

KLIMO & ASSOCIATES

CERTIFIED ARBORIST REPORT

PROJECT LOCATION:

11810, 11818, 11820, 11824, 11828, 11838 90 Ave, Delta

PREPARED FOR:

Sync Properties

PREPARED BY:

Klimo & Associates Ltd.
Unit #114 - 4300 N Fraser Way
Burnaby B.C., V5J 5J8

Metro West IMBL #20020981
Fraser Valley IMBL #20020982

May 8, 2025

Francis Klimo

ISA Certified Arborist
ISA Certified Tree Risk Assessor
BC Wildlife Danger Tree Assessor

1.0 SCOPE OF WORK

Klimo & Associates Ltd. was contracted by Sync Properties to conduct a site inspection as part of the preparation of an Arborist report along with a Tree assessment, and Tree management plan in order to support a development permit application for the proposal of a new apartment development project located at 11810, 11818, 11820, 11824, 11828, 11838 90 Ave, Delta.

We conducted our field inspections on May 8, 2025 at around 1:30pm. Our scope of work was to identify all key trees located within the proposed working limits and off-site areas of the development project, assess & document their condition, and recommend measures to protect or remove the subject trees. The objective of this assessment and report is to identify all on-site & off-site trees that could be impacted by the development project and to ensure that the management of trees are in compliance with the *“Delta Tree Protection and Regulation Bylaw No. 7969”* and *“Best Management Practices”*.

1.1 Limits of assignment

- Our investigation is based solely on visual inspection of the trees on May 8, 2025, including our site analysis, photos taken, and the diagnosis of trees gathered during the inspection.
- We conducted a level 2 assessment of the subject tree(s).
Our inspection was conducted from ground level. No soil tests or below grade root examination to assess the condition of the root system of the trees had been performed.
- Sunny day, no adverse weather conditions.

1.2 Purpose and use of the report

- Meet municipal criteria for Arborist report submissions and to provide documentation pertaining to the management of on-site & off-site trees in order to become a supplemental documentation for the proposed development application of a new apartment development project located at 11810, 11818, 11820, 11824, 11828, 11838 90 Ave.

2.0 SITE ANALYSIS / PROPOSAL

A development permit application is proposed to be submitted to the City of Delta for the redevelopment of the subject property located along 90 Ave to accommodate the construction of new apartment development project. Currently, the development site consists of five (5) individual lots, each with an existing single-family dwelling located within its boundaries, both having driveways leading onto 90 Ave. The project site is fronted by 90 Ave along its northern length and is bounded by other privately owned residential properties along the western, eastern, and southern sides, and along with the city parks property bounding towards the southeastern length of the project site.

Located within the boundaries of the site, the growth of the subject trees primarily extended towards the perimeter of the property, contributing to a mature development of trees. The species observed on-site, as well as in off-site areas, consisted of mature coniferous trees along with various other deciduous species of trees populating in groups, dominating the central part of the site. In the remaining areas of the property, a clear and open topography was observed closer to the existing building envelope and the frontage of the site, while a few smaller to medium-sized trees were noted near the northern perimeter of the property.



Figure 1 - Location of subject site - 11810, 11818, 11820, 11824, 11828, 11838 90 Ave, Delta

3.0 TREE ASSESMENT PROCESS

Our tree inspection process is a systematic procedure for accurately identifying and cataloging trees. Using the site survey as a reference to their locations and the proposed site plans provided by the project planners detailing the proposed apartment development, the specifications to our Tree Protection Requirements were able to be accurately completed. In using the information of the proposed construction requirements, we have produced accurate findings to our recommendations to ensure the use of proper tree protection during the construction phase and as applicable, prescribing tree removal recommendations.

Our assessment of the on-site and off-site trees consists of gathering and documenting sizes (*DBH, LCR, & Crown spread*), condition, species, location, growth form, and other site factors. The data collected has been documented into the inventory in order to convey the identified trees into a simple format. In addition, accurate tree preservation measures could be implemented for the optimal retention and protection of trees throughout the duration and up to the completion of the development project.

3.1 Health and structure rating

Basic definitions of general tree health in regards to the documented trees as inventoried within the Arborist report have been separated based upon the total amount of trees and has been broken up into five (5) defined health categories as outlined in the table below:

Table 1 - Health & Structure Rating Summary Table			
Rating	Retention Suitability	Definition	Total Trees
Good	Suitable	A healthy, vigorous tree, reasonably free of disease, with good structure and form typical of the species.	
Fair / Good	Suitable	Tree is growing well for its species. No overt or identifiable significant defects, and is well suited for retention.	
Fair	Marginal	Subject tree that has an average vigour for its species. Small amount of twig dieback, minor structural defects that could be corrected.	
Fair / Poor	Marginal/ Unsuitable	A tree with moderate to poor vigor, moderate twig and small branch dieback, thinning of crown, poor leaf color, moderate structural defects that may affect its survival considering construction impacts.	
Poor	Unsuitable	A tree in decline, epicormics growth, extensive dieback of medium to large branches, significant structural defects that cannot be abated. And a tree in severe decline, dieback of scaffold branches and or trunk, mostly epicormic growth; extensive structural defects that cannot be abated.	

4.0 SUMMARY OF FINDINGS

On May 8, 2025, Klimo & Associates Ltd. had conducted a site visit & visual inspection of all trees located within the limits of the apartment development project and of its off-site areas. A total of **thirty-one (31) trees** were identified and had consisted of ten (10) different types of species. A total of eighteen (18) trees were examined to be in conflict with the proposed development as the subject trees had fallen within the limits of the high disturbance requirement areas relating to the various stages of the overall construction process consisting of the excavation for the building envelopes, and various other construction activities occurring within the limits of the property while the remaining thirteen (13) trees have been selected for retention as they were examined to be situated towards the outer limits of the development.

On-site (<i>Development site</i>)	City (<i>Trees on City lot</i>)	Off-site (<i>Privately owned trees</i>)	Total Tree(s)	
12	17	2	31	
12	4	2	18	Remove
0	13	0	13	Retain

Deciduous Tree(s)				Coniferous Tree(s)			
Common cherry	3	Common fig	3	Western redcedar	13	Douglas fir	1
Common apple	2	Red alder	3				
Cornelian cherry	3	Green ash	1				
Eastern cottonwood	1	Common plum	1				
Total	17			Total	14		

6.0 ON-SITE TREE INVENTORY

Table 1 - On-site Tree Inventory												
Klimo & Associates Ltd.												
May 8, 2025												
11810, 11818, 11820, 11824, 11828, 11838 90 Ave, Delta												
ID #	Surveyed Y/N	On-site (ON) Off-site (OFF)	Common name	Botanical name	DBH (cm)	LCR (%)	Canopy (Dia. M)	Condition	Comments	Retention Suitability	Retain / Remove	TPZ (m)
79	No	On-site	Common apple	<i>Malus domestica</i>	20/23 /18	65	9	Fruiting tree with a multi stemmed structured growth form. Larger section of the tree was observed to be dead with a decayed overall structure. Main leader had failed in the past. Subject tree was examined to have been previously pruned in the past and several larger scaffold stems was observed to have been removed. Subject tree is in poor condition.	Subject tree will be in direct conflict with the proposed development area (<i>building footprint, lot excavation requirements, site layout</i>) and will be within the zone of the heaviest site disturbance & construction related activities occurring on-site.	Unsuitable	Remove	3.7
80	Yes	On-site	Common cherry	<i>Prunus</i> Sp.	32/26	65	8	Mature deciduous fruiting tree. Subject tree was examined to have developed a co dominant stemmed structured overall growth form and further develops into multiple stems. The overall development of the crown was examined to have been pruned in other past. The overall growth of the crown was observed to be healthy. Subject tree is in fair condition.	Subject tree will be in direct conflict with the proposed development area (<i>building footprint, lot excavation requirements, site layout</i>) and will be within the zone of the heaviest site disturbance & construction related activities occurring on-site.	Marginal	Remove	3.5
81	Yes	On-site	Common cherry	<i>Prunus</i> Sp.	51	60	8	Mature fruiting tree with a multi stemmed structured growth form. Subject tree was examined to have been previously pruned in the past and several larger scaffold stems was observed to have been removed. The overall development of the subject tree was examined to have several callus wounds. Dominant and healthy overall growth form. Subject tree is in fair condition.	Subject tree will be in direct conflict with the proposed development area (<i>building footprint, lot excavation requirements, site layout</i>) and will be within the zone of the heaviest site disturbance & construction related activities occurring on-site.	Marginal	Remove	3.1
82	Yes	On-site	Common apple	<i>Malus domestica</i>	24/29	45	7	Fruiting tree with a typical species growth form. Subject tree was examined to have been previously pruned in the past and several larger scaffold stems was observed to have been removed. The overall development of the subject tree was examined to have several callus wounds. Subject tree is in fair condition.	Subject tree will be in direct conflict with the proposed development area (<i>building footprint, lot excavation requirements, site layout</i>) and will be within the zone of the heaviest site disturbance & construction related activities occurring on-site.	Marginal	Remove	3.1

ID#	Surveyed Y/N	On-site (ON) Off-site (OFF)	City (C)	Common name	Botanical name	DBH (cm)	LCR (%)	Canopy (Dia. M)	Condition	Comments	Retention Suitability	Retain / Remove	TPZ (m)
83	Yes	On-site		Common fig	<i>Ficus carica</i>	28	35	5	Fruiting species. The overall growth of the tree was examined to have a single stemmed structured growth form with a ornamental crown spread. The overall development of the subject tree was examined to have sections of exposed deadwood and extensive decay. Subject tree is in fair to poor condition.	Subject tree will be in direct conflict with the proposed development area (<i>building footprint, lot excavation requirements, site layout</i>) and will be within the zone of the heaviest site disturbance & construction related activities occurring on-site.	Unsuitable	Remove	1.7
84	Yes	On-site		Common fig	<i>Ficus carica</i>	14/14 /23	35	6	Fruiting species. The overall growth of the tree was examined to have a single stemmed structured growth form with a ornamental crown spread. The overall development of the subject tree was examined to have sections of exposed deadwood and extensive decay. Subject tree is in fair to poor condition.	Subject tree will be in direct conflict with the proposed development area (<i>building footprint, lot excavation requirements, site layout</i>) and will be within the zone of the heaviest site disturbance & construction related activities occurring on-site.	Unsuitable	Remove	3.1
85	Yes	On-site		Common fig	<i>Ficus carica</i>	19/19 /21	30	5	Fruiting species. The overall growth of the tree was examined to have a single stemmed structured growth form with a ornamental crown spread. The overall development of the subject tree was examined to have sections of exposed deadwood and extensive decay. Subject tree is in fair to poor condition.	Subject tree will be in direct conflict with the proposed development area (<i>building footprint, lot excavation requirements, site layout</i>) and will be within the zone of the heaviest site disturbance & construction related activities occurring on-site.	Unsuitable	Remove	3.6
86	Yes	On-site		Common cherry	<i>Prunus</i> Sp.	53	70	8	Fruiting tree with a multi stemmed structured growth form. Subject tree was examined to have been previously pruned in the past and several larger scaffold stems was observed to have been removed. The overall development of the subject tree was examined to have several callus wounds along with open cavities. Subject tree is in fair condition.	Subject tree will be in direct conflict with the proposed development area (<i>building footprint, lot excavation requirements, site layout</i>) and will be within the zone of the heaviest site disturbance & construction related activities occurring on-site.	Marginal	Remove	3.2
87	Yes	On-site		Red alder	<i>Alnus rubra</i>	30	65	8	Native deciduous tree with a phototropic growth form. Single stemmed structured. The overall growth of the canopy was examined to be suppressed by the growth of surrounding trees. Main stem was observed to have a phototropic lean. Subject tree is in fair TO poor condition.	Subject tree will be in direct conflict with the proposed development area (<i>building footprint, lot excavation requirements, site layout</i>) and will be within the zone of the heaviest site disturbance & construction related activities occurring on-site.	Unsuitable	Remove	1.8

ID#	Surveyed Y/N	On-site (ON) Off-site (OFF)	City (C)	Common name	Botanical name	DBH (cm)	LCR (%)	Canopy (Dia. M)	Condition	Comments	Retention Suitability	Retain / Remove	TPZ (m)
332	No	On-site		Common plum	<i>Prunus domestica</i>	9/8/11/8	55	4	Smaller sized fruiting species. The overall growth of the subject tree was examined to have developed a multi stemmed structured overall growth form. The overall crown was observed to have developed in common with its species. Crown was examined to have been shaped. Subject tree is in fair to good condition.	Subject tree will be in direct conflict with the proposed development area (<i>building footprint, lot excavation requirements, site layout</i>) and will be within the zone of the heaviest site disturbance & construction related activities occurring on-site.	Suitable	Remove	1.7
333	Yes	On-site		Douglas fir	<i>Pseudotsuga menziesii</i>	96	65	10	Mature coniferous tree with a larger diameter trunk. The overall growth of the subject tree was examined to have developed a single stemmed structured overall growth form and had developed a split top. The overall crown was observed to have a dominant overall crown spread. Subject tree is in fair condition.	Subject tree will be in direct conflict with the proposed development area (<i>building footprint, lot excavation requirements, site layout</i>) and will be within the zone of the heaviest site disturbance & construction related activities occurring on-site.	Marginal	Remove	5.8
334	Yes	On-site		Red alder	<i>Alnus rubra</i>	35	65	8	Native deciduous tree with a phototropic growth form. Single stemmed structured. The overall growth of the canopy was examined to be suppressed by the growth of surrounding trees. Main stem was observed to have a phototropic lean. Subject tree is in fair TO poor condition.	Subject tree will be in direct conflict with the proposed development area (<i>building footprint, lot excavation requirements, site layout</i>) and will be within the zone of the heaviest site disturbance & construction related activities occurring on-site.	Marginal	Remove	2.1

6.1 OFF-SITE TREE INVENTORY

Table 2 - Off-site Tree Inventory													
11810, 11818, 11820, 11824, 11828, 11838 90 Ave, Delta													
ID#	Surveyed Y/N	On-site (ON) Off-site (OFF)	Common name	Botanical name	DBH (cm)	LCR (%)	Canopy (Dia. M)	Condition	Comments	Retention Suitability	Retain / Remove	TPZ (m)	
OS1	Yes	Off-site	Red alder	<i>Alnus rubra</i>	41 (Surveyed)	65	8	Native deciduous tree with a phototropic growth form. Single stemmed structured. The overall growth of the canopy was examined to be suppressed by the growth of surrounding trees. Main stem was observed to have a phototropic lean. Subject tree is in fair condition.	Subject tree will be in direct conflict with the proposed development area (<i>building footprint, lot excavation requirements, site layout</i>) and will be within the zone of the heaviest site disturbance & construction related activities occurring within the limits of the site. <i>The neighbor's authorization will be required for its removal.</i>	Marginal	Remove	2.5	
OS2	Yes	Off-site	Eastern cottonwood	<i>Populus deltoides</i>	90/90 (Surveyed)	70	12	Mature, larger diameter native deciduous tree with a phototropic growth form. Co dominant stemmed structured growth form. The overall growth of the canopy was examined to be influenced by the growth of surrounding trees. Main stems were observed to have a basal lean. Subject tree is in fair condition.	Subject tree will be in direct conflict with the proposed development area (<i>building footprint, lot excavation requirements, site layout</i>) and will be within the zone of the heaviest site disturbance & construction related activities occurring within the limits of the site. <i>The neighbor's authorization will be required for its removal.</i>	Marginal	Remove	10.8	

6.2 CITY TREE INVENTORY

Table 3 - City Tree Inventory												
11810, 11818, 11820, 11824, 11828, 11838 90 Ave, Delta												
ID#	Surveyed Y/N	On-site (ON) Off-site (OFF)	Common name	Botanical name	DBH (cm)	LCR (%)	Canopy (Dia. M)	Condition	Comments	Retention Suitability	Retain / Remove	TPZ (m)
C1	Yes	City	Cornelian cherry	<i>Cornus mas</i>	12	65	5	Smaller diameter Juvenilia city tree. The overall growth of the tree was observed to have a single stemmed structured development. The overall growth of the crown was observed to have developed in common with its species. No other major defects and or signs of stress were to be examined. Subject tree is in good condition.	Subject tree will be in direct conflict with the proposed development, proposed boulevard works, off-site civil requirements, and will be within the zone of the heaviest construction & site disturbance related activities. The city's authorization will be required for its removal.	Suitable	Remove	1.2
C2	Yes	City	Cornelian cherry	<i>Cornus mas</i>	11/6/5	65	5	Juvenillie city tree. The overall growth of the tree was observed to have a multi stemmed structured development. The overall growth of the crown was observed to have developed in common with its species. No other major defects and or signs of stress were to be examined. Subject tree is in good condition.	Subject tree will be in direct conflict with the proposed development, proposed boulevard works, off-site civil requirements, and will be within the zone of the heaviest construction & site disturbance related activities. The city's authorization will be required for its removal.	Suitable	Remove	1.4
C3	Yes	City	Green ash	<i>Fraxinus pennsylvanica</i>	18	75	6	Juvenillie city tree. The overall growth of the tree was observed to have a single stemmed structured development. The overall growth of the crown was observed to have developed in common with its species. No other major defects and or signs of stress were to be examined. Subject tree is in good condition.	Subject tree will be in direct conflict with the proposed development, proposed boulevard works, off-site civil requirements, and will be within the zone of the heaviest construction & site disturbance related activities. The city's authorization will be required for its removal.	Suitable	Remove	1.2
C4	Yes	City	Cornelian cherry	<i>Cornus mas</i>	13	75	5	Smaller diameter juvenile city tree. The overall growth of the tree was observed to have a single stemmed structured development. The overall growth of the crown was observed to have developed in common with its species. No other major defects and or signs of stress were to be examined. Subject tree is in good condition.	Subject tree will be in direct conflict with the proposed development, proposed boulevard works, off-site civil requirements, and will be within the zone of the heaviest construction & site disturbance related activities. The city's authorization will be required for its removal.	Suitable	Remove	1.2

ID#	Surveyed Y/N	On-site (ON) Off-site (OFF)	City (C)	Common name	Botanical name	DBH (cm)	LCR (%)	Canopy (Dia. M)	Condition	Comments	Retention Suitability	Retain / Remove	TPZ (m)
C5	Yes	City		Western redcedar	<i>Thuja plicata</i>	35 (Surveyed)	75	6	Coniferous tree developing as part of a row of trees. Growth of the crown had a limited and had a shared overall crown spread. Subject tree was examined to have developed a multi stemmed structured overall growth form. Subject tree is in fair condition.	Place Tree Protection barriers to protect its trunk, roots, and structure. Arborist supervision will be required during all construction activities occurring within 2m of the CRZ.	Marginal	Retain	2.1
C6	Yes	City		Western redcedar	<i>Thuja plicata</i>	43 (Surveyed)	75	5	Developing as part of a coniferous row of trees. Situated near adjacent trees with having an influenced development. Growth of the crown had a limited and had a shared overall crown spread. Subject tree was examined to have developed a multi stemmed structured overall growth form. Subject tree is in fair condition.	Place Tree Protection barriers to protect its trunk, roots, and structure. Arborist supervision will be required during all construction activities occurring within 2m of the CRZ.	Marginal	Retain	2.6
C7	Yes	City		Western redcedar	<i>Thuja plicata</i>	40 (Surveyed)	75	5	Developing as part of a coniferous row. Situated near adjacent trees. Growth of the crown had a limited and had a shared overall crown spread. Subject tree was examined to have developed a multi stemmed structured overall growth form. Subject tree is in fair condition.	Place Tree Protection barriers to protect its trunk, roots, and structure. Arborist supervision will be required during all construction activities occurring within 2m of the CRZ.	Marginal	Retain	2.4
C8	Yes	City		Western redcedar	<i>Thuja plicata</i>	33 (Surveyed)	70	5	Developing as part of a row. The overall growth of the subject tree was examined to have developed in a multi stemmed structured growth form. The main stem was observed to have a slight basal lean towards the east. No other major defects and or signs of stress were to be examined. Subject tree is in fair condition.	Place Tree Protection barriers to protect its trunk, roots, and structure. Arborist supervision will be required during all construction activities occurring within 2m of the CRZ.	Marginal	Retain	2.0
C9	Yes	City		Western redcedar	<i>Thuja plicata</i>	35 (Surveyed)	70	6	Coniferous tree developing as part of a row. Subject tree was examined to have developed a multi stemmed structured growth form. Crown growth was examined to have been influenced and suppressed due to the restrictive growth of vegetation. Subject tree is in fair condition.	Place Tree Protection barriers to protect its trunk, roots, and structure. Arborist supervision will be required during all construction activities occurring within 2m of the CRZ.	Marginal	Retain	2.1

ID#	Surveyed Y/N	On-site (ON) Off-site (OFF)	City (C)	Common name	Botanical name	DBH (cm)	LCR (%)	Canopy (Dia. M)	Condition	Comments	Retention Suitability	Retain / Remove	TPZ (m)
C10	Yes	City		Western redcedar	<i>Thuja plicata</i>	32 (Surveyed)	75	5	Coniferous tree developing as part of a row of trees. Growth of the crown had a limited and had a shared overall crown spread. Subject Phototropic influenced crown spread. Subject tree was examined to have developed a multi stemmed structured overall growth form. Subject tree is in fair condition.	Place Tree Protection barriers to protect its trunk, roots, and structure. Arborist supervision will be required during all construction activities occurring within 2m of the CRZ.	Marginal	Retain	2.0
C11	Yes	City		Western redcedar	<i>Thuja plicata</i>	22/22 (Surveyed)	75	5	Developing as part of a coniferous row of trees. Situated near adjacent trees with having an influenced development. Growth of the crown had a limited and had a shared overall crown spread. Subject tree was examined to have developed a multi stemmed structured overall growth form. Subject tree is in fair condition.	Place Tree Protection barriers to protect its trunk, roots, and structure. Arborist supervision will be required during all construction activities occurring within 2m of the CRZ.	Marginal	Retain	2.7
C12	Yes	City		Western redcedar	<i>Thuja plicata</i>	35 (Surveyed)	70	5	Developing as part of a coniferous row. Situated near adjacent trees. Growth of the crown had a limited and had a shared overall crown spread. Subject tree was examined to have developed a multi stemmed structured overall growth form. Subject tree is in fair condition.	Place Tree Protection barriers to protect its trunk, roots, and structure. Arborist supervision will be required during all construction activities occurring within 2m of the CRZ.	Marginal	Retain	2.1
C13	Yes	City		Western redcedar	<i>Thuja plicata</i>	25/25 (Surveyed)	70	5	Developing as part of a row. The overall growth of the subject tree was examined to have developed in a multi stemmed structured growth form. The main stem was observed to have a slight basal lean towards the east. No other major defects and or signs of stress were to be examined. Subject tree is in fair condition.	Place Tree Protection barriers to protect its trunk, roots, and structure. Arborist supervision will be required during all construction activities occurring within 2m of the CRZ.	Marginal	Retain	3.0
C14	Yes	City		Western redcedar	<i>Thuja plicata</i>	18/28 (Surveyed)	75	5	Coniferous tree developing as part of a row. Subject tree was examined to have developed a multi stemmed structured growth form. Crown growth was examined to have been influenced and suppressed due to the restrictive growth of adjacent trees. Subject tree is in fair condition.	Place Tree Protection barriers to protect its trunk, roots, and structure. Arborist supervision will be required during all construction activities occurring within 2m of the CRZ.	Marginal	Retain	2.8

ID#	Surveyed Y/N	On-site (ON) Off-site (OFF)	City (C)	Common name	Botanical name	DBH (cm)	LCR (%)	Canopy (Dia. M)	Condition	Comments	Retention Suitability	Retain / Remove	TPZ (m)
C15	Yes	City		Western redcedar	<i>Thuja plicata</i>	25/30 (Surveyed)	75	5	Coniferous tree developing as part of a row of trees. Growth of the crown had a limited and had a shared overall crown spread. Subject Phototropic influenced crown spread. Subject tree was examined to have developed a multi stemmed structured overall growth form. Subject tree is in fair condition.	Place Tree Protection barriers to protect its trunk, roots, and structure. Arborist supervision will be required during all construction activities occurring within 2m of the CRZ.	Marginal	Retain	3.3
C16	Yes	City		Western redcedar	<i>Thuja plicata</i>	35 (Surveyed)	75	6	Developing as part of a coniferous row of trees. Situated near adjacent trees with having an influenced development. Growth of the crown had a limited and had a shared overall crown spread. Subject tree was examined to have developed a multi stemmed structured overall growth form. Subject tree is in fair condition.	Place Tree Protection barriers to protect its trunk, roots, and structure. Arborist supervision will be required during all construction activities occurring within 2m of the CRZ.	Marginal	Retain	2.1
C17	Yes	City		Western redcedar	<i>Thuja plicata</i>	35 (Surveyed)	70	7	Developing as part of a coniferous row. Situated near adjacent trees. Growth of the crown had a limited and had a shared overall crown spread. Subject tree was examined to have developed a multi stemmed structured overall growth form. Subject tree is in fair condition.	Place Tree Protection barriers to protect its trunk, roots, and structure. Arborist supervision will be required during all construction activities occurring within 2m of the CRZ.	Marginal	Retain	2.1

7.0 TREE RETENTION / REMOVAL RECOMMENDATIONS

A total of **thirty-one (31) trees** have been found within the limits of the development project and of its off-site areas. Based upon the factors that include the pre-existing condition of the subject trees as detailed in the Tree inventory, and the proposed layout of the new apartment development project, the subject trees have been proposed to be treated as follows.

TREE RETENTION

Pursuant to the “*Delta Tree Protection and Regulation Bylaw No. 7969*”, the following tree(s) are recommended for Retention as detailed in the Tree Inventory and recommendations as noted below. Information regarding specific recommendations can be found below each of the categorized point and further referenced within the attached Tree Management Plan and within the body of the Arborist report.

City Tree(s) recommended for Retention,

➤ **Placement of Tree Protection Barriers**

City trees #C5, #C6, #C7, #C8, #C9, #C10, #C11, #C12, #C13, #C14, #C15, #C16, and #C17 has been recommended to be retained as part of the proposed apartment development project. As the protected trees were examined to be situated near the limits of the proposed construction, lot grading, site servicing related activities occurring on-site, the subject trees will require the placement of Tree Protection Barriers in order to protect their trunks, roots, and structures. The placement of Tree Protection Barriers would be required to be placed along their drip lines or to their specified measurements as outlined within the Tree Inventory (*TPZ Column*) or as per the attached Tree Management Plan and left throughout the duration of the development project.

➤ **Modified or Phased Tree Protection Barriers**

In order to allow for site access and for the various stages of the construction works to take place, the modified & phased placement for the **Tree Protection Barriers for trees #C5, #C6, #C7, #C8, #C9, #C10, #C11, #C12, #C13, #C14, #C15, #C16, and #C17** would be required. As specified within the Tree Management Plan, the modified & phased barriers would have to be constructed to full specifications and modified at the time of the various stages of the construction process (*please refer to the attached Tree Management Plan*).

➤ **Off-site Shrubs, Plantings, & Hedge(s) (Non-Bylaw Sized)**

As several off-site plantings including all sections of existing vegetation & hedging were observed to be spanning along the lengths of the site boundary lines and were all examined to be of non-by-law sized, it would be the builder/homeowner's responsibility in order to ensure that the development does not adversely affect any of the retained plantings or any other sections of hedging. In order to avoid a future civil matter, the off-site plantings as well as any other sections of hedging has been recommended to be respected and have measures to protect them throughout the duration of the construction process.

Arborist Supervision Requirements - Comment

➤ **Protection of Tree(s)**

Pursuant to municipal requirements, the owner is required to have a project arborist undertake monitoring and directing of certain specific treatments and construction activities that are pending at the above referenced development project. Arborist supervision is required for any work occurring within **2m of the dripline of trees #C5, #C6, #C7, #C8, #C9, #C10, #C11, #C12, #C13, #C14, #C15, #C16, & #C17**. Some specific project milestones when the owner will require arborist attendance are: **site clearing works, lot grading & excavation activities for the underground parkade, removal/replacement of the perimeter fence, and final stages of the landscaping finishes**

TREE REMOVAL

Pursuant to the “*Delta Tree Protection and Regulation Bylaw No. 7969*”, the following tree(s) are recommended for removal as per the following sections or as detailed in the report.

Off-site, City, & On-site Tree(s) recommended for Removal,➤ **Civil Works, Boulevard, & other frontage construction requirement conflicts,**

City trees #C1, #C2, #C3, & #C4 will be in direct conflict with the proposed development, as these trees fall within the limits of the grading works for the proposed off-site civil works and various other development-related activities occurring along the frontage of the property. These include site servicing requirements, construction works associated with the boulevard works, and the expansion of the boulevard along the frontage of the new lot. The subject trees would also conflict with the front curb and road works, as well as the off-site civil works along the length of the boulevard. These trees would be located in an area of high disturbance from the development project, particularly as part of the frontage off-site civil works, leading to root loss and stability impacts.

- ***As trees #C1, #C2, #C3, & #C4 were examined to be situated within the limits of the city’s property, the City of Delta’s (Parks) authorization will be required for their removal.***

➤ **Proposed Development conflicts,**

On-site trees #79, #80, #81, #82, #83, #84, #85, #86, #87, #332, #333, #334, and off-site trees #OS1 & #OS2 will be in direct conflict with the proposed development as the subject trees would either fall towards the edge or would be located within the footprint of the proposed building envelope. The subject trees would be in direct conflict with the site preparation, lot grading, and excavation requirements occurring within the limits of the site as part of the proposed apartment development.

Other select trees would fall within the proposed perimeter excavation requirements for the underground parkade encompassing the entirety of the site. The subject trees were examined to be situated along the perimeter of the site and their location would come into direct conflict with the proposed excavation works occurring along the various lengths of the development site. The subject trees to fall within an area of high disturbance requirements related to the overall development project that would result in root loss & stability impacts and the removal of all perimeter trees would be required.

- ***As trees #OS1 & #OS2 were examined to be situated within the limits of the neighboring property, the neighbor’s authorization will be required for their removal***

➤ **Removal of Non-Bylaw Sized Tree(s) & Hedge(s)**▪ **Non-Bylaw Sized Tree(s)**

Several on-site trees were measured to have a DBH of less than 20cm (*these trees are surveyed and are identified within the TMP, however, were not documented into the Arborist report*). The subject trees were identified to be of non-bylaw sized and were not examined to be “*Protected*” as categorized in the City of Delta Tree Bylaw. The subject trees were also examined to be in conflict with the proposed construction as the subject trees would fall towards the edge of the extensive grading works related to the construction process.

▪ **Removal of on-site non bylaw sized Hedge(s)**

All section of on-site hedging in direct conflict with the proposed development is recommended to be removed. As sections of the hedging would fall towards the edge or would be in direct conflict with the required site access or would fall within an area requiring high disturbances related to the construction works occurring along the frontage of the site (*all off-site sections of hedging have been proposed to be left intact*).

8.0 SITE PHOTOS

Photo 1 - Facing towards the frontage of the property and looking at the non bylaw sized hedges



Photo 2 - Facing towards the frontage of the property and looking at city tree #C1

Frontage of the Property - Site Photos



Photo 3 - Facing towards the frontage of the property and looking at city trees #C2 and #C3



Photo 4 - Facing towards the frontage of the property and looking at city tree #C3

Western Section of the Property - Site Photos

Photo 5 - Facing towards on-site trees #83, #84, and #85



Photo 6 - Facing towards the lower trunks of on-site trees #84 and #85

S/W Section of the Property - Site Photos



Photo 7 - Facing towards on-site trees #80 and #81



Photo 8 - Facing towards on-site tree #82

S/W Section of the Property - Site Photos



Photo 9 - Facing towards the southwestern section of the property and looking at on-site trees #79 and #87



Photo 10 - Facing towards on-site tree #86

Southern Section of the Property - Site Photos



Photo 11 - Facing towards the southern section of the property and looking at off-site trees #OS1 and #OS2



Photo 12 - Facing towards the southern section of the property and looking at off-site trees #OS1 and #OS2

Southern Section of the Property - Site Photos



Photo 13 - Facing towards on-site tree #333



Photo 14 - Facing towards the lower trunk of on-site trees #333 and #332

S/E Section of the Property - Site Photos



Photo 15 - Facing towards the south eastern section of the property and looking at on-site tree #334



Photo 16 - Facing towards the lower trunk of on-site tree #334

S/E Section of the Property - Site Photos



Photo 17 - Facing towards city trees #C5 - #C17



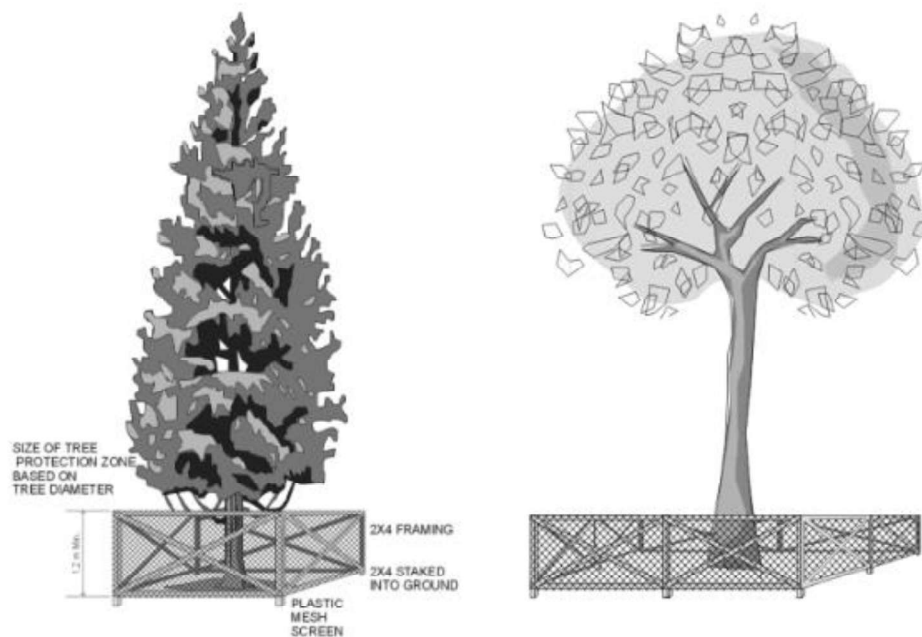
Photo 18 - Facing towards city trees #C5 - #C17

9.0 TREE PROTECTION BARRIER

Tree Protection Barrier Summary					
Tree #	DBH (cm)	Minimum Radial span (m)	Tree #	DBH (cm)	Minimum Radial span (m)
C5	35 (Surveyed)	2.1	C12	35 (Surveyed)	2.1
C6	43 (Surveyed)	2.6	C13	25/25 (Surveyed)	3.0
C7	40 (Surveyed)	2.4	C14	18/28 (Surveyed)	2.8
C8	33 (Surveyed)	2.0	C15	25/30 (Surveyed)	3.3
C9	35 (Surveyed)	2.1	C16	35 (Surveyed)	2.1
C10	32 (Surveyed)	2.0	C17	35 (Surveyed)	2.1
C11	22/22 (Surveyed)	2.7			

All trees identified within the body of the Arborist Report and as depicted in the attached Tree Management Plan will require the placement of Tree Protection Barriers. The subject trees selected for retention will require tree protection barriers in order to protect and prevent the tree's trunks, branches and roots being damaged by any construction activities/operations occurring as part of the development.

Prior to any construction & demolition activity occurring on-site, tree protection fences must be constructed at the specified distance from the tree's trunks (*as noted within the TPZ column in the Tree Inventory*). The protection barrier or temporary fencing must be at least 1.2 m in height and constructed of 2 x 4 lumber with orange plastic mesh screening (*snow fence*). Structure of the barriers must be sturdy with vertical posts driven firmly into the ground. The Tree Protection Barriers must be constructed prior to the excavation or construction works taking place and would be required to be left intact throughout the entire period of development project. Further standards for Tree Protection Fencing and its construction methodology can be found at: "*Delta Tree Protection and Regulation Bylaw No. 7969*"



10.0 TREE REPLACEMENT PLAN

Outlined in the "Delta Tree Protection and Regulation Bylaw No. 7969, 2021", the requirement for replacement trees will be required based upon the trees being cut or removed. As per the Tree Bylaw, replacement trees are required to be planted for each permit-sized tree or hedge being removed.

On-Site & Shared Trees	Number of Trees
Protected Trees Identified	12
Protected Trees to be Removed	12
Protected Trees to be Retained	0
Off-Site & City Trees	
Protected Trees Identified	19
Protected Trees to be Removed	6
Protected Trees to be Retained	13
Total Replacement Trees Required:	
Trees Requiring to be replaced based on species <i>(Red alder/Cottonwood regardless of size):</i> • 3 Trees x (1 : 2 Ratio)	6 Trees
Trees Requiring to be replaced based on ratio: • 8 Trees x 20cm - 59 cm = (1 : 2 Ratio) • 7 Trees x 60cm + = (1 : 3 Ratio)	
Hedges Requiring to be replaced based on ratio: • (m length) x 5m Lengths (= 1 tree) =	
Total Replacement Trees required	43
Replacement Trees Proposed	TBD
Replacement Trees for Cash in leu	TBD

Tree Replacement Species		
Planting(s) should be scheduled for the late winter/ early spring or early fall		
Quantity	Name	Species
As per the Landscape Plan		

Please see map for location Note: Planting cannot be within 3 meters of another significant tree

General Tree Planting Methodology

Replacement trees must meet plant condition and structure requirements as stated in "BC Landscape Standard" of the BCSLA/BCLNA and "Canadian Standards for Nursery Stock" of the CNTA. Also, the Replacement trees must be planted and maintained according to the requirements as stated in the "BC Landscape Standard" of the BCSLA.

The proposed replacement Trees are to be a minimum size of 7cm caliper if deciduous, which is measured at 15 cm above the ground, or 3 m tall if coniferous at the time of planting (*trunk width measured at 15 centimetres above the ground*) At least 1.0 metre away from any site boundary line, at least 3.0 metres away from any principle building or any accessory building or any other structure on or adjacent to the site that may adversely affect the tree and; at least 2.5 metres away from any other tree on or adjacent to the site including driveway or any other hardscape or underground service/utility line

11.0 CONCLUSIONS

Based on our findings, a total of **thirty-one (31) trees** have been identified within the limits of the development site and its off-site areas. All **twelve (12) on-site trees, four (4) city trees, & two (2) off-site trees** have been recommended for removal due to conflicts with the proposed development. These trees fall within areas of high disturbance, including the perimeter excavation required for the townhouse development, as well as the various stages of the overall construction process. This includes excavation for the building envelopes, grading work for the installation of the new driveway, and other construction activities within the property limits.

A total of **thirteen (13) city trees** have been recommended for retention as part of the development project. The subject trees will have the requirement of erecting Tree Protection Barriers due to their close proximity towards the proposed construction working limits. Also, in order to ensure the retained trees and of their protection throughout the duration of the construction project, Trigger points have been identified on the Tree Management Plan requiring Arborist supervision when working inside of the TPZ(s) during a few of the construction milestones.

Thank you for choosing Klimo & Associates Ltd. Any further questions can be forwarded to Francis Klimo at (604)358-5562 or by email at klimofrancis@gmail.com

Regards,



Francis Klimo

ISA Certified Arborist #PN-8149A

ISA Certified Tree Risk Assessor (TRAQ)

BC Wildlife Danger Tree Assessor #7193