



ARBOR INFO LLC

2406 N Castle Way Brier, WA, 98036

Tree Assessment

Sherry Tseng
2720 71st Ave. SE
Mercer Island, WA



Date
August 14, 2017

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1. Introduction

I was contacted by Ms. Chaohua Chang, CHC Architects on August 3, 2017 to assess current condition of certain trees and to provide a tree protection assessment for proposed site disturbance at the Tseng Residence in Mercer Island, Washington. This brief report summarizes my observations and conclusions.

2. Competence

I have been a practicing consulting forester in the State of Washington since 1971. I hold a Bachelor of Science degree in Forest Management from the University of Washington and am a certified forester (Society of American Foresters). I have also been a consulting arborist since 1989 and am a Certified Arborist (International Society of Arboriculture, ISA), and a registered consulting arborist (American Society of Consulting Arborists). I am Tree Risk Assessment Qualified (ISA).

3. Client

The client to whom this report is addressed is:

Ms. Sherry Tseng
c/o Chaohua Chang
CHC Architects
13301 SE 79th PL, A205
Newcastle, WA 98059

cchang03@yahoo.com>

4. Assignment

The assignment is to assess condition of seventeen onsite significant trees and two offsite significant trees and to recommend limits of root zone disturbance for a proposed residential redevelopment.

5. Purpose and Use of Report

The purpose of this report is to assist CHC Architects in obtaining a permit for construction of a new on-site residence.

6. Limits of Assignment

The assignment is limited to the information gathered during the site visit August 11, 2017 (date of assessment) and references noted in this report. No excavation or sampling was undertaken to determine unseen defects. No inspection of trees not reported herein was made.

It is assumed herein that the seventeen onsite subject trees stand on the Tseng property as indicated on the attached Tree Location Map.

7. Site Description

The subject property consists of 9,000 square feet in a residential neighborhood of similar characteristics. The property is nearly level and soils appear to be suitable for the growth of native and non-native plants. Tree maintenance appears to have been minimal in recent years.

8. Methodology

I visited the site on August 11, 2017 and assessed their condition

I tagged the trees with a numbered aluminum strip: Onsite trees are numbered 1-17. Off-site trees A and B as shown on the attachments are not labeled. Attached is a plat of the property as it now exists with the trees hand labeled.

I examined the trees to the standards of the International Society of Arboriculture (ISA) level 2 TRAQ assessment. (Tree Risk Assessment Qualified)

TRAQ Level 2 Assessment

- Locate and Identify Subject Trees
- Determine Targets
- Review Site History
- Assess Tree Health
- Inspect: ocular, mallet, probes etc.
- Record Observations: defects, site conditions, growth rates
- Determine the Likelihood and consequences of failure
- Determine Level of Risk
- Recommend Mitigation if appropriate
- Suggest re-inspection levels

This report summarizes my observations.

9. Observations

The attached Tree Assessment Summary Form summarizes the tree information, including species, diameter, height, live crown ratio, vigor, dripline and an opinion of the extent of allowable limit of root disturbance.

All of the subject trees, including those offsite are viable except for No. 15 and with proper care should remain so for their normal life span. Tree No. 15 has extensive bole decay and is likely to continue to decay and break out.

10. Discussion

Trees No. 5, 6, 7, 10 and 11-13 are scheduled for removal according to the attached “Proposed Tree Removal” plan. Tree No. 15 should be removed as it is not viable.

The remaining trees 1-4, 8-10, 14, 16 and 17 as well as offsite trees A and B should remain viable as long as standard tree protection measures are followed. I have indicated recommended limits of tree root disturbance on the attached Tree Assessment table.

Mercer Island Code MICC 19.10 Trees indicates that the City arborist may require replacement of up to 4 trees for each one removed. The code does not specify tree protection measures however. At a minimum retained trees should be protected especially in and over the critical root zone suggested as 1-foot per diameter inch of trunk.

- Root zones should be mulched with a minimum of 4-inches of organic material (tree chips)
- No equipment or building materials should be stored within the root zone
- Severed roots should be cut cleanly and inspected by an arborist
- Severed roots should be kept moist until back-filled with native soil
- Pruning of limbs if needed should follow ANSI standard A-300

11. Assumptions and Limiting Conditions

1. Any legal description provided to the consultant is assumed to be correct. Ownership of the subject trees as provided by the client is assumed to be correct. No responsibility is assumed for legal matters. No opinion as to the property line location is made.
2. Care has been taken to obtain all information from reliable sources. The consultant can neither guarantee nor be responsible for the accuracy of information provided by others.
3. The consultant shall not be required to give testimony or attend court by reason of this report unless subsequent contractual arrangements are made, including additional fees.
4. This report and any values expressed herein represent the opinion of the consultant, and the consultant’s fee is in no way contingent upon the reporting of a specified value, a stipulated result, the occurrence of a subsequent event, nor upon any finding to be reported.
5. The exhibits in this report are included to assist the reader and are not necessarily to scale.

6. Unless expressed otherwise, information in this report covers only items that were examined, and reflects the condition of those items at the time of inspection. The subject site was cleared of all vegetation at the time of inspection therefore the extent of removals is inferred from adjacent undisturbed areas. The inspection is limited to visual examination of accessible portions of the trees and plants.
7. Loss or alteration of any part of the report invalidates the entire report. Ownership of any documents related to this report passes to the client only.
8. The liability of ArborInfo LLC its contractors and employees is limited to the client only and only up to the amount of the fee actually received for the assignment.
9. *There is no warranty suggested for any of the trees subject to this report. Weather, latent tree conditions, and future man-caused activities could cause physiologic changes and deteriorating tree condition. Over time, deteriorating tree conditions may appear and there may be conditions, which are not now visible which, could cause tree failure. This report or the verbal comments made at the site in no way warrant the structural stability or long term condition of any tree, but represent my opinion based on the observations made.*
10. *Nearly all trees in any condition standing within reach of improvements or human use areas represent hazards that could lead to damage or injury.*

Respectfully Submitted,

A handwritten signature in cursive script that reads "Tom Hanson".

Thomas M. Hanson, CF, RCA

Glossary of Common Terms

DBH	Diameter at breast height, 4 ½' above ground level
Basal	In the vicinity of the root/trunk connection at ground level
Bole	The tree stem (Trunk)
Butt Swell	Abnormal swelling at the base of the tree
Canker	Localized diseased area on stems, roots and branches. Often shrunken and discolored.
Codominant	Two or more trunks originating from a single main trunk
Conk	The fruiting body of a fungus
Critical Root Zone	Variously defined as an area extending to or outside the dripline to as much as 1-foot per inch of trunk diameter at DBH
Crook	Abrupt bend in a branch or trunk
Crown	The live branches or live leaves or live needles of a tree
Crown ratio	The percentage of live green leaves or needles to total height
Dieback	Notable dead foliage, starting at the end of a branch or the top of a tree
Dripline	The extent of live limbs from the trunk
Epicormic	A shoot arising from a dormant bud following exposure to sunlight
Flat Side	Trunk of the tree has a flattened appearance on the side, sometimes an indicator of internal decay
Girdling Root	A root that winds around the stem at ground level
Included Bark	Bark that is pinched between codominant stems; a common weak point
Leader	The central stem tip
Leaf Spot	Diseased areas on foliage
Limb Collar	The swelling at the junction of the bole and limb

Photosynthesis The process of converting water, nutrients and CO₂ to carbohydrates (wood)

Pitchy Excessive sap exuding from the tree trunk; often an indicator of stress

Pruning The cutting and removal of limbs (**Crown Raising**)

Rotten knot Point of the stem where limb removal has allowed pathogen infection and decay (**Black knot**)

Root Disease Fungal decay of the root system often causing tree failure

Taper The ratio of diameter on different points of a trunk, stem or branch

Thin Crown Comparatively low live foliage percentage; often an indicator of root disease

Topping Removal of the main stem above live, green limbs

Trimming Shortening or cutting of limbs; sometimes called **heading**

Trunk Seam A seam in the trunk, suggests internal decay

Viable A structurally sound and healthy condition

Vigor Tree health and growth rate

Vitality The suitability of the tree for the site.

Tree Assessment Form

Site: Tseng Residence, 2720 71st Ave SE, Mercer Island Date: 8/11/2017

Tree #	Species	DBH (inches)	Height (feet)	Crown Ratio (%)	Vigor	Viable	N			E			W	LOD** (feet)	Defects	Status***	
On Site Trees																	
1	Plum	9*	35	90	Good	Yes	15	13	4	18	6						
2	Cherry	10	35	40	Fair	Yes	12	2	2	12	6						
3	Ash	20	71	80	Good	Yes	15	15	12	18	6						
4	Red cedar	9	28	70	Fair	Yes	8	2	10	4	4						
5	Douglas-fir	7	43	40	Good	Yes	8	4	0	14	4						Remove
6	Douglas-fir	25	103	60	Good	Yes	20	22	24	25	10						Remove
7	Sequoia	22	66	60	Good	Yes	4	12	12	12	10						Remove
8	Sequoia	14	70	60	Good	Yes	0	2	8	12	10						
9	Sequoia	30*	70	60	Good	Yes	14	6	12	12	10						
10	Red cedar	12	40	70	Good	Yes	8	9	12	9	4						Remove
11	Red cedar	13	58	60	Good	Yes	15	18	4	14	4						Remove
12	Red cedar	23	76	70	Good	Yes	12	16	10	6	4						Remove
13	Red cedar	21	70	70	Good	Yes	15	12	16	8	4						Remove
14	Austrian pine	15	62	40	Fair	Yes	3	19	12	11	4						
15	Vine maple	7*	14	40	Poor	No	6	5	4	9	4						R. Remove
16	Holly	19*	16	80	Good	Yes	6	6	2	10	4						
17	Plum	100	20	70	Fair	Yes	14	9	8	14	4						Bole decay
Off Site Trees																	
A	Japanese maple	14*	16	80	Good	Yes	14	16	14	14	10						
B	Red cedar	28	70	80	Good	Yes	16	14	16	18	10						

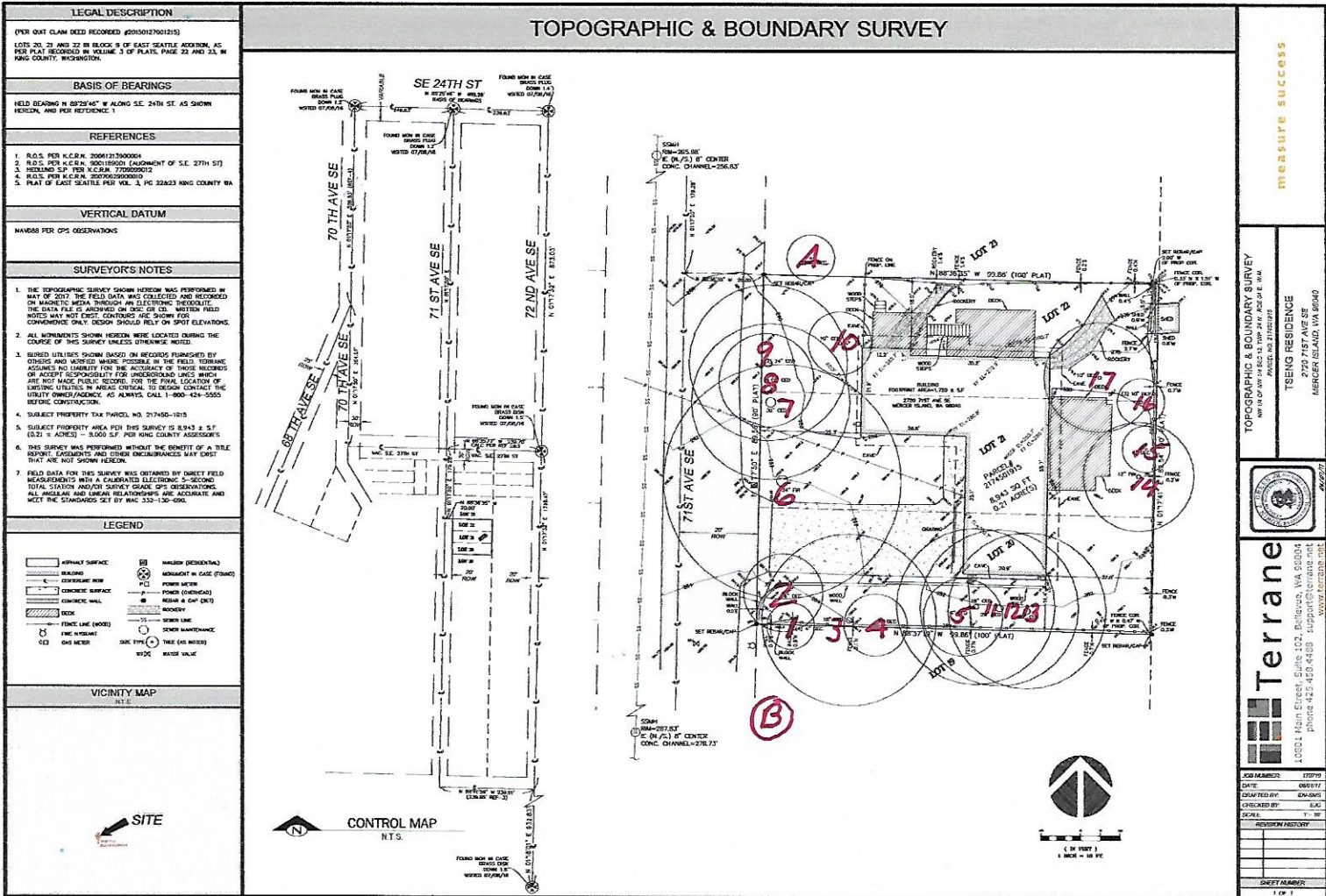
*DBH Multiple Trunks converted to equivalent DBH per ISA Guide

**LOD Limit of Disturbance; Face to side of disturbance, recommended

*** Status "Remove as per plan"---"R. Remove", recommended

TSENG TREE LOCATIONS

TOPOGRAPHIC & BOUNDARY SURVEY



MEASURE SUCCESS

TOPOGRAPHIC & BOUNDARY SURVEY
NOT TO BE USED FOR ANY OTHER PURPOSE

TSENG RESIDENCE
 2722 71ST AVE SE
 BELLEVUE, WA 98004

Terrane
 10001 Main Street, Suite 102, Bellevue, WA 98004
 Phone 425-459-4859 support@terrane.net
 www.terrane.net

JOB NUMBER: T2719
DATE: 06/01/17
DRAWN BY: EW-SMS
CHECKED BY: EAC
SCALE: 1" = 40'
REVISION HISTORY:
 1. 06/01/17
SHEET NUMBER:
 1 OF 1



ARBOR INFO LLC

Tom Hanson

Credentials

- International Society of Arboriculture -- *Certified Arborist*
- American Society of Consulting Arborists -- *Registered Consulting Arborist.*
- International Society of Arboriculture -- *Tree Risk Assessment Qualified*
- Society of American Foresters -- *Certified Forester*
- Real Estate Designated/Managing Broker – *State of Washington*

Introduction

Mr. Hanson has 46 years of experience as a consulting forester in conjunction with 30 years as a consulting arborist formerly with International Forestry Consultants, Inc. and American Forest Management Inc. He has conducted numerous residential and commercial hazard tree assessments, developed and administered tree protection plans and evaluated many tree and shrub trespass and damage claims. He has significant experience as an expert witness in vegetative valuation cases.

He has conducted appraisals of forests, forest land and rural land throughout Washington State to the standards of the Appraisal Foundation and Uniform Standards of Federal Land Acquisition. He is a Washington State Licensed Real Estate Broker.

Urban Forestry Experience Examples

- Administered street tree inventories for several cities in the Greater Seattle area. Developed spreadsheet solutions for data input to unique GIS infrastructure for each City. Developed hazard tree criteria and conducted or assisted with field inspections on street and park trees.
- Assisted in development of the Forest Land Assessment Training method (FLAT) for use by municipal urban forest and park employees.
- On call arborist for the City of Everett in response to City personnel and citizen concerns regarding public and private street trees.
- Prepared an urban forest management plan, FLAT inventory and tree risk assessment for Sudden Valley Homeowners Association and the Port Madison Water District in 2016.
- Prepared a forest management plan for the City of Bellingham Galbraith Mountain acquisitions.

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- Routinely assists developers, construction managers and real estate brokers with tree protection plans.
- Testified in court on numerous occasions for plaintiff and defendant in tree trespass, tree condition and valuation issues.
- Reviewer for the Council of Tree and Landscape Appraisers, Guide for Plant Appraisal, 9th and 10th editions.

Representative Clients

Numerous Small Private Forest Landowners and Residential Homeowners

Numerous Home and Commercial Construction Companies

Municipalities and Schools

- City of Everett
- City of Snohomish
- Town of Steilacoom
- City of Federal Way
- City of Bellingham
- Edmonds School District
- Sudden Valley Homeowners Association
- Port Madison Water District

Insurance Companies

- Allstate
- State Farm
- USAA
- CNA
- Farmers

Service Activities

He has served a number of organizations as an officer/board member including Washington State Society of American Foresters at state and local levels, University of Washington College of Forest Resources Alumni Association, Washington Forest Protection Association, the Practicing Foresters Institute, and the Black Mountain Forestry Center. In 2016 he was elected Fellow by the Society of American Foresters and also received the Society of American Foresters President's Award as Outstanding Field Forester

Tom Hanson ArborInfo LLC