

Unique Trees

Many Thanks to the HVRA

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