



M.B. ARBORICULTURE

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Arboricultural Impact Assessment & Tree Protection Plan

Client: Volodymyr Shynke

Client email: vlad@829group.ca

Property location: 2838, 2836, 2834 & 2832 Knotty Pine Road

Site visit conducted at: June 7, 2023

Site conditions: Sunny

Date of completed report: June 10, 2023

Completed by:

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Insurance policy numbers: SR034748 (CCGL), PSG00589802 (E&O)



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1.0 Summary

Given the proposed construction and design, the planned construction of a new 27 townhouse complex, all trees will require removal to accommodate the design.

Four [4] trees were included in the survey and all were located on the subject properties.

2.0 Scope of work

MB Arboriculture was instructed by Volodymyr Shynke (Client) to undertake a tree impact assessment at 2832, 2834, 2836 & 2838 Knotty Pine Road in preparation for the proposed development and subsequent construction work where trees protected under the Langford's Tree Protection Bylaw (Bylaw No. 2117) will be impacted. This report provides a general assessment of these trees located on the parcels of land in question.

The scope of work:

- Identify and inventory trees protected under Langford's Tree Protection Bylaw (Bylaw No. 2117) that may be impacted by activities occurring as part of the proposed project that are on the subject property, or, on municipal owned land.
- Assess the health and structural condition of these trees
- Provide recommendations for the protection of trees through all phases of construction to minimize impacts to health and structural condition
- Identify conflicts or conditions that require removal and replacement of said trees.

3.0 Tree survey methodology

The tree survey includes any "trees" (defined as those with a DBH >20cm, as per the City of Langford Bylaw NO. 2117) on the properties that may be impacted by the development, as well as any municipal owned trees. The initial visual inspection of these protected trees was undertaken on the 4 properties, 2832, 2834, 2836 & 2838 Knotty Pine Road. Trees were surveyed individually and inspected from ground level only; no climbing inspections or specialist decay detection were used. Should a more detailed inspection be deemed appropriate, this will be covered under the Recommendations.

The trees were inspected to determine their health, condition, and capability to withstand the proposed construction.

For the completion of the survey, no tags were placed on any of the trees due to access restrictions such as locked gates, presence of dogs etc. and as such only estimated measurements were taken for the trees. Details of genus and size (DBH in cm) were noted (see Appendix I Tree Inventory). Critical Root Zone (CRZ) is in meters. Canopy spread was recorded in meters. Tree condition (both physiological and structural) was assessed and an indication of their tolerance to construction activity given¹.

4.0 Tree resource and site description

A total of four [4] trees were surveyed. The sites comprise of four existing residential properties which are generally landscaped lots and contain open grown shrubs and trees, most of which are mature to semi mature species. Following the site inspection and analysis of the overall condition and species diversity of the trees, it was observed that the tree population for these sites are sporadic and only one large mature Garry Oak (#01) is of a native species to the area.

The terrain of the site is relatively flat in a well-developed area. The overall tree cover for the area is mixed. Upon my visit there was no sign of any recent soil disturbances in and around the trees but as previously mentioned access was limited.

5.0 Foreseeable impacts due to construction activity

The proposed project is the construction of a new town house complex (see Appendix III), which has the potential to impact all the protected trees outlined in this report.

Tree impact of demolition activities and new townhouse development

Given the large extent and footprint of the proposed new 27 unit townhouse, all four [4] trees outlined within this report will require removal to accommodate the design footprint. Their removal is solely recommended due to the location of the tree within, or in close proximity to the development footprint and not due to any concerns in terms of tree health or structure (see Appendix II).

¹ Trees and Development - A technical guide to preservation of trees during land development. By Matheny N and Clark JR.

Should the construction designs change, and if any trees are to be retained then a tree protection and mitigation plan will be required to ensure tree(s) are protected throughout all phases of construction.

6.0 Role of the Project Arborist

Pre-Construction

- Prior to construction, all trees identified to be retained will be protected with TPF. The fencing shall be inspected by the Project Arborist (after installation), and photographed and maintained for the whole duration of construction. It shall not be removed until authorized by the Project Arborist and Municipality.
- A site meeting to include the Project Arborist, developer, project supervisor and any other related parties to review/amend the tree protection plan will be held at the beginning of the project. This meeting is where the details of the tree protection should be agreed and finalised.
- If appropriate, preparation of any revised plans and specifications for the agreement of the Municipality.

During Construction

- If excavation is required within the CRZ, this must be supervised/directed and documented by the Project Arborist.
- The developer must keep a copy of the tree protection plan on site to be reviewed and/or initialed by everyone working inside or around the CRZ of trees.
- The Project Arborist is responsible for ensuring that all aspects of this tree protection plan, including violations, are documented in memorandums to the municipality and the developer.

Post-Construction

- Following construction, the CRZ and trees shall be inspected by the Project Arborist and documented according.
- Removal of TPF and ground protection (if needed). The TPF should only be authorised for removal once there is no risk of damage to the CRZ from any construction activity.

Disclosure statement

An arborist uses their professional education and experience to assess trees and provide recommendations on the management of trees that will promote or improve their physical and structural health and reduce risks to human life and the built environment.

This report, its appendices and any subsequent revisions thereof, will form part of any formal planning application in respect of the development of this site, and as such will be open to public scrutiny and comment.

Limitations

The use of this report is intended solely for the addressed client and may not be used or reproduced without the consent of the author.

The findings of this study are valid for a period of 12 months from the date of survey. If works have not commenced by this date, an updated site visit should be carried out by a suitably qualified and experienced arborist to assess any changes to the trees and groups on site and to inform a review of the conclusions and recommendations made.

Trees are living organisms and as such their structural and physical health is influenced by age, growth, pest and diseases and climate and weather conditions. Defects that may affect a trees structure or health may be concealed within the tree or beneath the ground. It is not possible for an arborist to identify all flaws or conditions that may result in failure nor can an arborist guarantee that a tree will remain healthy and free of risk in the future.

Trees are dynamic living organisms, whose health and condition can be subject to rapid change, depending on a number of external and internal factors. The conclusions and recommendations contained in this report relate to the trees at the time of inspection.

The information in this report is limited to only the items that were examined and reported on and reflect only the visual conditions present at the time of the assessment. Any significant alteration to the site that may affect the trees that are present will necessitate a re-assessment of the site and trees.

Unless stated, the inspection was limited to a visual examination of the accessible components without dissection or probing.

Site plans or other diagrams in this report are intended as visual aids only and are not to scale.

APPENDIX I Tree Inventory

Tree Ref #	Species	Location (on, off, shared, municipal)	Bylaw status	DBH (cm)	CRZ (m)	Canopy spread (radius metres)	Structural condition	Health condition	Retention suitability	Tolerance to construction activity	Impacts from the proposed construction	Remove/ Retain	Comments
1	Garry Oak (<i>Quercus garryana</i>)	On (Shared)	Protected	118	14	14	Good	Good	Suitable	Good	Within the footprint of the foundations of the new townhomes	Remove	Multi stemmed tree at base (0.5 metres) / minor deadwood / located on 2838 & 2836 Knotty Pine.
2	Spruce (<i>Picea pungens</i>)	On	Protected	28	3	2	Good	Good	Suitable	Moderate	Within the footprint of the foundations of the new townhomes	Remove	Minor deadwood typical of species / raised previously / located on 2832 Knotty Pine.
3	Douglas Fir (<i>Pseudotsuga menziesii</i>)	On	Protected	42	5	6	Good	Good	Unsuitable	Poor-good	Within the footprint of the foundations of the new townhomes	Remove	Minor deadwood / over extending branches / located on 2832 Knotty Pine.
4	Cherry (<i>Prunus spp.</i>)	On	Protected	25	3	2	Fair	Good	Unsuitable	Moderate	Within the footprint of the foundations of the new townhomes	Remove	Pruned heavily in the past / located on 2834 Knotty Pine.

Tree Inventory Key

Tree numbers (#) – tree numbers relate to the location of the tree on the site plan and assigned tag (Appendix II)

Tree species – common names (latin names)

Location – On, Off, shared, municipality

Bylaw status – Is the tree protected (Yes/No)

DBH – diameter at breast height (measured 1.4m from grade)

CRZ – critical root zone is a radius in meters from the tree truck calculated as $(\text{DBH in cm} \times 12)/100$ Ref: Best Management Practices (BMP) - Managing Trees During Construction, Second Edition By Kelby Fite and E. Thomas Smiley

Canopy spread – radius (m) of the crown spread to the dripline of the longest limb

Structural condition –

- Poor – structural defects that have been in place for a prolonged period of time to the point that mitigation measures are limited.
- Fair – structural concerns that are possible to mitigate through pruning
- Good – No visible or minor structural flaws that require little to no pruning

Health condition -

- Poor – significant signs of visible decline that threatens the long term retention of the tree.
- Fair – signs of stress
- Good – no visible signs of significant stress / or minor aesthetic issues.

Retention suitability –

- Suitable – a tree with no visible or minor health / structural defects, is tolerant to changes to growing environment and is a possible candidate for retention providing that the CRZ can be adequately protected.
- Conditional – a tree with good health but is a species with a poor tolerance to changes to its growing environment or has a structural defect that would require a certain measure to be implemented in order to consider it suitable for retention.
- Unsuitable – a tree with poor health, a major structural defect that cannot be mitigated, or a tree with poor tolerance to construction impacts and is unlikely to survive long term.

Retention status –

- Remove – not possible to retain given the proposed construction plans
- Retain – possible to retain the tree in the long term given the proposed plans and information available. Assuming the mitigation measures are followed.

APPENDIX II Tree Survey & Tree Management Plan

APPENDIX III Development proposal

