

## Answers to UFC Commissioners' questions regarding Street Tree Planting Standards

Below is a bulleted list of questions posed by UFC Commissioners during their 5/19/2016 meeting, following a presentation by City Forester Jenn Cairo on minimum planting site widths required by the [Street Tree Planting Standards](#) adopted in October, 2015. Questions have been paraphrased in some cases, for clarity.

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*1) Do these standards contradict the root protection zone requirement for trees on private property? (Meryl)*

No. The standards apply to street trees only. Urban Forestry is currently working on tree protection specifications for street trees during development, in accordance with 11.60.030.B. Where street trees are required to be retained during development activity, all open soil within root protection zones is required to be fenced or otherwise protected from disturbance or compaction.

*2) Can we space out small trees further, which will elongate their planting space and provide them more soil volume? (Damon)*

Increasing the spacing of small trees would not solve issues of infrastructure conflict and public safety caused by tree planting in too-narrow right-of-way spaces—conflicts we recognize as significant and universally cited by arboricultural literature and urban forestry professionals. For example, pruning necessary to provide clearance of streets and sidewalks for a tree planted 1.25 feet away from those spaces would be necessarily frequent and harsh, leading to negative outcomes for the tree. In addition to restricted soil volume, unavoidable conflicts such as these often lead to low productivity, high maintenance costs, and early mortality of trees.

Additionally, planting standards must be consistent with other areas of City code. This was one of the main reasons behind overhauling tree regulation with the Citywide Tree Project. Planting in spaces below 3 feet in width contradicts minimum required planting areas for tree plantings in development, where planting spaces must have a minimum width of 3 feet (11.50.050.C.2). Allowing planting in spaces less than 3 feet wide might set up a situation where the development community declares that they are being forced to meet a higher standard than all others in the city. Defending that position in contradiction to well-established arboricultural principles and industry best management practices would be untenable.

*3) How will compliance with this standard be enforced? i.e. will UF penalize homeowners who plant in strips less than 36"? (Damon)*

Complaints generate the bulk of Urban Forestry's code compliance enforcement activities, and the public rarely complains about street tree plantings that do not meet standards. This can include cases where trees are planted in spaces below minimum width thresholds, tree stock does not meet minimum caliper standards,

trees were not planted to standard, or the species of tree is not from the Approved Planting List or otherwise not the correct mature stature for that size planting site. Urban Forestry staff will be conducting planting compliance checks in Summer 2016, the goal of which is to increase the rate of tree planting where it is required. Trees planted in spaces below minimum width thresholds would not have been required, therefore are not an enforcement priority.

*4) When trees come out from strips less than 36", will UF require replanting? If not, then UF is enforcing a canopy loss on that neighborhood. (David)*

All mitigation requirements still apply when trees are permitted for removal from strips less than 36"; however Urban Forestry does not require that trees be planted in the right-of-way, as the site would not meet minimum standards. Rather, homeowners are required to plant where adequate planting space exists on the property. Tree Inspectors work with applicants to identify suitable trees for suitable planting spaces on private property. All trees planted as a permit requirement, on private land or in City right-of-way, are regulated from the time of planting, and have to be replaced should they not survive to establishment.

*5) Unintended message of this policy is that a property owner can grow a perfect and thriving tree that will not disturb the sidewalk. Therefore, people will not understand the value of stewardship. These standards are also a barrier to young people to participating in planting a tree or otherwise participate in public life. (Catherine)*

Goal #1 of the [Street Tree Planting Standards](#) is to *"Promote proper stewardship of the urban forest by informing people how to properly plant and establish trees."* Rather than set the expectation that any approved planting site will support a tree in no need of maintenance, both the standard and Urban Forestry's current [Street Tree Planting and Establishment Guidelines](#) are clear that any tree planted will require maintenance in the future, which may include the pruning of roots and branches. Setting a minimum site width threshold in accordance with industry best management practices is meant to reduce the universal experience of those in the municipal forestry business that spaces below this threshold are more likely to create conflicts resulting in unnecessary, significant expense to adjacent property owners and the City, low-productivity of trees, and their early mortality. Setting a reasonable, science-based minimum threshold for planting sites reduces the number of cases where *no amount of stewardship* will ensure that a tree grows to healthy maturity with minimum conflicts to infrastructure—conflicts that have real financial costs to homeowners.

The benefits that urban trees provide to residents, young or old, living adjacent to rights-of-way that do not meet minimum site width thresholds should not be limited the by constraints of an urban design that they had nothing to do with. Accepting that those residents will never enjoy the ecosystem, health, and other benefits of larger, longer-lived trees (benefits which residents of more affluent neighborhoods with wider planting spaces in the right-of-way enjoy) reinforces an environmental inequity. Every tree that is planted in that

neighborhood is then a lesser investment than trees planted in neighborhoods with larger planting space in the right-of-way. Especially when public money is financing this investment, all measures must be taken to ensure that trees will incur minimal additional and unnecessary expense to adjacent property owners and the City, survive to maturity, and provide maximum benefit to the public. The document *Portland Street Tree Planting Standards: Minimum Width Requirements for Unpaved Rights-of-Way*, provided to Commissioners, includes numerous options for modifying or expanding spaces in the right-of-way, and where those are not feasible, recommends finding suitable planting spaces on adjacent private property.

*6) How would planting all potential spaces in planting strips affect the City's canopy goals? (Vivek)*

In order to reach Portland's current canopy goal of 33%, approximately 3,000 acres of additional tree canopy are required. The data are clear that, while technically possible, this goal cannot be met through street tree planting alone. In the latest dataset supplied to UF, the Environmental Services Tree Program (ESTP) identified 96,209 spaces primarily east of the Willamette River that would meet current minimum width standards (i.e. 36" or greater), the planting of which would result in approximately 2,800 acres in additional canopy. Assuming additional spaces in areas of the city yet to be canvassed, 100% stocking of all available street tree planting spaces that meet minimum standards would conceivably bring Portland's canopy cover to 33% after all 100,000+ trees reached maturity.

In rights-of-way below the minimum planting site width standard, ESTP claims that the standards will result in the lost potential of 144.2 acres of tree canopy, assuming 100% stocking of unpaved ROW between 2.5 – 2.9 feet in width and of cutouts less than 4 feet. This would be the result of over 20,000 plantings. Seeing as the ESTP has planted just under 40,000 street trees over the past 8 years, this would be a significant investment. Therefore, under this most optimistic scenario (100% stocking, all trees reaching full maturity), little impact on the goal of reaching 33% canopy cover would be expected, despite the investment.

Improvement of undersized ROW sites so that they can support trees, and planting in other appropriate locations, such as behind the sidewalk and in yards, are encouraged as an alternative to planting trees in insufficient spaces. These approaches are supported by both UF and PBOT, and are responsible, supportable, and sustainable methods to achieving tree canopy goals in areas where adequate existing ROW space does not exist.

In order to meet tree canopy goals, investments in planting must be strategic. Responsible urban forest management means not just doing what seems quick and easy, or planting high quantities of trees in lieu of quality tree planting. Rather, meeting canopy goals will require the use of best science, implementing well-formed BMPs, applying the knowledge of experience of urban foresters, and policies that account for the entire life cycle of trees and long-term needs of the urban forest and community.

*7) What happens if the standards are struck down? (David)*

The creation of the Planting Standards required significant research and consultation with outside experts. Changing or re-writing the standards would require a significant amount of staff resources. As was noted during the UFC meeting on 5/19, these standards are required by Title 11, and their creation fulfilled the City Forester's requirement to develop specifications for planting trees "in accordance with proper arboricultural practices" (11.10.010.A.5.a). Striking them down due to a request not supported by arboricultural research or municipal forestry expertise and inconsistent with practice nationwide would be unreasonable.

*8) Why is the UFC being consulted now rather than when this impactful policy was originally being conceived?*  
(David, in email)

The Planting Standards were adopted in October, 2015, during a period where the UFC was deeply engaged in Title 11 implementation and had loaded meeting agendas. The specifications are technical and derived directly from well-established urban forest research and management practices; within the urban forestry world, they are expected and not controversial. When Commissioners expressed interest in the topic at the March meeting, it was added to the soonest possible meeting agenda.