

Morgan Holen

Consulting Arborists and Urban Forest Management

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**DATE:** July 24, 2016

TO: Mike and Tynisha Safstrom

FROM: Morgan Holen, Consulting Arborist

RE: Safstrom Partition – Boring Recommendation

MHA16062

Morgan Holen & Associates, LLC, was contacted by Mike and Tynisha Safstrom to obtain a written arborist recommendation regarding tree protection as it relates to proposed underground utility installation at their three lot partition project located at 10510 SW 155<sup>th</sup> Avenue in Beaverton, Oregon. I have not been to the site to visually assess existing trees, but have looked at the site boundaries and satellite imagery available on Beaverton Search, reviewed the project plan set drawings, and discussed the proposed work with Mr. Safstrom.

It is my understanding that there is a 20-foot public utility easement along the eastern property boundary and that the crowns of trees located off-site to the east overhang the subject site by no more than 14-feet. Based on my discussion with Mr. Safstrom, the utility plan will be modified to place the deeper sanitary sewer line closer to the property boundary and the shallow storm water line beyond the dripline of protected off-site trees; the sanitary sewer line is proposed approximately eight feet from the property boundary at a minimum depth of four feet and the storm water line is proposed approximately 18-feet from the property boundary and will daylight at a minimum.

The sanitary sewer is proposed to be installed by boring, which is a good alternative to trenching beneath protected tree driplines in order to avoid potential tree root impacts. Tree roots are typically located within the upper two feet of soil where air and water are more readily available. Boring is recommended at a minimum depth of three feet to stay below the root depth. In this case, boring is proposed at a minimum depth of four feet and will be further than half the dripline distance away from protected trees. The boring machine and bore pits required to allow pipe installation should be set up beyond protected tree driplines.

The storm water line could be installed by trenching with an excavator since it is proposed beyond the dripline of protected trees and will not impact the critical root zone.

The proposed construction is not expected to result in any detrimental tree root impacts and the adjacent trees should be well protected during underground utility installation.

The client may choose to accept or disregard the recommendations contained herein, or seek additional advice. Neither this author nor Morgan Holen & Associates, LLC, have assumed any responsibility for liability associated with the trees on or adjacent to this site.

Please contact us if you have questions or need any additional information.

Thank you,

Morgan Holen & Associates, LLC

Morgan L. Holen, Owner

ISA Board Certified Master Arborist, PN-6145B

ISA Tree Risk Assessment Qualified

Forest Biologist