AFM
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East Lake Sammamish Trail
Inglewood Hill Road Parking Lot Project

Tree Inventory/Assessment Report

Prepared for:

Parametrix

6/17/2017
Updated 7/7/17

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1. Summary

An assessment of significant trees within the Inglewood Hill Parking Lot Project area was conducted. The subject area is south of Kokomo Drive from Station 473+00 to 467+50, and as shown on the attached map. As defined in the Sammamish Municipal Code, significant trees are coniferous trees with a DBH (diameter at breast height, 4 ½' above ground) of 8 inches or greater and deciduous trees with a DBH of 12 inches or greater. The assessment included (1) a general inventory of significant trees within the proposed clearing and grubbing (C&G) limits and (2) a more detailed evaluation of significant trees just beyond the clearing and grading limits that may be adversely impacted by parking lot improvements.

Data for significant trees can be found in the attached Tree Summary Table. Detailed evaluations were completed for 14 significant trees within the C&G limits. An additional 10 trees were assessed outside of the C&G limits.

Of the 14 trees existing within the proposed C&G limits, 13 of these are in 'poor' condition and considered non-viable. 12 of these were topped in the recent past and the other is in vast decline and over 90% dead.

Of the 10 trees assessed outside of the C&G limits, two are in poor condition and 'high' risk. These are recommended for removal to maintain risks at acceptable levels.

Significant Tree data is summarized as follows.

Total Trees Assessed Inside C&G Limits	**14**
# of Healthy/Viable Trees	1
# of Unhealthy/Non-viable Trees	13
Total Trees Assessed Outside C&G Limits	**10**
# of Healthy/Viable Trees	8
# of Unhealthy/Non-viable Trees	2
Total Trees	**24**
Total # of Viable Trees to be Removed	**1**
Total # of Non-Viable trees to be removed	**15**
Total # of Trees Saved	**8**

Recommended pruning shall be performed prior to construction to avoid unnecessary damage to trees to be retained and for worker safety. Pruning recommendations are identified in the Tree Summary Table.

2. Client

Parametrix
719 2nd Avenue, Suite 200
Seattle, WA 98104

3. Assignment

The assignment is to conduct a condition assessment of all significant trees within the project area as shown on the attached map, and to report on those findings.

4. Purpose and Use of Report

The purpose of this report is to provide Parametrix with baseline data for trees within the project area and those potentially affected by the planned improvements. This data will aid the client in determining which trees can be saved or preserved and which ones represent risk that should be abated where appropriate.

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5. Limits of Assignment

The assignment is limited to the information gathered during the site visit in June of 2017 and references noted in this report. No invasive methods were used to assess tree condition unless fully described in the "Analysis and Testing" section of this report. Information from published sources cited herein is assumed to be reliable. Impacts and the long-term viability of trees were judged by evaluating tree conditions and proposed improvements. No staking of improvements was done prior to the assessment, so the assessment is limited to interpretation of site plans. No final elevations are provided on site plans, which further limit the evaluation of the depth of cuts and fills adjacent to subject trees.

6. Methodology

Each tree in the assignment was visually examined for outward defects and indications of decline. Tree diameters (diameter at breast height, 4.5' above ground level) were measured by tape or estimated. The tree heights were measured using a Spiegel Relaskop or estimated. Crown width in four cardinal directions was measured by tape or estimated. The tree assessment procedure involves the examination of many factors:

- The crown of the tree is examined for current vigor. This is comprised of inspecting the crown (foliage, buds and branches) for color, density, form, and annual shoot growth, limb dieback and disease. The percentage of live crown is estimated for coniferous species only and scored appropriately.

- The bole or main stem of the tree is inspected for decay, which includes cavities, wounds, fruiting bodies of decay (conks or mushrooms), seams, insects, bleeding, callus development, broken or dead tops, structural defects and unnatural leans. Structural defects include crooks, forks with V-shaped crotches, multiple attachments, and excessive sweep.

- The root collar and roots are inspected for the presence of decay, insects and/or damage, as well as if they have been injured, undermined or exposed, or original grade has been altered.

Information for the trees subject to this report can be found on the attached Tree Summary Table.

7. Observations/Discussion

There are few significant trees of high retention value within the project area. A total of 24 trees were assessed. These are comprised of native species of Pacific madrone, bitter cherry, big leaf maple, black cottonwood and Oregon ash. All of these are commonly found up and down the trail corridor.

Tree #8044 as shown on the plan no longer exists. This tree has been removed.

12 of the subject trees have been recently topped, likely to remove dead and or dying tops and to reduce hazard potential. These include #6000, #6001, #6002, #8035, #8036, #8037, #8038, #8039, #8040, #8041, #8042 and #8043. Topped heights range between 20' and 40'. These will never develop a structurally sound form and are therefore rated as 'poor' condition

All of the subject Pacific madrone trees are diseased, infected with Madrone canker. These range from over 90% dead to incipient decline. The Pacific madrone has been in general decline across the Puget Sound Region for the past several years. This decline is mostly associated with the fungal diseases *Natrassia* and Madrone canker. Subject trees #8050, #8054 and #17508 are in the advanced stages of decline and have almost succumb to complete mortality.

Only one tree was found to be in 'good' condition. This is the semi-mature Oregon ash (#8880) at the north end of the project area. This tree is located next to the finished trail section and is not expected to be adversely impacted by this proposal.

8. Analysis and Testing

No laboratory testing was initiated as part of this assignment.

9. Conclusions

A total of 14 significant trees existing within the proposed C&G limits will need to be removed to make way for parking lot improvements. 13 of these are in 'poor' condition and considered non-viable.

An additional 10 trees were assessed outside of the C&G limits. Two of these are in poor condition and rated as 'high' risk. Removal is warranted to maintain risk at acceptable levels. The other eight trees can be feasibly retained.

The recommended actions for subject trees are provided on the attached Tree Summary Table. There are a few pruning recommendations to reduce current 'moderate' risk conditions, primarily crown-cleaning to remove deadwood.

Once grade stakes and clearing limits are established on site, the assignment area shall be evaluated by the project arborist to ensure concurrence with the initial condition assessment and recommendations of this report. Cuts and fills shall be limited to the extent necessary for construction activities, and existing grades shall be left undisturbed where feasible to achieve the design standards of the improvements.

There is no warranty suggested for any of the trees subject to this report. Weather, latent tree conditions, and future man-caused activities could cause physiologic changes and deteriorating tree condition. Over time, deteriorating tree conditions may appear and there may be conditions, which are not now visible which, could cause tree failure. This report or the verbal comments made at the site in no way warrant the structural stability or long term condition of any tree, but represent my opinion based on the observations made.

Please call if you have any questions or if we can be of further assistance.

Sincerely,

Bob Layton
ISA Certified Arborist #PN-2714A
ISA Tree Risk Assessment Qualified

Subject Area – Trees #6000, #6001 and #6002 on right; Tree #8035 on left

Recently topped trees #8036 > #8040

Tree #17508 – over 90% dead

Recently topped trees #8042 and #8043

INGLEWOOD HILL ROAD PARKING LOT PROJECT **AMERICAN FOREST MANAGEMENT, INC**

TREE SUMMARY TABLE

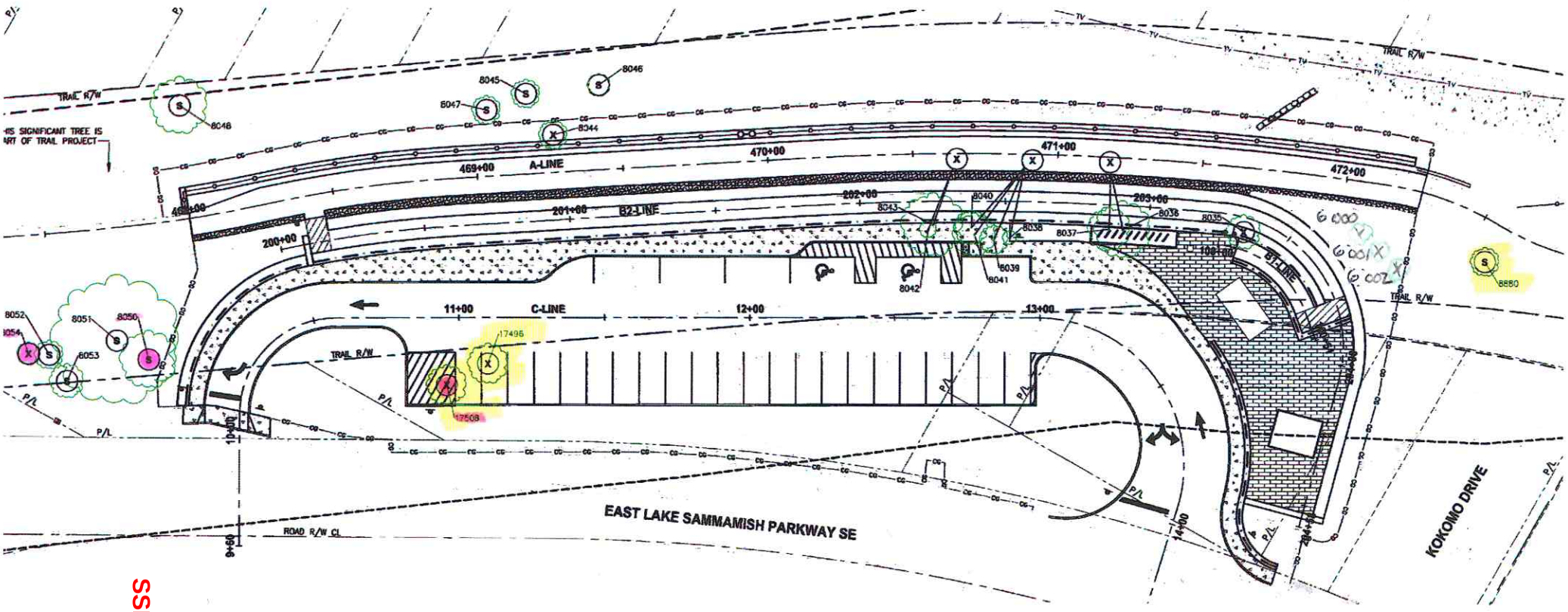
				Drip-line Measurements (feet)								
Tree #	Species	DBH	Height	N	S	E	W	Comments	Condition	Risk	Prune	Recommendation
6000	bitter cherry	8,9 (12)	36	10	4	2	8	topped in recent past	poor	moderate		Remove
6001	bitter cherry	10,8 (13)	42	4	4	4	4	topped in recent past	poor	moderate		Remove
6002	bitter cherry	11,9 (14)	44	6	4	4	4	topped in recent past	poor	moderate		Remove
8035	bitter cherry	16	30	x	x	x	x	topped in recent past	poor	low		Remove
8036	Pacific madrone	26	30	x	x	x	x	topped in recent past	poor	low		Remove
8037	Pacific madrone	11,16 (19)	25	x	x	x	x	topped in recent past	poor	low		Remove
8038	Pacific madrone	13	20	x	x	x	x	topped in recent past	poor	low		Remove
8039	Pacific madrone	19	30	x	x	x	x	topped in recent past	poor	low		Remove
8040	Pacific madrone	18	20	x	x	x	x	topped in recent past	poor	low		Remove
8041	Pacific madrone	24	20	x	x	x	x	topped in recent past	poor	low		Remove
8042	Pacific madrone	13	20	x	x	x	x	topped in recent past	poor	low		Remove
8043	Pacific madrone	18	20	x	x	x	x	topped in recent past	poor	low		Remove
8045	big leaf maple	15,7,14,14 (26)	88	15	8	9	na	forks at 1', trunk decay	fair	moderate	no	Save
8046	big leaf maple	10,8,8 (15)	62	10	2	6	na	poor trunk taper	fair	moderate	no	Save
8047	big leaf maple	11,15,21 (28)	94	8	10	25	na	decay, some top dieback/decline	fair	moderate	no	Save
8048	black cottonwood	29	77	9	13	8	na	forks at 5'	fair	moderate	no	Save
8050	Pacific madrone	33, 22	95	25	0	0	12	major decline-diseased, 80% dead	poor	high		Hazard - Remove
8051	big leaf maple	30,42,35	90	26	12	12	29	significant deadwood in crown	fair	moderate	yes	Save - Crown Clean
8052	Pacific madrone	20,11 (23)	86	0	0	0	13	dead codom stem, decline	fair	moderate	yes	Save - Crown Clean
8053	big leaf maple	21	88	15	10	12	18	typical form, moderate deadwood	fair	low	yes	Save - Crown Clean
8054	Pacific madrone	17	13	x	x	x	x	leans west over trail	poor	high		Hazard - Remove
8880	Oregon ash	17	52	18	12	14	10	no concerning defects	good	low	no	Save
17496	Pacific madrone	20	46	x	x	x	x	diseased, heavy lean north	fair	moderate		Remove
17508	Pacific madrone	38	60	x	x	x	x	99% dead	dead	high		Hazard - Remove

DBH = diamter at breast height, 4 1/2' above ground

DBH for multiple trunk trees calcualted by taking the square root of all stems squared

INGLEWOOD HILL ROAD - PARKING LOT PROTECT

SIGNIFICANT TREE ASSESSMENT



NOTES:

#6000, 6001, 6002, 8035, 8036, 8037, 8038, 8039, 8040, 8041, 8042, 8043 - ALL TOPPED IN RECENT PAST

#8044 HAS BEEN REMOVED - NO LONGER EXISTS

● - INDICATES HAZARD TREE

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