

#### 1. WHAT IS A ROOT MAPPING REPORT?

A Root Mapping Report provides information on the roots that are located along a particular line of excavation. This information is used to determine whether the proposed location of a building or structure is appropriate. It is used to help calculate the level of root loss that would result from the proposed works. Allows an arborist to determine impact the proposed work may have on the structural stability of the tree and its capacity to survive such impact. Generally, this information is obtained by hand excavating a trench, down to a specified depth, along the line of proposed excavations. Any roots that transect that trench are then noted with details such as their position along the trench, the depth at which they are found and their diameter.

#### 2. WHO SHOULD PREPARE A ROOT MAPPING REPORT?

This document is to be prepared by an ISA Certified Arborist. All reports are to include the name, ISA number, business license number and contact information of the arborist who undertook the site inspection and carried out the assessment.

#### 3. WHEN IS A ROOT MAPPING REPORT REQUIRED?

Following preliminary assessment of your application, city arborists may identify the necessity for the submission of a Root Mapping Report. The report will help determine whether a high value tree is suitable for retention.

#### 4. WHAT SHOULD BE INCLUDED IN A ROOT MAPPING REPORT?

The location of excavation lines should be determined by the project arborist based on information provided by the applicant's builder and designer. A general guide is they should be located along the lines where excavation would be necessary to construct the proposed development. The trench is to be excavated to a depth as indicated by the builder/applicant or to the maximum depth at which tree roots are likely to grow given the soil type and site conditions. All excavation is to be carried out by hand and in a manner that will minimize root damage. Hydro-vac and air spades can also be used under project arborist supervision however small hand tools or an air knife are the preferred method to excavate the required area.

#### AS A MINIMUM REQUIREMENT, ROOT MAPPING REPORTS SHOULD INCLUDE THE FOLLOWING INFORMATION:

- a) A site plan showing the location of all excavation lines in relation to the existing trees and their CRZ and required TPB dimensions based on DBH.
- b) Photographs of the completed excavation lines. The photographs are to include points of reference so that their location and orientation can be determined. See photo below of spray painted roots.
- c) A table of findings for each individual excavation line. This schedule is to include:
  - i) the total linear distance of the excavation line,
  - ii) the linear distance along the excavation that the root was located,
  - iii) the depth at which the root was encountered and
  - iv) the diameter of the root.
- d) Any visual variations in roots observed are to be noted eg. presence of rot
- e) A section, with X (depth) and Y (Length) axis indicated, of the completed trench and all findings.
- f) All material found within the trench is to be included eg. roots, pipes, rocks, existing foundations etc.



