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City of Vancouver
Development Services
515 West 10th Avenue
Vancouver, BC

August 18, 2020

RE: 1008 West 41st Avenue and 5763 Oak Street Vancouver

# Revised Tree Report

The owners of these properties are proposing to develop them and the City of Vancouver has requested a Tree Report for the property. I have not been provided with a site plan but I have been told that the underground parking will require property line to property line excavation.

## TREE PRESERVATION SUMMARY

| | |
|---|---|
| 14 | On-site "Protected Trees"[1] |
| 0 | Onsite tree proposed for retention |

The City of Vancouver has requested that consideration be given to retaining trees on this development site. The development team has given careful consideration to the retention of some of the onsite trees. They have provided the following rationale as to why the retention of trees is not possible on this site:

- **Encroachment into Envelope**: Trees 10-12 encroach into envelope (form is approved in Cambie Corridor Plan). Pulling back the envelope would result in significant density loss, and a complicated form. This increases cost and complexity, particularly given the stringent green building requirements and envelope details.
- **Encroachment into Parkade**: Retaining any perimeter trees would result in significant P1 area lost. This is an issue for multiple reasons, but the biggest is the parking required on P1 for the viability of the large retail unit (as a pharmacy, grocer or liquor store). This location for this type of retailer depends on simple, convenient, and customer-understood parking and access. This is based on a significant amount of hands-on experience with these specific tenants. A successful large retailer is the foundation of the economic and functional long-term viability and success of the project. The knock-on impacts of the reduced P1 area relate to bike parking (which to be successful is on P1), and having to build a deeper parkade to achieve required parking, which in addition to significant expense, also risks encroaching upon the groundwater level identified in the hydrogeological study.
- **Improved Replacement Trees**: We are proposing a high-quality landscape program for the site, including the significant replacement of street trees. As we are developing the entire block, we have the opportunity for a cohesive landscape plan that selects the optimal species and placement of trees for the long-term. This enables a better retail treatment, road-design, boulevard and sidewalk design, as well as an optimized City plaza area on the SE corner of the site.
- **Competing City Conditions**: There are a number of competing challenges relating to addressing the conditions in the LOE response, that further make retaining trees more challenging. These include adding residential treatment to the SW corner, improving the plaza space in the SE corner, various requirements needing space on P1, demonstrated viability of

[1] Protected Trees – the City of Vancouver considers all trees with a trunk diameter 20cm and greater to be protected.

truck-sweep paths into and out of the lane, amongst others that have knock-on impacts (where one is addressed leading to a challenge with another).

- **CAC Rental Project Viability**: The Cambie Corridor Plan sets out the in-kind CAC-contribution of providing 20% of the rental area as moderate-income rates. Together with all of the current building policies, constructing a concrete building delivering on this requirement is a challenge, making the project marginally viable. Significantly increasing costs (increased complexity of excavation around trees and deeper excavation) or decreasing potential revenue (by reducing commercial parking on P1) of the commercial component in particular risks tipping the balance to making the project not feasible to proceed.

## OBSERVATIONS

I visited the site on June 14, 2017 to assess the trees. I have done a basic visual assessment of all onsite trees and a limited visual assessment of all others. I have assessed the trees for trunk size (DBH), crown radius (CR), height (Ht), health and apparent structural condition. This information is recorded in the inventory in the Appendix.

There are 14 onsite trees, no neighbouring or City trees that will be impacted by the proposed construction. Most of the trees are in fair to good condition. See attached pictures.

There are 2 undersized katsuras planted along West 42nd Avenue. These trees are not protected and no recommendations are provided in the report.

## DISCUSSION

To help determine the protection area required for the trees I have calculated out their Minimum Protection Zones (MPZ)[2]. A tree that requires any excavation inside of the Protection Zone is usually not considered a good candidate for retention. Excavation inside this distance could destabilize a taller tree.

Tree Removals

All onsite trees are proposed for removal. The proposed underground parking will require excavation to the property line making the retention of these trees not possible. Retaining any of the onsite trees would require all excavation to be outside the protection zones of the trees. Also the buildings would need to be far enough away from the trees that the building would not infringe on the canopies of the trees.

Retained Trees

There are no onsite trees proposed for retention.

Drawings

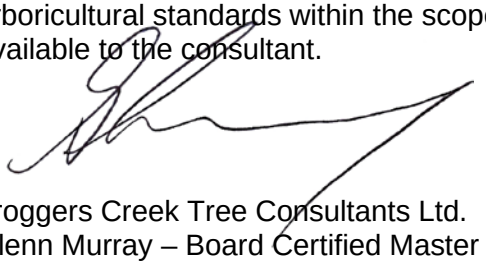
A Tree Drawing is attached as Appendix 2. The drawing plots all trees proposed for removal and their canopies in relation to the proposed layout.

End Report.

## CERTIFICATION:

2 MPZ- In an effort to retain trees Vancouver has accepted 6 times the diameter of the trunk as the Minimum Protection Zone required during construction. This distance is exactly half of the Critical Root Zone.

This report and the opinions expressed within it have been prepared in good faith and to accepted arboricultural standards within the scope afforded by its terms of reference and the resources made available to the consultant.



Froggers Creek Tree Consultants Ltd. August 18, 2020
Glenn Murray – Board Certified Master Arborist
I.S.A. Certification # PN-0795
Certified Tree Risk Assessor #0049

**Tree #14**



**Undersized katuras along 42nd**



**Tree # 12 and 13**



## Tree #10 and #11




## Tree #5, 6 and 7



## Tree #8 and 9




## Tree #3 and 4



## Tree #2




## Tree #1 (red leaves)covered in wisteria



## ASSUMPTIONS AND LIMITING CONDITIONS

1. This report and the opinions expressed within it have been prepared in good faith and to accepted arboricultural standards within the scope afforded by its terms of reference and the resources made available to the consultant. The report provides no undertakings regarding the future condition or behavior of the trees reviewed within it. Tree hazard and condition assessments are not an exact science. Both qualities can and do change over time and should be reappraised periodically.

2. This assessment was limited to a level 2 basic visual assessment of all onsite protected trees and a limited (level 1) visual assessment of all others. A level 3 Advanced Assessment has not been completed. No core samples were taken. No tissue samples have been cultured or analyzed by plant pathologists. No root or root crown excavations were undertaken. No aerial reconnaissance was attempted, beyond that made possible by binoculars.

3. Any legal description provided to the consultant/appraiser is assumed to be correct. No responsibility is assumed for matters legal in character. Any and all property is appraised or evaluated as though free and clear, under responsible ownership and competent management.

4. It is assumed that any property is not in violation of any applicable codes, ordinances, statutes, or other governmental regulations.

5. Care has been taken to obtain all information from reliable sources. All data has been verified insofar as possible; however, the consultant/appraiser can neither guarantee nor be responsible for the information provided by others.

6. The consultant/appraiser shall not be required to give testimony or to attend court by reason of this report unless subsequent contractual arrangements are made, including payment of an additional fee for such services as described in the fee schedule and contract of engagement.

7. Loss or alteration of any part of this report invalidates the entire report.

8. Possession of this report or a copy thereof does not imply right of publication or use for any purpose by any other than the person to whom it is addressed, without the prior expressed written or verbal consent of the consultant/appraiser.

9. Neither all nor any part of the contents of this report, nor copy thereof, shall be conveyed by anyone, including the client, to the public through advertising, public relations, news, sales or other media, without the prior expressed written or verbal consent of the consultant/appraiser—particularly as to value conclusions, identity of the consultant/appraiser, or any reference to any professional society or institute or to any initiated designation conferred upon the consultant/appraiser as stated in his qualification.

# APPENDIX 1

# TREE INVENTORY

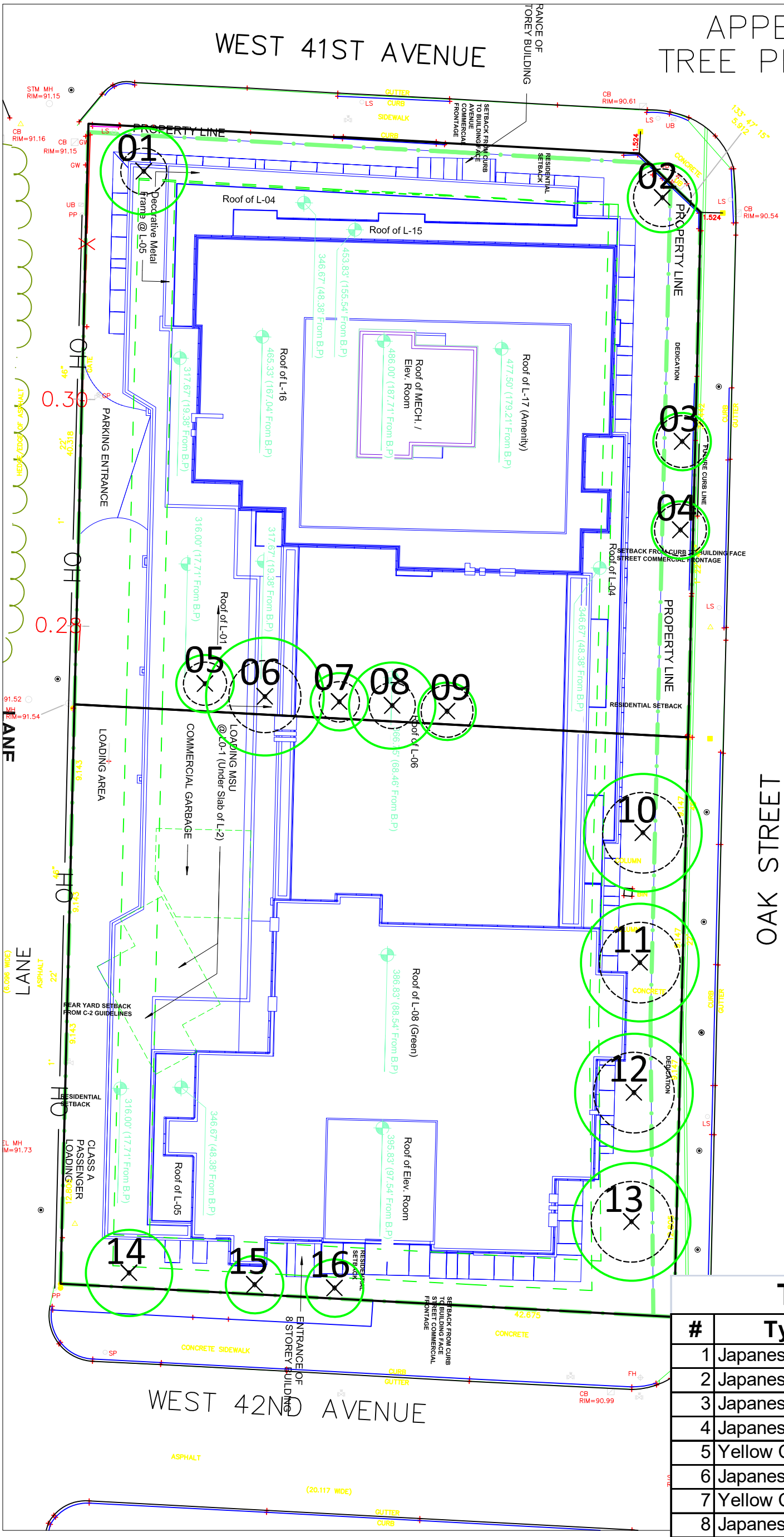
## ON-SITE TREES

| # | Type | Action | Reason | DBH | MPZ | Ht | CR | Health | Structural Condition |
|---|---|---|---|---|---|---|---|---|---|
| 1 | Japanese Maple | Remove | Inside excavation | 9/6/4cm | 1.6m | 4m | 3m | Declining | Covered in wisteria |
| 2 | Japanese Maple | Remove | Inside excavation | 15/12/10cm | 2.0m | 3m | 2m | Fair | |
| 3 | Japanese Maple | Remove | Inside excavation | 12/10/10cm | 1.8m | 3m | 2m | Fair | |
| 4 | Japanese Maple | Remove | Inside excavation | 12/10/10cm | 1.8m | 3m | 2m | Fair | |
| 5 | Yellow Cedar | Remove | Inside excavation | 25cm | 1.5m | 8m | 2m | Fair | |
| 6 | Japanese Maple | Remove | Inside excavation | 15/15/12cm | 2.5m | 5m | 4m | Good | |
| 7 | Yellow Cedar | Remove | Inside excavation | 24cm | 1.4m | 8m | 2m | Fair | |
| 8 | Japanese Maple | Remove | Inside excavation | 15/7cm | 1.6m | 5m | 3m | Fair | |
| 9 | Yellow Cedar | Remove | Inside excavation | 24/8cm | 1.8m | 10m | 2m | Fair | |
| 10 | Armstrong Maple | Remove | Inside excavation | 46cm | 2.8m | 18m | 4m | Fair | Planted in sidewalk |
| 11 | Armstrong Maple | Remove | Inside excavation | 42cm | 2.5m | 18m | 4m | Fair | Planted in sidewalk |
| 12 | Armstrong Maple | Remove | Inside excavation | 46cm | 2.8m | 18m | 4m | Fair | Planted in sidewalk |
| 13 | Armstrong Maple | Remove | Inside excavation | 46cm | 2.8m | 18m | 4m | Fair | Planted in sidewalk |
| 14 | Lawson Cypress | Remove | Inside excavation | 56cm | 3.4m | 12m | 3m | Fair | Tree has been topped |

## UNDERSIZED TREES

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 16 | Katsura | Remove | | 12cm | 1.0m | | | | |
| 17 | Katsura | Remove | | 16cm | 1.0m | | | | |

# APPENDIX 2
# TREE PROTECTION PLAN




SCALED TO FIT

2.5 0 5 10

ALL DISTANCES ARE IN METRES

NOTES:
1. SITE LAYOUT INFORMATION AND TREE SURVEY DATA PER SUPPLIED DRAWING

2. REFER TO ATTACHED TREE PROTECTION REPORT FOR INFORMATION CONCERNING TREE SPECIES, STEM DIAMETER, HEIGHT, CANOPY SPREAD AND CONDITION.

3. ALL MEASUREMENTS ARE METRIC

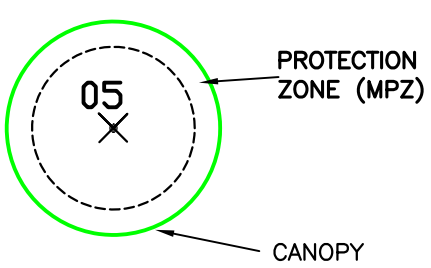
## TREE INVENTORY

| # | Type | Action | DBH | MPZ |
|---|---|---|---|---|
| 1 | Japanese Maple | Remove | 9/6/4cm | 1.6m |
| 2 | Japanese Maple | Remove | 15/12/10cm | 2.0m |
| 3 | Japanese Maple | Remove | 12/10/10cm | 1.8m |
| 4 | Japanese Maple | Remove | 12/10/10cm | 1.8m |
| 5 | Yellow Cedar | Remove | 25cm | 1.5m |
| 6 | Japanese Maple | Remove | 15/15/12cm | 2.5m |
| 7 | Yellow Cedar | Remove | 24cm | 1.4m |
| 8 | Japanese Maple | Remove | 15/7cm | 1.6m |
| 9 | Yellow Cedar | Remove | 24/8cm | 1.8m |
| 10 | Armstrong Maple | Remove | 46cm | 2.8m |
| 11 | Armstrong Maple | Remove | 42cm | 2.5m |
| 12 | Armstrong Maple | Remove | 46cm | 2.8m |
| 13 | Armstrong Maple | Remove | 46cm | 2.8m |
| 14 | Lawson Cypress | Remove | 56cm | 3.4m |
| 16 | Katsura | Remove | 12cm | 1.0m |
| 17 | Katsura | Remove | 16cm | 1.0m |

DBH- trunk diameter, MPZ- protection zone

LEGEND

TREE PROPOSED FOR REMOVAL





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*TREE PROTECTION DRAWING*

THE DRAWING PLOTS ALL TREES, PROPOSED FOR RETENTION, REMOVAL, THEIR CANOPIES, PROTECTION ZONES AND PROTECTION FENCING IN RELATION TO PROPOSED LAYOUT

*August 18, 2020*