



Division of Forestry

Steph Miller, Western Ohio Urban Forestry Coordinator
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March 5, 2025

Bob Bethel
Village Administrator
Village of Holland
1245 Clarion Ave
Holland, OH 43528

Dear Bob,

Thank you for inviting me to Holland to evaluate the trees in the Whisperwood subdivision treelawns. This has been a challenging issue for you and others, so I hope our walk around the neighborhood was helpful. This is a summary of our observations and discussion.

Issue

Most of the trees in this neighborhood are the same species. Species diversity is paramount in protecting tree populations from insect/disease outbreaks and weather-related events. Most were planted around the same time meaning that they will age out (i.e. reach replacement age) around the same time. Compounding the population dynamics, the trees have not been trained to a single stem (a practice we call Young Tree Training) resulting in multiple-stemmed trees growing into the street and irritating the residents. A handful of trees have lifted sidewalks.

The goal of our site visit was to inspect each tree for its damage to the sidewalk and whether the tree was worth salvaging. Each tree in question was evaluated based on its health, invasiveness, architecture, and appropriateness for the site. Bob Bethel kept track of the trees on his list as we evaluated them.

Trends and Observations

Most of Yunker Lane's treelawn trees were planted before the rest of the area we inspected, so the trees are a little older. Yunker Lane has some littleleaf lindens and invasive ornamental pears. Several of the lindens grew with a lean. I suspect this is due to them being planted too deeply. If the root collar isn't showing where the tree meets the surrounding soil, then the tree is deep. When a tree is missing that flared base (think wine glasses) to hold the tree up, then it's very common for the tree to develop a lean.



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Lindens are a species that will withstand the deep planting for several years. A good proportion of deeply planted trees die by the time they're three inches diameter at breast height (DBH). Linden often survives until about nine inches DBH. Secondary roots usually grow out of the buried trunk because it's structural roots are too deep in the soil to function (take up water and nutrients.) These secondary roots aren't structural at all, their growth is a survival mechanism. Heck, the tree just needs to get to reproductive age and the secondary roots keep the tree alive to reach that stage. The secondary roots tend to wrap around the stem. As the trunk grows in diameter and secondary roots grow in diameter, the secondary roots will eventually girdle the stem of the tree cutting off its vascular system. The trees decline, die, or fall over. Now you've had several years of investment you've lost along with the future benefits trees provide. Of course, if the trees fail (break) they break at the base. This could cause some disruption on Yunker.

With the exception of Yunker Lane, the rest of the neighborhood trees we checked are soft maples. I believe they are all Freeman maple, a cross between silver and red maples. Most of them were planted properly with the root collar at or slightly above the soil line. Hooray! As with all the trees on Yunker, none were trained when young. They have multiple stems and some already have well-developed V-crotches. Next to topped trees, V-crotch failure is the second most common storm damage we see. This is all preventable, so future failure on these trees is predictable.

Overall, few of the trees we inspected were causing sidewalk damage enough to cause a trip risk. An Ohio State University study with the City of Cincinnati showed that most sidewalk damage is due to either the walk being poured to the wrong thickness or (most commonly) the concrete mix not meeting engineering specifications that match the underlying soil. Trees are easy to blame. Several of the sidewalk failures we observed were well away from the tree roots that would cause sidewalk damage. Most trees were far enough from the sidewalk replacement area that the work should not damage the trees. Some walks had sunk...definitely not caused by tree roots.

We identified several trees that were planted contrary to best management practices distance regulations. I referenced Holland's ordinance, and it's missing distance language about driveway aprons, streetlights, and some other infrastructure. There were spots, particularly on Yunker, where there were more



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trees than there should have been. They were squeezed in and planted pretty close to the other infrastructure which could cause sight issues with people exiting their driveways.

None of the trees were considered high or extreme risk trees.

Recommendations

We identified 29 trees for removal as part of the sidewalk replacement program. Yunker will be the most impacted and look very different after the trees are removed.

Although the rest of the trees are well beyond young tree training, they need some quality pruning to head off some V-crotch failure and lift them over the traffic. This requires an experienced, skilled arborist and contract specifications from Holland. Invest in quality pruning by hiring a company with ISA Certified Arborists who will be doing the work or directing it on site. I have included sample pruning specifications that will work as a good starting point. We'll be delighted to work with you to prepare them for the Whisperwood neighborhood pruning work. We can even help with pre-work meetings with the contractor and do inspections as they get started to make sure they're meeting your specs. It's a good opportunity to help build your eyes and those of anyone else who may be charged with seeing this work is done properly. Remember that one poor pruning job will cost you for the life of the tree. It's important that the specifications come from the Village and that you only pay for quality work.

One suggestion would be to follow up by doing a Street Tree Planting Design for the neighborhood. Haley or I will do this with you. This 50-100-year design will give you a plan for what trees to plant in the neighborhood. As you phase out the Freeman maples, you know exactly what's going back in. It won't take long to do that since most of the soil conditions are the same in the treelawns.

Siting new plantings in the right spots will help too. You'll want to make sure you don't have the other infrastructure interference you're dealing with today. Again, we'll help you site the trees. Once we do that once or twice with you, you'll be experts at it...grin.

You can do all the planning in the world, but unless the trees are planted properly you'll continue to have issues. Let's work on getting Holland's tree planting



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specifications in order before you purchase and plant anything. We have 95% of it done in our samples, but we'll want to ensure that the specs are a good fit for Holland. We can talk more about all that when you are ready.

And of course, you need to have a plan in place to care for the trees. They will need watered weekly for at least the first year post planting. Then they need young tree training. This process for training trees to have good, strong architecture is crucial. It is THE most cost-effective tree care activity a community will invest in. It will pay off in less mature tree maintenance and storm proofing your tree infrastructure. It's great work for tree commissioners and there are a couple of arborists who specialize in it as well. It's so important to us at the Ohio Division of Forestry that we hold free young tree training classes to teach community folks how to do this important work. We'll have some this fall, so watch your email for that.

This has been a lot of information, so please let me know if you have any questions or need to talk anything through. Perhaps we can make a timeline with some benchmarks for over the next two years to address some of this work. The Street Tree Planting design will be your Tree Commission Academy sophomore homework, so we'll knock that out this summer.

Thank you again for inviting me to assist with your urban forestry program. It's really nice to be working with Holland folks again.

Sincerely,

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Tree Risk Assessment Qualified
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