



Talbot Mackenzie & Associates  
Consulting Arborists

**Arborist Review**  
**Montrose Wintergarden Hotel,**  
**1106 Blanshard Street Victoria, BC**

PREPARED FOR: David Fullbrook  
Merchant House Capital  
PO Box 8087 – Victoria Main  
Victoria, BC V8W 3R9

PREPARED BY: Talbot, Mackenzie & Associates  
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ISA Certified # PN-0211A  
TRAQ - Qualified

Date submitted: Amended for November 16, 2020

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Jobsite Property: Montrose Wintergarden Hotel 1106 Blanshard Street

Date of Site Visit: June 16, 2020

Site Conditions: Existing developed property

**Summary:** The from the information that was compiled during our site inspections and our review of the tree resource and the development proposal, we determined that:

- There are no bylaw-protected trees located within the subject property or on adjacent properties where they could be impacted.
- In our opinion the removal of beech #9645 and 9647 will be required.
- Beech #9649, 9650 and 9651 are located along the footprint of the existing hotel building that is to be retained. The only proposed construction activity near these trees that was reviewed is the replacement of the existing hardscape and street curbs, and if the mitigation procedures outlined below for the replacement of the hardscape can be implemented and adhered to it should be possible to protect and retain these three trees
- Beech #9646 is on the frontage of the new hotel building. The Vista Street lighting chamber and conduit have been relocated further to the south to reduce the encroachment on the root zone of this tree. If the excavation can be contained within the footprints of the existing building and lighting chamber in this location, there is a good opportunity to retain this tree.
- Beech #9648 is located close to the corner where the new hotel building and the existing hotel building to be retained adjoin. Changes have been made to the original proposal that was reviewed to move the underground access and underground services away from this corner of the project. If the excavation can be contained within the footprints of the existing building and water/fire chamber in this location, the retention of this tree should be possible.
- All the trees that are to be retained must be isolated from the construction impacts by erecting protective barrier fencing or solid hording.
- All excavation within or along the edge of the critical root zones of trees that are to be retained, must be supervised by an ISA Certified arborist.

**Assignment:** Provide arborist services to:

- Visually exam the above-ground portions of and document the trees located along the Blanshard Street municipal frontages of the land parcel that comprises the Montrose Wintergarden development proposal.
- Review the preliminary Architectural, Civil and Landscape drawings related to this development proposal.

- Prepare a Tree Impact and Protection report indicating the health and structural characteristics of the existing trees and outline mitigation strategies to mitigate the impacts of the construction on the trees that have been identified for retention.

**Method:** During our June 16, 2020 site visit we visually examined the above-ground portions of and document the trees on the municipal frontages of this property that are located where they could potentially be impacted by the proposal to redevelop the subject property. The compiled information is entered on a Tree Resource spreadsheet attached to this report and includes the municipal tree identity number, trunk diameter (d.b.h.), a defined critical root zone (CRZ) or root protection area, the health and structural condition of the tree based on our visual assessment, the status regarding tree removal or retention, the species tolerance to construction impacts and any noted remarks or recommendations

The trees on the municipal frontages have been identified with the City of Victoria's site ID number indicated for each municipal tree in their GIS mapping system.

The identity number for each tree is entered on a survey drawing that was supplied to us.

### **Tree Resource and Potential Impacts:**

During our site visit we reviewed the preliminary, architectural, civil and landscape drawings that were supplied and summarised our general findings and comments below:

- There are seven (7) upright beech trees *Fagus sylvatica*, growing along the Blanshard Street frontage of the subject land parcels.
  - Three (3) of the trees #9647, 9649 and 9650 are the cultivar 'Rohannii' that has purple foliage with an oak leaf like appearance.
  - Three (3) of the trees #9645, 9646 and 9648 are the cultivar 'Riversii' that has purple foliage with a typical beech leaf appearance.
  - One (1) of the trees #9651 has green foliage (in contrast to the other trees in the row that have purple foliage) with a typical beech leaf appearance and is possibly the cultivar 'Dawyck'.
  - There are no bylaw-protected trees located within the subject property or on adjacent properties where they could be impacted.
- All the trees are reasonably healthy and have a narrow canopy form that is suited for growing in urban settings where the planting space is constricted. The structural defects that were identified in several of the trees are considered minor for trees of this species.
- The root zone spread of the trees will have been restricted by the footprints of the existing buildings, therefore where the excavation that is required can be confined to the area within the footprints of the existing buildings, the retention of that tree will be possible.
- From the plans that were reviewed and discussions with the architect, regarding the depth of the excavation it will be difficult to contain the excavation along the entire footprint of the existing building that is to be demolished to construct the new hotel building. The access driveway to the underground and service connection are located along this frontage where they will impact specific trees. Therefore, in our opinion:
  - The removal of beech #9645 that will be impacted by the Street light chamber, and 9647 within the footprint of the driveway access, will be required.

- Beech #9646 on the frontage of the new building and #9648 located close to the corner where the new hotel building adjoins the existing hotel building to be retained. Changes have been made to the original proposal that was reviewed to move the underground access and underground services away from these two trees. If the excavation can be contained within the footprints of the existing buildings and servicing chambers and conduits there is a good opportunity to retain these trees.
- Beech #9649, 9650 and 9651 are located along the footprint of the existing hotel building that is to be retained. The only proposed construction activity near these trees that was reviewed is the replacement of the existing hardscape and street curbs, and if the mitigation procedures outlined below for the replacement of the hardscape can be implemented and adhered to it should be possible to protect and retain these three trees

**Mitigation:** We recommend the following procedures be implemented to reduce the impacts on the Five (5) trees that are located Blanshard Street municipal frontage where they could potentially be retained.

**Demolition:** Prior to any demolition of the existing buildings, hording or some form of barrier fencing must be erected around the municipal trees to protect the trunks and canopies of the trees from accidental mechanical injury. If a building permit has not been issued that permits the removal of specific trees at the time of demolition these trees must also be protected with fencing or hording during the demolition stage, even if their removal may occur at a later date.

The root zones are covered with a hardscape surface that we recommend remaining undisturbed through the demolition phase. All equipment required for this purpose must work from within the subject property and there shall be no excavation outside the property boundary to facilitate the demolition activity

**Barrier Fencing:** Rigid hording material or protective barrier fencing must be erected to protect the trunks and canopies of the municipal trees prior to any construction, excavation or demolition work commencing on the site. As the root zones are protected by hardscape surfacing that is recommended to remain in place it may be difficult to erect barrier fencing. We suggest erecting fencing frames or boxes that extend out to the edges of the tree driplines that are anchored in place to prevent relocation during construction. Where barrier fencing is erected, it must be a minimum of 4 feet in height, of solid frame construction that is attached to wooden or metal posts. A solid board or rail must run between the posts at the top and the bottom of the fencing. This solid frame can then be covered with plywood, or flexible snow fencing (see attached diagram). Signs must be posted around the protection zone to declare it off limits to all construction related activity. The fencing must be erected prior to the start of any construction activity on site (i.e. site clearing, demolition, pavement removal, excavation, and construction), and remain in place through completion of the project. The project arborist must be consulted, and the municipality notified before this fencing is removed or moved for any purpose. Solid hording material may also be required to protect the trunks of trees from mechanical injury where vehicles or machinery are permitted close to tree trunks.



**Building Envelope:** Excavation for the underground portion is likely to extend over the property boundary and onto the municipal frontage and where the removal of Beech 9645 and 9647 will be required. Beech #9646 and #9648 are located close to or along the frontage of the proposed building to be constructed. If the excavation can be contained within the existing building footprint in this location, the retention of these trees should be possible. We recommend that the project arborist supervise the excavation along the Blanshard Street frontage of the site to observe the impacts on these trees and determine if it is feasible to retain them based on any encroachment into its critical root zone. Shoring or some other method of bank cut stabilization will be required if the cut slope within the property boundary is not sufficient to attain safe working conditions and bank support

**Servicing:** The civil drawings that were reviewed indicate that all the proposed underground services are located outside the critical root zone areas of trees that are to be retained. The storm service and domestic water/fire connections are located near the root zone of Beech 9648 and a Street lighting chamber and connection are located close to the root zone of Beech #9646. Arborist supervision is recommended for the excavation through the municipal frontage adjacent to these trees.

**Hardscape and Landscape Replacement:** At present the entire root zones of the subject trees are covered with hardscape. We recommend retaining the existing hardscape areas until the building construction has been completed to protect the root structures beneath the hardscape panels from the construction activity. Once the panels are lifted, the exposed area beneath the panels must be isolated from all foot and machine activity until the sidewalk construction commences.

Due to the presence of root structures beneath the sidewalk, it may not be possible to excavated deeper than the existing sidewalk base or base layers without having a detrimental impact on the trees. This can be determined once the panels have been removed and adjustments to the specifications made to assure that the sidewalk replacement will not have a detrimental impact on or effect the ability to retain these trees.

The street curbing is proposed to be removed and relocated an additional 1.5 metres further into the street and away from the trunks which will reduce the impacts on the trees when the curbing is replaced.

The removal of the existing sidewalk panels and curbing and any excavation required for their replacement must be supervised by the project arborist.

**Pruning:** It is unlikely that any pruning of the tree canopies will be required to facilitate the construction work. If any pruning is found to be necessary, it must first be reviewed by the municipal parks staff and be completed by the parks staff or by ISA Certified Arborist or to ANSI A300 standards.

Please do not hesitate to call us at (250) 479-8733 should you have any further questions. Thank You.

Yours truly,  
Talbot Mackenzie & Associates



Tom Talbot & Graham Mackenzie  
ISA Certified, & Consulting Arborists

Enclosures: Tree Resource spreadsheet (1), Key to definitions (2), Civil Plan reviewed (1)  
Barrier Fencing specifications (1). Landscape drawing with barrier fencing diagram 1)

#### **Assumptions and Limiting Conditions:**

The assessment was based on site visits to the trees and from a visual ground-level assessment made of the subject trees on June 16, 2020

Resistograph Readings and other methods of detecting internal flaws or decay were not requested and were not part of our assignment.

The opinions provided will be based on the circumstances and observations as they existed at the time of the site inspection of the client's or agent's property and the trees situated thereon and upon information provided by the client or their agent. The opinions are given based on observations made and using generally accepted professional judgment. However, because trees and plants are living organisms whose health and structure are subject to change, damage and disease, the results, observations, recommendations and analysis as set out are valid only as at the date any such testing, observations and analysis took place and no guarantee, warranty, representation or opinion is offered as to the length of the validity of the results, observations, recommendations and analysis. As a result, the Client shall not rely upon this Assessment, save and except for representing the circumstances and observations, analysis and recommendations that were made at the date of such inspections. Remedial care and mitigation measures recommended are based on the visible and detectable indicators present at the time of the examination and cannot be guaranteed to alleviate all symptoms or to mitigate all risk posed. It is recommended that the trees discussed in this project should be re-assessed periodically if they are retained.

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**Key to Headings in Tree Resource Spreadsheet – Page 1**

**Tag:** Tree identification number on a metal tag attached to tree with nail or wire at eye level. Trees on municipal or neighboring properties are not tagged and are identified on the site plans with the municipal tree species identity number.

**DBH:** Diameter at breast height – diameter of trunk, measured in centimetres at 1.4m above ground level. For trees on a slope, it is taken at the average point between the high and low side of the slope.

\* Measured over ivy.

~ Approximate because of inaccessibility or on neighbouring property.

**Crown Spread:** Indicates the diameter of the crown spread measured in metres to the dripline of the longest limbs.

**Relative Tolerance Rating:** Relative tolerance of the species of tree to construction related impacts such as root pruning, crown pruning, soil compaction, hydrology changes, grade changes and other soil disturbance. This rating does not take into account individual tree characteristics, such as health and vigour. Three ratings are assigned: Poor, Moderate or Good.

**Optimal Root Protection Zone:** A calculated radial measurement in metres from the trunk of the tree. It is the optimal size of tree protection zone and is calculated by multiplying the DBH of the tree by 10, 12 or 15 depending on the Tree's Construction Tolerance Rating. This methodology is based on the methodology described by Nelda Matheny and James R. Clark in their book "Trees and Development: A Technical Guide to Preservation of Trees During Land Development."

- 15 x DBH = Poor Tolerance of Construction
- 10 or 12 x DBH = Moderate
- 08 or 10 x DBH = Good

For this purpose, the DBH of multiple stems is considered the sum of 100% of the diameter of the largest trunk and 60% of the diameter of each additional trunk. It should be noted that these measures are solely mathematical calculations that do not take into account crown spread, soil depth, age, health, or structure (such as lean).

**Health Condition**

- Poor - significant signs of visible stress and/or decline that threaten the long-term survival of the specimen
- Fair - signs of significant stress
- Good - no visible signs of significant stress and/or only minor aesthetic issues

**Structure Condition**

- Very Poor – Potentially imminent hazard that requires immediate action such as large dead hanging limbs or an unstable root plate
- Poor - Poor structural defects that have been in place for a long period of time to the point that mitigation measures are limited
- Fair - Structural concerns such as codominant stems that are still possible to mitigate through pruning
- Good - No visible or only minor structural flaws that require no to very little pruning

**Tree Status:**

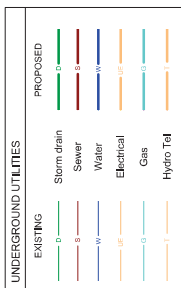
- Bylaw-protected – Tree that is of a size or species that is protected under the current municipal Tree Protection Bylaw.
- Not Protected – Tree that is of a size or species that is not protected under the current municipal Tree Protection Bylaw.
- Municipal – Tree that is located on the municipal frontage.


**Retention Status:**

- Remove - Not possible to retain given proposed construction plans
- Retain - It is possible to retain this tree in the long-term given the proposed plans and information available. This is assuming our **recommended mitigation measures are followed**
- Retain \* - See report for more information regarding potential impacts
- TBD (To Be Determined) - The impacts on the tree could be significant. However, in the absence of exploratory excavations and in an effort to retain as many trees as possible, we recommend that the final determination be made by the supervising project arborist at the time of excavation. The tree might be possible to retain depending on the location of roots and the resulting impacts but concerned parties should be aware that the tree may require removal.
- NS - Not suitable to retain due to health or structural concerns

## Tree Resource Spreadsheet for Montrose Wintergarden Hotel

Tree ID	Common Name	Latin Name	DBH (cm) * over ivy ~ approximate	Crown Spread (m)	CRZ (m)	Health	Structure	Relative Tolerance	Remarks and Recommendations	Retention Status
9651	Upright beech Green leaf cultivar	<i>Fagus sylvatica</i> 'Davyk'	26.0	4	4.0	Good	Fair	Poor	Weakness at union of main and secondary stem. Green leaf variety in contrast to purple leaf cultivars in remainder of row.	Retain
9650	Purple oak leaf beech	<i>Fagus sylvatica</i> <i>purpurea</i> 'Rohannii'	31.0	8	4.0	Good	Good	Poor		Retain
9649	Purple oak leaf beech	<i>Fagus sylvatica</i> <i>purpurea</i> 'Rohannii'	25.0	7	4.0	Good	Good	Poor		Retain
9648	Upright European beech purple	<i>Fagus sylvatica</i> <i>purpurea</i> 'Riversii'	19.0	4	3.0	Good	Good	Poor		Retain
9647	Purple oak leaf beech	<i>Fagus sylvatica</i> <i>purpurea</i> 'Rohannii'	38.0	9	4.0	Good	Fair	Poor	Weakness at secondary stem unions	Remove
9646	Upright European beech purple	<i>Fagus sylvatica</i> <i>purpurea</i> 'Riversii'	29.0	8	4.0	Good	Fair	Poor	Weakness at secondary stem union	Retain
9645	Upright European beech purple	<i>Fagus sylvatica</i> <i>purpurea</i> 'Riversii'	35.0	9	4.0	Good	Fair	Poor		Remove

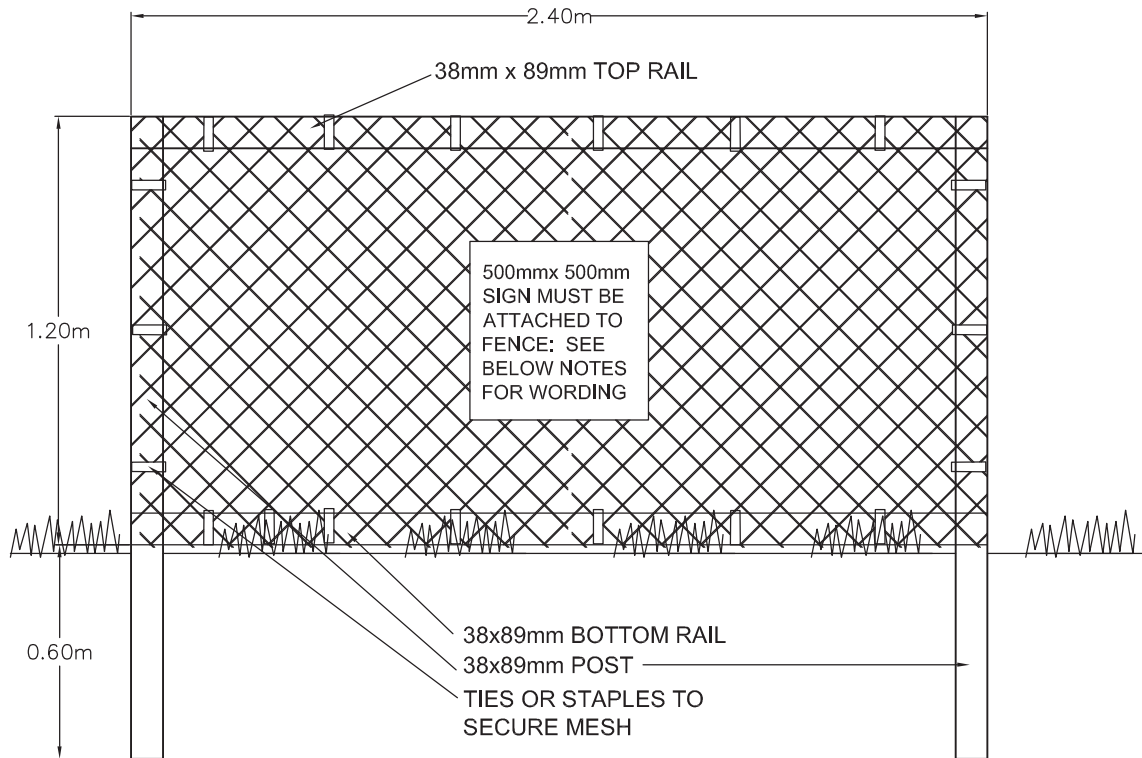


project no.	120.09
scale	1: ### @ 24"x36"
drawn by	MDI
checked by	SMF:DG
revision no.	sheet no.
	<b>L0.01</b>









**TREE PROTECTION FENCING**

1. FENCE WILL BE CONSTRUCTED USING 38 mm X 89mm WOOD FRAME: TOP, BOTTOM AND POSTS \* USE ORANGE SNOW-FENCING MESH AND SECURE THE WOOD FRAME WITH "ZIP" TIES OR GALVANIZED STAPLES.
  2. ATTACH A 500mm X 500mm SIGN WITH THE FOLLOWING WORDING: WARNING- TREE PROTECTION AREA. THIS SIGN MUST BE AFFIXED ON EVERY FENCE OR AT LEAST EVERY 10 LINEAR METERS.
- \* IN ROCKY AREAS, METAL POSTS (T-BAR OR REBAR) DRILLED INTO ROCK WILL BE ACCEPTED