



URBAN FOREST MANAGEMENT PLAN



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INTRODUCTION

The Urban Forest is an essential component of any municipal infrastructure, and is the only community infrastructure that *increases* in value over time. The trees that make up the Urban Forest should be thought of, and managed as city assets, that have a real and recognizable value.

That value can only truly be capitalized on by implementing a sound management plan. Meridian’s Urban Forest produces a multitude of benefits for the community and is well worth continued investment.

Definitions:

Urban Forest- Tree dominated vegetation, or collected masses of trees and other shrubs etc. found within a given urban area including parks, street trees, gardens, landscapes, along pathways, river corridors etc. For the purposes of this plan, the term “Urban Forest” refers specifically to “City Managed Trees”

Tree- Any woody plant which is ten feet (10') or more in height at maturity, with single or multiple trunks, often unbranched for several feet above ground and having a definite crown.

Public Tree- Any tree (inclusive of roots within critical root zone) whose trunk is located partly or in whole, on Public Property.

City Managed Tree- These are the trees within the Urban Forest that the City assumes responsibility for.

Critical Root Zone- The area under a tree extending from the base of the tree in all directions to an imaginary line equal to the drip line, defined by industry standards as 1'(foot) radius from base of tree’s trunk for every 1” (inch) DBH, or as determined at a preliminary site inspection by the City Arborist.

Public Property- Any property owned by, dedicated to, or deeded to the public or for the public’s use. City parks, public Right of Way and other publicly owned, controlled, leased, or managed properties are included in this definition.

Right of Way- The land which is commonly associated with public easements granted to Ada County Highway District (ACHD) accepted on behalf of the public by deed of purchase originally intended for development of highway, or for utilities, drainage, access and other purposes.

City Arborist- A professional in the practice of Arboriculture, who is the official designated by the Director of the Meridian City Parks and Recreation Department.

Certified Arborist- A tree Industry Professional who has demonstrated their technical knowledge in the field of Arboriculture by passing an exam administered by the International Society of Arboriculture and signing a code of ethics.





HISTORY

The original Meridian town site was filed in 1893 on homestead grant land belonging to Eliza Ann Zenger. Her husband, Christian, filed the plat with county officials and called it Meridian. While the Zengers moved from Utah, many other early settlers left their homes in Missouri to come west. They either traveled by wagon or immigrant railroad car, bringing their lodge and church preferences with them. They established local institutions soon after arriving and filed for homestead lands. In other words, they brought their community with them. Meridian was incorporated as a village in 1903 with a population of approximately 200 and a bustling business center.

A creamery was built in 1897, and other dairy-related businesses followed, as Meridian established itself as a dairy center for the state. This part of the community's history is still celebrated annually during Meridian Dairy Days in June. Dairy Days has been observed in one form or another since 1929.

Around the turn of the century, settlers established fruit orchards and built fruit packing businesses and prune dryers along the railroad tracks. Local orchards produced many varieties of apples and Italian prunes. Production continued through the mid-1940s, when it was no longer profitable and the businesses closed. In 1941, Meridian's status changed from a village to a city.

The Meridian City Parks and Recreation Department was created in 1998. At the time, the parks system consisted of only two (2) parks. Since then Meridian's parks system has expanded to include eighteen (18) regional, community and neighborhood parks, with plans on the horizon for more parks to come. There are also now several other city owned and managed properties, such as the Meridian City Police Department, six (6) fire stations, a Waste Water Resource Recovery Facility (WWRRF), multiple other pump stations, and as of 2020, the Lakeview Golf Course.

MERIDIAN'S POPULATION

The City of Meridian is said to have the fastest growing population in the state of Idaho and to be one of the fastest growing cities in the nation. According to the Community Planning Association of Southwest Idaho (COMPASS), Meridian's estimated population as of 2020 was 119,350 and it is expected to continue growing. With this growth comes development, and as a city grows the importance of open green space for the people who live in the community becomes increasingly necessary so they may have the space to connect with nature and recreate safely in healthy environments.



WHY URBAN TREES?

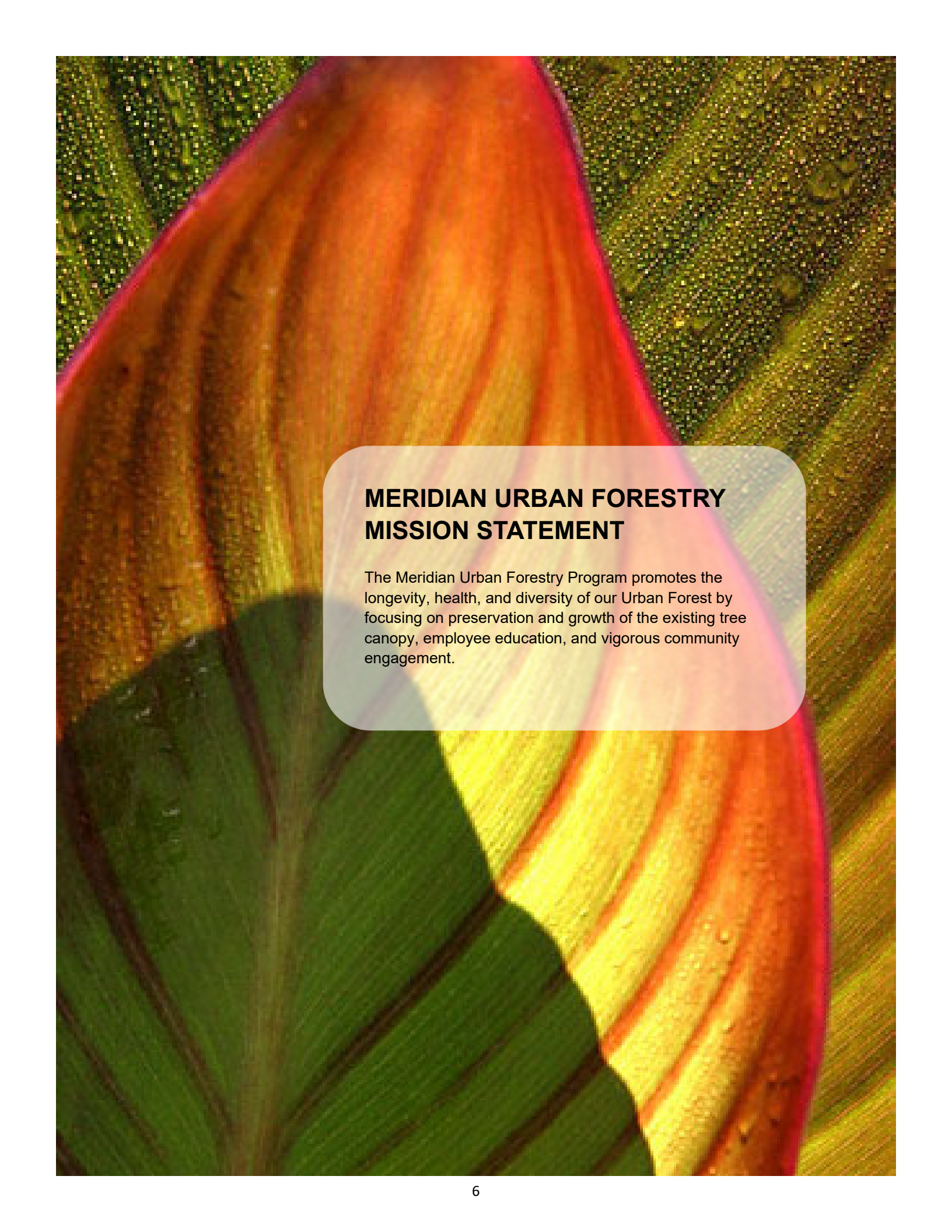
Trees are dynamic, living and growing organisms that are constantly changing, and because they are often added to plans as an “afterthought”, they don’t always fit into the spaces that are designated for them to grow in. Incorporating space for trees to grow in urban environments can be tricky and can raise the expenses of new development and building projects quickly. As a result trees, are often eliminated from plans entirely.

Meridian needs an Urban Forest Management Program to help our citizens, business owners, and our employees understand the importance of trees and the need for proper care of our urban forest.

The benefits provided by a properly managed and maintained urban forest are detailed further in the “Value of the Urban Forest” section of this plan.



The City of Meridian recognizes and understands these values and benefits, and strives to incorporate these considerations in all development plans in a responsible and reasonable manner that makes sense for the area. It considers how these goals can be attained while incorporating the best interest of all parties involved. Part of Meridian's plan is to provide spaces where trees can grow, thrive and realize their full potential, as well as provide places where people can enjoy the benefits these spaces provide. This is why Meridian invests heavily in a system of public parks where all of these elements can come to fruition.



MERIDIAN URBAN FORESTRY MISSION STATEMENT

The Meridian Urban Forestry Program promotes the longevity, health, and diversity of our Urban Forest by focusing on preservation and growth of the existing tree canopy, employee education, and vigorous community engagement.

PROCESS AND PLAN DEVELOPMENT

Throughout 2015, the Meridian Parks and Recreation staff worked to develop and refine a Parks and Recreation Master Plan which will help guide the direction, growth and delivery of its services over the next ten years. The plan was accomplished using feedback from Meridian City Council, the Meridian Parks and Recreation Commission, a citizen task force and community stakeholders, the results from a survey of Meridian residents, and guidance from professional parks and recreation consultants firm named GreenPlay LLC.

The *Master Plan* identified **8 STRATEGIC GOALS** for the Forestry Department to work towards:

1. Establish a Vision for Meridian Urban Forestry

Urban Forestry shall continue to provide a high level of service to the community by responding to tree related calls from the public and retain its current operating model of caring for all park trees; providing review and comment on development applications as they relate to mitigation, plantings on City owned property and in the downtown core area; and maintaining the current tree inventory.

2. Strengthen Approach to Management of the Urban Forest

Staff will complete the ongoing GIS inventory and formalize as a comprehensive data set for use as a management tool. Additional staff training will be required with implementation to maximize efficiency. GIS software updates and yearly technical support is ongoing to provide what is needed to manage urban forestry.

3. Evaluate Impacts of the Projected Park System Expansion on Urban Forestry

An understanding of the impacts of growth to maintenance of the urban forest will allow the City to maintain its current high level of service. It is recommended that annual assessments be conducted during the budget development process to determine needs for additional staff and equipment so as to achieve alignment with the overall master plan.

4. Guarantee the Present and Future Health of the Urban Forest

The City Arborist will work to further the health and longevity of the urban forest through diversification of tree species and age, anticipation of pests and other potential threats, and implementation of standards for planting and tree selection. Staff shall also seek continuing education on urban forestry trends, including the effects of climate change as related to forest health.

5. Maintain and Promote the Kleiner Arboretum as a Community Asset

Develop a strategic management plan to guide future expansion, ensure adequate maintenance resources, and create greater awareness of the arboretum within the local and regional communities.

6. Preserve Strong Relationship with the Community/Seek Additional Opportunities for Education and Outreach

Continue to work with the community in support of tree-related issues, while seeking additional opportunities to partner with other agencies, educate community members on the urban forest, and increase awareness of its value to our community.

7. Revise City Policy as Necessary to Strengthen Urban Forestry

Periodically review and update the City ordinance to reflect changes in the field of Urban Forestry or updates resulting from changes in the law. Updates may address changes to terms, definitions, best practices, or other considerations, as required to stay current with the industry.

8. Continue to Offer and Develop Special Programs Related to Community Forestry

Continue to offer and develop new programs that benefit the community and increase awareness of Urban Forestry. As programs are initiated, seek community participation first and then employ the City budgeting process to determine staffing and funding implications.

Periodically review and update the City ordinance to reflect changes in the field of Urban Forestry or updates resulting from legal action in America. Updates may address changes to terms, definitions, best practices, or other considerations, as required to stay current with the industry.

URBAN FOREST MANAGEMENT PLAN

Routine inspection and maintenance of public trees under an official Urban Forest Management Plan will reduce risk to the City and the public presented by falling branches and trees. A clear and sustained effort to properly maintain our Urban Forest will provide a safer environment for the community.

Following this Urban Forest Management Plan will ensure the proper continued care and growth of our city canopy through effective policies and long-term maintenance. This plan will serve as a tool for the planning and management of existing trees, and for developing future canopy which will result in a well-maintained, and healthy Urban Forest. With this plan in place, and the successful implementation thereof, the City of Meridian will benefit greatly, and the citizens will enjoy these benefits for generations to come.

The Forestry Program has identified five guiding principles to help direct the management of the Urban Forest in Meridian, these guiding principles are outlined here, and are tied directly into the “Goals & Strategies” section of this plan

These agreements are intended to be carried out with the cooperation of community residents, and program stakeholders:



Protect –

Recognize the environmental, economic, cultural and social benefits offered by the urban forest. Refine and implement policies to protect public tree resources while seeking participation from landowners to protect private trees during development and/or mitigate the loss of canopy when preservation is not feasible.

Expand –

Enable the growth of public and private tree resources to optimize the urban tree canopy through new tree plantings, outreach, and other incentives.

Manage –

Improve and institutionalize the care, maintenance, funding, and operating principles for the long-term viability of a mixed-aged, sustainable urban tree resource.

Inform –

Expand program awareness through innovative visible outreach and education campaigns.

Partner –

Increase community, private sector and other City departments' involvement in planning, management and funding of the urban forest.

VALUE OF THE URBAN FOREST



There are many ways in which urban trees increase human quality of life. When planned for appropriately and planted correctly, trees in the urban landscape provide many economic benefits including but not limited to; increased property values, reduced demand on sewer systems through reduced storm water runoff and erosion, reduced wear on city streets, enhanced air quality, carbon sequestration, energy conservation through shade and wind protection, and noise abatement.

There are also many various public health benefits associated with urban trees, and investing in the community forest benefits everyone, not just the privileged, therefore adding an element of social justice. Another non-monetary yet important benefit of urban trees is the creation of wildlife habitat for animals, especially birds, as well as other beneficial insects and pollinators.

Public Health

Communities that have a healthy Urban Forest will have a healthier population. People who live around trees are three times more likely to be physically active and 40% less likely to be overweight (Donovan, G.H et. al.). Healthy trees also provide important air purification benefits. In a study conducted by the U.S. Forest Service, it was found that communities that have lost massive numbers of trees were linked to higher death rates. Urban trees also lower stress levels and even improve recovery time for patients when given a view of trees.

Social Benefits

Urban trees contribute to important social and community dynamics. Trees provide an opportunity for citizens to engage in an issue that benefits not only themselves, but their neighbors, and the entire community. Urban trees also promote sustainable transportation in many ways, by slowing down vehicle traffic and helping to guide motorists, making them physically safer by providing a barrier, and thus creating a naturally convenient design in transportation (Tarran, 2009).

Urban trees have also been shown to aid in reducing crime rates. Areas with high numbers of healthy trees can reduce crime rates as much as 50% compared to areas with low levels of vegetation (Kuo and Sullivan, 2001). A 10% increase in canopy cover can result in a 12% reduction in crime levels (Troy, Grove and O’Niel-Dunne, 2012). These trees also lower the fear of crime, thus lowering stress levels (Donovan and Prestemon, 2013).

Storm Water Management

Urban trees, when planned for and planted properly work symbiotically with other parts of the city infrastructure. Urban trees can reduce the demand on sewer systems during periods of storm water runoff. Tree canopies absorb rainwater, lessening the amount of water entering the sewer system. Much of the water that runs down the trunk of a tree is taken up by the roots. As much as 80% of rainfall in the summer months can be absorbed by trees on impervious surfaces with tree pits (Stringer and Ennos, 2013). When a raindrop is intercepted by a tree’s canopy, it does not impact the soil, thus limiting erosion. These valuable soils are retained, and the sewer system does not have to process the particulate matter. An average mature Ash tree will intercept 1,209 gallons of water every year with an implied value of \$13 per year per tree (McPherson et.al, 2003). Trees also increase the soil’s capacity to store rainfall through transpiration, and they increase soil organic matter.

Energy Savings

Trees can also provide important energy conservation services in an urban environment by shading buildings from the summer’s sun and insulating them from the winter wind. Deciduous trees are able to absorb radiant energy from the sun in the summer, yet in the winter they allow it through their leafless branches. Because we value the sun’s radiant energy in the winter, we should be sure to plant trees strategically around our homes and buildings so that we may realize the best energy savings (*ISA website and Matheny and Clark, 2008*). Trees that are planted on the west and north sides of buildings can help to dissipate winter winds coming from those directions. Air mass in a buildings with poor insulation can change two to three times each hour, and even in well-sealed homes, the air mass can change once every two to three hours. Trees that deflect winter wind can reduce air infiltration by up to 50%, resulting in a heating savings of 10 to 12% (*Heister, 1986*).

Air Quality

By absorbing gaseous pollutants such as sulfur dioxide, nitrogen dioxide, ozone, and smog; trees help to improve air quality. Airborne contaminants such as particulates in the air associated with soil tillage, construction, and erosion that are associated with asthma, heart and lung disease, and cancer are intercepted by trees. During the process of photosynthesis, trees help to lower air temperatures with the shade they produce by releasing oxygen and transpiring water into the air. Trees are also able to sequester carbon in the atmosphere by converting it into sugars, which in time are turned into woody materials that become part of the tree structure. These trees can also reduce noise from vehicles and construction, and even block undesirable views.

Economic Value

Well-maintained urban forests create value. A survey by Arbor National Mortgage, Inc., found that a building lot with trees would “be as much as 20% more saleable than a house on a lot without trees.” Investments in trees pay off with these perceived values and in tax revenue generated from increased lot values. Mature trees also reduce the temperatures of the streets below and, in turn, decrease the need for street maintenance from every seven to 10 years to every 20 to 25 years (*Matheny and Clark, 2008*).

Studies have also shown that consumers in shopping districts that are shaded by urban trees tend to linger and shop longer (*Matheny and Clark, 2008*). These consumers are also willing to pay higher prices and tend to have greater patronage for goods and services in these districts.

Landscaping with plants and trees positively influences businesses by:

Increasing workplace productivity and morale

Helping to recruit new employees

Attracting new customers or new business tenants

Being viewed as an employee benefit

Playing a role in creating a corporate image

Playing a role as a marketing tool (*Relf, 1996*)



CURRENT STATE OF MERIDIAN'S URBAN FOREST TREE INFRASTRUCTURE

Treasure Valley Canopy Assessment

In 2013, with funding provided by the USDA Forest Service and the State & Private Forestry (S&PF) Western Competitive Resource Allocation Program, the Idaho Department of Lands in conjunction with Ada County Highway District, Boise State University, Community Planning Association of Southwest Idaho (COMPASS), Idaho Power, Idaho Department of Environmental Quality, the Southwest Idaho Resource Conservation and Development Council conducted a survey/inventory of the canopy cover throughout the entire Treasure Valley.

The data was collected using Geographic Information Systems (GIS) combined with field-based measurements. This assessment identified not only the current urban forest canopy of the Treasure Valley, and the types of land cover to establish a benchmark, but they were also able to identify where the most ideal, practical, and cost-efficient locations and/ or opportunities to expand the urban forest canopy existed.



Based on the Treasure Valley Urban Tree Canopy (UTC) Assessment (full report can be found at: <http://www.tvcanopy.net/resources/>) completed in 2013, the City of Meridian has a seven percent urban tree canopy.

Condition

The condition of Meridian's Urban Forest varies, and consists of a mix of mostly healthy newer/younger trees while having some older and mature trees interspersed in different pockets throughout the city parks and the Downtown Core.

Species Diversity

Generally, the Internationally accepted recommendation for tree diversity in Urban Forests is to have no more than 30% of any Family, 20% of any Genus, and 10% of any Species represent the total tree population*. This may not be fully achievable in Meridian due to the existing tree population prior to developing this plan, however the concept should be employed and every effort should be made to incorporate this theory into future planning.

Species diversity is important to any plant population for the ecology to thrive. Monocultures harm the greater environment by inviting disease and depleting soil resources and diversification of symbiotic animal life. The same principles hold true when looking at the population of trees in an urban forest. When there is low species diversity present, the tree population is especially vulnerable to insects and disease. If an insect or disease were to be introduced to an area it could devastate the tree population.

Currently, as can be seen in the chart labeled as "Figure 1" on page 12, which is based on the inventory that has been collected to date, the Meridian Urban Forest Canopy consists of over 15% Fraxinus (Ash) trees. This number does not include Ash trees that are located on private property or other R.O.W. that is not accounted for in the public tree inventory. Therefore, the percentage of the canopy that is made up by Fraxinus is most likely much higher than 15%.

* Some professional recommendations go even further, suggesting that Genus diversity is what matters most and that no single Genus should account for more than 5% of total canopy.

Meridian Public Canopy by Genus

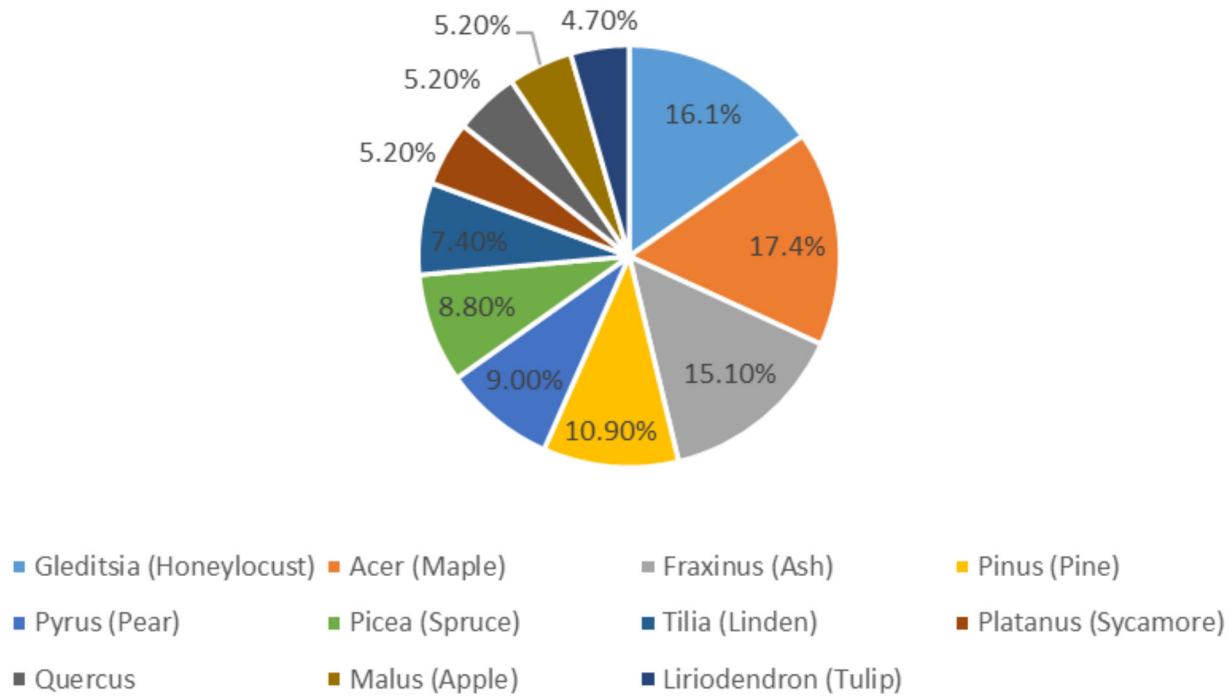


Figure 1: Tree Diversity by Genus

Age Diversity

Age diversity is another indicator of Urban Forest health and uses similar-sized trees of a particular species for comparison against the total tree population.

With principles similar to species diversity, an Urban Forest should be comprised of no more than 33% of one age class (young, medium, or old). This rule provides a basic resource structure so a younger age class is always ready to replace the older age classes.

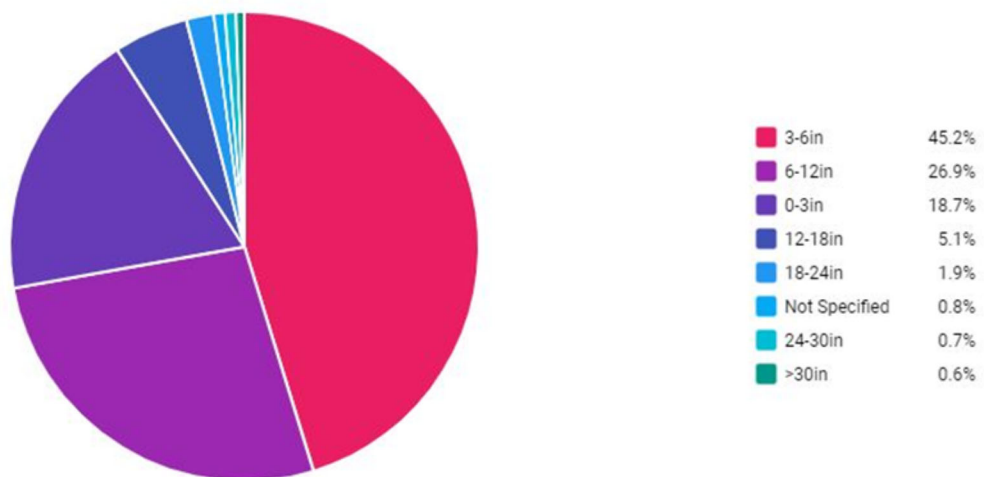


Figure 2: Tree Diversity by Age/Size

TREE INFRASTRUCTURE RECOMMENDATIONS



Greater Diversity of Species — Building greater diversity into the Urban Forest is feasible, but it will take some time. The Meridian Urban Forest is currently dominated by 3 Genus that together comprise nearly 50% of the total canopy, this is not congruent with International Recommendations and could result in the problems associated with monocultures mentioned previously. The Meridian City Arborist will take this information into consideration when planning future planting sites and will try to increase diversity. this can also be accomplished through working with planners and developers to start incorporating a greater variety of tree species and sizes into their landscape plans, and through working with local nurseries to promote the availability of a greater variety of species among their stock and supplies.

Greater Diversity of Age — Meridian is still a “new” city so there is not much that can be done about creating a wider range of mature trees throughout the city; growing trees takes time. The best thing we can do is work to maintain and protect our existing trees in a healthy condition and try to preserve and protect older trees during development.

Plan Review — One component in the successful management of the urban forest is the review of development plans. The City Arborist shall take an active role in reviewing any and all landscape plans associated with ongoing development projects throughout the city.

- Plant Palettes should be reviewed to ensure that appropriate species are being called for in all landscape designs.
- Effort should be made to preserve and protect existing mature trees whenever possible
- When preserving existing trees is not possible, it is important to require mitigation to help offset the loss of canopy and to help absorb the cost associated with creating new canopy.

Tree Mitigation— A very necessary component in the successful management of the urban forest is the retention and protection of existing mature tree canopy wherever feasible in all development projects. As the city grows and new development occurs, existing mature tree canopy can be lost very quickly, these losses can add up fast and result in drastic increases in the Urban Heat Index. These areas where canopy is lost and new hard surfaces, infrastructure, and paved areas are constructed are commonly referred to as “Urban Heat Islands”. An Urban Heat Island is defined as a metropolitan area that is hotter than the surrounding rural area. When cumulative hard surface area starts to add up it can lead to environmental conditions that are unpleasant for ongoing daily life such as Increased air temperatures caused by refracted light and heat from hard surfaces, and a lack of shade etc. Studies show that ambient air temperatures among these Urban Heat Islands can be 1°-7° higher during the daytime and 2°-5° higher during the night. These increased temperatures naturally can lead to higher energy costs associated with air conditioning, and can also lead to an excessive water use from an increase in irrigation demands, not to mention a higher level of airborne pollutants such as fine particulate matter and volatile organic compounds (VOC’s).

Planning for the space that is needed for growing trees in the urban environment is a smart way to offset these problems associated with the Urban Heat Island effect. The upfront cost is usually higher for these types of installations, and these higher costs usually result in the elimination of these smart spaces from construction plans, but in the long game, smart space design pays off with high dividends that easily offset the initial higher costs..

CURRENT MANAGEMENT OF THE MERIDIAN URBAN FOREST

The Meridian Urban Forestry Division currently consists of one full time employee identified as the Meridian City Arborist. As the city continues to expand and the Parks system and Urban Canopy evolves there could be a need for additional full-time staff.

Safety

Safety of the public, and city employees, is of paramount importance at ALL times during any and all Forestry or Parks and Recreation related operations. Appropriate PPE (Personal Protection Equipment) for the task at hand is required at all times. When performing Forestry work it is common to be using Chainsaws, Wood Chipper/Shredders, Stump Grinders, Back Hoes, Skid Steers, Loaders, Cranes, Bucket lifts etc. as well as non-powered tools such as Hand Saws, Pole Saws, Loppers and Hand Pruners. When operating any of the tools associated with Forestry work it is REQUIRED that staff be properly trained in the use of the equipment necessary to get the job done.

The following is a list of Tools/Equipment associated with Forestry work and the required PPE for each item:

Chainsaw— Hard Hat (with side protection), Safety Glasses (with wrap around protection or additional face shield), Leather Gloves, Hearing Protection (Earplugs and/or Ear Muffs), Chainsaw Protective Chaps, and Closed Toe Shoes.

Wood Chipper/Shredder— Same as Chainsaw, plus no loose clothing or “cuffed” gloves that can get caught on branches being pulled into chipper.

Stump Grinder— Same as above

Hand Tools (Hand Saws, Loppers, Pruners etc.)— Leather Gloves, Safety Glasses, Close Toed Shoes, and when performing over head work a Hard Hat (preferably with side protection)

Bucket Lift— Fall Protection Safety Lanyard & Hard Hat (with side protection)

Meridian City Forestry does not currently own a wood chipper/shredder, bucket lift, or stump grinder. Currently, the City rents this equipment from vendors when needed. Acquiring a chipper/shredder would greatly benefit the Forestry unit and increase efficiency when performing work with in-house staff.

Emergency Response

Occasionally, most commonly associated with a storm event, one (or some) of the trees in Meridian Parks will experience a partial or complete failure. When this happens, it is usually the Parks Employee who is on call for that time period who hears about it first. The objective in this case is to make sure the scene is safe, and that there is no further risk associated with the incident. Sometimes it is necessary to clean up the debris at the time of the event.

Contracted Tree Work

Meridian City administers maintenance contracts for downtown street trees and selected trees on park properties.

Outside vendors must be Certified Arborists with the International Society of Arboriculture (ISA). Only Certified Arborists may perform work. Contractors must follow ANSI standards and use best management practices and meet other requirement established by the City for outside vendors.

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Annual contracted amounts vary, depending on which park or area is being pruned or added to the budget for the coming year.

Large trees requiring specialized equipment are pruned on a five-year cycle by contract.

Smaller trees are pruned by forestry staff when time allows, on an as-needed yearly or bi-yearly basis, or five-year cycle. Forestry staff will raise all tree limbs for clearance over sidewalks, pathways, and all other park areas each year as needed, and as time allows.

The level of maintenance required by the Kleiner Park Arboretum is higher and more specialized than standard tree maintenance levels within the parks system at large.

Inspections

Regular routine inspections of the trees contained on the properties owned and maintained by the City of Meridian are conducted on an annual basis at the same time the annual pruning cycle inspections are performed. Inspections are also generated on a per incident basis such as after a storm event or accident or at the time an “in house request” is generated.

Tree Inventory

The current inventory of Meridian’s City managed properties consists of over 6,000 trees. Keeping track of maintenance performed on these trees is not only important for managing tree resources, but also for liability reasons. Knowing the locations of all the trees, especially the Ash trees, is important for planning for EAB (Emerald Ash Borer) and implementing an EAB Course of Action Plan (see the management recommendations section). It is also important to know the locations of identified available planting spaces for augmenting the strategic planting of new trees. The inventory will help preserve our mature tree population and save the city thousands of dollars in management costs.

The importance of maintain the Inventory regularly can be demonstrated easily by updating the DBH of trees in a given area and comparing the benefits analysis. The ecosystem benefits of the urban forest are measured by collecting species, DBH, and the type of land use where the trees are growing. The data is based off of calculations that were designed by i-Tree Research which is capable of determining total Monetary, Stormwater Monetary, Runoff Prevention, Property Value, Energy Savings, Air Quality, Pollutant and Carbon Sequestration. The figure below is an example taken

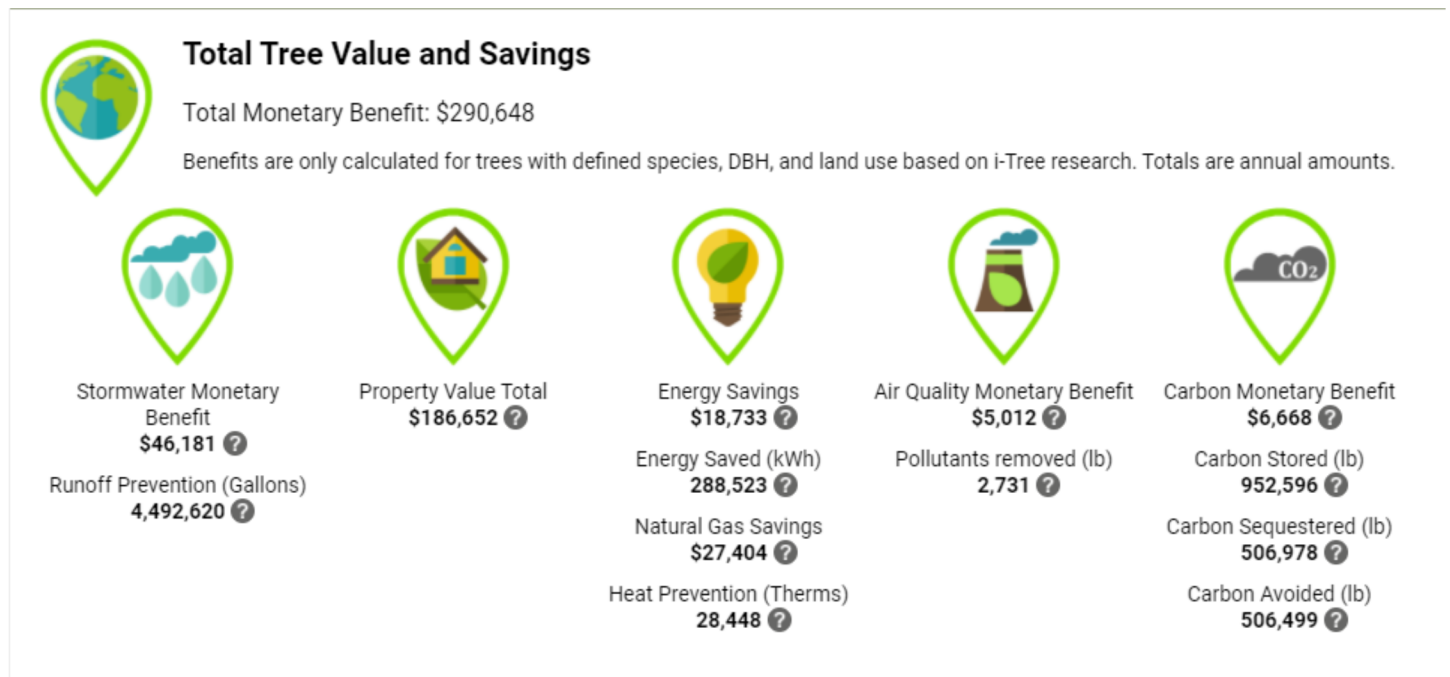


Figure 3: Ecosystem Benefits from Meridian City Urban Canopy

Tree Planting

Trees in the city of Meridian shall be planted for function and performance. A large tree with a broad-leaved canopy offers more benefits over time. These trees can reach heights of 60 feet or more and have life spans up to 100 years. Planting should be encouraged where root and canopy space is adequate. Small ornamental trees that require less growing space are a wise choice where root development or overhead constraints exist. New tree plantings occur regularly throughout the parks system as spaces are identified. When trees are removed they are generally replanted as soon as possible and careful attention is given to selection at the time of planting to avoid planting species that are susceptible to disease organisms or adverse growing conditions that may present in the area.

The City of Meridian has adopted the Tree Planting Specifications that have been established by the International Society of Arboriculture and accepted throughout the green industry as accepted best Management Practice. (See Appendices for Tree Planting Specifications Diagrams)

Insect and Disease Management -- IPM

Annual pro-active preventative plant health care measures are applied to trees throughout City properties to help ensure that trees cared for by the City have the opportunity to grow and thrive and reach their maximum potential. Plant Health Care consists of treating trees systemically with pesticides to prevent damage caused by insect pests that feed on either the foliage or woody tissues of the plant. One example of this is how Ash trees throughout the parks system are sprayed annually to prevent new infestations of Lilac Ash Borers and to help mitigate current active populations that are capable of interior structural damage that can cause parts of affected trees, or entire trees, to die or fail. Using the TreePlotter Inventory the city has built, maps of the locations of trees that require treatment can be created and printed out to be used while in the field. This helps streamline the process and cuts down on the time and costs associated with this task.

Tree Pruning Maintenance

Setting trees up on a five- to seven (5-7) year pruning rotation will increase the benefits produced from the Urban Forest and reflect positively on the city. Maintaining trees early on when they are juvenile and training them to have good branch structure and spacing will reduce the workload of maintenance calls and decrease the amount of storm damage that occurs. Proactively maintaining the community forest in this way is one of the most essential elements of this plan, and by implementing this system, Meridian will be enacting a cost-effective measure that maximizes the benefits and minimizes the risks in the Urban Forest.

Hazardous Tree Removal

Periodically, usually as the result of a storm or other such weather-related event, a portion of or an entire tree will become a hazard to the public. This can include a large diameter branch that is broken and hung up in the tree, or an unstable root plate due to shallow or saturated soil conditions, or even a cavity of decay that was present in the tree but was largely undetectable due to a lack of signs or symptoms. At any time that such a tree is found and determined to be hazardous, the city will move to either mitigate the hazard by eliminating the portion of the tree that poses risk or by removing the tree entirely.



Meridian Pathways and Forestry

Meridian Parks and Recreation team maintains approximately 16 miles of pathways throughout the city. Not all of the pathways have trees lining them, and in most cases, the trees adjacent to our pathways are on private property. There are occasions when a tree may fall over onto a pathway as the result of storm damage, or when a private property tree has low hanging branches that are impeding pedestrian traffic along the pathway. In such cases Meridian Forestry will respond and clean up fallen trees, or contact the adjacent property owner to require them to have the work done or get permission to do the work ourselves.

Public Tree Inspections

At times, the Arborist will receive calls from the public seeking information or advice about trees on or near their own properties. These are opportunities for the Arborist to help educate and inform the public on Best Management Practices and making the right decisions when it comes to caring for and planning for trees. Occasionally, especially in the case when a tree that is on ROW property is concerned, the Arborist will even visit the site to help guide the property owner in making the right decision.

Nuisance Trees & Code Enforcement

Conflicts about trees on private and adjacent properties arise on occasion and Code Enforcement Officers do not have the technical knowledge necessary for making decisions about tree care. The City Arborist acts as a technical advisor or consultant in these cases, and can visit a site to perform an inspection to determine if a tree is actually creating a hazardous condition and needs to be removed or if a problem can be solved through other proper tree care measures.

Meridian City Code section 4-2-1 (in addition to 13-2-11)

NUISANCE TREE: Any tree or part thereof which, by reason of location or condition: constitutes a hazard to public safety; obstructs the free passage of pedestrian or vehicular traffic; fails to provide a vertical clearance of eight feet (8') over a sidewalk or fourteen feet (14') over a street; obstructs public street lighting; harbors pests or disease.

PUBLIC TREE: Any tree, including roots within the critical root zone, whose trunk is located, partly or in whole, on public property.

C. Private property owners shall be responsible for maintaining any and all public trees upon public rights of way adjacent to such private property. Where a public tree is a nuisance tree, the owner of record of the adjacent private property, as reflected on the most recent assessment roll, shall be presumed to be responsible for creating, causing, committing, maintaining, and/or allowing such nuisance. It shall be unlawful for any person to damage, mutilate or destroy any public tree; attach any device or structure to a public tree; or store, spill or dump substances, whether liquid or solid, which may be harmful to any part of a public tree.

Tree Mitigation

Currently, the City Arborist reviews development plans to make sure that plant palettes are consistent with the growing conditions of the area and are not specifying monocultures or plantings that will result in high cost maintenance or high risk IPM practices.

Plans are also reviewed to ensure that efforts are being made by developers to try and retain existing mature canopy, incorporate it into their plans, and protect those trees which have been identified for retention during the process of development. The City Arborist reviews plans to check for these specifications and to make recommendations if needed. When existing trees are called out in plans to be retained and protected during the development process, there are industry standards in the Unified Development Code to which a link is included as a part of the appendices of this plan and/or can be found at:

https://library.municode.com/id/meridian/codes/code_of_ordinances?nodeId=TIT11UNDECO_CH3REAPALDI_ARTBLARE

MERIDIAN'S URBAN FOREST

At the time this *Urban Forest Management Plan* was being drafted, Meridian had been identified as one of the fastest growing cities in the U.S. The City of Meridian recognizes the benefits that trees provide for the people who live, work, and recreate within the community. The urban forest canopy in Meridian at large consists of trees on public and right of way properties, as well as City parks, commercial and private properties. However, the Meridian City Ordinance identifies the trees that are contained within the City Parks and the Main Downtown Core, as well as city owned/operated facilities and buildings, as the trees that it will be responsible for.

Current care of trees within public rights-of-way involves cooperation between ACHD, the City of Meridian, and the Meridian Development Corporation. Meridian Parks and Recreation bears ultimate responsibility for management of urban street trees in the downtown core area. It is imperative that:

- All agencies and organizations with jurisdiction hold to the same standards for tree planting, care, and maintenance.
- All agencies work together to set priorities for how to achieve and maintain these standards.

The trees in these defined spaces will from hereon be referred to as the trees that are considered Meridian Urban Forest also referred to a City Management Trees.



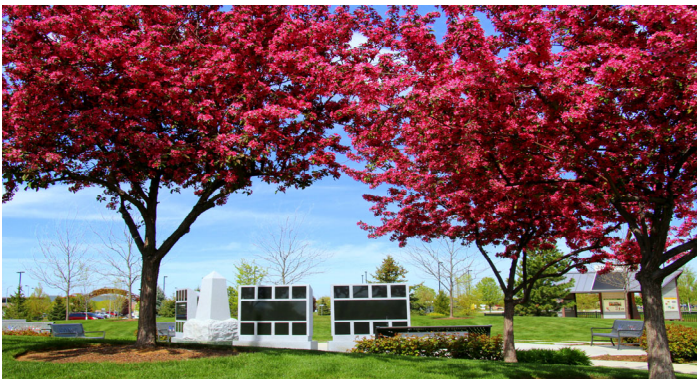
Meridian Downtown Core

Trees Growing in planter boxes within the R.O.W. in Meridian's Downtown Core, which is identified as:

- Ada St North to Carlton Ave.
- N Meridian Rd East to N East 3rd St.
- A section referred to as the "Split Corridor" that consists of the trees along Main St. starting at E Central Dr. South to E Franklin Rd mostly on the East side.
- "Split Corridor Phase 2" is a quadrant at Meridian Rd/ Main St. and E Ada St.
- The "North Curve" is a small quadrant where Main St. intersects with Fairview Ave.

Park Trees

Trees that are planted and growing in the parks throughout the city. These open green spaces are important to communities and a necessary component of the general health of the public. Providing spaces for the public to recreate in and connect with nature to relieve daily stress and decompress. Parks would not be the same without trees to provide shade and respite from the urban city environment.



**Other City Facilities, Lakeview Golf Club, ROW
Managed by agreement, Pine Ave east of Meridian Rd.**

The following trees, although part of the Urban Canopy at large, for the purposes of this plan, herein are not considered as “Meridian Urban Forest.”

Right of Way (R.O.W.)

The easement between Meridian streets to the inside-most edge of sidewalks or pedestrian walking paths that is owned by Ada County Highway District. Care for the trees growing in these spaces is defined by City Ordinance as the responsibility of the adjacent property owner.



Subdivisions & HOA's

Planned Communities that sometimes contain R.O.W. trees growing within the R.O.W. and/or common area spaces of these communities are the responsibility of the residents who live therein and/or adjacent to them. The Meridian City Unified Development Code requires trees to be planted as buffering within these spaces to extend the recognized benefits of trees to the citizens who live within these communities and to add much-desired aesthetic values to the neighborhoods. These trees also contribute on a large scale to a positive impact on the Urban Heat Stress Index.



MERIDIAN'S RELATIONSHIP WITH THE URBAN FOREST— PUBLIC AND PRIVATE

The **City of Meridian Forestry Ordinance** establishes laws for the care of trees that are growing on City and public properties which are to be administered/governed by the City Arborist as set forth by the ordinance as follows:
(See *Appendices; Appendix A* for complete ordinance)

13-2-11: ESTABLISHMENT AND DUTIES OF THE CITY ARBORIST:

A. **Designation.** The Director of the Parks and Recreation Department shall designate a staff member as the City Arborist, and shall authorize such person to perform the duties imposed by and exercise the powers granted by this section.

B. **Duties.** The City Arborist, subject and in addition to the provisions of this chapter and available resources, is hereby authorized to carry out the following duties:

1. Develop, administer and maintain a community forestry management plan and budget.
2. Establish and maintain an inventory of public trees.
3. Establish policies to carry out the provisions of this chapter.
4. Establish and maintain specifications for tree planting on public property.
5. Provide information and advice to citizens and City employees, including Code Enforcement Officers, regarding the health and condition of trees and maintenance necessary to protect the public health, safety and welfare.
6. Manage and regulate the planting, maintenance, protection, removal, and replacement of all public trees within city limits

The Meridian City Unified Development Code (See *Appendices; Appendix B*) calls out the terms for new development across the city, as part of these terms there are minimum requirements for vegetative cover and landscape buffers. The responsibilities for the maintenance of the plant materials, including the trees, are stated as such:

11-3B-13: LANDSCAPE MAINTENANCE:

A. Purpose: The regulations of this section are intended to ensure that all required landscaping is maintained in a healthy, growing condition at all times.

B. Applicability: The requirement for landscape maintenance applies in all districts where landscaping has been required.

C. Standards:

1. Responsibility: The property owner is responsible for the maintenance of all landscaping and screening devices required by this article.
2. Topping Prohibited: Topping any street tree required by this article is prohibited.
3. Tree Grates: Tree grates shall be widened to accommodate the growing tree trunk and prevent girdling of any trees planted in tree wells within sidewalks or other public right of way.
4. Dead and Diseased Plant Materials: Plant materials that exhibit evidence of insect pests, disease, and/or damage shall be appropriately treated to correct the problem. Dead plant materials shall be replaced.
5. Inspections: All landscaping required by this subsection may be subject to periodic inspections by city officials to determine compliance or to investigate.
6. Pruning: The lower branches of trees shall be pruned and maintained at a minimum height of six feet (6') above the ground or walkway surface to afford greater visibility of the area, except as otherwise required herein.
(Ord. 12-1514, 5-16-2012, eff. 5-21-2012)

(See *Appendices* for a link to the complete Article of UDC)



COMMUNITY ENGAGEMENT PARTNERS — URBAN FOREST STAKEHOLDERS

Meridian Development Corporation— The City partners with MDC on construction of the Downtown tree planter boxes and their replacement, as well as sharing costs for the construction of new boxes driven by development.

City of Meridian Community Development:

Community Education/Outreach

Volunteer Work Force Programs— with proper education, training, and supervision volunteers are a valuable asset to the City of Meridian. The more a citizen is involved in their community the more sense of ownership and pride they will feel in their town, helping not only to beautify our community, but bring a positive energy to our town through our citizens.

Ada County Highway District— The city has a memorandum of understanding with ACHD wherein the city maintains the tree boxes and the trees, mitigates for sidewalk trip hazards and shares the cost with ACHD on some sidewalk and curb repairs that are related to trees in public rights-of-way in the Downtown core geographic area identified in this plan.

USDA/ISDA — Meridian Parks and Recreation works closely with the Idaho State Department of Agriculture to comply with Federal standards for the application of Pesticides and develop plans for response and management of Invasive Pests and Plants.

Idaho Power— The city partners with Idaho Power Company to host the annual tree distribution events for the Treasure Valley Shade Tree Project, which is a program where Idaho Power purchases small trees and makes them available, free to homeowners to plant on their private properties as long as they promise to plant them in pre-determined locations with the goal of helping to reduce the future energy costs by providing shade for homes and buildings. Idaho Power provides access to a software program that allows homeowners to virtually move a tree around on their property until they find the spot that provides the maximum reduction in energy costs. Meridian participates by hosting the Shade Tree Giveaway events in one of their parks, and the city Arborist helps tree recipients learn and understand how to properly plant and care for the trees to ensure the best “Survival rate” of the trees that are given away.

West Ada School District— School properties are diverse landscapes with canopies that contribute to the makeup of the Urban Forest as well. The public schools in Meridian have their own jurisdiction as to tree care, and the city is not responsible for the planting or maintenance of trees on school property. The city regularly works with the school district to celebrate Arbor Day and involve students in those events as a way to provide education and awareness about trees and their benefits. There is an opportunity for the City to work more closely with West Ada School District.

Idaho Department of Lands— The Idaho Department of Lands partners with the city to host an annual Arbor Day celebration and provide grants to help cover the cost of the celebrations. Idaho Department of Lands shares their license for the use of Tree Plotter Inventory Software with Meridian which serves to help quantify the benefits directly associated with the trees the city maintains. They also provide a Community Forestry Assistant who offers educational outreach, independent reports on tree valuation, hazard risk assessment, ordinance revision, inventory assistance, and consultation. The Community Forestry Assistant contributed their knowledge, and experience and helped to edit and review this plan.

Idaho Nursery and Landscape Association— Meridian maintains status as a member of the Idaho Nursery and Landscape Association, which provides a number of great opportunities for continuing education for all park staff.

Local Nurseries— Meridian relies on local nurseries to provide quality planting stock for all of the city park planting projects. The city strives to do business with as many local nurseries as it can without favoring one particular nursery over the other. Business is awarded mainly on an availability factor.

Local Landscape Contractors— Meridian Relies upon local Tree and Landscape services to perform all of the work that cannot be performed in house. The city strives to do business with contractors who go above and beyond the duties of professionalism by demonstrating their commitment to, and conforming to Industry Standards that are set by International and National organizations such as the International Society of Arboriculture, Tree Care Industry Association, Idaho Nursery & Landscape Association, P.L.A.N.E.T. etc. The local tree services and landscape companies who obtain and maintain credentials and become certified by these

Non-Profit Organizations

Idaho Botanical Gardens & The Idaho Master Naturalists— The Idaho Botanical Gardens and The Idaho Master Naturalists annually host a series of classes that reach a section of the public that may not ordinarily be targeted or reached by Meridian City efforts. The City Arborist regularly participates in these programs by presenting on requested topics. These classes also serve as a recruiting tool for possible future volunteer projects in Meridian City Parks etc.

Treasure Valley Canopy Network— Works with the city to seek potential opportunities for carbon offset credits, and to find options for the repurposing of wood that is generated by tree care. The TVCN also organizes quarterly meetings that bring all surrounding City Foresters together to discuss the matters that are being focused on in their communities. These meetings have proven to be valuable to the city Arborist as the Community Forestry Program continues to evolve.

Arbor Day Foundation

Tree City USA— the City of Meridian has qualified as a Tree City USA for 18 years. Tree City USA communities benefit both from achieving the necessary requirements to become a Tree City USA, which requires a certain level of commitment and organization on the part of the City and involves community education, and from the status itself. Once designated as a Tree City USA, a community can benefit from increased community pride and stewardship and improved public image. In addition, this designation can be helpful in obtaining grant funding for community forestry projects.

The Arbor Day Foundation awards this certification to cities which meet four core standards:

- A Tree Board or Department (*Some cities use the Parks Department*)
- A Tree Care Ordinance
- A Community Forestry Program With an Annual Budget of at Least \$2 Per Capita
- An Arbor Day Observance and Proclamation

Tree City USA Growth Award— Each year cities can apply for an additional “Growth Award”. This program creates an opportunity for participating municipalities to demonstrate their commitment to building and maintaining a robust Urban Forestry Program. This goal is met by accomplishing a variety of different goals that are identified by the Arbor Day Foundation as areas of growth. There are 5 categories, each with a number of different qualifying activities. Communities that achieve these goals are recognized each year by the foundation with an additional Growth Award that can be displayed/shared with the public to foster pride in the city Forestry Program.



MANAGEMENT OF THE FOREST RECOMMENDATIONS — GOALS FOR THE DEPARTMENT



The Meridian City Arborist needs to work with ISDA and other adjacent city Community Foresters to develop and adopt an Invasive Pest Management Plan that addresses the impending threat of the Emerald Ash Borer. Having a detailed and comprehensive EAB action plan that is consistent with other surrounding cities and that embraces Plant Health Care and IPM practices will help Meridian proactively manage Ash trees in a systematic manner. Knowing the locations of these trees, which ones have been treated, and which trees need treatment or are considered the highest risk, will be of the utmost importance. Having a completed inventory prior to the arrival of EAB is essential. It is only a matter of time before the Emerald Ash Borer shows up in the Treasure Valley and Meridian.

Budget/Funding— In accordance with the criteria for maintaining status as an Arbor Day Foundation recognized Tree City USA, Meridian currently has a budget of a minimum of \$2/per capita. As the city population continues to expand and the age and condition of the trees within the Urban Forest continue to grow the annual budget will also need to increase to meet and accommodate these changes.

As of December 2020, according to the Tree City USA Application Data, the City of Meridian had a total Forestry Budget of \$256,024.65. With an estimated population of 106,804 that puts the Meridian Forestry Budget just over the \$2 per capita threshold for the Tree City USA requirements.

Forestry Staff— The Meridian Urban Forestry Division currently consists of one full time employee identified as the Meridian City Arborist. As the city continues to expand and the Parks system and Urban Canopy evolves and grows, the work load associated with managing this asset will also increase which in turn could also call for a need of additional full-time staff. Additional equipment will also become necessary and would contribute to greater efficiency for in-house staff.

Continued Education and Training— Continue to provide and promote opportunities to expand and build on the skill set and knowledge of Forestry staff by sending employees to workshops and educational seminars, and encouraging and enabling staff to pursue professional industry-recognized certifications.

Risk Management— Trees in the Meridian City Urban Forest which are identified as a “Risk” through routine or specially requested inspections will be documented, and evaluated using the most current Tree Risk Assessment specifications and standards set forth by the International Society of Arboriculture (ISA). Appropriate management actions will be taken in accordance with the resulting recommendations.

As part of the goals portion of this plan, Meridian Forestry should develop a more complete “Storm Response Plan” with clear responsibilities defined to encourage cooperation across all city departments in communication, transportation clearance, and utility issues.



MERIDIAN URBAN FORESTRY GOALS AND STRATEGIES

The implementation of an effective plan will help in preventing and addressing any challenges brought on by storms, invasive pests, or disease. By following the City's Plan, our trees will be properly selected for the area and maintained properly, resulting in less damage from pests, disease, and broken limbs/downed trees due to severe weather.

The Meridian City Arborist will work to accomplish this by developing and following a specific set of guidelines for nursery quality when planting young trees, having the pruning of our urban forest conducted by Certified Arborists, and using best management practices (BMP's) for watering and maintenance techniques for the existing urban forest and its future additions.

The following is an itemized list of Objectives and Strategies for the Meridian Forestry Program to work towards achieving. These objectives are tied directly to the Tenets listed earlier on [page 8](#) of this management plan.

Each goal listed here has a brief description of the actions that can be taken or strategies that can be implemented in order to accomplish the task successfully.

Timeframe to complete is designated as:

- Short-term (up to 3 years)

- Mid-term (4-6 years)

- Long-term (7-10 years)

Objective 1:

Protect– Preserve the existing tree canopy in Meridian

Actions	Capital Cost Estimate	Operational Budget Impact	Time frame to complete
1.a			
<u>Tree Mitigation-</u>	TBD	Staff time	Long-term
Develop a more robust and diverse system for mitigation of Tree/Canopy loss during development.			
Encourage/Incentivize the retention protection and incorporation of mature existing canopy in development among the Meridian Urban Forest.			
Explore/Develop alternative options for Tree Mitigation where retention is not feasible.			

Objective 2:

Expand- Continue to create appropriate spaces for trees to grow to their full potential, and to expand/increase the canopy cover of Meridian’s Urban Forest.

Actions	Capital Cost Estimate	Operational Budget Impact	Time frame to complete
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2.a

Build new parks -

The city of Meridian has plans for building additional parks including:

<u>1. Discovery Park Phase 2</u>	TBD	N/A	Short-term
<u>2. West Meridian Regional Park (Borup)</u>	TBD	N/A	Mid-term
<u>3. Margaret Aldape Park (on the Boise River)</u>	TBD	N/A	Long-term

Select tree species that are well suited for the location, work with designers to incorporate more tree-friendly spaces, and work with contractors to ensure the planting is done correctly so trees can reach their full potential.

Objective 2: (continued)

Expand– Continue to create appropriate spaces for trees to grow to their full potential, and to expand/increase the canopy cover of Meridian’s Urban Forest.

Actions	Capital Cost Estimate	Operational Budget Impact	Time frame to complete
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2.b

Arboretum-

Continue to make improvements to the Kleiner Arboretum.

TBD

Staff time

Ongoing

Modify irrigation to address the specific watering needs of the trees.

Eliminate turf areas and expand bed space to accommodate tree needs and companion planting opportunities.

Add additional features such as naturalized shrub/perennial beds and large rocks/boulders.

TBD

2.c

Lakeview Golf Course-

Conduct inventory of all trees on golf course property.

\$0

Staff time

Short-term

Build a management/ maintenance plan that addresses the plant health care concerns exclusive to the property.

Work with golf course personnel to help guide them in the proper care for all trees on the grounds.

Objective 2: (continued)

Expand- Continue to create appropriate spaces for trees to grow to their full potential, and to expand/increase the canopy cover of Meridian’s Urban Forest.

Actions		Capital Cost Estimate	Operational Budget Impact	Time frame to complete
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2.d				
<u>Memorial Tree Planting -</u>				
Explore a system whereas existing trees in our parks can be “adopted” and/or new trees can be accepted and planted as a memorial by members of the public. This system has potential for generating additional income for the city that can be used to alleviate expenses associated with the continued costs of maintaining the trees in the program. Care would need to be taken to ensure that this program is executed in a manner that does not result in giving our parks the aesthetic appearance of a “cemetery”.		\$0	Staff time	Short-term
Create a numbered mapping system so that any/all trees in the program can be quickly and efficiently identified and located.				

Objective 3:

Manage- Continue to find innovative and efficient ways to manage the existing and ever increasing Urban Forest canopy.

Actions	Capital Cost Estimate	Operational Budget Impact	Time frame to complete
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3.a

Inventory Software-

Meridian is currently using a “Shared License” for the program it uses for tree inventory. This version has limited tools that are available for the city’s use.

Meridian should procure their own license for the use of this software, which would open up features that are currently unavailable.

\$3,000 per yr

Short-term

3.b

Tree Planting-

Develop an organized, systematic plan for the continued planting of trees throughout all parks and properties, including the Arboretum.

\$0

Staff time

Short-term

Objective 3: (continued)

Manage- Continue to find innovative and efficient ways to manage the existing and ever increasing Urban Forest canopy.

Actions	Capital Cost Estimate	Operational Budget Impact	Time frame to complete
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3.c

City Ordinance Update-

Review and revise verbiage as necessary within the city ordinance text to create consistency and clearly define responsibilities for tree care in various areas of the city to ensure that tree asset values are protected and can increase whenever possible.

\$0

Staff time

Short-term

3.d

Pruning Cycle-

Create an annual process whereby all City Managed Trees are pruned on a regular schedule, prioritizing trees that need the most immediate care. Develop a map of areas to be addressed during each pruning cycle.

\$0

Staff time

Short-term

Objective 3: (continued)

Manage- Continue to find innovative and efficient ways to manage the existing and ever increasing Urban Forest canopy.

Actions	Capital Cost Estimate	Operational Budget Impact	Time frame to complete
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3.e

Support Public Works' Tree Waste Recycling Program-

\$0

Staff time

Short-term

Provide tree service companies who perform work on City Managed Trees opportunities to deposit the chips that are generated from their work into a centrally-located collection area where they can later be accessed for use in City parks.

Work with local wood workers to see that wood from larger trees removed from our parks and properties can be re-purposed into lumber to be used in special projects.

Objective 3: (continued)

Manage- Continue to find innovative and efficient ways to manage the existing and ever increasing Urban Forest canopy.

Actions	Capital Cost Estimate	Operational Budget Impact	Time frame to complete
<u>3.f</u> <u>Downtown Trees</u> Explore the maintenance of all street trees on both sides of Main street from Franklin Road to E Fairview Ave. in order to preserve the health, value, benefits, aesthetic quality, and longevity of the mature canopy of Downtown Meridian and to manage hazards to the public that may occur as a result of trees that are not otherwise cared for properly. Create more tree friendly growing spaces to accommodate the need for lasting, mature canopy in Downtown Meridian. Create more diversity in the Downtown tree canopy by selecting a greater variety of appropriate species in Downtown plantings.	\$0 \$0 \$0	Staff time NA NA	Short-term Ongoing Ongoing

Objective 4:

Inform- Promote and foster community development by providing education opportunities to the public and employees.

Actions	Capital Cost Estimate	Operational Budget Impact	Timeframe to complete
4.a			
<u>Arboretum-</u>			
Continue to build and improve the Self-Guided Tree Walk Tour in the J.M. Kleiner Memorial Park Arboretum. This is a valuable resource for the public, as it helps to inform them of which trees will work well in their own landscapes.	\$0	Staff time	Ongoing
Organize guided Interpretive Tree Walks in City Parks and the Arboretum.			
4.b			
<u>Community Education Classes-</u>			
Establish and maintain a seasonal schedule of classes aimed at helping to educate the public about current and appropriate tree care practices.	\$0	Staff time	Ongoing
4.c			
<u>Brochures/Downloads-</u>			
Design handouts and articles on tree care for the public. These can be handed out at events and made available for download from the city website.	\$0	Staff time Incidental Printing Costs	Ongoing

Objective 4: (continued)

Inform- Promote and foster community development by providing education opportunities to the public and employees.

Actions	Capital Cost Estimate	Operational Budget Impact	Time frame to complete
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4.d

Workshops-

Provide opportunities for employees and local tree service workers to build on their professional skills and knowledge.

\$0

Staff time

Ongoing

4.e

Volunteer Programs-

The current age diversity of trees in the meridian Urban Forest is perfect for working with volunteers from the public to teach them valuable skills in tree maintenance. Building/starting a "Tree Steward" Volunteer program would benefit the community immensely.

\$0

Staff time

Ongoing

Tools for
volunteers
(Cost TBD)

4.f

Enhance Website-

Build a better web page for Meridian Forestry. This is a resource that has not yet been developed to the full potential.

\$0

Staff time

Ongoing

Objective 5:

Partnerships— Continue to build and foster healthy partnerships

Actions	Capital Cost Estimate	Operational Budget Impact	Time frame to complete
<u>Idaho Power—</u> Continue to work with IP to host and staff the Shade Tree Giveaway Program.	\$0	Staff time	Ongoing
<u>ACHD—</u> Work with ACHD to plan for more spaces that are appropriately designed for trees along street buffers. Aim for Quality over Quantity.	\$0	Staff time	Ongoing
<u>Treasure Valley Canopy Network & Other Cities—</u> Maintain annual membership to the TVCN and continue to meet with Foresters from other adjacent cities to exchange ideas and information.	\$500	Staff time	Ongoing
<u>Downtown Development—</u> Work with DDC to plan for more appropriate quality spaces for trees in downtown development.	\$0	Staff time	Ongoing
<u>USDA/ISDA—</u> Work with the Dept. of Ag to develop an action plan for managing and responding to invasive pests like the Emerald Ash Borer (EAB)	\$0	Staff time	Ongoing
<u>Arbor Day Foundation—</u> Continue to qualify as a Tree City USA and earn Growth Awards each year. There are many opportunities to continue growing the Meridian Urban Forestry Program in ways that don't cost the city a lot of money, but these activities typically require a fair amount of time invested in accomplishing recognition.	\$0	Staff time	Ongoing
<u>CWI/IBG/IDFG/Other Non-Profits—</u> Continue to work with these partners to offer educational opportunities to students, members of the non-profit clubs, and the public.	\$0	Staff time	Ongoing
<u>Local Contractors—</u> Work with local contractors to continue to set a high standard for tree care.	\$0	Staff time	Ongoing
<u>Local Business—</u> Partner with local business' i.e. Rocky Mountain Vermeer to organize opportunities for employees & local tree service professionals to build on skills and knowledge.	\$0	Staff time	Ongoing

CONCLUSION

Given the cost of the ongoing maintenance, removal, and replacement of trees, we have created this management program to help protect the investment in our existing urban forest, and to constantly work to expand with healthy additions, in smart ways that make sense for Meridian. With an appropriate maintenance plan for existing and newly planted trees that consists of a plan for proper pruning, watering, replacement choices, and maintenance techniques, the goal is to keep our trees healthy and thriving in a cost-effective manner.

There are many areas in which Meridian can grow its Urban Forestry Program without increasing costs.

- Continue to build on the current inventory system and use it to a greater extent to manage the workload, contract and in-house.
- Build a stronger Tree Mitigation Plan for development that includes a “Tree Mitigation Fund” account. This system could actually generate revenue so the City can then use these funds to help cover the costs of future tree planting and/or help design more tree-friendly spaces in downtown development.
- Establish a Tree Stewards Volunteer Program to help with the maintenance of juvenile trees throughout the parks system.
- Create a wood waste recycling program that encourages the repurposing of wood from trees that are removed from the Urban Forest, which could also provide products that could be used in Meridian city parks.
- Build a more robust Urban Forestry website as a resource for the community where they can find information about tree care and how the City of Meridian manages its trees.
- Carbon Credits can be a potential source of revenue that has potential to help the City with the ongoing costs of tree maintenance. The City of Meridian is currently exploring these options but has not yet determined if it is a solution it wishes to pursue.
- Creating a Memorial/Tree Adoption or “Heritage Tree” Program can also be a way to generate revenue and help manage the costs associated with maintaining trees in the park system. Explore options that would not adversely alter the appearance of our parks.
- There is opportunity for working more closely with West Ada School District to expand the Meridian Urban Forest on school properties.
- Continue to develop the Arboretum at Julius M. Kleiner Memorial Park as an educational resource for the public
- Design the spaces for trees in parks and Meridian’s Downtown Core in a more efficient manner to allow these valuable resources to reach their full potential.
- The City of Meridian needs to work closely with the ISDA in creating an action plan for management of the Emerald Ash Borer.

Meridian’s City Arborist will continue to explore these options, use the goals defined within this plan, and find new ways to continue to build on the current Urban Forestry Program to make it a stronger, better, and a more valuable resource for the community.

Appendices

- A.) Meridian City Tree Ordinance
- B.) Meridian City Unified Development Code Article B Landscaping Requirements
- C.) Meridian City Urban Forest Pruning Maintenance Cycle
- D.) Tree Planting Specifications
- E.) Meridian Supplemental List to the Treasure Valley Tree Selection Guide
- F.) Tree Work Specifications

Appendix A.) Meridian Forestry Ordinance

Meridian City Code section 13-2-11

http://sterlingcodifiers.com/codebook/index.php?book_id=306&chapter_id=6523#s51536

http://sterlingcodifiers.com/codebook/index.php?book_id=306&chapter_id=6523#s51538

http://sterlingcodifiers.com/codebook/index.php?book_id=306&chapter_id=6523#s51539

13-2-11: ESTABLISHMENT AND DUTIES OF THE CITY ARBORIST:

A. Designation. The Director of the Parks and Recreation Department shall designate a staff member as the City Arborist, and shall authorize such person to perform the duties imposed by and exercise the powers granted by this section.

B. Duties. The City Arborist, subject and in addition to the provisions of this chapter and available resources, is hereby authorized to carry out the following duties:http://sterlingcodifiers.com/codebook/index.php?book_id=306&chapter_id=6523#s51540

Develop, administer and maintain a community forestry management plan and budget.

Establish and maintain an inventory of public trees.

Establish policies to carry out the provisions of this chapter.

Establish and maintain specifications for tree planting on public property.

http://sterlingcodifiers.com/codebook/index.php?book_id=306&chapter_id=6523#s51542

Provide information and advice to citizens and City employees, including Code Enforcement Officers, regarding the health and condition of trees and maintenance necessary to protect the public health, safety and welfare.http://sterlingcodifiers.com/codebook/index.php?book_id=306&chapter_id=6523#s51543

Manage and regulate the planting, maintenance, protection, removal, and replacement of all public trees within city limits.http://sterlingcodifiers.com/codebook/index.php?book_id=306&chapter_id=6523#s51544

Meridian City Code section 4-2-1

4-2-1: DEFINITIONS:

GRAFFITI: Any inscription, work, figure, symbol, drawing, mark, or design that is marked, etched, scratched, drawn, or painted on any real or personal property or improvement, including, but not limited to, walls, fences, gates, pavement, buildings, rocks, trees, bridges, streets, sidewalks, and/or signs, whether such property is public, private, temporary, or permanent, without the consent of the owner of such property or the owner's authorized agent, and which inscription, work, figure, symbol, drawing, mark, or design is visible from any publicly accessible location.

JUNK VEHICLE: Any vehicle, or parts thereof, which:

A. Cannot be safely operated under its own power;

B. Is missing any one of the following: foot brakes, hand brakes, headlights, taillights, horn, muffler, rearview mirrors, windshield wipers, or adequate fenders;

C. Has been declared salvage, or has been physically damaged to the extent that the cost of parts and labor minus the salvage value would make it uneconomical to repair or rebuild such vehicle; or

D. Is otherwise in a wrecked, partially dismantled, inoperative, or dilapidated condition.

This definition shall not include junk vehicles lawfully stored or parked pursuant to the operation of a lawfully conducted business, industry or commercial enterprise.

NUISANCE: Anything which unreasonably injures or offends the health or senses; obstructs the free passage, comfortable enjoyment, or customary use of public or private property; or creates an actual or potential safety, health, or fire hazard. Nuisances shall include, but shall not be limited to, the following conditions designated as abatable nuisances and as general nuisances:

Abatable Nuisance: Nuisance conditions that may be abated by the City in accordance with the provisions of this chapter, specifically including, without limitation, the following nuisance conditions:

- A. Nuisance weeds.
- B. Graffiti, on any surface.
- C. Snow or ice on any public sidewalk abutting or adjoining any privately-owned premises.
- D. Vegetation, other than trees, that impedes or obstructs a public sidewalk or roadway.
- E. Nuisance trees

General Nuisance: Nuisance conditions that may lead to criminal charges without any prior attempt by the City to obtain abatement thereof, specifically including, without limitation, the following nuisance conditions:

- A. Nuisance materials on the ground, except that this definition shall not include the incidental leakage of nuisance materials from registered vehicles lawfully moving or parked upon a public right-of-way; the lawful application of pesticides or herbicides for purposes of controlling pests or weeds; or activity otherwise specifically allowed by law or by written permit issued by the City or other governing authority.
- B. Personal property on any portion of a public sidewalk, except as specifically allowed by law or by written permit issued by the City or other governing authority.
- C. One or more junk vehicle(s), where such junk vehicle is not enclosed in any structure or otherwise concealed from public view pursuant to title 11 of this Code.
- D. Stagnant or impure water which causes or creates an offensive, unhealthy, or unsanitary condition.
- E. Refuse, vegetative decay or any decaying substance, garbage or filth of any kind which is exposed to the elements and which causes or creates an offensive, unhealthy, or unsanitary condition.
- F. Discarded matter which has no substantial market value, is exposed to the elements, and is not enclosed in any structure or otherwise concealed from public view, including, but not limited to: rubble, litter, asphalt, concrete, plaster, tile, cardboard, paper, scrap wood, scrap metal, tires, broken glass, and/or other dilapidated or deteriorating personal property.
- G. The accumulation of and/or failure to lawfully dispose of solid waste on any commercial or residential premises.
- H. Any building or structure that is so dilapidated or is in such condition as to menace the public health or the safety of persons or property due to increased fire hazard or other hazard.
- I. Any nuisance condition not otherwise enumerated in this chapter.

NUISANCE MATERIALS: Hazardous, noxious, dangerous, or offensive materials, including, but not limited to, oil, gasoline, fuel, antifreeze, paint, pesticides, or herbicides.

NUISANCE TREE: Any tree or part thereof which, by reason of location or condition: constitutes a hazard to public safety; obstructs the free passage of pedestrian or vehicular traffic; fails to provide a vertical clearance of eight feet (8') over a sidewalk or fourteen feet (14') over a street; obstructs public street lighting; harbors pests or disease.

NUISANCE WEEDS: Undesirable plant growth, whether living or dead, which:

- A. Is over eight inches (8") in height;
- B. By reason of size, manner of growth, location, or dryness, constitutes a safety, health, or fire hazard to any person, building, improvement, crop, or other real or personal property;
- C. By reason of size, manner of growth, or location, impedes or obstructs a sidewalk or roadway or any portion thereof; or
- D. Is designated as a noxious weed by the State of Idaho.

This definition shall not include cultivated grasses and pastures, though such vegetation may be declared a nuisance where otherwise appropriate.

PUBLIC TREE: Any tree, including roots within the critical root zone, whose trunk is located, partly or in whole, on public property.

TREE: Any woody plant.

Section 2.

C. Private property owners shall be responsible for maintaining any and all public trees upon public rights of way adjacent to such private property. Where a public tree is a nuisance tree, the owner of record of the adjacent private property, as reflected on the most recent assessment roll, shall be presumed to be responsible for creating, causing, committing, maintaining, and/or allowing such nuisance. It shall be unlawful for any person to damage, mutilate or destroy any public tree; attach any device or structure to a public tree; or store, spill or dump substances, whether liquid or solid, which may be harmful to any part of a public tree.

Section 3.

D. Time Period For Abatement: It shall be the duty of the owner, occupier, or person in charge or control of any property where any abatable nuisance exists, to abate such nuisance within five (5) calendar days from the date of personal service, mailing, or publication, except that the Code Enforcement Officer may require summary abatement of an abatable nuisance where such condition presents an imminent or ongoing threat to or impairment of human health or safety.

1. Abatement of graffiti shall meet the following standards:

- A. The removal of such graffiti shall not follow the pattern of the graffiti such that the inscription, work, figure, symbol, drawing, mark, or design of such graffiti remains apparent.
- B. The removal of such graffiti by painting over it shall be reasonably similar or identical to the original color of the surface upon which such graffiti was applied.
- C. If the surface is heavily covered with graffiti, the entire surface shall be repainted.

2. Abatement of a nuisance tree shall include tree removal, pruning, and/or removal of branches, debris, roots, stump, and/or soil, at the direction of the Code Enforcement Officer.

Appendix B.) Meridian Unified Development Code Article B Landscaping Requirements

[https://library.municode.com/id/meridian/codes/code_of_ordinances?
nodeId=TIT11UNDECO_CH3REAPALDI_ARTBLARE](https://library.municode.com/id/meridian/codes/code_of_ordinances?nodeId=TIT11UNDECO_CH3REAPALDI_ARTBLARE)

Appendix C.) Current Meridian Pruning Cycle

2020		2023	
City Hall West Parking		Bear Creek Park	
Well House #15		Fire Station #1	
Well House #16		Fire Station #2	
Well House #28		Hillsdale Park	
Downtown Trees (Gen Plaza, City Hall, Parking)		Pine Street Right Of Way Trees	
Fothergill Pathway		Seasons Park	
Fuller Park 1/2 (Part 1 of 2)		Settlers Park 1/2 (2 of 2)	
Heritage Softball Fields			
Kleiner 1/3 (Part 1 of 3)		2024	
Kleiner Arboretum		8th St Park	
Lanark Shop		Gordon Harris Park	
Pine St School		Jabil Fields	
South Locust Water Tank		Kleiner Park 1/3 (Part 3 of 3)	
Storey Bark Park		Renaissance Park	
Waste Water Treatment Plant		Storey Park	
Water Dept			
2021			
ACHD Drain #1			
ACHD Drain #3			
ACHD Drain #4			
ACHD Drain #5			
Centennial Park			
City Well House 108			
Discovery Park			
Fire Safe House			
Fuller Park 1/2 (Part 2 of 2)			
Gen Plaza-(see-2020)			
Heroes Park			
Kleiner Park 1/3 (Part 2 of 3)			
Meridian Interchange			
Split Corridor			
North Curve			
Overland Pumphouse			
Tully Park			
Police & Training Center			
2022		Future Sites	
Champion Park		Aldape park	
Chateau Park		West Meridian Regional Rodeo Park	
Fire Stations #3, #4, #5		Fire Station #6	
Home Court			
Keith Bird Legacy			
Reta Huskey Park			
Settlers 1/2 (1 of 2)			

Appendix D.) Tree Planting Specifications



Mayor Robert E.
Simison

Treg Bernt
Joe Borton
Luke Cavener

Brad Hoaglund
Jessica Perrault
Liz Strader

MEMORANDUM

Tree Planting Specifications

Trees are defined in the Treasure Valley Tree Selection Guide by the following groups:

Class 1 Trees: Small trees which do not generally reach over 25-30' in height and width.

Spacing, 20-30' between trees. Appropriate for under Power Lines or smaller planting areas.

Class 2 Trees: Usually considered medium sized trees mostly planted for their shade and excellent use in the landscape and parkway plantings. Reaching 30-40+ height and width. Spacing 30-40' between trees.

Class 3. Trees: Many are long lived and attain large height and trunk diameter. Make sure there is ample room to accommodate at maturity. May reach up to 70' + in height and width. Spacing 40-60' between trees.

Conifers: Provide year-round greenery, screening and serve as excellent wildlife shelters. Generally, they should not be pruned and will need large growing areas away from buildings, sidewalks, and driveways. Spaces vary with species.

Planting stock shall conform to acceptable Tree Stock Standards "Crown Observations"

Top of Tree Root Flare shall be exposed & Planted Minimum of 2" above Soil surface

All of or as much as possible Burlap and ALL Twine Shall be removed from tree root ball at time of Planting

Wire Basket- Top 1/3 of Wire Basket at minimum Shall be removed at time of planting.

Tree Shall be Oriented as close to original as possible with paint mark on trunk (if Present) facing North

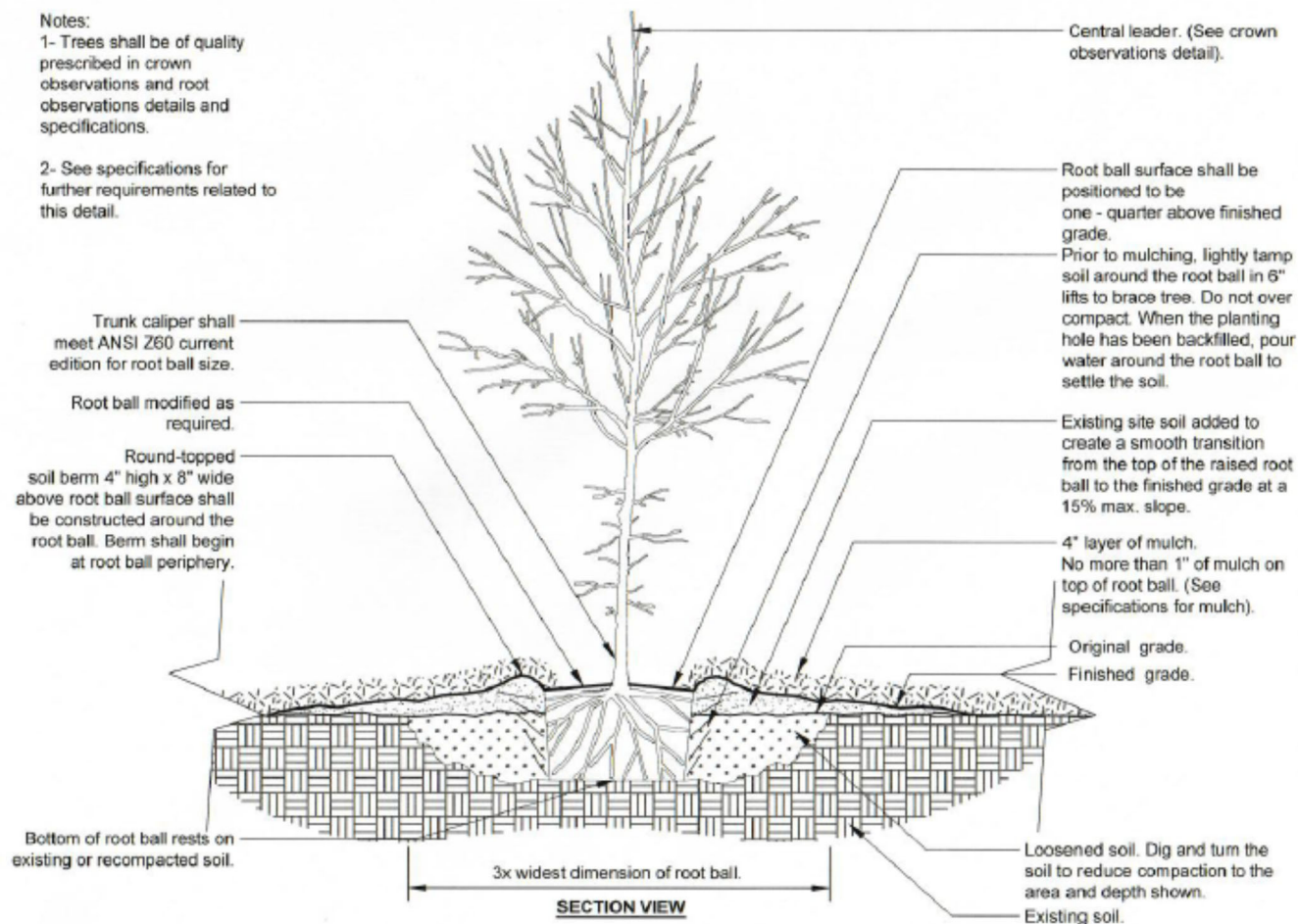
Tree Shall be Planted straight in hole

Tree shall not be handled or rocked back and forth by the trunk during planting handling shall be by the root ball as much as possible.

A "Watering Berm" shall be formed with the existing soil at Finished Planting created just outside of the original root ball.

Should tree require staking, this shall be done in accordance with tree staking specs.

Appendix D.2.) Tree Planting Specifications Diagram



P-X

TREE IN POORLY DRAINED SOIL

URBAN TREE FOUNDATION © 2014
OPEN SOURCE FREE TO USE

Appendix E.) Meridian Supplemental List to Treasure Valley Tree Selection Guide

Recommended Trees for the Meridian Urban Forest Environment

The following list includes species that will perform well in the Meridian and greater Boise Bench area where soil conditions have presented challenges for growing trees due to structure and density characteristics, and pH levels. Always be sure to have a Soil Analysis done for the space where you plan to have trees planted on your property. Soil tests are affordable and convenient and will prevent a lot of future problems that can prove to be costly in the long term. There are two main labs in the area that offer affordable tests with results and recommendations that are easy to interpret.

Western Labs- 211 W Highway 95, Parma, Idaho 83660 208-649-4360

<https://westernlaboratories.com/home>

Stukenholtz Labs- 2924 Addison Ave East Twin Falls ID 83301 208-734-305

<https://stukenholtz.com/>

Recommended for use in ROW (Right of way) Street Buffers

Acer- Maples

campestre- Hedge Maple

ginnala- Amur Maple

glabrum- Rocky Mountain Maple (hard to find)

grandidentatum- Bigtooth Maple - Highland Park, Mesa Glow, Rocky Mountain Glow

griseum- Paperbark Maple

miyabei- Miyabei Maple Rugged Ridge Maple, State Street Maple

negundo- Boxelder 'Sensation'

platanoides- Norway Maple (use with caution, sensitive to hot dry conditions highly susceptible to Verticillium Wilt)

pseudoplatanus- Sycamore Maple

rubrum- Red Maple NOT RECOMMENDED intolerant of Alkaline/high pH soils

saccharinum- Silver Maple NOT RECOMMENDED subject to decay and branch failures

saccharum- Sugar Maple (can also be sensitive to High pH Alkaline soils)

truncatum- Shantung Maple

truncatum x platanoides (hybrids) Crimson Sunset, Pacific Sunset, Urban Sunset

Aesculus- Buckeye/Horsechestnut (often bearing large fruit, although not typically that messy)

glabra- Ohio Buckeye

flava- Yellow Buckeye

hippocastanum- Horsechestnut

Alnus- Alders

glutinosa- Common Alder

cordata- Italian Alder

spaethii- Spaeth's Alder

Amelanchier- Serviceberry

arborea- Downy Serviceberry

alnifolia- Saskatoon Serviceberry

X grandiflora- Autumn Brilliance Serviceberry

Betula- Birch

nigra- River Birch (can be sensitive to Alkaline/High pH conditions)

Carpinus- Hornbeam

betulus-European Hornbeam

caroliniana- American Hornbeam

Catalpa- Northern Catalpa

speciosa- Northern Catalpa

Celtis- Hackberry

occidentalis- Common Hackberry

reticulata- Nettleleaf Hackberry

Cercidiphyllum- Katsura (sensitive to hot dry conditions, susceptible to sunscald)

japonicum-

Cercis- Redbud

canadensis- Eastern Redbud

occidentalis- Western redbud

Chionanthus- Fringe Tree

retusus- Chinese Fringe Tree

virginicus- White Fringe Tree

Cladrastis- Yellowwood (can be sensitive to transplant and sunscald)

kentuckea- American Yellowwood

lutea- (now synonymous with kentuckea)

Cornus- Dogwood

florida- Flowering Dogwood

kousa- Kousa Dogwood

mas- Corneliancherry- ‘Saffron Sentinel’, ‘Golden Glory’ An excellent and under-appreciated, under-used tree highly recommended

Corylus- Filbert

americana- American Filbert

avellana- European Filbert

colurna- Turkish Filbert (can sometimes bear large heavy fruit, though not typically messy)

Cotinus- Smoke Tree

coggygria- Common Smoketree

obovatus- American Smoketree

Crataegus- Hawthorn

crusgalli-Cockspur Hawthorn

douglasii- Douglas Hawthorn

laevigata- English Hawthorn

X lavalleyi- Lavalley Hawthorn

phaenopyrum- Washington Hawthorn

viridis- Green Hawthorn ‘Winter King’

Diospyros- Persimmon

virginiana- Common Persimmon

Fagus- Beech

- grandifolia- American Beech (NOT RECOMMENDED)
- sylvatica- European/Common Beech

Fraxinus- Ash

NOT RECOMMENDED due to high density, Emerald Ash Borer, Aphids & Lilac Ash Borer

- americana- White Ash
- angustifolia- Narrowleaf Ash (Especially prone to Lilac Ash Borer)
- excelsior- European Ash
- pennsylvanica- Green Ash

Ginkgo (be sure to choose a fruitless male cultivar) Slow growing, generally more expensive at nurseries due to the slow production and lack of availability

- Biloba (Magyar, Autumn Gold, Princeton Sentry)

Gleditsia- Honeylocust (beware of varieties that produce seeds) *Now OVERUSED in the area*

- triacanthos var. inermis- Thornless Common Honeylocust
- 'Suncole'- Sunburst Honeylocust NOT RECOMMENDED Prohibited in R.O.W. Street tree planting

Gymnocladus- Kentucky Coffee Tree

- dioicus- ('Espresso' is a seedless variety)

Juglans- Walnut

- nigra- Black Walnut (CAUTION) Not permitted for ROW Street Tree planting
- regia- Common English Walnut (CAUTION) Not permitted for ROW Street Tree planting

Koelreuteria- Goldenraintree

- paniculata- Goldenraintree

Liquidambar- Sweetgum (can be sensitive to Alkaline/High pH Soils)

- styraciflua- American Sweetgum (produce a seed that is commonly thought of as undesirable, and can cause branch failures during heavy set years)

Liriodendron tulipifera- Tulip Tree/ Yellow Poplar

Maackia amurensis- Amur Maackia

Maclura pomifera- Osage Orange

Magnolia-

- acuminate- Cucumber Magnolia
- grandifolia- Evergreen Magnolia (CAUTION)
- X soulangiana- Saucer Magnolia
- stellata- Star Magnolia

Malus spp. Flowering Crabapple (many varieties produce messy fruit, and have low branching)

Metasequoia glyptostroboides- Dawn Redwood (Can be sensitive to Alkaline/High pH Soils)

Morus alba- White/Common Mulberry (fruit can be messy)

Nyssa sylvatica- Black Tupelo* (shows promise but can be sensitive to Alkaline/High pH Soils)

Ostrya virginiana- American Hophornbeam/ Ironwood

Parrotia persica- Persian Parrotia

Phellodendron amurense- Amur Corktree

Platanus- Sycamore/Planetree

x acerifolia- London Planetree

occidentalis- American Planetree/Sycamore

Populus- Cottonwood/Poplar

(CAUTION highly aggressive surface roots can render a landscape space unusable, and soft wood is subject to decay) Prohibited in Public ROW

alba- White/Silver-leaved Poplar

angustifolia

balsamifera- Balsam Poplar

deltoides- Eastern Cottonwood

nigra 'italica'- Lombardy Poplar

tremuloides- Quaking Aspen (NOT RECOMMENDED)

trichocarpa- (this is the species that is Native to the Boise River Basin)

x canadensis- Carolina Poplar

Prunus- Plum, Cherry, Chokecherry, Peaches, Almonds, Apricots

cerasifera- Cherry Plum (recommended variety = Krauter Vesuvius)

padus- Common Birdcherry

serotina- Black Cherry

serrulata- Flowering Cherry

virginiana- Chokecherry (Canada Red, Schubert) often produces suckers from graft. Sucker Punch® is a listed as a "Sucker Free" variety.

Pyrus- Flowering Pear (acute branch attachments can lead to poor structure subject to failures)

Calleryana (Caution* many cultivars available ranging in habit from upright to pyramidal or rounded. Known to have poor branch structure prone to failure. Many varieties produce messy fruit. Highly susceptible to Fire Blight)

Quercus- Oak

acutissima- Sawtooth Oak pH sensitive

alba- White Oak pH sensitive

bicolor- Swamp White Oak

imbricaria- Shingle Oak

macrocarpa- Bur Oak

muehlenbergii- Chinkapin Oak

nutallii- Nuttall Oak (greater variety of pH)

palustris- Pin Oak (NOT RECOMMENDED highly sensitive to Alkaline/ High pH Soils)

prinus- Chestnut Oak

robur- English Oak

rubra- Northern Red Oak

shumardii- Shumard Oak (greater variety of pH)

Rhus typhina- Staghorn Sumac (Will grow in neglected areas)

(Plant this species with caution, these trees can/will colonize and take over a garden space)

Robinia pseudoacacia- Black Locust

(Not recommended for home landscape, prohibited for R.O.W. use)

These trees will grow in the toughest, and most neglected site conditions. Can form thickets of sucker growth and become invasive. These trees are highly susceptible to Black Locust Borer which can lead to dieback and extensive structural damage.

Salix- Willow (Not recommended for home landscape prohibited for R.O.W. use)

Although this tree can be popular for the Picturesque and nostalgic imagery it brings to mind, this tree is notoriously messy constantly dropping branches, aphid and cottony scale issues and poor branch structure that often leads to failures.

Sophora japonica- Pagodatree (styphnolobium japonicum) Summer flowers, messy fruit

Synonymous with Styphnolobium japonicum

Syringa reticulata- Japanese Tree Lilac 'Ivory Silk'

Tilia- Linden

americana- American Linden/Basswood

cordata- Littleleaf Linden

tomentosa- Silver Linden

Ulmus- Elm (some varieties can have a lot of disease/insect issues, use hybrids with resistance)

americana- American Elm

japonica x wilsoniana 'Morton' Accolade™ Elm

japonica x pumila – 'New Horizon' Elm

'Morton Glossy' – Triumph™ Elm

parvifolia- Allee® & Chinese Elm Bosque™ Lacebark Elm Zone 6, may not be hardy in severe winter

procera- English Elm

propinqua- Emerald Sunshine® Elm

pumila- Siberian Elm (this tree is a weed, do not allow it to develop on your property)

wilsoniana – 'Prospector' Prospector Elm

Zelkova serrata- Zelkova (Village Green, Green Vase, Wireless)

The following species should be considered as WEEDS and not permitted to grow or develop on your property:

Eleagnus angustifolia- Russian Olive

Ailanthus altissima- Tree of Heaven

Ulmus pumila- Siberian Elm

Conifers

Abies- Fir

Concolor White/Concolor Fir

Calocedrus decurrens California Incense Cedar

Cedrus True Cedar

atlantica

deodara

Chamaecyparis lawsoniana Lawson's Cypress

Cupressus nootkatensis- Alaskan Cedar

Juniperus- Juniper

Communis- Common Juniper

Occidentalis- Western Juniper

Osteosperma- Utah Juniper

Scopulorum- Rocky Mountain Juniper

Picea- Spruce

abies- Norway Spruce

glauca- White Spruce var densata Black Hills Spruce

pungens Colorado Spruce glauca Colorado Blue Spruce

Pinus- Pine

Aristata Bristlecone Pine

Contorta/latifolia- Lodgepole Pine

Densiflora umbraculifera Tanyosho Pine

Flexilis Limber Pine 'Vanderwolf's Pyramid'

Heldreichii/leucodermis Bosnian Pine

Mugo (standard)

Nigra Austrian Pine (much over-used, try something different)

Ponderosa- Ponderosa Pine

Strobiformis

Strobus

Sylvestris- Scotch Pine

Pseudotsuga menziesii Douglas Fir

Sequoiadendron giganteum Giant Sequoia

Taxodium distichum Bald Cypress

Thuja plicata Western Red Cedar, occidentalis Arborvitae/White Cedar

List Prepared by:

Matthew Perkins | City Arborist

City of Meridian | Parks and Recreation

33 E. Broadway Ave., Suite 206, Meridian, Idaho 83642

Phone: 208.888.3579 | Mobile: 208.371.1755 | Fax: 208.898.5501

Appendix F.1.) Tree Work Specifications



Mayor Robert E. Simison

Treg Bernt
Joe Borton
Luke Cavener

Brad Hoaglund
Jessica Perreault
Liz Strader

Pruning Specifications

Contracted Tree Services shall be responsible for pedestrian and vehicular safety and control within and about the work site, and obtain all permits and bonds required by such regulating agencies, and shall provide all necessary warning devices, barricades, signage, and ground personnel needed to give safety, protection, and warning to persons and vehicular traffic within the area in accordance with the Manual on Federal Uniform Traffic Control Device Standards (M.U.T.C.D.) and as approved by Ada County Highway District, and Idaho Dept. of Transportation.

All ANSI Z133 Safety standards shall be adhered to.

All equipment to be used and work to be performed must be in full compliance with all standards set forth by O.S.H.A., A.N.S.I., and N.I.O.S.H.

Hazardous Material Spills- The permitted Tree Service shall be responsible for appropriate and immediate response to Hazardous Material Spills, including containment, cleanup, and notifying all appropriate agencies.

All equipment, tools, wood, trimmings, brush, wood chips or any other form of debris shall be removed by the tree service as well as having the area swept clean of all materials related to the work operation at the end of each working day, unless otherwise specified by work order.

Climbing spurs shall not be used unless tree is being removed.

The Contractor (Staff) is expected to consistently display a thorough knowledge of strong and weak branching structure, as well as the proper pruning techniques that are used in order to improve branching structure. The extent of pruning will vary depending on species, and the current size and age of the tree. No more than 25% of live healthy canopy should be removed at one time.

Pruning shall consist of Crown Cleaning, Crown Raising, and Crown Restoration. All pruning shall be performed in accordance with the latest edition of American National Standards Institute (ANSI) A300 Standard Practices.

Juvenile Tree Pruning- The primary objective of Juvenile Tree Pruning is to develop a strong branching structure throughout the canopy that is appropriate for the Urban Environment and to improve the potential for good tree health. Pruning specifications are the same as Crown Cleaning and Crown Raising described herein. Often branch structure is of particular importance with this size tree.

Appendix F.1.) Tree Work Specifications

Structural Pruning- Shall consist of removing or reducing branches to develop a strong branching structure throughout the canopy for the long term. Targeting of branches for removal or reduction that will include “Co-Dominant Leaders”, Branches with “Included Bark”, Crossing and Rubbing Branches, and upright branches that have the potential to compromise tree structure or health (see ANSI A300 4.22, Interfering branches). Low branches that are considered “Temporary Branches” shall be pruned off to the extent that allows for a Desired Permanent Branching structure to be established at a point that is appropriate for the site the tree is growing in. It is recognized that some trees will not yet have reached a size that allows for the removal of all temporary branches.

Crown Cleaning (ANSI A300 5.6.1)- Shall consist of the selective removal of branches one inch and larger at the point of attachment which are dead, dying, damaged, decayed, diseased, weak, crossing, poorly structured, interfering with structures and/or street lights, stubbed, or otherwise considered hazardous or undesirable for the tree.

No “Lions Tailing” (ANSI A300 4.27 and 5.5.7) or unnecessary thinning shall be done.

“Thinning” (ANSI A300 5.6.2) is necessary only for structural or tree health considerations.

Known areas of excessive decay or poor structure that have a high risk of failure shall be pruned out or reduced back to appropriate living tissue consistent with ANSI Standards. Incomplete Crown Cleaning, i.e.; Not Pruning out previously described branches, will be considered incorrect pruning and not in accordance with these specifications.

Crown Raising (ANSI A300 5.6.3) - Shall consist of the removal of lower branches of a tree over the street and sidewalk (including in parking lots) in order to provide clearance for vehicular or pedestrian traffic. Generally, clearance for larger trees will be 14 feet or more over the street and 8 feet over sidewalks while also providing an acceptable visual balance of the entire lower canopy. Trees in Parks, will require clearance for Lawnmowers and other equipment up to 8 feet. Smaller trees which cannot be pruned up to 14 feet over the street are to be pruned to establish as much clearance as possible while maintaining the natural character, structure and visual balance of the canopy.

Crown Restoration- in the event that a tree has been previously topped, headed or otherwise damaged Crown Restoration may be necessary. Restoration pruning shall establish, and /or retain as much as possible, the natural, strong structure of the tree.

NO TOPPING- or similar cutting shall be done at any time. No Heading cuts shall be made, no exceptions. Instead, Reduction cuts should be used to reduce the weight of heavy or weak branches.

Other types of pruning- shall be done in accordance with ANSI A300 Standards including “**Crown Reduction**” (ANSI A300 5.6.4) and “**Specialty Pruning**” (ANSI A300 5.7) and at the sole discretion of the Meridian City Arborist.

Appendix F.1.) Tree Work Specifications

Tree Stump Removal Specifications

Tree stumps are to be ground out completely with appropriate equipment, to a minimum depth of Twenty Five (25) Inches below grade (unless otherwise specified or agreed upon in writing) to sufficiently accommodate the planting of a large “Balled and Burlapped” (B&B) tree in the same location as the tree stump. Roots must be completely separated from the stump and adjacent roots to a size of no more than 3 inches in diameter. All surface roots greater than 2 inches in diameter must be removed.

The hole resulting from the stump removal shall be backfilled with the grinding material or soil to a level of two (2) to three (3) inches above the grade to allow for settling. All excess material must be removed from the site and the entire area should be completely cleaned of debris and dirt.

Any damage caused by stump removal operations must be repaired by the contractor at contractor’s expense and to the satisfaction of the governing authority (i.e. Meridian Parks and Rec) as soon as possible. In the event that damage is not found until a later date, the contractor may still be held liable for repairs.

The contractor will be required to return to the site to correct any conditions that do not meet the above specifications.

The Contractor is responsible for all necessary permits, DigLines, (Utility Locates) and traffic control at contractor’s expense unless otherwise noted on work order.

The Contractor is responsible for all necessary safeguards to protect people and property from damage.

Entry into Park Properties must be scheduled with Parks Dept. personnel as indicated on Stump Removal Work Order.

The contracted Tree Service agrees that all work shall be performed by, or under the direct supervision of skilled and qualified ISA Certified Arborists who are familiar with these specifications, and it shall be the sole responsibility of the tree service to see that these specifications are adhered to.



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