CAMERON McCARTHY LANDSCAPE ARCHITECTURE & PLANNING
160 East Broadway ▪ Eugene Oregon 97401
v 541.485.7385 ▪ f 541.485.7389
www.cameronmccarthy.com

February 9, 2021

State Street Homes
Salem, Oregon 97306

RE: State Street Homes Arborist Report

Introduction:
This recommendation is prepared for the future construction of the property at 5826 Battle Creek Rd. SE. The site on which improvements will be made is a large parcel of land which will be subdivided, bounded by Battle Creek Rd. SE on the west and Interstate 5 on the east. The north and south sides of the property abut existing residential private property. The foci for this report are two significant oak trees which will be located in the right-of-way when street improvements are made.

Tree diameters listed are the diameter at 4.5 feet above grade (Diameter at Breast Height - DBH). Please see 'Exhibit A – Tree ID and Location' for associated information, and 'Exhibit B – Arborist Data' at the end of this document for additional notes pertaining to each tree: Tree Species, Diameter Size and Health/Condition.

The study for this report evaluated the health of two trees in specific locations. Field work was performed on February 8, 2020.

Observations:
The evaluated trees are *Quercus garryana* (Oregon White Oak). This species tends to have low root damage potential.

Tree Evaluations, Recommendations and Design Implications
Tree #1 is found adjacent to Battle Creek Rd. SE and the existing paved driveway leading to the single home on the property. The DBH of this tree is 42 inches, with a canopy diameter of 70 feet. Nails have been used to attach an address plaque to the trunk, however no sap drip is evident. Limbs extend over the full width of the driveway and road. Although this is a low branching specimen (major limbs emerge approximately 6 feet from the ground), the limbs ascend sufficiently to allow unimpeded vehicular movement on both Battle Creek Rd. SE and the private driveway. The low and wide branching created a crotch that has collected debris and should be monitored for signs of decay. Moss and Licorice Ferns are abundant on the trunk and limbs, but these pose no concerns for tree health. This tree exhibits a significant number of insect induced galls. In general, this should not harm the tree, however a very heavy occurrence may lead to early leaf drop. A small amount of mistletoe is present (4-5 clusters), but is likely to spread over time as evidenced by other surrounding oaks with heavy infestation. Although mistletoe is a parasitic plant, in smaller quantities the tree should not be in danger. The presence of mistletoe should be monitored over time. If it begins to appear in large quantities, the tree may have health risks and decline in times of stress (drought, disease, damage). Pruning diseased limbs is one way to control mistletoe, however the form and balance of the tree may by compromised. Some watersprouts are present on larger limbs, but not in abundance. There is a small amount of deadwood present which shows signs of decay and bird/insect activity, however this is not uncommon for a tree of this size/age. The tree is somewhat crowded on the north-northwest side by 3 closely planted conifers,

which has somewhat limited limb extension in that direction, but nothing drastic. The smaller limbs on the crowded side intermingle and surround the conifers to some extent. This tree is in good condition.

Tree #1 – location, form

Tree #1 – location, form, powerlines, crowding

Tree #1 – location, plaque, branching, crotch, epiphytes

Tree #2 is located on the north side of the existing house in a plant bed, adjacent to large, open fields, lawn and very little paving, however it is within 10 feet of the structure. No surface roots are visible. The DBH of this tree is 43 inches, with a canopy diameter of 77 feet. This is a more upright and high branching specimen, with a high, wide reaching canopy. At least 3 major limb removals have been performed recently on the south side which appear to have been extending over the house. This has altered the form of the tree, making it rather 3-sided in its current state, but offers increase safety and protection of the structure. Moss and Licorice Ferns are present on the trunk and limbs, but these pose no concerns for tree health. This tree exhibits a smaller amount of insect induced galls than tree #1. A large amount of mistletoe is present, thus the tree should be monitored for health risks and decline in times of stress (drought, disease, damage). In this case, the pruning of diseased limbs to control spread is not recommended, as it would decimate the tree's form and structure. Minor fungal decay is present on deadwood/old cuts/old breaks within the canopy. Wood from the removed limbs was stacked nearby which exhibited fungal conks, however it is unknown if these surfaced before or after removal. The edge of the canopy on the west side is intermingling with branches from the adjacent Cedar, however they don't appear to be interfering with one another. Minor bark abrasions are present low on the trunk, but none have fully pierced the bark and caused injury to the living tissues below. This tree is in fair condition, primarily due to the high presence of mistletoe and the balance/form created by limb removal.

Tree #2 – location, form, pruning cuts, proximity

Tree #2 – location, form, pruning cuts, proximity

160 East Broadway ▪ Eugene Oregon 97401
v 541.485.7385 ▪ f 541.485.7389
www.cameronmccarthy.com

Tree #2 – mistletoe, form

General Recommendations:
Cut and Fill in and around existing tree roots can affect the overall health of the tree. While cut is most intrusive, as it directly eliminates an energy (food and water) source, fill can also impact feeder roots in trees. Trees are better equipped to adapt to fill than cut. If fill is required, it is recommended to keep fill materials at least 10-ft from the base of the tree and to infill either by hand or with use of heavy equipment where only the bucket enters the protected area, and the weight of the machinery stays outside the tree protection area to avoid soil compaction. No more than 30% of the tree's root zone should be impacted with cut or fill for optimal health of the tree. As a general rule of thumb, and depending upon species, tree removal is recommended if more than 30% of their critical root zones (CRZ) will be impacted to accommodate construction.

In the case of tree #1, somewhere in the ballpark of 60% of the CRZ will be affected by construction. Impact will predominantly be with fill, however it will come within a few feet of the trunk. In addition, there will be significant compaction throughout the affected zone for construction of roads and sidewalks. Although some efforts could be made to lessen the impact of the fill and compaction of the CRZ, they would come at great expense and would not necessarily assure tree survival.

Tree #2 has a large percentage of the CRZ which will be affected by construction: over 50%. However, the disturbance in this instance would be 3 feet of cut on the south side which comes very near to the trunk. This would remove a significant amount of structural and feeder roots which could compromise tree stability and survival. The remaining roots on the north side would be subject to compaction on the new home building lot.

Unless there are significant changes to the design of the roadways and utilities, or the use of unique construction methods around the CRZ of these trees, it is recommended that both native oak trees be removed.

160 East Broadway ▪ Eugene Oregon 97401
v 541.485.7385 ▪ f 541.485.7389
www.cameronmccarthy.com

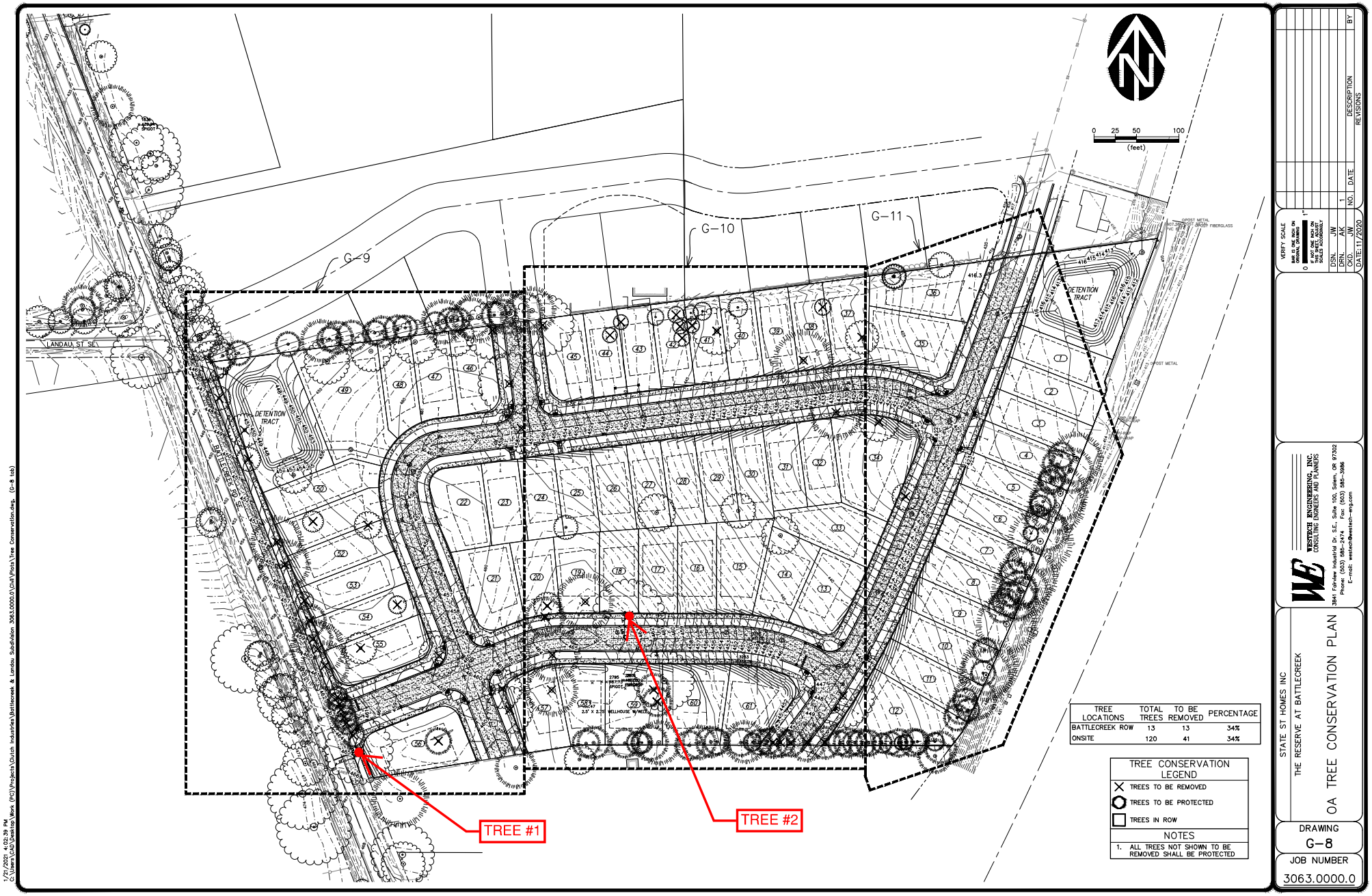
Assumptions and Limiting Conditions:

- The data given in this recommendation reflects an opinion of the conditions present on site at the time of inspection. The inspection was limited to visual examination only without excavation, probing, or coring. There is no warranty or guarantee, expressed or implied, that problems or deficiencies of the trees on the property may not arise in the future.
- Care has been taken to obtain all information from reliable sources. The consultant can neither guarantee nor be responsible for the accuracy and completeness of the information provided by others.
- Consultant shall not be required to give testimony or to attend court by reason of any recommendation unless subsequent contractual arrangements are made, including payment of additional fees.
- Missing pages or alteration of any recommendation invalidates entire document.
- Possession of a recommendation does not imply a right of publication without written consent of the consultant.
- Neither all nor any part of the contents of this recommendation, nor a copy thereof, shall be conveyed to the public through advertising, public relations, news, sales or other media, or for a larger database without the expressed written consent of the consultant.

Regards,

Matthew Jorgensen
ISA Certified Arborist, PN-8810A

EXHIBIT A - TREE ID AND LOCATION



TREE LOCATIONS	TOTAL TREES	TO BE REMOVED	PERCENTAGE
BATTLECREEK ROW	13	13	34%
ONSITE	120	41	34%

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET ADJUST SCALE ACCORDINGLY

DSN.	JW			
DRN.	AK	1		
CKD.	JW	NO.	DATE	DESCRIPTION
DATE: 11/2020				REVISIONS

WESTECH ENGINEERING, INC.
CONSULTING ENGINEERS AND PLANNERS
3841 Fairview Industrial Dr. S.E., Suite 100, Salem, OR 97302
Phone: (503) 585-2474 Fax: (503) 585-3986
E-mail: westech@westech-eng.com

STATE ST HOMES INC

THE RESERVE AT BATTLECREEK

OA TREE CONSERVATION PLAN

DRAWING
G-8

JOB NUMBER
3063.0000.0

1/21/2020, 4:02:39 PM
C:\Users\JJW\Desktop\Work (PC)\Projects\Dutch Industries\Battlecreek & Landau Subdivision 3063.0000.0\Civil\Plots\Tree Conservation.dwg, (G-8 tab)

EXHIBIT B - ARBORIST DATA

State Street Homes 2/9/2021

Existing Trees - Inventory & Assessment

Plan ID	Genus & Species	Common Name	DBH (in)	CANOPY (ft)	Health/ Condition*	Arborist Notes	within 10' of Structure	Co-dominant Leader	Surface Roots	% Deadwood	History of Being Topped	Suckers
1	Quercus garryana	Oregon White Oak	42	70	4	mistletoe present, but in a small quantity (4-5 clusters), low major limb attachment, good attachment, presence of licorice fern on lower limbs and in crotch, debris in crotch, gall presence, some deadwood with decay, high limbs overhang the width of the street, powerlines nearby but not conflicting, branches intermingle with 3 other adjacent trees that are planted closely together, evidence of bird/insect activity on deadwood				5%		x
2	Quercus garryana	Oregon White Oak	43	77	3	3 sided due to large limb pruning on the side of the house (3 large limbs pruned recently, perhaps others in the past), close to structure, high limb attachment, good attachment, fern presence, high mistletoe presence, minor fungal decay on deadwood/old cuts/breaks, branches just mingling with adjacent cedar but don't seem to be interfering with each other, minor trunk/bark abrasions, gall presence	x					

*Condition		
5 =	very good	perfect form, little to no deadwood, all limbs have good attachments, no sign of decay
4 =	good	good form, multi-leader, but with good attachment, 10% or less large deadwood
3 =	fair	unbalanced or incomplete crown, tight limb angles, 15-20% larger deadwood
2 =	poor	Evidence of some decay, 20-30% larger deadwood, history of being topped.
1 =	very poor	Structurally unsound, extensive decay, dieback, poor form, unbalanced or greatly reduced crown.