D. Clark Arboriculture
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www.dclarkarboriculture.com
Certified Arborist PN-6523A
TRAQ Certified
ISA Tree Risk Assessor CTRA 459

Arborist Report for Development Purposes
Re: Proposed Construction

Site Location: 323 Skinner St., Victoria BC
Darryl Clark PN-6253A TRAQ Certified
November 17, 2017

November 17, 2017
Victoria Montessori Preschool and Childcare
1250 Highrock Ave. Victoria BC V9A 4V8

Re. Proposed Construction
323 Skinner St. Victoria BC V9A 3B5

Scope of Work

D. Clark Arboriculture has been retained by Victoria Montessori Preschool and Childcare to provide comments on trees impacted by a potential house raise, and a Tree Protection Plan for the property at 323 Skinner St. as per the requirements of the City of Victoria.

Summary

Construction on a building, specifically a house raise, at 323 Skinner St. will impact the Protected Root Zone of no bylaw protected trees on the property, 5 non-bylaw protected trees on the property and 4 city owned boulevard trees. The trees at 323 Skinner St. require tree protection measures for retention including tree protection fencing, root zone barriers and supervision of activities in the protected root zone of the trees. Construction can proceed following the recommendations in this report.

Introduction and Methodology

I (Darryl Clark) visited the site on Nov. 11, 2017 at 8:20 am to perform an assessment of trees on-property and off-property that could potentially be impacted by proposed development. Site conditions surrounding affected trees were favorable with a well maintained landscaped yard and clear and maintained city boulevard on the south and west sides. A design provided by our client indicates building changes including modifications to the existing height of the building as well as exterior and interior renovations. This report was completed on November 17, 2017.

Tasks performed include:

- An aerial site map was marked indicating tree locations
- visual inspection of (6) on-property and (5) off-property "protected" trees was performed, and notes were collected on health and structural condition
- Photos were taken to document the site and affected on-property and off-property trees
- Tree height was estimated to the nearest metre.
- A scaled survey map is included with tree protection overlaid for reference

Tree Inventory

Tree Inventory									
Tag #	Species	cm/DBH	Height/m	PRZ/m	Canopy/m	Structure	Health	Retain/Remove	Bylaw Protected
1	*Malus pumila*	3	2	0	1	Fair	Poor	Retain	No
2	*Malus pumila*	5	3	1	1	Fair	Poor	Retain	No
3	*Prunus domestica*	22	4	3	5	Good	Good	Retain	No

4	*Salix matsudana*	16	4	2	4	Fair	Good	Retain	No
5	*Prunus pissardii*	44	4	5	5	Good	Good	Retain	No
6	*Acer macrophylum*	31	5	4	3	Fair	Good	Retain	No
29914	*Crataegus lavallei*	8	5	1	1	Good	Good	Retain	City Owned
29953	*Prunus serrulata*	27	5	3	6	Good	Good	Retain	City Owned
29952	*Acer Saccharinum*	85	9	10	12	Fair	Good	Retain	City Owned
29951	*Acer macrophylum*	92	9	11	8	Fair	Good	Retain	City Owned
29950	*Acer macrophylum*	55	9	7	9	Fair	Good	Retain	City Owned

DBH-Diameter at Breast Height. Measured at 1.4m from the point of germination. Where the tree is multi-stemmed at 1.4m, the DBH shall be considered 100% of the largest stem and 60% of the sum of the remaining stems, rounded to the nearest cm.
PRZ-Protected Root Zone. The PRZ shall be considered 12x the DBH, rounded to the nearest whole meter.

Impacts of Construction

The proposed construction is to clear the lot to make way for a new daycare/preschool. Construction is not expected to have an overall negative impact on any tree marked for retention, or its health and vitality.

Equipment traffic in and out of the site is expected to impact the root zone of all trees. Access to the site will be from the front of the property through the main gate off Skinner and the driveway off Mary. Additional paths for large beams may be required.

Excavation for capping of services has not yet been determined to impact protected trees.

Excavation for the removal of the existing foundation may impact the protected root zone of city owned trees #29950, 29951, 29952 and 29953.

New water sewer and potentially storm water services may require upgrades. Electrical service is expected to impact tree #29950 and 29951. Natural gas is not expected to be brought in to the building.

Tree Protection Plan

The Protected Root Zone (PRZ) of all protected trees recognized in this report shall be 12 times the diameter of the tree.[1]

During construction protection fencing will be installed, the construction and location of which will be approved by the project arborist. Tree protection fencing must be anchored in the ground and made of 2x4 or similar material frame, paneled with securely affixed orange snow fence or plywood and clearly marked as TREE PROTECTION AREA- NO ENTRY (See appendix A for an example). The area inside the fence will be free of all traffic and storage of materials. Areas outside the tree protection fence but still within the protected root zone (PRZ) may be left open for access, as work areas and for storage of materials. These areas will be protected by vehicle traffic with either 3/4" plywood or a minimum 20cm of coarse wood chips (see Site Plan for suggested locations of each). Tree protection measures will not be amended in any way without approval from the project arborist. Any additional tree protection measures will be documented in a memo to Victoria and the developer.

Excavation inside the Protected Root Zone of any tree identified in this plan for any reason will take place under the supervision of the project arborist or their designate. Working radially inward toward the tree, the excavator will remove the soil incrementally with a non-toothed shovel allowing any exposed roots to be pruned to acceptable standard by the project arborist. Any excavation of the stump of a tree inside a PRZ must be supervised by the project arborist. As well, any excavation for underground services inside a PRZ will be supervised by the project arborist. Where applicable, a hydro-vac or Airspade® may be employed to expose critical roots and services.

Any pruning of protected trees will be performed by an ISA (International Society of Arboriculture) certified arborist, to internationally recognised best management practices.

Excavation will be occurring in the PRZ of protected trees. Any excavation within or adjacent to the PRZ at any depth for any reason must be supervised by the project arborist. This includes excavation for all underground services, driveways and sidewalks, and structural foundations and the removal of any stumps in the PRZ by an excavator or similar machine. Working radially inward toward the tree, the excavator will remove the soil incrementally with a non- toothed shovel allowing any exposed roots to be pruned to acceptable standard by the project arborist. Roots that have been pruned are to be covered with a layer of burlap and kept damp for the duration of the project.

All paved surfaces that are new and inside the PRZ of protected trees will employ alternative construction methods including loadbearing geotextile fabric or a geogrid/geocell system. A memo will be provided to the developer and the city after a construction method has been chosen to be approved before proceeding with construction of any paved surfaces.

Role of the Project Arborist

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[1]Best Management Practices (BMP) - Managing Trees During Construction, Second Edition By Kelby Fite and E. Thomas Smiley

No aspect of this Tree Protection Plan will be amended in whole or in part without the permission of the project arborist. Any amendments to the plan must be documented in memorandums to the municipality and the developer.
The project arborist must approve all tree protection measures before demolition and/or construction is to begin.
A site meeting including the project arborist, developer, project supervisor and any other related parties to review the tree protection plan will be held at the beginning of the project.
The developer may keep a copy of the tree protection plan on site to be reviewed and/or initialed by everyone working inside or around the PRZ of trees.
The project arborist is responsible for ensuring that all aspects of this plan, including violations, are documented in memorandums to the municipality and the developer.

Replacement Trees

Victoria requires two replacement trees be planted for every bylaw protected tree removed. Should any tree(s) require removal during this project, replacement tree locations will be determined when a landscape plan is finalized, and a map of those locations will be submitted to Victoria and the developer in a memo before the completion of the project. Should suitable locations not be available, the developer may seek to donate the trees to a location determined by the municipality.

Trees #2, 3 and 6 are not bylaw protected and should be considered for removal prior to construction. In the case of #2 and 3, their poor health warrants removal. In the case of #6, it is clearly a tree from seed or sucker that would not have been planted in this location. Its location and structure are likely to lead to issues with related to risk and infrastructure in the future. If these trees are to be removed it is recommended that no penalties be applied under this tree protection plan.

Thank you for the opportunity to comment on these trees.

Should any issues arise from this report, I am available to discuss them by phone, email or in person.
Regards,

Darryl Clark

Certified Arborist PN-6523A
TRAQ Certified
ISA Tree Risk Assessor CTRA 459

Disclosure Statement

An arborist uses their education, training and experience to assess trees and provide prescriptions that promote the health and wellbeing, and reduce the risk of trees.

The prescriptions set forth in this report are based on the documented indicators of risk and health noted at the time of the assessment and are not a guarantee against all potential symptoms and risks.

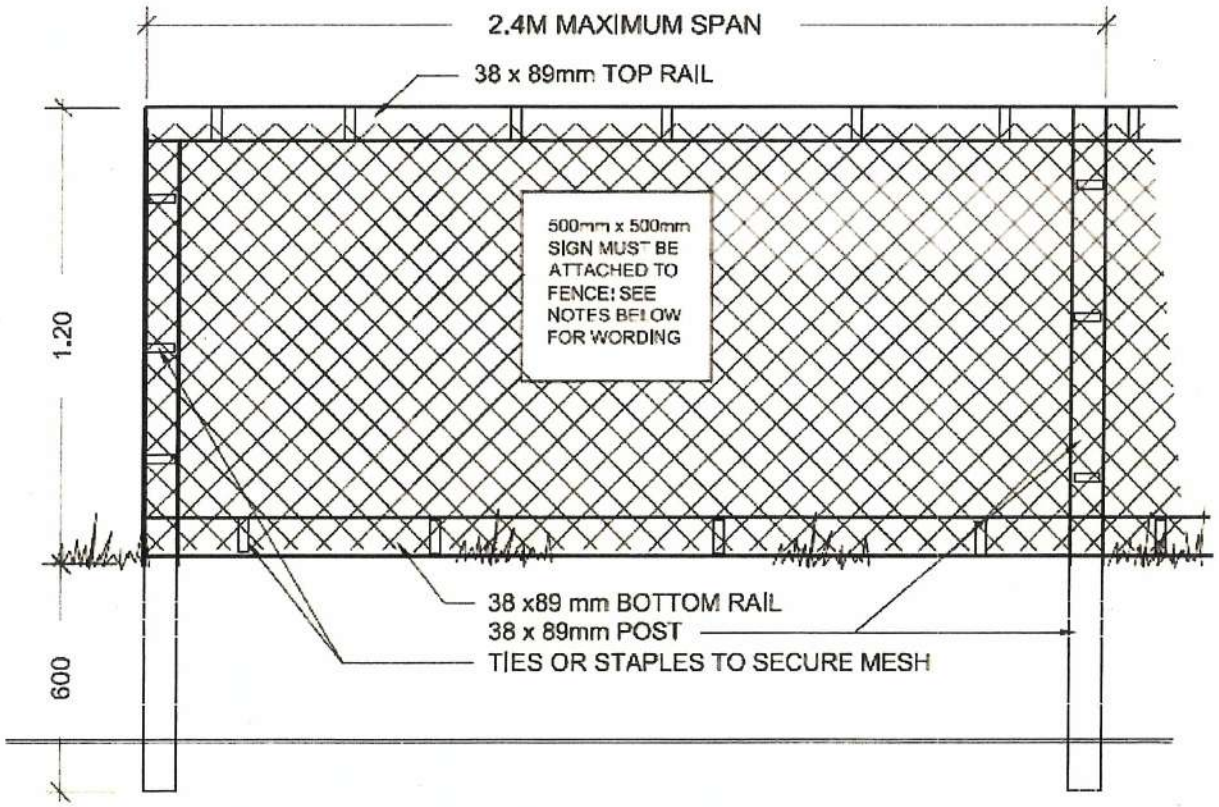
Trees are living organisms and subject to continual change from a variety of factors including but not limited to disease, weather and climate, and age. Disease and structural defects may be concealed in the tree or underground. It is impossible for an arborist to detect every flaw or condition that may result in failure, and an arborist cannot guarantee that a tree will remain healthy and free of risk.

To live near trees is to accept some degree of risk. The only way to eliminate the risks associated with trees is to eliminate all trees.

Assumptions and Limiting Conditions

- Altering this report in any way invalidates the entire report.
- The use of this report is intended solely for the addressed client and may not be used or reproduced for any reason without the consent of the author.
- The information in this report is limited to only the items that were examined and reported on and reflect only the visual conditions at the time of the assessment.
- The inspection is limited to a visual examination of the accessible components without dissection, excavation or probing, unless otherwise reported. There is no guarantee that problems or deficiencies may not arise in the future, or that they may have been present at the time of the assessment.
- Sketches, notes, diagrams, etc. included in this report are intended as visual aids, are not considered to scale except where noted and should not be considered surveys or architectural drawings.
- All information provided by owners and or managers of the property in question, or by agents acting on behalf of the aforementioned is assumed to be correct and submitted in good faith. The consultant cannot be responsible or guarantee the accuracy of information provided by others.
- It is assumed that the property is not in violation of any codes, covenants, ordinances or any other governmental regulations.
- The consultant shall not be required to attend court or give testimony unless subsequent contractual arrangements are made.
- The report and any values within are the opinion of the consultant, and fees collected are in no way contingent on the reporting of a specified value, a stipulated result, the occurrence of a subsequent event, or any finding to be reported.

Appendix A



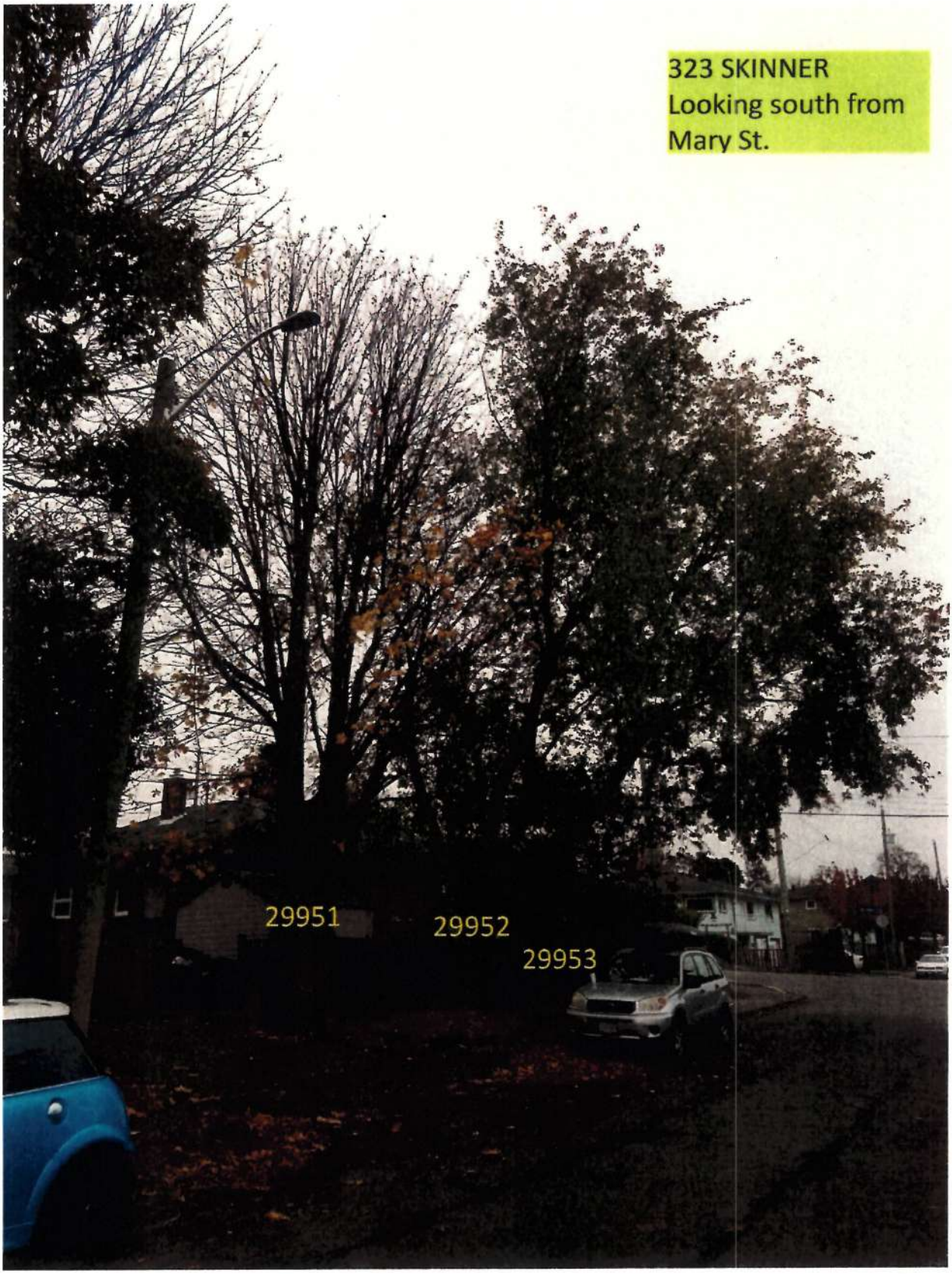
TREE PROTECTION FENCING

Tree Protection Fencing Specifications:

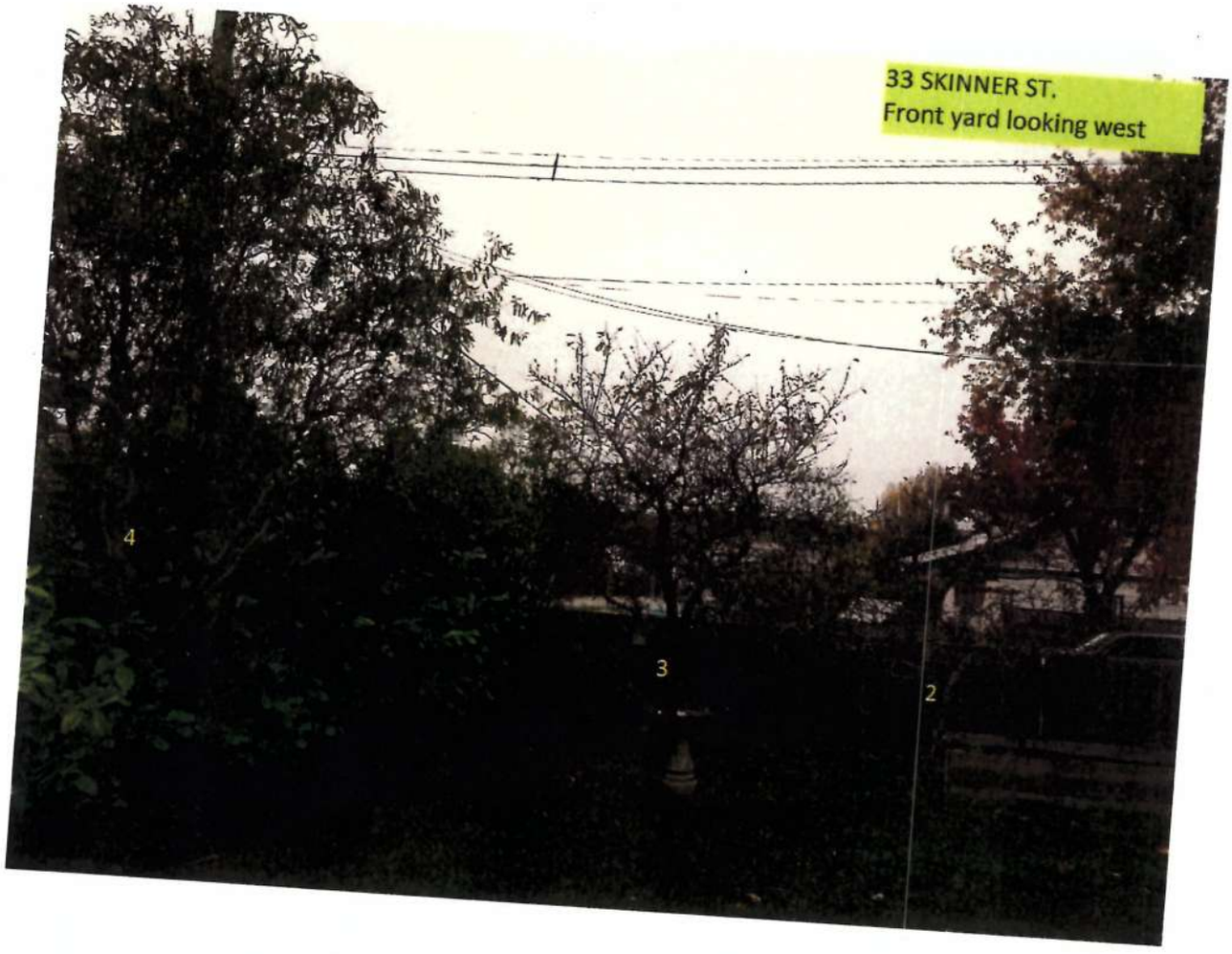
1. The fence will be constructed using 38 x 89 mm (2" x 4") wood frame:

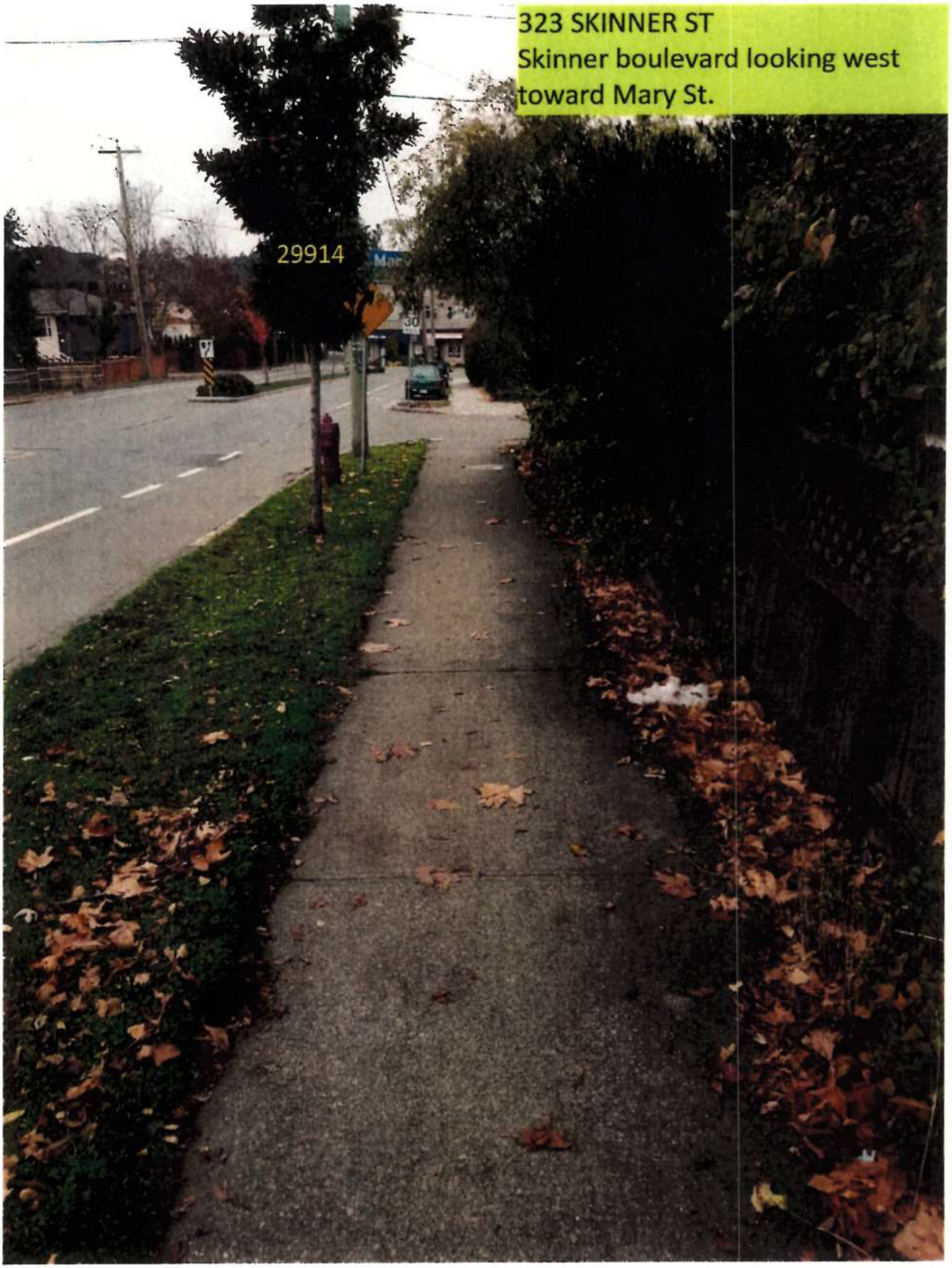
    - Top, Bottom and Posts. In rocky areas, metal posts (t-bar or rebar) drilled into rock will be accepted
    - Use orange snow fencing mesh and secure to the wood frame with "zip" ties or galvanized staples. Painted plywood or galvanized fencing may be used in place of snow fence mesh

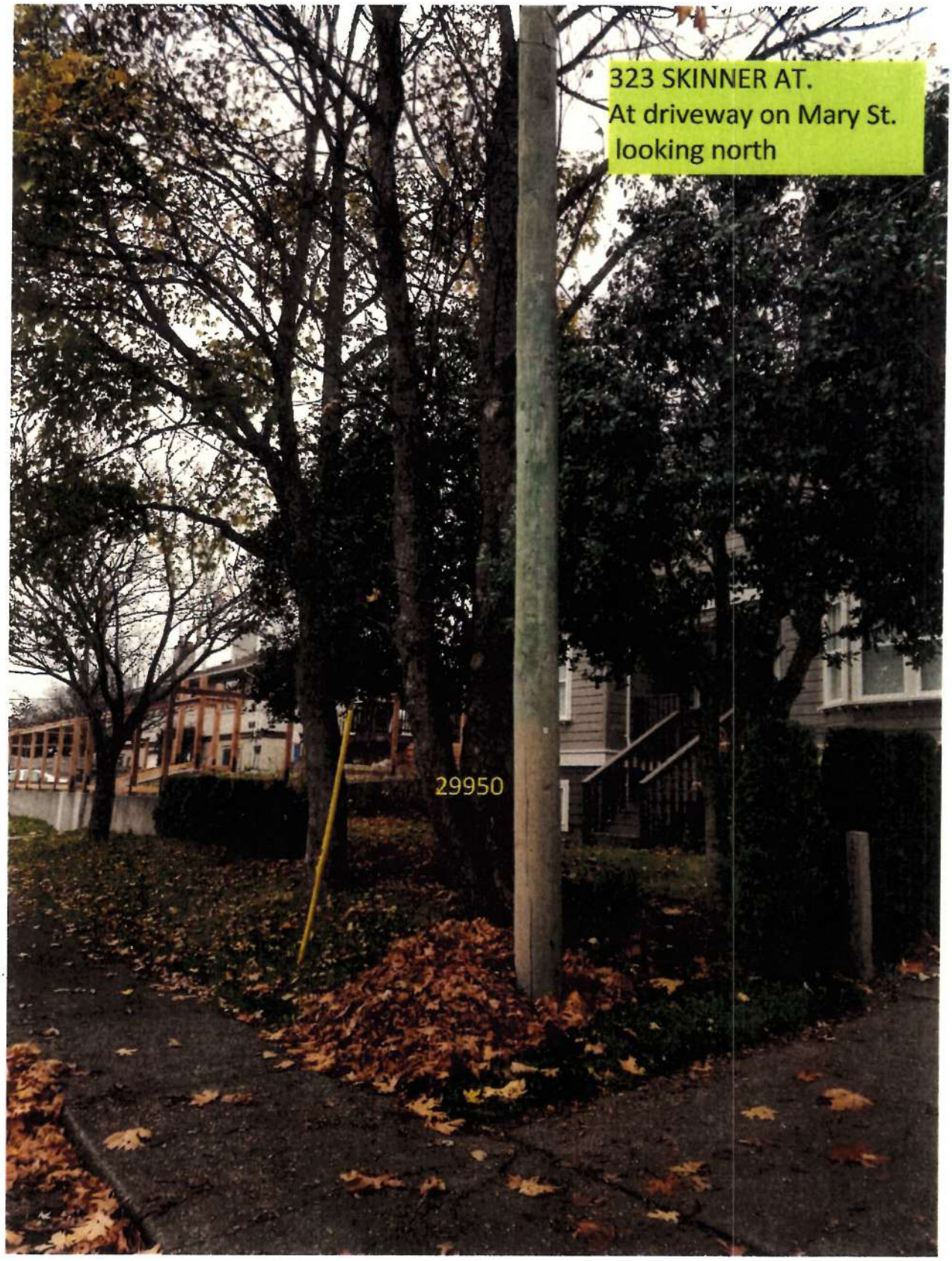
2. Attach a roughly 500 mm x 500 mm sign with the following wording: **TREE PROTECTION AREA-NO ENTRY**. This sign must be affixed on every fence face or at least every 10 linear metres.


323 SKINNER
Looking south from
Mary St.
29951
29952
29953


323 SKINNER ST
North east corner


33 SKINNER ST.
Front yard looking west
4
3
2


323 SKINNER ST
Skinner boulevard looking west
toward Mary St.
29914


323 SKINNER AT.
At driveway on Mary St.
looking north
29950

BC LAND SURVEYORS SITE PLAN OF:

Civic: 323 Skinner Street

Legal Lot 2, Section 31, Esquimalt District, Plan VIP58823

Parcel Identifier: 018-736-581 in the City of Victoria

Scale - 1 : 200 Distances are in metres.

0 2 10 20

The intended print size is 11" by 17".

LEGEND

Elevations are to geodetic datum.

+ - denotes - existing elevation

Tree diameters are in centimetres.

Lot Area = 460 m2

The following non-financial charges are shown on the current title and may affect the property.

EH57838 - Easement

EH57839 - Easement

LEGEND

- TREE
- PROTECTED ROOT ZONE
- TREE PROTECTION FENCE
- COARSE WOODCHIPS

July 24, 2017

File : 12,613 - 23

POWELL & ASSOCIATES
B C Land Surveyors
250-2950 Douglas Street
Victoria, BC V8T 4N4

Setbacks are derived from field survey.

Parcel dimensions shown hereon are derived from Land Title Office records.

This document shows the relative location of the surveyed features and shall not be used to define property boundaries.