

Doug McIntyre

From: David Pyle
Sent: Tuesday, January 17, 2017 8:25 AM
To: Doug McIntyre
Subject: FW: RE: Carrier Plat Summary

From: John Cunningham
Sent: Tuesday, March 22, 2016 6:43 AM
To: City Council <citycouncil@sammamish.us>
Cc: Lyman Howard <lhoward@sammamish.us>; Jeffrey Thomas <JThomas@sammamish.us>; Jessi Bon <JBon@sammamish.us>; Mona Davis <mdavis@sammamish.us>; Debbie Beadle <dbeadle@sammamish.us>; Andrew Zagars <AZagars@sammamish.us>; Haim Strasbourger <HStrasbourger@sammamish.us>; Steven Chen <schen@sammamish.us>
Subject: RE: RE: Carrier Plat Summary

Good morning Council. As a follow-up to Jeff's email from yesterday, here is a bit of information related to the traffic related comments made on the Carrier plat on SE 8th Street at the 3/15 Council meeting:

- Traffic Study
The initial traffic study submittal is currently being reviewed by the city's traffic engineer. It is indeed true that the traffic counts used by the developer's engineer in the initial traffic study submittal were done while schools were on their summer break. Before any approval is given for this plat, we will be requiring the developer to update the study using traffic counts that are taken while school is in session. Once the traffic study has been updated with new traffic counts, we will review it again in its entirety prior to giving our preliminary plat approval for this subdivision.
- SE 8th Street Roadway Cross-section
This item is a concern due to the desire on the part of many to save the large existing trees growing in the street ROW along the south side of SE 8th Street.

SE 8th Street is classified as a collector arterial roadway. The city's standard collector arterial roadway cross-section calls for 1 travel lane in each direction, a median/two way left turn lane in the middle, a bike lane on each side of the roadway, a planter strip on each side of the roadway and a 6 foot wide sidewalk on each side of the roadway all within a 67 foot wide ROW. Typically, this roadway cross section would be centered within the 60 foot existing ROW with the property owners on each side of the street being required to dedicate an additional 3.5 feet of ROW to the city so the typical collector arterial cross section could be constructed. As a normal part of the approval process of a plat such as the Carrier subdivision, the developer would be required to construct the half of this collector roadway cross section that abuts their development on the north side of SE 8th Street. Unfortunately if we required the developer to construct the north half of SE 8th Street to the city's current collector arterial roadway cross section standard in the normal manner, at some point in the future, when the south side of the roadway is improved, the trees along the south side of the roadway would need to be removed.

The suggestion has been made that we simply require the developer of the Carrier plat to dedicate more ROW in order to push the SE 8th Street roadway improvement to the north so that improvement of SE 8th Street to its ultimate configuration would not require removal of the south side trees. There are a number of concerns/issues that are raised by this alternative:

- First, in the worst case scenario, this would require an additional ROW dedication of some 20.5 feet (above the 3.5 foot normally required ROW dedication) from the developer of the Carrier plat. The city's legal Counsel has advised us that unless we can draw a nexus between the requirement for this additional ROW dedication and the Carrier plat, we cannot legally require the plat's developer to dedicated the additional ROW. Legal Counsel has advised that they do not think that saving the trees on the south side of the street constitutes such a nexus;
- Second, pushing SE 8th Street to the north would cause it to further encroach into the critical areas on the Carrier plat property;
- Third, pushing SE 8th Street further to the north would result in the removal of numerous additional trees along the north side of the roadway; and
- Fourth, if SE 8th Street is pushed to the north, virtually any alternative roadway cross section that could be considered for SE 8th Street would require ROW dedication from the Carrier plat of more than the normal 3.5 feet required by the city's standard roadway cross section centered on the existing ROW centerline.

I will let you know that no final decision has been made on these 8th Street roadway cross section to be required with the approval of the Carrier plat. Staff is looking at a number of alternative cross sections that might be allowed for SE 8th Street. At this point, the only roadway cross section that we have come up with that will save the trees on the south side of the street and fit within the existing 60 feet of ROW plus the 3.5 feet being required from the Carrier plat is a cross section that eliminates the center median/two way left turn lane and the planter strips on both sides of the street, but maintains a bike path and a 6 foot sidewalk on both the north and the south sides of the street. Going to this minimalist roadway cross section (or any other non-standard collector arterial roadway cross section on SE 8th Street) will require that we issue an approval for a variation from the Interim Public Works Standards.

Thanks. Let me know if you have questions or need additional information, John C.

John A. Cunningham, P.E.
Interim Public Works Director
City of Sammamish
801 – 228th Avenue SE
Sammamish, WA 98075
JCunningham@sammamish.us
425-295-0570

From: Jeffrey Thomas
Sent: Monday, March 21, 2016 4:06 PM
To: Tom Odell <todell@sammamish.us>; Tom Hornish <THornish@sammamish.us>; Christie Malchow <CMalchow@sammamish.us>; Kathleen Huckabay <KHuckabay@sammamish.us>; Don Gerend <dgerend@sammamish.us>; Bob Keller <BKeller@sammamish.us>; Ramiro Valderrama-Aramayo <RValderrama-Aramayo@sammamish.us>
Cc: Lyman Howard <lhoward@sammamish.us>; John Cunningham <JCunningham@sammamish.us>; Jessi Bon <JBon@sammamish.us>; Mona Davis <mdavis@sammamish.us>; Debbie Beadle <dbeadle@sammamish.us>
Subject: RE: Carrier Plat Summary

Dear City Council,

You will recall hearing a number of public comments at your March 15 meeting related to a recently submitted proposed subdivision called Carrier. The purpose of this email as well as one to follow from John Cunningham is to summarize this proposal and highlight key issues raised during public comment.

Exhibit 15

This proposal, to subdivide 2 lots into a total of 35 lots, is located at the north east corner of 214th Avenue SE and SE 8th Street. There are critical areas - two wetlands, two streams and corresponding buffers onsite. Water and sewer are proposed to be extended through a segment of these critical areas from east to west across the top portion of the site to 214th Avenue SE.

The proposal was submitted on January 29. The application was deemed complete for processing on February 18 and a Notice of Application issued on February 25. The written public comment period closed on March 17. Additionally, staff have had multiple communications and meetings with citizens during the past few weeks, both before and after the March 15 City Council meeting.

Key issues raised during public comment on March 15 include:

- Wetland study timing and accuracy;
- Water and sewer extension through critical areas;
- Cultural resources presence;
- Traffic study timing and accuracy; and
- Development / relocation of SE 8th Street public right of way.

Wetland Study

The City first received a request for a critical areas review on the site in August 2015. This request contained a wetland study conducted between February and May of 2015. The wetland study identified two category 3 wetlands as well as two type Np streams (meaning a stream which is perennial during a year of normal rainfall and does not have the potential to be used by salmonids) – one stream flowing out of each wetland. The study was peer reviewed utilizing the City's on-call contract with The Watershed Company. Amendments were identified and completed as a result of this peer review and resubmitted as part of the proposed subdivision in January 2016. The proposed subdivision calls for buffer averaging as well as critical area impacts from required ROW improvements on the north (proposal side) of SE 8th Street. Comments and questions of these activities will be included in the City's comprehensive first review of the proposal. Additionally, the City is requesting coordination with appropriate state departments for permitting requirements.

Water and Sewer Extension

Sammamish Plateau Water and Sewer District (SPWSD) is currently reviewing the proposal coordinating with the City's comprehensive first review. The City has specifically requested review and comment from SPWSD on not only the proposed alignment of water and sewer through the critical areas via an easement to 214th Avenue SE, but also on a proposed alignment utilizing from east to west on SE 8th Street then south to north on 214th Avenue SE to the existing sewer main.

Cultural Resources Presence

The Snoqualmie Tribes communicated to the City last week during the written public comment period that a Cultural Resource Survey would be needed for the proposal. This will be included in the City's comprehensive first review of the proposal.

Traffic Study

John will be emailing City Council shortly.

SE 8th Street ROW

John will be emailing City Council shortly.

David Pyle

From: Haim Strasbourger
Sent: Friday, March 25, 2016 1:34 PM
To: Jeff Peterson
Cc: Mona Davis
Subject: RE: Carrier preliminary plat

Jeff,

I am including the planner in my response as she is the project manager at this phase.

We are looking at many options of the best cross section for SE 8th Street between 212th Avenue SE and 218th Avenue SE, with the challenge of the stream flow on the north side and very large trees immediately on the south side – which neighbors and Council members do not want to see removed if possible. We expect to have an idea of what will work by sometime mid next week, therefore I don't know at this time how to answer your question.

At the very minimum we will likely need to have the minimally required 3.5-foot dedication along the full frontage, however we are looking at all options at this time.

Thanks,
Haim Strasbourger, PE
Development Review Engineer
City of Sammamish
425-295-0562
hstrasbourger@sammamish.us

From: Jeff Peterson [<mailto:jpeterson@tollbrothersinc.com>]
Sent: Friday, March 25, 2016 12:14 PM
To: Haim Strasbourger <HStrasbourger@sammamish.us>
Subject: RE: Carrier preliminary plat

Haim:
We are close to submitting our JARPA application for Carrier – anything major looking to change on the stream re-routing?
Thanks,
Jeff

From: Haim Strasbourger [<mailto:HStrasbourger@sammamish.us>]
Sent: Thursday, March 24, 2016 3:26 PM
To: Jeff Peterson
Subject: RE: Carrier preliminary plat

Thanks Jeff.

At this time this information appears to be sufficient for our evaluation.

Haim

From: Jeff Peterson [<mailto:jpeterson@tollbrothersinc.com>]
Sent: Thursday, March 24, 2016 1:20 PM
To: Haim Strasbourger <HStrasbourger@sammamish.us>
Subject: RE: Carrier preliminary plat

This exhibit shows both crown and legal ROW.
Let me know if this works or if you need this information loaded onto another sheet.
Jeff

From: Haim Strasbourger [<mailto:HStrasbourger@sammamish.us>]
Sent: Thursday, March 24, 2016 12:05 PM
To: Jeff Peterson
Cc: Mona Davis
Subject: Carrier preliminary plat

Jeff,

I am in the process of finalizing the Public Works review for the Carrier preliminary plat review that Mona is orchestrating, and need some input from you regarding one item.

Generally we are evaluating how the ultimate cross section for SE 8th Street between 212th Ave SE and 218th Ave SE, as a follow up to the current SE 4th Street improvement project.

Specifically we are finding challenges through this section of SE 8th Street due to various inquiries by public and Council and are looking at alternatives that will minimize impact on wetlands and streams while still keeping traffic and pedestrian safety as our top priority.

I need to know if your surveyor identified the right of way centerline within the roadway at various points along the way, which would assist with our evaluation of one option.

Thanks,
Haim Strasbourger, PE
Development Review Engineer
City of Sammamish
425-295-0562
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Please be aware that email communication with Council Members or City staff is a public record and is subject to disclosure upon request.

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David Pyle

From: Mona Davis
Sent: Tuesday, April 5, 2016 5:24 PM
To: Jeffrey Thomas
Subject: Carrier

FYI...Brian Gilles is out on the Carrier site right now evaluating the trees on the other side of the street that the citizens were concerned with.

Kellye Hilde is preparing a cross section for John Cunningham around the tree protection, but we thought it valuable to know if the trees were worth saving before we went to the effort to adjust the ROW improvements around them.

Brian expects to have a memo to us by tomorrow evening. Kellye should have her analysis to John by Friday.

Just keeping you in the loop in case it comes up in conversation... 😊

P.S. I thought it was interesting that one neighbor stated that there were a row of 80 trees along the ROW on SE 8th across from the plat, which I questioned and told him I thought it was more like 20. Today I counted 22.

David Pyle

From: Brian Gilles <bkgilles@comcast.net>
Sent: Wednesday, April 6, 2016 10:05 PM
To: Mona Davis
Subject: Report on Trees Along SE 8th Street, Carrier Plat
Attachments: Brian Gilles.vcf; TREE REPORT, SE 8th ST, 4-6-16.pdf

Mona,

Attached please find my report on the trees along SE 8th Street across from the Carrier Plat that you requested.

The short answer is that the majority of the trees are worthy of retention. A few need more advanced analysis; specifically decay detection testing to determine the extent of the decay present.

Call me with any questions but I am thinking this should point you in the right direction.

Regards,

Brian



*ISA Certified Arborist # PN-0260A
ASCA Registered Consulting Arborist # RCA-418
PNW-ISA Certified Tree Risk Assessor #148*

David Pyle

From: Kellye Hilde
Sent: Thursday, April 7, 2016 4:43 PM
To: John Cunningham
Cc: Haim Strasbourger; Mona Davis; Jessi Bon
Subject: FW: Report on Trees Along SE 8th Street, Carrier Plat
Attachments: Brian Gilles.vcf; TREE REPORT, SE 8th ST, 4-6-16.pdf; Carrier Subdivision Property Cross Sections.pdf

Hi John,

Attached is the tree report for the trees located across from the Carrier property and along SE 8th Street. In general, these landmark and heritage trees are very healthy and worthy of retention.

As for the cross sections that we discussed this afternoon, Brian Gilles, the city's on-call arborist had the following recommendations;

1. Road improvements should not encroach any closer to the bases of the 27 trees than what is existing.
2. As long as improvements are within the existing pavement section and extend to the north end of SE 8th Street then the trees should be fine.
3. The trees have adapted to road upgrades in the past and are doing well.
4. Tree Protection Measures should be included on all site plans, permit applications, conditions of approval and bid documents. These measures are included in the report.

After reviewing this report and per our discussion, I would recommend roadway cross section alternate C as shown on the attached drawing. This cross section allows for a sidewalk on both sides of SE 8th Street. It does eliminate the planter beds but with the heritage/landmark trees on the south side and wetlands on the north side I believe it's a reasonable compromise. This alternative does not propose additional impacts to the 27 trees and with the BMPS listed above they should continue to thrive after the improvements are complete.

Lastly, there are a few trees that have signs and symptoms of root rot and internal trunk decay. I would recommend that we have these trees tested to confirm the extent of the infection/decay and to help determine if they should be removed completely for safety purposes and further spread of root rot.

I hope this helps and please let me know if you have any questions.

Thanks,
Kellye

From: Mona Davis
Sent: Thursday, April 7, 2016 3:18 PM
To: Kellye Hilde <khilde@sammamish.us>
Subject: FW: Report on Trees Along SE 8th Street, Carrier Plat

Hi, Kellye...sorry...just getting to my e-mails. Here's Brian's analysis of the trees on SE 8th

Thanks!
Mona

From: Brian Gilles [<mailto:bkgilles@comcast.net>]
Sent: Wednesday, April 6, 2016 10:05 PM
To: Mona Davis <mdavis@sammamish.us>
Subject: Report on Trees Along SE 8th Street, Carrier Plat

Mona,

Attached please find my report on the trees along SE 8th Street across from the Carrier Plat that you requested.

The short answer is that the majority of the trees are worthy of retention. A few need more advanced analysis; specifically decay detection testing to determine the extent of the decay present.

Call me with any questions but I am thinking this should point you in the right direction.

Regards,

Brian



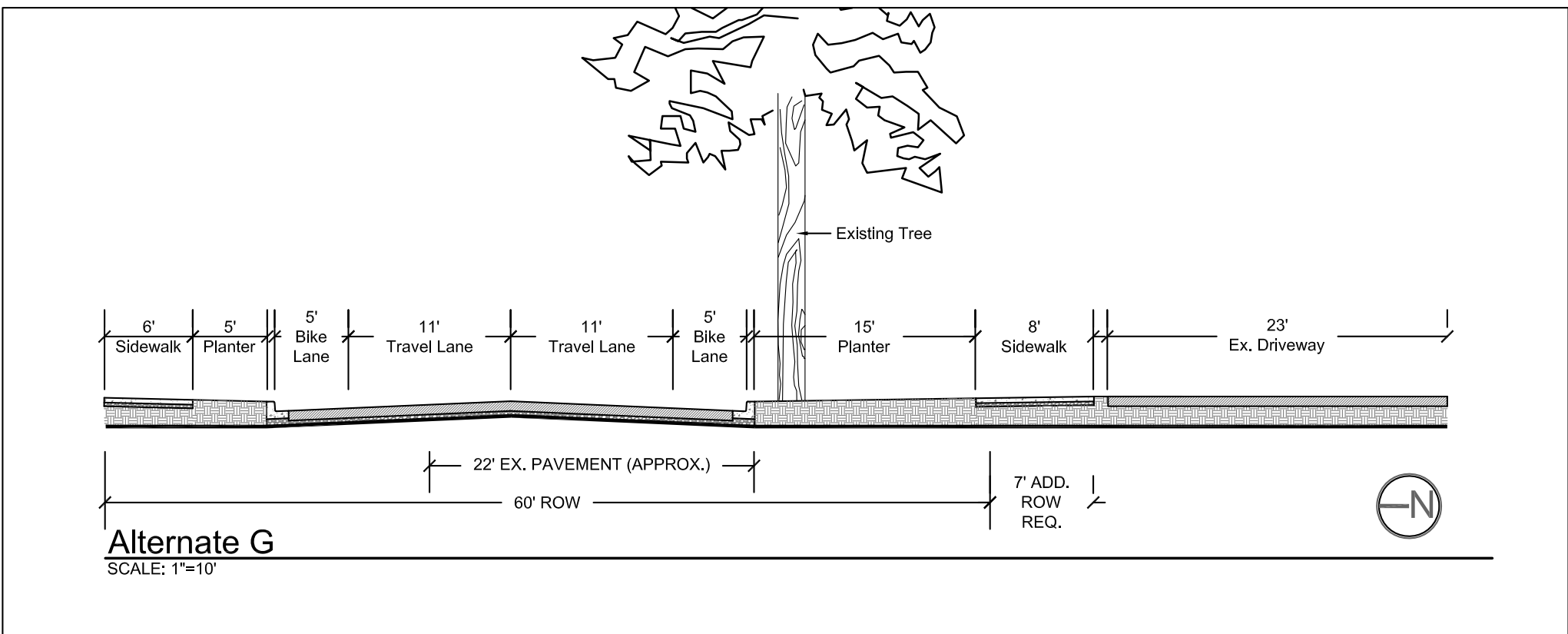
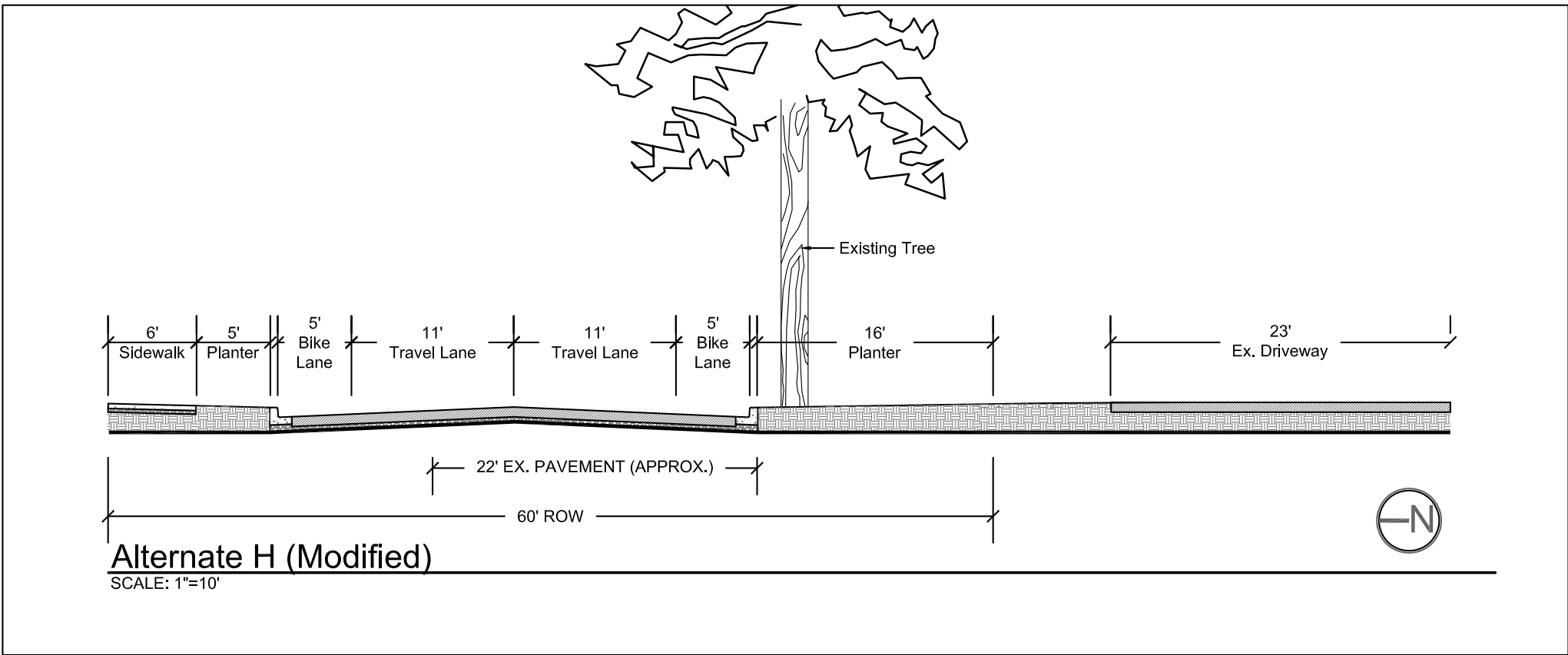
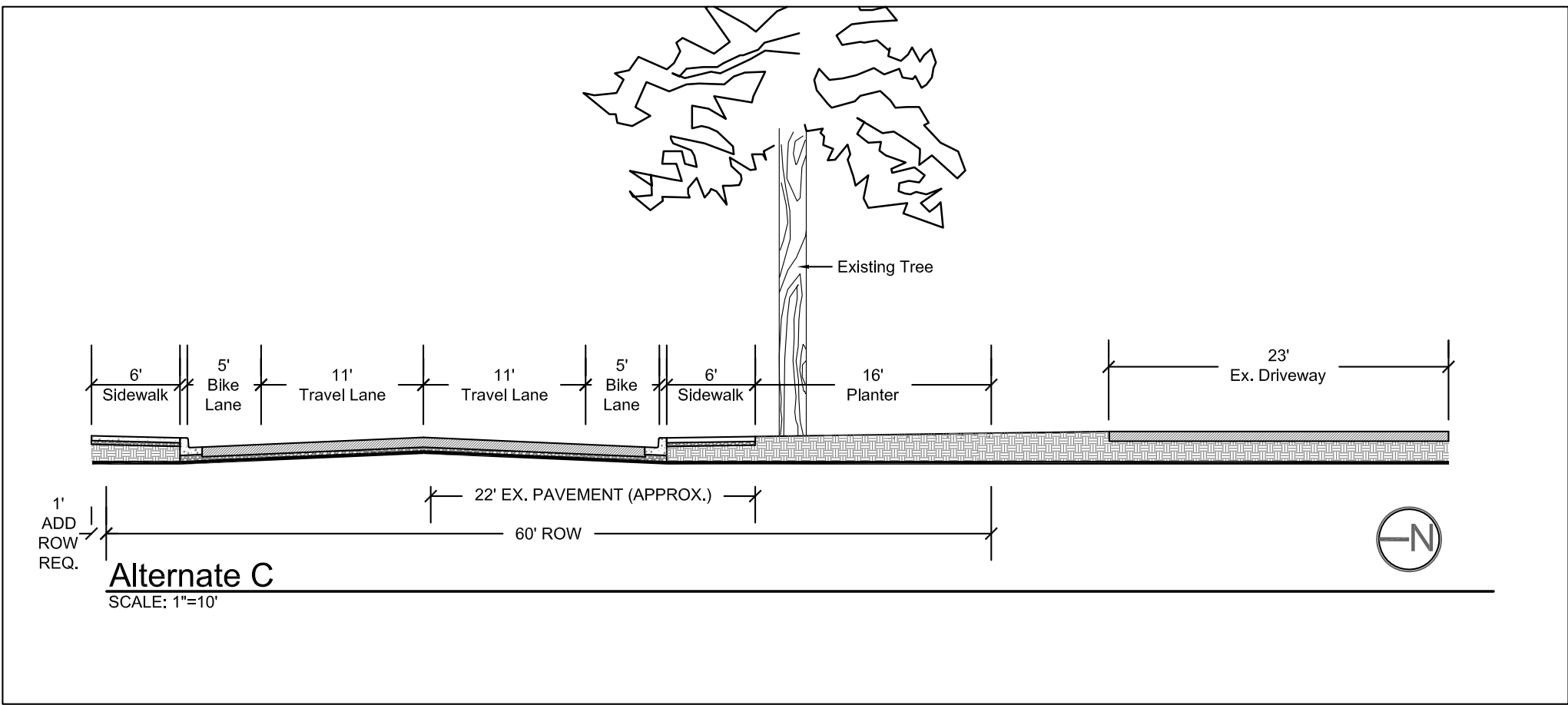
*ISA Certified Arborist # PN-0260A
ASCA Registered Consulting Arborist # RCA-418
PNW-ISA Certified Tree Risk Assessor #148*

David Pyle

From: John Cunningham
Sent: Tuesday, April 19, 2016 6:54 AM
To: Andrew Zagars; Haim Strasbourger
Cc: Mona Davis; Jeffrey Thomas; Kellye Hilde
Subject: Carrier Subdivision - ROW Need - Cross Section "C"
Attachments: Carrier Plat Roadway Cross Sections_jac_041916.xlsx

FYI, this is a follow-up to our meeting regarding this yesterday afternoon, according to my calculations, which are based on the survey work given to us by the applicant, in order to be able to construct cross section alternative "C" (with 6 foot sidewalks & 5 foot bike lanes on both sides of the road and an 11 foot travel lane in each direction, we need to get an additional 3 feet of ROW from the developer, which fits within the 3.5 feet required by our standard roadway cross section that you have already mentioned to the applicant that they would need to dedicate. My calculations assume that the back of walk on the south side of the street would be at the current edge of pavement location on the south side of the street and the cross section would go north from there. This would save any further encroachment into the unpaved area around the existing large trees on the south side of the street, which is what the arborist recommended that we do. This cross section is shown in yellow highlighting on the attached spreadsheet of possible roadway cross sections, as Cross Section Alternative "C". Thanks, John C.

John A. Cunningham, P.E.
Interim Public Works Director
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801 – 228th Avenue SE
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JCunningham@sammamish.us
425-295-0570



CARRIER SUBDIVISION
 Roadway Cross Section Alternatives

April 6, 2016

Mona Davis, Senior Planner
City of Sammamish,
Community Development Department
801 228th Avenue SE
Sammamish, WA 98075

SUBJECT: Preliminary Evaluation of a Row of Fir Trees Along SE 8th Street

Dear Ms. Davis:

As you requested, yesterday I performed a preliminary evaluation of a row of trees along the south side of SE 8th Street beginning at the intersection of 214th Avenue SE extending to the east across the street from the Carrier Plat which occupies two large pieces of property on the northeast corner of the intersection of SE 8th Street and 214th Avenue SE in Sammamish. For an orientation to the site and the row of trees in question please refer to *Attachment 1, Aerial Photo Hybrid* from the King County Assessor's website showing the properties.

You requested that I perform a preliminary risk assessment and a preliminary health assessment of the row of trees to determine whether or not the trees are worthy of the effort to retain them or not. You requested that I consolidate my observations, conclusions, and recommendations into this letter/report for your use with the evaluation of the Carrier Plat materials.

METHODOLOGY

To evaluate the trees and to prepare the 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 also followed the protocol of the International Society of Arboriculture (ISA) for Visual Assessment (VA) that includes looking at the overall health of the trees 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 trees themselves.



fax: 425-822-6314

email: bkgilles@comcast.net

P.O. Box 2366 Kirkland, WA 98083

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.

Failure

While no one can predict with absolute certainty which trees will or will not fail, we can, by using this scientific process, assess which trees are most likely to fail and take appropriate action to minimize injury and damage.



Photo # 1: Looking west along SE 8th Street at the row of Dir Trees.

Note the green canopy of the trees on both sides of the road at this point.

OBSERVATIONS

The row of trees consists of 26 Douglas Fir trees and one Birch tree. They are located in a nearly straight row south of the pavement of SE 8th Street between the south edge of the road pavement and the adjacent property lines. They are all in the SE 8th Street right-of-way. The bases of the trees are all approximately 1.5 to 5 feet south of the edge of the road pavement. I did not observe anywhere along the road where the pavement had been uplifted or broken up from the tree roots.

- The trees are somewhat randomly spaced from east to west.
- Tree Sizes:
 - I measured the majority of the Fir trees as being between 130 and 152 feet tall.
 - I measured one tree at less than 14 inches diameter at the standard 4.5 feet above the average ground level, DBH.
 - The majority of the trees are between 25 and 38 inches DBH with a couple larger trees.
 - I measured one tree at 48.8 inches DBH.
- General Health Condition Observations:
 - The Canopies:
 - The live crowns are approximately 70% to 95% of the overall tree heights.
 - This is good in that almost all of them appear to have adequate canopy foliage to sustain themselves.
 - The crowns almost all appear average to healthy.
 - The crown, the top 15% of the canopy, is an important indicator of overall tree health and vigor.
 - Average to healthy crowns indicate overall good health and vigor.
 - There are several trees on either side of the driveway to 21415 SE 8th Street that appear to be in severe stress.
 - Their annual shoot elongation is very short for the species. Their foliage is chlorotic—pale yellowish in color. The foliage is thin or sparse. Their crowns are weak. These are all indications of decline.
 - The Trunks:
 - The majority of the trunks are straight.
 - A couple trees have slight leans to the south.
 - Two trees have indications of internal decay in the lower trunks.
 - The tree 4th from the westernmost tree has a kink at 9 to 12 feet with a dead leader. The decay in the dead leader extends down into the trunk all the way to the base.

- The 48.8-inch diameter Fir, south of the driveway to 21615 SE 8th Street has multiple fungal fruiting bodies at the base on the north side. The lower trunk appears to have a decay column above these fruiting bodies.



Photo # 2: Looking north from the driveway into 21415 SE 8th Street.

Note the sparse and pale foliage on the first tree immediately north of the driveway. The tree is severely stressed and in decline. It may not be able to be saved.

- The Root Collars:
 - Other than the two trees noted immediately above, the root collars of all the rest of the trees appear healthy and free from pathogenic disease, insect infestations, or structural defects.
- The Roots:
 - The tree second from the westernmost tree, has three very large buttress roots on the surface.
 - They are growing to the west and south of the trunk and appear solidly attached to the soil.

- The westernmost tree has one large buttress root growing to the west with damage to the top of the root.
 - There is some decay in the root.
- All of the trees are growing close to the edge of the pavement of the road.
 - This severely limits root growth to the north side of their trunks.
- Road Conditions:
 - The road asphalt of SE 8th Street is in rather good condition.
 - However, it is fairly oxidized.
 - This leads me to believe that the existing road conditions have been present for many years—possibly multiple decades.
 - This is important in that the latest road up-grade so close to the bases of such large trees is significant.
 - This indicates that the majority of the trees have adapted to the upgrade and are doing well.



Photo # 3: Looking east from the westernmost tree—the Birch tree at the property line fence.

CONCLUSIONS

Based upon my assessment of the 27 trees, the majority of the trees appear to have the current health, vigor, structural stability, and wind-firmness to be considered worthy of retention. They are decades old and contribute greatly to the neighborhood and the community as a whole.

RECOMMENDATIONS

Tree Retention

The majority of the trees appear to be worthy of retention.

Additional Testing

I did not have enough time to perform any testing on the trees. However, as noted above, there are two trees that have signs and symptoms of root rot and internal trunk decay. Before a final determination is made on these two trees, should be tested. In addition, the trees on either side of the driveway to 21415 SE 8th Street, and the westernmost tree with the surface root that has some decay, should receive a Level Three Risk Assessment—that is they should all be tested to determine the extent of the decay. Once this is known, this will inform the decision to retain, shorten for safety, or remove completely for safety any of these few trees with indications of internal decay.

Tree Protection

It is my professional judgment that, if the trees are retained the edge of the existing pavement must be maintained exactly where it is now. *The road and any improvements cannot be moved any closer to the bases of the 27 trees.*

This may have some impact on the group of trees in the south central part of the subject property currently flagged as a tree retention area. The impact on these trees proposed for retention may be impacted by moving street improvements to the north closer to their bases and critical root zones. This should be evaluated closely.

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 2, 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.

Tree protection in this case will consist mostly of placing *Tree Protection Fencing* immediately south of the south side of the existing pavement and protecting the trees from physical damage, root damage, and from cement trucks dumping waste on the critical root zones.

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

Evaluation of Trees Across the Street from the Carrier Plat
On SE 8th Street east of 214th Ave SE, Sammamish, WA
Gilles Consulting
April 6, 2016
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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
ASCA Registered Consulting Arborist # RCA-418
ISA TRAQ Qualified
ISA TRAQ Certified Instructor

Evaluation of Trees Across the Street from the Carrier Plat
On SE 8th Street east of 214th Ave SE, Sammamish, WA
Gilles Consulting
April 6, 2016
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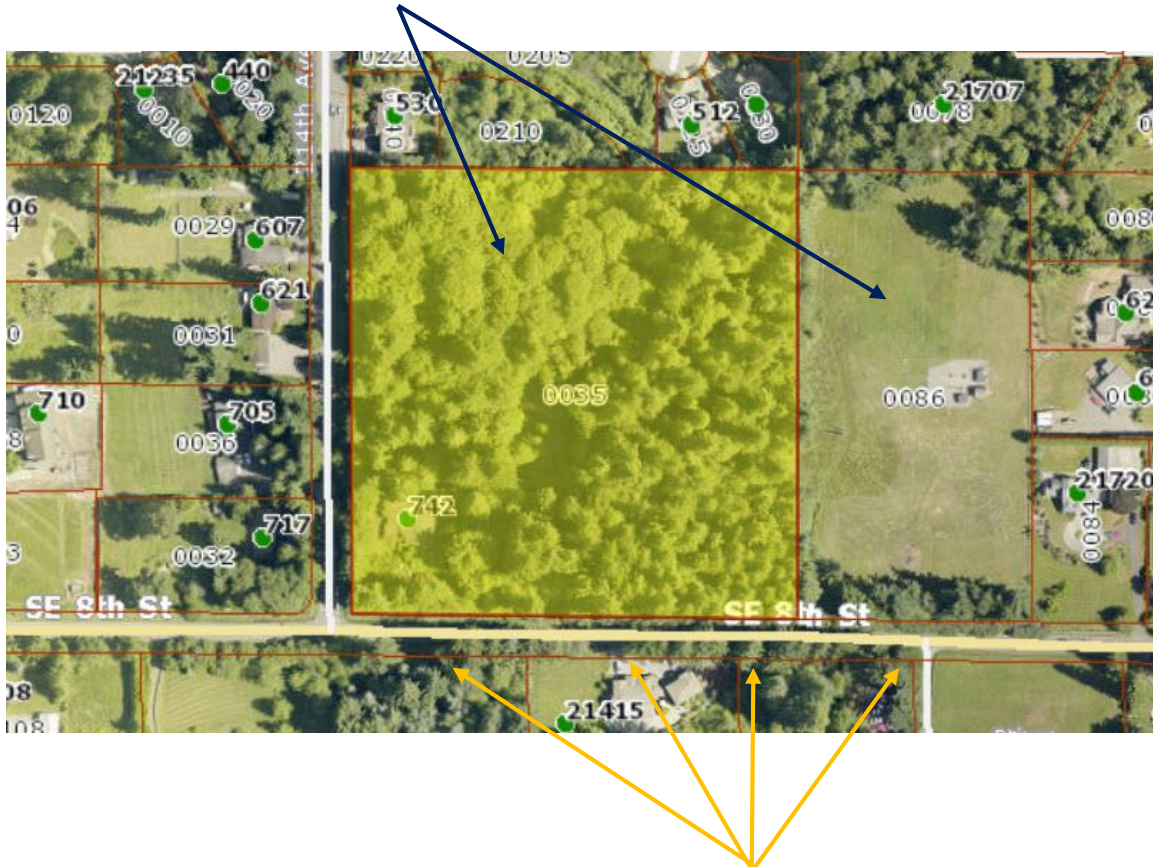
ATTACHMENTS

ATTACHMENT 1 - AERIAL PHOTO..... 10

ATTACHMENT 2 - TREE PROTECTION MEASURES 11

ATTACHMENT 1 - AERIAL PHOTO

Screen shot of an aerial photo showing the two properties that make up the Carrier Plat.
The project consists of these two properties.



The 27 trees evaluated are the row of right-of-way tree here between the south edge of the SE 8th Street pavement and the property lines of the adjacent properties.

ATTACHMENT 2 - 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.

MIMIMUM TREE PROTECTION MEASURES:

1. Tree Protection Fences will need to be placed at the southern edge of the pavement of SE 8th Street as close to the pavement as is practical and safe.
 - a. The Tree Protection Fences shall extend from the edge of the pavement to the property line on both sides of each driveway that accesses SE 8th Street where the trees are located.
 - b. Tree Protection Fences are to be placed according to the aerial photo below.
 - c. Tree Protection Fences must be inspected prior to the beginning of any demolition or construction work activities.
 - d. 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 FENCE**DO NOT ENTER THIS AREA****DO NOT PARK OR STORE MATERIALS****WITHIN THE PROTECTION AREA****Any questions, call Sammamish Code Compliance****@ (425) 295-0547”**

5. 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.

TREE PROTECTION FENCE LOCATIONS ———



Tree protection fences south of the south side of the road.

Carrier Subdivision Roadway Cross-section Alternatives to Save South Side Trees jac; 04-19-2016												
	Existing	Collector Arterial Standard**	Alternate A1	Alternate A	Alternate B	Alternate C	Alternate D	Alternate E	Alternate F	Alternate G****	Alternate H****	Alternate I
S/W South	0	6	6	6	6	6	6	8	8	8	8	6
Planter South	0	5	5	5	0	0	5	0	0	15	20	8
Curb South	0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0
Bike Lane South*	0	5	5	5	5	5	0	5	0	5	5	5
Thru Lane Eastbound	11	11	11	11	11	11	15	10	14	11	11	11
Median/TWLT	0	12	12	0	11	0	0	0	0	0	0	11
Thru Lane Westbound	11	11	11	11	11	11	15	10	14	11	11	11
Bike Lane North*	0	5	5	5	5	5	5	5	0	5	5	5
Curb North	0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Planter North	0	5	5	5	0	0	5	2	2	5	5	0
S/W North	0	6	6	6	6	6	6	6	6	6	6	6
TOTAL ROW	60	67	67	55	56	45	58	47	45	See Below		
ROW AVAILABLE	60	60	42	42	42	42	42	42	42	See Below		
ADDITIONAL ROW NEEDED***	N/A	7	25	13	14	3	16	5	3	See Below		
Concurrency Capacity	9,430	16,670	13,430	13,430	15,440	12,200	13,430	11,070	11,280	12,200	12,200	15,440
2015 AWDT Volume												
2035 AWDT Volume	6,900	6,900	6,900	6,900	6,900	6,900	6,900	6,900	6,900	6,900	6,900	6,900

* Existing Shoulder Width vs Bike Lane Width.
 ** Standard Cross-section Centered in ROW would require an additional 3.5 feet of ROW from Carrier subdivision.
 *** From existing south edge of pavement to NEW north ROW line as measured on preliminary plat plans, except for Standard section.
 **** In Alternatives G & H, south sidewalk is south of existing large trees in ROW with either a 15 foot or a 20 foot wide planter around the trees.
 Alternative A1 is the standard collector arterial cross section pushed to the north side of the ROW.
 Alternative I is Andrew's 3/25/16 alternative.

South Roadway Section

ROW Available	20	20	20
ROW Needed	23	28	14
ROW Shortage	3	8	-6

North Roadway Section

ROW Available	40	40	40
ROW Needed	44	44	49.5
ROW Shortage	4	4	9.5