Preservation and Planting of Trees Accompanying Road Construction in Oshkosh, WI

A Tree Ordinance Proposal

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Executive Summary:

The purpose of this document is to propose that the city of Oshkosh adopt an ordinance that requires the planting of terrace trees along city streets which are reconstructed or to be constructed in the future. Many of the streets in Oshkosh are scheduled to undergo reconstruction in the near future and a tree planting ordinance would greatly improve the city's urban forest and tree cover in areas which currently may not have an abundance of trees or canopy cover. This ordinance would help improve aesthetics, erosion, runoff issues, canopy cover, air quality, wildlife habitat, and much more, while at the same time improving the city's standing on the "Sustainability Strategies Scoresheet" regarding a tree preservation ordinance. A terrace tree ordinance would also be in accordance with Oshkosh's urban forestry vision statement found on the city of Oshkosh's website which states, "The Forestry Division's goals are to establish maximum tree cover; to maintain the trees in a healthy condition in order to maximize benefits and minimize hazard, and to establish and maintain an optimal level of age and species diversity" (City of Oshkosh).

The benefits for street trees are outstanding, and the ecosystem services that they provide will result in long term returns on investments. Although the city of Oshkosh currently strives to plant terrace trees following road construction activities, making it a required action would be a simple policy or addendum to the city's current tree policy. Based on information and interviews from various stakeholders, there is very little opposition for such an ordinance. The main forms of opposition stemmed from issues that concern funding of tree projects. However, there is strong evidence that tree planting is a very marginal cost compared to road construction activities, and Greenfield's urban forester Dennis Fermenich stated that tree planting costs less than .5% of any road construction project. Many other cities in the state of Wisconsin with comparable population sizes have added similar tree policies that are functioning extremely well and backed by strong support from residents of the community.

Oshkosh is already an extremely 'tree friendly' city and is recognized as a member of Tree City USA, and UW Oshkosh is recognized as a member of Tree Campus USA. Oshkosh will continue to take a leadership stance on sustainability if this ordinance is adopted. Urban forester Bill Sturm stated that this is the perfect time to add a terrace tree planting policy, addendum, or ordinance due to the fact that many of the streets in Oshkosh are scheduled for reconstruction in the near future. This ordinance would provide Sturm with the funding necessary to plant diverse tree species and improve the health of the urban forest. With diseases such as elm disease and invasive pests like the emerald ash borer, maintaining a healthy and diverse urban forest will be imperative for the future. If this ordinance is adopted, Sturm and his team of certified arborists will oversee the planting and maintenance of terrace trees, all while working with homeowners and other members of the community to ensure proper tree placement. In depth details of the multifaceted topics pertaining to the terrace tree ordinance can be found within this document, along with sample ordinances from other cities.

Background/Problem Identification:

Currently, there is no tree related ordinance that would apply to tree planting following new road construction or reconstruction. However, the city is considered extremely 'tree friendly.' Oshkosh was one of the first cities to be recognized as a member of Tree City USA in Wisconsin, and also the University of Wisconsin Oshkosh is part of Tree Campus USA, both of which are nationwide programs dedicated to the management and expansion of public trees. The city currently does not have a canopy cover goal, and is sitting at a relatively low city-wide canopy cover of only 18%. Bill Sturm, Oshkosh's city forester, explained that there were weather circumstances that previously decimated Oshkosh's tree population. In 2001, an extremely severe storm swept through central Wisconsin costing the city a loss of over 8,000 trees. Many of the trees have been re-planted, however the re-planted trees are too immature to account for a significant percentage of canopy cover. When looking at numbers alone, the data gives the illusion that the city of Oshkosh may have an extremely low number of trees or is not concerned with removal of large and mature trees, which Bill Sturm explained is not the case.

The city was presented with the Wisconsin Urban Forestry Council's 2011 Award for Project Partnership in recognition for the Taking Root Fund Initiative. The Taking Root Fund is a special project fund of the Oshkosh Area Community Foundation that focuses on improving the health and beauty of the city through the planting of trees. The initial fundraising goal was met at $500,000 and the first phase of the project included planting 1,000 trees along city streets and public park spaces. Fortunately, there is still money set aside and invested from the Taking Root Fund which keeps generating revenue and can be used for future tree projects. The city also

offers the community a resident based tree planting program known as the ReLeaf Oshkosh Terrace Tree Program. Neighborhood members can decide where they would like to plant trees and trees are sold to them at wholesale cost for about $50 to $60 per tree. The trees are then planted and maintained by the city of Oshkosh Forestry Division. This program focuses on community involvement and participation to enrich the city's landscape.

Although there are programs in place concerning trees within the city of Oshkosh, the city could still use a significant improvement on canopy cover, tree diversity, and tree funding. Given that many of Oshkosh's streets will be reconstructed in the following years, this is the perfect opportunity to adopt an ordinance that will improve the city's urban forest. Some community members may initially be unsupportive of a terrace tree planting ordinance due to maintenance issues with falling leaves or the thought that trees may block views from residential units. If such an ordinance is adopted, working with neighborhoods and members of the community will be imperative in order to place trees in areas where there will be minimal backlash. Another issue concerns funding, which may have to come from taxpayers or community members who live on reconstructed streets. However, Dennis Fermenich, the urban forester for the city of Greenfield, Wisconsin stated that tree planting costs less than .5% of total road reconstruction costs and that the city of Greenfield has $.50 per capita allocated to tree planting which covers the majority of the costs. Perhaps the city of Oshkosh could adopt a funding initiative similar to that of the city of Greenfield to cover the costs of this ordinance.

The right steps are being taken to improve Oshkosh's urban forest, however, a healthier urban forest will be achieved only if disease is kept at bay and trees are planted and maintained properly. Emerald ash borer is an issue that the city must address. Although the city treats ash

trees and other trees that are infected with disease or invasive pests, an increase in tree diversity is imperative to increase genetic variation. Norway maple is the most abundant tree species and accounts for 24% of the city's trees, with crabapple species coming in second at 22%, and ash trees third at 9%. With the adoption of a tree planting ordinance, different species could be considered when planting new trees along reconstructed roads, which would further increase tree diversity and lower the chances of widespread disease and tree mortality due to invasive pests. Having a multitude of different tree species along the city's streets also improves wildlife habitat. By providing animals with a diverse tree population the city would be able to support a larger and more diverse number of wildlife species.

Recommended Sample Ordinance:

Urban forester Bill Sturm urged us not to prepare a sample ordinance, stating that Oshkosh's current tree ordinance was just rewritten and it would be easier to make the proposed terrace tree ordinance a policy or an addendum to the recently revised ordinance. The goal of this document is that the city require the planting of terrace trees following road construction activities and adopt either a policy, addendum, or separate ordinance that addresses this issue. This document will refer to the issue as an ordinance rather than a policy or addendum to a current ordinance.

Stakeholders:

During our research for a new tree planting ordinance we identified various stakeholders who would be affected either directly or indirectly by the proposed ordinance. We talked with Oshkosh's urban forester Bill Sturm and urban forestry experts from other cities based on their

experience and potential to provide beneficial knowledge concerning the ordinance. We also talked to members of the local community for their perspectives, local knowledge, and potential to have an influence on a tree planting ordinance. For this we interviewed homeowners, landlords, and active citizens. One stakeholder that we tried to get in contact with was Public Works Director James Rabe, but unfortunately we were unable to reach him.

Bill Sturm: Urban Forester - Oshkosh, WI

Bill Sturm, the city of Oshkosh's urban forester, is a key stakeholder concerning our tree planting ordinance. He works with trees on publicly owned land, primarily including park and terrace trees. He is not permitted to go onto private land parcels to plant or remove trees unless the tree is undeniably going to fall into a right of way. Unfortunately, this can be a problem for the city because many trees are currently disease ridden on private parcels owned by homeowners who are unwilling to pay for treatment. This is resulting in the spread of diseases to publicly owned trees. However, Sturm and his team are exclusively comprised of certified arborists. Together they are able to quickly identify and effectively treat diseased trees on city property. A few years ago, Sturm worked with the Department of Natural Resources using the software system "i-Tree" which utilizes a geographic information system (GIS) platform to create a detailed city-wide map identifying each significant city owned tree. Documentation of these trees includes information related to the species, size, and health condition of each tree. This puts both Sturm and his team in an extremely good position when it comes to monitoring trees and knowing which trees may need particular attention or treatment.

Bill Sturm holds a very positive outlook for trees within the city of Oshkosh, and explained to us that they are taking a number of steps to improve tree numbers and canopy cover.

The Oshkosh Forestry Division purchases most of their trees from Ranger Services out of Appleton, which has a two year warranty on any tree and will replace trees free of charge if they happen to perish. When Sturm first started, he was only allocated $3,000 a year to replant city trees. With programs he helped with, such as the Taking Root Fund, he has been able to oversee the planting of over 3,000 new terrace and park trees. There is still money set aside and invested from the Taking Root Fund to keep generating funds for future tree projects.

When we brought up the idea of an actual tree preservation ordinance, he seemed more concerned than enthusiastic and urged us to re-think our approach. Sturm explained that a tree preservation ordinance may actually hurt his efforts to maintain and expand a healthy urban forest. Upon asking why, he gave us the example of Menasha, which has a preservation ordinance in place to prevent the removal of mature trees. When one of Menasha's trees become sick, or has a disease that may rapidly spread to other trees, the urban forester and tree team of Menasha have an extremely hard time getting the authorization to remove that certain problematic tree and must jump through hoops to manage these trees, which can take a very long time.

Instead of a preservation ordinance, Sturm leaned towards a tree planting ordinance that would allow him to plant terrace trees after street repair. He explained that the future plans for the city of Oshkosh include extensive street repair and reconstruction. He also explained that the most effective thing we could do is try to get an ordinance passed that would give him and his team the authority and funding to plant terrace trees along the freshly reconstructed roads. Currently, Sturm needs approval of all neighboring houses to plant new trees along roads, and says that one person who does not want trees is common because they believe it will block their

view or become an inconvenience when leaves fall, for mowing, or for other reasons. A road reconstruction planting ordinance could eliminate the hardships he and his team currently face when trying to plant terrace trees.

Dennis Fermenich: Urban Forester - Greenfield, WI

We also interviewed Dennis Fermenich as an expert stakeholder who has been a certified Wisconsin arborist for over 45 years and the urban forester for the city of Greenfield, Wisconsin for the past 22 years. Fermenich is extremely enthusiastic about Greenfield's tree preservation program, his efforts to improve the city's urban forest, and the possibility of creating a tree related ordinance for the city of Oshkosh. Like Bill Sturm, Fermenich only works with trees on city-owned land, and also utilizes a city-wide GIS tree mapping system. He explained that the biggest opposition he came across concerning tree preservation and planting had stemmed from the DPW director, city engineers, and city inspection departments. These problems have since been mitigated and now the varying members work positively and effectively to continue improving tree preservation efforts. Fermenich is dedicated to planting diverse and disease resistant tree species. He and his team also treat and prune problematic trees in the same manner as Bill Sturm's team.

Dennis Fermenich works fervently to acquire a number of state provided urban forestry grants. He recently received $118,000 in grants, explaining the most significant being the "Sweetwater Grant" which provided him funding to plant trees along tributaries which run into Lake Michigan, helping to alleviate runoff and erosion issues. Fermenich stated that the community has also become extremely involved with tree preservation efforts and that one of the

biggest city-wide events is the community Arbor Day plantings. During this yearly event, businesses and community members come together to plant trees in parks, along roads, on school grounds, or in other areas where the community sees fit. Fermenich reiterated that the residents of Greenfield have a sense of community like he has never seen before. He also stated that the momentum from their positivity helps to keep tree efforts moving throughout the city and enhances his ability to work towards a greener, healthier, and happier community.

Dan Traas: Ranger Services - Appleton, WI

Expert stakeholder Dan Traas is the founder of Ranger Services, Inc. out of Appleton, WI. As a consultant, Traas and his staff assist construction processes in pre-development areas and evaluate in what ways a local ecosystem will be affected by construction. Ranger Services supplies trees to the city of Oshkosh and provides replacements at no charge if the trees perish. Traas has 27 years of experience as a certified arborist and has become a member of the International Society of Arboriculture. When compared to the other major development companies in the Fox Valley area, Ranger Services has been able to continually shift their development methods to include more productive approaches to urban forestry. Traas is motivated by biodiversity, tree resilience, and holistic landscaping. He recommends that contractors make the tree a part of their site and not merely just as an expendable feature. Traas understands the benefits that higher tree diversity and increased canopy cover provide.

The main way the city of Oshkosh can benefit from Dan Traas is as a reliable supplier of quality trees. Traas and his certified team also provide training and consultation to cities, developers, and schools. Traas has prior experience in helping draft tree ordinances and would be

helpful in developing maintenance and management plans that include the replacement, pruning, and trimming of street trees.

Shelly Reinke: Greater Oshkosh Healthy Neighborhoods, Inc.

Primary stakeholder Shelly Reinke works and lives in the city of Oshkosh. Reinke works for Greater Oshkosh Healthy Neighborhoods Inc., an organization dedicated to neighborhood development. Her perception of the tree planting ordinance was a positive one and Reinke stated that she would personally support it. Reinke acknowledged the many benefits that trees provide. She also mentioned that the ordinance may receive opposition from some people because trees require maintenance and people may not want to rake leaves or pick up the branches that fall off into their yards. Reinke suggested that the ordinance be crafted in a way that holds the city responsible for the maintenance for at least the first year. However she was unaware that city forester Bill Sturm and his team are responsible for maintaining all trees on city property. Unless someone calls and complains about a tree, Bill Sturm and his team have a hard time getting to all of the city's trees every year. This could be solved by increased funding which would allow Bill Sturm to hire more certified arborists to adequately maintain all of the trees in the city every year.

Reinke also stated that the ordinance would receive opposition from adding additional tax assessments because people are generally against higher taxes. She has a perspective of someone who works to build a sense of community and neighborhood improvement. The goal of Reinke's work is to make the city a better place to live overall, but one way that Greater Oshkosh Healthy Neighborhoods Inc. does this is through aesthetics. They are motivated to try and beautify the city wherever possible, an obvious result that would come from a tree planting ordinance.

Having this positive feedback on the issue will help aid the city of Oshkosh in its decision to adopt a tree planting ordinance because Shelly Reinke is a homeowner who would be directly affected by our ordinance. She makes the assumption that this is purely for aesthetic appeal, however this ordinance would also further the city's sustainability goals.

Shirley Mattox: Jackson Street Neighborhood Association

Shirley Mattox is a primary stakeholder because she is a 'Resident Leader' for the Jackson Street Neighborhood under the Oshkosh Healthy Neighborhood Alliance. Mattox also serves on the Wisconsin Urban Forestry Council. She was supportive of the proposed ordinance and acknowledged the connections between sustainability and urban trees. As a citizen of Oshkosh and a formal member of the Oshkosh City Council, Mattox helped construct an ordinance similar to the one proposed, however it was not implemented. Her work on this proposed ordinance reflects her knowledge as well as commitment to the issue. Mattox explained that the Urban Forestry Council has awarded grants to Oshkosh Neighborhood Associations in the past for urban tree planting and that the levels of turnout reflect interest and support from the public. Besides a sense of community and added aesthetic values, Mattox also believes terrace trees contribute to safety as they create a barricade between the sidewalk on busier streets that may be accident prone. This is most significant for streets that are widened which leaves homeowners to face increased traffic levels and the possibility of traffic related accidents. Mattox envisioned the ordinance to be funded by an additional construction assessment for home or business owners after road construction takes place on the street in front of the property.

Because these assessments are often thousands of dollars, an additional tree at the wholesale cost of $50 to $60 dollars should be insignificant.

Mattox believes that tree planting after road construction should be a societal norm, and that the city of Oshkosh would benefit by adopting this ordinance. A concern Mattox associated with costs is selecting a quality tree provider service, versus just awarding the business to the lowest bidder. Local arborists like Dan Traas will better understand local ecosystems and be the most qualified to work in the region. Giving business to distant or unreliable tree suppliers might result in steeper future costs if the job is not done properly.

Anonymous Homeowner

A primary stakeholder interviewed from the Millers Bay neighborhood would be directly affected by the proposed ordinance. The homeowner did not want to be identified in our project specifically, so they will be referred to as an anonymous homeowner from the Millers Bay neighborhood. This person stated that they were supportive of the new tree planting ordinance and also acknowledged the importance that trees have for ecosystem services. However, the homeowner stated that there is potential for opposition coming from their neighbors that have lake view property because new terrace trees could potentially obstruct their lake view. The homeowner never stated this directly, but gave the impression that their neighbors believed that a tree blocking their lake view would potentially lower property values. This could be combated by having Bill Sturm work with the homeowners within the community to plant trees in between their houses in areas which would not obstruct lake views.

This person also stated that opposition would come from adding more to people's taxes, but the homeowner thought that adding a small tax was a good solution to the funding problem. The homeowner also stated that if there was more educational opportunities provided which pertained to the benefits of trees, more people would be supportive of the ordinance. The homeowner expressed that a guarantee on the new trees would be a nice way to reassure homeowners, because then the city could guarantee that if anything ever happened to the tree it would be replaced at no cost to the homeowner. This homeowner has a perspective on this issue that focuses more on neighborhood aesthetics and is motivated to make their neighborhood look nicer by increasing curb appeal. Their perspective could contribute to this ordinance because as a homeowner they would be one of the people that is most affected by this new ordinance. Receiving their approval of the ordinance speaks volumes to the city of Oshkosh. Having homeowners on board with the proposed ordinance will be critical in moving the terrace tree planting ordinance forward.

Kathy Webb: River East Neighborhood Association

Primary stakeholder Kathy Webb is a local homeowner and member of the River East Neighborhood Association. Webb is directly affected by the proposed tree planting ordinance because her Otter street neighborhood recently went through street reconstruction projects. The city is going to finish reconstructing the rest of her street and other streets located within the neighborhood next year. Webb stated that she was in support of the proposed tree planting ordinance, but her motivation, like the other homeowners that were interviewed, was primarily to

improve neighborhood aesthetics. Even though Webb acknowledged the environmental benefits that trees provide, she was more interested in trees for their aesthetic value.

Webb also stated that not many people would be supportive of the added assessment onto the construction costs, because construction projects are already an economic burden, and she did not know how some of her neighbors would pay for the existing construction costs. Webb thought that a city-wide tax was a great idea so that the cost for planting and maintaining of trees would be dispersed throughout the residents of the city. This tax could also be problematic because, as stated before, it is hard to get support anytime a tax increase is proposed. Webb also stated that if there were enough funds, a guarantee from the city to replace trees at no cost to the homeowner would be a beneficial addition to this ordinance. Webb expressed that she knew Bill Sturm and his team were busy and could not maintain every tree in the city. Therefore she suggested that the River East Neighborhood Association would distribute pamphlets encouraging homeowners to help water and take care of their newly planted trees.

Kathy Webb also thought an essential addition to our ordinance would include Bill Sturm working with the community to decide what species of trees would be planted and where those trees would be located. This would give the homeowners some input when it came to planting the new trees. Again, Webb's motivation, like the other homeowners or neighborhood associations that were interviewed, are not primarily focused on the ecosystem services that new trees would provide, but rather the curb appeal and aesthetic benefits. Regardless of her motivations, having someone from a prominent and active neighborhood association on board with the tree planting ordinance proposal will help the city of Oshkosh to better make their

decision based on what actual homeowners in the area want to see out of this proposed tree planting ordinance.

Donn Lord: Winnebago Apartment Association

Donn Lord, the president of the Winnebago Apartment Association, was identified as a primary stakeholder. Landlords who own multiple properties would be affected disproportionately by this ordinance because reconstruction costs can occur more than the one time, unlike what a typical homeowner would experience. Given the fact that landlords have tenants, there is less incentive for taking on optional costs such as those for tree planting due to the impermanence of tenants. However, as a landlord, Lord has taken on the costs of planting trees for one of his properties and said he was in support of an ordinance that would result in trees being planted post road construction. Lord acknowledged post road construction as an optimal time for tree planting because existing infrastructure has already been identified, as opposed to when he planted his own trees and had to identify where cable lines and other infrastructure existed. Due to the fact that people who want to plant terrace trees currently require approval, the proposed ordinance would reduce instances where single inspections would need to be made. Lord also mentioned that as a property owner he has witnessed tax assessment bills for road construction projects rise immensely over the last five years, and adding trees to the assessment would be too small of a cost to warrant opposition. Minimal cost and improved efficiency leads Lord to believe that this proposed ordinance would, “just make sense.”

Benchmarking:

Our team researched what other cities in the state of Wisconsin are doing to improve urban forestry. Some of the cities we looked at included Greenfield, Burlington, Appleton, La Crosse, and Eau Claire. Many of these cities have urban forests with the same tree species as those found in the city of Oshkosh, and face similar issues concerning tree funding, disease, and maintenance. These cities are all in the state of Wisconsin and three of them have a population size comparable to Oshkosh. By analyzing what these cities are doing to improve and maintain their urban forests, we are better able to understand the multifaceted issues concerning Oshkosh's urban forest and the possibility of a future tree planting ordinance. Aspects we looked for in these benchmarking cities were: existing ordinances in place, whether these ordinances are successful or not, how the costs of tree planting and maintenance are assessed, and how these ordinances have benefited the city overall.

Greenfield, WI

Although the city of Greenfield has a legitimate tree preservation ordinance in place, urban forester Dennis Fermenich stated one of the most important aspects of their tree ordinance was put in place 20 years ago. The addendum gave Fermenich the authority to replant trees along any of the city's reconstructed roads. This addendum is very similar to what Bill Sturm suggested to propose for the city of Oshkosh. Fermenich elaborated on the details, and he happily exclaimed that he is authorized to plant one tree every 50 feet along reconstructed roads. When he is unable to plant a tree on certain roads due to imposing infrastructure or other circumstances, he can plant the allocated tree in other parts of the city where he sees fit,

primarily within the city's parks. He explained that tree planting costs less than .5% of any road reconstruction project, and that his ability to plant trees along reconstructed roads has greatly improved the city's tree numbers, diversity, and canopy cover.

Funding for tree related projects in the city of Greenfield comes from a variety of sources. Fermenich explained that Greenfield's tree commission is allocated $4,000 a year for tree planting (similar to Oshkosh's initial budget of $3,000 per year) and that additional funding of $.50 per capita is put towards tree efforts. Fermenich also applies for state grants that are used to purchase and maintain trees. Similar to Oshkosh, the city of Greenfield has all significant trees mapped out using a GIS mapping system. This helps to keep an accurate and up-to-date record of which trees need maintenance, are currently diseased, or may pose problems in the future. Trained Department of Public Works members along with Fermenich are responsible for treating diseased trees.

Over 500 of the city's ash trees are currently undergoing treatment since emerald ash borer was identified in the city. Greenfield does not have a formal forestry department but instead uses a 'working foreman system' sending out pruning crews or other employees to safely remove and maintain trees. Fermenich is working specifically on tree diversity to avoid future widespread disease and says that the majority of the city's trees are comprised of maple species, similar to Oshkosh. Future goals for the city include planting many different species with a specific species to not exceed more than 10% of the total tree cover in the city. Fermenich pointed out that tree preservation and planting of trees along roads has improved runoff issues, groundwater, aesthetics, CO_2 reduction, and much more, but has also strongly bonded the community with city wide events dedicated to trees.

Burlington, WI

Burlington, WI is currently undergoing a major restructuring of its urban forest. The emerald ash borer beetle is devastating the city's population of nearly 800 ash trees. Although the city treats the infected trees, 63 ash trees were removed last year, 67 so far this year, and 50-60 more are planned to be removed this winter, resulting in a declining urban forest. On average the city plants 30-50 new trees each year along city streets and in the parks. With an average annual funding of $20,000 to $30,000 allocated to planting new trees and the labor associated with it, the city is struggling to maintain a healthy urban forest due to the costs associated with treatment and removal of the currently infected trees. Burlington is also expecting to spend approximately $1.5 million on flood cleanup costs, and replacing both the city hall and public library after the devastating flood that swept the city in August, 2017. Given the financial burdens facing the city, the City Council fears that there will be little available funding allocated to trees in the near future. Department of Public Works employee, Aaron Degrave, stated that the city is looking into alternative funding and that planting diverse tree species is imperative for the future. Although there are 79 different tree species in the city, ash trees are the second most common, after maple tree species, which comprise 48% of the city's urban forest. To avoid future chances of widespread disease or invasive pests, the city will be planting redbuds, oaks, lindens, and other species to increase tree diversity.

Appleton, WI

The city of Appleton's street trees are planted after new street construction and street reconstruction projects during the planting season. Trees are also planted on request and as replacement for trees that are removed if space allows. Species selection is based on the site and its limitations. A wide variety of species are available for planting. The planting of new street trees, and street reconstruction, are both done on a block by block basis with one species on each block. Appletons public trees are governed under Chapter 21 of municipal codes, specifically Article II Public Trees and Shrubs. This article was recently restructured, therefore city forester Mike Michlig did not have a large enough sample size to provide relevant data on how the new ordinance is doing.

Property owners and donors work with Michlig to choose the type of tree and a price range that works for them. Tree planting is site specific and each location must be assessed for proper species selection. The actual cost of the trees are assessed as part of the construction cost and based upon the amount of frontage footage the specific lot has. The property owner is only assessed for the cost of the trees once. All trees carry a full guarantee unless damaged or neglected by the homeowner. In the case of damaged trees, the homeowner would likely be responsible for the cost of replacement if they could not identify the responsible party. Like Oshkosh, the city of Appleton is also designated as a member of Tree City, USA. Also, all trees on public property are governed by the Public Works Department in Appleton. The city of Appleton's street trees have produced an estimated 300 percent return on investment according to the Wisconsin DNR's work with the i-Tree software (i-tree, Appleton). Appleton receives

$3.31 million annually in benefits from their street trees according to the DNR (i-tree, Appleton). They receive $1.09 million in benefits related to stormwater management, $1 million from increased property values, $935,109 in energy savings, $157,511 in air quality improvements, and $125,452 in CO2 reduction (i-tree, Appleton). This shows that not only are street trees beneficial concerning aesthetics, but that they also provide ecosystem services that reduce the load on the city's infrastructure and inevitably save the city money.

Eau Claire, WI

The city of Eau Claire currently has two major street tree ordinances in place. One ordinance incorporates tree planting into public improvement projects, similar to the ordinance being proposed for Oshkosh, and the other ordinance involves a rebate program. Traditionally under public improvement projects, properties residing within the project area are eligible for up to two street trees, but this has recently changed. According to Eau Claire Forestry Supervisor Matthew Staudenmaier, the ordinance has shifted to a program of, “intentional diversification, with placement of the right tree in the right place being the cardinal rule.” This is important because instead of planting two trees per property regardless of the space, the ordinance now pays extra attention to each location, and tries to provide the tree species that will fit best. Factors such as power lines and terrace width are focused on rather than just planting a tree because construction occured. Overall, this is supposed to contribute to long term urban forest diversity as the trees planted are the best fit for that location, and have a better chance of long-term survival. However, it is important to note that despite this shift in policy, terrace trees are still planted in the city of Eau Claire after road construction, but the cost for trees is incorporated into the cost of the actual construction project.

The other tree ordinance that was implemented in the city of Eau Claire is the rebate program for terrace tree planting. Under this program, residents who wish to plant trees can apply for a potential rebate for those trees. Residents are also eligible for up to two trees per land parcel each year. Inspections are done by the city forester before the tree is planted and must meet all requirements laid out by the city. There are a total of 300 rebates given out on an annual basis.

La Crosse, WI

The City of La Crosse is another city that is comparable to Oshkosh because it has roughly the same population. La Crosse is also a certified Tree City, USA. They have approximately 20,000 urban trees flourishing in the city's parks and boulevards. La Crosse is recognized as a Bird City, which promotes urban tree habitat creation and protection. La Crosse's forestry department is located within the Parks and Recreation Department. Their public trees are managed by the Director of Parks and Recreation, Steve Carlyon, and governed under Chapter 34, Article V. Trees on Public Property. However, much of the responsibility for managing these trees is delegated to the Parks and Forestry supervisor Dan Trussoni who is in charge of overseeing the management of the city's trees. Dan Trussoni stated that La Crosse's ordinance was reconstructed recently so they really haven't had any issues with it yet. He also stated that the fees for the planting and maintenance of these public trees are assessed to the specific plot of land where the trees are being planted or maintained. These fees are then collected as any other special tax would be collected by the city. La Crosse's street trees have

provided the city with many benefits including an increase in aesthetics, improved stormwater management, energy savings, improved air quality, and improved wildlife habitat.

Costs:

The costs associated with this new tree planting ordinance could be assessed in a number of different ways. There are two proposed options that would work well and that could potentially be adopted by the city of Oshkosh. The first option is to create an additional small tax that is city-wide to help pay for not only the planting of the trees, but the maintenance as well. The majority of stakeholders living in Oshkosh expressed that the maintenance of terrace trees may be the main form of opposition to the newly proposed ordinance. This city-wide tax would be a small amount collected annually from property owners in Oshkosh. This amount would be dependant on what is necessary concerning the tree planting and maintenance activities. The homeowners that were interviewed seemed to like the idea of a small additional tax, because they thought that this would be a small enough amount that everyone would have the ability to pay it. Also, this tax distributes the cost of the trees throughout everyone in the city, not just the homeowner. This form of assessing the costs for the trees would not marginalize poor neighborhoods because they would share the costs and benefits of paying for the new street trees with the other residents throughout the city. This helps build a sense of community and the city of Oshkosh should look at how lower income communities would be affected by whatever cost assessment option they decide.

The second option is an additional assessment added onto the construction costs specifically for the homeowner who would be receiving new trees in front of their property. This is also a good option because the amount of the increase would be insignificant when compared

to the total cost of construction. This is Bill Sturm's prefered method of assessing the cost of tree planting because the homeowners are already being assessed for the construction costs. However, some of the homeowners that were interviewed said that this was not a great idea because they stated the cost of having their street redone was already putting a heavy financial burden on the residents of that street. If the city decided to go this route, the residents of the specific street being reconstructed would be paying for the cost of the trees in front of their property. This would not distribute the cost evenly between everyone in the city, yet every resident would be receiving either direct or indirect benefits from the new trees.

This ordinance is geared to give Bill Sturm and his team of certified arborists the best tools possible to further the City of Oshkosh's Sustainability Plan. This means the possibility of a larger staff and a larger budget to help them successfully plant and manage all public trees within the city of Oshkosh. It has already been noted by the Wisconsin DNR through the use of the i-Tree software that Oshkosh's street trees represent roughly a 300% return on investment over their lifetime (i-tree, Oshkosh). Annually Oshkosh already receives $335,268 in total benefits from the street trees (i-tree, Oshkosh). This is broken down into $109,762 from increased property value, $103,138 from energy savings, $92,722 from stormwater management, $16,332 from improved air quality, and $13,269 from CO2 reduction. These totals will only go up if this ordinance is adopted by the city. The benefits described above show that by investing a small proportion of money into Oshkosh's trees now, the city residents will eventually see a return on their investment threefold in the future.

Barriers:

For this specific project there were not too many significant barriers. All of the stakeholders that were interviewed thought that the new tree planting ordinance would be a good idea. However, a lot of the stakeholders did mention that anytime you increase the cost of construction or increase taxes you would likely receive opposition. The additional costs of implementing this new ordinance is probably the greatest barrier. One other issue that may pose a problem is that the majority of the time when a street gets reconstructed the road also becomes wider, and the terraces get smaller, if the terraces are not removed completely. This ordinance does not directly show how the city would work around these issues. However, Oshkosh would have to balance the need for a wider street to accommodate more traffic, and the need to have a barrier of trees blocking people's homes. This comes down to an issue of safety and some of the homeowners that were interviewed stated that when Jackson St. was widened, the traffic speeds increased on the road. They did not want the same situation on their streets if or when they get reconstructed. Oshkosh also needs to weigh the economic costs and benefits of the new trees to determine what is best for the city as a whole. Another barrier that was identified is existing infrastructure and how that infrastructure needs to be worked around. When a street is reconstructed all of the infrastructure has already identified because of the construction project. Therefore, this is a prime opportunity to plant terrace trees where the existing infrastructure is not located.

Significance for Sustainability:

The proposed ordinance aims to contribute to the sustainability goals set forth by the city of Oshkosh's Sustainability Advisory Board. These goals reflect the three pillars of sustainability: environmental health, society, and economics. Trees provide environmental benefits to the city by improving air quality, water quality, stormwater management, and much more. They provide economic benefits by increasing property values and provide a substantial return on investment through ecosystem services. Trees also provide social benefits through their aesthetic value, as well as fostering community relationships.

Mitigation of Diseases/Invasive Pests

Tree disease is an ongoing issue that city planners and urban foresters must face. There are a wide variety of diseases and fungi which are transferred by invasive species, wood products, and much more. Understanding the economic and ecological impact of various tree diseases will be extremely important in shaping future tree related ordinances. Our research was focused on North American tree diseases, what causes these diseases, how to avoid tree disease, and solutions cities can implement to maintain a healthy urban forest. Many of the studies we examined were conducted in the Midwest United States or Canada and focused on many species of trees currently found in Oshkosh, such as maples, oaks, elms, and ash trees. Using the information from within these various articles, the city will be better able to include tree diversity. The city will also be able to implement management techniques to combat tree diseases and invasive pests, thus leading to a healthier urban forest.

The most common trend found throughout many of the articles examined, was that tree diversity is an extremely important topic. Monoculture plantings or the dominance of one tree species can lead to rapid disease outbreak and a higher susceptibility to invasive pests. One of the many examples of urban forest devastation due to monoculture plantings involves the American elm tree, which was once prolifically planted in cities across the United States, due to its aesthetic value and tall widespread canopy. Dutch elm disease (DED) was introduced to the United States around 1930, and by 1976, approximately 56% of American elms in urban areas were killed, resulting in the loss of almost 40 million American elms by 1980 (Dreistadt et al.). Diversity of tree species is the most effective management tool to avoid diseases. Many studies also stress the importance of routine observations and tree maintenance. Trees that are inspected or tested regularly by experts can easily be removed if sick, or provided with maintenance if needed. A significant amount of authors also suggest immediate removal of infected trees to prevent the spread of disease via roots, invasive pests, or airborne pathways. Experts also suggest routine pruning and in some cases pruning of diseased trees may allow the tree to stay alive, so long as the disease does not reach the main stem. A study concerning effective routes of tree maintenance suggests that the majority of pruning and tree maintenance be kept to early spring and winter months, and if possible to avoid trimming, pruning, or cutting of trees during spring and summer when diseases, pests, and spores are particularly active (Marciulyniene et al.).

Urban foresters and city planners will also face another hurdle for the future, climate change. Climate change is expected to rapidly allow the movement of invasive pests and diseases to areas which are currently unaffected. Invasive pests are often times the carriers of tree diseases and have been spread around the world via plant trade, lumber trade, and much more. Human

actions are the number one factor causing the spread of invasive species, in this case the ones that affect trees. Due to short life cycles, capacity for dispersal, generally high reproductive rates, and sensitivity to changing temperatures, pests and pathogens have the potential to expand rapidly and adapt to new areas where they previously may not have been present. Trees, on the other hand, which are generally long lived, adapt much more slowly to changes in their local environment and makes them more vulnerable than ever to rapidly changing and moving organisms (Tubby & Webber). Tubby and Webber suggest that increased monitoring activities be conducted in urban green spaces by plant health specialists and also that monitoring should be increased concerning arboriculture and horticulture trade that may transfer non-native pests and diseases. Some studies suggest that even native pests, molds, fungi, etc. that currently have a symbiotic relationship with trees may develop into new strains which are overpopulated or deadly to tree species (Sturrock). Although climate change seems to be a vicious downward cycle, the literature suggested the best combatant to climate change related tree diseases was planning for the future by providing a broad base of tree genetics.

The city of Oshkosh's urban forest is experiencing some detrimental tree loss, especially with ash trees. Congruent with the review of tree disease literature, an interview we had with Oshkosh's city forester, Bill Sturm, solidified the hypothesis that Oshkosh's urban forest contains diseased trees. Sturm stated that elm trees were previously the main focus of disease and removal, but recently the city has seen an increase in emerald ash borer affecting the health of ash trees. Sturm stated that it has been a hard issue to mitigate due to the fact that him and his team can not go onto private property to treat infested trees. Encouraging homeowners to treat or remove diseased trees has proven to be difficult, therefore trees that are not treated on private

property are likely to aid in the spread of disease or pests to city owned trees. The Wisconsin Department of Natural Resources provides data that specifically addresses street tree benefits for the city of Oshkosh. Within their article they state, "A diverse palette of trees helps guard against catastrophic loss to insects and diseases or environmental stresses. A general guideline for urban forest diversity is no more than 5% of any one species, 10% of any one genus. Ash, maple, and crabapple trees are over-represented on Oshkosh's streets" (WDNR). Based on the overwhelming amount of data supporting tree diversity as imperative to the health of urban forests, Oshkosh should strongly consider implementing a variety of different tree species other than ash, maple, or crabapple when planting new trees along reconstructed roads.

Air Quality

One of the benefits to increasing urban canopy cover through terrace tree planting is the mitigation of air pollution. The Wisconsin Department of Natural Resources quantify pollutant removal of Oshkosh street trees to total $16,332 annually, 234 pounds of particulate matter reduction, 423 pounds of ozone reduction, 19 pounds of sulfur dioxide reduction, and 71 pounds of nitrogen oxides. Nowak et al. (2006) quantified national pollutant removal provided by urban trees to total an annual amount of $3.8 billion dollars on a national level. This amount includes externality costs such as avoided medical costs. It also reflects economic and social benefits in regards to sustainability, and the pollution mitigation is important for the environmental aspect of sustainability. These nationwide statistics can be improved through sustainability efforts like those being implemented and suggested in the city of Oshkosh. Currently, the vast majority of pollutant removal (96.3%) occurs by trees on rural land, however the human health benefits are

concentrated in urban areas (Nowak et al, 2006). Urban trees become more important as they mitigate pollutants near the source, rather than pollutants needing to travel to rural areas to be removed.

While tree diversity has already been mentioned, it is important to tie in the relationship between tree diversity and maintaining a high level of air quality. For example, American elm trees in the city of Minneapolis stored about 18.6 percent of the carbon stored by trees, however they also faced risks of Dutch elm disease. Another study by Donovan (2013) illustrated an increase in cardiovascular-related mortality and the death of ash trees caused by disease. Maintaining urban tree density and diversity is important in order to maintain the air quality benefits that can be reduced by tree disease.

Stormwater Management

In regards to urban planning, literature discussed the benefits and limitations of urban green infrastructure. Adult trees retain water, increase transpiration of surrounding vegetation, and increase watershed retention capacity. Trees can offer improvements to gray infrastructure by intercepting precipitation and runoff before it enters into a wastewater system (Berland et.al). Kollin and Schwab (2009) stated, "Trees and soils function together to reduce stormwater runoff. Trees reduce stormwater flow by intercepting rainwater on leaves, branches, and trunks. Some of the intercepted water evaporates back into the atmosphere, and some soaks into the ground reducing the total amount of runoff that must be managed in urban areas" (4). Urban forestry improves water quality above and below the ground, assists plant and animal wellbeing, and reduces soil erosion and pollutant washout..

In one expert tree study, root depth, growth rate, and nutrient levels were measured while being subjected to stormwater and tap water. In nearly all measurements, stormwater supplies nutrients, and benefits tree growth better than tap water. This is also the case for saturation levels of water in soil. More saturated soils result in higher levels of nutrients, such as nitrogen. (Denman et al. 2015). Oshkosh nitrogen levels are high and trees are a cost effective method to regulate and remove pollutants and excess nutrients, such as those from runoff. The city of Oshkosh has acknowledged the importance of trees in their sustainability plan. Because Lake Winnebago is classified as an "impaired body of water," the city of Oshkosh is Federally required to manage stormwater, and the proposed ordinance would be a cost effective way to do so.

Aesthetics

There is also a large social benefit that trees achieve through their aesthetic value, which has been noted throughout this document in both the benchmarking cities and the stakeholder interviews. While the literature on green space and the benefits for human and community health is abundant, the benefits of green space can also be extended into terrace trees and urban canopy cover. The Wisconsin DNR i-Tree analysis showed that street trees increase property values in Oshkosh by a total of $109,762 annually. Besides fostering community relationships, the aesthetic value of trees can be quantified in property values, reflective of both social and economic benefits regarding sustainability goals. According to the Oshkosh sustainability plan, the city aims to plant more trees to improve natural appearance, which coincides with the Vision

Oshkosh community survey. The proposed tree planting ordinance would be an efficient way to achieve these goals.

Summary/Conclusion

In conclusion, trees are a vital component to any ecosystem. They provide many services to both people and wildlife. Trees help reduce the amount of stormwater that the city has to manage, while at the same time reducing pollutants in the air and increasing overall air quality. Having a diverse tree population within the city helps to mitigate diseases and harmful pests. Trees increase the overall aesthetics of the city and help to build a sense of community for the city's residents. The proposed tree planting ordinance would help improve all of these previously mentioned positive attributes. What this proposed ordinance will primarily focus on, is improving the resources that city forester Bill Sturm and his team will have to manage the city's trees effectively and efficiently. This ordinance will give Bill Sturm a structural platform to implement his expertise in regards to the city's public trees and further the city's sustainability goals. With many streets in Oshkosh currently undergoing construction or scheduled for reconstruction in the near future, this is an opportune time to implement a new tree planting ordinance. Envision a city street lined with many luscious, healthy, and diverse trees; this is a vision the city of Oshkosh should strive to improve upon, and an image that would come to mind if you picture an ideal example of a certified Tree City, USA.

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Other Wisconsin City Ordinances

Appleton, WI Ordinance

Chapter 21 Vegetation

ARTICLE I. IN GENERAL

ARTICLE II. PUBLIC TREES AND SHRUBS

ARTICLE III. TREE INSECTS AND DISEASE

ARTICLE I. IN GENERAL

Secs. 21-1 – 21-25. Reserved.

ARTICLE II. PUBLIC TREES AND SHRUBS DIVISION 1. GENERALLY

Sec. 21-26. Purpose of article.

The policy of the City is to regulate and control the planting, transplanting, removal, maintenance and protection of public trees and shrubs in the City in order to eliminate and guard against dangerous conditions which may result in injury to persons using the streets, alleys, sidewalks or property of the City, to promote and enhance the beauty and general welfare of the City, to prevent damage to any public sewer or watermain, street, sidewalk or other public property, and to protect trees and shrubs located in the public areas from undesirable and unsafe planting, removal, treatment and maintenance practices. (Code 1965, §13.04(1) ; Ord 24-12, §1, 2-20-12)

Sec. 21-27. Definition.

For purposes of this article, public trees and shrubs means all trees or shrubs planted or to be planted on any park, playground or other property owned or controlled by the City or on any public street, alley, sidewalk or highway within the public right-of-way, but shall not include school sites.

(Code 1965, §13.04(2); Ord 24-12, §1, 2-20-12)
Cross reference(s) – Definitions and rules of construction generally, §1-2.

Sec. 21-28. Committee authority and duties.

Enforcement of this article shall be shared between the Parks and Recreation Committee and the Municipal Services Committee. These committees shall have the duty of carrying out all of the provisions of this article. The Municipal Services Committee shall have jurisdiction over all trees located within street right-of-way. The Parks and Recreation Committee shall have jurisdiction over all trees located in any other City-maintained public place within the City. The Committees are hereby directed and given the right to maintain any tree or shrub falling under their respective jurisdictions to preserve a function or beauty of such public place in accordance with the art of good arboriculture. The Committees shall have the authority to trim, remove, prune, spray, fertilize or otherwise treat any tree or shrub falling under their respective jurisdictions when in the opinion of the Committee such treatment will promote the general welfare, improve the City's appearance or alleviate any unsafe conditions.
(Code 1965, §13.04(3); Ord 24-12, §1, 2-20-12)

Sec. 21-29. Street tree plan.

The Municipal Services Committee is directed to develop and establish a plan for the orderly planting of trees and other public use of the streets, to facilitate care of the City's trees and to make the City more attractive. (Code 1965, §13.04(4); Ord 24-12, §1, 2-20-12)

Sec. 21-30. Injuring trees prohibited.

No person shall remove, destroy, cut, deface or injure any tree existing on any public place in the City, nor shall any person attach any rope, wire, chain, sign or any other device whatsoever to any tree on any public place in the City.
(Code 1965, §13.04(10); Ord 24-12, §1, 2-20-12)
Cross reference(s) – Citation for violation of certain ordinances, §1-17; schedule of deposits for citation, §1-18.

Sec. 21-31 – 21-45. Reserved.

DIVISION 2. PLANTING, MAINTENANCE AND REMOVAL

Sec. 21-46. Assessment of costs to abutting property owner.

All or part of the cost of any work done on trees and shrubs located between the lot line and curb or improved portion of any street or alley may be assessed to the abutting owners in accordance with W.S.A. §66.0627 or
W.S.A. §27.09.

Sec. 21-47. Planting, care or removal by private persons.

(a) ***Permit required.*** No person, except upon order of the committee of jurisdiction shall plant, transplant, move, spray, brace, trim, prune, cut above or below ground, disturb, alter or do surgery on any public tree or shrub within the City or cause such acts to be done by orders without first obtaining a written permit for such work from the committee as provided in this section. This subsection shall not apply to the City, public utilities or their agents.

(b) Issuance of permit; conditions.

(1) If the committee of jurisdiction determines that the proposed work or planting described in an application for a permit is necessary and in accord with the purposes of this article, taking into account the safety, health and welfare of the public, location of utilities, public sidewalks, driveways and street lights, general character of the area in which the tree or shrub is located or proposed to be located, type of soil, characteristics and physiological needs of the species or variety of tree or shrub, it shall issue a permit to the applicant.

(2) No person shall be allowed to remove any public tree without replacing such trees with trees of equivalent dollar value in the vicinity of the removed trees. Pruning, abuse or damage to any public tree by any deliberate or negligent act that has devalued a tree will be evaluated and the responsible party will be liable for the loss of value of the tree to the community. The value of trees shall be determined by the Forestry Division of the Department of Public Works by using the current Guide for Establishing Values of Trees and Shrubs as prepared by the International Society of Arboriculture. If no suitable location exists in the vicinity of the tree removed or if the replacement tree is of lesser value, the person causing the tree to be removed shall make a compensatory payment to the City equal to the difference in value between the tree removed and any replacement tree.

(c) ***Form and duration of permit.*** Every permit shall be issued by the committee of jurisdiction on forms prepared by it and shall include a description of the work to be done and shall specify the species or variety, size, nursery grade and location of trees and shrubs to be planted, if any. Any work done under such permit must be performed in strict accordance with the terms thereof and the provisions of this article. Permits issued under this section shall expire six (6) months after the date of issuance.

(d) Work by public utilities.

(1) The committees of jurisdiction annually, or as often as it deems necessary, shall meet with representatives designated by public utilities engaged in tree trimming or removal in the City to discuss clearance practices and particularly any practices the committees of jurisdiction shall find not in the best interests of the City.

(2) At the annual meeting, permission shall be granted in writing by the committee of jurisdiction to each utility to cover any clearance work done in the next twelve- (12-) month period.

(Code 1965, §13.04(9); Ord 24-12, §1, 2-21-12)

Sec. 21-48. Planting and removal of trees.

(a) Street widening.

(1) When trees are removed in preparation for widening of any established street, new trees will be planted provided that, in the opinion of the committee of jurisdiction, there is adequate land in the terrace to reasonably support tree growth. The cost of this replanting is to be borne by the City. The committee shall determine the location of each tree to be planted and the species.

(2) The committee may also plant trees at City cost on private property abutting the widened streets if the terrace does not contain sufficient land to support tree growth and the property owner provides written permission to enter and plant trees. When the planting has been completed, maintenance and care of the trees on private property shall be the responsibility of the property owner.

(b) ***New streets.*** Following the installation of curbing and sidewalks, the committee of jurisdiction, either by request of the property owner or by resolution of the Common Council, shall cause trees to be planted in the terraces of such streets in the proper season. The location of each tree, the species and size of stock are to be determined by the committee. All or part of the cost of such planting may be assessed against each lot or parcel of adjacent property in accordance with W.S.A. §27.09 or
W.S.A. §66.0627. The committee shall replace any tree planted under the plan which does not survive a period of two (2) years at no additional cost of the owners of the adjacent property.

(c) ***Established streets.*** Either by request of the property owner or by resolution of the Common Council, the committee of jurisdiction shall cause the planting of additional trees or the removal or replacement of unsightly or diseased trees in the terrace of any established street. The cost of the removal of existing trees shall be borne by the City. All or part of the cost of such replanting may be assessed against owners of adjacent property in accordance with W.S.A. §27.08 or W.S.A. §66.0627. The committee shall replace any tree planted under this plant which does not survive a period of two (2) years at no additional cost to the owners of the adjacent property.

(d) ***Other sites.*** Should any owner of adjacent property desire to plant a tree on any public place, a permit shall be obtained from the committee of jurisdiction in which the species, size of the tree and location shall be designated. The cost of such planting shall be borne by the property owner.
(Code 1965, §13.04(5) – (8); Ord 24-12, §1, 2-21-12)

Secs. 21-49 – 21-56. Reserved.

ARTICLE III. TREE INSECTS AND DISEASE

Sec. 21-66. Introduction.

(a) Whereas, the Common Council has determined that the health of trees within the City may be threatened by insects or disease and that the loss of the trees growing upon public and private premises would substantially depreciate the market value of property within the City and impair the safety, welfare and convenience of the public, the Council hereby declares its intention to control the spread of such insects or disease.

(b) ***Declaration of public nuisance***. The existence of trees, shrubs and other flora within the city are determined to be valuable public and private assets which substantially enhance the public welfare and are aesthetically significant and economically important in terms of increased value which accrue to public and private lands as a result of their existence. The continued existence of injured or diseased trees or other plantings, or the failure to properly treat the same if treatment is available, which is likely to cause the spread of disease or endanger persons because of the deteriorated condition, is hereby declared to be a public nuisance requiring abatement.
(Code 1965, §13.05; Ord 169-11, §1, 8-9-11)

Sec. 21-67. Penalty for violation of article.

Any person who shall violate any provision of this article shall be subject to a penalty as provided in §1-16. (Code 1965, §13.06)

Sec. 21-68. Declaration of nuisance.

(a) The following conditions are exemplary, but not an inclusive list, of matters declared to be public nuisances under this section:

(1) Any dead tree.

(2) Any elm tree infected with the Dutch elm disease fungus or which harbors any carrier of the same.

(3) Any oak tree infected with the oak wilt fungus or which harbors any carrier of the same.

(4) Any ash tree infected with Emerald Ash Borer.

(5) Any tree, bush, shrub or other plant which is

infected with an insect or disease capable of infecting other plants.
(Code 1965, §13.05(1), (2) ; Ord 169-11, §1, 8-9-11)

Sec. 21-69. Inspection.

(a) The City Forester shall have the authority to inspect or cause to be inspected all premises and places to determine whether any public nuisance as defined in this article exists thereon, and shall also inspect or cause to be inspected any tree reported or suspected to be infected with disease or insects.

(b) The City Forester may enter upon private premises at all reasonable times for the purpose of carrying out any of the provision of this article, upon the acquiring of a special inspection warrant.
(Code 1965, §13.05(3), Ord 169-11, §1, 8-9-11)
Cross reference(s) – Nuisances, ch. 12.

Sec. 21-70. Abatement.

(a) ***Notification required prior to abatement on private property.*** Whenever the Forester shall find with reasonable certainty on examination or inspection that any public nuisance as defined in this article exists on private property within the City, the Forester shall not cause such nuisance to be abated in any manner before notification to the property owner.

(b) Abatement procedure.

(1) ***Notice.*** If the City Forester determines that a dead or diseased tree or plant exists on any private property in violation of this section, a notice may be issued, in writing, by the Forester to the property owner directing, as appropriate, that such tree or plant be removed or treated as therein specified to protect surrounding trees or plants. A notice issued under this section shall provide a reasonable period of time within which to perform. The notice shall also state that the existence of the facts which give rise to the notice constitute a public nuisance which may be abated by the City upon failure of the property owner to comply with the terms of the notice.

(Code 1965, §13.05(4); Ord 169-11, §1, 8-9-11)

Sec. 21-71. Reserved.

(Code 1965, §13.05(5); Ord 169-11, §1, 8-9-11)

Sec. 21-72. Assessment of costs.

(a) All or part of the cost of abating, spraying or otherwise treating any tree in accordance with this article may be charged to and assessed against the parcel or lot abutting on the street, alley, boulevard or parkway upon which such tree stands in accordance with W.S.A.
§66.0627 or W.S.A. §27.09.

(b) The cost of abating any such nuisance or spraying any tree or part thereof which is located in or upon any park or public grounds shall be borne by the City.

(c) The City Forester shall keep strict account of the costs of work done under this article and shall report monthly to the City Clerk all work done for which assessments are to be made, stating and certifying the description of the land, lots, parts of lots or parcels of land and the amounts chargeable to each. The Clerk shall include in his report to the Common Council the aggregate amounts chargeable to each lot or parcel so reported, and such amounts shall be levied and assessed against the parcels or lots in the same manner as other special taxes. (Code 1965, §13.05(6); Ord 169-11, §1, 8-9-11)

Sec. 21-73. Transport of wood prohibited.

No person shall transport within the City any bark bearing wood or material that is infested with any insect without first securing the written permission of the City Forester.
(Code 1965, §13.05(7); Ord 169-11, §1, 8-9-11)

La Crosse, WI Ordinance

ARTICLE V. - TREES ON PUBLIC PROPERTY

Cross reference— Environment and natural resources, ch. 16.

Sec. 34-142. - Authority of Director of Parks and Recreation.
The Director of Parks and Recreation, subject to the supervision and control of the Board of Park Commissioners, shall have exclusive jurisdiction, authority, control, supervision and direction over all trees, shrubs and plants, planted or growing in or upon the public highways and public places of the City and the planting, removal, care, preservation, protection, removal and control thereof. The Director of Parks and Recreation is empowered to plant, transplant, remove, trim, spray and otherwise care for and protect all trees and shrubs on or in that part of every street, the grade of which has been established, between the lot line and the curb and on the center or side plots of all boulevards and parkways and in all public parks or grounds belonging to the City and the control of such planting, removing, trimming, spraying, or other work by others. In discharging these duties the Director of Parks and Recreation shall be designated City Forester and shall be governed by the provisions of Wis. Stat. § 27.09.
(Code 1980, § 10.04(A))

Sec. 34-143. - Damage to trees.
(a) No person shall prune, cut, molest, break, deface, destroy, spray, repair or do surgery work upon any tree or part thereof, or in any manner interfere with, disturb, or injure any shrub or plant upon the public highways or places of the City; nor shall any chemical be used for the control of insects or other diseases, or for any other reason, nor shall any person permit any chemical, either solids or fluids, to seep, drain or be emptied on or about any tree, shrub or plant that is now or may hereafter be growing upon any public highway or place within the City, without first obtaining a permit from the Director of Parks and Recreation; provided, further, that nothing in this section shall be construed so as to apply to the removal, under the direction of the Director of Parks and Recreation, by the Board of Public Works, or any other department or subdivision thereof, of any tree, shrub or plant thereof, when such removal shall be necessary for the construction of any sidewalk, sewer, street, water main, conduit, or public improvement.
(b) No person shall be permitted to hitch any animal to any tree or shrub, nor fasten to for the purpose of anchorage, any wire, rope, chain or cables, nor shall any person nail, tie or in any manner, fasten any cards, signs, posters, boards or any other article to any tree, shrub or plant that is now or may hereafter be growing upon any public highway or public place within the City.
(Code 1980, § 10.04(B))

Sec. 34-144. - Regulations for planting and care of trees.
(a) Trees must not be less than one and a half inch in diameter of trunk at a height of four feet above the ground.
(b) All trees, at the time of installation, must be planted with the root flare, not the graft union, at or above ground level, staked with two stakes, and supported with nylon tree tape for a period up to 12 months.
(c) No tree shall hereafter be planted within 30 feet of each intersection.
(d) In cutting down trees, the same must be removed with root stump grubbed or cut out to a depth of at least ten inches. If another tree is to be planted within three feet of the stump it must be removed in its entirety.

(e) Painting and water-proofing of pruning cuts are prohibited, with exception to oak and elm tree pruning during the period of April 1 to November 1.
(f) Good soil must be provided; where soil is too poor to ensure growth an amount equal to 27 cubic feet, minimum, must be provided in the tree hole.
(g) Future planting of shrubbery or evergreens between curb and sidewalks is prohibited.
(h) No tree shall be planted within six feet from utilities, or nearer than two feet from the curb line or outer line of the sidewalk unless special permission is granted by the Board of Park Commissioners. All trees must be planted in line with each other as established by the Board of Park Commissioners.
(i) The following is a list of approved varieties of trees:

TALL	SMALL
Honeylocust	Tree Lilac (single stem)
Hackberry	Musclewood
Linden	Amur Maackia
Alder	Crabapple
River Birch	Hawthorne
Ginkgo (male)	Ironwood
Amur Corktree	Alder
Oak	Red Bud
DED Resistant Elm	Magnolia
Kentucky Coffee Tree	Fruitless Pear/Plum
Hickory	Serviceberry
Zelkova	Dogwood
Buckeye	
Catalpa	
Tulip Poplar	
Turkish Filbert	
Sycamore/Plane Tree	

(j) The following tree varieties are prohibited:

Evergreens (conifers)	Siberian Elm
Black Locust	Ash
Fruit trees (bearers)	Willow
Cottonwood	Aspen
Russian Olives	Non-DED Elm
Mulberry	Any clump variety
Maple	

(k) No trees shall be planted on any City street until the grade for such street has been established and cut or filled to the established grade.
(l) In addition the Board of Park Commissioners may, from time to time, establish other regulations which the Board may deem necessary to insure safety on or preserve the symmetry and beauty of any public places.
(Code 1980, § 10.04(C); Ord. No. 5013 , § I, 8-10-2017)

Sec. 34-145. - Nuisances.
(a) The planting, preserving and maintaining of any trees which are injurious and detrimental to the health of the community and all such other trees as may be liable to fall upon any sidewalk, street, driveway or building near to such tree or which are hazardous or may result in injury to person or property because of a defective or diseased condition, or contagiously diseased trees or the storage of cut elm wood, unless debarked and the bark completely burned or treated adequately with chemicals so as to destroy any harbored insect pests, shall be deemed a public nuisance and are therefore prohibited.
(b) The Director of Parks and Recreation shall have the right to examine all trees, alive or dead, standing or fallen, and logwood piles, for the purpose of determining whether the same are contagiously diseased. Such examination shall include the right to take samples from such trees and logwood piles for laboratory testing purposes. It is hereby made the duty of the Director of Parks and Recreation to give notice to the owner or owners or the agent of such owner or owners of land in the City whereon there are situated any trees, or tree conditions existing, or cut elm wood, unless debarked and bark completely burned or treated adequately with chemicals so as to destroy any harbored insect pests, declared by said Director of Parks and Recreation to be a public nuisance as defined above, and which are not maintained by the City, to remove, prune or spray or cause the same to be removed, pruned or sprayed within 30 days, excepting when said notice applies to the removal, pruning or spraying of elm trees, such shall be done immediately.
(c) The Director of Parks and Recreation shall have the power and is hereby authorized and instructed, after the expiration of the said 30 days or immediate notice, as the case may be, and noncompliance therewith, to cause such trees or cut elm wood, unless debarked and the bark completely burned or treated adequately with chemicals so as to destroy completely any harbored insect pests, which are deemed to be a nuisance to be removed, pruned or sprayed at the expense of the owner of the land whereon the same stand, and if such owner or agent cannot be found in this City such trees may be removed, pruned or sprayed by said Director of Parks and Recreation at the expense of the owner of such land without notice.
(Code 1980, § 10.04(D))

Sec. 34-146. - Assessments.
(a) The entire or any part of the costs of protecting, trimming, spraying, planting, renewing and removal of any tree, shrub or plant, may be chargeable to and assessed upon the lot or parcels of land upon which such tree, shrub or plant is growing or to the owner of the abutting lot or parcel of land.
(b) When so chargeable, the Director of Parks and Recreation shall keep a strict account of costs of planting, protecting, renewing, removing, trimming, spraying and caring for trees, shrubs, or plants in front of or on each parcel of land abutting on any street, avenue or boulevard, and prior to November 1 in each year, such Director shall make a report to the City Comptroller of all work done for which assessments are to be made, stating and certifying the descriptions of land, lots, parts, of lots or parcels of land abutting on a street, avenue or boulevard in which any such work shall have been done and the amount chargeable to each such piece of property; and the City Comptroller shall include therein the special assessments as reported to the Comptroller by the Director of Parks and Recreation with the amount chargeable thereon for work done the preceding year.

(c) The amounts so reported to the City Comptroller shall be levied on said lots or parcels of land respectively to which they are chargeable and shall constitute a lien thereon and shall be collected as other special taxes are levied and collected in the City.
(d) The public hearings and notices required by Wis. Stat. ch. 27 shall be had.
(Code 1980, § 10.04(E))

Sec. 34-147. - Permits.
(a) Any person desiring to remove a live tree from a boulevard for the construction of walks, drives, buildings or other structures for such person's own gain, shall first obtain a permit from the Parks and Recreation Department and such tree or trees must be removed by the person gaining at such person's own expense in the manner prescribed by the Director of Parks and Recreation and to agree to hold the City harmless in case of accident or on account of any danger arising from the granting of such permit.
(b) It shall be unlawful for any person to plant, set out any tree, shrub or plant, or cause to authorize or procure any person to plant or set out any tree, shrub or plant in or upon any part of any public highway, park or public place without first obtaining a written permit so to do and without complying in all respects with the conditions set forth in such written permit and with the provisions of this article. All applications for such permit shall be made on blanks furnished by the Parks and Recreation Department and shall describe the work to be done and the variety, size and precise location of each tree. After the receipt of such an application, the Director of Parks and Recreation or representative shall investigate the locality where the trees, shrubs or plants are to be placed and shall grant a permit only if, in the Director's judgment the location is such as to permit the normal growth and development of each tree. Such permit shall specify the location, variety and grade of each tree and method of planting, including among other things the supplying of suitable soil. The permit shall be good only for the season stated in the same, in the year issued and no charge shall be made for the same. Before any permit shall be issued for planting more than 25 trees on any one permit, the Park Director may request from the applicant a detailed declaration of intentions either in the form of a planting plan or written statement in duplicate. One copy of each plan or statement of intention shall, when approved by the Park Director, be returned to the applicant and the other copy shall be kept on file. All planting plans shall show accurately:
(1) The proposed street width together with its subdivision of pavement, curb, gutter, parking strip and sidewalk areas to a definite scale.
(2) The proposed location of each and every proposed tree together with the location of each and every existing tree within the proposed street line in scaled relation to the other features of the plan.
(3) The location and position of existing trees, shrubs and plants for a distance of 20 feet inside the proposed lines.
(4) The variety of each and every tree proposed to be planted and of those already existing within the proposed street lines either indicated on the plans or referred with a number to key list.
(5) The distance between trees in any one row in feet.
(6) The nature of the soil in planting space to a depth of 3½ feet and all existing and proposed surface or subsoil drainage system.
(c) All statements filed in lieu of planting plan shall contain the same information as required on the plan.
(d) Except upon order, no person shall hereafter trim, prune, remove, maim, treat, spray, dust, fertilize, brace, do surgery work, cut above or below ground or otherwise disturb any tree, shrub, or plant in any highway, park or public place in the City nor cause such acts to be done by others, without first obtaining a written permit from the Park Director, who shall issue the permit if, in the Director's judgment, the desired work is necessary, and the proposed method of workmanship thereof is of a satisfactory nature. The persons receiving such permit shall abide by the Arboricultural Specifications and Standards of Practice adopted by the Board of Park Commissioners of the City of La Crosse.

Eau Claire, WI Ordinance

Chapter 8.20
TREES*
Sections:

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* For statutory provisions defining nuisances and granting powers of abatement and penalties therefor, see WSA 146.14.
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8.20.010--8.20.030
8.20.010 Title. This chapter shall be known and may be cited as the municipal shade tree ordinance of the city. (Ord. 3773 §1(part), 1977).
8.20.020 Purpose and necessity. It is the intent of this chapter to assume control of the planting, maintenance, and removal of trees and shrubs growing on public places in the city and to define public nuisances and provide for their abatement in order to provide the following:
A. An urban environment which is in ecological harmony with the surrounding natural and agricultural environments;
B. An urban environment which brings the positive qualities of the natural environment into the city for the benefit of its residents;
C. Protection of city watercourses from excessive runoff and erosion;
D. Protection to the residents of the city from the adverse effects of air pollution, dust, noise, excessive heat and glare;
E. The conservation of energy by minimizing the impact of winter extremes;
F. Assurance that trees and shrubs planted in the public right-of-way or in the vision triangle, as defined herein, do not interfere with the orderly and safe passage of vehicular and pedestrian traffic;
G. Future compensation for the loss of trees and shrubs and their beneficial aspects to public improvements;
H. Assurance that this part of the natural environment, on which man is dependent, be maintained in such a way as to insure its quality for future generations of city residents. (Ord. 3773 §1(part), 1977).
8.20.030 Definitions. In this chapter, unless the context clearly requires otherwise, the following words and terms shall be defined as follows:
A. "City forester" means the qualified designated city official of the city assigned to carry out the enforcement of this chapter under the supervision of the director.
B. "Director" means the director of the city parks and recreation department.
C. "Dutch elm disease" means a public nuisance more particularly defined as follows:
1. Any living or standing elm tree or part thereof infected with the dutch elm disease fungus, Ceratocystis ulmi (Buisman), or which harbors any elm bark beetle, Scolytus multistriatus (Eichh), or

hylurgopinus rufipes (Marsh);
2. Any dead elm tree or part thereof, to include logs, branches, stumps, and/or firewood that is not:
a. Buried;
b. Consumed by burning;
c. Debarked; or
d. Completely enclosed with a 6 mil. polyethylene material from May 1 to October 1.
D. "Park" means all public parks, playgrounds, waterfront, buffer areas, beaches, and leisure-time areas having individual names.
E. "Planting strip" means the public place lying between the curb, or proposed curb, and the lot line.
F. "Public nuisance" means any tree or shrub which is specifically designated as a public nuisance in this chapter or part of which is on public or private property which by reason of its condition interferes with the use of any public place, is infected with an injurious plant disease, or is infested with an injurious insect or other pest, and is detrimental to the construction of public improvements, or endangers the life, health, safety or welfare of the public or its property.
G. "Public place" means that part of every street, highway, avenue, alley, between the lot line and curb and from property line to property line, and any other land owned or controlled by the city, including tree planting easements. (Ord. 4556 §1, 1985; Ord. 3773 §1(part), 1977).
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8.20.040--8.20.050
8.20.040 City forester. A. Appointment and Qualifications. The city forester shall be appointed by the director with approval of the city manager.
B. Authority.
1. It shall be the duty of the city forester, under the supervision of the director, to enforce the provisions of this chapter. In his absence, his duties shall become the responsibility of a qualified alternate designated by the director.
2. The city forester shall have the jurisdiction, authority, control, and supervision over all trees and shrubs growing on public places, to include but not be limited to planting, removal, maintenance and protection.
3. The city forester, or his appointed representative, shall have the authority to enter upon private property, at reasonable times, to inspect trees or shrubs, or parts thereof, upon request of the property owner, upon complaint, or if he has reasonable cause to believe that a public nuisance may exist. He may take necessary samples for laboratory analysis to determine necessary or advisable tree care or removal measures to be taken at the property owner's expense, except that the cost of inspection shall be borne by the city.
4. The city forester shall have the authority to grant a permit or appropriate license under the provisions of this chapter and rules and work standards adopted hereunder. He shall supervise all work done under any permit or license issued under the provisions of this chapter and may void any permit and recommend revocation of any license if the provisions of this chapter are not complied with.
5. The city forester shall have the authority to cause a public nuisance to be abated in accordance with Section 8.20.070 of this chapter.

6. The city forester shall have the authority to formulate a master street tree plan as approved by the city council and, in connection therewith, shall do the following:
a. Make periodic inventories of trees growing on public places and maintain all records appropriate to such inventories;
b. Consider all existing and future utility and environmental factors when recommending a specific species for public places within the city;
c. With the approval of the city council, have the authority to amend and make additions to the master street tree plan at any time that circumstances make it advisable.
7. The city forester shall perform such other powers and duties as are provided by the laws, rules or regulations of the state of Wisconsin, particularly Section 27.09 of the Wisconsin Statutes.
8. The city forester shall have the authority to suspend any license for a period not to exceed five days for just cause. In addition, he may recommend to the city council that the license be suspended for a longer period of time or revoked.
9. The city forester shall make himself available to the private property owner during reasonable times to give "on site" advice concerning proper arborcultural methods and standards. In addition, he shall be available to inform and discuss these methods and standards with interest groups, the media, and educational institutions within the city.
10. The city forester may establish arboricultural specifications, with approval of the city council, setting standards for the care, maintenance and protection of trees and shrubs. (Ord. 3773 §1(part), 1977).
8.20.050 Permits. A. No person shall plant, apply pesticides, spray, prune, remove, cut above the ground, prune roots, alter or do surgery on any tree or shrub growing on a public place without first procuring a permit from the city forester.
B. Each permit shall specify an expiration date not to exceed a period of twelve months from date of issuance. The city forester shall be contacted when the work described on the permit is completed.
C. Each permit issued shall be on a standard form and shall contain a description of the work to be done, size, location, species and variety of tree involved, pesticides to be applied and dosages to be used.

D. The city forester shall issue the permit provided for in this section if, in his judgment, the proposed work is desirable and if the proposed method and workmanship thereof are of a satisfactory nature. In making this judgment, the forester shall consider the safety, health, and welfare of the public, location of public utilities, condition of public sidewalks and driveways and shall consider the nature of the soils, and the physiological species requirements.
E. Whenever a permit is required by a public utility or contractor, the city forester, with the approval of the director, may assign an inspector to supervise the work done under the provisions of this chapter.
F. Copies of the city's arboricultural specifications established under subsection B(10) of Section 8.20.040 shall be supplied with each permit. These specifications shall be amended by the city forester, with approval by the city council as research or new laws require.

G. If an abutting property owner requests a permit to perform tree work on a planting strip and intends to complete the work himself, he shall assume all responsibility for damage to the public's property and injury
or death to the public that may be a result of this work. This liability shall be indicated on the permit. (Ord.
3773 §1(part), 1977).
8.20.060 Protection. Except as authorized by prior permission from the city forester, it shall be a violation of this chapter to perform or cause to be performed the following acts in any public place within the
city;
A. To attach any sign, poster, handbill, electrical installation, wire, or other device or material to, around, or through a tree;
B. To permit or cause fire to burn where it may kill or injure any tree;
C. To allow any wire charged with electricity to come in contact with any tree, or to allow any toxic chemical, smoke, oil, gas, or other substance that may kill or damage any tree to come in contact with its leaves or roots;
D. To use tree spurs or climbers when working in healthy trees;
E. To remove any guard, stake, pole or other device intended for the protection or stabilization of a public tree or close or obstruct any open space around the base of a public tree designed to permit access to
air, water, and fertilizer;
F. To erect, alter, repair, raze, or move any building, structure or other large object without placing suitable guards around public trees which may be injured by such operations. It shall be the responsibility of
the owner thereof to repair or replace any tree injured or killed by such operations. If it is found that movement
of any tree is necessary to allow for such operations, the cost of this movement shall be borne by the owner of
the object;
G. To excavate any ditch, tunnel, hole, trench, or place any drive within a radius of 1.525 meters (five feet) from any tree in a public place except by those persons under written permit from the city forester or when an emergency situation exists. The city forester may require the posting of an adequate surety bond or
other sufficient security by any person proposing to make any such excavation to cover the cost of replacement of any tree destroyed as the direct result of the excavation, as reasonably determined by the city
forester.
Any person doing work on a tree in a public place shall be subject to the supervision and direction of the city forester. (Ord. 3773 §1(part), 1977).
8.20.070 Public nuisance abatement. A. No person shall permit any public nuisance to remain on any property owned or controlled by him, including public places.
B. Whenever the city forester finds and declares any tree or shrub a public nuisance, he shall notify the property owner or his agent in writing that the nuisance must be abated and the procedure required for the
abatement. In the case of a public nuisance located in a public place, the city forester may summarily abate
the nuisance without following the procedure provided for herein.
C. Dutch elm and other diseases. Trees, standing dead trees, and fallen timber from such trees

infected with Dutch elm disease or oak wilt, infested with emerald ash borer, or other disease or pest that threatens a significant portion of the urban forest are declared a public nuisance and all reasonable efforts shall be made to remove and properly dispose of said material, as determined by and subject to the lawful orders of the city forester.
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8.20.090
D. Procedure. Other public nuisances.
1. Notice shall be given to the property owner or his or her agent for abatement within a period of twenty days. Immediate removal shall be permitted in the event of a bona fide emergency which threatens the public safety.
2. If abatement of the nuisance has not occurred following the initial notice, a second notice shall be sent through certified mail, return receipt requested, requiring abatement within ten days.
3. If the nuisance has not been abated within this thirty-day period, the city forester may cause the tree or timber to be removed, ensure its proper disposal, or take such other or additional actions to remedy the public nuisance. The costs of this removal or other abatement may be imposed against the property in accordance with s. 66.0627, Wis. Stats., and the normal and usual special charges procedure of the city.
E. Appeal. Except in the case of immediate emergency situations, any person receiving an order from the city forester may appeal from all or any part thereof to the administrative review board under the procedures specified in ch. 1.06. Appeal shall stay the contested administrative determination pending decision by the board. (Ord. 6943, 2010; Ord. 6572 §15, 2005; Ord. 4556 §2, 1985; Ord. 3773 §1(part), 1977).
8.20.090 Tree maintenance. A. Specifications. Any person who intends to trim, remove, plant, perform tree surgery or apply pesticides to any tree on a public place shall be aware of and comply with the arboricultural specifications for public distribution at no cost. He shall suggest amendments to these specifications at any time that experience, new research or laws indicate improved methods.
B. Planting Strip. In consideration that the planting strip is the property of the public and under the management of the city, the responsibility for the trees planting, removal, and maintenance is hereby allocated to the following:
1. It shall be the responsibility of the city to remove and trim trees on the planting strip for the following reasons:
a. Trees, or parts thereof, that are considered by the city forester or city traffic engineer to be a public nuisance;
b. Trees, or parts thereof, that are found to be in conflict with city initiated public improvements and the construction of the same.
2. It shall be the responsibility of the property owner abutting the planting strip to remove or trim trees or parts thereof that interfere with sidewalk or driveway replacement, repair or installation, or with the movement of large objects, structures, or buildings, or the construction of the same.
3. The abutting property owner is encouraged to plant, and shall water, fertilize, and apply pesticides to trees on the planting strip.
4. If the city council determines that a threat exists or may in the future exist, either manmade or natural, to the future of the urban forest within the city, it may direct the city forester to initiate programs to insure planting or replacements of trees as may be required.
5. The city may undertake pesticide applications if the city council determines that an

environmental emergency exists. If determined that extensive application of pesticides is necessary by the city, at least a seven-day notice thereof shall be given to the public in the official city newspaper.
No person shall apply pesticides contrary to federal or state laws.
C. Oak maintenance. The city council finds that oak wilt disease is a tree disease that has become a serious threat to the urban forest of the city. Because of the threat of such disease to the population of oak trees within the city, the city council establishes the tree maintenance restrictions contained in this subsection.
Between April 15 and July 31, no person shall:
1. Prune any oak tree unless the pruning is required due to one or more of the following:
removal or alteration of the tree due to construction activities; to alleviate a serious hazard; or to repair a wound in the tree caused by a natural or accidental casualty.
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8.20.100--8.20.110
2. Prune or wound any oak tree or allow the stump to remain following the removal of a living
oak tree without immediately applying to the wound or tree stump a one-time treatment of tree paint that is
designed to prevent the entry of the oak wilt pathogen into the tree or tree stump.
3. Store oak wilt infected firewood that has been debarked or dried without completely
covering the wood with plastic at least 6 mils in thickness. Such covering shall be maintained and not removed between April 15 and July 1. (Ord. 5864, 1998; Ord. 3773 §1(part), 1973).
8.20.100 Trees and shrubs prohibited. A. No person shall plant, grow, or maintain any tree or shrub in any yard of a corner lot within twenty feet (6.096 meters) of the corner of such lot that is higher than
three feet above the level of the actual or proposed curb directly opposite. This subsection shall not apply to
any tree or shrub in existence on July 31, 1977.
B. The following species are declared to be public nuisances and are prohibited in any place in the city, both public or private:
1. Acer negundo -- Boxelder (planted after 1957);
2. Poplus deltoides -- Cottonwood (planted after 1957);
3. Ulmus parviflolia -- Chinese elm (planted after July 31, 1977);
4. Ulmus pumila -- Siberian elm (planted after July 31, 1977).
C. The following genera and species are declared to be public nuisances and are prohibited on the planting strip:
1. Pinus -- Pines;
2. Picea -- Spruces;
3. Taxus -- Yews (includes shrubs);
4. Larix -- Larch or tamarack;
5. Juniperus -- Red cedar (includes shrubs);
6. Thuja -- White cedar (includes shrubs);
7. Abies -- Firs;
8. Tsuga -- Hemlock;
9. Pseudotsuga -- Douglas fir;
10. Salix -- Willows;
11. Populus -- Poplars, aspen, cottonwoods, etc.;
12. Catalpa speciosa -- Northern catalpa;
13. Morus -- Mulberry;
14. Acer saccharinum -- Silver maple;

15. Gleditsia -- Thorned species of honey locust;
16. Betula -- Birches;
17. Robinia pseudo acacia -- Black locust;
18. Prunus -- Plum and cherry (except as listed in the arborcultural specifications);
19. Pyrus -- Pear;
20. Malus -- Apples (except as listed in the arborcultural specifications);
21. Elaegnus -- Olive;
22. Sorbus -- Mountain ash;
23. Carya -- Hickory;
24. Juglans -- Walnut and butternut;
25. Quercus -- Oaks (except as listed in arborcultural specifications). (Ord. 3773 §1(part), 1977).

8.20.110 Violation. Any person who, either personally or through an agent or employee, violates any of the provisions of this chapter, shall pay a forfeiture of not less than $50 and not more than $500 and, in default of payment thereof, be imprisoned in the county jail not to exceed 90 days. A separate offense shall be deemed to have been committed on every day on which a violation occurs or continues. (Ord. 4556, §4, 1985; Ord. 3773 §1(part), 1977).