SANTIAM Tree Service INC

Arborist Evaluation Santiam Tree Service Inc PO Box 401 Scio, OR 97374 Phone- (541) 905 6674

PROPERTY LOCATION-

2293 47th Ave NE Salem, OR 97305

#### TREE LOCATION-

Three trees along the southern border of the property.

To whom it may concern,

This report is to address the potential of tree impact when removing and replacing a mobile home on the above mentioned property.

### Property and Tree Evaluation

There are three trees in question, two Sweet Gums (*Liquidambar styraciflua*) and one Douglas Fir (*Pseudotsuga menziesii*). All three trees appear to be in good, healthy condition. There are no major defects on the trunks, the canopies appear healthy and all major leaders have intact tops. There are some exposed roots on the easternmost Sweet Gum and the rest of the root zones were exposed smooth soil or uninspectable due to refuse but it can be assumed they are in similar condition. The only items of note are: the rootzones being bare or trash covered, that the trunk flare on the Fir and middle Gum appear to be partially buried and should be exposed and that the center Gum is a codominant tree at the base and the union should be inspected regularly for cracks and defects.

# Removing and Replacing the Structure

Tree roots are mostly in the top 18 inches of soil and can reach three times the diameter of the dripline. Construction impacts are mostly related to root damage via soil compaction and root severing. These impacts can take 1-3 years to become evident in the canopy. A tree's roots are shallow and far spreading. The roots closest to the tree are mostly for anchorage, as they grow away from the tree they are more for transport and finally the feeder roots that are very small and close to the surface of the soil. These roots, especially the transport and feeder, need pore space to function and survive. The pore space in the soil allows for water and oxygen which the roots need to absorb nutrients, water and respirate.

Typically when construction happens around a tree a Tree Protection Zone (TPZ) is established to prevent damage. Tree Protection Zones (TPZ) as defined by the International Society of Arboriculture is a radius of 1 foot per 1 inch of tree Diameter at Breast Height (DBH 4.5') plus the DBH or the longest reaching dripline plus 1 foot, whichever is larger. For example a 6" DBH tree will have a 13.5' diameter TPZ or if the radius of the tree's dripline is 7 feet it would have a 15" diameter TPZ.. Temporary fencing shall be installed to dictate these zones.

TPZ's exist to prevent the most common construction impacts: soil compaction, root cutting and canopy contact. Things that must be avoided in the TPZ are and not limited to: stockpiling of material, parking of equipment or vehicle, soil compaction via equipment, vehicles or foot traffic, soil contamination via washing of equipment (grease, concrete, paint, ect), grade



change via cut or fill, attaching anything to trunk or branch, wounding trunk or branch with equipment and trenching.

## **Recommendations**

Special care should be taken to not impact the rootzones not already impacted by the removal and replacement of the structure. The guidelines outlined above regarding storage of waste and materials as well as soil compaction should be followed during the process. Following the clearing of the refuse and prior to building around the property I would recommend placing wood chips or mulch under the trees to help: prevent soil compaction, retain soil moisture, prevent runoff and provide nutrients to the soil as it breaks down.

#### **Conclusion**

Considering that there is a structure currently within the limits of the TPZ and the new mobile home installation will not require excavation or additional compaction I believe that there should not be any negative impacts on the trees' health.

Isaac Alexander delledera Schumacher 29.July.2022 Certified Tree Worker Specialist Certified Arborist MA-5768AT

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This report was completed via a visual inspection from the ground. To better know the structural integrity of the trunk and the condition of the root system and canopy; a resistograph, an air-spade excavation and an aerial inspection would be required respectively.

This report is my opinion based on the visual data I recorded. With my education and experience I can make informed recommendations, however it is up to the client and the owners of the trees to make their own decisions regarding their level of acceptable risk. Any tree or limb may fail at any time for any reason. Trees are living, growing organisms that are constantly influencing and being influenced by their surroundings.