

APPENDIX

Exploration Logs Laboratory Testing Results

LOG OF EXPLORATION PIT NO. EP-1

Depth (ft)	<p>This log is part of the report prepared by Associated Earth Sciences, Inc. (AESI) for the named project and should be read together with that report for complete interpretation. This summary applies only to the location of this trench at the time of excavation. Subsurface conditions may change at this location with the passage of time. The data presented are a simplification of actual conditions encountered.</p>	
	DESCRIPTION	Elev: <u>354</u>
1	Topsoil	
2	Vashon Lodgement Till	
3	Medium dense, moist, reddish brown, silty fine SAND, some fine gravel, scattered roots; nonstratified (SM).	
4		
5		
6	Vashon Advance Outwash	
7	Dense, very moist, brown with mottled zones, fine SAND, some silt to silty (SP-SM); some clasts in spoils (cemented).	
8		
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12	Bottom of exploration pit at depth 11.5 feet No seepage. No caving.	
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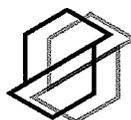
LOG OF EXPLORATION PIT NO. EP-2

Depth (ft)	<p>This log is part of the report prepared by Associated Earth Sciences, Inc. (AESI) for the named project and should be read together with that report for complete interpretation. This summary applies only to the location of this trench at the time of excavation. Subsurface conditions may change at this location with the passage of time. The data presented are a simplification of actual conditions encountered.</p>	
	DESCRIPTION	Elev: <u>350</u>
	Topsoil	
	Fill	
1	<p>Loose, very moist to wet, dark brown, brown, and gray (mixed), silty fine to medium SAND, trace gravel to fine gravelly, trace logs, trace roots, trace topsoil-like organics; organic odor (SM).</p>	
2		
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7		
	Vashon Lodgement Till	
8	<p>Dense, very moist, mottled gray, silty, fine gravelly, fine to coarse SAND; nonstratified (SM).</p>	
9		
10	<p>Bottom of exploration pit at depth 9.5 feet No seepage. No caving.</p>	
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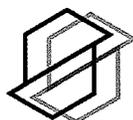
LOG OF EXPLORATION PIT NO. EP-3

Depth (ft)	<p>This log is part of the report prepared by Associated Earth Sciences, Inc. (AESI) for the named project and should be read together with that report for complete interpretation. This summary applies only to the location of this trench at the time of excavation. Subsurface conditions may change at this location with the passage of time. The data presented are a simplification of actual conditions encountered.</p>	
	DESCRIPTION	Elev: <u>354</u>
	Topsoil	
	Fill	
1	<p>Loose, very moist to wet, brown, dark brown, and mottled brown (mixed), silty fine SAND, some fine gravel, trace topsoil-like organics, trace roots; organic odor (SM).</p>	
2		
3		
4		
5		
6	Vashon Lodgement Till	
7	<p>Dense, very moist, reddish brown, silty fine SAND, some fine gravel; nonstratified (SM).</p>	
8	<p>Bottom of exploration pit at depth 7 feet No seepage. No caving.</p>	
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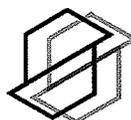
LOG OF EXPLORATION PIT NO. EP-4

Depth (ft)	<p>This log is part of the report prepared by Associated Earth Sciences, Inc. (AESI) for the named project and should be read together with that report for complete interpretation. This summary applies only to the location of this trench at the time of excavation. Subsurface conditions may change at this location with the passage of time. The data presented are a simplification of actual conditions encountered.</p>	
	DESCRIPTION	Elev: <u>354</u>
1	Topsoil	
2	Fill	
3	<p>Fill thickness varies (1 to 5 feet); tapers to ~1 foot at west edge of pit; visually evident edge. Very loose, wet, gray, silty fine SAND, trace fine gravel, trace organics (SM).</p>	
4		
5	Vashon Lodgement Till	
6	<p>Dense, very moist, reddish brown, silty fine SAND, some fine gravel; nonstratified (SM).</p>	
7	<p>Bottom of exploration pit at depth 6 feet No seepage. No caving.</p>	
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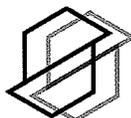
LOG OF EXPLORATION PIT NO. EP-5

Depth (ft)	<p>This log is part of the report prepared by Associated Earth Sciences, Inc. (AESI) for the named project and should be read together with that report for complete interpretation. This summary applies only to the location of this trench at the time of excavation. Subsurface conditions may change at this location with the passage of time. The data presented are a simplification of actual conditions encountered.</p>	
	DESCRIPTION	Elev: <u>357</u>
	Topsoil	
1	Vashon Lodgement Till	
2	Medium dense, moist, mottled light brown, silty, fine gravelly, fine to medium SAND, trace roots; nonstratified (SM).	
3		
4		
	Vashon Advance Outwash	
5	Medium dense to dense, very moist, brown, silty fine SAND, trace fine gravel; some gradational stratification; some clasts in spoils (cemented).	
6		
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11		
12	Bottom of exploration pit at depth 11 feet Perched seepage zone 9.5 to 10 feet (in coarser advance outwash stratum). No caving.	
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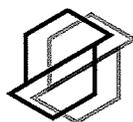
LOG OF EXPLORATION PIT NO. EP-6

Depth (ft)	<p>This log is part of the report prepared by Associated Earth Sciences, Inc. (AESI) for the named project and should be read together with that report for complete interpretation. This summary applies only to the location of this trench at the time of excavation. Subsurface conditions may change at this location with the passage of time. The data presented are a simplification of actual conditions encountered.</p>	
	DESCRIPTION	Elev: <u>359</u>
	Topsoil	
1	Vashon Advance Outwash	
2	Medium dense grading to dense, very moist, gray, silty (content varies), fine gravelly fine SAND; stratified; primarily Qva-like with some till-like strata; clasts in spoils (cemented) (SM / SP).	
3		
4	Grades without till-like strata. Otherwise similar to upper 4 feet (SP).	
5		
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11	Bottom of exploration pit at depth 10 feet No seepage. No caving.	
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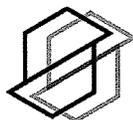
LOG OF EXPLORATION PIT NO. EP-7

Depth (ft)	<p>This log is part of the report prepared by Associated Earth Sciences, Inc. (AESI) for the named project and should be read together with that report for complete interpretation. This summary applies only to the location of this trench at the time of excavation. Subsurface conditions may change at this location with the passage of time. The data presented are a simplification of actual conditions encountered.</p>	
	DESCRIPTION	Elev: <u>368</u>
	Fill	
1	Loose, moist, brown, fine SAND, some silt to silty, trace organics, debris (including buckets, pipe, plastic straps, concrete, sheet plastic); fill thickness varies from 5.5 feet at east edge to 2.5 feet at west edge (SM).	
2		
3		
4		
5		
	Vashon Advance Outwash	
6	Medium dense, moist, reddish brown grading to light brown with mottled zones, fine SAND, some silt ranging to silty, trace fine gravel; gradational stratification (SP-SM).	
7		
8		
9		
10	Bottom of exploration pit at depth 9.5 feet No seepage. No caving.	
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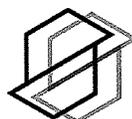
LOG OF EXPLORATION PIT NO. EP-8

Depth (ft)	<p>This log is part of the report prepared by Associated Earth Sciences, Inc. (AESI) for the named project and should be read together with that report for complete interpretation. This summary applies only to the location of this trench at the time of excavation. Subsurface conditions may change at this location with the passage of time. The data presented are a simplification of actual conditions encountered.</p>	
	DESCRIPTION	Elev: <u>372</u>
	Topsoil	
1	Vashon Advance Outwash	
2	Medium dense, moist, light brown, fine SAND, some silt to silty, some fine gravel; some gradational stratification. (SP-SM).	
3		
4	Becoming more dense, gravel fraction becoming fine to coarse; clasts in spoils (cemented).	
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11	Bottom of exploration pit at depth 10 feet No seepage. No caving.	
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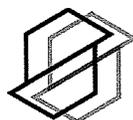
LOG OF EXPLORATION PIT NO. EP-9

Depth (ft)	<p>This log is part of the report prepared by Associated Earth Sciences, Inc. (AESI) for the named project and should be read together with that report for complete interpretation. This summary applies only to the location of this trench at the time of excavation. Subsurface conditions may change at this location with the passage of time. The data presented are a simplification of actual conditions encountered.</p>	
	DESCRIPTION	Elev: <u>342</u>
1	Topsoil	
2	Vashon Lodgement Till	
3	Dense, moist, reddish brown to light brown, silty, fine gravelly fine to coarse SAND; nonstratified (SM).	
4	Becomes very dense, mottled brown to brownish gray; slow progress (SM).	
5		
6		
7		
8	Bottom of exploration pit at depth 7 feet No seepage. No caving.	
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LOG OF EXPLORATION PIT NO. EP-10

Depth (ft)	<p>This log is part of the report prepared by Associated Earth Sciences, Inc. (AESI) for the named project and should be read together with that report for complete interpretation. This summary applies only to the location of this trench at the time of excavation. Subsurface conditions may change at this location with the passage of time. The data presented are a simplification of actual conditions encountered.</p>	
	DESCRIPTION	Elev: <u>333</u>
	Topsoil	
1	Vashon Lodgement Till	
2	Medium dense, very moist, light brown, silty, fine gravelly, fine to coarse SAND (SM).	
3		
4	Less silty, more gravelly zone (~6 inches thick) at 3.5 feet; does not extend across pit limits, east side only.	
5	Becomes very dense, gray; nonstratified at 4 feet.	
6		
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12		
13	Becomes bluish gray; slow progress.	
14		
15		
16	Bottom of exploration pit at depth 15 feet No seepage. No caving.	
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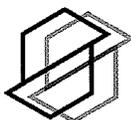
LOG OF EXPLORATION PIT NO. EP-11

Depth (ft)	<p>This log is part of the report prepared by Associated Earth Sciences, Inc. (AESI) for the named project and should be read together with that report for complete interpretation. This summary applies only to the location of this trench at the time of excavation. Subsurface conditions may change at this location with the passage of time. The data presented are a simplification of actual conditions encountered.</p>	
	DESCRIPTION	Elev: <u>343</u>
1	Fill	
	Sawdust, chipper waste, plastic containers, metal pipe, plastic pipe, metal drum, cinder blocks.	
2	Vashon Lodgement Till	
3	Bottom of exploration pit at depth 2.5 feet	
4	No seepage. No caving.	
5	<u>NOTE:</u> Abbreviated test pit for observation of fill depth only. No laboratory samples taken.	
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LOG OF EXPLORATION PIT NO. EP-12

Depth (ft)	<p>This log is part of the report prepared by Associated Earth Sciences, Inc. (AESI) for the named project and should be read together with that report for complete interpretation. This summary applies only to the location of this trench at the time of excavation. Subsurface conditions may change at this location with the passage of time. The data presented are a simplification of actual conditions encountered.</p>	
	DESCRIPTION	Elev: <u>339</u>
	Fill	
1	Trace concrete rubble at surface.	
	Vashon Lodgement Till	
2	Bottom of exploration pit at depth 1.5 feet	
3	No seepage. No caving.	
4		
5	<u>NOTE:</u> Abbreviated test pit for observation of fill depth only. No laboratory samples taken.	
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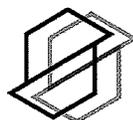
LOG OF EXPLORATION PIT NO. EP-13

Depth (ft)	<p>This log is part of the report prepared by Associated Earth Sciences, Inc. (AESI) for the named project and should be read together with that report for complete interpretation. This summary applies only to the location of this trench at the time of excavation. Subsurface conditions may change at this location with the passage of time. The data presented are a simplification of actual conditions encountered.</p>	
	DESCRIPTION	Elev: <u>344</u>
1	Fill	
	Topsoil, glass bottles, car tools, styrofoam, plastic pots.	
2	Vashon Lodgement Till	
3	Bottom of exploration pit at depth 2.5 feet	
4	No seepage. No caving.	
5	<u>NOTE:</u> Abbreviated test pit for observation of fill depth only. No laboratory samples taken.	
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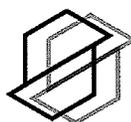
LOG OF EXPLORATION PIT NO. EP-14

Depth (ft)	<p>This log is part of the report prepared by Associated Earth Sciences, Inc. (AESI) for the named project and should be read together with that report for complete interpretation. This summary applies only to the location of this trench at the time of excavation. Subsurface conditions may change at this location with the passage of time. The data presented are a simplification of actual conditions encountered.</p>	
	DESCRIPTION	Elev: <u>343</u>
1	Fill	
2	Topsoil, metal, plastic, garden hose, concrete, playground equipment.	
3		
4	Vashon Lodgement Till	
5	Dense grading to very dense, moist, mottled gray grading to gray, silty, fine gravelly fine to coarse SAND; nonstratified (SM).	
6		
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9		
10	Bottom of exploration pit at depth 9 feet No seepage. No caving.	
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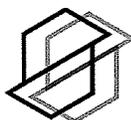
LOG OF EXPLORATION PIT NO. EP-15

Depth (ft)	<p>This log is part of the report prepared by Associated Earth Sciences, Inc. (AESI) for the named project and should be read together with that report for complete interpretation. This summary applies only to the location of this trench at the time of excavation. Subsurface conditions may change at this location with the passage of time. The data presented are a simplification of actual conditions encountered.</p> <p>DESCRIPTION</p> <p style="text-align: right;">Elev: <u>349</u></p>
1	<p>Fill</p> <p>Fill thickness varies across pit limits (1 foot to 5 feet); exposed edge of fill pad (central fill), silt fence. Loose, very moist, brown, silty fine SAND, trace organics (SM).</p>
2	
3	
4	
5	<p>Vashon Lodgement Till</p>
6	<p>Bottom of exploration pit at depth 5.5 feet No seepage. No caving.</p>
7	
8	
9	<p><u>NOTE:</u> Abbreviated test pit for observation of fill depth only. No laboratory samples taken.</p>
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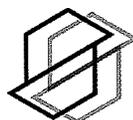
LOG OF EXPLORATION PIT NO. EP-16

Depth (ft)	<p>This log is part of the report prepared by Associated Earth Sciences, Inc. (AESI) for the named project and should be read together with that report for complete interpretation. This summary applies only to the location of this trench at the time of excavation. Subsurface conditions may change at this location with the passage of time. The data presented are a simplification of actual conditions encountered.</p>	
	DESCRIPTION	Elev: <u>351</u>
1	Fill	
2	Fill thickness varies across pit limits (1 foot to 5 feet); exposed edge of fill pad (central fill), silt fence. Loose, very moist, brown, silty fine SAND, trace organics (SM).	
3		
4		
5	Vashon Lodgement Till	
6	Bottom of exploration pit at depth 5.5 feet No seepage. No caving.	
7		
8		
9	<u>NOTE:</u> Abbreviated test pit for observation of fill depth only. No laboratory samples taken.	
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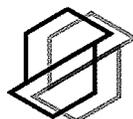
LOG OF EXPLORATION PIT NO. EP-17

Depth (ft)	<p>This log is part of the report prepared by Associated Earth Sciences, Inc. (AESI) for the named project and should be read together with that report for complete interpretation. This summary applies only to the location of this trench at the time of excavation. Subsurface conditions may change at this location with the passage of time. The data presented are a simplification of actual conditions encountered.</p>	
	DESCRIPTION	Elev: <u>354</u>
1	Fill	
	Topsoil, wood chips, drip irrigation parts.	
2	Vashon Lodgement Till	
3	Bottom of exploration pit at depth 2.5 feet	
4	No seepage. No caving.	
5	<u>NOTE:</u> Abbreviated test pit for observation of fill depth only. No laboratory samples taken.	
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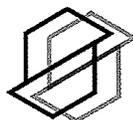
LOG OF EXPLORATION PIT NO. EP-18

Depth (ft)		
	<p>This log is part of the report prepared by Associated Earth Sciences, Inc. (AESI) for the named project and should be read together with that report for complete interpretation. This summary applies only to the location of this trench at the time of excavation. Subsurface conditions may change at this location with the passage of time. The data presented are a simplification of actual conditions encountered.</p>	
	DESCRIPTION	Elev: <u>360</u>
	Fill	
1	Plastic pots, topsoil, concrete, strapping.	
2	Vashon Lodgement Till	
3	Bottom of exploration pit at depth 2.5 feet No seepage. No caving.	
4		
5	<u>NOTE:</u> Abbreviated test pit for observation of fill depth only. No laboratory samples taken.	
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KCTP3 140565.GPJ November 3, 2014

Radke Short Plat King County, WA

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 Approved by:



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Project No. KE140565A

10/24/14⁸⁶

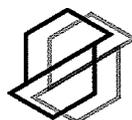
LOG OF EXPLORATION PIT NO. EP-19

Depth (ft)	<p>This log is part of the report prepared by Associated Earth Sciences, Inc. (AESI) for the named project and should be read together with that report for complete interpretation. This summary applies only to the location of this trench at the time of excavation. Subsurface conditions may change at this location with the passage of time. The data presented are a simplification of actual conditions encountered.</p>	
	DESCRIPTION	Elev: <u>364</u>
	Fill	
1	<div style="border: 1px solid black; padding: 2px;"> <p>Topsoil, brick.</p> </div>	
2	<div style="border: 1px solid black; padding: 2px;"> <p>Vashon Lodgement Till</p> </div>	
3	<p>Bottom of exploration pit at depth 1 feet No seepage. No caving.</p>	
4		
5	<p><u>NOTE:</u> Abbreviated test pit for observation of fill depth only. No laboratory samples taken.</p>	
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Project No. KE140565A

10/24/14⁸⁷

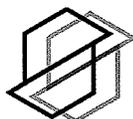
LOG OF EXPLORATION PIT NO. EP-20

Depth (ft)	<p>This log is part of the report prepared by Associated Earth Sciences, Inc. (AESI) for the named project and should be read together with that report for complete interpretation. This summary applies only to the location of this trench at the time of excavation. Subsurface conditions may change at this location with the passage of time. The data presented are a simplification of actual conditions encountered.</p> <p>DESCRIPTION</p> <p style="text-align: right;">Elev: <u>366</u></p>
1	<p>NO FILL</p> <p>Bottom of exploration pit at depth 0.5 feet No seepage. No caving.</p>
2	
3	
4	
5	<p><u>NOTE:</u> Abbreviated test pit for observation of fill depth only. No laboratory samples taken.</p>
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LOG OF EXPLORATION PIT NO. EP-21

Depth (ft)	<p>This log is part of the report prepared by Associated Earth Sciences, Inc. (AESI) for the named project and should be read together with that report for complete interpretation. This summary applies only to the location of this trench at the time of excavation. Subsurface conditions may change at this location with the passage of time. The data presented are a simplification of actual conditions encountered.</p>	
	DESCRIPTION	Elev: <u>344</u>
1	Fill	
	<p>Loose, wet, gray, silty fine SAND, trace fine gravel, trace organics, trace building debris (rubble, metal) (SM). Fill depth tapers to 1 foot at west edge of exploration.</p>	
2	<p>Loose, very moist, brown, silty fine SAND (SM).</p>	
3		
4		
5	Vashon Lodgement Till	
6	<p>Bottom of exploration pit at depth 5.5 feet No seepage. No caving.</p>	
7		
8	<p><u>NOTE:</u> Abbreviated test pit for observation of fill depth only. No laboratory samples taken.</p>	
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Project No. KE140565A

10/24/14⁸⁹

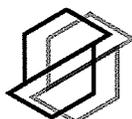
LOG OF EXPLORATION PIT NO. EP-22

Depth (ft)	<p>This log is part of the report prepared by Associated Earth Sciences, Inc. (AESI) for the named project and should be read together with that report for complete interpretation. This summary applies only to the location of this trench at the time of excavation. Subsurface conditions may change at this location with the passage of time. The data presented are a simplification of actual conditions encountered.</p>	
	DESCRIPTION	Elev: <u>346</u>
	Fill	
1	Loose, very moist, brown, silty fine SAND (SM). Fill depth tapers to 1 foot at north edge of exploration.	
2	Vashon Lodgement Till	
3	Bottom of exploration pit at depth 2.5 feet No seepage. No caving.	
4		
5	<u>NOTE:</u> Abbreviated test pit for observation of fill depth only. No laboratory samples taken.	
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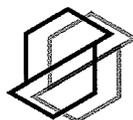
LOG OF EXPLORATION PIT NO. EP-23

Depth (ft)		
	This log is part of the report prepared by Associated Earth Sciences, Inc. (AESI) for the named project and should be read together with that report for complete interpretation. This summary applies only to the location of this trench at the time of excavation. Subsurface conditions may change at this location with the passage of time. The data presented are a simplification of actual conditions encountered.	
	DESCRIPTION	Elev: <u>351</u>
	Fill	
1	Loose, very moist, brown, silty fine SAND (SM).	
2	Loose, very moist, gray, silty fine SAND (SM).	
3	Fill depth tapers to 1 foot at north edge of exploration.	
4	Vashon Lodgement Till	
5	Bottom of exploration pit at depth 4.5 feet No seepage. No caving.	
6		
7		
8	<u>NOTE:</u> Abbreviated test pit for observation of fill depth only. No laboratory samples taken.	
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LOG OF EXPLORATION PIT NO. EP-24

Depth (ft)	<p>This log is part of the report prepared by Associated Earth Sciences, Inc. (AESI) for the named project and should be read together with that report for complete interpretation. This summary applies only to the location of this trench at the time of excavation. Subsurface conditions may change at this location with the passage of time. The data presented are a simplification of actual conditions encountered.</p> <p>DESCRIPTION</p> <p style="text-align: right;">Elev: <u>355</u></p>
1	<p>Fill</p> <p>Loose, very moist, brown, silty fine SAND, trace organics (SM).</p>
2	
3	
4	
5	<p>Vashon Lodgement Till</p>
6	<p>Bottom of exploration pit at depth 5 feet No seepage. No caving.</p>
7	
8	<p><u>NOTE:</u> Abbreviated test pit for observation of fill depth only. No laboratory samples taken.</p>
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10/24/14_{g2}

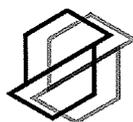
LOG OF EXPLORATION PIT NO. EP-25

Depth (ft)	<p>This log is part of the report prepared by Associated Earth Sciences, Inc. (AESI) for the named project and should be read together with that report for complete interpretation. This summary applies only to the location of this trench at the time of excavation. Subsurface conditions may change at this location with the passage of time. The data presented are a simplification of actual conditions encountered.</p> <p>DESCRIPTION</p> <p style="text-align: right;">Elev: <u>355</u></p>
1	<p>Vashon Lodgement Till</p> <p>NO FILL</p>
2	<p>Bottom of exploration pit at depth 0.5 feet No seepage. No caving.</p>
3	
4	
5	<p><u>NOTE:</u> Abbreviated test pit for observation of fill depth only. No laboratory samples taken.</p>
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10/24/14g3

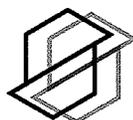
LOG OF EXPLORATION PIT NO. EP-26

Depth (ft)	<p>This log is part of the report prepared by Associated Earth Sciences, Inc. (AESI) for the named project and should be read together with that report for complete interpretation. This summary applies only to the location of this trench at the time of excavation. Subsurface conditions may change at this location with the passage of time. The data presented are a simplification of actual conditions encountered.</p>	
	DESCRIPTION	Elev: <u>340</u>
1	Fill	
	Topsoil, plastic, vehicle and equipment parts, concrete.	
	Vashon Lodgement Till	
2	Bottom of exploration pit at depth 1.5 feet	
3	No seepage. No caving.	
4		
5	<u>NOTE:</u> Abbreviated test pit for observation of fill depth only. No laboratory samples taken.	
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10/24/14g4

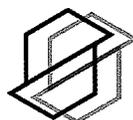
LOG OF EXPLORATION PIT NO. EP-27

Depth (ft)	<p>This log is part of the report prepared by Associated Earth Sciences, Inc. (AESI) for the named project and should be read together with that report for complete interpretation. This summary applies only to the location of this trench at the time of excavation. Subsurface conditions may change at this location with the passage of time. The data presented are a simplification of actual conditions encountered.</p>	
	DESCRIPTION	Elev: <u>342</u>
1	Fill	
	Topsoil, plastic, vehicle and equipment parts, concrete.	
	Vashon Lodgement Till	
2	Bottom of exploration pit at depth 1.5 feet	
3	No seepage. No caving.	
4		
5	<u>NOTE:</u> Abbreviated test pit for observation of fill depth only. No laboratory samples taken.	
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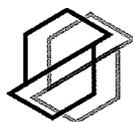
LOG OF EXPLORATION PIT NO. EP-28

Depth (ft)	<p>This log is part of the report prepared by Associated Earth Sciences, Inc. (AESI) for the named project and should be read together with that report for complete interpretation. This summary applies only to the location of this trench at the time of excavation. Subsurface conditions may change at this location with the passage of time. The data presented are a simplification of actual conditions encountered.</p>	
	DESCRIPTION	Elev: <u>344</u>
	Fill	
1	Topsoil, plastic, vehicle and equipment parts, concrete.	
	Vashon Lodgement Till	
2	Bottom of exploration pit at depth 1.5 feet	
3	No seepage. No caving.	
4		
5	<u>NOTE:</u> Abbreviated test pit for observation of fill depth only. No laboratory samples taken.	
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Radke Short Plat King County, WA

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Project No. KE140565A

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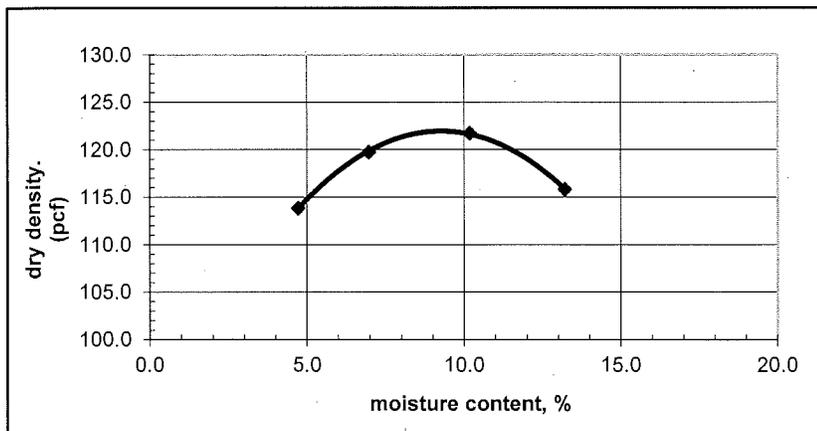
Proctor Analysis
ASTM D1557, D698



Date Sampled 10/24/2014		Project Radke Short Plat		Project No. KE140565A		Soil Description Tannish brown silty sand
Tested By: MS	Collected By BG	Location Onsite		EB/EP No. EP-1	Depth 4.5'	

Percent passing 3/4" sieve:	98%	ASTM D1557 Method C	Automatic Tamper
-----------------------------	-----	---------------------	------------------

A	Mold Number	1	2	3	4	Remarks
B	Water Added	field	wet	wet	wet	
C	Wt. of Wet Soil + Mold (lb)	21.305	21.965	22.415	22.190	
D	Wt. of Mold (lb)	12.430	12.430	12.430	12.430	
E	Wt. of Wet Soil (lb)	8.875	9.535	9.985	9.760	
F	Wet Density, (pcf)	119.209	128.074	134.119	131.096	
G	Wt. of Pan (lb)	0.605	0.610	0.675	0.620	
H	Wt. of Wet Soil + Pan (lb)	1.715	1.685	1.595	1.520	
J	Wt. of Dry Soil + Pan (lb)	1.665	1.615	1.510	1.415	
K	Wt. of Water (lb)	0.050	0.070	0.085	0.105	
M	Wt. of Dry Soil (lb)	1.060	1.005	0.835	0.795	
N	Moisture Content (%)	4.7	7.0	10.2	13.2	
O	Dry Density (pcf)	113.8	119.7	121.7	115.8	
Z	For a 6 inch mold: Z = 0.074449 For a 4" mold: Z = 0.0333					



Test Results:	
Optimum Moisture Percentage:	9.0
Maximum Dry Density:	122.0

Correction for oversize: ASTM D4718	
Corrected Moisture Percentage:	N/A
Corrected Maximum Dry Density:	N/A

Assumed Specific Gravity: 2.7

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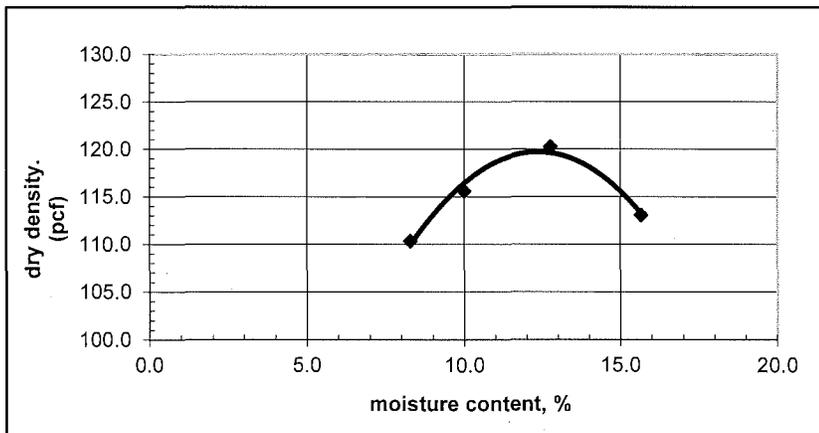
Proctor Analysis
ASTM D1557, D698



Date Sampled 10/24/2014		Project Radke Short Plat		Project No. KE140565A		Soil Description Grey Sand
Tested By MS	Collected By BG	Location Onsite	EB/EP No. EP-1	Depth 10'		

Percent passing 3/4" sieve:	99%	ASTM D1557 Method C	Automatic Tamper
-----------------------------	-----	---------------------	------------------

A	Mold Number	1	2	3	4	Remarks
B	Water Added	field	dry	dry	dry	
C	Wt. of Wet Soil + Mold (lb)	22.165	22.525	21.895	21.325	
D	Wt. of Mold (lb)	12.430	12.430	12.430	12.430	
E	Wt. of Wet Soil (lb)	9.735	10.095	9.465	8.895	
F	Wet Density, (pcf)	130.761	135.596	127.134	119.478	
G	Wt. of Pan (lb)	0.660	0.670	0.660	0.660	
H	Wt. of Wet Soil + Pan (lb)	1.620	1.775	1.650	1.575	
J	Wt. of Dry Soil + Pan (lb)	1.490	1.650	1.560	1.505	
K	Wt. of Water (lb)	0.130	0.125	0.090	0.070	
M	Wt. of Dry Soil (lb)	0.830	0.980	0.900	0.845	
N	Moisture Content (%)	15.7	12.8	10.0	8.3	
O	Dry Density (pcf)	113.1	120.3	115.6	110.3	
Z	For a 6 inch mold: Z = 0.074449 For a 4" mold: Z = 0.0333					



Test Results:	
Optimum Moisture Percentage:	12.0
Maximum Dry Density:	120.0

Correction for oversize: ASTM D4718	
Corrected Moisture Percentage:	N/A
Corrected Maximum Dry Density:	N/A

Assumed Specific Gravity: 2.7

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Date Sampled 10/27/2014	Project Radke Short Plat	Project No. KE140565A		Soil Description Various
Tested By MS	Location Onsite	EB/EP No.	Depth	

Sample ID	EP-1 3'	EP-1 5'	EP-1 6.5'	EP-2 5'	EP-2 10'	EP-3 3'
Wet Weight + Pan	334.7	355.3	338.2	333.0	517.2	330.3
Dry Weight + Pan	312.1	340.9	314.4	303.2	483.7	306.5
Weight of Pan	100.6	98.2	97.8	99.8	97.8	99.9
Weight of Moisture	22.6	14.4	23.8	29.8	33.5	23.9
Dry Weight of Soil	211.4	242.6	216.6	203.4	385.9	206.6
% Moisture	10.7	5.9	11.0	14.6	8.7	11.6

Sample ID	EP-3 7'	EP-5 3'	EP-5 8'	EP-6 3'	EP-6 8'	EP-7 6'
Wet Weight + Pan	303.8	377.8	355.9	370.7	320.8	313.8
Dry Weight + Pan	282.9	361.8	324.0	344.1	296.6	297.3
Weight of Pan	98.2	98.1	94.8	100.5	100.3	100.5
Weight of Moisture	20.9	16.1	31.9	26.6	24.3	16.4
Dry Weight of Soil	184.7	263.7	229.2	243.7	196.2	196.8
% Moisture	11.3	6.1	13.9	10.9	12.4	8.4

Sample ID	EP-7 8'	EP-8 3'	EP-8 8'	EP-9 3'	EP-9 8'	EP-10 3'
Wet Weight + Pan	337.8	357.3	309.3	373.8	362.9	405.7
Dry Weight + Pan	323.3	343.4	296.6	364.4	348.1	389.3
Weight of Pan	99.7	100.9	101.8	101.2	98.8	100.9
Weight of Moisture	14.5	13.9	12.7	9.4	14.8	16.4
Dry Weight of Soil	223.6	242.5	194.8	263.2	249.2	288.4
% Moisture	6.5	5.7	6.5	3.6	5.9	5.7

Sample ID	EP-10 7'	EP-14 4.5'	EP-14 9'
Wet Weight + Pan	301.0	328.0	318.7
Dry Weight + Pan	291.5	314.1	303.6
Weight of Pan	101.2	101.5	97.6
Weight of Moisture	9.5	13.9	15.1
Dry Weight of Soil	190.3	212.6	206.0
% Moisture	5.0	6.5	7.3

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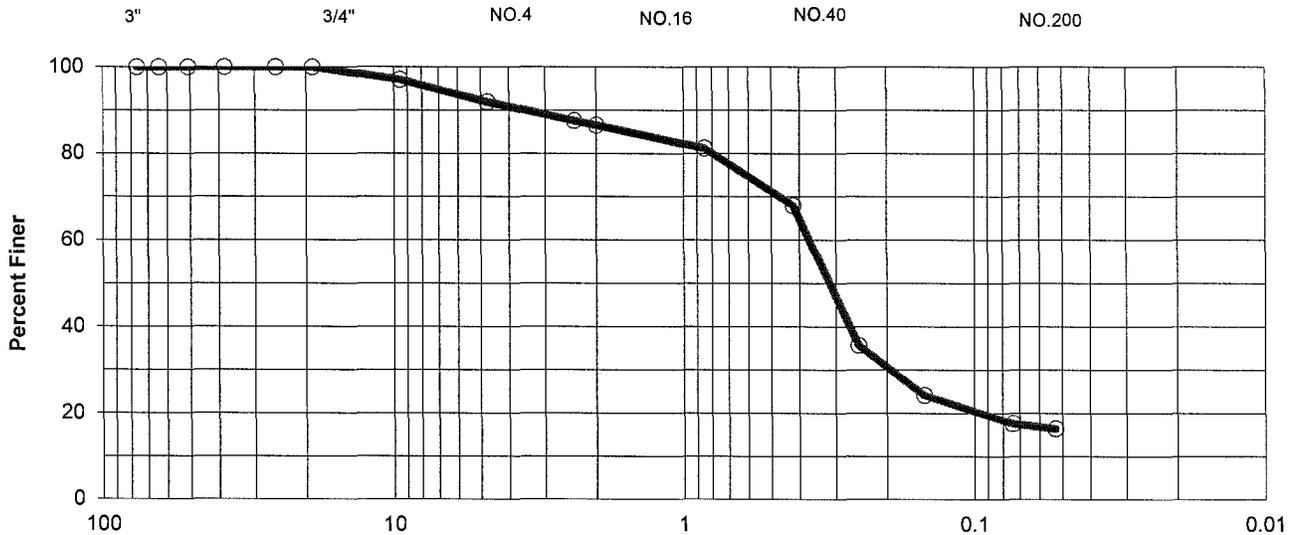
GRAIN SIZE ANALYSIS - MECHANICAL

Date Sampled 10/24/2014	Project Radke Short Plat	Project No. KE140565A		Soil Description Sand little silt few gravel
Tested By MS	Location Onsite	EB/EP No EP-1	Depth 4.5'	

Wt. of moisture wet sample + Tare	1.715	Total Sample Tare	453.1
Wt. of moisture dry Sample + Tare	1.665	Total Sample wt + tare	1536.42
Wt. of Tare	0.605	Total Sample Wt	1083.3
Wt. of moisture Dry Sample	1.06	Total Sample Dry Wt	1034.5
Moisture %	5%		

Sieve No.	Diam. (mm)	Wt. Retained (g)	% Retained	% Passing	Specification Requirements	
					Minimum	Maximum
3	76.1		0.0	100.0	-	-
2.5	64		0.0	100.0	-	-
2	50.8		0.0	100.0	-	-
1.5	38.1		0.0	100.0	-	-
1	25.4		0.0	100.0	-	-
3/4	19		0.0	100.0		
3/8	9.51	30.59	3.0	97.0		
#4	4.76	84.08	8.1	91.9		
#8	2.38	128.53	12.4	87.6		
#10	2	139.16	13.5	86.5		
#20	0.85	194.54	18.8	81.2		
#40	0.42	331.7	32.1	67.9		
#60	0.25	665.22	64.3	35.7		
#100	0.149	783.95	75.8	24.2		
#200	0.074	852.1	82.4	17.6		
#270	0.053	864.26	83.5	16.5		

US STANDARD SIEVE NOS.



Gravel		Sand			Silt and Clay
Coarse	Fine	Coarse	Medium	Fine	

Grain Size, mm

ASSOCIATED EARTH SCIENCES, INC.

911 5th Ave., Suite 100 Kirkland, WA 98033 425-827-7701 FAX 425-827-5424

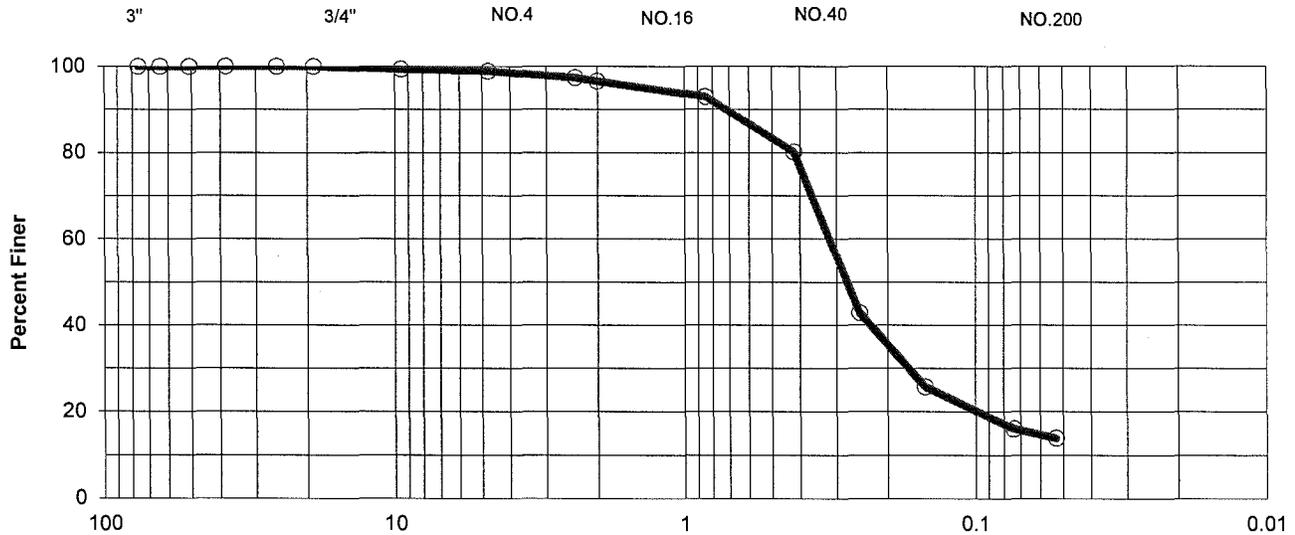
GRAIN SIZE ANALYSIS - MECHANICAL

Date Sampled 10/24/2014	Project Radke Short Plat	Project No. KE140565A		Soil Description Sand few silt trace gravel
Tested By MS	Location Onsite	EB/EP No EP-1	Depth 10'	

Wt. of moisture wet sample + Tare	1.62	Total Sample Tare	309.85
Wt. of moisture dry Sample + Tare	1.49	Total Sample wt + tare	1252.07
Wt. of Tare	0.66	Total Sample Wt	942.2
Wt. of moisture Dry Sample	0.83	Total Sample Dry Wt	814.6
Moisture %	16%		

Sieve No.	Diam. (mm)	Wt. Retained (g)	% Retained	% Passing	Specification Requirements	
					Minimum	Maximum
3	76.1		0.0	100.0	-	-
2.5	64		0.0	100.0	-	-
2	50.8		0.0	100.0	-	-
1.5	38.1		0.0	100.0	-	-
1	25.4		0.0	100.0	-	-
3/4	19		0.0	100.0		
3/8	9.51	5.17	0.6	99.4		
#4	4.76	8.82	1.1	98.9		
#8	2.38	21.59	2.7	97.3		
#10	2	28.03	3.4	96.6		
#20	0.85	57.35	7.0	93.0		
#40	0.42	161.25	19.8	80.2		
#60	0.25	465.13	57.1	42.9		
#100	0.149	604.67	74.2	25.8		
#200	0.074	684.07	84.0	16.0		
#270	0.053	701.85	86.2	13.8		

US STANDARD SIEVE NOS.



Gravel		Sand			Silt and Clay
Coarse	Fine	Coarse	Medium	Fine	

Grain Size, mm

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Gilles Consulting

— Brian K. Gilles —

4 2 5 - 8 2 2 - 4 9 9 4

EVALUATION OF TREES AMENDED FOR PRELIMINARY SUBDIVISION/INTEGRATED DEVELOPMENT PLAN AT

**The Radke Property
Finn Hill
Kirkland, WA 98034**

November 21, 2014

Amended March 23, 2015

PREPARED FOR:

Toll Brothers

Attn: Hans Christiansen, Land Entitlement Manager

9720 NE 120th Place, # 100

Kirkland, WA 98034

PREPARED BY:

GILLES CONSULTING

Brian K. Gilles, Consulting Arborist

ISA Certified Arborist # PN-0260A

ASCA Registered Consulting Arborist # RCA-418

ISA TRAQ Qualified

ISA TRAQ Certified Instructor



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P.O. Box 2366 Kirkland, WA 98083

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EXECUTIVE SUMMARY

A total of 289 trees were evaluated and documented. The trees can be summarized as follows.

TREE SUMMARY BY PROPERTY	
8	Right-of-way Trees
10	Off Property Trees
269	Subject Property Trees
287	Total # of Trees Evaluated

SUBJECT PROPERTY SIGNIFICANCE SUMMARY	
3	Non-Significant
266	Significant
269	Total # of Subject Property Trees Evaluated

SUBJECT PROPERTY CONDITION RATING SUMMARY		
8	Dead	
22	Dying	
48	Poor	
99	Fair	
55	Good	
29	Very Good	
8	Excellent	
269	Total # of Subject Property Trees Evaluated	

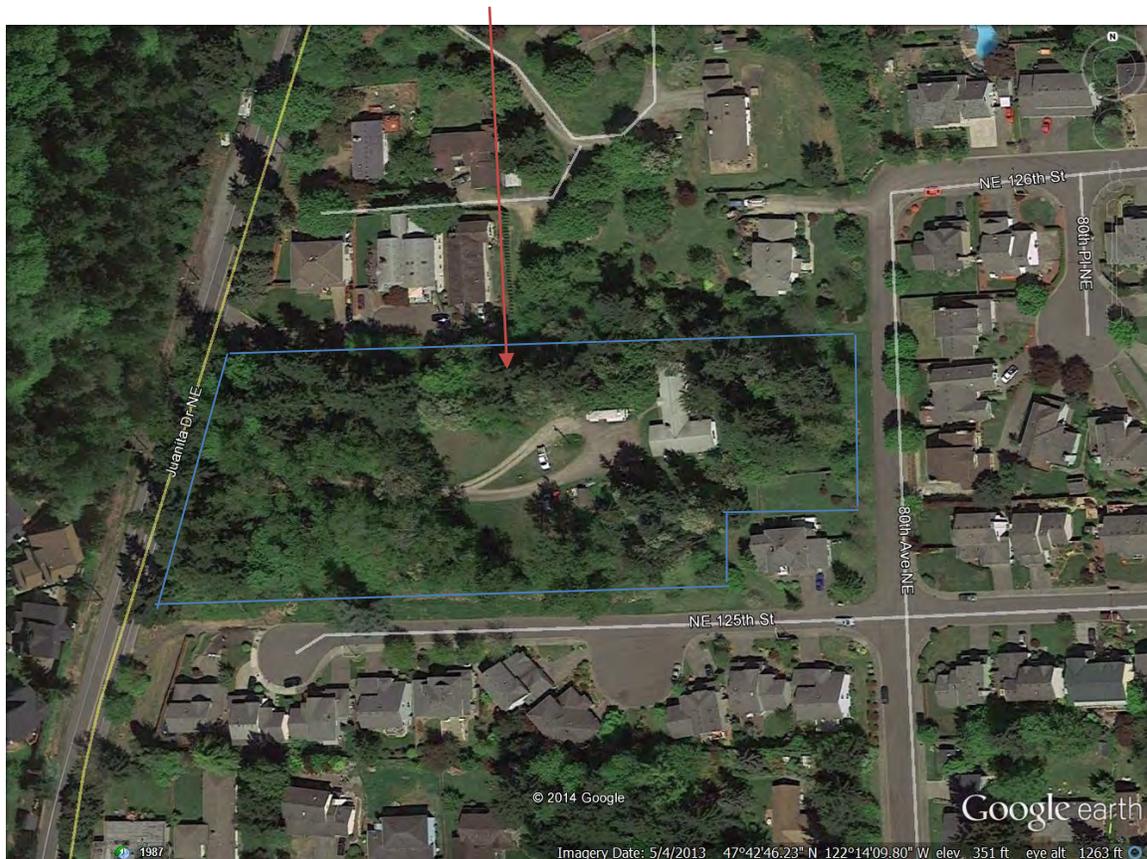
SUBJECT PROPERTY VIABILITY SUMMARY		
78	Non Viable	
193	Viable	
269	Total # of Subject Property Trees Evaluated	

SUBJECT PROPERTY RECOMMENDATIONS SUMMARY	
192	Potential to Retain
77	Remove for Safety
269	Total # of Subject Property Trees Evaluated

ASSIGNMENT

Hans Christensen, Land Entitlement Manager for Toll Brothers of Kirkland, contracted with Gilles Consulting to evaluate and document the trees at the Radke at 12432 Juanita Drive NE in Kirkland, Washington. The property is on Finn Hill between Juanita Drive and 80th Avenue NE north of NE 125th Street. The property is being re-developed into a subdivision and the City of Kirkland requires an extensive analysis of the trees as part of the permit process. This report provides the analysis. The information in this report can be utilized to create a Tree Plan as required by Chapter 95 of the Kirkland Code.

Photo # 1: A Google Earth Image of the Radke Property



METHODOLOGY

To evaluate the trees for risk, as well as to prepare this report, I drew upon my 30+ years of experience in the field of arboriculture and my formal education in natural resources management, dendrology, forest ecology, plant identification, and plant physiology. I followed the protocol of the International Society of Arboriculture (ISA) for tree risk assessment. Published in 2011, the *Best Management Practices, Tree Risk Assessment, ANSNI A300 Part 9* was developed to aid in the interpretation of professional standards

and guide work practices based upon current science and technology. Using this process, now called the *Tree Risk Assessment Qualification*, or TRAQ for short, I performed a Level Two assessment which included looking at the overall health of the tree as well as the site conditions. This is a scientifically based process to look at the entire site, surrounding land and soil, as well as a complete look at the tree itself.

In examining each tree, I looked at such factors as: size, vigor, canopy and foliage condition, density of needles, injury, insect activity, root damage and root collar health, crown health, evidence of disease-causing bacteria, fungi or virus, dead wood and hanging limbs.

Tree Tags

The trees were tagged and numbered by the survey crew as they were surveying the property. I have used their tag numbers for this report. The tags are made of shiny aluminum approximately one inch by three inches in size and are attached to the tree with staples and a strip of white survey tape. Please refer to *Attachment 1, Site Survey* for an orientation to the site and the approximate location of the trees.

OBSERVATIONS

The Radke property is a near rectangle that extends between Juanita Drive and 80th Avenue NE north of NE 125th Street in the Finn Hill Neighborhood of Kirkland. There is a gentle slope up from Juanita Drive at approximately 326 feet elevation near the southwest property corner to an elevation of 372 feet elevation at 80th Avenue NE. The property is currently improved with a gravel driveway from Juanita Drive to a house near the northeast corner; as well as a house, driveway, and yard in the southeast corner that has the address of 7922 NE 125th Street. A portion of the north property line is bounded by an asphalt driveway and small rock retaining wall entering from Juanita Drive.

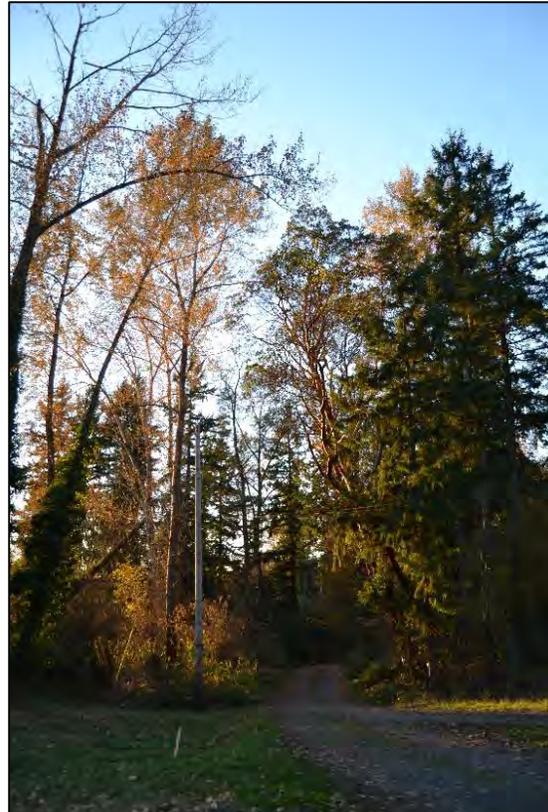


Photo # 2: Looking west toward Juanita Drive from the central parking area.



Photo # 3: Looking west from the central parking area. The driveway and houses can be seen in the lower portion of the photo.

In an effort to present the information and conclusions for each tree in a manner that is clear and easy to understand, as well as to save paper, I have included a detailed spreadsheet, *Attachment 2, Tree Inventory/Condition Spreadsheet*. All the same information from the ISA Tree Hazard Form is included in this spreadsheet and the attached glossary. The descriptions on the spreadsheet were left brief in order to include as much pertinent information as possible and to make the report manageable. The attached glossary provides a detailed description of the terms used in the spreadsheet and in this report. It can be found in *Attachment 3, Glossary*. A brief review of these terms and descriptions will enable the reader to rapidly move through the spreadsheet and better understand the information.

Additional Testing

The trees all presented signs and/or symptoms that were readily discernible using the visual tree evaluation system at a Level Two assessment. These signs and/or symptoms indicate extensive internal decay and/or structural defects in some trees and solid trunks and lack of disease in others. Therefore, no additional tests were performed during this site visit.

DISCUSSION

Right-of-Way Trees

There are 7 trees in the Juanita Drive and 80th Avenue NE rights-of-way. Trees 5146, 5147, 5148, 5396, 5397, 6103, and 6104 are all in the 80th Avenue NE right-of-way. They are all between the edge of the pavement and the east property line. Tree # 5929 is in the Juanita Drive south of the northwest property corner.

Seven of the eight trees are Viable hand have the potential to be retained if City right-of-way improvement requirements and utility installations allow.

Trees on Adjacent Properties

There are 10 trees on adjacent properties with canopies and/or roots that encroach onto the subject property. They are all on properties north of the north property line. They are trees tagged numbers 5432, 5445, 5464, 5487, 6094, 6095, 6096, 6097, 6098, and. All seven trees can be adequately protected during clearing, grading, and construction.

Trees on the Subject Property

There are 269 trees on the subject property. They are primarily the typical species found in lowland Puget Sound un-managed native forests. In the southeast corner of the property is a home with a few landscape species planted. The trees breakdown as follows:

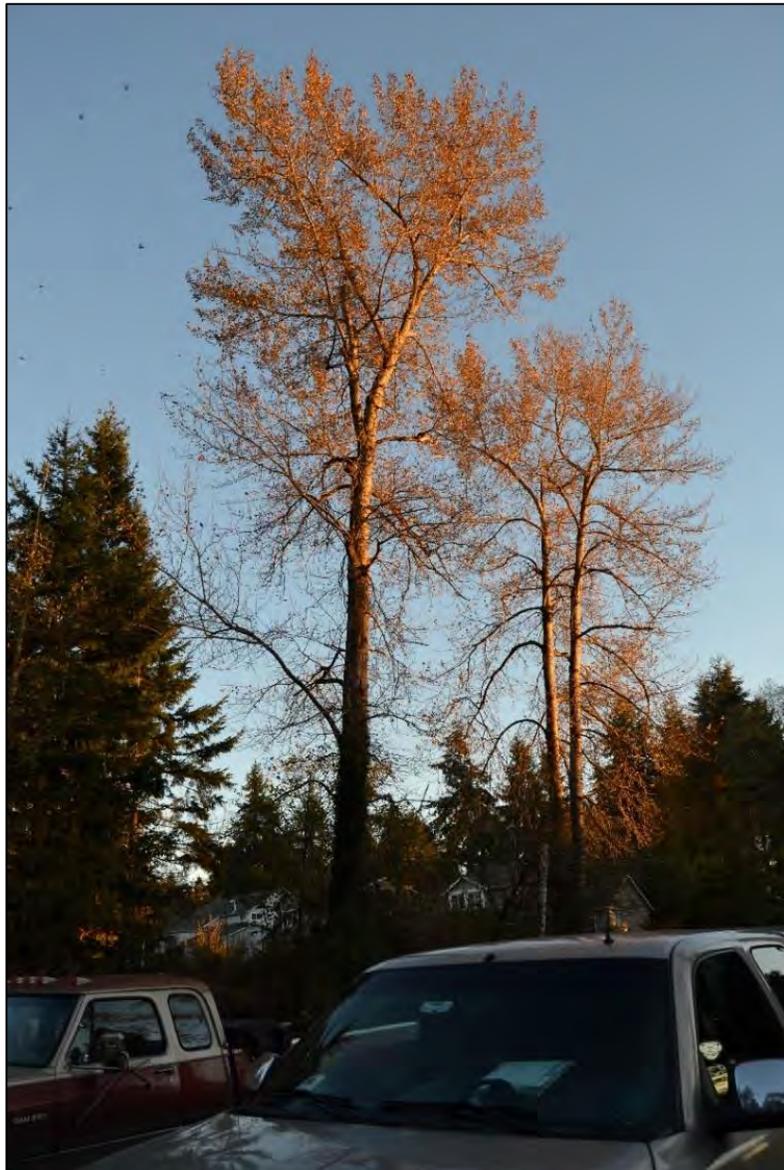
SUBJECT PROPERTY SPECIES SUMMARY		
Quantity	Species	%
1	Alaska Weeping Cedar, <i>Chamaecyparis nootkatensis 'Pendula'</i>	0.4%
1	Blue Atlas Cedar, <i>Cedrus atlantica</i>	0.4%
5	Bitter Cherry, <i>Prunus emarginata</i>	1.9%
28	Black Cottonwood, <i>Populus trichocarpa</i>	10.4%
40	Big Leaf Maple, <i>Acer macrophyllum</i>	14.9%
1	Cascara, <i>Rhamnus purshiana</i>	0.4%
100	Douglas Fir, <i>Pseudotsuga menziesii</i>	37.2%
5	English Holly, <i>Ilex aquifolium</i>	1.9%
1	Golden Chain Tree, <i>Laburnum x watereri</i>	0.4%
2	Pacific Dogwood, <i>Cornus nuttallii</i>	0.7%
1	Pink Flowering Dogwood, <i>Cornus florida</i>	0.4%
40	Pacific Madrone, <i>Arbutus menziesii</i>	14.9%
2	Pacific Willow, <i>Salix lasiandra</i>	0.7%
10	Red Alder, <i>Alnus rubra</i>	3.7%
2	Sugar Pine, <i>Pinus lambertiana</i>	0.7%
2	Scouler Willow, <i>Salix scouleriana</i>	0.7%
1	Vine Maple, <i>Acer circinatum</i>	0.4%
1	Western Hemlock, <i>Tsuga heterophylla</i>	0.4%
1	Western Hazelnut, <i>Corylus cornuta</i>	0.4%
25	Western Red Cedar, <i>Thuja plicata</i>	9.3%
269	Total # of Subject Property Trees Evaluated	100.0%

The 269 trees on the subject property, 193 of which are *Viable*, contribute a total of 833.5 *Tree Credits* as defined in Kirkland Code, Chapter 95, Section 35.1.

A Note About Black Cottonwood Trees

Black Cottonwood trees are one of the trees known as “primary cultivators” by forest ecologists. These trees fill the ecological niche of colonizing an area after disturbance such as forest fire, logging, or construction. The Black Cottonwood’s natural history is to grow fast and large, reproduce profusely, and then to die rapidly. They have a short lifespan compared to other trees—sixty to eighty years is considered an average lifespan for Black Cottonwood trees. Because so much energy is placed into rapid growth and reproduction, these trees tend to be more brittle and have inadequate immune response systems. This results in Black Cottonwood trees being prone to failure in adverse weather conditions, being susceptible to several kinds of pathogenic disease, as well as shedding large limbs on hot summer days even when little or no wind is present. Once disturbed, Black Cottonwood trees are highly susceptible to root disease and insect infestations. It is common for Black Cottonwood trees to rapidly become hazards after construction activity.

Photo # 3:
Looking SE at
Black
Cottonwood
trees #'s 5711,
5377, and
5376. Close
observation
reveals that
they have
already begun
to shed large
limbs.



There are 26 Black Cottonwood trees on the subject property. They are all *Significant* as defined by Kirkland Code. One Cottonwood is Dead. One is Dying. Nine are in Poor Condition. The remaining 15 trees are all in Fair or Good condition. However, I am recommending that all 26 be removed for safety. They are too large, too brittle, too susceptible to loss of large limbs, and too unpredictable to be retained. They should all be removed for safety.

CONCLUSIONS AND RECOMMENDATIONS

Minimum Tree Density Calculations

The City of Kirkland's Tree Code now requires that each lot have a minimum density of at least 30 tree credits per acre. The density may consist of existing trees, supplemental trees, or a combination of existing and supplemental trees. The tree credits are calculated, as indicated below, by dividing the size of the individual lot by the square footage in an acre and multiplying by 30: $\text{lot area in square feet} / 43,560 \text{ square feet} \times 30$ (rounded to the nearest whole #) = the number of tree credits required for each lot.

In this case, after the Juanita Drive and NE 125th Street dedications required by the City are removed, the Toll Brothers subdivision site area will be 137,290 square feet, (3.152 acres). The Radkes will be retaining one lot referred to as Radke Lot A. It is the already improved lot with the single family home with the address of 7922 NE 125th Street. Although Radke Lot A was included in this evaluation, Radke lot A will not be part of the proposed subdivision. A Lot Line Adjustment will be processed concurrent with the subdivision to preserve the existing residence at 7922 Ne 125th Street on its own lot. The minimum *Tree Density Calculation* or the Toll Brothers subdivision site area is as follows:

- Toll Brothers parcel:
 - $137,290 / 43,560 \times 30 = 94.56$ or a minimum of 95 tree credits are required.

Please refer to Chapter 95, Tree Management and Required Landscaping, Section 95.35.5 and Table 95.35.1 of the Kirkland Municipal Code to see how tree credits are assigned and for more information about tree retention.

Please be aware that the City can *and often does* require the retention of additional trees above the minimum. This especially applies to trees in very good or excellent condition located in buffers, in building setbacks, and trees in groves—even groves that extend across property lines.

The information from this report will need to be transferred to a *Tree Plan* as required in Kirkland Code section 95.35.2.B *Tree Plan Requirements*.

Required Tree Retention

Retention of course, needs to take into account the location of the trees and the location of the proposed improvements. However, strongly advocate retaining as many more trees as possible over the minimum required if development allows. This affords significant flexibility during construction when unforeseen circumstances and events require the removal of trees that were at first planned for retention. If there is a bank of extra *Significant Trees* somewhere else on the property they can be switched out with a tree or more that needs to be removed unexpectedly.

Tree Protection Measures

In order for trees to survive the stresses placed upon them in the construction process, tree protection must be planned in advance of equipment arrival on site. If tree protection is not planned integral with the design and layout of the project, the trees will suffer needlessly and possibly die. With proper preparation, often costing little or nothing extra to the project budget, trees can survive and thrive after construction. This is critical for tree survival because damage prevention is the single most effective treatment for trees on construction sites. Once trees are damaged, the treatment options available are limited.

The minimum Tree Protection Measures in *Attachment 4, Tree Protection Measures* are on three separate sheets that can be copied and introduced into all relevant documents such as site plans, permit applications and conditions of approval, and bid documents so that everyone involved is aware of the requirements. These Tree Protection Measures are intended to be generic in nature. They will need to be adjusted to the specific circumstances of your site that takes into account the location of improvements and the locations of the trees.

WAIVER OF LIABILITY

There are many conditions affecting a tree's health and stability, which may be present and cannot be ascertained, such as, root rot, previous or unexposed construction damage, internal cracks, stem rot and more which may be hidden. Changes in circumstances and conditions can also cause a rapid deterioration of a tree's health and stability. Adverse weather conditions can dramatically affect the health and safety of a tree in a very short amount of time. While I have used every reasonable means to examine these trees, this evaluation represents my opinion of the tree health at this point in time. These findings do not guarantee future safety nor are they predictions of future events.

The tree evaluation consists of an external visual inspection of an individual tree's root flare, trunk, and canopy from the ground only unless otherwise specified. The inspection may also consist of taking trunk or root soundings for sound comparisons to aid the evaluator in determining the possible extent of decay within a tree. Soundings are only

an aid to the evaluation process and do not replace the use of other more sophisticated diagnostic tools for determining the extent of decay within a tree.

As conditions change, it is the responsibility of the property owners to schedule additional site visits by the necessary professionals to ensure that the long-term success of the project is ensured. It is the responsibility of the property owner to obtain all required permits from city, county, state, or federal agencies. It is the responsibility of the property owner to comply with all applicable laws, regulations, and permit conditions. If there is a homeowners association, it is the responsibility of the property owner to comply with all Codes, Covenants, and Restrictions (CC&R's) that apply to tree pruning and tree removal.

This tree evaluation is to be used to inform and guide the client in the management of their trees. This in no way implies that the evaluator is responsible for performing recommended actions or using other methods or tools to further determine the extent of internal tree problems without written authorization from the client. Furthermore, the evaluator in no way holds that the opinions and recommendations are the only actions required to insure that the tree will not fail. A second opinion is recommended. The client shall hold the evaluator harmless for any and all injuries or damages incurred if the evaluator's recommendations are not followed or for acts of nature beyond the evaluator's reasonable expectations, such as severe winds, excessive rains, heavy snow loads, etc.

This report and all attachments, enclosures, and references, are confidential and are for the use of the client concerned. They may not be reproduced, used in any way, or disseminated in any form without the prior consent of the client concerned and Gilles Consulting.

Thank you for calling Gilles Consulting for your arboricultural needs.

Sincerely,



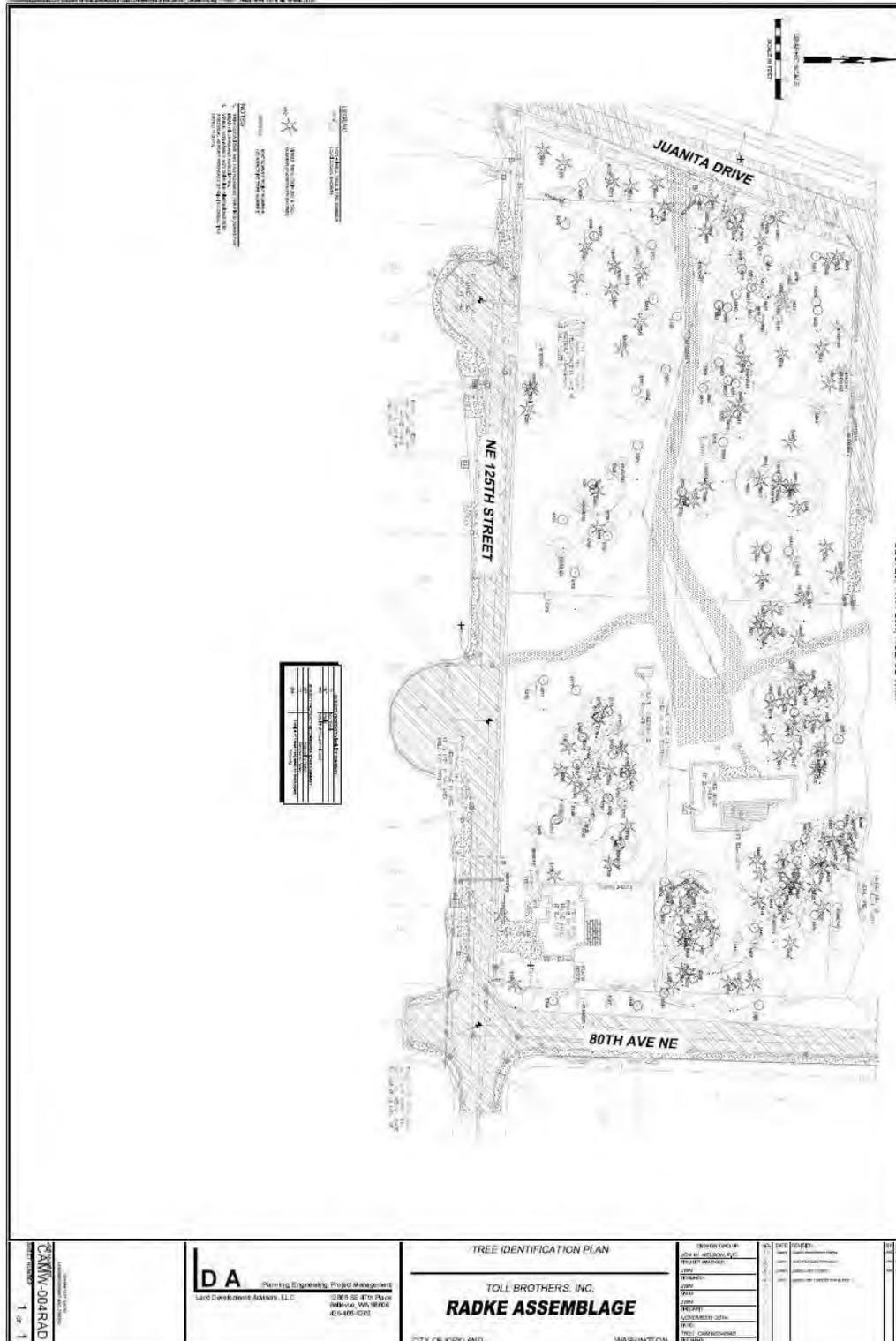
Brian K. Gilles, Consulting Arborist
ISA Certified Arborist # PN-0260A
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ATTACHMENT 1 - TREE EXHIBIT



ATTACHMENT 2 - TREE INVENTORY/CONDITIONS SPREADSHEET

ABBREVIATED LEGEND--SEE GLOSSARY IN REPORT ATTACHMENTS FOR GREATER DETAIL	
#1	Property: Whether the tree is on or off the Subject Property, or a Right-of-Way tree.
#2	Tree Location: Relative placement of the tree on the Subject Property.
#3A	Tree #: The unique tag number of each tree given by the Survey crew. A few trees had no 5xxx tag. I added them into the spreadsheet with tag #'s 119 - 138, & 139 - 150.
3B	Other Tag #: A majority of the trees have a second tag # in the 1xxx range.
#4	Species:
	AWC/Cn 'P' Alaska Weeping Cedar, <i>Chamaecyparis nootkatensis</i> 'Pendula'
	BAC/Ca Blue Atlas Cedar, <i>Cedrus atlantica</i>
	Bitter Cherry, <i>Prunus emarginata</i>
	BCw/Pt Black Cottonwood, <i>Populus trichocarpa</i>
	BLM/Am Big Leaf Maple, <i>Acer macrophyllum</i>
	C/Rp Cascara, <i>Rhamnus purshiana</i>
	DF/Pm Douglas Fir, <i>Pseudotsuga menziesii</i>
	EH/la English Holly, <i>Ilex aquifolium</i>
	GCnT/Lxw Golden Chain Tree, <i>Laburnum x watereri</i>
	PDw/Cn Pacific Dogwood, <i>Cornus nuttallii</i>
	PFdW/Cf Pink Flowering Dogwood, <i>Cornus florida</i>
	PW/Am Pacific Madrone, <i>Arbutus menziesii</i>
	PO/Qp Pin Oak, <i>Quercus palustris</i>
	PW/Sl Pacific Willow, <i>Salix lasiandra</i>
	RA/Ar Red Alder, <i>Alnus rubra</i>
	SuP/Pl Sugar Pine, <i>Pinus lambertiana</i>
	SW/Ss Scouler Willow, <i>Salix scouleriana</i>
	VM/Ac Vine Maple, <i>Acer circinatum</i>
	WH/Th Western Hemlock, <i>Tsuga heterophylla</i>
	WHn/Cc Western Hazelnut, <i>Corylus cornuta</i>
	WRC/Tp Western Red Cedar, <i>Thuja plicata</i>
#5	DBH: Trunk diameter @ 4.5' above average ground level.
#6	Tree Credit: This is based upon Table 95.35.1, Page 12, Chapter 95 of the Kirkland Municipal Code.
#7	Drip Line: The radius, the distance from the trunk to the furthest branch tips.
#8	Limits of Disturbance: The boundary between the area of minimum protection around a tree and the allowable site disturbance as determined by a qualified professional.
#9	LCR: Live Crown Ratio - the amount of live canopy expressed as a % of the entire tree height
#10	Symmetry: General shape of canopy and weight distribution of the tree around the trunk.
#11	Foliage: General description of foliage density that indicates tree health and vigor.
#12	Crown Condition: The most important external indication of tree health and vigor.
#13	Trunk: Description of trunk condition or abnormalities if any.
#14	Root Collar: The base of the tree where the trunk flares into the roots--deformities or problems are noted here.
#15	Roots: Root problems are noted here.
#16	Comments: Additional observations about the tree's condition.
#17	Significance: A "significant" tree is at least 6" in diameter measured at 4.5' above the average ground level.
#18	Current Health Rating: A description of general health ranging from dead, dying, poor, fair, good, very good, to excellent.
#19	Viability: A significant tree that is in good health with a low risk of failure due to structural defects, is relatively wind firm if isolated or remains as part of a grove, and is a species that is suitable for its location.
#20	Recommendation: Does the tree is of sufficient health, vigor, and structure to consider retaining.

1	2	3A	3B	4	6	7	8 -- LIMITS OF DISTURBANCE				9	10	11	12	13	14	15	16	17	18	19	20	
							North	South	East	West													
PROPERTY	TREE LOCATION	TREE #	Other Tag #	SPECIES	DBH	TREE CREDIT	DRIP LINE	North	South	East	West	LCR	SYMMETRY	FOLIAGE	CROWN CONDITION	TRUNK	ROOT COLLAR	ROOTS	COMMENTS	SIGNIFICANCE	CURRENT HEALTH RATING	VIABILITY	RECOMMENDATION
Subject property	Near SE Prop. Corner	5145	1710	WRC/Tp	20.7"	6.0	18'	18'	To edge of road	To edge of road	To Drive way	98 %	Gen. Sym.	Dense	Healthy	Fork at 2'	NAD	Restricted	Trunk diameters are 10.7", 11.3", & 13.6" = single trunk of 20.7". Base is app. 5' SW of fire hydrant. Located in the NE corner of the intersection of NE 125t St and 80th Ave NE.	Significant	Very good	Viable	Potential to retain with Tree Protection Measures

1	2	3A	3B	4	6	7	8 -- LIMITS OF DISTURBANCE				9	10	11	12	13	14	15	16	17	18	19	20
							North	South	East	West												
PROPERTY	TREE LOCATION	TREE #	Other Tag #	SPECIES	DBH	TREE CREDIT	DRIP LINE			LCR	SYMMETRY	FOLIAGE	CROWN CONDITION	TRUNK	ROOT COLLAR	ROOTS	COMMENTS	SIGNIFICANCE	CURRENT HEALTH RATING	VIABILITY	RECOMMENDATION	
Right-of-way	80th Ave NE E of Cedar fence	5146		PO/Qp	10.1"	0.0	18'	18'	18'	n/a	96%	Gen. Sym.	Dense	Healthy	Kink at 70%	NAD	Restricted	Growing between east property line fence and west of 80th Ave NE.	Significant	Very good	Viable	Potential to retain with Tree Protection Measures
Right-of-way	80th Ave NE E of Cedar fence	5147	1681	PO/Qp	9.1"	0.0	18'	18'	18'	n/a	98%	Gen. Sym.	Dense	Healthy	Kink at 65%	NAD	Restricted	Growing between east property line fence and west of 80th Ave NE.	Significant	Very good	Viable	Potential to retain with Tree Protection Measures
Right-of-way	80th Ave NE E of Cedar fence	5148	1682	PO/Qp	10.2"	0.0	20'	20'	20'	n/a	98%	Gen. Sym.	Dense	Healthy	Straight	NAD	Restricted	Growing between east property line fence and west of 80th Ave NE.	Significant	Excellent	Viable	Potential to retain with Tree Protection Measures
Subject property	West of Driveway to 7922 125th	5160	124	AWC/Cn 'P'	10.6"	1.0	12'	12'	To edge of road	12'	100%	Gen. Sym.	Dense	Healthy	fork at base	NAD	Restricted	Trunk diameters are 9.6" & 4.4" = single trunk of 10.6". Base is approximately 4' W of driveway and 3 feet North of edge of street pavement.	Significant	Very good	Viable	Potential to retain with Tree Protection Measures
Subject property	SW Quadrant	5318	1208	SP/PS	20.8"	6.0	18'	18'	To the edge of the road	18'	80%	Min. Asym.	Average	N Trunk Healthy, S Trunk Broken Off at 30'	Leans N & S, Fork at Base	NAD	Restricted	Base is app. 6 feet North of pavement.	Significant	Fair	Viable	Potential to retain with Tree Protection Measures
Subject property	SW Quadrant	5319		SP/PS	6.5"	1.0	11'	11'	To the edge of the road	11'	40%	Maj. Asym.	Average	Overtopped	Straight	NAD	Restricted	Base is app. 6 feet North of pavement.	Significant	Fair	Viable	Potential to retain with Tree Protection Measures

1	2	3A	3B	4	6	7	8 -- LIMITS OF DISTURBANCE				9	10	11	12	13	14	15	16	17	18	19	20	
							North	South	East	West													
PROPERTY	TREE LOCATION	TREE #	Other Tag #	SPECIES	DBH	TREE CREDIT	DRIP LINE				LCR	SYMMETRY	FOLIAGE	CROWN CONDITION	TRUNK	ROOT COLLAR	ROOTS	COMMENTS	SIGNIFICANCE	CURRENT HEALTH RATING	VIABILITY	RECOMMENDATION	
Subject property	SW Quadrant	5320	1207	BAC/Ca	28.3"	10.0	20'	20'	road	20'	20'	85%	Maj. Asym.	Dense	Regenerating - Healthy	Typical	NAD	Restricted	Base is app. 6 feet North of pavement.	Significant	Good	Viable	Potential to retain with Tree Protection Measures
Subject property	SW Quadrant	5324		BCw/Pt	24.0"	7.0	22'	22'	To the edge of the road	22'	22'	55%	Gen. Sym.	Average	Average	Typical	English Ivy	English Ivy	English Ivy up 60 feet.	Significant	Fair	Viable	Potential to retain with Tree Protection Measures
Subject property	SW Quadrant	5325	1565	BCw/Pt	21.7"	6.0	18'	18'		18'	18'	40%	Maj. Asym.	Average	Average	Leans NE	Exposed	English Ivy	English Ivy up 48 feet.	Significant	Fair	Viable	Potential to retain with Tree Protection Measures
Subject property	SW Quadrant	5327	1564	BCw/Pt	17.6"	4.0	24'	24'		24'	24'	30%	Min. Asym.	Average	Average	Leans E	NAD	-		Significant	Fair	Viable	Potential to retain with Tree Protection Measures
Subject property	SW Quadrant	5328	133	BCw/Pt	8.7"	0.0	14'	n/a	n/a	n/a	n/a	75%	Min. Asym.	Average	Average	Fork at 6', Center Rot	Base rot	Probable Root Rot		Significant	Poor	Non-viable	Remove
Subject	SW Quadrant	5329	1211	BCw/Pt	27.4"	9.0	26'	26'		26'	26'	60%	Min. Asym.	Dense	Healthy	Serpentine	Partially Exposed	-		Significant	Fair	Viable	Potential to retain with Tree Protection

1	2	3A	3B	4	6	7	8 -- LIMITS OF DISTURBANCE				9	10	11	12	13	14	15	16	17	18	19	20
							North	South	East	West												
PROPERTY	TREE LOCATION	TREE #	Other Tag #	SPECIES	DBH	TREE CREDIT	DRIP LINE															Measure s
Subject property	SW Quadrant	5329	1563	BCw/Pt	16.5"	4.0	21'	21'	21'	21'	45%	Min. Asym.	Average	Average	Leans NE	Exposed	-	English Ivy up 30 feet.	Significant	Fair	Viable	Potential to retain with Tree Protection Measures
Subject property	SW Quadrant	5329	1567	BCw/Pt	20.7"	6.0	26'	26'	26'	26'	40%	Min. Asym.	Dense	Healthy	Center rot	Exposed	Probable Root Rot	Trunk is bowed. Base rot. Carpenter Ant infestation.	Significant	Fair	Viable	Potential to retain with Tree Protection Measures
Subject property	SW Quadrant	5335	1220	DF/Pm	37.7"	14.0	32'	32'	To the edge of the road	32'	85%	Min. Asym.	Epimic Growth	Average	Straight	NAD	-		Significant	Fair	Viable	Potential to retain with Tree Protection Measures
Subject property	SW Quadrant	5338	1214	BLM/Am	52.7"	0.0	42'	n/a	n/a	n/a	90%	Maj. Asym.	PBS/PSE	2 are weak, 1 is dead	Fork at 3.5', Center Rot	Base rot	Root Rot	Clump of 3; diameters are 20.8", 36.9", & 31.4" = single trunk of 52.7". Rot pockets in branch collar wounds. Bark sloughing. Carpenter Ant infestation. Woodpecker activity. Hypoxylon.	Significant	Dying	Non-viable	Remove
Subject property	SW Quadrant	5339	1219	DF/Pm	28.0"	9.0	28'	28'	28'	28'	90%	Gen. Sym.	Epimic Growth	Healthy	Straight	English Ivy	English Ivy		Significant	Good	Viable	Potential to retain with Tree Protection Measures
Subject	SW Quadrant	5340	1222	PM/Am	14.8"	0.0	5'	n/a	n/a	n/a	3%	Maj. Asym.	Fusarium Wilt, Necrosis	Dying	Center rot	Base rot	Root Rot	Open wound SE side 6" to 36" with advanced decay.	Significant	Dying	Non-viable	Remove

1	2	3A	3B	4	6	7	8 -- LIMITS OF DISTURBANCE				9	10	11	12	13	14	15	16	17	18	19	20	
							PROPERTY	TREE LOCATION	TREE #	Other Tag #													SPECIES
Subject property	SW Quadrant	5341	1221	DF/Pm	24.7"	8.0	26'	26'	26'	26'	26'	80%	Min. Asym.	Epico rmic Growth	Healthy	Straight	NAD	-	Significa nt	Fair	Viable	Potential to retain with Tree Protection Measures	
Subject property	SW Quadrant	5342	1366	DF/Pm	36.9"	14.0	32'	to the dri ve way	32'	32'	32'	90%	Min. Asym.	Epico rmic Growth	Healthy	Straight	NAD	-	Significa nt	Good	Viable	Potential to retain with Tree Protection Measures	
Subject	SW Quadrant	5343	1367	PM/A m	11.1"	0.0	14'	14'	14'	14'	14'	15%	Min. Asym.	Fusari um Wilt, Necrosis	Weak	Leans NW	NAD	-	Significa nt	Poor	Non-viable	Remove	
Subject property	Northeast Quadrant	5343		BCh/P e	11.8"	1.0	22'	To N Pr op. Line	22'	22'	22'	80%	Gen. Sym.	GBS/ GSE	Healthy	fork at 7', Bowed	swollen, exposed	-	Base is app. 6' south of Hub # 407.	Significa nt	Good	Viable	Potential to retain with Tree Protection Measures
Subject property	SW Quadrant	5344	1223	DF/Pm	37.9"	14.0	36'	36'	36'	36'	36'	70%	Gen. Sym.	Dense	Healthy	Straight	swollen, exposed		Short shoot elongation. Early Bark Beetle infestation.	Significa nt	Good	Viable	Potential to retain with Tree Protection Measures
Subject	SW Quadrant	5345	5348 & 1224	BLM/A m	26.4"	9.0	28'	28'	28'	28'	28'	66.5%	Gen. Sym.	ABS/ ASE	Average	Fork at 4'	English Ivy	English Ivy	English Ivy up 40 feet.	Significa nt	Fair	Viable	
Subject property	SW Quadrant	5346	1369	PM/A m	9.4"	0.0	12'	n/a	n/a	n/a	n/a	20%	Maj. Asym.	Short Shoot Elongation, Chlorotic	Weak	Leans W	Partially Exposed	-	Significa nt	Dying	Non-viable	Remove	
Subject	SW Quadrant	5346	1372	PM/A m	11.9"	0.0	10'	n/a	n/a	n/a	n/a	10%	Min. Asym.	Fusari um Wilt, Necrosis	Weak	Fork at 13', Center Rot, Leans West	NAD	-	Rot pockets in branch collar wounds.	Significa nt	Poor	Non-viable	Remove

1	2	3A	3B	4	6	7	8 -- LIMITS OF DISTURBANCE				9	10	11	12	13	14	15	16	17	18	19	20
							North	South	East	West												
Subject property	SW Quadrant	5347	1371	PM/Am	10.2"	1.0	14'	14'	14'	14'	20%	Min. Asym.	Fusarium Wilt, Necrosis	Average	Leans W	NAD	-		Significant	Fair	Viable	Potential to retain with Tree Protection Measures
Subject property	SW Quadrant	5348		BLM/Am	7.4"	1.0	12'	12'	12'	12'	35%	Min. Asym.	ABS/ASE	Average	Fork at Base, Typical	NAD	-	Test pit is immediately south of base. Tag on tree was only "534."	Significant	Fair	Viable	Potential to retain with Tree Protection Measures
Subject property	SW Quadrant	5349	1216	DF/Pm	13.9"	2.0	16'	16'	16'	16'	94%	Gen. Sym.	Average	Average	Bowed	NAD	-		Significant	Good	Viable	Potential to retain with Tree Protection Measures
Subject property	SW Quadrant	5350	1317	DF/Pm	21.0"	6.0	19'	19'	19'	19'	98%	Gen. Sym.	Dense	Healthy	Bowed	Partially Exposed	-		Significant	Good	Viable	Potential to retain with Tree Protection Measures
Subject property	SW Quadrant	5351	1214	BCw/Pt	36.4"	14.0	24'	24'	24'	24'	50%	Maj. Asym.	ABS/ASE	Average	Typical	Exposed	-	Test pit within 10 feet of the base.	Significant	Fair	Viable	Potential to retain with Tree Protection Measures
Subject property	SW Quadrant	5352	1566	BCw/Pt	19.6"	0.0	18'	18'	18'	18'	12%	Maj. Asym.	Short Shoot Elongation, Chlorotic	Weak	Slight Lean NE	NAD	-		Significant	Poor	Non-viable	Remove
Subject property	SW Quadrant	5353	1413	BCw/Pt	22.9"	7.0	18'	18'	18'	18'	25%	Maj. Asym.	ABS/ASE	Weak	Slight Lean E	Exposed	-		Significant	Fair	Viable	Potential to retain with Tree Protection Measures

1	2	3A	3B	4	6	7	8 -- LIMITS OF DISTURBANCE				9	10	11	12	13	14	15	16	17	18	19	20
							North	South	East	West												
PROPERTY	TREE LOCATION	TREE #	Other Tag #	SPECIES	DBH	TREE CREDIT	DRIP LINE			LCR	SYMMETRY	FOLIAGE	CROWN CONDITION	TRUNK	ROOT COLLAR	ROOTS	COMMENTS	SIGNIFICANCE	CURRENT HEALTH RATING	VIABILITY	RECOMMENDATION	
Subject property	West of Driveway to 7922 125th	5367		BLM/Am	13.1"	2.0	22'	22'	22'	65%	Maj. Asym.	ABS/ASE	Average	Slight Lean SW, Typical	NAD	Restricted	Base is app. 6 feet North of pavement.	Significant	Good	Viable	Potential to retain with Tree Protection Measures	
Subject	SE Quadrant	5376	1164	BCw/Pt	23.5"	0.0	26'	26'	26'	85%	Maj. Asym.	ABS/ASE	N trunk broken out, S trunk Average	Leans SW, Typical	Partially Exposed	-	Fork at 85%.j Rot pockets in branch collar wounds.	Significant	Poor	Non-viable	Remove	
Subject property	SE Quadrant	5377	1163	BCw/Pt	21.7"	6.0	22'	22'	22'	80%	Maj. Asym.	ABS/ASE	Average	Leans SW, Typical	NAD	-		Significant	Fair	Viable	Potential to retain with Tree Protection Measures	
Subject property	SW Quadrant	5379		BCw/Pt	32.0"	0.0	25'	25'	25'	40%	Min. Asym.	ABS/ASE	Broken off	English Ivy up 80%	English Ivy	English Ivy		Significant	Poor	Non-viable	Remove	
Subject property	SE Quadrant	5380	1128	SW/Ss	22.6"	0.0	20'	n/a	n/a	90%	Gen. Sym.	Dense	Healthy	Center rot	Base rot	Root Rot	Clump of 7; diameters are 9.1", 4.2", 12.3", 10.0", 9.0", 4.7", & 7.7" = single trunk of 22.6". Carpenter Ant infestation. Woodpecker activity.	Significant	Dying	Non-viable	Remove	
Subject property	Northeast Quadrant	5392	1690	DF/Pm	15.3"	3.0	18'	18'	18'	55%	Maj. Asym.	Average	Overtopped	Bowed	Fill	Fill on 45%		Significant	Fair	Viable	Potential to retain with Tree Protection Measures	
Subject property	Northeast Quadrant	5393	1689	DF/Pm	31.7"	11.0	22'	22'	22'	80%	Min. Asym.	Dense	Regenerating - Average	Straight	Fill	Fill on 35%		Significant	Good	Viable	Potential to retain with Tree Protection Measures	

1	2	3A	3B	4	6	7	8 -- LIMITS OF DISTURBANCE				9	10	11	12	13	14	15	16	17	18	19	20
							North	South	East	West												
Subject property	Northeast Quadrant, Near North Prop. Line	5394	1701	DF/Pm	34.6"	13.0	26'	26'	26'	85%	Gen. Sym.	Dense	Regenerating - Average	Straight	Fill	Fill on 35%		Significant	Good	Viability	Potential to retain with Tree Protection Measures	
Right-of-way	80th Ave NE near NE Prop. Corner	5396		BCw/Pt	15.0"	0.0	20'	20'	20'	96%	Gen. Sym.	ABS/ASE	Healthy	Fork at 18'	Partially Exposed	Restricted	Trunk diameters are 10.6", 10.0", & 3.5" = a single trunk of 15.0". Base is app. 14 feet west of edge of pavement.	Significant	Fair	Viability	Potential to retain with Tree Protection Measures	
Right-of-way	80th Ave NE near Cedar Fence	5397		RA/Ar	9.8"	0.0	16'	n/a	n/a	75%	Gen. Sym.	ABS/ASE	Average	Center rot	Base rot	Root Rot	Open wound SW side from 1 to 6 feet with advanced decay. Carpenter Ant infestation.	Significant	Poor	Non-viable	Remove	
Subject property	Northeast Quadrant	5398	1683	WRC/TP	17.9"	4.0	14'	14'	14'	90%	Gen. Sym.	Average	Average	Fork at 1', Bowed at Base	Exposed	Fill on 45%		Significant	Good	Viability	Potential to retain with Tree Protection Measures	
Subject property	Northeast Quadrant	5399	1646	BCh/Pe	16.2"	4.0	22'	22'	22'	80%	Maj. Asym.	ABS/ASE	Regenerating - Average	Serpentine	Exposed	-		Significant	Fair	Viability	Potential to retain with Tree Protection Measures	
Subject property	Northeast Quadrant	5400	1685	DF/Pm	14.8"	3.0	25'	25'	25'	40%	Min. Asym.	Average	Regenerating - Average	Slightly Serpentine	NAD	Fill on 15%		Significant	Fair	Viability	Potential to retain with Tree Protection Measures	
Subject property	Northeast Quadrant	5401	1684	DF/Pm	13.3"	2.0	12'	12'	12'	40%	Maj. Asym.	Average	Regenerating - Average	Slightly Serpentine	NAD	Fill on 25%		Significant	Fair	Viability	Potential to retain with Tree Protection Measures	

1	2	3A	3B	4	6	7	8 -- LIMITS OF DISTURBANCE				9	10	11	12	13	14	15	16	17	18	19	20	
							North	South	East	West													LCR
Subject property	SE Quadrant	5403	1687	DF/Pm	22.8"	7.0	22'	22'	To the fence	22'	22'	65%	Gen. Sym.	Dense	Healthy	Serpentine	NAD	-	Significant	Very good	Viable	Potential to retain with Tree Protection Measures	
Subject property	SE Quadrant	5404	1673	DF/Pm	14.1"	3.0	14'	14'	To the fence	14'	14'	60%	Maj. Asym.	Epimic Growth	Suppressed	Straight	NAD	-	Significant	Fair	Viable	Potential to retain with Tree Protection Measures	
Subject property	SE Quadrant	5405	1672	DF/Pm	25.8"	8.0	22'	22'	To the fence	22'	22'	80%	Maj. Asym.	Short Shoot Elongation, Chlorotic	Regenerating - Weak	Straight	NAD	Probable Root Rot	Sap flow on SE side from 34.5 feet to base -- possibly Armillaria. Bark Beetle infestation.	Significant	Fair	Viable	Potential to retain with Tree Protection Measures
Subject property	SE Quadrant	5407	1671	WRC/Tp	8.8"	1.0	13'	13'	13'	13'	13'	98%	Gen. Sym.	Average	Healthy	Straight	Slight bow at base	-	Early Bark Beetle infestation.	Significant	Very good	Viable	Potential to retain with Tree Protection Measures
Subject property	SE Quadrant	5408	1661	DF/Pm	12.9"	2.0	18'	18'	To the fence	18'	18'	65%	Min. Asym.	Thin	Average	Serpentine	NAD	Probable Root Rot		Significant	Fair	Viable	Potential to retain with Tree Protection Measures
Subject property	SE Quadrant	5409	1659	DF/Pm	28.8"	10.0	32'	32'	32'	32'	32'	60%	Min. Asym.	Dense	Flagged	Straight	NAD	-		Significant	Good	Viable	Potential to retain with Tree Protection Measures
Subject property	SE Quadrant	5410	1660	DF/Pm	33.4"	12.0	38'	38'	38'	38'	38'	70%	Gen. Sym.	Dense	Healthy	Straight	NAD	-		Significant	Very good	Viable	Potential to retain with Tree Protection Measures

1	2	3A	3B	4	6	7	8 -- LIMITS OF DISTURBANCE				9	10	11	12	13	14	15	16	17	18	19	20	
							North	South	East	West													LCR
Subject property	Northeast Quadrant	5420	1650	DF/Pm	10.8"	1.0	14'	To N Prop. Line	14'	14'	14'	25%	Min. Asym.	Average	Suppressed	Straight	NAD	-	Base is app. 4.5' SW of Hub # 407.	Significant	Fair	Viable	Potential to retain with Tree Protection Measures
Subject property	Northeast Quadrant	5422		DF/Pm	10.8"	1.0	12'	12'	12'	12'	12'	55%	Gen. Sym.	Average	Regenerating - Average	Straight	NAD	-		Significant	Fair	Viable	Potential to retain with Tree Protection Measures
Subject property	Northeast Quadrant	5425	1641	DF/Pm	20.9"	6.0	20'	20'	20'	20'	20'	75%	Maj. Asym.	Dense	Healthy	Straight	NAD	-		Significant	Good	Viable	Potential to retain with Tree Protection Measures
Subject property	Northeast Quadrant	5429	1639	DF/Pm	22.7"	7.0	20'	20'	20'	20'	20'	80%	Min. Asym.	Dense	Healthy	Straight	NAD	-		Significant	Good	Viable	Potential to retain with Tree Protection Measures
Subject property	Northeast Quadrant	5431	1636	DF/Pm	15.3"	3.0	16'	16'	16'	16'	16'	85%	Min. Asym.	Average	Average	Straight	NAD	-		Significant	Good	Viable	Potential to retain with Tree Protection Measures
Off Property	N of N prop. Line	5432	1635	DF/Pm	9.6"	0.0	12'	12'	8' S of N Prop. Line	12'	12'	45%	Min. Asym.	Average	Healthy	Straight	NAD	-	Canopy overhangs subject property by 10 feet.	Significant	Good	Viable	Potential to retain with Tree Protection Measures
Subject property	Northeast Quadrant	5434		RA/Ar	14.6"	2.0	14'	14'	14'	14'	14'	65%	Min. Asym.	Average	Average	Typical	NAD			Significant	Fair	Viable	Potential to retain with Tree Protection Measures

1	2	3A	3B	4	6	7	8 -- LIMITS OF DISTURBANCE				9	10	11	12	13	14	15	16	17	18	19	20
							North	South	East	West												
Subject property	Northeast Quadrant	5435	1654	DF/Pm	14.8"	3.0	14'	14'	14'	14'	40%	Gen. Sym.	Dense	Healthy	Leans NE, self-correcting	NAD	-	Deformed bark. Early Bark Beetle infestation.	Significant	Fair	Viable	Potential to retain with Tree Protection Measures
Subject property	Northeast Quadrant	5437	1655	PM/Am	16.0"	4.0	20'	20'	20'	20'	50%	Min. Asym.	Fusarium Wilt	Average	Leans E, Typical	NAD	-		Significant	Fair	Viable	Potential to retain with Tree Protection Measures
Subject	Northeast Quadrant	5438		RA/Ar	20.7"	0.0	18'	n/a	n/a	n/a	75+%	Maj. Asym.	Spars e	Dead	Center rot	Base rot	Root Rot	Carpenter Ant infestation. Woodpecker activity. Fungal infection in trunk.	Significant	Dying	Non-viable	Remove
Subject property	Northeast Quadrant	5440		EH/la	6.9"	1.0	12'	12'	12'	12'	98%	Min. Asym.	Average	Average	fork at base	NAD	-	Trunk diameters are 5.8 & 3.7 inches = single trunk of 6.9 inches.	Significant	Fair	Viable	Potential to retain with Tree Protection Measures
Subject	Northeast Quadrant	5441		RA/Ar	15.5"	0.0	24'	n/a	n/a	n/a	45%	Maj. Asym.	Spars e	Dead	Center rot	Base rot	Root Rot	Trunk diameters are 14.3 & 6.1 = a single trunk of 15.5 inches. Carpenter Ant infestation. Woodpecker activity.	Significant	Dying	Non-viable	Remove
Off Property	N of N prop. Line	5445	1653	DF/Pm	29.0"	0.0	20'	20'	20'	20'	65%	Min. Asym.	Dense	Dead	Straight	NAD	-	Canopy overhangs subject property by 6 feet.	Significant	Fair	Viable	Potential to retain with Tree Protection Measures
Subject property	Northeast Quadrant	5448		DF/Pm	15.9"	3.0	16'	16'	16'	16'	45%	Min. Asym.	Average	Average	Straight	NAD	-		Significant	Fair	Viable	Potential to retain with Tree Protection Measures

1	2	3A	3B	4	6	7	8 -- LIMITS OF DISTURBANCE				9	10	11	12	13	14	15	16	17	18	19	20
							North	South	East	West												
PROPERTY	TREE LOCATION	TREE #	Other Tag #	SPECIES	DBH	TREE CREDIT	DRIP LINE			LCR	SYMMETRY	FOLIAGE	CROWN CONDITION	TRUNK	ROOT COLLAR	ROOTS	COMMENTS	SIGNIFICANCE	CURRENT HEALTH RATING	VIABILITY	RECOMMENDATION	
Subject property	Northeast Quadrant	5449	1657	DF/Pm	7.8"	0.0	9'	n/a	n/a	n/a	n/a	15%	Maj. Asym.	Sparsely	Broken off	Bowed	Probable Base Rot	Probable Root Rot	Significant	Poor	Non-viable	Remove
Subject property	Northeast Quadrant	5450	1649	DF/Pm	20.7"	6.0	22'	22'	22'	22'	60%	Gen. Sym.	Dense	Healthy	Straight	NAD	-	Significant	Very good	Viable	Potential to retain with Tree Protection Measures	
Subject property	Northeast Quadrant	5452	1644	DF/Pm	10.1"	1.0	13'	n/a	n/a	n/a	45%	Maj. Asym.	Average	Suppressed	Straight	NAD	-	Significant	Good	Viable	Potential to retain with Tree Protection Measures	
Subject property	Northeast Quadrant		5453	DF/Pm	5.8"	0.5	8'	n/a	n/a	n/a	35%	Maj. Asym.	Thin	Suppressed	Leans W, Center Rot	Base rot	Probable Root Rot	Kink at 70% with decay--it appears compartmentalized.	Not Significant	Very good	Viable	Potential to retain with Tree Protection Measures
Subject property	Northeast Quadrant	5454	1645	DF/Pm	12.2"	0.0	8'	n/a	n/a	n/a	40%	Maj. Asym.	Thin	Suppressed	Center rot	Base rot	-	Significant	Poor	Non-viable	Remove	
Subject property	Northeast Quadrant	5455	1646	DF/Pm	21.5"	6.0	12'	12'	12'	12'	40%	Maj. Asym.	Average	Regenerating - Average	Straight	NAD	-	Significant	Fair	Viable	Potential to retain with Tree Protection Measures	
Subject property	Northeast Quadrant	5456	1647	DF/Pm	25.0"	8.0	24'	24'	24'	24'	80%	Maj. Asym.	Dense	Average	Slight Lean SW	NAD	-	Significant	Good	Viable	Potential to retain with Tree Protection Measures	

1	2	3A	3B	4	5	6	7	8 -- LIMITS OF DISTURBANCE				9	10	11	12	13	14	15	16	17	18	19	20
								North	South	East	West												
Subject property	Northeast Quadrant	5458	1648	DF/Pm	26.0"	8.0	18'	18'	18'	18'	65%	Maj. Asym.	Average	Average	Straight	NAD	-	By wood pile and trash cans.	Significant	Good	Viability	Potential to retain with Tree Protection Measures	
Subject property	Northeast Quadrant	5459		BLM/Am	6.7"	1.0	14'	14'	14'	14'	85%	Gen. Sym.	GBS/GSE	Healthy	Straight	Partially Exposed	-		Significant	Very good	Viability	Potential to retain with Tree Protection Measures	
Subject property	Northeast Quadrant	5460	1638	EH/la	12.9"	2.0	17'	17'	17'	17'	98%	Min. Asym.	Dense	Healthy	fork at base	NAD	Root Rot	Trunk diameters are 9.3" & 8.9" = single trunk tree of 12.9".	Significant	Good	Viability	Potential to retain with Tree Protection Measures	
Subject property	Northeast Quadrant	5461		EH/la	6.2"	1.0	12'	12'	12'	12'	96%	Min. Asym.	Average	Average	Kink at 9'	NAD	-		Significant	Fair	Viability	Potential to retain with Tree Protection Measures	
Subject property	Northeast Quadrant	5462	1637	PM/Am	21.8"	0.0	18'	18'	18'	18'	65%	Maj. Asym.	Fusarium Wilt, Necrosis	Average	Leans W, Center Rot	Base rot	Probable Root Rot	Open wound east side base up 1 foot with extensive decay.	Significant	Poor	Non-viability	Remove	
Off Property	N of N prop. Line	5464	1643	PM/Am	9.5"	0.0	12'	n/a	n/a	n/a	12%	Maj. Asym.	Heavy Fusarium Wilt	Dying	Leans NE, Center Rot	Base rot	Root Rot	Natrassia cankers. Canopy overhangs subject property by 5 feet.	Significant	Dying	Non-viability	Remove	
Subject property	Northeast Quadrant	5469		WRC/Tp	9.5"	1.0	12'	12'	12'	12'	60%	Maj. Asym.	Average	Average	Straight	NAD	-		Significant	Good	Viability	Potential to retain with Tree Protection Measures	
Subject	Northeast Quadrant	5470	1583	WRC/Tp	18.3"	5.0	16'	16'	16'	16'	94%	Min. Asym.	Average	Average	Straight	NAD	-		Significant	Good	Viability	Potential to retain with Tree Protection	

1	2	3A	3B	4	6	7	8 -- LIMITS OF DISTURBANCE				9	10	11	12	13	14	15	16	17	18	19	20
							North	South	East	West												
Subject property	Northeast Quadrant	5471	1582	DF/Pm	18.7"	5.0	16'	16'	16'	16'	65%	Gen. Sym.	Average	Healthy	Serpentine	NAD	-	Bark Beetle infestation.	Significant	Good	Viable	Potential to retain with Tree Protection Measures
Subject property	Northeast Quadrant	5472		DF/Pm	9.4"	0.0	7'	n/a	n/a	n/a	15%	Min. Asym.	Thin	Suppressed	Leans NE, Center Rot	Base rot	Root Rot		Significant	Poor	Non-viable	Remove
Subject property	Northeast Quadrant	5473	1584	WRC/Tp	12.3"	2.0	12'	12'	12'	12'	80%	Min. Asym.	Average	Average	Bowed	Partially Exposed	-		Significant	Fair	Viable	Potential to retain with Tree Protection Measures
Subject property	Northeast Quadrant	5475	1588	WRC/Tp	27.2"	9.0	18'	18'	18'	18'	98%	Gen. Sym.	Dense	Healthy	Straight	NAD	Surface		Significant	Very good	Viable	Potential to retain with Tree Protection Measures
Subject property	Northeast Quadrant	5476	1386	WRC/Tp	21.3"	0.0	17'	17'	17'	17'	90%	Maj. Asym.	Average	Weak	Center rot	Base rot	Root Rot	Fungal Fruiting bodies on trunk.	Significant	Poor	Non-viable	Remove
Subject property	Northeast Quadrant	5478	1589	WRC/Tp	9.3"	1.0	13'	13'	13'	13'	60%	Maj. Asym.	Thin	Average	Slightly Serpentine	Partially Exposed	-		Significant	Fair	Viable	Potential to retain with Tree Protection Measures

1	2	3A	3B	4	6	7	8 -- LIMITS OF DISTURBANCE				9	10	11	12	13	14	15	16	17	18	19	20
							North	South	East	West												
Subject property	Northeast Quadrant	5479	1593	WRC/Tp	26.8"	9.0	18'	18'	18'	18'	94%	Maj. Asym.	Dense	Healthy	Straight	NAD	-	Significant	Very good	Viability	Potential to retain with Tree Protection Measures	
Subject property	Northeast Quadrant	5480	1594	PDW/Cn	9.8"	1.0	15'	15'	15'	15'	90%	Maj. Asym.	Average	Regenerating - Average	Lean, self-corrected	Exposed	Surface	Significant	Fair	Viability	Potential to retain with Tree Protection Measures	
Subject property	Northeast Quadrant	5481	1592	DF/Pm	33.7"	12.0	26'	26'	26'	26'	50%	Min. Asym.	Dense	Regenerating - Weak	Straight	NAD	-	Significant	Good	Viability	Potential to retain with Tree Protection Measures	
Subject	Northeast Quadrant	5482	1595	DF/Pm	8.9"	0.0	10'	10'	10'	10'	25%	Maj. Asym.	Thin	Suppressed	Center rot	Base rot	Root Rot	Significant	Poor	Non-viability	Remove	
Subject property	Northeast Quadrant	5483	1569	PM/Am	11.0"	1.0	10'	10'	10'	10'	15%	Maj. Asym.	Fusarium Wilt	Weak	Bowed	Base rot	Root Rot	Significant	Fair	Viability	Potential to retain with Tree Protection Measures	
Subject	Northeast Quadrant	5484	1591	PM/Am	16.0"	0.0	0'	n/a	n/a	n/a	0%	n/a	none	Broken off	Bowed	NAD		Significant	Dead	Non-viability	Remove	
Subject property	Northeast Quadrant	5485	1590	DF/Pm	12.5"	0.0	14'	n/a	n/a	n/a	55%	Min. Asym.	Average	Weak	Center rot	Base rot	Root Rot	Significant	Poor	Non-viability	Remove	

1	2	3A	3B	4	6	7	8 -- LIMITS OF DISTURBANCE				9	10	11	12	13	14	15	16	17	18	19	20
							North	South	East	West												
Subject property	Northeast Quadrant	5486	1580	DF/Pm	9.5"	1.0	14'	14'	14'	14'	65%	Min. Asym.	Thin	Regenerating - Average	Straight	NAD	-	Early Bark Beetle infestation.	Significant	Fair	Viable	Potential to retain with Tree Protection Measures
Off Property	North of North Prop. Line	5487		RA/Ar	11.9"	0.0	16'	16'	16'	16'	65%	Min. Asym.	Average	Average	Typical	NAD	-		Significant	Fair	Viable	Potential to retain with Tree Protection Measures
Subject	Northeast Quadrant	5488	1581	DF/Pm	10.0"	0.0	12'	12'	12'	12'	25%	Gen. Sym.	Thin	Regenerating - Average	Center rot	Base rot	Root Rot	Early Bark Beetle infestation.	Significant	Poor	Non-viable	Remove
Subject property	Northeast Quadrant	5490	1601	WRC/ Tp	14.2"	3.0	12'	12'	12'	12'	85%	Min. Asym.	Dense	Healthy	Slightly Serpentine	NAD	-		Significant	Very good	Viable	Potential to retain with Tree Protection Measures
Subject property	Northeast Quadrant	5491	1602	WRC/ Tp	8.5"	1.0	10'	10'	10'	10'	90%	Min. Asym.	Dense	Healthy	Straight	NAD	-		Significant	Good	Viable	Potential to retain with Tree Protection Measures
Subject property	Northeast Quadrant	5492		WRC/ Tp	9.7"	1.0	9'	9'	9'	9'	85%	Min. Asym.	Dense	Healthy	Straight	NAD	-		Significant	Good	Viable	Potential to retain with Tree Protection Measures
Subject property	Northeast Quadrant	5493	1598	PM/Am	18.7"	5.0	30'	30'	30'	30'	25%	Min. Asym.	Dense	Healthy	Center rot	Base rot	Probable Root Rot	Open wound NE side base up 5 feet with decay.	Significant	Fair	Viable	Potential to retain with Tree Protection Measures

1	2	3A	3B	4	6	7	8 -- LIMITS OF DISTURBANCE				9	10	11	12	13	14	15	16	17	18	19	20
							North	South	East	West												
Subject property	Northeast Quadrant	5494	1597	PM/Am	27.0"	9.0	36'	36'	36'	36'	45%	Min. Asym.	Dense	Healthy	Bowed	NAD	-	Open wound north side base up 18 inches.	Significant	Very good	Viable	Potential to retain with Tree Protection Measures
Subject property	Northeast Quadrant	5495	1630	DF/Pm	19.0"	5.0	24'	24'	24'	24'	85%	Min. Asym.	Dense	Healthy	Straight	NAD	-		Significant	Very good	Viable	Potential to retain with Tree Protection Measures
Subject property	Northeast Quadrant	5496	1599	DF/Pm	9.2"	0.0	10'	n/a	n/a	n/a	25%	Maj. Asym.	Chlorotic, Thin	Suppressed	Center rot	Base rot	Root Rot		Significant	Poor	Non-viable	Remove
Subject property	Northeast Quadrant	5497	1579	DF/Pm	14.3"	0.0	14'	14'	14'	14'	90%	Min. Asym.	Average	Overtopped	Center rot	Base rot	Root Rot		Significant	Poor	Non-viable	Remove
Subject property	NW Quadrant	5499	1577	DF/Pm	32.6"	12.0	28'	28'	28'	28'	85%	Gen. Sym.	Dense	Healthy	Straight	Partially Exposed	-	Base is 4 feet east of driveway.	Significant	Very good	Viable	Potential to retain with Tree Protection Measures
Subject property	NW Quadrant	5514		WRC/Tp	19.9"	5.0	18'	18'	18'	18'	97%	Gen. Sym.	Average	Average	Bowed	NAD	-		Significant	Very good	Viable	Potential to retain with Tree Protection Measures
Subject property	NW Quadrant	5515		RA/Ar	12.5"	0.0	16'	n/a	n/a	n/a	35%	Gen. Sym.	Thin	Dead	Leans N	Partially Exposed	-		Significant	Dying	Non-viable	Remove

1	2	3A	3B	4	6	7	8 -- LIMITS OF DISTURBANCE				9	10	11	12	13	14	15	16	17	18	19	20	
							North	South	East	West													LCR
Subject property	NW Quadrant	5516		RA/Ar	10.8"	0.0	0'	n/a	n/a	n/a	n/a	0%	n/a	none	Broken off	Center rot	Base rot	Root Rot	Carpenter ant infestation. Fungal infection in trunk.	Significant	Dead	Non-viable	Remove
Subject property	NW Quadrant	5519	1573	WRC/ Tp	25.2"	8.0	22'	22'	22'	22'	96%	Gen. Sym.	Dense	Healthy	Straight	NAD	-		Significant	Good	Viable	Potential to retain with Tree Protection Measures	
Subject property	NW Quadrant	5520	1574	DF/Pm	23.8"	7.0	22'	22'	22'	22'	50%	Gen. Sym.	Average	Average	Straight	NAD	Fill on 40%	Early Bark Beetle infestation.	Significant	Very good	Viable	Potential to retain with Tree Protection Measures	
Subject property	NW Quadrant	5521	1575	DF/Pm	14.1"	3.0	12'	12'	12'	12'	65%	Maj. Asym.	Dense	Overtopped	Straight	NAD	Fill on 40%		Significant	Fair	Viable	Potential to retain with Tree Protection Measures	
Subject property	NW Quadrant	5524	1576	WRC/ Tp	13.2"	2.0	14'	14'	14'	14'	98%	Min. Asym.	Dense	Healthy	Straight	NAD	-		Significant	Very good	Viable	Potential to retain with Tree Protection Measures	
Subject property	NW Quadrant	5525		WRC/ Tp	12.1"	2.0	9'	9'	9'	9'	90%	Min. Asym.	Dense	Healthy	Serpentine	Partially Exposed	Previous Failure	Harp tree--the trunk is horizontal on the ground for 16 feet then curves south.	Significant	Good	Viable	Potential to retain with Tree Protection Measures	
Subject property	NW Quadrant	5531		WRC/ Tp	22.6"	7.0	16'	North Prop. Line	16'	16'	98%	Gen. Sym.	Dense	Healthy	Straight	NAD	-		Significant	Excellent	Viable	Potential to retain with Tree Protection Measures	

1	2	3A	3B	4	6	7	8 -- LIMITS OF DISTURBANCE				9	10	11	12	13	14	15	16	17	18	19	20
							North	South	East	West												
PROPERTY	TREE LOCATION	TREE #	Other Tag #	SPECIES	DBH	TREE CREDIT	DRIP LINE			LCR	SYMMETRY	FOLIAGE	CROWN CONDITION	TRUNK	ROOT COLLAR	ROOTS	COMMENTS	SIGNIFICANCE	CURRENT HEALTH RATING	VIABILITY	RECOMMENDATION	
Subject property	NW Quadrant	5541	1484	WRC/ Tp	21.3"	6.0	16'	16'	16'	98%	Gen. Sym.	Average	Average	Straight	NAD	-	Unusual white mycelium on bark.	Significant	Fair	Viable	Potential to retain with Tree Protection Measures	
Subject property	NW Quadrant	5543	1486	BLM/Am	12.7"	0.0	16'	n/a	n/a	5%	Gen. Sym.	Spars e	Dead	Straight	Base rot	Root Rot		Significant	Dying	Non-viable	Remove	
Subject property	NW Quadrant	5544	1485	BLM/Am	27.2"	9.0	42'	42'	42'	70%	Min. Asym.	ABS/ ASE	Healthy	Typical	Partially Exposed	-	Vertical crack on west side from 3 to 18 feet--it appears compartmentalized.	Significant	Good	Viable	Potential to retain with Tree Protection Measures	
Subject property	NW Quadrant	5545		WRC/ Tp	21.7"	6.0	18'	18'	18'	98%	Gen. Sym.	Dens e	Healthy	Straight	NAD	-		Significant	Excellent	Viable	Potential to retain with Tree Protection Measures	
Subject property	NW Quadrant	5548		WRC/ Tp	12.7"	2.0	18'	18'	18'	98%	Gen. Sym.	Dens e	Healthy	Straight	Bowed	-	Trunk diameters measure 11.6" & 5.2" = single trunk of 12.7 inches.	Significant	Excellent	Viable	Potential to retain with Tree Protection Measures	
Subject property	NW Quadrant	5550		DF/Pm	18.9"	5.0	22'	22'	22'	80%	Maj. Asym.	Average	Regenerating - Average	Slightly Serpentine	NAD	-		Significant	Fair	Viable	Potential to retain with Tree Protection Measures	
Subject property	NW Quadrant	5551	1479	DF/Pm	20.1"	6.0	22'	22'	22'	80%	Maj. Asym.	Average	Regenerating - Average	Slightly Serpentine	NAD	-		Significant	Fair	Viable	Potential to retain with Tree Protection Measures	

1	2	3A	3B	4	6	7	8 -- LIMITS OF DISTURBANCE				9	10	11	12	13	14	15	16	17	18	19	20
							North	South	East	West												
Subject property	SE Quadrant	5553	1480	DF/Pm	38.9"	34'	34'	34'	34'	64%	Min. Asym.	Average	Average	Straight	n	-		Significant	Good	Viable	Potential to retain with Tree Protection Measures	
Subject property	NW Quadrant	5555		WRC/Tp	20.6"	6.0	20'	20'	20'	98%	Min. Asym.	Dense	Healthy	Straight	NAD	-		Significant	Excellent	Viable	Potential to retain with Tree Protection Measures	
Subject property	NW Quadrant	5556		PM/Am	28.1"	10.0	24'	24'	24'	30%	Maj. Asym.	Average	Average	Format 12' & 24'	Unusual Butt Swell	-		Significant	Fair	Viable	Potential to retain with Tree Protection Measures	
Subject property	SE Quadrant	5632	1669	BLM/Am	16.1"	4.0	24'	24'	24'	80%	Maj. Asym.	Average	Regenerating - Average	Slight Lean N	NAD	-		Significant	Fair	Viable	Potential to retain with Tree Protection Measures	
Subject property	SE Quadrant	5633	1664	PM/Am	10.3"	1.0	13'	13'	13'	40%	Min. Asym.	Average	Average	Leans SW, Typical	bowed	-	Fusarium Wilt in canopy. Some necrosis. Dead branches in canopy.	Significant	Fair	Viable	Potential to retain with Tree Protection Measures	
Subject property	SE Quadrant	5634	1663	PM/Am	12.0"	2.0	22'	22'	22'	45%	Maj. Asym.	Average	Average	Leans S, Center Rot	Base rot	Probable Root Rot	Open wound south side base up 2 feet with decay. Dead branches in canopy. Some Natrassia cankers. Decay appears compartmentalized. Fusarium Wilt in canopy. Some necrosis. Dead branches in canopy.	Significant	Fair	Viable	Potential to retain with Tree Protection Measures	
Subject property	SE Quadrant	5635		PM/Am	6.9"	0.0	8'	n/a	n/a	25%	Min. Asym.	Average	Average	Natrassia Cankers, Center Rot	Base rot	Probable Root Rot	Fusarium Wilt in canopy. Some necrosis. Dead branches in canopy.	Significant	Poor	Non-viable	Remove	

1	2	3A	3B	4	6	7	8 -- LIMITS OF DISTURBANCE				9	10	11	12	13	14	15	16	17	18	19	20
							North	South	East	West												
Subject property	SE Quadrant	5636	1668	DF/Pm	15.7"	3.0	16'	16'	16'	16'	25%	Min. Asym.	Average	Broken off	Slight Lean NW	Probable Base Rot	Probable Root Rot		Significant	Fair	Viable	Potential to retain with Tree Protection Measures
Subject property	SE Quadrant	5637		PM/A m	15.2"		18'	18'	18'	18'	30%	Min. Asym.	Average	Average	slight lean	NAD	-		Significant	Fair	Viable	Potential to retain with Tree Protection Measures
Subject	SE Quadrant	5638		DF/Pm	7.4"	0.0	8'	8'	8'	8'	15%	Maj. Asym.	Thin	Suppressed	Leans E, Center Rot	Base rot	Root Rot	Carpenter Ant infestation. Woodpecker activity. Fungal infection in trunk.	Significant	Dying	Non-viable	Remove
Subject property	SE Quadrant	5639	1676	BLM/A m	14.8"	3.0	20'	20'	20'	20'	75%	Maj. Asym.	ABS/ ASE	Average	Leans N	Unusual Butt Swell	-		Significant	Fair	Viable	Potential to retain with Tree Protection Measures
Subject property	SE Quadrant	5640	1662	BLM/A m	16.2"	4.0	28'	28'	28'	28'	80%	Min. Asym.	GBS/ GSE	Healthy	Leans SE, Fork at 2'	Partially Exposed	-	Trunk diameters are 14.1 & 8.0 inches = single trunk of 16.2 inches.	Significant	Good	Viable	Potential to retain with Tree Protection Measures
Subject property	NW Quadrant	5693		DF/Pm	19.0"	5.0	20'	20'	20'	20'	55%	Maj. Asym.	Average	Broken off	Straight	NAD	Fill on 40%		Significant	Good	Viable	Potential to retain with Tree Protection Measures
Subject property	NW Quadrant	5694		PM/A m	12.8"	0.0	14'	n/a	n/a	n/a	20%	Min. Asym.	Fusarium Wilt, Necrosis	Weak	Fork at 25', Leans W	Base rot	Root Rot	Trunks measure 11.8" & 5.0" = single trunk of 12.8". East trunk dead with decay into the main trunk.	Significant	Poor	Non-viable	Remove
Subject	NW Quadrant	5695		DF/Pm	12.1"	0.0	13'	n/a	n/a	n/a	75%	Maj. Asym.	Short Shoot Elongation, Chlorotic	Weak	Center rot	Base rot	Fill on 40%		Significant	Poor	Non-viable	Remove

1	2	3A	3B	4	6	7	8 -- LIMITS OF DISTURBANCE				9	10	11	12	13	14	15	16	17	18	19	20	
							North	South	East	West													
PROPERTY	TREE LOCATION	TREE #	Other Tag #	SPECIES	DBH	TREE CREDIT	DRIP LINE	North	South	East	West	LCR	SYMMETRY	FOLIAGE	CROWN CONDITION	TRUNK	ROOT COLLAR	ROOTS	COMMENTS	SIGNIFICANCE	CURRENT HEALTH RATING	VIABILITY	RECOMMENDATION
Subject property	NW Quadrant	5696	1571	DF/Pm	23.7"	6.0	22'	22'	22'	22'	22'	65%	Gen. Sym.	Thin	Average	Bowed	NAD	-		Significant	Good	Viable	Potential to retain with Tree Protection Measures
Subject property	NW Quadrant	5699	1477	BCw/Pt	28.0"	9.0	30'	n/a	n/a	n/a	n/a	35%	Min. Asym.	Average	Average	Serpentine	Partially Exposed	-	Calloused wound on the north side from 2 to 4 feet with decay. Tank is kinked at 34 feet.	Significant	Fair	Viable	Potential to retain with Tree Protection Measures
Subject property	NW Quadrant	5700	1476	BCw/Pt	22.8"	0.0	36'	n/a	n/a	n/a	n/a	40%	Maj. Asym.	Dense	Healthy	Typical	Partially Exposed	Probable Root Rot	Fungal infection in trunk.	Significant	Poor	Non-viable	Remove
Subject	NW Quadrant	5701	1475	BLM/Am	11.8"	0.0	16'	n/a	n/a	n/a	n/a	80%	Maj. Asym.	ABS/ASE	Dead	Straight	Probable Base Rot	Probable Root Rot	Multiple structural cracks base up 5 feet.	Significant	Poor	Non-viable	Remove
Subject property	NW Quadrant	5702	1576	DF/Pm	17.9"	4.0	16'	16'	16'	16'	16'	75%	Min. Asym.	Average	Overtopped	Straight	NAD	Restricted	Base is app. 6 feet west of driveway. Early Bark Beetle infestation.	Significant	Fair	Viable	Potential to retain with Tree Protection Measures
Subject	NW Quadrant	5703	1569	PM/Am	26.7"	0.0	22'	n/a	n/a	n/a	n/a	20%	Min. Asym.	Fusarium Wilt, Necrosis	Dying	Leans S, Fork at 18'	NAD	Restricted	Dead branches in canopy.	Significant	Dying	Non-viable	Remove
Subject property	NW Quadrant	5704		PM/Am	13.9"	0.0	6'	n/a	n/a	n/a	n/a	10%	Maj. Asym.	Fusarium Wilt, Necrosis	Dead	Center rot	Base rot	Restricted	Rot pockets in branch collar wounds.	Significant	Dying	Non-viable	Remove
Subject property	NW Quadrant	5705	1572	DF/Pm	17.7"	4.0	16'	16'	16'	16'	16'	40%	Min. Asym.	Average	Regenerating - Average	Kink at 80%	NAD	-		Significant	Fair	Viable	Potential to retain with Tree Protection Measures

1	2	3A	3B	4	6	7	8 -- LIMITS OF DISTURBANCE				9	10	11	12	13	14	15	16	17	18	19	20
							North	South	East	West												
Subject property	SW Quadrant	5706	156 ₂	BCw/Pt	24.2"	0.0	26'	n/a	n/a	n/a	n/a	25%	Maj. Asym.	Short Shoot Elongation, Chlorotic	Dead	Bowed	Partially Exposed	-	Significant	Poor	Non-viable	Remove
Subject property	SW Quadrant	5707	156 ₀	BCw/Pt	26.3"	9.0	32'	n/a	n/a	n/a	n/a	40%	Min. Asym.	Average	Average	Slight lean SE, Typical	English Ivy	-	Significant	Fair	Viable	Potential to retain with Tree Protection Measures
Subject property	SW Quadrant	5708		PM/Am	7.1"	0.0	8'	n/a	n/a	n/a	n/a	12%	Maj. Asym.	Fusarium Wilt, Necrosis	Weak	Typical	English Ivy	English Ivy	Significant	Poor	Non-viable	Potential to retain with Tree Protection Measures
Subject property	SW Quadrant	5709	156 ₁	DF/Pm	14.1"	3.0	16'	16'	16'	16'	16'	70%	Gen. Sym.	Average	Average	Slightly Serpentine	English Ivy	English Ivy	Significant	Fair	Viable	Potential to retain with Tree Protection Measures
Subject property	SW Quadrant	5710		BCw/Pt	20.3"		28'	28'	28'	28'	28'	64%	Min. Asym.	Average	Average	Typical	NAD	-	Significant	Fair	Viable	Potential to retain with Tree Protection Measures
Subject property	SE Quadrant	5711	116 ₂	BCw/Pt	35.7"	13.0	30'	30'	30'	30'	30'	65%	Min. Asym.	ABS/ASE	Average	Straight	NAD	Surface	Significant	Fair	Viable	Potential to retain with Tree Protection Measures
Subject property	SE Quadrant	5712	116 ₁	DF/Pm	7.6"	1.0	10'	10'	10'	10'	10'	60%	Maj. Asym.	Thin	Average	Slight Lean N	NAD		Significant	Fair	Viable	Potential to retain with Tree Protection Measures

1	2	3A	3B	4	6	7	8 -- LIMITS OF DISTURBANCE				9	10	11	12	13	14	15	16	17	18	19	20
							North	South	East	West												
Subject property	SE Quadrant	5713		RA/Ar	11.1"	1.0	18'	18'	18'	18'	80%	Min. Asym.	ABS/ASE	Average	Typical	Partially Exposed	-		Significant	Fair	Viability	Potential to retain with Tree Protection Measures
Subject property	SE Quadrant	5714	1160	PM/Am	9.4"	1.0	12'	12'	12'	12'	30%	Min. Asym.	Average	Average	Leans NE, Typical	NAD	-		Significant	Fair	Viability	Potential to retain with Tree Protection Measures
Subject property	SE Quadrant	5715	1159	DF/Pm	14.1"	3.0	16'	16'	16'	16'	80%	kg	Average	Average	Straight	NAD	-		Significant	Good	Viability	Potential to retain with Tree Protection Measures
Subject	SE Quadrant	5716		DF/Pm	10.6"	0.0	0'	n/a	n/a	n/a	0%	n/a	none	Dead	Center rot	Base rot	Root Rot		Significant	Dead	Non-viability	Remove
Subject property	SE Quadrant	5736	1131	WRC/ Tp	16.8"	4.0	13'	13'	13'	13'	98%	Min. Asym.	Dense	Healthy	Straight	NAD	Restricted	Base is app. 6' W of house.	Significant	Excellent	Viability	Potential to retain with Tree Protection Measures
Subject property	SE Quadrant	5737		RA/Ar	6.6"	1.0	14'	14'	14'	14'	85%	Maj. Asym.	Average	Average	Fork at 7', Leans E	NAD	-		Significant	Fair	Viability	Potential to retain with Tree Protection Measures
Subject property	SE Quadrant	5738		RA/Ar	8.2"	1.0	16'	16'	16'	16'	85%	Min. Asym.	Average	Average	Bowed	NAD	-	Calloused wound SW side from 3.5 to 4.5 feet with decay. Appears compartmentalized.	Significant	Fair	Viability	Potential to retain with Tree Protection Measures
Subject	SE Quadrant	5739	1129	PM/Am	9.7"	0.0	8'	n/a	n/a	n/a	8%	Maj. Asym.	Fusarium Wilt, Necrosis	Weak	Center rot	Base rot	Root Rot		Significant	Dying	Non-viability	Remove

1	2	3A	3B	4	6	7	8 -- LIMITS OF DISTURBANCE				9	10	11	12	13	14	15	16	17	18	19	20	
							North	South	East	West													LCR
Subject	SE Quadrant	5740	1130	PM/Am	13.3"	0.0	7'	n/a	n/a	n/a	n/a	12%	Maj. Asym.	Fusarium Wilt, Necrosis	Dead	Leans W, Fork at 2'	Base rot	Root Rot	Trunk diameters are 10.1 & 8.6 inches = single trunk tree of 13.3". North trunk is dead and tagged as 6122.	Significant	Dying	Non-viable	Remove
Subject property	SE Quadrant	5743	1154	DF/Pm	22.7"	7.0	22'	96'	96'	96'	96'	99.6%	Gen. Sym.	Dense	Healthy	Straight	NAD	-		Significant	Very good	Viable	Potential to retain with Tree Protection Measures
Subject property	SE Quadrant	5745	1157	DF/Pm	14.1"	3.0	16'	16'	16'	16'	16'	80%	Gen. Sym.	Average	Healthy	Straight	NAD	-		Significant	Good	Viable	Potential to retain with Tree Protection Measures
Subject property	SE Quadrant	5746	1158	PM/Am	7.5"	1.0	16'	16'	16'	16'	16'	70%	Min. Asym.	Average	Average	Leans W	NAD			Significant	Good	Viable	Potential to retain with Tree Protection Measures
Subject property	SE Quadrant	5747	1155	PM/Am	12.4"	2.0	16'	45'	45'	45'	45'	45%	Min. Asym.	Average	Average	Serpentine	NAD	-	Some Fusarium wilt and necrosis.	Significant	Fair	Viable	Potential to retain with Tree Protection Measures
Subject property	SE Quadrant	5748	1156	PM/Am	7.2"	1.0	12'	60'	60'	60'	60'	60%	Min. Asym.	Average	Average	Leans N, Typical	NAD	-		Significant	Fair	Viable	Potential to retain with Tree Protection Measures
Subject property	SE Quadrant	5749	1158	DF/Pm	12.1"	2.0	18'	85'	85'	85'	85'	85%	Gen. Sym.	Dense	Healthy	Straight	NAD	-		Significant	Very good	Viable	Potential to retain with Tree Protection Measures

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							North	South	East	West													LCR
Subject property	SE Quadrant	5750	1151	DF/Pm	10.7"	1.0	13'	80'	80'	80'	80'	80%	Min. Asym.	Average	Average	Straight	NAD	-	Significant	Good	Viable	Potential to retain with Tree Protection Measures	
Subject property	SE Quadrant	5752	1150	DF/Pm	16.0"	4.0	18'	85'	85'	85'	85%	85%	Gen. Sym.	Dense	Healthy	Straight	NAD	-	Significant	Very good	Viable	Potential to retain with Tree Protection Measures	
Subject property	SE Quadrant	5753	1141	PM/Am	16.3"	4.0	16'	40'	40'	40'	40%	40%	Min. Asym.	Fusarium Wilt, Necrosis	Weak	Fork at 4.5', Leans N	NAD	-	Significant	Fair	Viable	Potential to retain with Tree Protection Measures	
Subject property	SE Quadrant	5754	1142	DF/Pm	17.3"	4.0	18'	85'	85'	85'	60%	60%	Min. Asym.	Dense	Healthy	Straight	NAD	-	Significant	Very good	Viable	Potential to retain with Tree Protection Measures	
Subject property	SE Quadrant	5755	1139	DF/Pm	9.6"	1.0	14'	80'	80'	80'	80%	80%	Maj. Asym.	ABS/ASE	Average	Straight	NAD	-	Overtopped by # 5757.	Significant	Fair	Viable	Potential to retain with Tree Protection Measures
Subject property	SE Quadrant	5756	1138	BCh/Pe	12.7"	2.0	22'	60'	60'	60'	60%	60%	Maj. Asym.	PBS/PSE	Weak	Fork at 55%	Flat on W side	-	Overtopped by # 5757.	Significant	Fair	Viable	Potential to retain with Tree Protection Measures
Subject property	SE Quadrant	5757	1137	DF/Pm	23.8"	7.0	24'	85'	85'	85'	85%	85%	Gen. Sym.	Dense	Healthy	Straight	NAD	-	Significant	Very good	Viable	Potential to retain with Tree Protection Measures	

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							North	South	East	West													
PROPERTY	TREE LOCATION	TREE #	Other Tag #	SPECIES	DBH	TREE CREDIT	DRIP LINE			LCR	SYMMETRY	FOLIAGE	CROWN CONDITION	TRUNK	ROOT COLLAR	ROOTS	COMMENTS	SIGNIFICANCE	CURRENT HEALTH RATING	VIABILITY	RECOMMENDATION		
Subject property	SE Quadrant	5758		BCh/Pe	7.0"	0.0	0'	n/a	n/a	n/a	n/a	0%	n/a	none	Dead	Vertical crack, Center Rot	Baserot	Root Rot	Bark sloughing. Saprophytic fungal fruiting bodies up and down the trunk.	Significant	Dead	Non-viable	Remove
Subject	SE Quadrant	5759		BCh/Pe	7.1"	0.0	12'	n/a	n/a	n/a	n/a	15%	Maj. Asym.	PBS/PSE	Dead	Leans N	Possible Base Rot	-	Dead branches in canopy.	Significant	Dying	Non-viable	Remove
Subject property	SE Quadrant	5760	1136	C/Rp	13.3"	0.0	16'	n/a	n/a	n/a	n/a	35%	Maj. Asym.	PBS/PSE	Dead	Fork at 16'	Partially Exposed	-	SW trunk broken off and decaying.	Significant	Dying	Non-viable	Remove
Subject property	SE Quadrant	5761		PM/Am	6.4"	1.0	12'	12'	12'	12'	12'	45%	Min. Asym.	Average	Average	Typical	Exposed	-		Significant	Very good	Viable	Potential to retain with Tree Protection Measures
Subject	SE Quadrant	5762		PM/Am	11.2"	0.0	9'	n/a	n/a	n/a	n/a	20%	Maj. Asym.	Fusarium Wilt, Necrosis	Dying	Typical	Baserot	Root Rot	Structural cracks in lower trunk.	Significant	Dying	Non-viable	Remove
Subject property	SE Quadrant	5763		DF/Pm	20.6"	6.0	16'	16'	16'	16'	16'	98%	Gen. Sym.	Dense	Healthy	Straight	NAD	-	Early Bark Beetle infestation.	Significant	Excellent	Viable	Potential to retain with Tree Protection Measures
Subject	SE Quadrant	5764		PM/Am	10.9"	0.0	14'	14'	14'	14'	14'	25%	Maj. Asym.	Sparsely	Weak	Leans W, Typical	NAD	-		Significant	Dying	Non-viable	Remove
Subject	SE Quadrant	5765		PM/Am	9.6"	1.0	14'	14'	14'	14'	14'	30%	Min. Asym.	Thin	Weak	Leans	Possible Base Rot	Possible Root Rot	Natrassia cankers on lower trunk. Fusarium wilt in canopy.	Significant	Poor	Non-viable	Remove

1	2	3A	3B	4	6	7	8 -- LIMITS OF DISTURBANCE				9	10	11	12	13	14	15	16	17	18	19	20
							North	South	East	West												
Subject property	SE Quadrant	5766		DF/Pm	24.6"	11.0	20'	20'	20'	20'	96%	Gen. Sym.	Dense	Healthy	Straight	NAD	-	Tag on tree is 5732 and 5766 was written over it on the same tag.	Significant	Good	Viable	Potential to retain with Tree Protection Measures
Subject property	SW Quadrant	5795	1215	BCw/Pt	23.9"	7.0	40'	40'	40'	40'	60%	Min. Asym.	Average	Healthy	Typical	NAD	Restricted	Base is app. 5 feet south of the gravel driveway. Dead branches in canopy.	Significant	Fair	Viable	Potential to retain with Tree Protection Measures
Subject property	SW Quadrant	5797	1368	PM/Am	8.0"	0.0	0'	n/a	n/a	n/a	0%	n/a	none	Broken off	Center rot	Base rot	Root Rot	Trunk is broken off at 13 feet.	Significant	Dead	Non-viable	Remove
Subject property	SW Quadrant	5797	1382	BLM/Am	8.4"	1.0	16'	16'	16'	16'	60%	Min. Asym.	ABS/ASE	Average	Bowed	Exposed	-		Significant	Fair	Viable	Potential to retain with Tree Protection Measures
Subject	SW Quadrant	5798	1381	PM/Am	8.4"	0.0	14'	n/a	n/a	n/a	30%	Min. Asym.	PBS/PSE	Weak	Center rot	Base rot	Possible Root Rot	Fusarium Wilt in canopy. Some necrosis. Dead branches in canopy.	Significant	Poor	Non-viable	Remove
Subject property	SW Quadrant	5799	1388	DF/Pm	31.8"	11.0	34'	to the driveway	34'	34'	96%	Gen. Sym.	Dense	Healthy	Straight	NAD	Restricted	Base is app. 3 feet south of the gravel driveway and app. 26 feet east of Juanita Drive.	Significant	Very good	Viable	Potential to retain with Tree Protection Measures
Subject property	SW Quadrant	5800	1379	DF/Pm	27.7"	9.0	26'	to the driveway	26'	26'	94%	Gen. Sym.	Dense	Healthy	Straight	NAD	Restricted	Base is app. 5 feet south of gravel driveway and 13 feet east of Juanita Drive.	Significant	Very good	Viable	Potential to retain with Tree Protection Measures

1	2	3A	3B	4	6	7	8 -- LIMITS OF DISTURBANCE				9	10	11	12	13	14	15	16	17	18	19	20
							North	South	East	West												
PROPERTY	TREE LOCATION	TREE #	Other Tag #	SPECIES	DBH	TREE CREDIT	DRIP LINE				LCR	SYMMETRY	FOLIAGE	CROWN CONDITION	TRUNK	ROOT COLLAR	ROOTS	COMMENTS	SIGNIFICANCE	CURRENT HEALTH RATING	VIABILITY	RECOMMENDATION
Subject property	NW Quadrant	5802	1382	BLM/Am	12.3"	2.0	20'	20'	20'	20'	80%	Maj. Asym.	ABS/ASE	Average	Typical	NAD	Restricted	Hangers. Base is app. 6 feet east of ditch and app. 9 feet from the water meter.	Significant	Fair	Viable	Potential to retain with Tree Protection Measures
Subject property	NW Quadrant	5803	1385	DF/Pm	8.1"	0.0	12'	n/a	n/a	n/a	60%	Maj. Asym.	Thin	Average	Center rot	Base rot	Root Rot		Significant	Poor	Non-viable	Remove
Subject	NW Quadrant	5804	1386	PM/Am	17.2"	0.0	14'	n/a	n/a	n/a	12%	Min. Asym.	Fusarium Wilt, Necrosis	Weak	Leans w	Probable Base Rot	Probable Root Rot	Eastern trunk is dead with intern decay and structural fractures longitudinally.	Significant	Poor	Non-viable	Remove
Subject property	NW Quadrant	5805	1387	DF/Pm	26.6"	9.0	32'	32'	32'	32'	65%	Min. Asym.	Average	Regenerating - Healthy	Straight	NAD	-	Hanger. Storm damage.	Significant	Good	Viable	Potential to retain with Tree Protection Measures
Subject	NW Quadrant	5807	1459	BLM/Am	8.2"	0.0	10'	n/a	n/a	n/a	35%	Maj. Asym.	ABS/ASE	Dead	Center rot	Base rot	Root Rot	Carpenter Ant infestation.	Significant	Poor	Non-viable	Remove
Subject property	NW Quadrant	5808	1460	BLM/Am	9.0"	1.0	13'	13'	13'	13'	75%	Maj. Asym.	ABS/ASE	Average	Leans NE	Exposed	-		Significant	Fair	Viable	Potential to retain with Tree Protection Measures
Subject property	NW Quadrant	5809	1458	BCw/Pt	24.5"	8.0	36'	36'	36'	36'	35%	Gen. Sym.	Dense	Healthy	Typical	Partially Exposed	-		Significant	Fair	Viable	Potential to retain with Tree Protection Measures
Subject property	NW Quadrant	5810	1457	BLM/Am	13.0"	2.0	18'	18'	18'	18'	35%	Min. Asym.	PBS/PSE	Weak	Fork at 20', Leans SW	Partially Exposed	-	Dead branches in canopy.	Significant	Fair	Viable	Potential to retain with Tree Protection Measures

1	2	3A	3B	4	6	7	8 -- LIMITS OF DISTURBANCE				9	10	11	12	13	14	15	16	17	18	19	20	
							North	South	East	West													LCR
Subject property	NW Quadrant	5811	145 ₅	BLM/A m	13.0"	0.0	16'	n/a	n/a	n/a	n/a	25%	Maj. Asym.	PBS/ PSE	Weak	Leans SW, Typical	Partially Exposed	Surface	Dead branches in canopy.	Significant	Poor	Non-viable	Remove
Subject property	NW Quadrant	5812	145 ₄	BLM/A m	13.5"	2.0	16'	16'	16'	16'	45%	Min. Asym.	ABS/ ASE	Average	Slight Lean SW	Partially Exposed	Surface		Significant	Fair	Viable	Potential to retain with Tree Protection Measures	
Subject property	NW Quadrant	5813	145 ₃	BLM/A m	9.4"	0.0	12'	n/a	n/a	n/a	15%	Maj. Asym.	PBS/ PSE	Dying	Serpentine	Partially Exposed	-	Dead branches in canopy.	Significant	Poor	Non-viable	Remove	
Subject property	NW Quadrant	5814	139 ₃	BCw/P t	23.4"	7.0	28'	28'	28'	28'	15%	Min. Asym.	ABS/ ASE	Average	Leans NW	Partially Exposed	-		Significant	Fair	Viable	Potential to retain with Tree Protection Measures	
Subject property	NW Quadrant	5815		BLM/A m	11.7"	1.0	15'	15'	15'	15'	55%	Maj. Asym.	PBS/ PSE	Weak	Typical	Partially Exposed	-		Significant	Fair	Viable	Potential to retain with Tree Protection Measures	
Subject property	NW Quadrant	5816		BLM/A m	6.9"	0.0	9'	n/a	n/a	n/a	20%	Maj. Asym.	PBS/ PSE	Weak	Bowed	Partially Exposed	-		Significant	Poor	Non-viable	Remove	
Subject property	NW Quadrant	5817	139 ₂	DF/Pm	26.5"	9.0	28'	28'	28'	28'	70%	Gen. Sym.	Average	Average	Slightly Serpentine	NAD	-		Significant	Good	Viable	Potential to retain with Tree Protection Measures	

1	2	3A	3B	4	6	7	8 -- LIMITS OF DISTURBANCE				9	10	11	12	13	14	15	16	17	18	19	20	
							North	South	East	West													
PROPERTY	TREE LOCATION	TREE #	Other Tag #	SPECIES	DBH	TREE CREDIT	DRIP LINE			LCR	SYMMETRY	FOLIAGE	CROWN CONDITION	TRUNK	ROOT COLLAR	ROOTS	COMMENTS	SIGNIFICANCE	CURRENT HEALTH RATING	VIABILITY	RECOMMENDATION		
Subject property	NW Quadrant	5819	1438	BLM/A m	11.3"	0.0	16'	n/a	n/a	n/a	n/a	30%	Maj. Asym.	PBS/PSE	Weak	Fork at 36', Slight Lean W	Partially Exposed	-	Significant	Poor	Non-viable	Remove	
Subject property	NW Quadrant	5820	1394	BLM/A m	9.9"	1.0	16'	16'	16'	16'	16'	80%	Maj. Asym.	ABS/ASE	Average	Typical	Exposed	-	Significant	Good	Viable	Potential to retain with Tree Protection Measures	
Subject property	NW Quadrant	5820		BLM/A m	7.3"	0.0	14'	n/a	n/a	n/a	n/a	20%	Maj. Asym.	PBS/PSE	Dead	Typical	NAD	-	Dead branches in canopy.	Significant	Dying	Non-viable	Remove
Subject property	NW Quadrant	5821	1437	BLM/A m	26.4"	9.0	28'	28'	28'	28'	to the ditch	90%	Min. Asym.	ABS/ASE	Average	Fork at 18', Typical	Partially Exposed	Surface	-	Significant	Good	Viable	Potential to retain with Tree Protection Measures
Subject property	NW Quadrant	5822	1436	DF/Pm	18.6"	5.0	16'	16'	16'	16'	16'	80%	Min. Asym.	Average	Average	Slight Lean N	Partially Exposed	-	Significant	Good	Viable	Potential to retain with Tree Protection Measures	
Subject property	NW Quadrant	5823	1435	DF/Pm	8.1"	1.0	10'	10'	10'	10'	to the ditch	80%	Maj. Asym.	Average	Suppressed	Straight	NAD	-	Significant	Fair	Viable	Potential to retain with Tree Protection Measures	
Subject property	NW Quadrant	5824	1434	BCw/Pt	37.5"	0.0	32'	n/a	n/a	n/a	n/a	55%	Min. Asym.	ABS/ASE	Average	Center rot	Base rot	Root Rot	Clump of 4 trunks measuring 19.8", 9.0", 18.5", & 24.3" = single trunk of 37.5".	Significant	Poor	Non-viable	Remove
Subject property	NW Quadrant	5825	1439	BLM/A m	14.3"	3.0	22'	22'	22'	22'	22'	35%	Min. Asym.	Short Shoot Elongation, Chlorotic	Average	Typical	Exposed	-	Dead branches in canopy.	Significant	Fair	Viable	Potential to retain with Tree Protection Measures

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							North	South	East	West												
PROPERTY	TREE LOCATION	TREE #	Other Tag #	SPECIES	DBH	TREE CREDIT	DRIP LINE	LCR	SYMMETRY	FOLIAGE	CROWN CONDITION	TRUNK	ROOT COLLAR	ROOTS	COMMENTS	SIGNIFICANCE	CURRENT HEALTH RATING	VIABILITY	RECOMMENDATION			
Subject property	NW Quadrant	5826	1440	BLM/A m	20.8"	6.0	28'	28'	28'	28'	50%	Min. Asym.	ABS/ ASE	Weak	Slight Lean NE	Exposed	-	Significant	Fair	Viability	Potential to retain with Tree Protection Measures	
Subject	NW Quadrant	5827	1449	DF/Pm	25.1"	0.0	22'	n/a	n/a	n/a	60%	Min. Asym.	Dense	Healthy	Center rot	Base rot	Root Rot	Significant	Poor	Non-viability	Remove	
Subject	NW Quadrant	5828	1451	DF/Pm	23.1"	0.0	22'	n/a	n/a	n/a	50%	Maj. Asym.	Average	Regenerating - Average	Straight	Base rot	Root Rot	Significant	Poor	Non-viability	Abnormal growth around tree fort at 14 feet--structurally weak. Open wound north side from 40 to 45 feet--structurally weak.	
Subject property	NW Quadrant	5829	1450	DF/Pm	19.8"	0.0	20'	n/a	n/a	n/a	45%	Maj. Asym.	Average	Average	Straight	Base rot	Root Rot	Significant	Poor	Non-viability	Abnormal growth around old tree fort at 6 feet.	
Subject	NW Quadrant	5830	1452	BLM/A m	8.7"	0.0	12'	n/a	n/a	n/a	12%	Maj. Asym.	PBS/ PSE	Dying	Leans W	Partially Exposed	-	Significant	Poor	Non-viability	Remove	
Subject property	NW Quadrant	5831	1461	BLM/A m	13.8"	0.0	14'	n/a	n/a	n/a	40%	Maj. Asym.	ABS/ ASE	Average	Center rot	Base rot	Root Rot	Significant	Poor	Non-viability	Two trunks measure 9.9" & 9.6" = single trunk of 13.8". West fork is dead with advanced decay.	
Subject property	NW Quadrant		1462	BLM/A m	12.6"	0.0	16'	n/a	n/a	n/a	15%	Min. Asym.	PBS/ PSE	Weak	Slightly Serpentine	Partially Exposed	-	Significant	Poor	Non-viability	Remove	
Subject property	NW Quadrant	5833	1463	BLM/A m	10.4"	0.0	18'	n/a	n/a	n/a	50%	Maj. Asym.	PBS/ PSE	Broken off	Typical	Partially Exposed	-	Significant	Poor	Non-viability	Remove	

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							North	South	East	West													
PROPERTY	TREE LOCATION	TREE #	Other Tag #	SPECIES	DBH	TREE CREDIT	DRIP LINE	North	South	East	West	LCR	SYMMETRY	FOLIAGE	CROWN CONDITION	TRUNK	ROOT COLLAR	ROOTS	COMMENTS	SIGNIFICANCE	CURRENT HEALTH RATING	VIABILITY	RECOMMENDATION
Subject property	NW Quadrant	5835	1441	DF/Pm	34.8"	13.0	32'	32'	32'	32'	32'	65%	Gen. Sym.	Average	Healthy	Straight	NAD	-	Hangers.	Significant	Very good	Viable	Potential to retain with Tree Protection Measures
Subject property	NW Quadrant	5837	1464	BLM/Am	13.8"	2.0	22'	22'	22'	22'	22'	75%	Maj. Asym.	ABS/ASE	Overtopped	Typical	Partially Exposed	-	Dead branches in canopy.	Significant	Fair	Viable	Potential to retain with Tree Protection Measures
Subject property	NW Quadrant	5838	1465	DF/Pm	29.7"	10.0	26'	26'	26'	26'	26'	75%	Min. Asym.	Average	Healthy	Straight	NAD	-		Significant	Good	Viable	Potential to retain with Tree Protection Measures
Subject property	NW Quadrant	5841	1444	DF/Pm	21.5"	6.0	24'	24'	24'	24'	24'	55%	Gen. Sym.	Dense	Healthy	Straight	Exposed	Surface		Significant	Good	Viable	Potential to retain with Tree Protection Measures
Subject property	NW Quadrant	5843	1447	DF/Pm	19.4"	5.0	22'	North Prop. Line	22'	22'	22'	60%	Min. Asym.	Average	Average	Straight	NAD	-	Epicormic growth.	Significant	Good	Viable	Potential to retain with Tree Protection Measures
Subject	NW Quadrant	5844	1443	DF/Pm	13.4"	0.0	14'	n/a	n/a	n/a	n/a	35%	Gen. Sym.	Dense	Regenerating - Average	Center rot	Base rot	Root Rot		Significant	Poor	Non-viable	Remove
Subject property	NW Quadrant	5845	1475	DF/Pm	29.6"	10.0	36'	36'	36'	36'	36'	70%	Min. Asym.	Dense	Healthy	Straight	Partially Exposed	-	Epicormic growth.	Significant	Good	Viable	Potential to retain with Tree Protection Measures
Subject	NW Quadrant	5847	1473	DF/Pm	26.1"	9.0	22'	22'	22'	22'	22'	65%	Gen. Sym.	Average	Average	Straight	NAD	-		Significant	Good	Viable	Potential to retain with Tree Protection

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							North	South	East	West													LCR	SYMMETRY
PROPERTY	TREE LOCATION	TREE #	Other Tag #	SPECIES	DBH	TREE CREDIT	DRIP LINE															Measure s		
Subject property	NW Quadrant	5848	1472	DF/Pm	13.5"	0.0	12'	n/a	n/a	n/a	n/a	65%	Gen. Sym.	Average	Regenerating - Average	Center rot	Base rot	Root Rot		Trunk is bowed.	Significant	Poor	Non-viable	Remove
Subject property	NW Quadrant	5849	1474	DF/Pm	17.8"	4.0	16'	16'	16'	16'	16'	70%	Maj. Asym.	Average	Average	Bowed	NAD	-			Significant	Fair	Viable	Potential to retain with Tree Protection Measure s
Subject property	NW Quadrant	5850	1471	PM/Am	10.6"	0.0	12'	n/a	n/a	n/a	n/a	30%	Maj. Asym.	Fusarium Wilt, Necrosis	Weak	Leans SE	NAD	-			Significant	Poor	Non-viable	Remove
Subject property	NW Quadrant	5851	1470	PM/Am	11.9"	1.0	14'	14'	14'	14'	14'	40%	Min. Asym.	Average	Average	Fork at Base, Leans SE	NAD	-		Trunk diameters measure 9.0" & 7.8" = single trunk of 11.9".	Significant	Fair	Viable	Potential to retain with Tree Protection Measure s
Subject property	NW Quadrant	5852	1469	BLM/Am	7.7"	1.0	12'	12'	12'	12'	12'	40%	Min. Asym.	ABS/ASE	Average	Fork at 9', Bowed	Exposed	-		Rot pockets in branch collar wounds.	Significant	Fair	Viable	Potential to retain with Tree Protection Measure s
Subject property	NW Quadrant	5853		BLM/Am	10.4"	1.0	16'	16'	16'	16'	16'	55%	Maj. Asym.	ABS/ASE	Average	Fork at 3' with sap flow	Partially Exposed	-		Trunk diameters measure 7.7", 4.3", & 5.5" = single trunk of 10.4".	Significant	Fair	Viable	Potential to retain with Tree Protection Measure s
Subject	NW Quadrant	5854	1466	BCw/Pt	16.8"	0.0	18'	n/a	n/a	n/a	n/a	15%	Maj. Asym.	Spars e	Dead	Serpentine	Partially Exposed	Restrict ed		Base is app. 7 feet north of gravel driveway	Significant	Dying	Non-viable	Remove
Subject	NW Quadrant	5855	1467	BCw/Pt	24.5"	8.0	38'	n/a	n/a	n/a	n/a	40%	Min. Asym.	Dens e	Healthy	Typical	NAD	Restrict ed		Base app. 4 feet north of gravel driveway.	Significant	Fair	Viable	Potential to retain with Tree Protection

1	2	3A	3B	4	6	7	8 -- LIMITS OF DISTURBANCE				9	10	11	12	13	14	15	16	17	18	19	20	
							North	South	East	West													LCR
PROPERTY	TREE LOCATION	TREE #	Other Tag #	SPECIES	DBH	TREE CREDIT	DRIP LINE															Measure s	
Subject	NW Quadrant	5856	1468	PW/SI	11.8"	0.0	13'	n/a	n/a	n/a	n/a	40%	Maj. Asym.	Thin	Weak	Fork at 1', Center Rot	Base rot	Root Rot	Trunk diameters measure 7.2" & 9.4" = single trunk of 11.8". Carpenter Ant infestation. Woodpecker activity. Root Collar is exposed.	Significant	Dying	Non-viable	Remove
Right-of-way	Juanita Drive	5929	1396	DF/Pm	15.2"	0.0	16'	16'	16'	to the ditch	90%	Maj. Asym.	Average	Average	Leans NW	NAD	Restricted		Significant	Good	Viable	Potential to retain with Tree Protection Measures	
Subject property	NW Quadrant	5930	1395	BCw/Pt	27.3"	9.0	36'	36'	36'	to the ditch	50%	Maj. Asym.	Average	Regenerating - Average	Kink at 80%	NAD	Restricted	Base is app. 5 feet east of ditch. Kink at 80% is from an old topping wound.	Significant	Fair	Viable	Potential to retain with Tree Protection Measures	
Subject property	NW Quadrant	5931		BCw/Pt	9.7"	0.0	0'	n/a	n/a	n/a	0%	n/a	none	Dead	Center rot	Base rot	Root Rot		Significant	Dead	Non-viable	Remove	
Subject property	NW Quadrant	5933	1391	DF/Pm	16.4"	0.0	16'	n/a	n/a	n/a	40%	Min. Asym.	Average	Average	Center rot	Base rot	Root Rot		Significant	Poor	Non-viable	Remove	
Subject property	NW Quadrant	5934	1390	DF/Pm	10.1"	1.0	12'	12'	12'	to the ditch	70%	Min. Asym.	Thin	Suppressed	Straight	NAD	-		Significant	Fair	Viable	Potential to retain with Tree Protection Measures	
Subject property	NW Quadrant	5935	1388	DF/Pm	21.3"	6.0	32'	32'	32'	to the ditch	80%	Min. Asym.	Average	Healthy	Straight	NAD	-		Significant	Good	Viable	Potential to retain with Tree Protection Measures	

1	2	3A	3B	4	6	7	8 -- LIMITS OF DISTURBANCE				9	10	11	12	13	14	15	16	17	18	19	20
							North	South	East	West												
PROPERTY	TREE LOCATION	TREE #	Other Tag #	SPECIES	DBH	TREE CREDIT	DRIP LINE			LCR	SYMMETRY	FOLIAGE	CROWN CONDITION	TRUNK	ROOT COLLAR	ROOTS	COMMENTS	SIGNIFICANCE	CURRENT HEALTH RATING	VIABILITY	RECOMMENDATION	
Subject property	NW Quadrant	5936	1384	DF/Pm	15.6"	3.0	16'	16'	16'	60%	Maj. Asym.	Average	Average	Straight	NAD	Restricted	Hanger. Base is app. 4 feet from ditch.	Significant	Good	Viable	Potential to retain with Tree Protection Measures	
Subject property	SW Quadrant	6070	1378	DF/Pm	12.8"	2.0	18'	18'	18'	85%	Gen. Sym.	Average	Average	Straight	NAD	-	Bark Beetle infestation.	Significant	Good	Viable	Potential to retain with Tree Protection Measures	
Subject property	SW Quadrant	6071	1377	DF/Pm	14.7"	3.0	15'	15'	15'	50%	Gen. Sym.	Average	Average	Straight	NAD	-		Significant	Good	Viable	Potential to retain with Tree Protection Measures	
Subject property	SW Quadrant	6072	1376	BLM/Am	10.0"	1.0	16'	16'	16'	75%	Maj. Asym.	ABS/ASE	Average	Typical	bowed	-	Dead branches in canopy.	Significant	Fair	Viable	Potential to retain with Tree Protection Measures	
Subject property	SW Quadrant	6074	1373	BLM/Am	8.2"	1.0	10'	10'	10'	25%	Gen. Sym.	ABS/ASE	Healthy	Typical	English Ivy	English Ivy	English Ivy up 50%;	Significant	Fair	Viable	Potential to retain with Tree Protection Measures	
Subject property	SW Quadrant	6075	1374	DF/Pm	29.8"	10.0	28'	28'	28'	95%	Gen. Sym.	Dense	Broken off	Straight	NAD	-	English Ivy up 46 feet. Bark Beetle infestation.	Significant	Very good	Viable	Potential to retain with Tree Protection Measures	
Subject property	SW Quadrant	6076	1375	DF/Pm	34.6"	13.0	38'	38'	38'	98%	Gen. Sym.	Dense	Healthy	Straight	NAD	-	English Ivy up 40 feet.	Significant	Very good	Viable	Potential to retain with Tree Protection Measures	

1	2	3A	3B	4	6	7	8 -- LIMITS OF DISTURBANCE				9	10	11	12	13	14	15	16	17	18	19	20
							North	South	East	West												
Subject property	W of Driveway near water meter	6087	125	PFDw/Cf	5.8"	0.5	12'	12'	12'	12'	90%	Gen. Sym.	GBS/GSE	Healthy	Fork at 4'	NAD	Restricted	Base is app. 18" north of boulder and app. 6' NE of water meter.	Not Significant	Fair	Viable	Potential to retain with Tree Protection Measures
Subject property	SE Quadrant	6088	126	VM/Ac	12.5"	2.0	14'	14'	14'	14'	96%	Min. Asym.	Dense	Healthy	fork at base	NAD	-	Clump of 7; diameters are 2.3", 6.7", 6.2", 3.5", 3.7", 3.8", * 5.1" = single trunk of 12.5".	Significant	Excellent	Viable	Potential to retain with Tree Protection Measures
Subject property	SE Quadrant	6089	128	PM/Am	7.8"	0.0	9'	n/a	n/a	n/a	4%	Min. Asym.	Fusarium Wilt, Necrosis	Dying	Slightly Serpentine	NAD	-	Tag on tree says "6809."	Significant	Dying	Non-viable	Remove
Subject property	SE Quadrant	6091	130	PDw/Cn	9.3"	1.0	22'	22'	22'	22'	65%	Maj. Asym.	ABS/ASE	Average	Fork at Base & at 4.5'	Previous Failure	Previous Failure	Trunk diameters are 6.6 & 6.5 inches = single trunk of 9.3 inches.	Significant	Fair	Viable	Potential to retain with Tree Protection Measures
Subject property	SE Quadrant	6092	129	WRC/ Tp	8.1"	1.0	9'	9'	9'	9'	85%	Min. Asym.	Average	Average	Harp, Bowed	Probable Base Rot	-	Trunk diameters are 6.9 & 4.3 inches = single trunk of 8.1 inches.	Significant	Fair	Viable	Potential to retain with Tree Protection Measures
Subject property	SE Quadrant	6093	131	PM/Am	8.7"	12.0	12'	12'	12'	12'	40%	Min. Asym.	Average	Average	Leans NW	NAD	-	Some Fusarium wilt and necrosis.	Significant	Fair	Viable	Potential to retain with Tree Protection Measures

1	2	3A	3B	4	6	7	8 -- LIMITS OF DISTURBANCE				9	10	11	12	13	14	15	16	17	18	19	20	
							North	South	East	West													LCR
Off Property	N of N prop. Line	6094	121	WRC/Tp	21.9"	0.0	15'	15'	5'	15'	15'	90%	Gen. Sym.	Average	Average	Straight	NAD	-	Canopy overhangs subject property by 8 feet.	Significant	Very good	Viability	Potential to retain with Tree Protection Measures
Off Property	N of N prop. Line	6095	120	BCh/Pe	7.8"	0.0	12'	n/a	5'	12'	12'	55%	Gen. Sym.	ABS/ASE	Healthy	Straight	NAD	-	Canopy overhangs subject property by 2 feet.	Significant	Fair	Viability	Potential to retain with Tree Protection Measures
Off Property	N of N prop. Line	6096		WRC/Tp	21.7"		18'	n/a	5'	18'	18'	98%	Gen. Sym.	Dense	Healthy	Straight	NAD	-	Tag on tree says 6906 while the survey says 6096. Canopy hangs subject property by 10'.	Significant	Very good	Viability	Potential to retain with Tree Protection Measures
Off Property	N of N prop. Line	6097		EH/la	6.8"		12'	n/a	5'	12'	12'	98%	Gen. Sym.	Dense	Healthy	Leans South & Serpentine	NAD	-	Tag on tree says 6907 while the survey says 6097. Canopy overhangs subject property by 3 feet.	Significant	Good	Viability	Potential to retain with Tree Protection Measures
Off Property	N of N prop. Line	6098		DF/Pm	17.4"		18'	n/a	5'	18'	18'	98%	Min. Asym.	Average	Regenerating - Average	Kink at 16' and Serpentine above	NAD	-	Tag on tree says 6908 while the survey says 6098. Canopy overhangs subject property by 9 feet.	Significant	Fair	Viability	Potential to retain with Tree Protection Measures

1	2	3A	3B	4	6	7	8 -- LIMITS OF DISTURBANCE				9	10	11	12	13	14	15	16	17	18	19	20	
							North	South	East	West													LCR
Off Property	Northeast Quadrant	6099	149	RA/Ar	15.0"	0.0	10'	n/a	5' S of Z P o p. L i n e	10'	10'	85%	Gen. Sym.	ABS/ASE	Average	Center rot	Base rot	Probable Root Rot	Canopy overhangs subject property by app. 4 feet.	Significant	Poor	Non-viable	Remove
Subject property	Northeast Quadrant	6100	122	WHh/Cc	14.5"	3.0	20'	20'	20'	20'	60%	Gen. Sym.	Dense	Healthy	Fork at base	NAD	-	Clump of 15 canes with a canopy spread of 40 feet approximates a single trunk tree of 15.5 inches and 3 Tree Credits.	Significant	Excellent	Viable	Potential to retain with Tree Protection Measures	
Subject property	Northeast Quadrant	6101	119	WRC/ Tp	6.2"	1.0	8'	8'	8'	8'	30%	Min. Asym.	Average	Healthy	Straight	NAD	-		Significant	Fair	Viable	Potential to retain with Tree Protection Measures	
Right-of-way	80th Ave NE E of Cedar fence	6103	Was 5417	PO/Qp	9.2"	0.0	12'	12'	12'	12'	85%	Gen. Sym.	ABS/ASE	Healthy	Typical	NAD	Restricted		Significant	Good	Viable	Potential to retain with Tree Protection Measures	
Right-of-way	80th Ave NE E of Cedar fence	6104	123	PO/Qp	9.3"	0.0	18'	18'	18'	To edge of road	n/a	96%	Gen. Sym.	Dense	Healthy	fork at base	NAD	Restricted	Trunk Diameters are 4.0", 3.3", 4.4", 4.6", & 4.3" = single trunk of 9.3". Growing between east property line fence and west of 80th Ave NE.	Significant	Very good	Viable	Potential to retain with Tree Protection Measures
Subject property	SW Quadrant	6105	134	SW/Ss	7.1"	1.0	12'	12'	12'	12'	65%	Gen. Sym.	Average	Average	Typical	NAD	English Ivy	English Ivy up 6 feet.	Significant	Fair	Viable	Potential to retain with Tree Protection Measures	
Subject property	SW Quadrant	6106	1568/150	PM/Am	9.0"	1.0	8'	8'	8'	8'	8'	12%	Min. Asym.	Average	Average	Typical	English Ivy	English Ivy		Significant	Fair	Viable	Potential to retain with Tree Protection Measures

1	2	3A	3B	4	6	7	8 -- LIMITS OF DISTURBANCE				9	10	11	12	13	14	15	16	17	18	19	20	
							North	South	East	West													
PROPERTY	TREE LOCATION	TREE #	Other Tag #	SPECIES	DBH	TREE CREDIT	DRIP LINE	North	South	East	West	LCR	SYMMETRY	FOLIAGE	CROWN CONDITION	TRUNK	ROOT COLLAR	ROOTS	COMMENTS	SIGNIFICANCE	CURRENT HEALTH RATING	VIABILITY	RECOMMENDATION
Subject property	SW Quadrant	6107	133	BCw/Pt	7.9"	0.0	12'	12'	12'	12'	12'	65%	Gen. Sym.	ABS/ASE	Average	Straight	NAD	-	Fungal infection in trunk.	Significant	Poor	Non-viable	Remove
Subject property	NW Quadrant	6108	147	PW/Sl	13.7"	0.0	16'	n/a	n/a	n/a	n/a	75%	Min. Asym.	Average	Average	Fork at base & 3', Center Rot	Base rot	Root Rot	Trunks measure 6.8", 6.7", & 9.8" = single trunk of 13.7". Carpenter Ant infestation. Woodpecker activity. Fungal infection in trunk. Large trunk completely decayed and broken off.	Significant	Dying	Non-viable	Remove
Subject property	NW Quadrant	6109	148	PM/Am	8.6"	1.0	15'	15'	15'	15'	15'	35%	Min. Asym.	Average	Average	Leans S	NAD	-	Natrassia cankers in lower trunk.	Significant	Fair	Viable	Potential to retain with Tree Protection Measures
Subject property	NW Quadrant	6110	144	RA/Ar	7.3"	1.0	18'	North Prop. Line	18'	18'	18'	80%	Min. Asym.	ABS/ASE	Healthy	Slight Lean N	NAD	Restricted	Base is app. 2.5 feet south of curb.	Significant	Good	Viable	Potential to retain with Tree Protection Measures
Subject property	NW Quadrant	6111	143	RA/Ar	6.8"	1.0	18'	North Prop. Line	18'	18'	18'	80%	Min. Asym.	ABS/ASE	Healthy	Slight Lean N	NAD	Restricted	Base is app. 2.5 feet south of curb.	Significant	Good	Viable	Potential to retain with Tree Protection Measures
Subject property	NW Quadrant	6112	144 6 / 141	DF/Pm	11.0"	0.0	12'	n/a	n/a	n/a	n/a	40%	Maj. Asym.	Average	Suppressed	Leans N	Base rot	Root Rot		Significant	Poor	Non-viable	Remove
Subject property	NW Quadrant	6113	144 5 / 142	DF/Pm	18.7"	0.0	22'	n/a	n/a	n/a	n/a	70%	Min. Asym.	Dense	Healthy	Center rot	Base rot	Root Rot	Open wound East side 3.5 to 7 feet with decay and Carpenter Ant infestation.	Significant	Poor	Non-viable	Remove

1	2	3A	3B	4	6	7	8 -- LIMITS OF DISTURBANCE				9	10	11	12	13	14	15	16	17	18	19	20
							North	South	East	West												
PROPERTY	TREE LOCATION	TREE #	Other Tag #	SPECIES	DBH	TREE CREDIT	DRIP LINE			LCR	SYMMETRY	FOLIAGE	CROWN CONDITION	TRUNK	ROOT COLLAR	ROOTS	COMMENTS	SIGNIFICANCE	CURRENT HEALTH RATING	VIABILITY	RECOMMENDATION	
Subject property	NW Quadrant	6114	1448 / 140	DF/Pm	10.1"	1.0	13'	North Prop. Line	13'	13'	9000%	Min. Asym.	Average	Average	Straight	Partially Exposed	Restricted	Base is app. 12 feet south of rock wall.	Significant	Good	Viable	Potential to retain with Tree Protection Measures
Subject property	NW Quadrant	6115	145	BLM/Am	9.1"	0.0	16'	n/a	n/a	n/a	20%	Maj. Asym.	PBS/PSE	Dead	Fork at 1', Center Rot	Base rot	Root Rot	Two trunks measure 6.5" & 5.3" = single trunk of 9.1 inches.	Significant	Dead	Non-viable	Remove
Subject property	NW Quadrant	6116	138	BLM/Am	6.0"	1.0	12'	12'	12'	12'	80%	Maj. Asym.	ABS/ASE	Overtopped	Leans W	Previous Failure	Previous Failure	Growing horizontal on the ground for app. 3.5 feet then turns vertical.	Significant	Fair	Viable	Potential to retain with Tree Protection Measures
Subject property	NW Quadrant	6117	137	EH/la	6.2"	1.0	12'	12'	12'	12'	50%	Gen. Sym.	Average	Average	Typical	NAD	Restricted	Base is app. 5 feet north of gravel driveway.	Significant	Fair	Viable	Potential to retain with Tree Protection Measures
Subject property	NW Quadrant	6118	136	PM/Am	14.2"	0.0	0'	n/a	n/a	n/a	0%	n/a	none	Dead	Center rot	Base rot	Root Rot		Significant	Dead	Non-viable	Remove
Subject property	SW Quadrant	6119	135	BLM/Am	6.3"	1.0	12'	12'	12'	12'	75%	Maj. Asym.	ABS/ASE	Regenerating - Average	Bowed	NAD	-		Significant	Fair	Viable	Potential to retain with Tree Protection Measures
Subject property	SE Quadrant	6120	132	BLM/Am	7.7"	0.0	14'	14'	14'	14'	80%	Maj. Asym.	ABS/ASE	Regenerating - Average	Leans S	Partially Exposed	-		Significant	Poor	Non-viable	Remove

1	2	3A	3B	4		6	7	8 -- LIMITS OF DISTURBANCE				9	10	11	12	13	14	15	16	17	18	19	20
PROPERTY	TREE LOCATION	TREE #	Other Tag #	SPECIES	DBH	TREE CREDIT	DRIP LINE	North	South	East	West	LCR	SYMMETRY	FOLIAGE	CROWN CONDITION	TRUNK	ROOT COLLAR	ROOTS	COMMENTS	SIGNIFICANCE	CURRENT HEALTH RATING	VIABILITY	RECOMMENDATION
Subject property	NW Quadrant	6121	5554 / 146	EH/la	6.3"	1.0	9'	9'	9'	9'	9'	75 %	Gen. Sym.	Dense	Healthy	Fork at 7' w/ include d bark to base	NAD	-		Significant	Good	Viable	Potential to retain with Tree Protection Measures
Subject	SE Quadrant	6122	127	This is the northern trunk of 5740. It is not a separate tree. However, it is completely dead.																			
Subject property	SE Quadrant	6123	127	GCnT/ Lxw	5.0"	0.5	12'	12'	12'	12'	12'	85 %	Min. Asym.	Dense	Healthy	Typical	NAD	-		Not Significant	Very good	Viable	Potential to retain with Tree Protection Measures
						833.5	Total # of Tree Credits on the subject property at this time.																

ATTACHMENT 3 - GLOSSARY

Terms Used in This Report, on the Tree Condition / Inventory Spreadsheet, and Their Significance

In an effort to clearly present the information for each tree in a manner that facilitates the reader's ability to understand the conclusions I have drawn for each tree, I have collected the information in a spreadsheet format. This spreadsheet was developed by Gilles Consulting based upon the *Tree Risk Assessment in Urban Areas and the Urban/Rural Interface* course manual and the *Tree Risk Assessment Form*, both sponsored by the Pacific Northwest Chapter of the International Society of Arboriculture, and the *Hazard Tree Evaluation Form* from the book, *The Evaluation of Hazard Trees in Urban Areas*, by Matheny and Clarke. The descriptions were left brief on the spreadsheet in an effort to include as much pertinent information as possible, to make the report manageable, and to avoid boring the reader with infinite levels of detail. However, a review of these terms and descriptions will allow the reader to rapidly move through the report and understand the information.

- 1) **PROPERTY**—Whether the tree is on or off the Subject Property, or a Right-of-Way tree.
- 2) **TREE LOCATION**—Relative placement of the tree.
- 3) **TREE #**—the unique tag number of each tree.
- 4) **SPECIES**—this describes the species of each tree with both most readily accepted common name and the officially accepted scientific name.
- 5) **DBH**—Diameter Breast Height. This is the standard measurement of trees taken at 4.5 feet above the average ground level of the tree base.
 - i) Occasionally it is not practical to measure a tree at 4.5 feet above the ground. The most representative area of the trunk near 4.5 feet is then measured and noted on the spreadsheet. For instance, a tree that forks at 4.5 feet can have an unusually large swelling at that point. The measurement is taken below the swelling and noted, e.g. ‘28.4” at 36”’.
 - ii) Trees with multiple stems are listed as a “clump of x,” with x being the number of trunks in the clump. Measurements may be given as an average of all the trunks, or individual measurements for each trunk may be listed.
 - (1) Every effort is made to distinguish between a single tree with multiple stems and several trees growing close together at the bases.
- 6) **TREE CREDIT**—Tree Credit based on Trunk Diameter
- 7) **DRIP LINE**— the radius, the distance from the trunk to the furthest branch tips.
- 8) **LIMITS OF DISTURBANCE**— The boundary between the area of minimum protection around a tree and the allowable site disturbance as determined by a qualified professional. Distances from the center of the trunk were derived on a case by case basis looking at the unique circumstances of each property and each tree on that property.

- 9) **% LCR**—Percentage of Live Crown Ratio. The relative proportion of green crown to overall tree height. This is an important indication of a tree’s health. If a tree has a high percentage of Live Crown Ratio, it is likely producing enough photosynthetic activity to support the tree. If a tree has less than 30% to 40% LCR, it can create a shortage of needed energy and can indicate poor health and vigor.
- 10) **SYMMETRY**—is the description of the form of the canopy, i.e., the balance or overall shape of the canopy and crown. This is the place I list any major defects in the canopy shape, e.g. does the tree have all its foliage on one side or in one unusual area? Symmetry can be important if there are additional defects in the tree such as rot pockets, cracks, loose roots, weak crown, etc. Symmetry is generally categorized as Generally Symmetrical, Minor Asymmetry or Major Asymmetry:
- i) Gen. Sym.—Generally Symmetrical. The canopy/foliage is generally even on all sides with spacing of scaffold branches typical for the species, both vertically and radially.
 - ii) Min. Asym.—Minor Asymmetry. The canopy/foliage has a slightly irregular shape with more weight on one side, but appears to be no problem for the tree.
 - iii) Maj. Asym.—Major Asymmetry. The canopy/foliage has a highly irregular shape for the species with the majority of the weight on one side of the tree. This can have a significant impact on the tree’s stability, health and hazard potential—especially if other defects are noted such as cracks, rot, or root defects.
- 11) **FOLIAGE/BRANCH**—describes the foliage of the tree in relation to a perfect specimen of that particular species. First the branch growth and foliage density is described, and then any signs or symptoms of stress and/or disease are noted. The condition of the foliage, or the branches and buds for deciduous trees in the dormant season, are important indications of a tree’s health and vigor.
- i) For Deciduous trees in the dormant season:
 - (1) The structure of the deciduous tree is visible.
 - (2) The quantity and quality of buds indicates health, and is described as good bud set, average bud set, or poor bud set. These are abbreviated in the spreadsheet as: gbs, abs, or pbs.
 - (3) The amount of annual shoot elongation is visible and is another major indication of tree health and vigor. This is described as:
 - a) Excellent, Good, Average, or Short Shoot Elongation. These are abbreviated in the spreadsheet as ESE, GSE, ASE, or SSE.
 - ii) For evergreen trees year round and deciduous trees in leaf, the color and density of the foliage indicates if the tree is healthy or stressed, or if an insect infestation, a bacterial, fungal, or viral infection is present. Foliage is categorized on a scale from:
 - (1) Dense—extremely thick foliage, an indication of healthy vigorous growth,
 - (2) Good—thick foliage, thicker than average for the species,

- (3) Normal/Average—thick foliage, average for the species, an indication of healthy growth,
- (4) Thin or Thinning—needles and leaves becoming less dense so that sunlight readily passes through; an indication that the tree is under serious stress that could impact the long-term survivability and safety of the tree,
- (5) Sparse—few leaves or needles on the twigs, an indication that the tree is under extreme stress and could indicate the future death of the tree,
- (6) Necrosis—the presence of dead twigs and branchlets. This is another significant indication of tree health. A few dead twigs and branches are reasonably typical in most trees of size. However, if there are dead twigs and branchlets all over a certain portion of the tree, or all over the tree, these are indications of stress or attack that can have an impact on the tree's long-term health.
- (7) Hangers—a term to describe a large branch or limb that has broken off but is still hanging up in the tree. These can be particularly dangerous in adverse weather conditions.

- 12) **CROWN CONDITION**—the crown is uppermost portion of the tree, generally considered the top 10 to 20% of the canopy or that part of the canopy above the main trunk in deciduous trees and above the secondary bark in evergreen trees.
- i) The condition of the tree's crown is a reflection of the overall health and vigor of the entire tree. The crown is one of the first places a tree will demonstrate stress and pathogenic attack such as root rot.
 - ii) If the **Crown Condition** is healthy and strong, this is a good sign. If the crown condition is weak, broken out, or shows other signs of decline, it is an indication that the tree is under stress. It is such an important indication of health and vigor that this is the first place a trained forester or arborist looks to begin the evaluation of a tree. Current research reveals that, by the time trees with root rot show significant signs of decline in the crown, fully 50% or more of the roots have already rotted away. **Crown Condition** can be described as:
 - (1) Healthy Crown—exceptional growth for the species.
 - (2) Average Crown—typical for the species.
 - (3) Weak Crown—thin spindly growth with thin or sparse needles.
 - (4) Flagging Crown—describes a tree crown that is weak and unable to grow straight up.
 - (5) Dying Crown—describes obvious decline that is nearing death.
 - (6) Dead Crown—the crown has died due to pathological or physical injury. The tree is considered to have significant stress and/or weakness if the crown is dead.
 - (7) Broken out—a formerly weak crown condition that has been broken off by adverse weather conditions or other mechanical means.

- (8) Regenerated or Regenerating—formerly broken out crowns that are now growing back. Regenerating crowns may appear healthy, average, or weak and indicate current health of the tree.
- (9) Suppressed—a term used to describe poor condition of an entire tree or just the crown. Suppressed crowns are those that are entirely below the general level of the canopy of surrounding trees which receive no direct sunlight. They are generally in poor health and vigor. Suppressed trees are generally trees that are smaller and growing in the shade of larger trees around them. They generally have thin or sparse needles, weak or missing crowns, and are prone to insect attack as well as bacterial and fungal infections.
- 13) **TRUNK**—this is the area to note any defects that can have an impact on the tree’s stability or hazard potential. Typical things noted are:
- i) FORKED—bifurcation of branches or trunks that often occur at a narrow angle.
 - ii) INCLUDED BARK—a pattern of development at branch or trunk junctions where bark is turned inward rather than pushed out. This can be a serious structural defect in a tree that can and often does lead to failure of one or more of the branches or trunks, especially during severe, adverse weather conditions.
 - iii) EPICORMIC GROWTH—this is generally seen as dense thick growth near the trunk of a tree. Although this looks like a healthy condition, it is, in fact the opposite. Trees with Epicormic Growth have used their reserve stores of energy in a last ditch effort to produce enough additional photosynthetic surface area to produce more sugars, starches and carbohydrates to support the continued growth of the tree. Generally speaking, when conifers in the Pacific Northwest exhibit heavy amounts of Epicormic Growth, they are not producing enough food to support their current mass and are already in serious decline.
 - iv) INTERNAL STRUCTURAL WEAKNESS—a physical characteristic of the tree trunk, such as a **kink, crack, rot pocket, or rot column** that predisposes the tree trunk to failure at the point of greatest weakness.
 - v) BOWED—a gradual curve of the trunk. This can indicate an Internal Structural Weakness or an overall weak tree. It can also indicate slow movement of soils or historic damage of the tree that has been corrected by the curved growth.
 - vi) KINKED—a sharp angle in the tree trunk that indicates that the normal growth pattern is disrupted. Generally this means that the internal fibers and annual rings are weaker than straight trunks and prone to failure, especially in adverse weather conditions.
 - vii) GROUND FLOWER—an area of deformed bark near the base of a tree trunk that indicates long-term root rot.

- 14) **ROOT COLLAR**—this is the area where the trunk enters the soil and the buttress roots flare out away from the trunk into the soil. It is here that signs of rot, decay, insect infestation, or fungal or bacterial infection are noted. **NAD** stands for **No Apparent Defects**.
- 15) **ROOTS**—any abnormalities such as girdling roots, roots that wrap around the tree itself that strangle the cambium layer and kill the tree, are noted here.
- 16) **COMMENTS**—this is the area to note any additional information that would not fit in the previous boxes or attributes about the tree that have bearing on the health and structure of the tree.
- 17) **SIGNIFICANCE**—a “significant” tree is at least 6” in diameter measured at 4.5’ above the average ground level.
- 18) **CURRENT HEALTH RATING**— a description of general health ranging from dead, dying, poor, senescent, suppressed, fair, good, very good, to excellent.
- 19) **VIABILITY**— a significant tree that is in good health with a low risk of failure due to structural defects, is relatively wind firm if isolated or remains as part of a grove, and is a species that is suitable for its location.
 - (1) Please note that many trees may be listed as “Non-Viable” due to poor health, poor structure, or the tree may be below the size threshold for a “Viable Tree.” However, it is worth examining the Non-Viable Trees to determine if any or all of them can be left on the property. They can add significant benefit to the landscape and contribute to wildlife habitat.
- 20) **RECOMMENDATION**— this is an estimate of whether or not the tree is of sufficient health, vigor, and structure that it is worth retaining. Specific recommendations for each tree are included in this column. They may include anything from pruning dead wood, mulching, aerating, injecting tree-based fertilizer into the root system, shortening into a habitat tree or wildlife snag, or to completely removing the tree.
 - i) **Monitor:** “Monitor” is a specific recommendation that the tree be re-evaluated on a routine basis to determine if there are any significant changes in health or structural stability. “Monitor annually” (or bi-annually, tri-annually, etc.)” means the tree should be looked at once every year (or every 2 or 3 years, etc.) This yearly monitoring can be a quick look at the trees to see if there are any significant changes. Significant changes such as storm damage, loss of crown, partial failure of one or more roots, etc. require that a full evaluation be done of the tree at that time.
 - ii) **Potential to retain with tree protection measures:** means that the tree appears to have the internal resources, the health and vigor, structural stability, and the wind firmness to be able to withstand the stresses of construction if development requirements and construction requirements allow.
 - iii) **Habitat or Remove:** means that the tree has a high potential to fail and cause either personal injury or property damage—in other words the tree has been declared a hazard tree and should be dealt with prior to the next large storm.

If it is at all possible the recommendation is to leave some of the trunk standing for wildlife habitat and some of the trunk on the ground as a nurse log. The height of the standing habitat tree depends upon the size of the tree, the condition of the tree, and the distance to a probable target. It should be short enough so that when it does fail years in the future it will not cause personal injury or property damage. Nurse logs can be laid horizontally across the slope to aid with erosion control and to provide microenvironments for new plantings. The nurse logs meaning to be steak to prevent their movement and potential harm to people. If for some reason this is not possible that should be removed for safety.

NOTE: TREES WITH THE SAME DESCRIPTION AND DIFFERENT RATINGS:

Two trees may have the same descriptions in the matrix boxes, one may be marked “Significant,” while another may be marked “Non-Significant.” The difference is in the degree of the description, i.e., “early necrosis” versus “advanced necrosis” for instance. Another example is “center rot” or “base rot”. In a Western Red Cedar tree, the presence of low or even moderate rot is not significant and does not diminish the strength of the tree. However, low levels of rot in the base of a Douglas Fir tree, in an area known to have virulent pathogens present, is highly significant and predisposes that tree to windthrow.

ATTACHMENT 4 - TREE PROTECTION MEASURES

In order for trees to survive the stresses placed upon them in the construction process, tree protection must be planned in advance of equipment arrival on site. If tree protection is not planned integral with the design and layout of the project, the trees will suffer needlessly and will possibly die. With proper preparation, often costing little, or nothing extra to the project budget, trees can survive and thrive after construction. This is critical for tree survival because damage prevention is the single most effective treatment for trees on construction sites. Once trees are damaged, the treatment options available are limited.

The following minimum Tree Protection Measures are included on three separate sheets so that they can be copied and introduced into all relevant documents such as site plans, permit applications and conditions of approval, and bid documents so that everyone involved is aware of the requirements. These Tree Protection Measures are intended to be generic in nature. They will need to be adjusted to the specific circumstances of your site that takes into account the location of improvements and the locations of the trees.

TREE PROTECTION MEASURES:

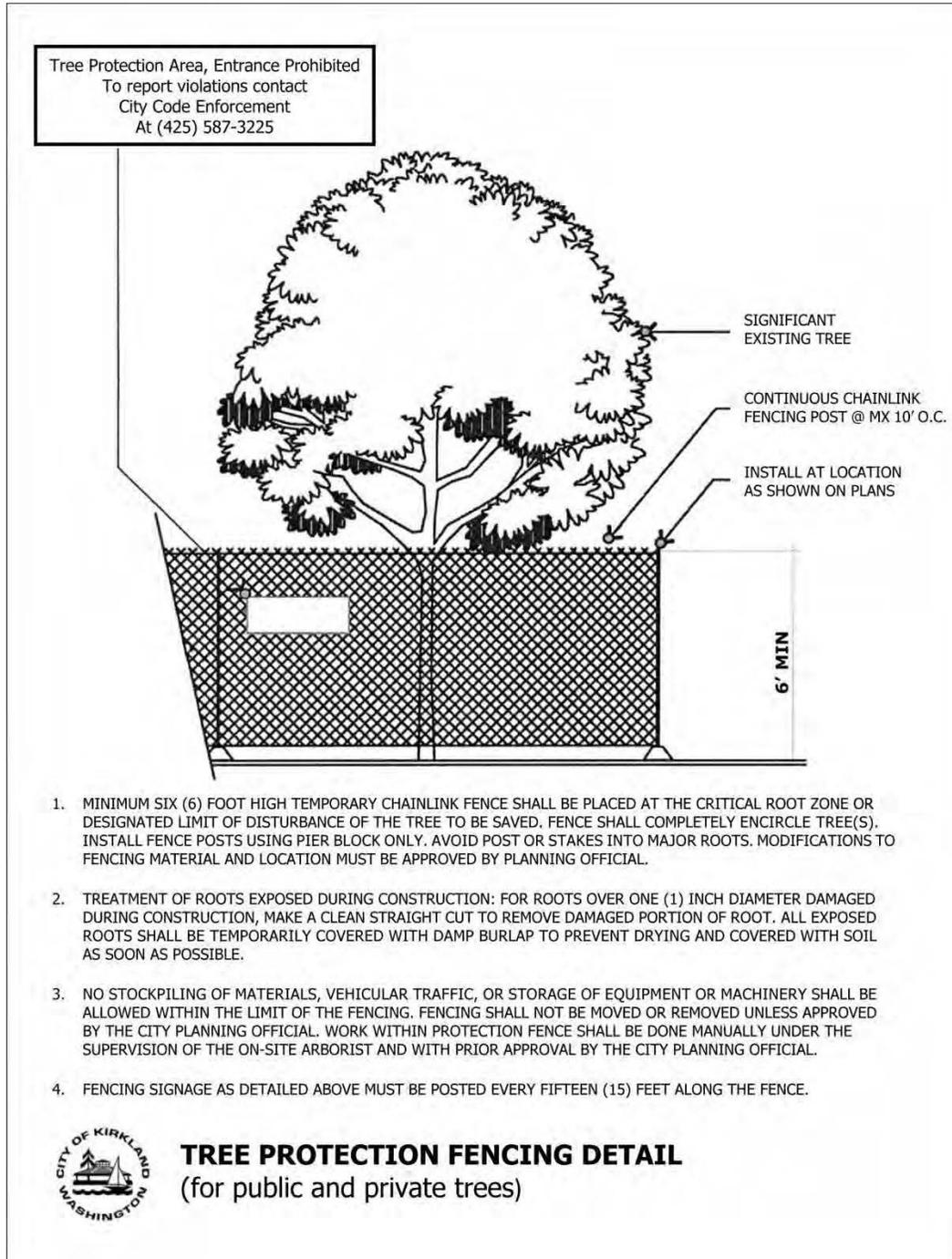
1. Tree Protection Fences will need to be placed around each tree or group of trees to be retained.
 - a. Tree Protection Fences are to be placed according to the attached drawing and as noted in the attached Tree Inventory/Conditions Spreadsheet, Column 6 - Limits of Disturbance.
 - b. Tree Protection Fences must be inspected prior to the beginning of any construction work/activities.
 - c. Nothing must be parked or stored within the Tree Protection Fences—no equipment, vehicles, soil, debris, or construction supplies of any sorts.
2. Cement trucks must not be allowed to deposit waste or wash out materials from their trucks within the Tree Protection Fences.
3. The Tree Protection Fences need to be clearly marked with the following or similar text in four inch or larger letters:

TREE PROTECTION AREA, ENTRANCE PROHIBITED

**To report violations contact
City Code Enforcement at
425-587-3225**

4. The area within the Tree Protection Fencing must be covered with wood chips, hog fuel, or similar materials to a depth of 8 to 10 inches. The materials should be placed prior to beginning construction and remain until the Tree Protection Fencing is taken down.
5. When excavation occurs near trees that are scheduled for retention, the following procedure must be followed to protect the long term survivability of the tree:
 - a. An International Society of Arboriculture, (ISA) Certified Arborist must be working with all equipment operators.
 - i. The Certified Arborist should be outfitted with a shovel, hand pruners, a pair of loppers, a handsaw, and a power saw (a “sawsall” is recommended).
 - b. The hoe must be placed to “comb” the material directly away from the trunk as opposed to cutting across the roots.
 - i. Combing is the gradual excavation of the ground cover plants and soil in depths that only extend as deep as the tines of the hoe.
 - c. When any roots of one inch diameter or greater, of the tree to be retained, is struck by the equipment, the Certified Arborist should stop the equipment operator.
 - d. The Certified Arborist should then excavate around the tree root by hand/shovel and cleanly cut the tree root.

- i. The Certified Arborist should then instruct the equipment operator to continue.
6. Putting Utilities Under the Root Zone:
 - a. Boring under the root systems of trees (and other vegetation) shall be done under the supervision of an ISA Certified Arborist. This is to be accomplished by excavating a limited trench or pit on each side of the critical root zone of the tree and then hand digging or pushing the pipe through the soil under the tree. The closest pit walls shall be a minimum of 7 feet from the center of the tree and shall be sufficient depth to lay the pipe at the grade as shown on the plan and profile.
 - b. Tunneling under the roots of trees shall be done under the supervision of an ISA Certified Arborist in an open trench by carefully excavating and hand digging around areas where large roots are exposed. No roots 1 inch in diameter or larger shall be cut.
 - c. The contractor shall verify the vertical and horizontal location of existing utilities to avoid conflicts and maintain minimum clearances; adjustment shall be made to the grade of the new utility as required.
7. Watering:
 - a. The trees will require significant watering throughout the summer and early fall in order to survive long-term. An easy and economical watering can be done using soaker hoses placed three feet from the trunk of the tree and spiraled around the tree. One 75-foot soaker hose per tree is adequate. It is best to place the soakers using landscape staples, (available from HD Fowler in Bellevue for pennies apiece) then cover the area with two to three inches composed materials. The composted material will act as a mulch to minimize evaporation and will also stimulate the microbial activity of the soil which is another benefit to the health of the tree.
 - b. Water the tree to a depth of 18 to 20 inches. I recommended leaving the water on the soaker hoses for six to eight hours and then digging down to determine how deep your water is penetrating. Then adjust accordingly. It may take a good two days of watering to reach the proper depth.
 - c. Once the water reaches the proper depth, turn off the hoses for four weeks and then water again. Water more often when temperatures increase— every three weeks when temperatures exceed 80 degrees and every two weeks when temperatures exceed 90 degrees. This drying out of the soil in between watering is important to prevent soil pathogens from attacking the trees.



TREE PROTECTION AREA

Entrance Prohibited

To report violations contact

City Code Enforcement

At (425) 587-3225

ATTACHMENT 5 - REFERENCES

1. Dirr, Michael A. *Manual of Woody Landscape Plants, Their Identification, Ornamental Characteristics, Culture, Propagation, and Uses*. Champaign: Stipes Publishing Company, 1990.
2. Eric Allen, et al. *Common Tree Diseases of British Columbia*. Victoria: Canadian Forest Service, 1996.
3. Grant, John A. and Grant, Carol L. *Trees and Shrubs for Pacific Northwest Gardens, What to Grow and How to Grow Them*. Seattle, Washington: Dogwood Press, 1943.
4. Harris, Richard W, James Clark, and Nelda Matheny. *Arboriculture, Integrated Management of Landscape Trees, Shrubs, and Vines*. 4th ed. Upper Saddle River: Prentice Hall, 2004.
5. Johnson, Warren T. and Lyon, Howard H. *Insects That Feed on Trees and Shrubs*. Ithaca: Comstock Publishing Associates, 1991.
6. Matheny, Nelda P. and Clark, James R. *Evaluation of Hazard Trees*. 2nd ed. Savoy: The International Society of Arboriculture Press, 1994.
7. Matheny, Nelda P. and Clark, James R. *Trees & Development, A Technical Guide to Preservation of Trees During Land Development*. Savoy: The International Society of Arboriculture Press, 1998.
8. Mathews, Daniel. *Cascade -- Olympic Natural History*. Portland, Oregon: Raven Editions with the Portland Audubon Society, 1992.
9. Mattheck, Claus and Breloer, Helge. *The Body Language of Trees, A Handbook for Failure Analysis*. London: HMSO, 1994.
10. Pacific Northwest Chapter-ISA. *Tree Risk Assessment in Urban Areas and the Urban/Rural Interface*. Course Manual. Release 1.5. PNW-ISA: Silverton, Oregon, 2011.
11. Scharpf, Robert F. *Diseases of Pacific Coast Conifers*. Albany, California: USDA Forest Service, Agriculture Handbook 521, rev. June 1993.
12. Sinclair, Wayne A., Lyon, Howard H., and Johnson, Warren T. *Diseases of Trees and Shrubs*. Ithaca, New York: Cornell University Press, 1987.

13. Smiley, E. Thomas, Nelda Matheny, and Sharon Lilly, *Tree Risk Assessment Best Management Practices, ANSI A300 Part 9: Tree, Shrub, and Other Woody Plant Management—Standard Practices (Tree Risk Assessment a. Tree Structure Assessment)*. The International Society of Arboriculture Press. Champaign. IL. 2011.
14. Watson, Gary W., and Neely, Dan, eds. *Trees & Building Sites*. Savoy: The International Society of Arboriculture Press, 1995.

Gilles Consulting

— Brian K. Gilles —

4 2 5 - 8 2 2 - 4 9 9 4

October 14, 2015

Toll Brothers
Attn: Hans Christiansen, Land Entitlement Manager
9720 NE 120th Place, # 100
Kirkland, WA 98034

Subject: Arborist Review of the Radke, SE Corner Proposed Sidewalk Detail

Dear Mr. Christiansen:

As you requested, I reviewed your proposed sidewalk detail at the northeast corner of the intersection of NE 125th Street and 80th Avenue NE on Finn Hill. This is at the southeast corner of the existing Radke residence at 7922 NE 125th Street and is titled, *RADKE Proposed Lot Line Adjustment, Parcel A Frontage Improvements*.

You are proposing a meandering sidewalk to save as many trees as possible and to meet the design standards of the City of Kirkland. The design will have an impact on 8 trees; six along 80th Avenue NE and two on NE 125th Street. Please refer to *Attachment 1, Radke Proposed Lot Line Adjustments, Parcel A Frontage Improvements* below for an orientation to the site and the specific eight trees included in this report.

In reviewing the topographic survey and the *Evaluation of Trees Amended for Preliminary Subdivision/Integrated Development Plan at the Radke Property, Finn Hill, Kirkland, WA 98034*, dated November 21, 2014, and Amended March 17, 2015, it is my judgment that the sidewalk can be located as proposed and that the majority of the trees will be able to be retained. Specific observations, conclusions, and recommendations are summarized on the table below:



fax: 425-822-6314

email: bkgilles@comcast.net

P.O. Box 2366 Kirkland, WA 98083 175

Tree #	Species	DBH	Current Health Rating	Viability	Significance	Recommendation
5397	Red Alder	9.8"	Poor	Non-Viable	Significant	Remove
5148	Pin Oak	10.2"	Excellent	Viable	Significant	Tree is in proposed sidewalk. Either need to move sidewalk close to property line or remove and replace. If retained, tree protection measures must be followed.
5147	Pin Oak	6.1"	Very Good	Viable	Significant	Tree will likely tolerate sidewalk construction if tree protection measures outlined in report are followed.
61010-123	Pin Oak	9.3"	Very Good	Viable	Significant	Tree will likely tolerate sidewalk construction if tree protection measures outlined in report are followed.
5146	Pin Oak	10.1"	Very Good	Viable	Significant	Tree will likely tolerate sidewalk construction if tree protection measures outlined in report are followed.
5145	Western Red Cedar	20.7"	Very Good	Viable	Significant	Topography in and around this area will likely require some grading. The grading may require too much root loss to retain this tree in a viable condition. Decision will need to be made to keep or remove the tree once survey locations and elevations for the sidewalk and other improvements are in place. If the tree is retained, tree protection measures outlined in the report are followed.
5160 / 124	Alaska Weeping Cedar	10.6"	Very Good	Viable	Significant	Given the sidewalk location I do not see this tree being retained.
60870-125	Pink Flowering Dogwood	5.8"	Fair	Viable	Not-Significant	This species is known <i>not</i> to tolerate the impacts of construction well. Given that it is only in Fair condition it may or may not survive long-term even if all tree protection measures are followed.

Thank you for calling Gilles Consulting for your arboricultural needs.

Sincerely,

Brian K. Gilles, Consulting Arborist
ISA Certified Arborist # PN-0260
ASCA Registered Consulting Arborist # RCA-418A
PNW-ISA Certified Tree Risk Assessor #148



Attachment 1, Radke Proposed Lot Line Adjustments, Parcel A Frontage Improvements, with tree tag numbers.



RADKE
PROPOSED LOT LINE ADJUSTMENT
PARCEL A FRONTAGE IMPROVEMENTS

DRAFTED BY: CSG
DESIGNED BY: CSG
PROJECT ENGINEER: CSG
DATE: 09-30-2015
PROJECT NO.: 15012

DRAWING: 1
SHEET: 1

From: Lynne Pearson <lymp62@hotmail.com>
Sent: Wednesday, May 13, 2015 5:03 PM
To: Susan Lauinger
Subject: Permit number SUB15-00615

Dear Ms. Lauinger,

I am writing in regards to the proposed Radke Subdivision.

My family lives at 8013 NE 125th Street. Our road will be the access road for the subdivision. We would like you to consider the following:

Install a traffic circle at the intersection of 80th Avenue and NE 125th Street to slow down traffic.

Create an entrance to the subdivision off of Juanita Drive for construction vehicles. We are concerned that the young children who play in our neighbourhood will be endangered by the construction traffic. The access off of Juanita Drive would only need to be open during construction.

Thanks so much,
Lynne Pearson
8013 NE 125th Street
Kirkland Wa 98034
lymp62@hotmail.com

"You can never get a cup of tea large enough or a book long enough to suit me."

— [C.S. Lewis](#)

From: Erika Pierson <epmcello@gmail.com>
Sent: Friday, May 15, 2015 11:40 AM
To: Susan Lauinger
Subject: Permit #SUB15-00615

Dear Ms. Lauinger,

I am writing to express my concern about the proposed 20 parcel development near the Shell station on Juanita Drive. It is truly heartbreaking, watching lot after lot of old trees being torn down, and being filled with new houses, all squashed together. Finn Hill is a place of natural beauty, which has been a main attraction for most people who have settled here. To approve this development will bring an unwelcome change to the natural beauty of Juanita Drive.

As a parent, another concern I have is the recent LWSD boundary changes because of our overcrowded Sandburg Elementary School. In the Fall, we will be saying goodbye to several of our friends, who have been moved to other schools, due to these boundary changes. A new 20 house development, along with all of the other developing going on on our hill will fill the school right back up again.

Please reconsider this disruptive plan.

Thank you.

Sincerely,

Erika Pierson
11748 82nd Ave NE
Kirkland, WA 98034

From: Joelle Brown <joeller33@comcast.net>
Sent: Saturday, May 16, 2015 6:03 PM
To: Susan Lauinger
Subject: Radke Subdivision SUB15-00615

Susan Lauinger,

It has come to my attention, through the Finn Hill Neighborhood Alliance meeting and casual conversations, that the wooded property referenced above has been sold to builders intending to clear-cut the property and build 20 houses, under "best use" practices.

Here are my objections:

Finn Hill has been known for its wooded areas. In the past two to three years, I have seen one property after another sold and denuded. Trees that have been growing for over fifty years, cut down in a morning. This isn't something we can just change our minds about tomorrow. This is permanent.

My 8-year-old daughter has just been traumatically kicked out of the elementary school she has been going to, despite the fact that we live five blocks from the school. Three years of making friends and developing a sense of self, and now she must start over. The Lake Washington School District is playing catch-up with the current population density in the area, and this proposal means twenty future houses built within the boundary that we were just moved out of.

At first, I thought I was alone in my despair, thinking that I must be over-reacting; after all, I live in a subdivision too (built in 1964). However, after talking to my neighbors, I have some perspective and the current rate of development seems out of control. I propose a moratorium on land sales and (over)development until a cohesive neighborhood plan has been created and submitted to the city of Kirkland. In this instance, I beg you to consider the character of the neighborhood before allowing another treeless, cookie-cutter subdivision to be a permanent reminder of our failure to maintain a livable community.

Respectfully,
Joelle Brown
8516 NE 136th St
Kirkland WA 98034

From: Andrea Thompson <dudleythompson@gmail.com>
Sent: Monday, May 18, 2015 6:38 AM
To: Susan Lauinger
Subject: Fwd: Permit Number SUB15-00615

----- Forwarded message -----

From: **Andrea Thompson** <dudleythompson@gmail.com>
Date: Sunday, May 17, 2015
Subject: Permit Number SUB15-00615
To: slauinger@kirkland.wa.gov

Hi Susan

I am writing to you to submit my comment and objections to the development project above. I was in attendance at the Finn Hill Neighborhood association meeting several months ago, where the Toll Brothers came to talk about this project and present their plans for Kirkland. I was shocked at the news of this huge development in this quiet and green neighborhood. I am begging the city to reconsider approving this project in its current state. Please reconsider and lower the number of houses being approved for this project. Twenty homes going in where once stood one seems excessive, and a bit absurd. I understand the need for new homes in the urban growth areas, but this is too much. This sort of development takes away from Kirkland and from Finn Hill. I recall the developer being proud that they would be preserving four trees on the lot where now dozens stand. Four. Is this really what the future of Kirkland will look like? Is this what city planners have in mind for our "tree city"?

In addition these huge developments have a greater impact on more than just the environment. Lake Washington School District just competed rebuilding the school in that area, Carl Sandburg Elementary, in 2012. This school, in two short years, has already become over crowded and boundary adjustment had to be made. 20+ families are going to be moved out in the Fall of 2015. I have been told that the city works with the school district on these sorts of plans, but when the district is only allowed to build buildings based on current enrollment, this is a problem when huge projects like this come up. The school is done now - what comes next? I'm sure that this development was not on the radar of LWSD at the time of the plans for the new Carl Sandburg. The school will now be full again if these sort of mammoth developments are allowed to continue. You just can not continue to tear down one house and replace it with 8, 9 or 10 homes, especially when the former house probably contained elderly people with children no longer in attendance at the neighborhood schools. The numbers don't add up. There needs to be measure and sensible growth. Inheriting these problems from the unincorporated areas of Kind County is also no excuse. Kirkland needs to be smart about its growth and be proactive.

I would like to ask the planning commission to please reconsider this application and to make an adjustment for fewer houses. Ten homes with actual backyards would be more inline with the feel of the Finn Hill neighborhood. Not twenty homes crammed together like what is happening in neighboring Bothell. Kirkland prides itself on being a great place to live - but when

contractors are allowed to come in and maximize their profits over the benefits of the community and current residents, this is not the Kirkland that we all thought that we were buying into.

Please consider this project more carefully. Don't let contractor greed change the face of Kirkland forever. Keep Kirkland Green!

Thank you for your time and consideration.

Andrea Thompson

May 28, 2015

City of Kirkland
Planning and Community Development Department
123 5th Avenue
Kirkland, WA 98033

Attention: Susan Lauinger
Via: email: slauinger@kirklandwa.gov
Subject: RADKE Subdivision Vacant Parcel #3840700758
12432 Juanita Drive NE, 7922 NE 125th Street
Reference: Case Number: SUB15-00615

Dear Susan:

I am submitting this letter as formal written comments regarding the Radke Subdivision, reference Case Number SUB15-00615.

I have reviewed the Finn Hill Neighborhood Alliance Surface Water Plan dated November 2014. My comments are detailed below.

Concerns:

- ✓ Mitigation of surface water runoff (drainage).
- ✓ It appears block 13 RSA 8 is zoned for **low density single family residential** (not high density) yet the contractor is proposing to construct 20 family homes on little more than 3.3 acres of land.

Questions:

- Please describe what the City of Kirkland considers to be a valid VAULT for storm water drainage, "definition", e.g. Will the vault in question be completely under-ground and not visible on the surface?
- The existing Parcel #3840700758 is a heavily wooded area with some old growth trees and many that are in excess of 100 feet tall. How many existing trees will be left on this parcel?
- How noisy will the runoff into the vault be?

Request:

- ✓ Please provide the Hearing Examiner's contact data for appeal purposes, as needed.
- ✓ Confirmation from the City of Kirkland that the cul-de-sac on 125th Street NE will remain a NON through street to Juanita Drive NE.
- ✓ Visually, my front door will look at the proposed drainage area. I respectfully request NO chain-linked fence surrounding the proposed location of the drainage vault. If the vault needs to be fenced in, I respectfully request a Cedar or Redwood 6' wooden fence.
- ✓ I respectfully request the contractor leave a percentage of the existing trees in place.
- ✓ I respectfully request the City of Kirkland provides direction to the contractor that they plant hedges and shrubbery around the vault containment area. If the vault is completely underground, possibly hydro-seed or sod the surface.

Regards,

Daniel Freyling
7835 NE 125th Street
Kirkland, WA 98034
dlfreyling@comcast.net

Susan Lauinger

From: Lisbeth Clausen <karenlisbeth@frontier.com>
Sent: Tuesday, May 26, 2015 6:19 PM
To: Susan Lauinger
Subject: Radke subdivision on Finn Hill case No. SUB15-00615

City of Kirkland
Planning Development Department

Radke Subdivision on Finn Hill
case No. SUB15-00615

May 26, 2015

To Project Planner Ms. Susan Lauinger

On March 25, we attended a presentation by Radke-Toll Brothers at FHMS. Thanks for the recent "blue" notice and for giving us an opportunity to comment on the proposed new Radke-Toll subdivision on Finn Hill.

Traffic from the 20 new homes is a big concern for us. Vehicles, to/from the development, can only go through our narrow neighborhood streets. We are worried about daily car noise, speed, pollution and the effect it will have on our neighborhood. As you, of course, know, there will be no "enter/exit" to Juanita Drive.

Few sidewalks, school kids, pedestrians, wear & tear of street surfaces and noise are something the Planning Department hopefully will consider before making a recommendation on the Radke-Toll application.

How will emergency and utility vehicles make it in/out of those 2 small side streets, which are proposed by Radke-Toll Brothers?

How will construction noise be controlled? We understand there is a "code" indicating, which days and hours are allowed for construction. Please, inform us of the "rules" and a phone number, if "rules" are broken.

Thanks for reading our comments and questions.

Sincerely,

Dana and Lisbeth Clausen
7860 NE 124th Street
Kirkland, WA 98034

425 823 9760

karenlisbeth@frontier.com

-----Original Message-----

> From: Nancy McKenzie [<mailto:ngm1949@gmail.com>]

> Sent: Monday, May 18, 2015 5:30 PM

> To: Planning Commissioners

> Subject: Juanita drive

>

> I would like to know the thinking of the city of Kirkland planning department regarding yet another proposed 20-lot subdivision off of Juanita drive. Have any of you driven Juanita drive during rush hour either am or pm?

>

> Last Tuesday I left my house around 8:30am & I couldn't even go 3/4 of a mile due to the traffic backed up to Juanita beach. When I turned around at the 3/4 mile to go back home the traffic was backed up to plaza Garcia restaurant. It took me 15 minutes to go .10 of a mile so I could go home.

> Sent from my iPad

> Nancy McKenzie

My address is 11945 - 80th Pl. NE. And, as I stated in my earlier email, the traffic, during rush hour, on Juanita drive is bad. I am opposed to this new subdivision of a 20-lot parcel.

Sent from my iPad

Nancy McKenzie

Susan Lauinger

From: Mark <blueridger123@gmail.com>
Sent: Sunday, May 31, 2015 11:22 PM
To: Susan Lauinger
Subject: permit number SUB15 - 00615 .

Hi Susan,

As a homeowner in the vicinity of this proposed project I'd like to ask that the traffic from that new development be directed towards Juanita Drive which is an arterial, as opposed to funneling through our residential streets.

Thanks,
Mark Moorehead
8055 NE 124th Street
Kirkland, WA 98034
blueridger123@gmail.com



CITY OF KIRKLAND
Planning & Building Department
123 Fifth Avenue, Kirkland, WA 98033
425.587.3225 - www.kirklandwa.gov

MEMORANDUM

To: Eric R. Shields, AICP
Planning Director

From: Susan Lauinger, Project Planner

Date: August 13, 2015

File: **SEP15-00616**

Subject: ENVIRONMENTAL DETERMINATION FOR THE RADKE SUBDIVISION;
(SUB15-00615) FOR 20 LOTS AT 12432 JUANITA DR. NE (see Enclosure 1).

Background

Hans Christiansen, the applicant (Toll WA, LP) on behalf of the property owners, Richard and Charlene Radke, and Randall and Betsy Radke has applied for a subdivision, to divide 3.36 acres into 20 new single-family lots within the Finn Hill Neighborhood (see Enclosure 2). The subject property is zoned RSA 8 and includes three separate parcels; however one home at 7922 NE 125th St. (east of Lot 18) is not included in the subdivision. It will remain on a smaller parcel as a result of a separate lot line alteration process. The site lies east of Juanita Drive NE, but will have no direct access from that street as part of the proposal. Primary access to the site will be from NE 125th St., a neighborhood access street. Two of the lots (Lot 19 and 20) will access from 80th Avenue NE (See Enclosure 2 for the plat design).

State Environmental Policy Act (SEPA) required

SEPA rules require that subdivision applicants complete an environmental and traffic review. The entirety of these rules can be found in Chapter 197-11 of the Washington Administrative Code (WAC). As required, the applicant has submitted an environmental checklist and traffic study (See Enclosure 3). The City has reviewed the submitted information.

SEPA rules provide a mechanism for local jurisdictions to use when their regulations do not provide standards that would mitigate or otherwise reduce significant impacts to the environment resulting from the proposed action. When a development action is found to have *probable significant adverse environmental impacts*, it may be given a Determination of Significance (DS). If no probable significant adverse environmental impacts are found in environmental review, the project is given a Determination of Non-

significance (DNS). If the project has significant impacts and they can be mitigated, the City could issue a Mitigated Determination of Non-significance (MDNS).

The SEPA "threshold determination" is the formal decision as to whether the proposal is likely to cause a significant adverse environmental impact for which mitigation cannot be identified. Where City regulations have been adopted to address an environmental impact, it is presumed that such regulations are adequate to achieve sufficient mitigation (see Washington Administrative Code (WAC) section 197-11-660(1)(e) and (g)). Therefore, when requiring project mitigation based on adverse environmental impacts, the City would first consider whether a regulation has been adopted for the purpose of mitigating the environmental impact in question.

State Environmental Policy Act-- Impact Issues

The following issues are briefly addressed as they relate to the specific site and proposal. They are in the same order as shown in the Environmental Checklist (see Enclosure 3).

Environmental Elements:

1. **Earth:** This section of the Environmental Checklist concerns the geologic status of the site, and the potential for landslide or seismic conditions, as well as the amount of soil to be removed and brought to the site as part of the construction.

The site is gently sloped and shaped in a rolling rather than steep way. The City's sensitive area maps do not indicate a landslide or seismic hazard area on the subject property. Additionally, the applicant has obtained a Geotechnical Evaluation prepared by a qualified Geotechnical Engineer (See Enclosure 4). Chapter 85 of the Kirkland Zoning Code governs landslide hazard areas as well as erosion and seismic hazard areas. Per the Geotechnical Evaluation, there are no landslide hazards at this site. There are areas on this site that will have the soil removed and replaced due to fill that was brought and placed on site in years past. Chapter 85 of the Kirkland Zoning Code regulates soil fill and replacement.

2. **Air:** This section of the Environmental Checklist seeks to measure impacts to the air quality, and they relate to the Radke development as part of the construction process.

As the applicant states in the environmental checklist, the Washington State Clean Air Act, requires that impacts to the air be mitigated during construction. Additionally, the City requires that best management practices be used during construction such as watering the site to control dust and washing tires of trucks before leaving the site.

3. **Water:** The environmental review requires that any bodies of water be evaluated for impacts including wetlands, streams, ponds, lakes, and groundwater.

As part of the application materials, a critical areas investigation was submitted to determine if any of these environmentally sensitive areas are located at this site (See Enclosure 5). ACRE Environmental Consulting indicates that there are no bodies of water, no streams and no wetlands at this site. Staff have also visited the site to confirm this and concur with the evaluation; additionally, the City's sensitive area maps show no sensitive areas. All new lots will be hooked up to the City's water and sewer system and, no groundwater would be removed.

Storm water runoff: During the public comment period for this application, a few citizens submitted comments concerning the new storm water system that will be installed as part of this application (See Enclosure 6). The Public Works Department has submitted a memo in response to these concerns, which can be found as Enclosure 7. Storm water runoff from the developed site will be collected and conveyed to a detention system, called a vault, and released into the City's stormwater infrastructure per the Kirkland Municipal Code requirements. The vault will be located underground.

4. Plants: The applicant is required to list the types of vegetation currently on site and indicate how they will be affected by this development. This site has 269 significant trees on site as well as some understory shrubs and plants. Due to the significant grading that must occur to install the new roads and utilities, most of these trees will be removed. Several public comments were submitted lamenting the loss of these trees (See Enclosure 6). Chapter 95 of the Kirkland Zoning Code (KZC) addresses on site tree retention as well as trees within the public right of way and overhanging neighboring trees. Each new lot must maintain, either through tree retention or replanting, a minimum tree density. While many of the mature trees will be removed, they will be replaced and spaced throughout the site as is typical in a single-family development. Tree retention will be further addressed with the zoning permit/subdivision review and subsequent building permit process to confirm compliance with KZC Chapter 95.
5. Animals: The site is in an urban area and likely includes urban species such as songbird, small rodents, and occasionally large mammals such as deer. Urban wildlife will not be affected greater than any other single family site that is being developed within Kirkland. The newly planted trees will grow to provide new habitat for the various urban animal species that exist within Kirkland City limits.
6. Energy and natural resources: The types of energy that will be utilized as part of this development, such as natural gas and electricity are typical of single-family developments throughout the city and the region.
7. Environmental Health: This section of SEPA requires that the applicant list any toxic chemicals that will be used or have been used for this site.

As stated earlier, fill was placed at this site. This soil was taken from the construction of a gasoline station close to the site. The fill soil was tested by Environmental Associates and was found to have no common toxic chemicals above the minimum laboratory detection limits (see Enclosure 8).

8. Noise: The SEPA checklist indicates that noise can be a factor in development of a site. Short term noise impacts will occur that are associated with construction. The Kirkland Zoning Code has regulations that address construction noise impacts (KZC Section 115.25).
9. Land Use and Housing: The site will be developed as a single-family development which is consistent with the surrounding land use. This use is allowed in the RSA 8 zone.
10. Aesthetics, light and glare, recreation, historic and cultural preservation: There are no impacts to the surrounding neighborhood caused by this development beyond what a typical single-family development would create. Additionally, there are no culturally significant or historical structures on the Radke property.

Public Services

Three public comments addressed a situation with a nearby elementary school, called Carl Sandburg Elementary (see Enclosure 6). The comments contend that the Radke subdivision would over-burden this school, which had recently gone through a boundary adjustment to alleviate overcrowding. Lake Washington School District (LWSD) was contacted to make a statement addressing this issue. Their response is that the Radke development had already been considered at the time of the school boundary review process and was projected to contain 35 homes, not 20 as the current proposal stands (See Enclosure 9).

Additionally, the City collects school impact fees from the developer for the school district, which are intended to mitigate impacts to schools.

Transportation

Many of the public comments associated with this application brought up traffic and traffic safety (See Enclosure 6). The applicant has submitted a traffic report (See Enclosure 10). The City's Transportation Engineer has reviewed that report, and has also addressed the public comments in relation to traffic and traffic safety. His review can be found as Enclosure 11. The City's traffic engineer does not recommend any additional mitigations for traffic other than payment of traffic mitigation impact fees at time of building permit.

I have had an opportunity to visit the site and review the environmental checklist for the project referenced above and all of the documents referenced in this memo. I have not found any probable, significant, adverse environmental impacts that cannot be

mitigated through existing City regulations found in the Kirkland Municipal Code and Zoning Code.

Should you have any questions, please contact me.

Enclosures:

1. Vicinity Map
2. Preliminary Plat Plans
3. Environmental Checklist
4. Geotechnical Report prepared by Associated Earth Sciences, Inc.
5. Wetland and Stream investigation prepared by ACRE Environmental Consulting
6. Public Comment letters (there are 8 letters in this enclosure)
7. Memo from Rob Jammerman, Public Works response to comments
8. Environmental Assessment by Environmental Associates, Inc.
9. Response from Lake Washington School District
10. Traffic Report by Transpo Group dated 3/15/15
11. City Transportation Engineer traffic review

Review by Responsible Official:

I concur

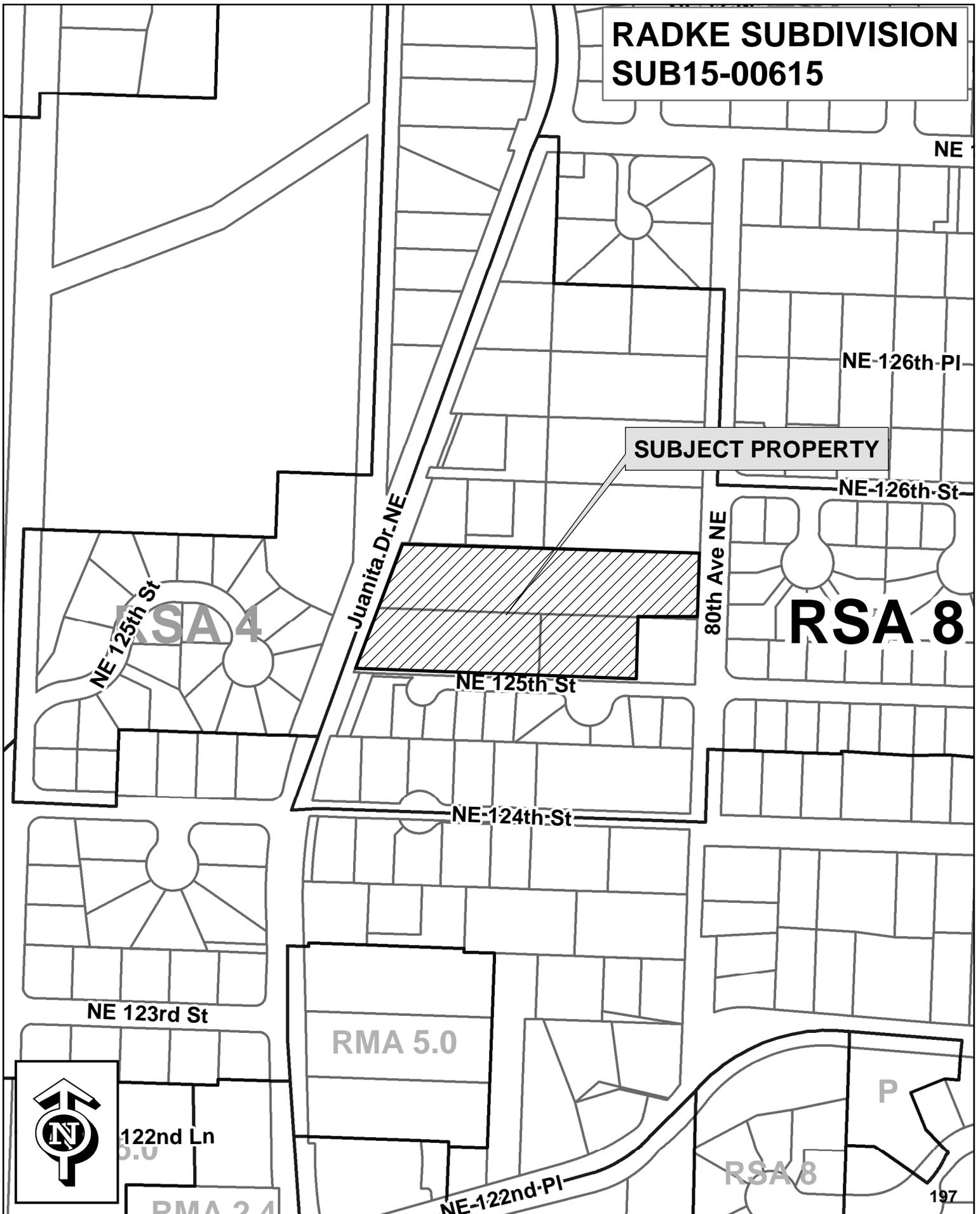
I do not concur

Comments: _____

 Eric R. Shields, AICP
 Planning Director

 Date

RADKE SUBDIVISION SUB15-00615



SUBJECT PROPERTY

RSA 8

RMA 5.0

122nd Ln

RMA 2.4

RSA 8

