

June 23, 2015

Gus Harb
Chloe Investments, Inc.
701 Columbia Street, Suite 111
Vancouver, WA 98660

Re: The Village at Camas Meadows Tree Plan and Report

Dear Mr. Harb:

I have examined the trees on your site located at 6101 NW Nightshade (Parcel Serial No. 175951-000) in the City of Camas, Clark County, Washington. The project site contains approximately 19.7 acres. From my understanding the proposed development consists of single family and multi-family residences with associated streets and parking. The past use of this property has been as a forested archery range. The tree composition on the project site consists primarily of mature growth Douglas-fir with a scattered hardwood component. There are offsite trees along the property lines that should not be affected by this project as long as proper tree preservation measures are installed and maintained.

The onsite and offsite trees shown on the plans were surveyed by Minister-Glaser Surveying Inc. (MGS) and reviewed by me in the field on May 1st, 2015. Attached is a written report, Tree Inventory List, and Tree Preservation and Removal Plans.

I am a forester with a Bachelor's Degree from Oregon State University in Forest Engineering. I have worked in forestry for over 7 years in the Pacific Northwest. I am also a Certified Arborist per the International Society of Arboriculture (Certificate number: PN-7554A) and Tree Risk Assessor Qualified per the International Society of Arboriculture.

In brief, I found that essentially all trees are recommended for removal due to site grading and risk hazard reduction due to increased windthrow potential. Two Oregon white oaks were also discovered during my site investigation. One is within the site boundary and the other is located in the City's right of way for NW Camas Meadows Drive, which the project will construct. As detailed in the attached report, both trees are recommended for removal and mitigation for the removed onsite trees is proposed as outline in the report. I hope that you will find this information useful for your needs.

If you have any questions, please give me a call at 360-882-0419. It was a pleasure working with you on this assignment.

Very Truly Yours,
AKS Engineering & Forestry, LLC

Bryce D. Hanson, PE, LSIT;
Certified Arborist #PN-7554A, Tree Risk Assessor Qualified



BRYCE D. HANSON
CERTIFICATE NUMBER: PN 7554A
EXPIRATION DATE: 06/30/16

THE VILLAGE AT CAMAS MEADOWS

TREE REPORT

DATE: JUNE 2015

SUBMITTED TO: CITY OF CAMAS
PLANNING DEPARTMENT
616 NE FOURTH AVENUE
CAMAS, WA 98607

APPLICANT: CHLOE INVESTMENTS, INC.
CONTACT: GUS HARB
701 COLUMBIA STREET, SUITE 111
VANCOUVER, WA 98660
360-695-6520

CONTACT: BRYCE HANSON, P.E., LSIT,
CERTIFIED ARBORIST #7554A
360-882-0419
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SITE LOCATION: 6101 NW NIGHTSHADE STREET
CAMAS, WA 98607
PARCEL No. 175951-000

PREPARED BY: AKS ENGINEERING & FORESTRY VANCOUVER, LLC
9600 NE 126TH AVENUE, SUITE 2520
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Section A – Location

The project site is located at 6101 NW Nightshade Street, (Parcel Serial No. 175951-000) in the City of Camas, Clark County, Washington. The site is adjacent to the Camas Meadows Golf Course.

Section B – General Site Notes

This Tree Plan consists of a written report with a Site Plan, Tree Protection Plan and Tree Planting Plan.

This report is for the total site area (19.7 acres) of the proposed development plan. The majority of the site is currently forested with one building and a gravel parking lot located in the center of the site, which previously was used for an onsite archery range. There are no known critical areas on site that require tree preservation.

The proposed development includes a combination of single family detached lots, townhomes, and multi-family apartment buildings. As shown on the plans located in Appendix B, the vast majority of the site will be disturbed for site grading.

Section C – Tree Inventory

The onsite trees were initially inventoried by the project surveying company and verified and/or modified by a certified arborist with AKS Engineering and Forestry, as detailed in Appendix A. There were 1,099 trees located by the surveyors. The majority of these trees are Douglas-fir with smaller components of Red alder, Western Hemlock, Cottonwood, Cherry, Cascara, Willow, and Big leaf maple. There were additional trees (30-40) that were found to be present on the site, however, these were not located by the surveyors. These were primarily smaller (6"-12" DBH) deciduous trees. There were also multiple trees across the site that were incorrectly identified by the surveyors (i.e. some cottonwoods were referenced as maples or cascara, or cherry was referenced as alder); however, the exact species designations are relatively insignificant considering the proposed development plan. Therefore the tree inventory table (Appendix A) was not updated to accurately reflect the true species for each tree. The exception being, two small Oregon white oaks were encountered during the site review (7" and 11" DBH) as described in Section D "Future Condition of Trees on the Site". These two trees were modified and included in the tree inventory located in Appendix A.

No other significant trees exist onsite. It is however important to note that the surveying company designated multiple stemmed trees as a single tree with a combined DBH (i.e. five 12" DBH trees grown together were referenced as a single 60" DBH tree); therefore it appears as though very large

trees exist onsite. Due to the proposed development plans, these size references were not modified in the tree inventory (Appendix A) provided by the project surveyors.

The trees found on site during the arborist investigation are as follows:

| <u>Common Name</u> | <u>Scientific Name</u> |
|--------------------|------------------------------|
| Douglas-fir | <i>Pseudotsuga menziesii</i> |
| Bigleaf maple | <i>Acer macrophyllum</i> |
| Red Alder | <i>Alnus Rubra</i> |
| Cottonwood | <i>Populus spp.</i> |
| Oregon white oak | <i>Quercus garryana</i> |
| Willow | <i>Salix spp.</i> |
| Western Red Cedar | <i>Thuja plicata.</i> |
| Cascara Buckthorn | <i>Rhamnus purshiana</i> |
| Western hemlock | <i>Tsuga heterophylla</i> |
| Cherry | <i>Prunus spp</i> |

Note: not all species identified in this table are referenced in the tree list (Appendix A) or on the plans (Appendix B). See explanation above for discrepancies.

Section D – Designing for Tree Preservation

Designing for tree preservation means that trees are considered an important project feature. The goal of tree preservation is to have trees remain safe assets to the site for years to come. Trees that are preserved must be carefully selected to make sure that they will survive the construction impacts, adapt to the new environment, and perform well in the new landscape. An assessment of suitability for preservation evaluates tree health, structure, age, and species factors. The consultant gathers information on the individual trees and makes recommendations as to which trees are suitable for preservation, and how much undisturbed space they will require. The Arborist also provides specific guidelines regarding grading, drainage, trenching, protected areas, root pruning, etc.

Tree Characteristics and Their Suitability for Preservation:

Trees vary in their suitability for preservation both based on their inherent characteristics and their future response to construction impacts. Trees that are structurally unstable, in poor health, or are unlikely to survive construction impacts could be a dangerous liability to future neighborhoods. A good tree preservation plan will call for the pre-construction removal of trees likely to die or to become a tree with a higher than acceptable risk of failure after construction. The factors to be evaluated are:

Tree Health-Healthy, vigorous trees are more adaptable than non-vigorous trees to tolerate construction related stresses such as root removal, changes in grade, changes in soil moisture, and soil compaction. These healthy trees are also better able to adapt to the changed site conditions that occur after development.

Tree Structure-Trees with defects such as decayed wood, poor crown structure from past manual “topping” or natural broken tops, and co-dominant trunks with poor attachments are not suitable for preservation in areas where people or property could be injured or damaged. Such defects cannot be treated and may lead to failure.

Species-Although trees require protection to avoid injury, species vary widely in their ability to withstand damage and changes in their environment.

Tree Age-As a tree ages, its capacity to overcome injury, adapt to changes in its site environment, and to resist pests declines. For these reasons, mature and over-mature trees are less adaptable to tolerate construction impacts and remain assets than are young and semi-mature trees. Young vigorous trees are able to generate new tissue and adapt to a new environment better than old trees.

Tree Size/Height-Larger, taller trees are capable of hitting targets a greater distance away from the tree and cause greater damage. Taller trees also provide a larger wind “sail”, catching more wind and being more prone to blowing down in a large storm. Coupling this “sail” effect with the structural weakening of root removal/disturbance can lead to a higher than acceptable windthrow risk.

Tree Location-The best candidates for preservation are single trees that developed as individual specimens, as they typically have uniform canopies and well tapered trunks. Trees that grow in groups do not function well as individuals. They often have tall, poorly shaped trunks, irregularly shaped crowns, and are prone to failure and decline when their neighbors are removed.

The arboricultural consultant weighs each of the above factors and makes recommendations as to which trees are likely to thrive and be a long-term asset to the new development, as well as recommendations to remove those trees that will likely have an unacceptable risk of failure and become a liability in the new development.

Guidelines for the Area Required To Preserve a Tree:

In order to preserve a tree, an area around that tree must be protected to ensure that the tree is not physically damaged and that the roots are protected. A method to calculate this area, utilizes the diameter at breast height (DBH), species, and age. The DBH is multiplied by a factor (the factor is based on the tree age and the species tolerance for disturbance) from 0.5 feet radius to 1.5 feet radius (from the trunk-often 1 foot radius per inch DBH is used for an average), and this area is called the “Optimal Tree Protection Zone”. The general guidelines for preservation are that you do not want to disturb more than 1/3 of this area, but that with healthy vigorous trees, up to 50% of the area could be disturbed. In addition to these percentages, excavation should not take place within five feet of the base of a tree to avoid the loss of structural roots.

How to Preserve Trees During Construction:

The portion of the “Optimal Tree Protection Zone” that is being protected must be fenced off (with a “substantial” fence). Within this area, no soil disturbance, including stripping is permitted. The natural grade is to be maintained, and no storage or dumping of materials, parking, etc. will be allowed within this zone without the approval of the arboricultural

consultant. This tree protection fence should remain in place through the construction of the dwellings.

Excavation Within the “Optimal Tree Protection Zone”:

Where there is excavation proposed within an “Optimal Tree Protection Zone” (outside of the protected zone fenced off above), it will be important for the contractor to prune the roots along the excavation lines. These roots should be pruned in the following manner:

- Excavation in the top 24” of the soil in the critical root zone area should begin at the excavation line that is closest to the tree.
- The excavation should be done by hand/shovel or with a backhoe and a man with a shovel, pruning shears and a pruning saw.
- If done by hand all roots 1” or larger should be pruned at the excavation line.
- If done with a backhoe (most likely scenario) then the operator needs to start the cut at the excavation line and carefully “feel” for roots/resistance. When there is resistance, the man with the shovel hand digs around the roots and prunes the roots larger than 1” diameter.
- The backhoe is to remain off of the tree roots to be saved at all times.
- The work will be done under the supervision of the Project Consulting Arborist.

The above system works well and can be done quickly. The key is to avoid pulling on the roots larger than 1” diameter, potentially resulting in damage to roots between the excavation line and the tree.

How Trees Die:

Natural tree death is frequently a slow and complex process generally with a gradual decline involving a number of factors. Most trees die from one of three causes: (1) structural failure, (2) environmental degradation, or (3) pest infestation. Generally, trees die from a combination of factors. Trees weakened by changes in their environment (such as construction impacts) become more susceptible to infestation by disease and insects. Most individual trees survive for only a fraction of the potential lifespan of the species. Soil compaction, changes in grade, mechanical injury, changes in the environment around the tree, and changes in drainage may not kill the tree themselves, but they may weaken the tree to a point that death occurs by another cause. Prevention of stress and the maintenance of health are the key elements of tree longevity.

What is “Tree Topping” and How Does It Damage a Tree?

Tree Topping is a pruning technique to reduce the height by cutting the central leader. This method of pruning is very detrimental to trees and not considered a good practice. Trees are generally topped by unknowledgeable pruners in order to lower the height of the tree and minimize the chance of windthrow by reducing the tree’s wind profile. The large stub of a topped tree has a difficult time forming callus over the wound. The terminal location of these cuts, as well as their large diameter, prevents the tree’s chemically based natural defense system from doing its job. The stubs are highly vulnerable to both insect invasion and the spores of

decay fungi. If decay is already present, topping will speed the spread of the disease. The tree reacts to the topping cut by producing multiple shoots below the cut. These shoots develop from buds near the surface of the topping cut. Unlike normal branches that develop in a socket of overlapping wood tissues, these new shoots are anchored only in the outermost layers of the bole. These new shoots grow quickly, and are prone to breaking, especially during windy conditions. For all of these reasons, trees that have been topped pose a danger to life and safety and are recommended for removal.

Development Impacts Effecting Preserved Trees:

Construction of the site improvements generally consists of cut and fills (grading), construction of retaining walls, trenching for the wet and dry utilities, coring of roads and placement of aggregate and pavement. During this work, adjacent soil areas outside of the grading can be compacted by heavy equipment driving over it. The grading and placement of utility trenches (and subsequent pipe bedding), and retaining walls can also affect the local water table.

Construction of the buildings and landscaping requires foundation placement, pruning of trees near the buildings under construction, and the installation of lawn irrigation systems. During this work, adjacent soil areas outside of the work area can be compacted by equipment driving over it.

Future Condition of Trees on the Site:

The characteristics of the individual tree are a guide to how well that tree will respond to site disturbance. Larger trees have correspondingly larger root zones. Older trees are less resilient to disturbance. Unhealthy trees are less resilient to disturbance than healthy trees.

Development of this site will result in a large area of disturbance and ultimately removal of essentially all existing trees during the demolition and site grading. There were two small Oregon white oaks encountered on site. One 7" DBH Oregon white oak appears to be within the right-of-way of the proposed NW Camas Meadows Dr. that comprises the northern boundary of the site. The other Oregon white oak (11" DBH), is located in the central region of the proposed Phase 3. Both oaks are tightly grown next to other existing trees and appear suppressed. A combination of site grading and removal of the other adjacent existing trees will be detrimental to the viability of these oaks for two main reasons.

1. Excessive disturbance to their critical root zones would be unavoidable when removing the root mass of the adjacent larger trees and thus creating potential health and structural stability concerns. The adjacent trees are recommended for removal to due to the increased windthrow risk and safety concerns as described in Section E.
2. The form of these oaks are consistent with being grown in a more densely grown stand of timber (i.e. tall with little trunk taper and a small live crown to height ratio. Windthrow risk is therefore significantly increased as described in Section E.

No other significant trees exist on site.

Section E – Windthrow Potential

Windthrow is a natural phenomenon affecting trees. All trees can be susceptible to windthrow. Windthrow is the action of a tree being blown down. There are several different ways that windthrow occurs including:

1. “Stem” break, where the bole of the tree snaps well above the ground.
2. “Stock” break, where the bole snaps at ground level.
3. “Root” break, where the tree is uprooted by pivoting on broken roots close to the bole.
4. “Hinge” fall, where the tree is uprooted pivoting on the outer edge of the root plate.

Wind- Windthrow can be broken into two categories, catastrophic and endemic. Catastrophic windthrow occurs infrequently, on a large scale, when there are extraordinarily strong winds (see table below). During catastrophic storm events, trees are most often blown over in the general direction of the prevailing winds. Stem break failures are more common, especially on deep well drained soils. Endemic windthrow occurs more regularly, and on a smaller scale, being caused by numerous lower velocity windstorms that effect individual or small groups of trees that generally have some windthrow prone characteristics.

Catastrophic Wind Storm Events in the Portland Area over the Last 50 Years:

| DATE: | MAXIMUM WIND SPEED IN THE PORTLAND AREA |
|----------------------|---|
| October 12, 1962 | 112 mph |
| March 27, 1963 | 57 mph |
| October 2, 1967 | 70 mph |
| March 25-26, 1971 | 78 mph |
| November 13, 1981 | 71 mph |
| November 15, 1981 | 57 mph (gust) |
| December 12, 1995 | 75 mph |
| December 14-15, 2006 | 62 mph (gust) |
| November 12, 2007 | 46 mph |
| December 9, 2014 | 67 mph (gust) |

The majority of the destructive surface winds in Oregon and Southwest Washington come from the southwest. Very strong east winds may occur, but these are usually limited to small areas in the Columbia River Gorge. The much more frequent and widespread endemic winds are also

from the southwest and are associated with storms moving onto the coast from the Pacific Ocean. If the winds are from the west, they are often stronger on the coast than in the interior valleys due to the north-south orientation of the Coast Range and Cascades. These mountain ranges obstruct and slow down the westerly surface winds.

The most destructive winds are those which blow from the south, parallel to the major mountain ranges. The Columbus Day Storm of 1962 was a classic example of a south wind storm.

Individual Tree Traits Affecting Windthrow-The individual tree traits affecting windthrow include height, crown size, diameter, shape of bole, and tree health. Taller trees are subject to larger wind forces due to both the larger turning moment and the greater wind velocities higher above the ground. Trees with large dense crowns catch more wind than trees with smaller less dense crowns. As the wind speed increases, the force on the tree stem increases by the square of the wind speed, meaning that if the wind speed doubles, the force on the stem increases by four times. The height to diameter at breast height (4.5 feet above the uphill side of the tree) ratio is also an indicator as a conical trunk is stronger than a cylindrical trunk. A height to diameter ratio of 60 or less (a more conical shaped bole) is considered more wind firm, and a height to diameter ratio of 100 or more (a tall, skinny, “telephone pole” shaped bole) is less wind firm. Individual tree defects, including bole rot and root rot, also increase the chances of windthrow. Dominant and co-dominant trees (the larger trees in an even aged stand) are less susceptible to windthrow than the smaller suppressed trees. Trees less than 60 feet tall are also generally more wind firm. The strength and elasticity of the boles of different species of trees can vary, with those with stronger more elastic boles being more windthrow resistant. The greater the rooting depth, the greater the rooting area, and the larger the size and greater the number of roots, all increases the windthrow resistance. Other items being equal, older trees also have a greater chance of windthrow. Individual trees within a stand can have widely differing windthrow resistance due to the variations in the above characteristics.

The proximity of adjacent trees and the growth pattern and history of those trees also greatly affects the chances of windthrow. Trees are generally windthrow resistant if they are open grown from a young age. Well stocked even-aged stands of second growth (generally Douglas-fir) on a good growing site rely on the group of trees to work together to withstand winds. This is provided by interlocking root systems, inter-tree crown damping during swaying, and dense crowns to reduce wind penetration. Younger stands are typically more wind firm than older stands.

The soils characteristics that affect windthrow are depth, drainage, soil structure, and the resulting shear strength. Deep soils allowing root penetration of greater than 3 feet to a restricting layer are more windthrow resistant as they allow a greater root soil mass. Shallow soils allowing root penetration of 1 foot or less are less wind firm. Dry soils generally have greater shear strength than wet soils. Well drained soils are drier more often and therefore more windthrow resistant. Poorly drained soils also restrict root growth and are more windthrow prone.

The characteristic of the root systems also greatly affects resistance to windthrow. Large lateral roots (greater than 0.2 inches) predominantly determine the resistance to overturning provided by the root system. The overall strength of a root is proportional to the fourth power of its diameter, hence when a root splits evenly into two branches; its overall strength is cut in half. Trees with a root mass of larger roots provide more resistance to overturning than those with smaller roots. Increased anchoring strength also results from the intermingling of the trees root systems with the root systems of adjacent trees. As the tree grows and catches more wind, the root system responds by adding more root mass.

Topography-The topography aspects that affect windthrow include the wind exposure and the wind direction, speed, and turbulence. Certain types of topography can “compress” wind streamlines (causing higher winds) including flowing through narrow valleys, over hills and ridges, and around shoulders. In the lee side of large ridges and even small hills, a turbulent wake develops eddies that can have strong vertical velocities that can lead to wind damage.

Weather Conditions-Both the overturning stress placed on the tree and the likelihood of windthrow is greatly affected by the wind speed, the number and strength of gusts, and the overall windstorm duration. Longer duration storms allow more time for swaying boles to break roots, increasing the chance of overturning with every weakened root. Saturation of the soil by rain also increases the likelihood of windthrow due to the reduction in root to soil adhesion and soil shear strength.

Windthrow Hazard Evaluation-A completely quantitative method to evaluate the windthrow hazard for a particular tree is not possible because there is not enough information available about the response of different species, crown classes, tree heights, bole shape, etc. to high winds. While you cannot make a quantitative prediction, you can make an evaluation based on qualitative traits of the specific tree and its growing site. Each tree has factors affecting its resistance to overturning. It also has factors affecting the total wind force acting on the tree. The interplay between these factors determines the overall windthrow hazard.

Field Evaluation-When evaluating trees and groups of trees for their windthrow “risk”, various elements of the individual tree, surrounding trees, soils, topography, and predominant storm wind direction are qualitatively evaluated based upon observations, experience, and the physical principles of the windthrow process in order to determine a general hazard classification for the likelihood of windthrow.

Other items evaluated during the site visit are evidence of recent windthrown trees, evidence of root or butt rots, and the presence of “pit and mound” micro-topography. Pit and mound micro-topography is caused by root break and hinge fall windthrown trees creating a “pit” where the tree pulled out of the ground, and a “mound” adjacent, where the dirt settles off the root wad over time. Evidence of past windthrow events can be a good predictor of future windthrow events.

Wind Force Factors:

| Element Evaluated: | Ratings: | | |
|------------------------------------|---|---|---|
| | High Hazard | Moderate Hazard | Lower Hazard |
| Location: | Topographically exposed locations, crests, saddles, upper slopes, lee of ridges | | Topographically protected locations (valley bottoms, mid-slope trees) |
| Tree Group Edge Boundaries: | Tree edge faces the prevailing storm winds | Tree edge is parallel to the prevailing storm winds | Tree edge is on lee side of the prevailing storm winds |
| Height: | Taller | Intermediate | Shorter |
| Crown Size/Density: | Large/Dense | | Small/Open |

Resistance to Overturning Factors:

| Element Evaluated: | Ratings: | | |
|-------------------------------------|---|--|--------------------------------|
| | High Hazard | Moderate Hazard | Lower Hazard |
| Taper/Butt Flare: | Low Taper/No Butt Flare | | High Taper/Large Butt Flare |
| Rooting/Soil Depth: | 16 Inches or Less | Greater Than 16 inches & Less Than 32.5 inches | 32.5 Inches or More |
| Root Rot Present: | Evidence of Root Rot | | No Evidence of Root Rot |
| Soil Drainage: | Poorly Drained Soils | | Well Drained Soils |
| Structural Integrity of Tree | Tree has a Structural Defect Compromising Its Ability to Resist Overturning | | Tree has no Structural Defects |

HIGH RISK TREES-Have a high wind force and low resistance to overturning.

MODERATE RISK TREES-Have a low wind force and low resistance to overturning, a high wind force and a high resistance to overturning, and moderate wind force and a moderate resistance to overturning.

LOW RISK TREES-Have a low wind force and a high resistance to overturning.

In addition to the above, other indicators can be used to refine the individual tree windthrow rating.

Other Indicators:

| Element Evaluated: | Ratings: | | |
|---|------------------------------------|-----------------|---------------------------------------|
| | High Hazard | Moderate Hazard | Lower Hazard |
| Existing Windthrow on Site: | Moderate to Extensive Windthrow | Minor Windthrow | No Windthrow |
| Windthrow In Neighboring Recently Exposed Trees: | Moderate to Extensive Windthrow | Minor Windthrow | No Windthrow |
| Pit & Mound Micro-topography: | Evidence of Pit & Mound topography | | No Evidence of Pit & Mound Topography |

THIS SITE’S WINDTHROW POTENTIAL:

The site’s existing windthrow potential is generally low as a mature contiguous stand. This however produced a stand comprised of trees that individually display characteristics that are common with susceptibility of increased windthrow potential, as previously described. When a large number of trees from the stand are removed for site grading and improvements, remaining trees will have an elevated windthrow potential and present risk to potential targets (new structures, construction workers, and people living in the new development). Therefore, to reduce/eliminate the risk of tree failure and trees impacting any targets, the vast majority of trees are proposed for removal during initial site grading and development activities. However, some existing trees, specifically along the existing perimeter, except the northern line, could potentially be preserved with proper preservation measures. These trees have previously been exposed to local wind forces from at least one direction and exhibit increased windfirm characteristics, as opposed to those trees located in the interior region of the site.

It should be noted that even healthy wind resistant trees could fail under normal and storm conditions. For example, the properties to the south of Phase 2 of the proposed development, had several trees that appeared to be windthrown when they were generally protected on all sides from the wind. The only way to eliminate all risk is to remove all trees within reach of all targets.

Section F – Tree Protection Plan

See the plans found in Appendix B.

Section G – Planting Plan

On-site mitigation is proposed for removal of the onsite Oregon white oak by replanting three 2” Caliper Oregon white oaks. No mitigation is planned for the oak within the proposed right-of-way of NW Camas Meadows Drive. Additional tree planting shall be in accordance with Camas Municipal Code 17.19.030(F) and per the attached Landscape Plan prepared by others, found in Appendix C of this report.

Section H – Conclusion

The development of the 19.7 acres will remove essentially all existing onsite trees for site grading and risk hazard reduction due to increased windthrow potential. The onsite Oregon white oak is proposed for removal for reasons described in Section D. Mitigation will be per Section G. Additional trees will be replanted throughout the site as detailed in the Landscape Plan found in Appendix C.

Arborist Disclosure Statement

Arborists are tree specialists who use their education, knowledge, training, and experience to examine trees, recommend measures to enhance the health of trees, and attempt to reduce the risk of living near trees. The Client and Jurisdiction may choose to accept or disregard the recommendations of the arborist, or seek additional advice.

Arborists cannot detect every condition that could possibly lead to the structural failure of a tree. Trees are living organisms that fail in ways we do not fully understand. Conditions are often hidden within trees and below ground. Arborists cannot guarantee that a tree will be healthy or safe under all circumstances, or for a specified period of time. Likewise, remedial treatments, like medicine, cannot be guaranteed.

Trees can be managed, but they cannot be controlled. To live near trees is to accept some degree of risk. The only way to eliminate all risk associated with trees is to eliminate all trees.



BRYCE D. HANSON
CERTIFICATE NUMBER: PN 7554A
EXPIRATION DATE: 06/30/16

APPENDIX 'A'

(TREE INVENTORY TABLE)

| TREE NO. | DBH, SPECIES | TREE NO. | DBH, SPECIES | TREE NO. | DBH, SPECIES |
|----------|--------------|----------|--------------|----------|--------------|
| 9063 | 20" MAPLE | 20080 | 10" FIR | 20127 | 9" FIR |
| 20028 | 36" MAPLE | 20081 | 10" FIR | 20128 | 9" FIR |
| 20029 | 30" FIR | 20082 | 10" FIR | 20129 | 9" FIR |
| 20030 | 8" FIR | 20083 | 10" FIR | 20130 | 9" FIR |
| 20031 | 8" FIR | 20084 | 10" FIR | 20131 | 9" FIR |
| 20032 | 8" FIR | 20085 | 10" FIR | 20132 | 9" FIR |
| 20033 | 8" FIR | 20086 | 10" FIR | 20133 | 9" FIR |
| 20034 | 8" FIR | 20087 | 10" FIR | 20134 | 9" FIR |
| 20035 | 10" FIR | 20088 | 10" FIR | 20135 | 9" FIR |
| 20036 | 10" FIR | 20089 | 10" FIR | 20136 | 9" FIR |
| 20037 | 10" FIR | 20090 | 10" FIR | 20137 | 9" FIR |
| 20038 | 10" FIR | 20091 | 10" FIR | 20138 | 9" FIR |
| 20039 | 8" FIR | 20092 | 10" FIR | 20139 | 9" FIR |
| 20040 | 8" FIR | 20093 | 10" FIR | 20140 | 20" MAPLE |
| 20041 | 8" FIR | 20094 | 10" FIR | 20141 | 9" FIR |
| 20042 | 8" FIR | 20095 | 10" FIR | 20142 | 9" FIR |
| 20043 | 8" FIR | 20096 | 10" FIR | 20143 | 9" FIR |
| 20044 | 8" FIR | 20097 | 10" FIR | 20144 | 9" FIR |
| 20045 | 8" FIR | 20098 | 10" FIR | 20145 | 9" FIR |
| 20046 | 8" FIR | 20099 | 10" FIR | 20146 | 9" FIR |
| 20047 | 8" FIR | 20100 | 10" FIR | 20147 | 9" FIR |
| 20048 | 8" FIR | 20101 | 10" FIR | 20148 | 9" FIR |
| 20049 | 8" FIR | 20102 | 10" FIR | 20149 | 9" FIR |
| 20050 | 30" FIR | 20103 | 10" FIR | 20150 | 9" FIR |
| 20051 | 8" FIR | 20104 | 10" FIR | 20151 | 9" FIR |
| 20052 | 8" FIR | 20105 | 10" FIR | 20152 | 9" FIR |
| 20053 | 8" FIR | 20106 | 10" FIR | 20153 | 9" FIR |
| 20054 | 8" FIR | 20107 | 10" FIR | 20154 | 9" FIR |
| 20055 | 10" FIR | 20108 | 10" FIR | 20155 | 9" FIR |
| 20056 | 28" FIR | 20109 | 10" FIR | 20156 | 9" FIR |
| 20057 | 48" MAPLE | 20110 | 10" FIR | 20157 | 20" MAPLE |
| 20063 | 72" MAPLE | 20111 | 10" FIR | 20158 | 20" MAPLE |
| 20066 | 14" ALDER | 20112 | 10" FIR | 20159 | 20" MAPLE |
| 20067 | 24" FIR | 20113 | 10" FIR | 20160 | 18" ALDER |
| 20068 | 10" FIR | 20114 | 10" FIR | 20161 | 14" MAPLE |
| 20069 | 10" FIR | 20115 | 10" FIR | 20162 | 12" MAPLE |
| 20070 | 10" FIR | 20116 | 10" FIR | 20163 | 12" ALDER |
| 20071 | 10" FIR | 20118 | 9" FIR | 20164 | 20" FIR |
| 20072 | 10" FIR | 20119 | 9" FIR | 20165 | 40" FIR |
| 20073 | 10" FIR | 20120 | 9" FIR | 20166 | 9" FIR |
| 20074 | 10" FIR | 20121 | 9" FIR | 20167 | 9" FIR |
| 20075 | 10" FIR | 20122 | 9" FIR | 20168 | 9" FIR |
| 20076 | 10" FIR | 20123 | 9" FIR | 20169 | 9" FIR |
| 20077 | 10" FIR | 20124 | 9" FIR | 20170 | 9" FIR |
| 20078 | 10" FIR | 20125 | 9" FIR | 20171 | 14" MAPLE |
| 20079 | 10" FIR | 20126 | 9" FIR | 20245 | 20" MAPLE |

Tree list composed from survey points per survey by MGS Inc.

Bold: tree size/species modified by AKS Engineering Forestry

Multiple stemmed trees were recorded as a one tree with a combined DBH per MGS Inc.

| TREE NO. DBH, SPECIES | TREE NO. DBH, SPECIES | TREE NO. DBH, SPECIES |
|-----------------------|-----------------------|-----------------------|
| 20246 25" FIR | 20291 22" MAPLE | 20336 42" MAPLE |
| 20247 25" FIR | 20292 12" ALDER | 20337 8" FIR |
| 20248 25" FIR | 20293 16" FIR | 20338 14" MAPLE |
| 20249 14" MAPLE | 20294 18" FIR | 20339 14" MAPLE |
| 20250 12" ALDER | 20295 14" FIR | 20340 12" MAPLE |
| 20251 12" ALDER | 20296 22" FIR | 20341 42" MAPLE |
| 20252 16" MAPLE | 20297 18" FIR | 20357 10" ALDER |
| 20253 16" ALDER | 20298 18" MAPLE | 20358 10" MAPLE |
| 20254 18" MAPLE | 20299 18" FIR | 20359 10" ALDER |
| 20255 12" ALDER | 20300 38" MAPLE | 20360 12" ALDER |
| 20256 14" ALDER | 20301 16" ALDER | 20361 12" ALDER |
| 20257 32" MAPLE | 20302 14" ALDER | 20362 18" MAPLE |
| 20258 12" FIR | 20303 14" ALDER | 20363 12" ALDER |
| 20259 28" MAPLE | 20304 20" MAPLE | 20364 14" ALDER |
| 20260 10" FIR | 20305 10" ALDER | 20365 12" ALDER |
| 20261 18" FIR | 20306 12" MAPLE | 20366 12" ALDER |
| 20262 18" FIR | 20307 16" ALDER | 20367 12" ALDER |
| 20263 18" FIR | 20308 18" MAPLE | 20368 12" ALDER |
| 20264 24" FIR | 20309 18" FIR | 20369 8" FIR |
| 20265 28" FIR | 20310 8" FIR | 20370 10" FIR |
| 20266 14" FIR | 20311 24" MAPLE | 20371 10" FIR |
| 20267 14" ALDER | 20312 12" MAPLE | 20372 10" FIR |
| 20268 14" MAPLE | 20313 8" MAPLE | 20373 10" FIR |
| 20269 14" ALDER | 20314 12" FIR | 20374 16" MAPLE |
| 20270 22" ALDER | 20315 24" FIR | 20375 12" ALDER |
| 20271 24" MAPLE | 20316 14" FIR | 20376 18" MAPLE |
| 20272 30" FIR | 20317 10" FIR | 20377 10" ALDER |
| 20273 18" ALDER | 20318 14" FIR | 20378 14" MAPLE |
| 20274 18" FIR | 20319 10" FIR | 20379 96" MAPLE |
| 20275 30" FIR | 20320 26" MAPLE | 20393 8" FIR |
| 20276 34" MAPLE | 20321 36" MAPLE | 20394 8" FIR |
| 20277 12" FIR | 20322 22" MAPLE | 20395 8" FIR |
| 20278 10" FIR | 20323 18" MAPLE | 20396 8" FIR |
| 20279 24" FIR | 20324 18" MAPLE | 20397 8" FIR |
| 20280 18" ALDER | 20325 12" ALDER | 20398 8" FIR |
| 20281 18" ALDER | 20326 14" ALDER | 20399 8" FIR |
| 20282 14" ALDER | 20327 12" ALDER | 20400 8" FIR |
| 20283 14" ALDER | 20328 15" ALDER | 20401 8" FIR |
| 20284 12" ALDER | 20329 20" FIR | 20402 8" FIR |
| 20285 12" ALDER | 20330 22" FIR | 20403 8" FIR |
| 20286 14" ALDER | 20331 22" ALDER | 20404 8" FIR |
| 20287 20" ALDER | 20332 14" MAPLE | 20405 8" FIR |
| 20288 14" ALDER | 20333 24" MAPLE | 20406 8" FIR |
| 20289 14" ALDER | 20334 16" MAPLE | 20407 8" FIR |
| 20290 20" FIR | 20335 20" MAPLE | 20408 8" FIR |

Tree list composed from survey points per survey by MGS Inc.

Bold: tree size/species modified by AKS Engineering Forestry

Multiple stemmed trees were recorded as a one tree with a combined DBH per MGS Inc.

| TREE NO. DBH, SPECIES | TREE NO. DBH, SPECIES | TREE NO. DBH, SPECIES |
|-----------------------|-----------------------|-----------------------|
| 20409 8" FIR | 20763 14" FIR | 20912 10" MAPLE |
| 20410 32" MAPLE | 20764 16" FIR | 20913 12" MAPLE |
| 20411 12" MAPLE | 20765 16" FIR | 20914 14" ALDER |
| 20412 14" ALDER | 20766 14" FIR | 20915 30" MAPLE |
| 20413 12" ALDER | 20767 16" FIR | 20916 14" ALDER |
| 20414 12" ALDER | 20768 36" FIR | 20917 12" ALDER |
| 20415 20" ALDER | 20769 20" FIR | 20918 12" FIR |
| 20416 14" ALDER | 20770 20" FIR | 20919 18" ALDER |
| 20417 16" ALDER | 20771 24" FIR | 20920 20" ALDER |
| 20418 12" ALDER | 20772 14" FIR | 20921 12" MAPLE |
| 20419 14" ALDER | 20773 18" ALDER | 20922 22" ALDER |
| 20420 24" ALDER | 20774 24" FIR | 20923 14" ALDER |
| 20421 28" ALDER | 20775 30" FIR | 20924 24" FIR |
| 20422 12" ALDER | 20776 26" FIR | 20925 12" FIR |
| 20423 18" MAPLE | 20777 26" FIR | 20926 24" FIR |
| 20424 44" MAPLE | 20778 34" FIR | 20927 24" FIR |
| 20734 36" FIR | 20779 36" FIR | 20928 24" FIR |
| 20735 36" FIR | 20780 12" ALDER | 20929 12" FIR |
| 20736 20" ALDER | 20832 8" FIR | 20930 10" MAPLE |
| 20737 20" FIR | 20833 8" FIR | 20931 12" ALDER |
| 20738 18" FIR | 20834 8" FIR | 20932 24" FIR |
| 20739 20" FIR | 20835 8" FIR | 20933 14" MAPLE |
| 20740 22" FIR | 20836 8" FIR | 20934 12" ALDER |
| 20741 24" FIR | 20890 12" ALDER | 20935 12" ALDER |
| 20742 12" FIR | 20891 12" ALDER | 20936 12" ALDER |
| 20743 22" MAPLE | 20892 12" ALDER | 20937 12" ALDER |
| 20744 34" MAPLE | 20893 12" ALDER | 20938 20" MAPLE |
| 20745 26" FIR | 20894 30" FIR | 20939 12" ALDER |
| 20746 22" MAPLE | 20895 16" ALDER | 20940 12" ALDER |
| 20747 20" FIR | 20896 14" ALDER | 20941 16" FIR |
| 20748 30" MAPLE | 20897 22" FIR | 20942 12" ALDER |
| 20749 10" MAPLE | 20898 18" FIR | 20943 26" MAPLE |
| 20750 10" MAPLE | 20899 32" FIR | 20944 24" FIR |
| 20751 18" ALDER | 20900 14" ALDER | 20945 14" ALDER |
| 20752 32" FIR | 20901 14" ALDER | 20946 18" ALDER |
| 20753 16" ALDER | 20902 18" MAPLE | 20947 22" FIR |
| 20754 14" ALDER | 20903 24" MAPLE | 20948 14" FIR |
| 20755 14" ALDER | 20904 20" ALDER | 20949 22" FIR |
| 20756 14" FIR | 20905 14" ALDER | 20950 12" MAPLE |
| 20757 14" ALDER | 20906 14" ALDER | 20951 16" ALDER |
| 20758 16" MAPLE | 20907 18" FIR | 20965 8" FIR |
| 20759 30" FIR | 20908 14" ALDER | 20966 8" FIR |
| 20760 20" FIR | 20909 14" ALDER | 20967 8" FIR |
| 20761 36" FIR | 20910 16" ALDER | 20968 8" FIR |
| 20762 22" FIR | 20911 16" ALDER | 20969 8" FIR |

Tree list composed from survey points per survey by MGS Inc.

Bold: tree size/species modified by AKS Engineering Forestry

Multiple stemmed trees were recorded as a one tree with a combined DBH per MGS Inc.

| TREE NO. DBH, SPECIES | TREE NO. DBH, SPECIES | TREE NO. DBH, SPECIES |
|-----------------------|-----------------------|-----------------------|
| 20970 8" FIR | 21027 20" FIR | 21072 28" FIR |
| 20971 8" FIR | 21028 12" ALDER | 21073 16" FIR |
| 20972 8" FIR | 21029 28" ALDER | 21074 32" FIR |
| 20973 8" FIR | 21030 24" ALDER | 21075 22" FIR |
| 20974 8" FIR | 21031 14" ALDER | 21076 14" FIR |
| 20975 8" FIR | 21032 14" ALDER | 21077 24" FIR |
| 20976 8" FIR | 21033 36" ALDER | 21078 18" FIR |
| 20977 8" FIR | 21034 18" ALDER | 21079 26" FIR |
| 20978 8" FIR | 21035 26" FIR | 21080 8" FIR |
| 20979 8" FIR | 21036 24" FIR | 21081 16" FIR |
| 20980 8" FIR | 21037 18" FIR | 21082 10" FIR |
| 20993 18" FIR | 21038 20" FIR | 21083 32" FIR |
| 20994 14" FIR | 21039 10" FIR | 21084 8" FIR |
| 20995 20" FIR | 21040 8" MAPLE | 21085 12" FIR |
| 20996 20" FIR | 21041 12" MAPLE | 21086 10" FIR |
| 20997 22" FIR | 21042 36" ALDER | 21087 14" FIR |
| 20998 12" ALDER | 21043 8" FIR | 21088 18" FIR |
| 20999 24" FIR | 21044 24" ALDER | 21089 18" FIR |
| 21000 18" FIR | 21045 24" ALDER | 21090 16" FIR |
| 21001 14" FIR | 21046 14" ALDER | 21091 24" FIR |
| 21002 28" FIR | 21047 14" ALDER | 21092 14" FIR |
| 21003 18" FIR | 21048 14" ALDER | 21093 8" FIR |
| 21004 34" FIR | 21049 12" ALDER | 21094 22" FIR |
| 21005 36" FIR | 21050 28" ALDER | 21095 18" FIR |
| 21006 36" FIR | 21051 14" ALDER | 21096 16" FIR |
| 21007 40" FIR | 21052 14" ALDER | 21097 18" FIR |
| 21008 20" FIR | 21053 20" ALDER | 21098 16" FIR |
| 21009 16" FIR | 21054 20" FIR | 21099 20" FIR |
| 21010 14" FIR | 21055 24" FIR | 21100 22" FIR |
| 21011 22" FIR | 21056 22" FIR | 21101 20" FIR |
| 21012 10" FIR | 21057 22" FIR | 21102 20" FIR |
| 21013 22" FIR | 21058 16" FIR | 21103 24" FIR |
| 21014 20" FIR | 21059 14" FIR | 21104 10" FIR |
| 21015 16" FIR | 21060 10" FIR | 21105 8" FIR |
| 21016 32" FIR | 21061 12" ALDER | 21106 24" FIR |
| 21017 22" FIR | 21062 22" FIR | 21107 26" FIR |
| 21018 12" FIR | 21063 30" FIR | 21108 20" FIR |
| 21019 18" FIR | 21064 24" FIR | 21109 20" FIR |
| 21020 32" FIR | 21065 24" ALDER | 21110 18" FIR |
| 21021 24" FIR | 21066 22" FIR | 21111 18" FIR |
| 21022 16" FIR | 21067 26" FIR | 21112 10" FIR |
| 21023 22" FIR | 21068 14" FIR | 21113 10" FIR |
| 21024 34" FIR | 21069 12" FIR | 21114 30" FIR |
| 21025 12" FIR | 21070 26" FIR | 21115 16" FIR |
| 21026 10" FIR | 21071 8" FIR | 21116 18" FIR |

Tree list composed from survey points per survey by MGS Inc.

Bold: tree size/species modified by AKS Engineering Forestry

Multiple stemmed trees were recorded as a one tree with a combined DBH per MGS Inc.

| TREE NO. DBH, SPECIES | TREE NO. DBH, SPECIES | TREE NO. DBH, SPECIES |
|-----------------------|-----------------------|-----------------------|
| 21117 32" FIR | 21162 18" FIR | 21211 16" ALDER |
| 21118 22" FIR | 21163 18" FIR | 21212 18" ALDER |
| 21119 18" FIR | 21164 12" FIR | 21213 22" FIR |
| 21120 20" FIR | 21165 20" FIR | 21214 20" FIR |
| 21121 14" ALDER | 21166 10" FIR | 21215 10" FIR |
| 21122 20" FIR | 21167 18" FIR | 21216 18" FIR |
| 21123 12" ALDER | 21168 10" FIR | 21217 16" FIR |
| 21124 8" FIR | 21169 12" FIR | 21218 18" FIR |
| 21125 14" ALDER | 21170 22" FIR | 21219 14" FIR |
| 21126 20" FIR | 21171 22" FIR | 21220 16" FIR |
| 21127 32" FIR | 21172 12" FIR | 21221 26" FIR |
| 21128 22" FIR | 21173 14" FIR | 21222 20" FIR |
| 21129 14" ALDER | 21174 12" FIR | 21223 30" FIR |
| 21130 16" ALDER | 21175 8" FIR | 21224 18" ALDER |
| 21131 12" ALDER | 21176 16" FIR | 21225 18" ALDER |
| 21132 8" FIR | 21177 14" FIR | 21226 36" FIR |
| 21133 36" FIR | 21178 22" FIR | 21227 36" FIR |
| 21134 30" FIR | 21179 12" FIR | 21228 38" FIR |
| 21135 26" FIR | 21180 18" FIR | 21229 30" FIR |
| 21136 26" FIR | 21181 10" FIR | 21230 30" FIR |
| 21137 20" FIR | 21182 18" FIR | 21231 18" FIR |
| 21138 22" FIR | 21183 22" FIR | 21232 22" FIR |
| 21139 22" FIR | 21184 18" FIR | 21233 16" FIR |
| 21140 24" FIR | 21185 14" FIR | 21234 14" ALDER |
| 21141 8" FIR | 21186 20" FIR | 21235 20" FIR |
| 21142 34" FIR | 21187 8" FIR | 21236 28" ALDER |
| 21143 24" FIR | 21188 16" FIR | 21237 12" ALDER |
| 21144 32" FIR | 21189 18" FIR | 21238 12" ALDER |
| 21145 20" FIR | 21190 34" FIR | 21239 14" FIR |
| 21146 24" FIR | 21191 8" FIR | 21240 20" FIR |
| 21147 8" FIR | 21192 14" FIR | 21241 12" ALDER |
| 21148 18" FIR | 21193 12" FIR | 21242 18" ALDER |
| 21149 20" FIR | 21194 18" FIR | 21243 32" FIR |
| 21150 18" FIR | 21195 20" FIR | 21244 22" FIR |
| 21151 24" FIR | 21196 20" FIR | 21245 24" FIR |
| 21152 22" FIR | 21197 10" FIR | 21246 20" FIR |
| 21153 22" FIR | 21198 8" FIR | 21247 24" FIR |
| 21154 26" FIR | 21199 14" FIR | 21248 20" FIR |
| 21155 12" FIR | 21200 20" FIR | 21249 18" ALDER |
| 21156 24" FIR | 21201 22" FIR | 21250 24" ALDER |
| 21157 12" FIR | 21202 14" FIR | 21251 20" ALDER |
| 21158 24" FIR | 21203 18" FIR | 21252 18" ALDER |
| 21159 20" FIR | 21204 12" FIR | 21253 16" ALDER |
| 21160 14" FIR | 21205 18" FIR | 21254 12" ALDER |
| 21161 20" FIR | 21206 20" FIR | 21255 26" FIR |

Tree list composed from survey points per survey by MGS Inc.

Bold: tree size/species modified by AKS Engineering Forestry

Multiple stemmed trees were recorded as a one tree with a combined DBH per MGS Inc.

| TREE NO. DBH, SPECIES | TREE NO. DBH, SPECIES | TREE NO. DBH, SPECIES |
|-----------------------|-----------------------------------|-----------------------|
| 21256 18" FIR | 21301 24" FIR | 21346 16" FIR |
| 21257 22" FIR | 21302 12" FIR | 21347 14" FIR |
| 21258 20" FIR | 21303 20" FIR | 21348 40" FIR |
| 21259 20" FIR | 21304 18" FIR | 21349 10" FIR |
| 21260 16" FIR | 21305 8" FIR | 21350 10" FIR |
| 21261 18" FIR | 21306 20" FIR | 21351 14" FIR |
| 21262 14" FIR | 21307 18" FIR | 21352 12" FIR |
| 21263 20" FIR | 21308 20" FIR | 21353 12" ALDER |
| 21264 16" FIR | 21309 18" FIR | 21354 14" FIR |
| 21265 10" FIR | 21310 24" FIR | 21355 12" ALDER |
| 21266 8" FIR | 21311 22" FIR | 21356 12" ALDER |
| 21267 14" FIR | 21312 20" FIR | 21357 14" FIR |
| 21268 8" FIR | 21313 24" ALDER | 21358 14" FIR |
| 21269 32" FIR | 21314 20" FIR | 21359 12" FIR |
| 21270 28" FIR | 21315 11" Oregon White Oak | 21360 20" FIR |
| 21271 22" FIR | 21316 24" ALDER | 21361 24" FIR |
| 21272 30" FIR | 21317 12" ALDER | 21362 8" FIR |
| 21273 28" FIR | 21318 20" ALDER | 21363 14" ALDER |
| 21274 38" FIR | 21319 16" ALDER | 21364 14" FIR |
| 21275 22" FIR | 21320 30" ALDER | 21365 24" ALDER |
| 21276 26" FIR | 21321 10" ALDER | 21366 22" FIR |
| 21277 42" FIR | 21322 38" FIR | 21367 16" ALDER |
| 21278 20" FIR | 21323 12" ALDER | 21368 18" ALDER |
| 21279 24" FIR | 21324 24" ALDER | 21369 16" ALDER |
| 21280 26" FIR | 21325 20" ALDER | 21370 12" ALDER |
| 21281 18" FIR | 21326 14" ALDER | 21371 18" ALDER |
| 21282 24" FIR | 21327 26" FIR | 21372 10" ALDER |
| 21283 22" FIR | 21328 24" FIR | 21373 12" ALDER |
| 21284 26" FIR | 21329 16" FIR | 21374 14" ALDER |
| 21285 34" FIR | 21330 12" FIR | 21375 12" ALDER |
| 21286 8" FIR | 21331 36" FIR | 21376 10" ALDER |
| 21287 20" FIR | 21332 14" FIR | 21377 30" FIR |
| 21288 60" FIR | 21333 12" ALDER | 21378 12" ALDER |
| 21289 18" FIR | 21334 16" ALDER | 21379 24" FIR |
| 21290 36" FIR | 21335 20" ALDER | 21380 20" FIR |
| 21291 18" FIR | 21336 24" FIR | 21381 14" ALDER |
| 21292 24" FIR | 21337 22" FIR | 21382 18" FIR |
| 21293 8" FIR | 21338 26" FIR | 21383 26" FIR |
| 21294 12" ALDER | 21339 28" MAPLE | 21384 36" FIR |
| 21295 14" ALDER | 21340 12" MAPLE | 21385 22" FIR |
| 21296 26" FIR | 21341 18" FIR | 21386 18" FIR |
| 21297 14" FIR | 21342 20" FIR | 21387 26" FIR |
| 21298 18" FIR | 21343 10" FIR | 21388 28" FIR |
| 21299 18" FIR | 21344 18" FIR | 21389 10" FIR |
| 21300 18" FIR | 21345 12" ALDER | 21390 32" FIR |

Tree list composed from survey points per survey by MGS Inc.

Bold: tree size/species modified by AKS Engineering Forestry

Multiple stemmed trees were recorded as a one tree with a combined DBH per MGS Inc.

| TREE NO. DBH, SPECIES | TREE NO. DBH, SPECIES | TREE NO. DBH, SPECIES |
|-----------------------|-----------------------|-----------------------|
| 21391 18" FIR | 21436 18" FIR | 21482 16" FIR |
| 21392 16" FIR | 21438 22" FIR | 21483 18" FIR |
| 21393 30" FIR | 21439 24" FIR | 21484 10" FIR |
| 21394 20" FIR | 21440 12" ALDER | 21485 12" FIR |
| 21395 18" FIR | 21441 8" FIR | 21486 16" FIR |
| 21396 22" FIR | 21442 8" FIR | 21487 12" FIR |
| 21397 24" FIR | 21443 32" FIR | 21488 10" FIR |
| 21398 10" FIR | 21444 14" ALDER | 21489 10" FIR |
| 21399 16" FIR | 21445 20" FIR | 21490 12" FIR |
| 21400 24" FIR | 21446 26" FIR | 21491 14" FIR |
| 21401 32" FIR | 21447 28" FIR | 21492 12" FIR |
| 21402 20" FIR | 21448 18" ALDER | 21493 20" FIR |
| 21403 22" FIR | 21449 12" ALDER | 21494 24" FIR |
| 21404 42" FIR | 21450 16" ALDER | 21495 22" FIR |
| 21405 18" FIR | 21451 14" ALDER | 21496 36" FIR |
| 21406 16" FIR | 21452 18" ALDER | 21497 28" FIR |
| 21407 18" FIR | 21453 14" ALDER | 21498 10" ALDER |
| 21408 32" FIR | 21454 12" ALDER | 21499 24" FIR |
| 21409 18" FIR | 21455 14" ALDER | 21500 22" FIR |
| 21410 16" ALDER | 21456 26" ALDER | 21501 26" FIR |
| 21411 18" ALDER | 21457 12" ALDER | 21502 24" FIR |
| 21412 22" FIR | 21458 14" ALDER | 21503 40" FIR |
| 21413 10" ALDER | 21459 12" ALDER | 21504 26" FIR |
| 21414 12" ALDER | 21460 36" ALDER | 21505 24" FIR |
| 21415 8" FIR | 21461 20" ALDER | 21506 42" FIR |
| 21416 28" FIR | 21462 14" ALDER | 21507 22" FIR |
| 21417 32" FIR | 21463 24" FIR | 21508 20" FIR |
| 21418 16" FIR | 21464 14" ALDER | 21509 26" FIR |
| 21419 20" FIR | 21465 26" FIR | 21510 24" MAPLE |
| 21420 20" FIR | 21466 14" ALDER | 21511 26" FIR |
| 21421 22" FIR | 21467 16" ALDER | 21512 20" FIR |
| 21422 12" ALDER | 21468 20" FIR | 21513 18" FIR |
| 21423 26" FIR | 21469 30" ALDER | 21514 20" FIR |
| 21424 14" ALDER | 21470 18" FIR | 21515 24" FIR |
| 21425 24" FIR | 21471 16" FIR | 21516 28" FIR |
| 21426 20" FIR | 21472 34" FIR | 21517 20" FIR |
| 21427 18" FIR | 21473 12" ALDER | 21518 22" FIR |
| 21428 22" FIR | 21474 20" FIR | 21519 30" FIR |
| 21429 20" FIR | 21475 16" FIR | 21520 24" FIR |
| 21430 18" FIR | 21476 14" FIR | 21521 16" FIR |
| 21431 12" ALDER | 21477 16" FIR | 21522 42" FIR |
| 21432 14" FIR | 21478 28" FIR | 21523 8" FIR |
| 21433 16" ALDER | 21479 26" FIR | 21524 16" FIR |
| 21434 12" ALDER | 21480 32" FIR | 21525 18" FIR |
| 21435 14" ALDER | 21481 12" FIR | 21526 8" FIR |

Tree list composed from survey points per survey by MGS Inc.

Bold: tree size/species modified by AKS Engineering Forestry

Multiple stemmed trees were recorded as a one tree with a combined DBH per MGS Inc.

| TREE NO. DBH, SPECIES | TREE NO. DBH, SPECIES | TREE NO. DBH, SPECIES |
|-----------------------|-----------------------|-----------------------|
| 21527 38" FIR | 21596 40" FIR | 21643 28" FIR |
| 21528 14" FIR | 21597 34" FIR | 21644 10" ALDER |
| 21529 22" FIR | 21598 14" ALDER | 21645 14" ALDER |
| 21530 24" FIR | 21601 18" ALDER | 21646 22" FIR |
| 21531 28" FIR | 21602 16" FIR | 21647 24" ALDER |
| 21532 32" FIR | 21603 16" FIR | 21648 24" FIR |
| 21533 36" FIR | 21604 24" FIR | 21649 8" FIR |
| 21534 22" FIR | 21605 12" ALDER | 21650 24" FIR |
| 21535 12" FIR | 21606 24" FIR | 21651 32" FIR |
| 21536 18" FIR | 21607 18" ALDER | 21652 30" FIR |
| 21537 26" FIR | 21608 20" ALDER | 21653 36" FIR |
| 21538 24" FIR | 21609 44" FIR | 21654 8" FIR |
| 21539 28" FIR | 21610 10" ALDER | 21655 12" ALDER |
| 21540 12" ALDER | 21611 14" ALDER | 21656 24" ALDER |
| 21541 24" FIR | 21612 16" ALDER | 21657 38" FIR |
| 21542 40" FIR | 21613 42" ALDER | 21658 28" ALDER |
| 21543 36" FIR | 21614 12" ALDER | 21659 12" MAPLE |
| 21544 14" FIR | 21615 12" ALDER | 21660 20" FIR |
| 21545 12" FIR | 21616 20" ALDER | 21661 24" FIR |
| 21546 28" FIR | 21617 22" FIR | 21662 36" ALDER |
| 21547 10" FIR | 21618 36" ALDER | 21663 14" ALDER |
| 21548 14" FIR | 21619 26" FIR | 21664 16" ALDER |
| 21549 10" FIR | 21620 48" FIR | 21665 20" FIR |
| 21550 22" FIR | 21621 22" FIR | 21666 10" FIR |
| 21551 16" FIR | 21622 12" FIR | 21667 10" FIR |
| 21552 10" FIR | 21623 36" FIR | 21668 14" ALDER |
| 21553 12" FIR | 21624 32" FIR | 21669 12" ALDER |
| 21554 14" FIR | 21625 18" ALDER | 21670 20" FIR |
| 21555 24" FIR | 21626 16" FIR | 21671 16" ALDER |
| 21557 12" ALDER | 21627 14" ALDER | 21672 14" ALDER |
| 21558 18" FIR | 21628 14" ALDER | 21673 16" ALDER |
| 21559 20" ALDER | 21629 16" ALDER | 21674 22" ALDER |
| 21560 12" ALDER | 21630 16" ALDER | 21675 22" ALDER |
| 21561 14" ALDER | 21631 44" FIR | 21676 24" FIR |
| 21562 16" ALDER | 21632 38" FIR | 21677 24" FIR |
| 21563 18" ALDER | 21633 24" FIR | 21678 24" FIR |
| 21564 24" ALDER | 21634 12" FIR | 21679 16" ALDER |
| 21565 28" ALDER | 21635 36" FIR | 21680 30" FIR |
| 21566 16" ALDER | 21636 32" FIR | 21681 26" FIR |
| 21567 16" ALDER | 21637 36" FIR | 21682 16" ALDER |
| 21568 16" ALDER | 21638 24" FIR | 21683 44" FIR |
| 21569 16" ALDER | 21639 24" FIR | 21684 8" FIR |
| 21593 8" MAPLE | 21640 40" FIR | 21685 8" FIR |
| 21594 8" ALDER | 21641 20" ALDER | 21686 40" CEDAR |
| 21595 40" FIR | 21642 18" ALDER | 21687 12" ALDER |

Tree list composed from survey points per survey by MGS Inc.

Bold: tree size/species modified by AKS Engineering Forestry

Multiple stemmed trees were recorded as a one tree with a combined DBH per MGS Inc.

TREE NO. DBH, SPECIES

21688 12" ALDER
21689 40" FIR
21690 40" FIR
21691 16" FIR
21692 12" FIR
21693 14" FIR
21694 26" FIR
21695 18" FIR
21696 14" MAPLE
21697 14" ALDER
21698 16" ALDER
21699 26" FIR
21700 12" ALDER
21701 26" FIR
21702 14" FIR
21703 12" FIR
21709 7" Oregon White Oak

Tree list composed from survey points per survey by MGS Inc.

Bold: tree size/species modified by AKS Engineering Forestry

Multiple stemmed trees were recorded as a one tree with a combined DBH per MGS Inc.

APPENDIX 'B'

(TREE PRESERVATION AND REMOVAL PLANS)

APPENDIX 'C'

(LANDSCAPE PLAN – PROVIDED BY OTHERS)