

December 16, 2022

FOI No: 2022-23
Updated Reply / Further Two (2) Attachments

VIA EMAIL – **Redacted S. 22**

Dear **Redacted S. 22**;

Re: Request for Records
Freedom of Information and Protection of Privacy Act

The City of White Rock has responded to your original request for access to the following records pursuant to the Freedom of Information and Protection of Privacy Act (the “Act”):

- *1. Records, if any, establishing that the requirement for a Tree Assessment Report is not required prior to the public hearing.*
- *2. Any tree assessment received (other than that which was disclosed to the public as part of the public hearing package), together with any meeting notes, internal memorandum, external correspondence, consultant reports and text messages concerning tree protection and in particular any documents in support of the statements on page 166 of the public hearing package concerning “iterations of review and revision” and “staff have been working...greatest level of tree retention”.*
- *3. Please provide any records or documents showing or concerning “off-site trees” as that term is defined in the Tree Protection Bylaw.*
- *4. All records prepared or reviewed by Staff concerning the stand of trees as a stand of trees.*
- *5. All records concerning the proposal to place replacement trees on the rooftop.*
- *6. Any draft CSDP, or similar, including records discussing or detailing construction or construction management plans for the project as relates to the parkade, the retaining wall, replacement trees and structural support for replacement trees on the rooftop.*
- *7. Please include in the search any correspondence of the requested nature between members of Council and the developer or the developer’s representatives.*

On December 15, 2022, following receipt of the City’s response clarification was requested as follows:

...in reviewing the documents included there are references to all sorts of other documents in a shared file which may be responsive and I am not sure were included. Naturally the link embedded in the original email doesn't work for me. I think that I do not need you to verify that any responsive records within that shared file are included because I think I have enough information now to ask for the specific item which I need with clarity.

Corporate Administration
P: 604.541.2212 | F: 604.541.9348

City of White Rock
15322 Buena Vista Avenue, White Rock BC, Canada V4B 1Y6

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I see repeated references to the "2018 survey", a screenshot of a portion of which was included in the Public Hearing material. So, I would like to see the 2018 survey that is often referred to, but based on my review was not included in the FOI response.

I did a review of the response with planning staff in regard to any noted links and the following was noted:

- July 7, 2020 email from G. Newman: Application Package: this is an internal link to the planning application system utilized for application tracking during the referral process only (link no longer exists). Information collected during the referral process is utilized in the submission report.
- March 16, 220 email from G. Newman: Application Package: this is an internal link to the Planning application system utilized for application tracking during the referral process only (link no longer exists). Information collected during the referral process is utilized in the submission report.
- November 5, 2021 email from G. Newman: Revised Arborist Report. Please see attached report with updates to March 13, 2020
Included in the FOI response is the Arborist Report dated following the first one July 11, 2022.
This is noted again a second time at the end of the November 5, 2022 email
- November 5, 2021 email from G. Newman: Topographic Survey (19-011). Please see attached – This is the 2018 Survey that you were inquiring on
- November 2, 2022 email from E. DeMelo: notes as *Linked here is the report...* this again is the internal link to the planning application system utilized for application tracking during the referral process only (link no longer exists)
- At the end of the FOI response is the same email starting at the top of the page with the November 8, 2021 from Alanna Claffey followed by November 5, 2021 from G. Newman are noted in bullet points 3 and 4 above.

I have included here the link to the information package that was included in the December 9th email for reference purposes: [Information Package](#).

Once you have the opportunity to review, please contact our office if you have any further questions or concerns.

I thank you for your patience as we worked through this file.

Sincerely,



Tracey Arthur
Director of Corporate Administration

Encl. Two (2) additional attachments

If you believe that the City of White Rock has been unreasonable in its handling of your request, you may ask the Information and Privacy Commissioner to review our response. You have 30 days from receipt of this notice to request a review by writing to:

Office of the Information and Privacy Commissioner
3rd Floor, 756 Fort Street
Victoria BC V8W 1H2

Should you decide to request a review, please provide the Commissioner's office with:

1. your name, address, and telephone number;
2. a copy of this letter;
3. a copy of your original request sent to the City of White Rock; and
4. the reasons or grounds upon which you are requesting the review.

**TOPOGRAPHIC SITE SURVEY OF:
 LOT 1 PLAN EPP46879,
 LOT 8 PLAN 13684,
 LOT 41 PLAN 35379 AND
 STRATA PLAN NWS2236
 ALL OF SEC 10 TP 1 NWD**

CLIENT ADDRESS:
 LOT 1 PLAN EPP46879
 202 West Street, 1568 Apt. 8C
 003-64-413

STRATA PLAN NWS2236
 240 West Street, 1568 Apt. 8C
 003-64-413

LOT 8 PLAN 13684
 240 West Street, 1568 Apt. 8C
 003-64-413

LOT 41 PLAN 35379
 1837 Thrift Avenue, White Road,
 003-203-80

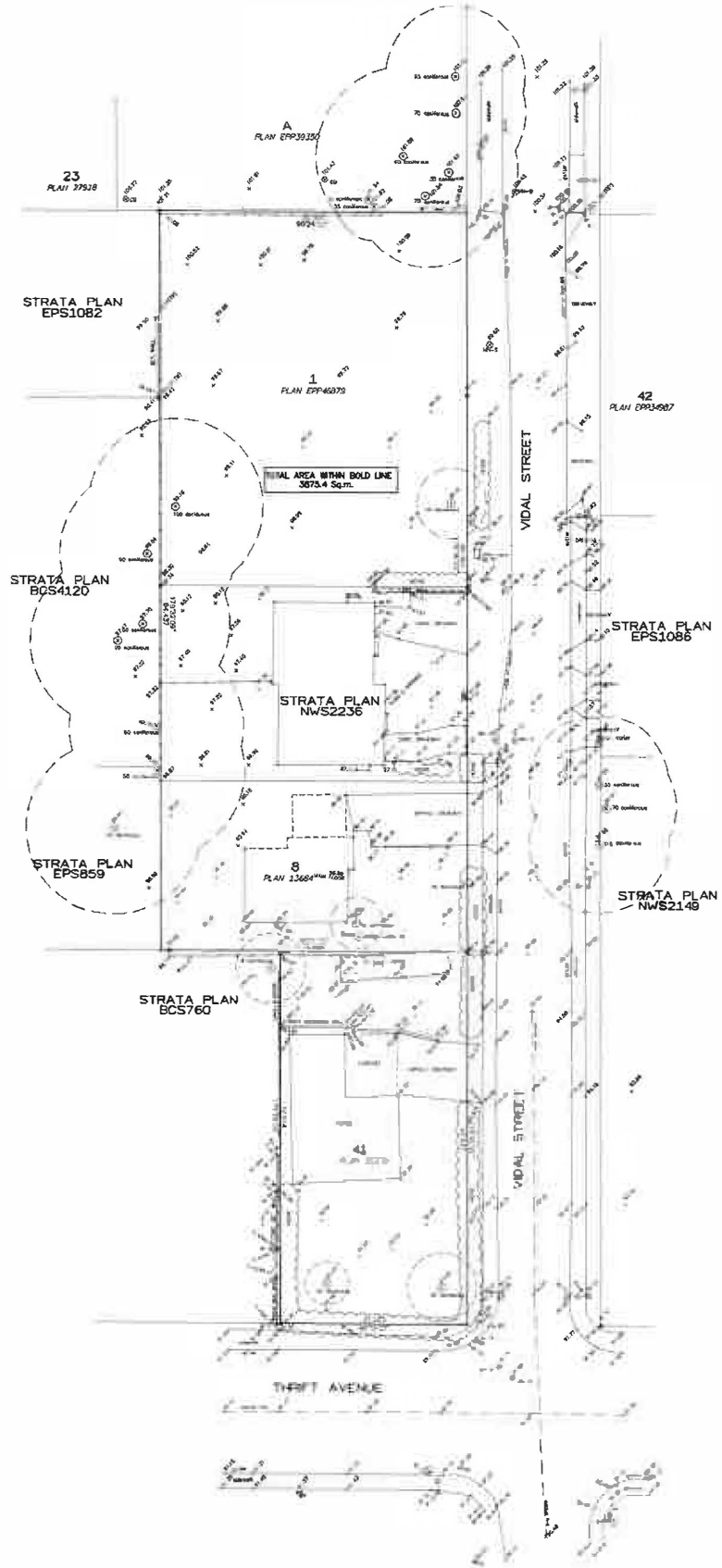
- LEGEND**
- ⊙ DENOTES STANDARD HIGH POST FLOOD
 - ⊙ DENOTES FIRE HYDRANT
 - ⊙ DENOTES CATCH BASIN - TOP FLOOR
 - ⊙ DENOTES DRAIN SHIM - AROUND
 - ⊙ DENOTES UTILITY POLE
 - ⊙ DENOTES UTILITY POLE WITH LIGHT
 - ⊙ DENOTES STREET LIGHT - DASH
 - ⊙ DENOTES WATER VALVE
 - ⊙ DENOTES WATER METER
 - ⊙ DENOTES GAS VALVE
 - ⊙ DENOTES HOT TAP
 - ⊙ DENOTES GARBAGE BIN
 - ⊙ DENOTES STOPPAGE
 - ⊙ DENOTES TREE AND CANYON EXTERIOR
 - ⊙ DENOTES UNDEVELOPED



SCALE 1 : 250

0 5 10 15 20

ALL DIMENSIONS ARE IN METERS



Lot dimensions are derived from FIELD SURVEY.

Elevations are Quadaic (EAS20 0199-2000 - IN REFERENCE Demand from Global Positioning System (GPS) located at SE corner of the intersection of West St. and Thrift Ave. Elevation = 92.157m

Vertical elevations and offsets of services from property lines are derived from municipal records and field survey. Contractor to verify all service locations and depths prior to construction.

Best practices during work are to be followed.

If this plan is used in 2025 from Target Land Surveying we will assume responsibility for information contained therein as signed and sealed by us.

The dimensions are taken at 2.0m above ground and are shown in any all base, sides and height on project are shown later to support report for base notes.

This plan was prepared for construction design and site marking purposes, and is for the exclusive use of the client. The signatory accepts no responsibility or liability for any damages that may be suffered by or their party as a result of reproduction, presentation or otherwise in this document without consent of the signatory.

CERTIFIED DOCUMENT
 DATED: THE 4th DAY OF April, 2014

BY: [Signature] BCLJL
 N. John Alexander



REG. 072-844010



~~Submission 2 Report March 16,~~
2020 - 03 - 13 Arborist ~~2020~~
Report

ARBORIST REPORT

PROJECT:

VDZ-VIDAL ST.

SITE ADDRESS:

**14937 THRIFT AVE.
&
1441 / 1443-45 / 1465 VIDAL ST.
WHITE ROCK, B.C.**

CLIENT:

WEST STONE GROUP

PROJECT #

DP2018-59

PREPARED BY:

VDZ + A Consulting Inc.

**Suite 1, 20177 97 Avenue
Langley, BC V1M 4B9**

PROJECT ARBORIST

Austin Peterson

ISA Certified Arborist PN 1570A
ISA Tree Risk Assessment Qualified

November 5, 2018

1st Revision – May 8, 2019

2nd Revision – May 15th, 2019

3rd Revision – June 18, 2019

4th Revision – February 05, 2020

5th Revision – March 13, 2020

FORT LANGLEY STUDIO
102 – 9181 Church Street
Fort Langley, BC
V1M 2R8

MOUNT PLEASANT STUDIO
102 – 355 Kingsway
Vancouver, BC
V5T 3J7

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Background

VDZ + A Consulting Inc. was contracted by West Stone Group to prepare an ISA Certified Arborist Tree Report for the properties at 14937 Thrift Avenue & 1441 / 1443-45 / 1465 Vidal Street, White Rock, B.C.

Assignment

VDZ + A Consulting Inc. have been retained by the client to prepare a report to assess the tree(s) located at Address Surrey, BC. The Project Arborist, Austin Peterson, performed a site review entailing identification and visual assessment of the tree(s) on site. A tree survey of all off-site trees was completed by the client or representative(s).

The Project Arborist will provide recommendations for the retention or removal of tree(s) on this site based on the existing site conditions and the proposed use of the site. Mitigation of development impact on the tree(s) has been considered as part of the tree assessment process.

Limits of the Assignment

Austin Peterson's observations were limited to site visit on October 16, 2018 and June 18, 2019. No tissue or soil samples were sent to a lab for identification or analysis. VDZ + A Consulting Inc. located the trees using existing landmarks and onsite navigation.

Testing and Analysis

Austin Peterson used visual tree assessment and mallet sounding to test the trees' health, condition and risk level.

Purpose and Use of Report

The purpose of this report is to assist the property owner in compliance with the City of White Rock Tree Management Bylaw, 2008, No. 1831.

Site Review



Fig. 1 – Aerial view of property (WROMS)

Proposed Site Development

The development of a new high-rise buildings.

Environmental Description

The site consists of four residential lots, three of which have existing houses. All four lots have established landscapes composed of mature trees and shrubs. The southernmost lot is a single family residential home that fronts onto Thrift Avenue. It is joined via the north property line to the first three lots proceeding up the west side of Vidal Street. From Thrift Avenue, Vidal Street inclines north. To the west lay an assortment of low-rise multifamily residences and to the north is a newer high-rise development.

There are no seasonal creeks that transect the property.



There is no evidence of raptors nests, osprey nests or heron colonies on the site. Removal of trees however between March 15 – August 15 (date subject to change depending on seasonal nesting behavior and therefore must be confirmed with City of Maple Ridge) will require a bird nesting survey. This is as prescribed by the federal Migratory Birds Convention Act (MBCA), 1994 and Section 34 of the BC Wildlife Act. It is the responsibility of the owner/developer to ensure they are in compliance with the city's regulations governing nesting birds on sites where development is occurring.

Off-site Trees – There are private off-site trees associated with this project.

Municipal Trees – There are City of White Rock trees associated with this project.

Trees Straddling the Property Line – There are trees straddling the property line associated with this project.

Tree Preservation Summary

All the trees identified on the Tree Retention/Removal Plan and within the Tree Assessment Data Table have been given their Retention/Removal recommendation on a preliminary basis. Final recommendations will be based upon design/construction and grading details.

Long-term tree preservation success is dependent on minimizing the impact caused during pre-construction clearing operations, construction and post construction activities. Best efforts must be made to ensure the Tree Protection Zone remains undisturbed.

Ongoing monitoring of retained trees through the development process and implementation of mitigating works (watering, mulching, etc.) is essential for success.



Table 1 - Tree Assessment Data:

Tree #	Tag #	Common Name <i>Botanical Name</i>	Located on the Survey	DBH (m.)	C-Rad (m.)	LCR (%)	Comments	Retain / Remove
01	370	English holly <i>Ilex aquifolium</i>	Yes	0.05-0.15	3.5	90	Poor form and structure. Multi – stem trunks. Past history of having been pruned/sheared. Not suitable for retention. Listed as an invasive species by City of White Rock. Located within proposed building footprint.	Remove
02	371	English holly <i>Ilex aquifolium</i>	Yes	0.05-0.15	3.5	90	Poor form and structure. Multi – stem trunks. Past history of having been pruned/sheared. Not suitable for retention. Listed as an invasive species by City of White Rock. Located within proposed building footprint.	Remove
03	373	Threadleaf false-cypress <i>Chamaecyparis pisifera</i> f. <i>filifera</i>	Yes	0.16 0.17 0.18	3.00	60	Poor form and structure. TRUNK–Growing against the foundation of the existing house. Not suitable for retention due to proximity to existing structure and location within proposed building footprint.	Remove
04	374	Crimson King Norway maple <i>Acer platanoides</i> 'Crimson King'	Yes	0.42	4.70	80	Poor form and structure. CROWN – Previously side pruned for utility line clearance. Suitable for retention. Located within proposed building footprint.	Remove
05	375	Common lilac <i>Syringa vulgaris</i>	No	0.10 0.10 0.11	3.00	30	HANDPLOTTED Poor form and structure. TRUNK – Multi-stem from base. Not suitable for retention due to form and structure. Located within proposed building footprint.	Remove



Tree #	Tag #	Common Name Botanical Name	Located on the Survey	DBH (m.)	C-Rad (m.)	LCR (%)	Comments	Retain / Remove
06	376	Red alder <i>Alnus rubra</i>	Yes	0.31 0.40 0.41	6.50	90	Poor form and structure. Mature tree in decline. TRUNK – (3) stems from base. Decay present in one stem (0.50 meters in length). Natural lean east. Not suitable for retention due to form and structure. Located within proposed building footprint. <i>BC Plant Health Care root radar results: Poor structure with multiple trunks and decay.</i>	Remove
07	377	Flowering plum <i>Prunus cerasifera</i>	No	0.13 0.18 0.27	5.50	80	HANDPLOTTED Fair form and structure, good vigor and vitality. Suitable for retention. Located within proposed building footprint.	Remove
08	378	Mountain ash <i>Sorbus aucuparia</i>	No	0.10 0.11 0.14	4.50	80	HANDPLOTTED Fair form and structure. Suitable for retention. Located within proposed building footprint.	Remove
09	379	Japanese maple <i>Acer palmatum</i>	No	0.09 0.11 0.11	4.00	75	HANDPLOTTED Good form and structure. Suitable for retention. Located within proposed building footprint.	Remove
10	380	Mountain ash <i>Sorbus aucuparia</i>	No	0.10 0.11 0.11	2.50	40	HANDPLOTTED Fair form and structure. CROWN – Shade suppressed on north and east sides. Suitable for retention. Located within proposed building footprint.	Remove
11	381	Vine maple <i>Acer circinatum</i>	No	0.14 0.15 0.18	4.00	80	HANDPLOTTED Fair form and structure. Suitable for retention. Located within proposed building footprint.	Remove



Tree #	Tag #	Common Name Botanical Name	Located on the Survey	DBH (m.)	C-Rad (m.)	LCR (%)	Comments	Retain / Remove
12	382	Bitter cherry <i>Prunus emarginata</i>	No	0.14 0.15 0.21	4.00	80	HANDPLOTTED Fair form and structure. Suitable for retention Located within proposed building footprint.	Remove
The following trees are located offsite.								
OS 01	No tag	Douglas-fir <i>Pseudotsuga menziesii</i>	Yes	0.23	3.50	90	Good form and structure. TRUNK – Located within (0.25 meters) of retaining wall on two sides. Install tree barrier as detailed in Tree Protection and Removal Plan. Arborist to be present for all demolition and excavation works adjacent to tree protection barrier.	Retain
OS 02	No tag	Paper birch <i>Betula papyrifera</i>	Yes	0.63	7.9	70	Good form and structure. Install tree barrier as detailed in Tree Protection and Removal Plan. Install tree barrier as detailed in Tree Protection and Removal Plan. Arborist to be present for all demolition and excavation works adjacent to tree protection barrier.	Retain
OS 03	No tag	Douglas-fir <i>Pseudotsuga menziesii</i>	No	0.65	6.3	80	HANDPLOTTED Good form and structure. Install tree barrier as detailed in Tree Protection and Removal Plan. Arborist to be present for all demolition and excavation works adjacent to tree protection barrier.	Retain



Tree #	Tag #	Common Name <i>Botanical Name</i>	Located on the Survey	DBH (m.)	C-Rad (m.)	LCR (%)	Comments	Retain / Remove
OS 04	6598	Douglas-fir <i>Pseudotsuga menziesii</i>	Yes	0.67	7.2	90	HANDPLOTTED Good form and structure. Install tree barrier as detailed in Tree Protection and Removal Plan. Arborist to be present for all demolition and excavation works adjacent to tree protection barrier.	Retain
OS 05	1779	Douglas-fir <i>Pseudotsuga menziesii</i>	Yes	0.66	11.1	75	HANDPLOTTED Good form and structure. Install tree barrier as detailed in Tree Protection and Removal Plan. Arborist to be present for all demolition and excavation works adjacent to tree protection barrier.	Retain
OS 06	570	Douglas-fir <i>Pseudotsuga menziesii</i>	Yes	96	7.5	60	Good form and structure. Install tree barrier as detailed in Tree Protection and Removal Plan. Arborist to be present for all demolition and excavation works adjacent to tree protection barrier.	Retain
OS 07	No tag	Western redcedar <i>Thuja plicata</i>	Yes	66	5.2	80	Good form and structure. Install tree barrier as detailed in Tree Protection and Removal Plan. Arborist to be present for all demolition and excavation works adjacent to tree protection barrier.	Retain
OS 08	565	Douglas-fir <i>Pseudotsuga menziesii</i>	Yes	97	7.7	80	Good form and structure. Install tree barrier as detailed in Tree Protection and Removal Plan. Arborist to be present for all demolition and excavation works adjacent to tree protection barrier.	Retain



Tree #	Tag #	Common Name Botanical Name	Located on the Survey	DBH (m.)	C-Rad (m.)	LCR (%)	Comments	Retain / Remove
Trees OS 9 – OS 11 form the edge of a larger grouping of private off-site trees.								
OS 9	No tag	Douglas-fir <i>Pseudotsuga menziesii</i>	Yes	0.66	6.0	50	Good form and structure. Install tree barrier as detailed in Tree Protection and Removal Plan. Arborist to be present for all demolition and excavation works adjacent to tree protection barrier.	Retain
OS 10	No tag	Western redcedar <i>Thuja plicata</i>	Yes	0.36	4.0	80	Fair form and structure. TRUNK – Previously topped. Install tree barrier as detailed in Tree Protection and Removal Plan. Arborist to be present for all demolition and excavation works adjacent to tree protection barrier.	Retain
OS 11	No tag	Western redcedar <i>Thuja plicata</i>	Yes	0.36	4.0	80	Fair form and structure. TRUNK – Previously topped. Install tree barrier as detailed in Tree Protection and Removal Plan. Arborist to be present for all demolition and excavation works adjacent to tree protection barrier.	Retain
The following hedge rows are straddling the City of White Rock property.								
SH 01	No tag	Common privet hedge <i>Ligustrum vulgare</i>	Yes	0.03-0.06	1.30	100	Hedge row composed of multiple stems. Height = 2.2M Not suitable for retention with proposed building footprint and road works.	Remove
SH 02	No tag	Boxwood hedge <i>Buxus Sempervirens</i>	Yes	0.03-0.06	1.00	100	Hedge row composed of multiple stems. Height = 2.0M Not suitable for retention with proposed building footprint and road works.	Remove
SH 03	No tag	Common privet hedge <i>Ligustrum vulgare</i>	Yes	0.03-0.06	1.5	100	Hedge row composed of multiple stems. Height = 2.5M Not suitable for retention with proposed building footprint and road works.	Remove



Tree #	Tag #	Common Name Botanical Name	Located on the Survey	DBH (m.)	C-Rad (m.)	LCR (%)	Comments	Retain / Remove
SH 04	No tag	English laurel <i>Prunus laurocerasus</i>	Yes	0.05-0.15	2.2	100	Hedge row composed of multiple stems. Height = 5.0M Not suitable for retention with proposed building footprint and road works.	Remove
SH 05	No tag	English laurel <i>Prunus laurocerasus</i>	Yes	0.05-0.15	1.80	100	Hedge row composed of multiple stems. Height = 3.5M Not suitable for retention with proposed building footprint and road works.	Remove
SH 06	372	Cherry <i>Prunus spp.</i>	Yes	0.58	5.50	30	Growing within the SH 04 hedge. Not suitable for retention with proposed building footprint and road works.	Remove
The following hedge rows belong to the City of White Rock.								
C 1	No tag	Golden Chain hedge <i>Laburnum sp.</i>	No	0.05-0.15	2.50	100	HANDPLOTTED Height = 6.0M Not suitable for retention with proposed building footprint and road works.	Remove
C 2	No tag	Pyramidalis hedge <i>Thuja occidentalis</i> 'Pyramidalis'	Yes	0.05-0.10	1.0	100	HANDPLOTTED Height = 6.0M Not suitable for retention with proposed building footprint and road works.	Remove



APPENDIX A – GLOSSARY OF KEY TERMS

Abutment: A structure built to support the lateral pressure of an arch or span, e.g., at the ends of a bridge.

Adapted Trunk Diameter Method: This method uses the trees age and tolerance to construction damage to determine the factor that will be multiplied by the diameter to provide a sufficient tree protection zone given these factors.

Age: The relative age (young, intermediate, mature) within the particular stand of trees or forest.

Algae: Is a simple, nonflowering plant (includes seaweeds and many single-celled forms). They do contain chlorophyll (but lack true stems, roots, and vascular tissue)

ALR: The Agricultural Land Reserve in which agriculture is recognized as the priority.

Bole: The stem or trunk of a tree.

Chlorotic: Yellowing of plant tissues caused by nutrient deficiency &/or pathogen.

Co-dominant Leaders: Forked dominant stems nearly the same size in diameter, arising from a common junction.

Co-dominant Within Stand: Individual tree whose height is generally equal to trees (regardless of species) within the same stand.

Compaction: Compression of the soil that breaks down soil aggregates and reduces soil volume and total pore space, especially macropore space.

Conk: A fungal fruiting structure typically found on trunks and indicating internal decay.

Dead Standing: A tree that has died but is still standing erect.

DBH: The Diameter of the tree at 1.40 meters above the ground.

Dominant Within Stand: Individual tree whose height is significantly greater than adjacent trees (regardless of species) within the same stand.

C-rad: Crown radius, is the dripline measured from the edge of the trunk to the outermost branches of the crown.

CRT: Critical Root Zone

CRZ: Critical Root Zone - The area between the trunk and to the end of the Drip Line.

Fair: Healthy but has some defects such as co-dominant trunk, dead branches.

Feeder Roots: The smaller roots responsible for water and nutrient absorption and gas exchange. These roots can extend far beyond the Drip Line (or outer canopy) of the tree.

Fungus (singular) / Fungi (plural): Unicellular, multicellular or syncytial spore-producing organisms that feed on organic matter (including molds, yeast, mushrooms and toadstools)

Girdling Root: Root that encircles all or part of the trunk of a tree or other roots and constricts the vascular tissue and inhibits secondary growth and the movement of water.

Good: Good form and structure, healthy with no defects.

Hazardous: Significant hazard exists with a high risk of immediate failure; which could result in serious damage to property or person(s).

Height: Height of tree is approximate.

LCR: Live Crown Ratio – The ratio of crown length to total tree length.

Level 1 Limited Visual Assessment: Limited visual assessment looking for obvious defects such as, but not limited to dead trees, large cavity openings, large dead or broken branches, fungal fruiting structures, large cracks, and severe leans.

Level 2 Basic Visual Assessment: Detailed visual inspection (aboveground roots, trunk, canopy) of tree(s) may include the use of simple tools to perform assessment (i.e. sounding mallet, trowel, measuring tape, binoculars). The assessment does not include advanced



resistance drilling of trunk.

Level 3 Advanced Assessment: To provide detailed information about specific tree parts, defects, targets, or side conditions. May include aerial inspection, resistance drilling of tree parts, laboratory diagnosis of fungal or plant tissue.

Mildew: Is a minute powdery or web-like fungi (of different colours) that is found on diseased or decaying substances.

Moss: A small, green, seedless plant that grows on stones, trees or ground.

No Disturbance Zone: (Trunk Diameter x 6) + Trunk Radius + (60 cm excavation zone). For example, a 50-cm diameter tree would have a No Disturbance Zone = 3.85 meters measured from the edge of the trunk.

Poor: multiple defects, disease, poor structure and or form, root and or canopy damage.

Phloem: Plant vascular tissue that transports sugar and growth regulators. Situated on the inside of the bark, just outside the cambium. Is bidirectional (transports up and down). Contrast with xylem.

Phototropic: Growth toward light source or stimulant.

Retain & Monitor: Monitor health and condition of tree every 12 months for signs of deterioration.

Root Crown: Also, called the root collar, it includes the flare at the base of the trunk and the initial roots that develop below the trunk. These roots generally taper and subdivide rapidly to form the root system of the tree.

SPEA: Streamside Protection and Enhancement Area

Spiral Decline: The health and condition of the tree is deteriorating.

Sub-dominant Within Stand: Individual tree whose height is significantly less than adjacent trees (regardless of species) within the same stand.

Suppressed: Individual tree whose growth, health and condition is negatively impacted by adjacent tree(s).

TPZ: Tree Protection Zone - The area between the trunk and the Tree Protection Barrier.

Wildlife Tree: A tree or a group of trees that are identified to be retained to provide future wildlife habitat. Wildlife habitat can exist in tree risks (cavities, dead snags, broken tops). Often times the tree risk to potential targets (people & property) is reduced by removing that part of the tree posing the risk of failure, but the tree (or portion of) is retained to provide future habitat.

Witches Broom: A dense mass of shoots growing from a single point, with the resulting structure resembling a broom or a bird's nest.

Xylem: Thin overlapping cells that help provide support and that conduct water and nutrients up

ward from the roots all the way to the leaves.

APPENDIX B – PHOTOS



Fig. 2 - View facing south along Vidal Street to Thrift Avenue.



Fig. 3 – Off-site Douglas-fir tree



Fig. 4 – Tree 03 growing within S4



Fig. 5 – View of Trees OS2 – OS8



Fig. 6 – Stand of off-site conifers located directly west of 1441/1443-45/1465 Vidal Street.



Fig. 7 – View facing north/northwest. OS 9 – OS 11 make up part of the edge of a larger grouping of conifers.



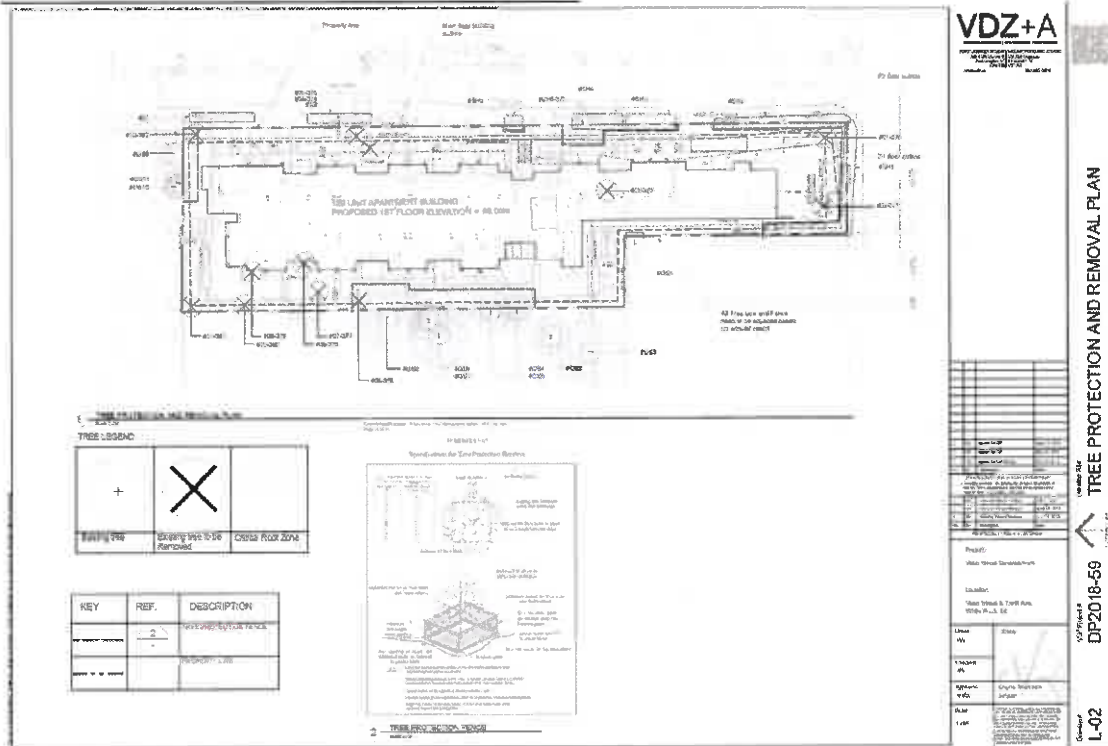
Fig. 8 – Alternate view of Trees OS 9 – OS 11



Fig. 9 – Red alder located on 1465 Vidal Street.



APPENDIX C – TREE RETENTION AND REMOVAL PLAN



FORT LANGLEY STUDIO | **MOUNT PLEASANT STUDIO**
 102 – 9181 Church Street | 102 – 355 Kingsway
 Fort Langley, BC | Vancouver, BC
 V1M 2R8 | V5T 3J7

APPENDIX D – CONSTRUCTION ACTIVITY AROUND TREE PROTECTION ZONE

Tree Protection Fencing

Specifications for Tree Protection Barriers

TRUNK DIAMETER (CM)	MINIMUM PROTECTION DISTANCE (M FROM TRUNK)
X	6X
20	1.2
25	1.5
30	1.8
35	2.1
40	2.4
45	2.7
50	3.0
55	3.3
60	3.6
75	4.5
90	5.0
100	6.0

NOTES

- Install tree protection barrier before construction begins and keep in place until landscape installation is complete.
- Storage of building materials & litter within or against protection barrier is prohibited. Developer/Owner responsible for maintenance within Tree Protection Barrier.
- Damaged trees will be replaced at Developer/Owner's cost.
- Maintain existing grades at protection barrier for all protected retained and existing trees.
- Regrading outside of protection barrier should not adversely compromise protected retained and existing trees.



General Requirements and Limitations for Operations Within the Tree Protection Zone

- The Contractor shall not engage in any construction activity within the Tree Protection Zone (TPZ) without the approval of the Project Arborist including: operating, moving or storing equipment; storing supplies or materials; locating temporary facilities including trailers or portable toilets and shall not permit employees to traverse the area to access adjacent areas of the project or use the area for lunch or any other work breaks. Permitted activity, if any, within the Tree Protection Zone maybe indicated on the drawings along with any required remedial activity as listed below.
- In the event that construction activity is unavoidable within the Tree Protection Zone, notify the Project Arborist and submit a detailed written plan of action for approval. The plan shall include: a statement detailing the reason for the activity including why other areas are not suited; a description of the proposed activity; the time period for the activity, and a list of remedial actions that will reduce the impact on the Tree Protection Zone from the activity. Remedial actions shall include but shall not be limited to the following:
- In general, demolition and excavation within the drip line of trees and shrubs shall proceed with extreme care either by the use of hand tools, directional boring and/or Air Spade. If any excavation work is required within the Tree Protection Zone (TPZ), the Project Arborist must be present during excavation, and a trench should be 'hand dug' to a depth of 60 cm outside the Drip Line, to uncover any potential roots. The Project Arborist should cleanly prune roots and recommend the appropriate treatment for any structural roots encountered.
- Knife excavation where indicated or with other low impact equipment that will not cause damage to the tree, roots soil.
- When encountered, exposed roots, 1 inches and larger in diameter shall be worked around in a manner that does not break the outer layer of the root surface (bark). These roots shall be covered in Wood Chips and shall be maintained above permanent wilt point at all times. Roots one inch and larger in diameter shall not be cut without the approval of the Project Arborist. Excavation shall be tunnelled under these roots without cutting them. In the areas where roots are encountered, work shall be performed and scheduled to close excavations as quickly as possible over exposed roots.
- Tree branches that interfere with the construction may be tied back or pruned to clear only to the point necessary to complete the work. Other branches shall only be RETAINED when specifically indicated by the Project Arborist. Tying back or trimming of all branches and the cutting of roots shall be in accordance with accepted arboriculture practices (ANSI A300, part 8) and be performed under supervision of the Project Arborist.
- Do not permit foot traffic, scaffolding or the storage of materials within the Tree Protection Zone.
- Protect the Tree Protection Zone at all times from compaction of the soil; damage of any kind to trunks, bark, branches, leaves and roots of all plants; and contamination of the soil, bark or leaves with construction materials, debris, silt, fuels, oils, and any chemicals substance. Notify the Project Arborist of any spills, compaction or damage and take corrective action immediately using methods approved by the Project Arborist.



APPENDIX E – LIMITATIONS

This report is valid for the day the trees were reviewed. This report is not to be re-printed, copied, published or distributed without prior approval by VDZ + A Consulting Inc.

Sketches, diagrams and photographs contained in this report being intended as visual aids, should not be construed as engineering reports or legal surveys.

Only the subject tree(s) was inspected and no others. This report does not imply or in any other way infer that other trees on this site or near this site are sound and healthy.

The tendency of trees or parts of trees to fall due to environmental conditions and internal problems are unpredictable. Defects are often hidden within the tree or underground. The project arborist has endeavored to use his skill, education and judgment to assess the potential for failure, with reasonable methods and detail. It is the owner's responsibility to maintain the trees and inspect the trees to reasonable standards and to carry out recommendations for mitigation suggested in this report.

APPENDIX F - REFERENCES

Bond, Jerry & Buchanan, Beth (2006) *Best Management Practices: Tree Inventories*, International Society of Arboriculture, Champaign, IL.

Dunster, Dr. Julian (2003) *Preliminary Species Profiles for Tree Failure Assessment*. ISA Pacific Northwest Chapter, Silverton, OR, USA

Dunster, Dr. Julian & Edmonds, Dr. R. (2014) *Common Fungi Affecting Pacific Northwest Trees*, ISA Pacific Northwest Chapter, Silverton, OR, USA

Fite, Kelby & Smiley, E. Thomas (2016) *Best Management Practices: Managing Trees During Construction*, International Society of Arboriculture, Champaign, IL.

Sibley, David Allen (2009) *The Sibley Guide to Trees*. Alfred A. Knopf, New York, NY

Smiley, E.T., Matheny, N., Lilly, S. (2011) *Best Management Practises: Tree Risk Assessment*. International Society of Arboriculture, Champaign, IL.