

MEMORANDUM

DATE:	October 5, 2021
TO:	Allison Hanson, Knollwood Estates
FROM:	Christine Johnson, ISA Certified Arborist, PN-8730A
RE:	2021 Knollwood Estates Tree Inventory

Summary

Teragan & Associates, Inc. was contacted by Ms. Allison Hanson (Knollwood Estates) to update a 2017 tree inventory for the Knollwood Estates property (37600 Sunset St, Sandy, OR 97055). One site visit was made on September 27, 2021. The following information was collected for every tree over 8-inches in diameter: tree number, common name, scientific name, DBH (diameter at breast height), health, structural condition, pertinent comments and location (Appendix 3). Trees were not tagged. A site map of tree locations is provided in Appendix 4. A total of 202 trees were inventoried.

Sincerely,

Christine Johnson

Christine Johnson, MS ISA Certified Arborist, PN-8730A Member, American Society of Consulting Arborists E: christine@teragan.com | C: 971.978.9381

Enclosures:

Appendix 1:	Certification of Performance
Appendix 2:	Assumptions and Limiting Conditions
Appendix 3:	Tree Inventory
Appendix 4:	Tree Map

Appendix 1: Certification of Performance

I, Christine Johnson, certify:

- That a representative of Teragan & Associates, Inc., has inspected the tree(s) and/or the property referred to in this report. The extent of the evaluation is stated in the attached report.
- That Teragan & Associates, Inc. has no current or prospective interest in the vegetation of the property that is the subject of this report, and Teragan & Associates, Inc. has no personal interest or bias with respect to the parties involved.
- That Teragan & Associates, Inc.'s compensation is not contingent upon the reporting of a predetermined conclusion that favors the cause of the client or any other party, or upon the results of the assessment, the attainment of stipulated results, or the occurrence of any subsequent events.
- That the analysis, opinions, and conclusions that were developed as part of this report have been prepared according to commonly accepted arboricultural practices.
- That a Board-Certified Master Arborist has overseen the gathering of data.

Appendix 2: Assumptions and Limiting Conditions

- 1. Any legal description provided to the consultant is assumed to be correct. Teragan and Associates, Inc. checked the species identification and tree diameters in the field.
- 2. It is assumed that this property is not in violation of any codes, statutes, ordinances, or other governmental regulations.
- 3. The consultant is not responsible for information gathered from others involved in various activities pertaining to this project. Care has been taken to obtain information from reliable sources.
- 4. Loss or alteration of any part of this delivered report invalidates the entire report.
- 5. Drawings and information contained in this report may not be to scale and are intended to be used as display points of reference only.
- 6. The consultants' role is only to make recommendations. Inaction on the part of those receiving the report is not the responsibility of the consultant.



Tree No.	Unit/Location	Common Name	Botanical Name	DBH [*] (in)	Condition**	Structure**	Con
1	N/A	western redcedar	Thuja plicata	24	Fair	Good	Thin, discolored foliage.
2	1	European white birch	Betula pendula	13	Very poor	Poor	Thin, heavy sap sucker holes, in decline.
3	1	Japanese maple	Acer palmatum	9	Fair	Fair	Mechanical damage at trunk base; diameter
4	1	dogwood	Cornus florida	6	Good	Good	Codominant leaders: 4,4.
5	Street	purple leaf plum	Prunus cerasifera	13	Good	Poor	Topping history, crossing branches, fungu
6	1	western redcedar	Thuja plicata	25	Fair	Good	Thin, discolored foliage.
7	1	Douglas fir	Pseudotsuga menziesii	28	Good	Good	
8	1	Pine	Pinus sp.	20	Good	Good	5 needles per cluster, 2-3" long, long cone
9	2	Douglas fir	Pseudotsuga menziesii	19	Good	Good	
10	2	Douglas fir	Pseudotsuga menziesii	17	Good	Poor	Lost top at 30' AGL.
11	2	Douglas fir	Pseudotsuga menziesii	21	Good	Good	
12	2	Douglas fir	Pseudotsuga menziesii	14	Good	Fair	Horizontal buldging at 12' AGL.
13	2	Douglas fir	Pseudotsuga menziesii	26	Good	Good	
14	2	Douglas fir	Pseudotsuga menziesii	19	Good	Good	
15	2	bigleaf maple	Acer macrophyllum	12	Good	Fair	Multiple leaders:9,6,4.
16	3	European white birch	Betula pendula	20	Good	Good	
17	3	bigleaf maple	Acer macrophyllum	14	Good	Fair	Unbalanced to N.
18	3	Douglas fir	Pseudotsuga menziesii	15	Good	Fair	Unbalanced to the NW.
19	4	bigleaf maple	Acer macrophyllum	37	Good	Fair	Codominant leaders:22,17.
20	4	bigleaf maple	Acer macrophyllum	8	Good	Fair	Unbalanced to W; boundary tree.
21	4	bigleaf maple	Acer macrophyllum	27	Good	Fair	Codominant leaders:17,17, 12, 5; unbalan
22	4	red alder	Alnus rubra	15	Poor	Poor	Dying from top down, multiple trunk cavit
23	5	red maple	Acer rubrum	15	Good	Fair	Trunk damage.
24	5	bigleaf maple	Acer macrophyllum	17	Good	Good	
25	5	bigleaf maple	Acer macrophyllum	16	Good	Fair	Unbalanced to the W, 7" mountain ash to
26	5	bigleaf maple	Acer macrophyllum	13	Good	Fair	Unbalanced to the W; bark discoloration.
27	6	western redcedar	Thuja plicata	11	Good	Fair	Lost top.
28	6	western redcedar	Thuja plicata	60	Good	Fair	Codominant leaders:18,16.
29	6	western redcedar	Thuja plicata	11	Good	Fair	Large lateral leader.
30	6	western redcedar	Thuja plicata	19	Good	Fair	Codominant leaders:17,9.
31	6/7	Douglas fir	Pseudotsuga menziesii	18	Good	Good	
32	7	western redcedar	Thuja plicata	43	Good	Good	Mechanical injury on S side of trunk.
33	8	bigleaf maple	Acer macrophyllum	17	Good	Good	incontaited injury on 5 side of traink.
34	8	bigleaf maple	Acer macrophyllum	19	Good	Fair	Unbalanced to the N.
35	8	bigleaf maple	Acer macrophyllum	44	Good	Fair	Three codominant leaders:30,25,20(approx
36	9	Japanese maple	Acer palmatum	12	Fair	Fair	Three codominant leaders:9,7,3; thin, basa
30	9	Douglas fir	Pseudotsuga menziesii	36	Good	Good	
38	9	bigleaf maple	Acer macrophyllum		1		Unhalanced to E: trunk wound on N and T
38	9	Douglas fir	Pseudotsuga menziesii	20	Good	Fair	Unbalanced to E; trunk wound on N and E
	9	, , , , , , , , , , , , , , , , , , ,	0	41	Good	Good	
40	9	Douglas fir	Pseudotsuga menziesii	33	Good	Good	

mments
ter measured at 0.5' AGL.
ter measured at 0.5 Mol.
us.
e.
nced to W, starts on neighboring property.
vities.
o the S.
ox); growth oddities at base of trunk. sal cavity.
sai cavity.
E sides.



Con	Structure ^{**}	Condition ^{**}	DBH [*] (in)	Botanical Name	Common Name	Unit/Location	Tree No.
	Good	Good	12	Sequoia sempervirens	coast redwood	9	41
Codominant leaders:13,7.	Fair	Good	15	Pinus contorta	shore pine	9	42
	Good	Good	15	Pseudotsuga menziesii	Douglas fir	9	43
	Good	Good	14	Pseudotsuga menziesii	Douglas fir	9	44
	Good	Good	12	Pseudotsuga menziesii	Douglas fir	9	45
Codominant leaders:5,5.	Fair	Good	7	Aesculus hippocastanum	horsechestnut	9	46
Diameter measured at trunk base.	Good	Good	8	Acer palmatum	Japanese maple	7	47
Diameter measured at trunk base; large me	Fair	Good	8	Acer palmatum	Japanese maple	7	48
Codominant leaders at 15' AGL.	Fair	Good	18	Pinus nigra	black pine	10	49
Tree 52.?	Good	Good	10	Picea sp.	Spruce	10	50
Epicormic growth; unbalanced to W.	Fair	Good	8	Prunus sp.	cherry	11	51
Topped at 5.5' AGL.	Very Poor	Fair	8	Betula pendula	European white birch	11	52
Fungus, turkey trot, mower damage, recen	Poor	Fair	22	Prunus serrulata	flowering cherry	Street	53
High crown.	Fair	Good	13	Pinus contorta	shore pine	57	54
	Good	Good	22	Pseudotsuga menziesii	Douglas fir	57	55
	Good	Good	18	Thuja plicata	western redcedar	57	56
	Good	Good	8	Thuja plicata	western redcedar	57/57	57
Diameter measured at 2.5' AGL; three lead	Fair	Good	18	Pinus contorta	shore pine	56	58
Extreme phototropism to the N.	Fair	Fair	17	Pinus contorta	shore pine	56	59
	Good	Good	22	Pseudotsuga menziesii	Douglas fir	56	60
	Good	Good	22	Pseudotsuga menziesii	Douglas fir	56	61
	Good	Good	7	Cercidiphyllum japonicum	Katsura	55	62
Codominant leaders:25,8,20,20,25(approx	Fair	Good	46	Thuja plicata	western redcedar	54	63
Codominant leaders:12,25; thin, some disc	Fair	Fair	28	Thuja plicata	western redcedar	54	64
, , , , , , , , , , , , , , , , , , , ,	Good	Good	29	Pseudotsuga menziesii	Douglas fir	54	65
Unbalanced to the N; lean N.	Fair	Good	21	Pseudotsuga menziesii	Douglas fir	54	66
Suppressed.	Poor	Fair	8	Pseudotsuga menziesii	Douglas fir	54	67
	Good	Good	26	Pseudotsuga menziesii	Douglas fir	54	68
Adjacent	Good	Good	24	Pseudotsuga menziesii	Douglas fir	53/60	69
Adjacent	Good	Good	25	Pseudotsuga menziesii	Douglas fir	53/60	70
Lean to N.	Fair	Good	22	Pseudotsuga menziesii	Douglas fir	53/60	71
Lean to S.	Fair	Good	21	Pseudotsuga menziesii	Douglas fir	53/60	72
High crown.	Fair	Good	12	Fraxinus pennsylvanica	ash	53	73
	Good	Good	21	Pseudotsuga menziesii	Douglas fir	59	74
1	Good	Good	18	Pseudotsuga menziesii	Douglas fir	59	75
High crown.	Fair	Good	16	Pseudotsuga menziesii	Douglas fir	59	76
Four codominant leaders: 15,14,12,8.	Fair	Good	25	Acer macrophyllum	bigleaf maple	58	77
Codominant leaders:18,8.	Fair	Good	18	Acer macrophyllum	bigleaf maple	58	78
Codominant leaders:5,5.	Fair	Good	7	Thuja plicata	western redcedar	58	79
Codominant roudors.5,5.	Good	Good	10	Thuja plicata	western redcedar	58	80

mments
nechanical wound.
nt sidewalk replacement.
in sidewark repracement.
aders at 6'; inclusion.
x). scoloration.
scoloration.



Tree No.	Unit/Location	Common Name	Botanical Name	DBH [*] (in)	Condition**	Structure ^{**}	Com
81	58	bigleaf maple	Acer macrophyllum	17	Good	Good	Codominant leader split at 17' AGL.
82	58	bigleaf maple	Acer macrophyllum	23	Good	Fair	Fused codominant leaders:15,12,12.
83	Intersection	Douglas fir	Pseudotsuga menziesii	35	Good	Good	DBH approx.
84	56	Douglas fir	Pseudotsuga menziesii	24	Good	Good	
85	56	Douglas fir	Pseudotsuga menziesii	17	Good	Good	
86	56	Douglas fir	Pseudotsuga menziesii	21	Good	Good	
87	57	Douglas fir	Pseudotsuga menziesii	20	Good	Good	
88	57	Douglas fir	Pseudotsuga menziesii	25	Good	Good	
89	58	red maple	Acer rubrum	25	Good	Fair	Codominant leaders:18,17.
90	58/59	red alder	Alnus rubra	22	Good	Good	
91	58	Douglas fir	Pseudotsuga menziesii	28	Good	Good	
92	59	Douglas fir	Pseudotsuga menziesii	18	Good	Good	
93	Street/58	golden chain tree	Laburnum × watereri	14	Good	Good	Diameter measured at 4.0' AGL; suckers, cr
94	Street/59	golden chain tree	Laburnum × watereri	12	Good	Poor	History of topping; trunk decay.
95	59	spruce	Picea sp.	7	Good	Good	instory of topping, training of the
96	59	Douglas fir	Pseudotsuga menziesii	19	Good	Good	
97	59	Douglas fir	Pseudotsuga menziesii	19	Good	Good	
98	59	Douglas fir	Pseudotsuga menziesii	16	Good	Good	
99	59	Douglas fir	Pseudotsuga menziesii	16	Good	Good	
100	59	bigleaf maple	Acer macrophyllum	23	Good	Good	
101	59	bigleaf maple	Acer macrophyllum	20	Good	Good	
102	59	bigleaf maple	Acer macrophyllum	16	Good	Fair	Trunk decay, S side, crossing branch with 1
103	60/landscape bed	shore pine	Pinus contorta	16	Fair	Fair	Sparse foliage; high crown.
104	60/landscape bed	Douglas fir	Pseudotsuga menziesii	23	Good	Good	DBH approx.
105	60/landscape bed	Douglas fir	Pseudotsuga menziesii	29	Good	Good	DBH approx.
106	60/landscape bed	Douglas fir	Pseudotsuga menziesii	30	Good	Good	
107	Street	purple leaf plum	Prunus cerasifera	10	Good	Fair	History of topping.
108	Mailboxes	Douglas fir	Pseudotsuga menziesii	24	Good	Good	instory or topping.
109	Mailboxes	shore pine	Pinus contorta	12	Good	Good	
110	Mailboxes	Douglas fir	Pseudotsuga menziesii	26	Good	Good	
111	Playground	European white birch	Betula pendula	20	Good	Fair	Sweeping trunk.
112	Playground	ash	Fraxinus pennsylvanica	14	Good	Good	
113	Playground	red maple	Acer rubrum	16	Good	Good	
113	Playground	Colorado blue spruce	Pinus pungens	14	Good	Good	
115	Playground	European white birch	Betula pendula	14	Good	Good	
115	51	cherry	Prunus sp.	9	Good	Good	
110	51	red alder	Alnus rubra	15	Good	Good	
117	51	shore pine	Pinus contorta	13	Good	Good	
119	51	Japanese maple	Acer palmatum	8	Good	Good	Five codominant leaders:5,4,3,3,2.
119	49	Japanese maple	Acer palmatum	9	Good	Good	Diameter measured at ground level.

omments
s, crossing branches, multiple leaders.
th 102.
ui 102.



Tree No.	Unit/Location	Common Name	Botanical Name	DBH [*] (in)	Condition**	Structure ^{**}	Con
121	49	flowering cherry	Prunus serrulata	9	Fair	Fair	Grafted; topped tree to the N.
122	48	spruce	Picea sp.	7	Good	Good	Stomatal blooms on all sides, blueish tint;
123	48	spruce	Picea sp.	9	Good	Fair	Diameter measured at 2' AGL; codominan
124	48	spruce	Picea sp.	10	Good	Fair	Diameter measured at 2' AGL; codominan
125	46	European white birch	Betula pendula	19	Good	Fair	Multiple leaders:12,11,9,5.
126	46	Douglas fir	Pseudotsuga menziesii	25	Good	Fair	Codominant leaders at 25' AGL.
127	46	Douglas fir	Pseudotsuga menziesii	28	Good	Fair	Codominant leaders:23,16.
128	46	red alder	Alnus rubra	16	Good	Good	
129	46	western redcedar	Thuja plicata	17	Good	Fair	Codominant leaders at 30' AGL.
130	46	Douglas fir	Pseudotsuga menziesii	20	Good	Good	
131	46	Douglas fir	Pseudotsuga menziesii	26	Good	Good	
132	46	Douglas fir	Pseudotsuga menziesii	22	Good	Good	
133	46	red alder	Alnus rubra	19	Fair	Poor	Codominant leaders fused; one leader dea
134	46	shore pine	Pinus contorta	12	Good	Fair	Unbalanced to the S.
135	46	red alder	Alnus rubra	8	Good	Good	
136	46	red alder	Alnus rubra	16	Good	Good	
137	46	red alder	Alnus rubra	18	Good	Good	
138	46	cottonwood	Populus trichocarpa	21	Good	Good	
139	46	red alder	Alnus rubra	22	Good	Poor	Codominant leaders:18,12; trunk decay in
140	46	red alder	Alnus rubra	20	Good	Good	Three leaders, separate:13,11,10; tucked b
141	45	cherry	Prunus sp.	17	Good	Fair	Codominant leaders:15,9.
142	45	red alder	Alnus rubra	23	Good	Fair	Codominant leaders:18,14.
143	44	Douglas fir	Pseudotsuga menziesii	24	Good	Good	Ivy.
144	44	shore pine	Pinus contorta	19	Good	Fair	Ivy; large lateral leader at 6' AGL.
145	44	Douglas fir	Pseudotsuga menziesii	27	Good	Good	ry, ange aderar feader at 6 mol.
146	44	western redcedar	Thuja plicata	19	Good	Good	
147	44	bigleaf maple	Acer macrophyllum	29	Good	Fair	Fused trunks.
148	40	plum	Prunus sp.	8	Good	Good	Possibly chokecherry; multistem; diamete
149	40	corkscrew willow	Salix matsudana 'Tortuosa'	15	Good	Fair	Codominant leaders:13,7; fused in two loo
150	37	lilac	Syringa sp.	11	Good	Fair	Seven codominant leaders: 6,5,4,4,3,3,2.
151	36	sweet cherry	Prunus avium	15	Good	Fair	Multiple leaders:11,8,4,3,3; boundary tree
152	34	plum	Prunus sp.	Avg. 4	Good	Good	12 leaders averaging 4" diameter.
153	33	shore pine	Pinus contorta	14	Good	Fair	Codominant leaders at 20' AGL.
154	33	cherry	Prunus sp.	6	Good	Fair	Codominant leaders:5,4.
155	34	service berry	Amelanchier sp.	9	Good	Fair	Two main leaders:8,5; heavy ivy load; bot
155	34	shore pine	Pinus contorta	20	Good	Fair	Three leaders:18(fused), 9.
150	32	Colorado blue spruce	Pinus pungens	15	Good	Good	
157	32	western redcedar	Thuja plicata	25	Good	Good	1
158	32	spruce	Picea sp.	8	Good	Fair	Codominant leaders at 5' AGL.
160	32/31	European white birch	Betula pendula	8 17	Good	Good	Couominant reaucis at J AOL.

mments
t; DBH approx.
nt leaders.
nt leaders.
ad; basal cavity; trunk cavities.
n E leader.
behind cottonwood.
er measured at ground level.
ocations, embedded objects.
seations, embedded objects.
æ.
oundary tree; species approx.



Tree No.	Unit/Location	Common Name	Botanical Name	DBH [*] (in)	Condition**	Structure ^{**}	Com
161	32/31	European white birch	Betula pendula	14	Good	Fair	Slight lean to S.
162	32	cherry	Prunus sp.	7	Good	Fair	High crown.
163	32	Douglas fir	Pseudotsuga menziesii	40	Good	Fair	Boundary tree; DBH approx.; codominant
164	31	cherry	Prunus sp.	15	Good	Fair	Codominant leaders:12,9.
165	31	spruce	Picea sp.	13	Good	Fair	Codominant leaders:10, 9; cultivated spruc
166	31	Plum	Prunus sp.	8	Good	Fair	Two main leaders:6,6.
167	ROW North	Douglas fir	Pseudotsuga menziesii	27	Good	Fair	Codominant leaders:24,12.
168	ROW North	bigleaf maple	Acer macrophyllum	Avg. 3	Good	Poor	Large sprout ftom old stump; crossing lead
169	ROW North	shore pine	Pinus contorta	14	Fair	Fair	High crown.
170	ROW North	red alder	Alnus rubra	13	Good	Good	
171	ROW North	red alder	Alnus rubra	15	Good	Good	
172	ROW North	red alder	Alnus rubra	19	Good	Fair	Codominant leaders:14,13.
173	ROW North	western redcedar	Thuja plicata	8	Good	Good	
174	ROW North	western redcedar	Thuja plicata	12	Good	Good	
175	ROW North	western redcedar	Thuja plicata	11	Good	Good	
176	ROW North	red alder	Alnus rubra	16	Good	Fair	Sweeping trunk.
177	ROW North	red alder	Alnus rubra	20	Good	Fair	Sweeping trunk.
178	ROW South	western redcedar	Thuja plicata	15	Good	Good	
179	ROW South	red alder	Alnus rubra	23	Good	Good	
180	ROW South	western redcedar	Thuja plicata	8	Good	Good	
181	ROW South	red alder	Alnus rubra	19	Good	Good	
182	ROW South	red alder	Alnus rubra	16	Good	Fair	Sweeping trunk.
183	ROW South	red alder	Alnus rubra	17	Good	Fair	Codominant leaders:12,12.
184	ROW South	Douglas fir	Pseudotsuga menziesii	19	Good	Good	
185	ROW South	willow	Salix sp.	19	Good	Fair	Codominant leaders:15,13; unbalanced to t
186	30	Douglas fir	Pseudotsuga menziesii	7	Fair	Good	Suppressed.
187	30	western redcedar	Thuja plicata	8	Good	Fair	Trunk wound on E side.
188	30	western redcedar	Thuja plicata	17	Good	Good	
189	30	Douglas fir	Pseudotsuga menziesii	22	Good	Good	
190	30	Douglas fir	Pseudotsuga menziesii	19	Good	Good	
191	30	bigleaf maple	Acer macrophyllum	34	Good	Fair	Four codominant leaders:18,17,17,17(appr
192	28	ash	Fraxinus pennsylvanica	23	Good	Good	Diameter measured at 4' AGL.
193	28	vine maple	Acer circinatum	8	Good	Fair	Diameter measured at ground level, twistin
194	27	spruce	Picea sp.	8	Good	Fair	Codominant leaders:6,5.
195	26	dogwood	Cornus florida	6	Good	Fair	Codominant leaders:5,4; splits at 2' AGL.
196	24	quaking aspen	Populus tremuloides	16	Good	Fair	Three codominant leaders:10,9,9.
197	19	Douglas fir	Pseudotsuga menziesii	21	Good	Good	
198	19	mountain ash	Sorbus americana	12	Good	Fair	Three fused codominant leaders:10,6,4.
199	19/18	cherry	Prunus sp.	6	Good	Fair	Codominant leaders at 2' AGL: 5,4.
200	17	deodar cedar	Cedrus deodara	12	Good	Good	

mments
t leaders at 40' AGL.
uce.
aders.
o the S; species is approx.
the b, species is upprovi
prox); ivy.
ing and crossing branches.



Conducted on 9/27/2021

ſ	Tree No.	Unit/Location	Common Name	Botanical Name	DBH [*] (in)	Condition ^{**}	Structure ^{**}		Com
	201	15	red maple	Acer rubrum	19	Good	Good		
	202	15	ash	Fraxinus pennsylvanica	26	Good	Fair	Limbs have been topped.	

¹**DBH** (**Diameter at Breast Height**). The trunk diameter measured at industry standard, 4.5 feet above ground.

²Condition and Structure ratings range from Good, Fair, Poor, Very Poor, to Dead.

Page 8 of 19 10/5/2021

mments

Appendix 4: Tree Map

An interactive map is available via Google MyMaps: <u>https://www.google.com/maps/d/u/0/edit?mid=1_T3cx2wk2GNA1TEen7Ic4VRNDrU34bcX&usp=sharing</u>

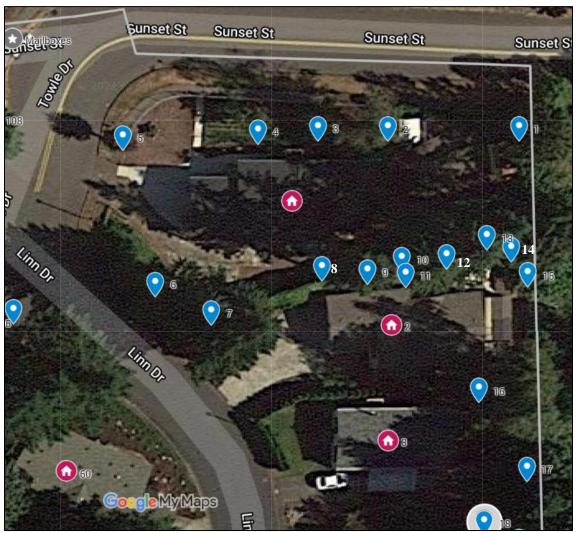


Figure 1 Northeast property lines. Trees 1-18.

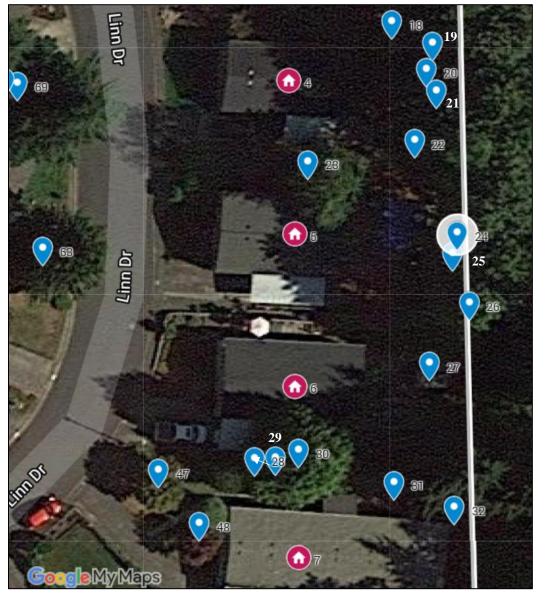


Figure 2 East property line. Trees 18-32, 47 and 48.

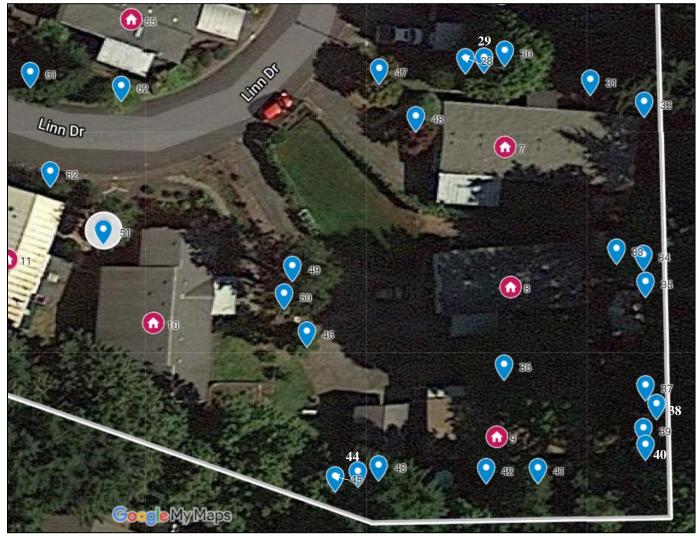


Figure 3 Southeast property lines. Trees 32-52.



Figure 4 South property line. Trees 52-61.

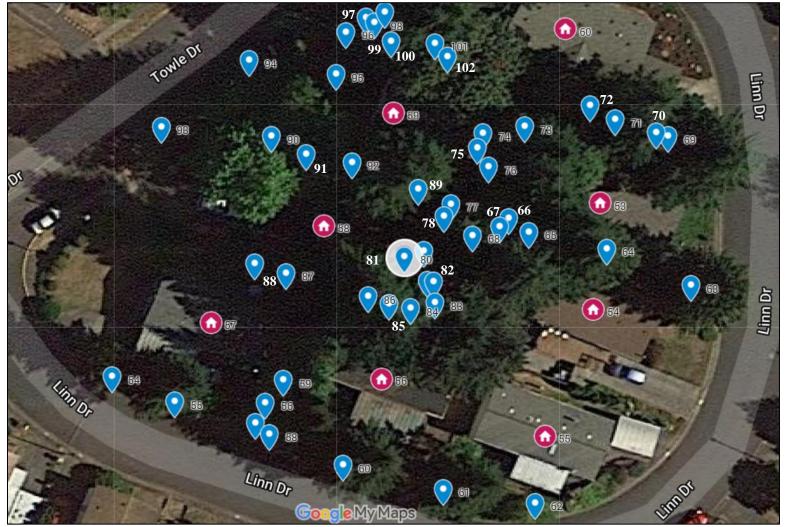


Figure 5 Linn Dr. Trees 54-102.

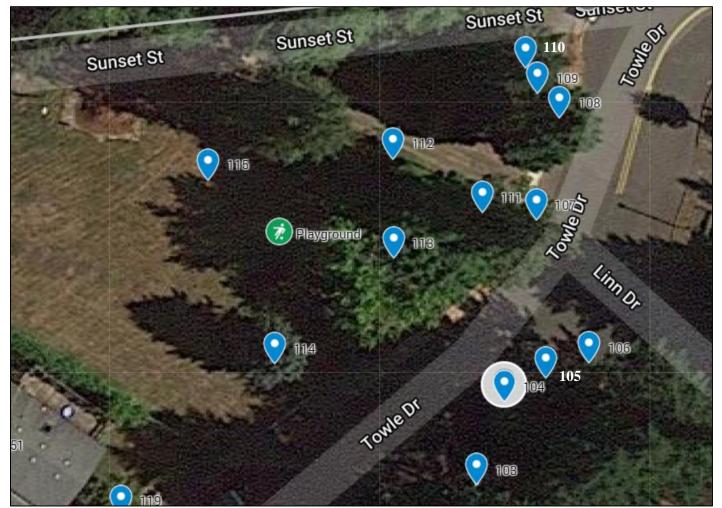


Figure 6 Intersection of Towle Dr, Linn Dr, and Sunset St. Trees 103-115.

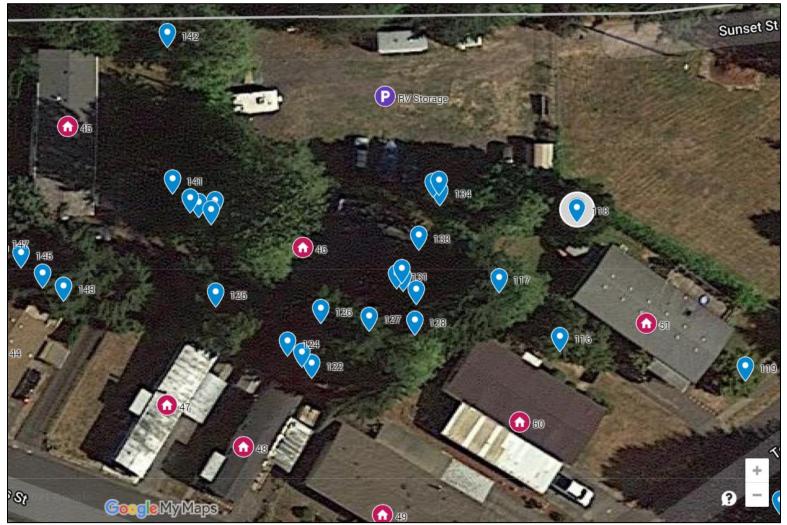


Figure 7 Near RV Storage. Trees 116-145.

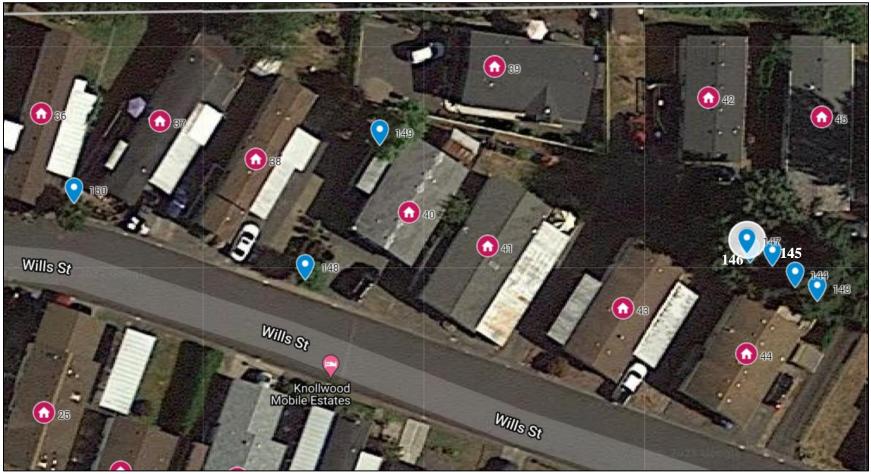


Figure 8 North property line. Trees 143-150.

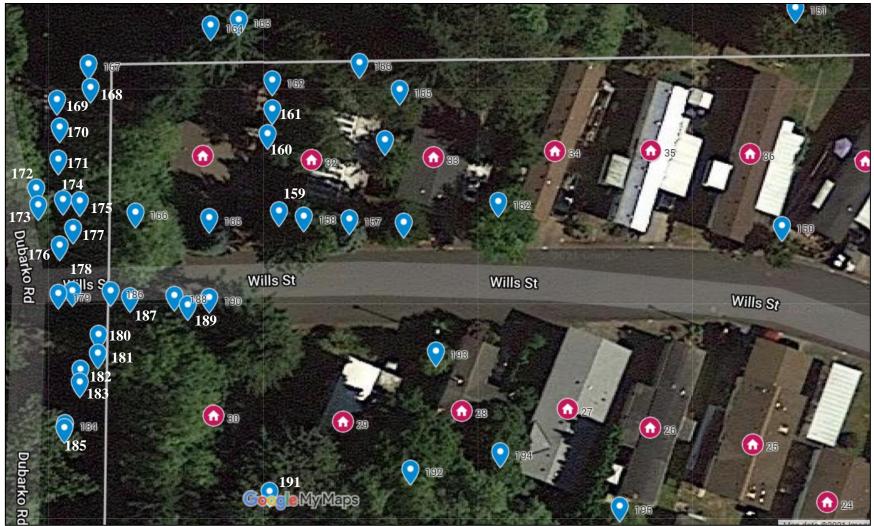


Figure 9 Northwest and west property line. Trees 150-195.

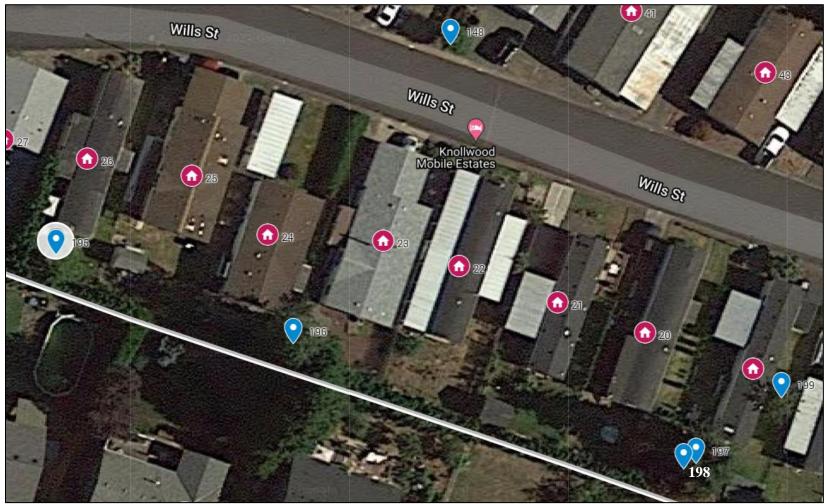


Figure 10 South property line. Trees 195-199.

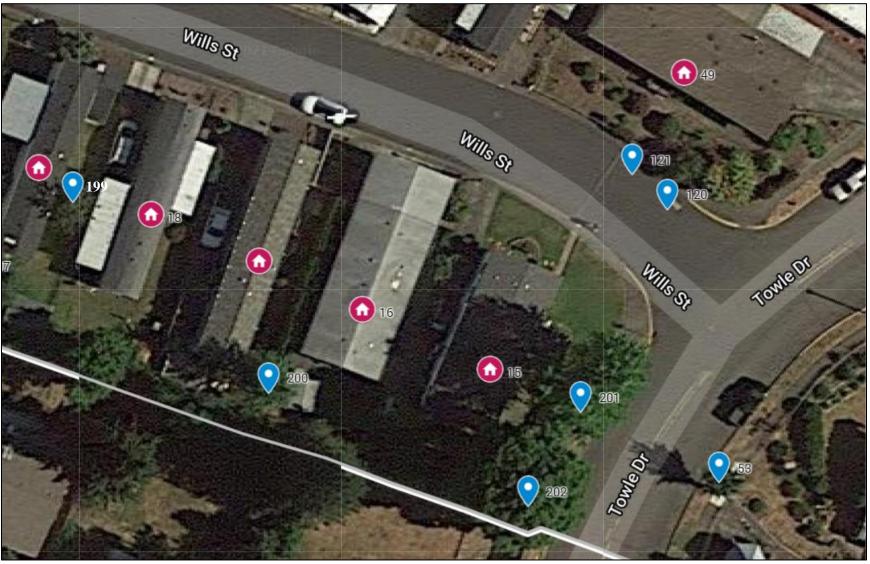


Figure 11 South property line. Trees 199-202, 120 and 121.