Grant Narrative for

Improving Aurora's Urban Forest

City of Aurora, Illinois

FY2024

Funding Amount: $1,000,000

Grant Period: 4/1/2024 – 3/31/2029

Lead Contact(s):

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Proposal Abstract:

Improving Aurora's Urban Forest will allow Aurora, Illinois to improve the health of its urban forest and engage the community in forest planting and management. This project will complete a partial inventory of city-owned trees focusing on disadvantaged areas; develop, adopt, and implement an urban forest management plan; plant high-quality trees; and improve the health of the forest through enhanced maintenance and workforce development. The project will provide culturally sensitive and linguistically appropriate tree-focused environmental education to residents, particularly those from disadvantaged groups, and youth will participate in related activities. Tree inventory data will be shared on the city's Open Data Portal.

Project Partners:

Partners will be secured through a competitive procurement process following city and federal regulations.

Scope of Work:

1. Project Scope Alignment:

With a population of nearly 200,000 residents, Aurora is the second largest city in Illinois. A significant portion of the community is disadvantaged, with 16 of the city's 55 census blocks occupied by 33.21% of the population identified as disadvantaged on the Climate and Economic Justice Screening Tool (CEJST) map. Five tracts in Aurora have been designated as HUD Opportunity Zones. The Chicago Region Trees Initiative (CRTI) tree canopy map shows significant portions of the city have poor canopy coverage, below 20%. Much of the city's center, which was developed in the late 1800s to early 1900s, along with the city's periphery, developed from farmland beginning in the 1970s, show moderate to high risk for urban heat islands and are identified as medium to high priority areas on the CRTI map. Areas along the Fox River

which bisects the community are designated as high risk for flooding, and the majority of the city's census tracts rank in the medium to very high categories for vulnerable populations per the CRTI map. The CRTI maps can be found at https://chicagorti.org/maps.

Improving Aurora's Urban Forest seeks to address a wide range of issues facing the city's urban forest. Our community has historically lacked the resources to adequately assess the health, coverage, and composition of our urban forest or to maintain the forest in a comprehensively proactive manner. There is a widespread lack of understanding among residents about the value of trees, the need for species diversity, and other issues relating to urban forestry which sometimes impedes the city's ability to improve the urban forest. The educational needs vary throughout the diverse Aurora community, with cultural and language differences contributing to the complexity of those needs. Finally, like many Midwestern communities, Aurora's urban forest was decimated by the emerald ash borer (EAB) which compounded damage incurred by Dutch elm disease (DED) decades earlier. Current threats to Aurora's urban forest include spongy moth and black knot disease, as well as pine beetles, which have severely impacted privately-owned trees throughout the city. Historical canopy loss and ongoing threats contribute to a need for both increased tree diversity and increased canopy cover to return the city to its previous tree coverage rates.

The Urban & Community Forestry Program seeks to increase equitable access to urban tree canopy benefits in disadvantaged communities, broaden community engagement in local urban forest planning, and improve resilience to climate change, pests, and extreme weather events through best management/maintenance practices. The primary objectives of the *Improving Aurora's Urban Forest* project are to remedy the city's major tree-related issues by: 1) completing a tree inventory of targeted disadvantaged areas, 2) developing and implementing an urban forest management plan based on evolving tree inventory data, 3) increasing the city's capacity to manage the urban forest through workforce development activities, 4) engaging the community in urban forestry through education and outreach, with an emphasis on historically disadvantaged groups, and 5) improving the health of Aurora's urban forest while increasing the tree canopy cover and addressing top issues identified in the urban forest management plan. *Improving Aurora's Urban Forest's* objectives align well with this grant program's goals, federal initiatives, and the goals of the 10-Year Urban Forestry Action Plan (10-Year Plan), and the 2020 – 2030 Illinois Forest Action Plan (Illinois Plan), particularly the Urban Forest Strategic 5-Plan Agenda included as Exhibit A, on pgs. 59 -67 of the Illinois plan.

Completing a tree inventory is the foundational activity of this project. An inventory will allow the city to integrate trees & urban forestry into all aspects of city planning, including planning and managing the forest to improve health & wellness. The tree inventory will be created in a GIS format, improving upon the city's current inventory technology (primarily spreadsheets) and allowing improvements in forest management and enhanced forest stewardship. This activity aligns with goals 1A, 1B, 1D, 2C, 5A, 5B, and 5C of the 10-Year Plan and element 1.0 *Improve And Expand Forest Composition And Health* of the Illinois Plan.

Using tree inventory data, the City of Aurora will develop an urban forest management plan that is deliberately aligned with the goals of the 10-Year Plan and Illinois Plan to the greatest extent feasible. Aurora's plan will support the integration of trees and forestry concerns in community planning processes, including planning & managing the forest to improve health & wellness, while also creating specific guidelines and metrics for increasing biodiversity and fostering the resilience and sustainability of Aurora's urban forest in the face of climate change. The management plan will serve as the city's comprehensive resource for enhancing forestry stewardship, improving management practices and incorporating improved use of technology and tools. The consultant hired to develop the urban forest management plan will provide consulting services throughout the grant period to help the city address the top concerns identified in the management plan. This activity aligns with goals 1A, 1B, 1D, 2C, 4A, 4B, 4C,

5A, 5B, 5C, and 7C of the 10-Year Plan, and elements 1.2 *ENHANCE THE URBAN FOREST CANOPY*, 2.2 *BEST MANAGEMENT PRACTICES*, and 4.0 *URBAN FOREST PLANTS, INSECT, AND DISEASE INVASIVE SPECIES AWARENESS AND MANAGEMENT* of the Illinois Plan.

This project will provide workforce development support for city staff involved in tree maintenance to become ISA certified arborists and will cultivate tree professional leadership by supporting at least four staff members to earn Tree Risk Assessment Qualifications (TRAQ). Tree maintenance staff at all levels will receive support for ongoing workforce development to maintain or improve their professional tree care credentials. This activity will contribute to increasing diversity of the urban forestry workforce as 37% of tree maintenance staff identify as Hispanic/Latino and 8% of staff as African American, closely mirroring the community's overall demographics. This investment is expected to provide long-term returns, as over 20% of the tree maintenance workforce is under age 30, and 55% are between ages 30 – 49. A better educated tree maintenance staff will improve the city's arboricultural practices, and because most staff, including those from minority groups, are residents or otherwise have strong ties to the community, their improved training will help increase engagement of underserved community members in urban forestry and stewardship. This activity aligns with goals 3A, 3C, 3D, 5A, and 7C of the 10-Year Plan as well as elements 2.0 *ACHIEVE WIDESPREAD ILLINOIS URBAN FORESTRY SUSTAINABILITY AND MANAGEMENT* and 3.0 *EDUCATION AND TRAINING FOR PROFESSIONALS AND NONPROFESSIONALS* in the Illinois Plan.

Improving Aurora's Urban Forest will employ a variety of strategies to engage the community in the city's urban forestry. The city's Community Affairs Department employs Neighborhood Outreach Specialists who engage with community members throughout the city, with a special emphasis on disadvantaged and disenfranchised residents, including the 36.2% of the city's population who speak Spanish. Neighborhood Outreach Specialists facilitate regular meetings and activities with 25 officially recognized Neighborhood Groups throughout the city, and new groups may be formed as need arises. This project will host joint tree-planting and urban forestry education events with the Neighborhood Groups that serve disadvantaged areas and other strategically selected community groups, focusing on the disadvantaged neighborhoods. Consultants will work alongside the outreach specialists, providing subject matter expertise in a culturally sensitive manner. Through after-school programs and city-sponsored summer youth camps children from disadvantaged areas of the city will participate in urban forestry educational activities and related field trips. Attachment A lists all public elementary, middle, and high schools in Aurora and designates the schools to be served by this project. The entire city will be engaged in the tree inventory and ongoing urban forest management practices through the City of Aurora Open Data Portal, a transparent, GIS-based website already used to share map-based information about police activity, economic development, and more with the general public. Tree inventory data and related educational information will be added to the Open Data Portal following policies and procedures that will be established as part of developing the urban forest management plan, and may include enhanced opportunities for community members to interact with data on the platform. This activity aligns with goals 1C, 2D, 3B, 7A, and 7C of the 10-Year Plan as well as elements 3.0 *EDUCATION AND TRAINING FOR PROFESSIONALS AND NONPROFESSIONALS* and 6.0 *EXPAND AND SUPPORT ADVOCACY* of the Illinois Plan.

Lastly, *Improving Aurora's Urban Forest* will directly enhance Aurora's urban forest beyond the improvements in management practices anticipated by developing and implementing an urban forest management plan. This project will plant approximately 121 new trees each year to expand the tree canopy in disadvantaged and environmental justice neighborhoods, focusing on areas with low canopy cover or other environmental concerns. Dead standing trees and trees deemed Extreme or High risk according to the ISA BMP for Risk Assessment as part of the tree inventory process will be removed, and trees will be pruned as necessary. The number of trees planted will equal or exceed the number of trees removed within a year of tree removal. All tree-related work completed under this grant will follow the latest relevant ANSI standards (e.g.,

ANSI Z60.1 Nursery Stock Standards, A300 Standards for Tree Care Operations) and International Society of Arboriculture Best Management Practices or equivalent. New trees planted will conform to the City of Aurora's Arboricultural Specifications Manual and the most recent version of the Approved Tree Species List, included as Attachments C and D with this application. The City of Aurora Arboricultural Specifications Manual and Approved Tree Species list are developed in consultation with certified arborists knowledgeable of local climate, site characteristics, and tree species. No state-listed invasive species, including invasive species listed as "restricted," "pending further review," or "non-restricted," or that are on a watch list are included on the approved species list or will be planted through this project. The City of Aurora Arboricultural Specifications Manual and Approved Tree Species List may be modified during the course of this project. If and when this occurs, the revised versions will be submitted to the USDA Forest Service for review. When possible, new tree planting areas and/or areas needing restoration following removal of damaged/diseased trees may be restored using both woody and non-woody native plants to encourage biodiversity, sequester additional carbon, restore depleted soils, reduce reliance on chemical treatments and mowing, and reduce runoff and flooding. This activity aligns with goals 1D, 4A, 4B, 4C, 5A, 5B, and 5C of the 10-Year Plan as well as elements 1.0 *IMPROVE AND EXPAND FOREST COMPOSITION AND HEALTH* and 4.0 *URBAN FOREST PLANTS, INSECT, AND DISEASE INVASIVE SPECIES AWARENESS AND MANAGEMENT* of the Illinois Plan. Due to the intensive nature of the inventory, pruning, and planting work, initial efforts will be concentrated in a core area within the disadvantaged census tracts. This area is shown by the blue outline in Attachment B- Forestry Grant Map Project Area.

2. Implementation Strategy/Methodology/Timeline:

The activities of *Improving Aurora's Urban Forest* will be completed by a combination of well-qualified contractors and city staff. The tree inventory, development and implementation of the urban forest management plan, and portions of the labor for tree planting, pruning, and removal of dead, damaged, or diseased trees deemed Extreme or High risk according to the International Society of Arboriculture (ISA) Best Management Practices for Risk Assessment will be performed by contractors who are Tree Risk Assessment Qualified. All contracts will be procured through a competitive process, following federal and local guidelines. Professional education for tree maintenance staff will be obtained in cooperation with the Illinois Arborist Association or similar education provider(s) appropriately aligned with the ISA and may include instruction in foundational subject matter to improve ISA certification success rates. Trees will be purchased through local nurseries following the city's approved species list and local tree purchasing guidelines. Community education activities will be overseen and coordinated by city staff with educational content developed/delivered by contracted providers such as area environmentally focused nonprofit organizations like the Conservation Foundation and the Morton Arboretum, and/or by qualified individuals, including teachers and professors. City staff will collaborate with education providers to ensure that content is culturally and linguistically sensitive. The table below outlines the project timeline, including milestones, outcomes/assessment methods, and the responsible parties for each activity.

Activity/Milestone	Start – End Dates	Outcomes/Assessment	Responsible party
Issue press releases, create website and social media posts announcing grant award. May repeat as project activities begin/end.	April-June 2024	Press release(s) issued. Website updated. Social media updates posted. Measured via # of website views/impressions.	Dir. of Communications

Activity/Milestone	Start – End Dates	Outcomes/Assessment	Responsible party
Develop & issue bid package for tree inventory & development of urban forest management plan.	Feb. – mid-April 2024	Tree inventory specifications and contractor qualifications defined. Bid packets advertised and distributed.	Superintendent, Streets Div.; GIS Manager; Cert. Arborist(s)
Open and award bids, execute contracts for tree inventory & urban forest mgmt. plan	April- May 2024	Fully executed contracts for tree inventory and dev. of urban forest mgmt. plan	Super., Streets Div.
Hire community engagement provider(s) for general audience comm./ engagement.	March – April 2024	Fully executed contract for community engagement provider.	Chief Communications and Equity Officer.
Develop calendar & map of comm. ed. & tree planting events with Neighborhood Groups in 6-mo. increments. Conduct activities as scheduled. Repeat semi-annually.	Mar-Apr 2024 and every Jan. & June thereafter through 2028	6-month event calendar w/confirmed locations and dates posted on city's website. Attendance count from events. Voluntary survey data from attendees.	Chief Communications and Equity Officer in consultation w/cert. arborist(s) & Super., Streets Div.
Order diverse trees for spring planting. Ensure trees are planted w/mulch & water bags. Repeat annually.	Mar. – early June '24, '25, '26, '27, & '28	Approx. 65 inventoried trees planted each spring during project period, including community engagement and Streets Div. planting.	Super., Streets Div.; Cert. Arborist(s)
Order diverse trees for fall planting. Ensure trees are planted w/mulch & water bags. Repeat annually	Sept. – Nov. '24, '25, '26, '27, & '28.	Approx. 65 inventoried trees planted each fall during project period, including community engagement and Streets Div. planting.	Super., Streets Div.; Cert. Arborist(s)
Hire & schedule education and transportation providers for youth programs. Schedule field trip locations. Repeat annually.	Mar., May, and August '24, '25, '26, '27, & '28.	Fully executed contracts with providers. Schedules and locations for tree-focused environmental education activities finalized.	Youth Services Mgr.

Activity/Milestone	Start – End Dates	Outcomes/Assessment	Responsible party
Develop assessment and/or survey for youth program participants.	Mar. – May. 2024. May be repeated as necessary	Pre- and post-assessment tool to measure changes in knowledge &/or attitudes about trees & related topics.	Youth Services Manager, Cert. Arborist &/or contracted education provider
Conduct tree/environmental education activities in youth programs at designated schools. Repeat annually.	Summer camp: June-July annually, Spring semester afterschool programs: April-May ’24, & Jan-May ’25-’28. Fall semester afterschool programs Sept-Dec ’24-’28	Approx. 375 youth will participate in tree/env. ed. & field trips annually. Youths’ knowledge &/or attitudes about subject matter are expected to improve per pre- & post-assessment measurements.	Youth Services Manager
Conduct tree inventory, recording tree data in the designated project area.	May 2024 – April 2029	GIS inventory of inventory of all city-owned trees meeting the criteria defined in the bid specs and/or refined through dev. of urban forest mgmt. plan.	Contractor, supervised by Super., Streets Div.
Develop and issue urban forest mgmt. plan, incorporating inventory data and community input	July 2024 – June 2025	Completed management plan aligned with fed. and state plans.	Contractor, supervised by Super, Streets Div.
Revise city ordinance as needed to align with urban forest management plan. Obtain City Council approval for urban forest mgmt. plan and revised ordinance	June 2025 – March 2026	Fully recognized and adopted urban forest management plan. Revised city ordinance (as appropriate)	Tree Board/Deputy Chief of Staff
Develop guidelines for tree inventory on Open Data Portal, including inventory update schedule/parameters. Create and launch tree inventory page.	March 2024 – February 2025	Open Data Portal tree inventory data accessible to the public	Open Data Committee; GIS Mgr.; Super., Streets Div.; Tree Board

Activity/Milestone	Start – End Dates	Outcomes/Assessment	Responsible party
Update tree inventory on Open Data Portal following est. schedule, at least semi-annually.	March. 2025 – Feb. 2029	Revised tree inventory data available to public on Open Data Portal every 6 months.	GIS Mgr., tree inventory contractor
Perform maintenance on inventoried trees/land, informed by urban forest mgmt. plan & including but not limited to invasive species removal & site restoration. Repeat annually.	April 2024 – Feb. 2029 as trees/sites needing work are identified	Reduction of dead, damaged, & diseased trees deemed Extreme or High risk according to the ISA BMP for Risk Assessment. Improvement of areas assessed and recorded as part of tree inventory process.	Super., Streets Div.; Super., Parks; Downtown Services Mgr., tree inventory contractor
Street signs announcing grant award designed and installed	April 2024 – March 2025	Signs installed along all major thoroughfares entering the city.	Super., Streets Div.
Educational information signs purchased and installed at planting, restoration, and other appropriate sites.	March 2024 – Feb. 2029, as locations identified	Approx. 4 signs installed annually.	Super., Streets Div.; Super., Parks; Downtown Services Mgr.

Please add in how trees will be watered and monitored for at least two seasons to ensure planted trees survive and thrive.

Standards and Best Management Practices

All tree-related work completed under this grant will follow the latest relevant ANSI standards (e.g., ANSI Z60.1 Nursery Stock Standards, A300 Standards for Tree Care Operations) and International Society of Arboriculture Best Management Practices or equivalent as well as the City of Aurora Arboricultural Specifications Manual (Attachment C).

For planting projects, species lists will be developed by a technical expert knowledgeable of local climate, site characteristics, and tree species. Planting projects will not install any **state-listed invasive species**, including invasive species listed as "restricted," "pending further review," or "non-restricted," or that are on a watch list. The City of Aurora's existing Approved Tree Species List (Attachment D) has been developed in consultation with experienced local certified arborists and does not include any invasive species. New trees planted through this project will be limited to species on the city's approved species list.

Trees planted through this project will be supplied with 3 – 4 inches of wood chip mulch and a watering bag. To ensure trees are properly cared for, trees will only be planted on private property or on city-owned parkways in front of residences or business at the resident's or owner's request. For the first two years, residents/owners will be responsible for monitoring trees and refilling watering bags for trees planted on private property or in city-owned parkways immediately adjacent to homes. Residents will be provided with educational materials providing instructions about how to care for the trees and how and when to refill the water bag. Residents will also be asked to sign a Tree Maintenance Agreement (Attachment E). City staff or

designees, such as tree maintenance contractors and/or volunteers, will monitor trees and maintain watering bags for trees installed on street islands and other city-owned land where assigning responsibility to residents is impractical. Trees monitored by city staff or city designees will be subject to the same care requirements described in the Tree Maintenance Agreement.

3. Capability and Capacity:

The City of Aurora typically manages between $7-20 million in grant funds annually, primarily from federal and state sources, ensuring compliance with procurement, expenditure, and reporting requirements. The foundational activities of the project, the tree inventory and development of the urban forest management plan, will be completed by well-qualified contractors secured through sealed bid. Bid specifications and contractor requirements will be developed by the Superintendent and Assistant Superintendent of the Streets Division, Tim Forbes and Adrian Perez, respectively, with over 30 years of combined experience in municipal maintenance including tree care, in consultation with arborists on the city staff and/or the city's volunteer Tree Board. Mr. Forbes and Mr. Perez will oversee the contractor(s)' work; schedule and monitor city maintenance workers assigned to tree care duties for the project; and order and plant trees per the approved species list and urban forest management plan, when it becomes available.

The Community Engagement Manager, reporting to the Chief Communications and Equity Officer, will be responsible for overseeing the community outreach activities of the project. The Community Engagement Manager is a tentative title for a new position overseeing the Neighborhood Outreach Specialists and is currently vacant. The Community Engagement Manager will be assisted by Simon Rodriguez, the bilingual Youth Services Manager, who will oversee the youth programming. Mr. Rodriguez is a former teacher who has developed and delivered youth programs since 2007.

Tree inventory data will be stored in the city's GIS system, and data will be made public through the city's Open Data Portal managed by GIS Manager, Tim Shields, who has worked in various capacities in municipal GIS departments since 2010. The work of the project will be closely monitored by the city's nine-member Tree Board, chaired by Deputy Chief of Staff, Alexandra Voigt, who has chaired the Tree Board for the past seven years.

Communications Plan:

The City of Aurora will post signage recognizing the grant near the city's Tree City USA signs and at entrances to the city along major thoroughfares. The signs will be designed for maximum readability and in accordance with USDA guidelines for the grant. These signs will be installed by Streets Division maintenance workers, and if design considerations permit, the signs will be produced by the city's sign shop. Additional educational signage will be installed in areas that receive significant tree planting, clearing of invasive species and restoration, or similar *Improving Aurora's Urban Forest* project activities as appropriate. These signs will be purchased from vendors and will be installed in locations of high visibility to pedestrian traffic where they will have the greatest educational impact on the community, such as in parks or along the downtown riverwalk.

Following the Mayor's Office of Community Affairs' communications protocol and any stipulations of the grant agreement, the city will announce the grant award by issuing a press release to local media, including major Chicago-based broadcasters. Announcements will be posted on the city's website and social media sites and the grant will be formally accepted and acknowledged by City Council and permanently recorded in the City Clerk's archives. Acknowledgement of funding information will be included in any print materials created or distributed through grant funds, including educational material, and on the city's Open Data Portal when tree inventory information becomes accessible to the public on that site.

5. Evidence of Disadvantaged Community Status:

All work completed with this grant's funding will take place in or benefit disadvantaged communities as defined by the federal Climate and Economic Justice Screening Tool or Opportunity Zones.

List or Table of Census Tracts where Project Work is Planned/Eligible:

If changes occur to work locations during grant implementation, an updated list will be provided to the U.S. Forest Service grant monitor for review.

The initial project area for tree inventory, pruning, and planting (Tree Care Activities) will include the census tracts listed below and within the project area boundaries identified on Attachment B – Forestry Grant Map Project Area. All census tracts listed are identified as disadvantaged on either the CEJST or Opportunity Zones maps, but only portions of some census tracts are included in the initial project area. If any included census tract crosses City of Aurora boundaries, the tree inventory, maintenance, and planting activities of the project will occur only in the portions of the tract within the City boundaries.

Education and outreach activities will serve residents in all disadvantaged census tracts throughout the city, and activities will occur at sites within the disadvantaged census tracts whenever possible. Education sessions serving residents of disadvantaged census tracts may be held in locations outside of the disadvantaged tracts if a suitable location within the tract is not available. Education and outreach sessions will focus on schools that serve students within the disadvantaged census tracts and neighborhood groups consisting primarily of residents of disadvantaged census tracts. Attachment A – Schools lists all public elementary, middle, and high schools in Aurora along with their census tract numbers and designates the schools that will be served by this project.

The Tree Care Activity project area may expand to additional disadvantaged areas within the City of Aurora if time and funding permit. If changes occur to work locations during grant implementation, an updated map will be provided to the U.S. Forest Service grant monitor for review. Because all of the listed census tracts intersect, at least partially, with the designated Tree Care Activity area, we do not anticipate adding additional census tracts, except in the event of a mapping error.

Tree Care Activity Project Area		
Census Tract #	CEJST	Opportunity Zone
17089852905	X	
17089852907	X	
17089852908	X	
17089853008	X	
17089853100	X	
17089853200	X	X
17089853300	X	
17089853400	X	X
17089853500	X	
17089853600	X	X
17089854100	X	
17089854200	X	
17089854301		X
17089854400		X
17089854700	X	

Reporting and Acknowledgment:

Semi-annual progress reports for periods ending June 30 and December 31 will be submitted to SM.FS.R9SPFgrants@usda.gov and the U.S. Forest Service (USFS) grant monitor no later than July 31 and January 31 each year. Project updates outside of these timeframes and any additional future reporting requirements will be provided upon request.

The U.S. Forest Service and Inflation Reduction Act will be acknowledged as a funding source for work performed under this grant, including any future signage requirements. The USDA non-discrimination statement will be present on products resulting from this grant (including online content). Use of the USFS logo will be pre-approved through the USFS grant monitor.

The Forest Service grant monitor will be included when sharing communication products, making announcements, and conducting other significant outreach efforts regarding this grant.

Non-Federal Funds Match Waiver:

A match waiver has been authorized for this grant, requiring that 100% of work takes place in or benefits disadvantaged communities. Match waiver will be passed on to any sub-awardees.

Budget:

Budget Items by SF 424A Object Class Categories	**Federal $**
a. Personnel	**$0**
b. Fringe Benefits	**$0**
c. Travel	**$0**
d. Equipment*	
e. Supplies	**TOTAL $ 335,865**
New trees (planted cost)	$269,034
Water bags for new trees	$16,385
Mulch for new trees	$4,051
Native plants	$21,664
Street signage	$2,351
Educational signage	$22,380
f. Contractual	**TOTAL $ 664,135**
Perform tree inventory	$44,597
Develop and refine urban forest management plan	$59,285
Prune trees and/or remove invasive species and/or diseased trees/vegetation	$361,020
Provide environmental/tree-focused community education	$20,473
Provide environmental/tree-focused youth programming	$119,490
Provide transportation for environmental/tree-focused field trips in youth programs	$23,890
Fees for certified arborist(s) and TRAQ certification education, exams, associated IAA/ISA membership, and continuing education costs	$32,000
TRAQ certification training and exam	$3,380
g. Construction (Not allowable expense)	
h. Other	**$0**
i. Total Direct Charges (sum of a-h)	**$1,000,000**
j. Indirect Charges	**$0**
k. Totals (i + j)	**$1,000,000**
l. Program Income**	$0

Budget Narrative:

Supplies

Supply cost calculations reflect year one costs with a 4% annual increase applied to supply costs for years two through five.

- Trees: $410.50 average installed cost/tree in Y1 for trees 1.5" – 2.5" in diameter depending on species.
    - Grant funds will pay for 121 trees (1.5-2.5 inch caliper)/year at a cost of $49,671 in Y1, $51,658 in Y2, $53,724 in Y3, $55,873 in Y4, and $58,108 in Y5 for a total of $269,034.
- Tree watering bags: $25/bag in Y1
    - Grant funds will pay for 121 tree bags/year at a cost of $ 3,025 in Y1, $3,146 in Y2, $3,272 in Y3, $3,403 in Y4, and $3,539 in Y5 for a total cost of $16,385
- Mulch applied to newly planted trees at roughly 0.412 cubic yards/tree.
    - Grant funds will pay for 50 cubic yards/year (121 trees X 0.412 yards/tree) at a cost of $15/cubic yard = $748 in Y1, $778 in Y2, $809 in Y3, $841 in Y4, and $875 in Y5 for a total of $4,051.
- Grant funds will pay for site appropriate native plants used as understory, to restore areas cleared of dead or diseased trees, reduce runoff in stream/riverbank areas, or otherwise improve environmental conditions, as needed. $4,000 in Y1, $4,160 in Y2, $4,326 in Y3, $4,499 in Y4, and $4,679 in Y5 for a total of $21,664.
- Grant funds will pay for street signage announcing the grant project at main entry points to the city and other strategic locations. 50 signs @ $47.01 each = $2,351 in Y1. This cost represents the material cost only. Signs will be installed by city staff at no cost to the grant.
- Grant funds will pay for educational/informational signage in parks and other appropriate locations. $1,033/location @ 4 locations/year = $4,132 in Y1, $4,297 in Y2, $4,469 in Y3, $4,648 in Y4, and $4,834 in Y5 for a total of $22,380. Cost is for materials only. Signs will be installed by city staff or contractors at no cost to the grant.

Total grant funds for supply costs: $63,927 in Y1 + $64,039 in Y2 + $66,600 in Y3 + $69,264 in Y4 + $72,035 in Y5 = $335,865.

Contractual

Grant funds will pay for each contractual cost line item. Calculations reflect year one costs with a 3% annual increase applied to contractual costs for years two through five.

- Tree inventory of designated disadvantaged areas by qualified contractor: 12,000 total trees estimated in the tree activity project area. $3.50/tree in Y1 X 2,400 trees inventoried/year = $8,400 in Y1, $8,652 in Y2, $8,912 in Y3, $9,179 in Y4, and $9,454 in Y5 for a total of $44,597.
- Contractor to develop urban forest management plan Y1 and provide consultant services in Y2 - Y5 to help address top issues identified in the plan and revise plan based on new data, if necessary.
    - $30,000 in Y1 + $7,000 in Y2 + $7,210.00 in Y3 + $7,426.00 in Y4 + $7,649.00 in Y5 = $59,285.
- Contractor to remove dead, damaged, and diseased trees per City of Aurora Arboricultural Specifications Manual and the latest relevant ANSI standards (e.g., ANSI Z60.1 Nursery Stock Standards, A300 Standards for Tree Care Operations) and International Society of Arboriculture Best Management Practices or equivalent, and

prune trees as needed. $68,000 in Y1 + $70,040 in Y2, $72,141 in Y3, $74,305 in Y4, and $76,534 in Y5 for a total of $361,020.

- Community education provider(s) to conduct culturally appropriate educational sessions and related non-youth educational activities for residents of disadvantaged areas. 25 hours/year @ $154.25/hour = $3,856 in Y1, $3,972 in Y2, $4,091 in Y3, $4,214 in Y4, and $4,340 in Y5 for a total of $20,473.
- Community education provider(s) to provide tree-related environmental education for youth from disadvantaged areas. $125.04/hr. for 10 hrs/yr. @ 18 schools/sites = $22,507 in Y1, $23,182 in Y2, $23,877 in Y3, $24,593 in Y4, and $25,331 in Y5 for a total of $119,490.
- Transportation for summer youth program participants to tree-education field trips. $500/bus/trip X 1 bus/site X 1 trips/site/yr. X 9 sites = $4,500 in Y1, $4,635 in Y2, $4,774 in Y3, $4,917 in Y4, and $5,064 in Y5 for a total of $23,890.
- Certified Arborist Training & Exam for eight maintenance workers/year @ $800/yr. No annual increase is included in this line item. $800/yr. X 8 workers = $6,400/yr. X 5 years = $32,000 total. The city will absorb reasonable cost increases for this line item over the period of performance.
- Tree Risk Assessment Qualification (TRAQ) certification training and exam: 4 workers X $845/person = $3,380. This is a one-time cost and is projected to occur in year two.

Total grant funds for contractual costs: $143,663 in Y1 + $127,261 in Y2 + $127,405 in Y3 + $131,034 in Y4 + $134,772 in Y5 = $664,135.

Other (sub-grants only)

No subgrants are included in this project.

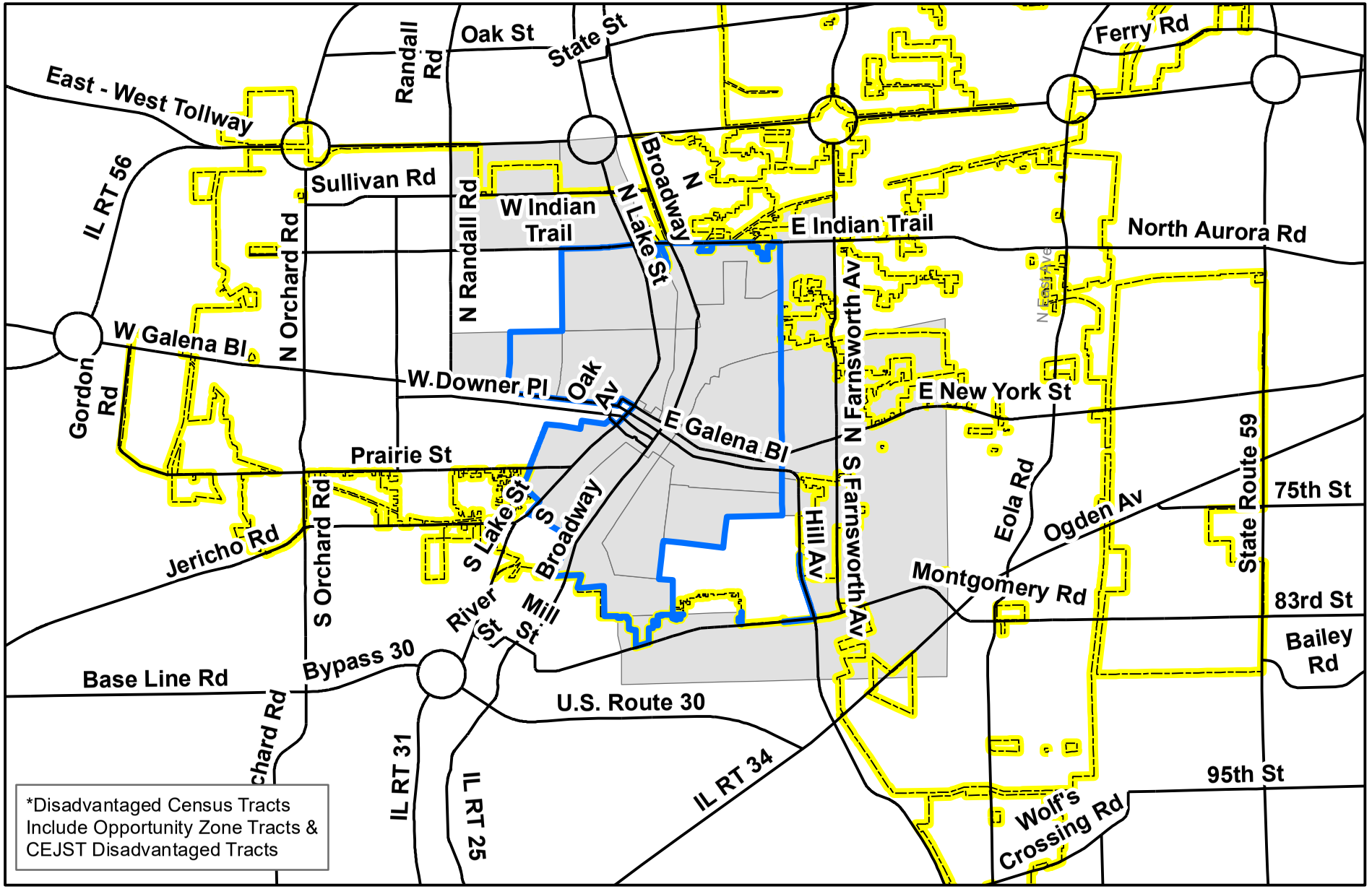
Indirect Costs

No indirect costs are included in this project.

School Name	District	Address	Zip	Census Tract #	In initial tree inventory & trimming project area	Disadvantaged designation of school address	Schools served by USDA IRA UCF Project	Notes on school enrollment area
Greenman Elementary	129	729 W. Galena Blvd.	60506	17089853100	Y	CEJST	Y	
Hill Elementary	129	724 Pennsylvania Ave.	60506	17089852905	Y	CEJST	Y	
Jefferson Middle School	129	1151 Plum St.	60506	17089853100	N	CEJST	Y	
McCleery Elementary	129	1002 W. Illinois	60506	17089853100	N	CEJST	Y	
Smith Elementary	129	1332 Robinwood Dr.	60506	17089853008	N	CEJST	Y	
West Aurora High School	129	1201 W. New York St.	60506	17089853100	N	CEJST	Y	
Allen Elementary	131	700 S. Farnsworth	60505	17089854400	N	Opportunity Zone	Y	
Bardwell Elementary	131	550 S. Lincoln	60505	17089854200	Y	CEJST	Y	
Beaupre Elementary	131	954 E. Benton St.	60505	17089853600	Y	CEJST & Opportunity Zone	Y	
Brady Elementary	131	600 Columbia St.	60505	17089853400	Y	CEJST	Y	
Cowherd Middle School	131	441 N. Farnsworth Ave.	60505	17089852904	N	CEJST	Y	
Dieterich Elementary	131	1141 Jackson St.	60505	17089854100	Y	CEJST	Y	
East Aurora High School	131	500 Tomcat Lane	60505	17089854302	N	None	Y	While EAHS is not located in a disadvantaged census tract, the vast majority of the students who attend EAHS live in disadvantaged tracts. EAHS is the only high school in the district, and all but three of D131's elementary schools are in disadvantaged census tracts. Two of the three elementary schools not located in disadvantaged areas serve neighborhoods where at least half of the enrollment area is disadvantaged.
Fred Rodgers Magnet Academy	131	157 N. Root St.	60505	17089853400	Y	CEJST & Opportunity Zone	Y	FRMA is located in a disadvantaged census tract. Because FRMA is a special enrollment school, children from throughout D131 may attend this school, and most of D131 is disadvantaged.
Gates Elementary	131	800 7th Ave.	60505	17089854302	N	None	Y	More than half of Gates Elementary's service area is disadvantaged.
Hermes Elementary	131	1000 Jungles Ave.	60505	17089852907	Y	CEJST	Y	
Johnson Elementary	131	1934 Liberty St.	60505	17089852904	N	CEJST	Y	
Krug Elementary	131	240 Melrose Ave.	60505	17089854002	N	None	Y	More than half of Krug Elementary's service area is disadvantaged.
Oak Park Elementary	131	1200 Front St.	60505	17089853500	N	CEJST	Y	
Rollins Elementary	131	950 Kane St.	60505	17089853400	Y	CEJST	Y	
Simmons Middle School	131	1130 Sheffer Rd.	60505	17089852907	N	CEJST	Y	
Waldo Middle School	131	56 Jackson St.	60505	17089853600	Y	CEJST	Y	

School Name	District	Address	Zip	Census Tract #	In initial tree inventory & trimming project area	Disadvantaged designation of school address	Schools served by USDA IRA UCF Project	Notes on school enrollment area
Freeman Elementary	129	153 S. Randall Rd.	60506	17089853900	N	None	N	A small portion of Freeman's service area is disadvantaged.
Hall Elementary	129	2001 Heather Dr.	60506	17089853005	N	None	N	None of Hall's service area is disadvantaged.
Herget Middle School	129	1550 Deerpath Rd.	60506	17089854503	N	None	N	None of Herget's service area is disadvantaged.
Washington Middle School	129	231 Constitution Dr.	60506	17089854001	N	None	N	A very small portion of the Washington service area is disadvantaged.
O'Donnell Elementary	131	1640 Reckinger Rd.	60505	17089852903	N	None	N	None of the O'Donnell service area is disadvantaged.
Brooks Elementary School	204	2700 Stonebridge Blvd.	60502	17043846408	N	None	N	
Fischer Middle School	204	1305 Long Grove Dr.	60504	17043846515	N	None	N	
Georgetown Elementary	204	995 Long Grove Dr.	60504	17043846515	N	None	N	
Gombert Elementary	204	2707 Ridge Rd.	60504	17043846511	N	None	N	
Granger Middle School	204	2721 Stonebridge Blvd.	60502	17043846408	N	None	N	
McCarty Elementary	204	3000 Village Green Dr.	60504	17043846515	N	None	N	
Metea Valley High School	204	1801 N. Eola Rd.	60502	17043846408	N	None	N	
Steck Elementary	204	460 Inverness Dr.	60504	17043846518	N	None	N	
Still Middle School	204	787 Meadowridge Dr.	60504	17043846514	N	None	N	
Waubonsie Valley HS	204	2590 Ogden Ave.	60504	17043846518	N	None	N	
Young Elementary	204	800 Asbury Dr.	60502	17043846507	N	None	N	
Bednarcik Junior High	308	3025 S. Eola Rd.	60503	17197880314	N	None	N	
Homestead Elementary	308	2830 Hillsboro Blvd.	60503	17197880326	N	None	N	
Wheatlands Elementary	308	2290 Barrington Dr. West	60503	17197880325	N	None	N	
Wolf's Crossing Elementary	308	3015 S. Eola Rd.	60503	17197880314	N	None	N	
		Schools in initial inventory/trimming project area			10			
		Schools not in initial inventory/trimming project area			32			
				Total	42			
				Schools in disadvantaged areas		**19**		East Aurora 131 school maps
				Schools not in disadvantaged areas		23		https://www.d131.org/district-boundaries/
					Total	42		
					Schools served by Project		**22**	Three EA131 schools located outside of disadvantaged areas are included because a majority of the students served by those schools live in disadvantaged areas.
					Schools not served by Project		20	No Indian Prairie 204 or Oswego 308 schools are served by this project.
						Total	42	

Attachment B



Project Area - Tree Care Activities

Disadvantaged Census Tracts

City Limits

Forestry Grant Disadvantaged Areas

N W E S

Not To Scale

Prepared By: The City of Aurora GIS Div.

Date: 1/29/2024

Attachment C

CITY OF AURORA TREE BOARD

ARBORICULTURAL SPECIFICATIONS MANUAL
AURORA, ILLINOIS

AURORA
CITY OF LIGHTS

ARBORICULTURAL SPECIFICATIONS MANUAL
AURORA, ILLINOIS

1. Authority

Pursuant to authority granted under "An Ordinance Regulating the Planting, Maintenance and Removal of Trees, Shrubs, and Other Plants"; Chapter 47 of the Code of Ordinances for the City of Aurora, adopted by the City Council of Aurora, Illinois on the 17th day of November, 1992, the City of Aurora hereby promulgates the following as the Aboricu1tural Specifications and Standards of Practice for Aurora, Illinois, herein called the Arboricultural Specifications Manual. Revisions approved on November 28, 2023.

2. Policy

All work on public trees shall comply with "An Ordinance Regulating the Planting, Maintenance and Removal of Trees, Shrubs, and Other Plants" of the city of Aurora, Illinois, and this Arboricultural Specifications Manual.

The Arboricultural Specifications Manual shall be open to revision at any time that experience, new research, or laws indicate that improved methods or circumstances make it advisable, and only then by the Aurora Tree Board with advice and assistance from a certified arborist and approval of the City Council, all as provided by in the above said Ordinance.

3. General Specifications

3.1 The Arboricultural Specifications contained in this document are to serve as a standard for all work performed on or with all public trees. These standards will apply whether the work is performed "in-house" or by a licensed entity contracted by the city.

3.2 It shall be unlawful for any person to engage the business of planting, cutting, trimming, pruning, removing, spraying or otherwise treating any tree, shrub or other plant within the City of Aurora without first procuring a license as required by the City Tree Ordinance (section 47-41). All motor vehicles and other major equipment of any licensed business shall be clearly identified with the name of the licensee.

3.3 Work on or with public trees, shrubs or other plants is expressly prohibited unless done by the City of Aurora or by a licensed entity contracted by the City of Aurora to perform such work.

3.4 All licensed personnel utilized for work on or with trees within the City of Aurora, shrubs or other plants shall be trained to perform the work properly and safely in accordance with these Arboricultural Specifications as well as the latest version of the American National Standard Institute Standards for Arboriculture Operations (ANSI Z133).

3.5 Any injury to persons or damages to any improvement, vehicle, tree, shrub, plant, or structure while working with trees, shrubs, or other plants shall be promptly reported to the City of Aurora's Human Resources and the Law Department.

3.6 Any use of tools and equipment for pruning, trimming, repairing, maintaining, and removing trees, and cutting brush must be in accordance with the current American National Standards Institute Standards (ANSI Z133.1).

3.7 Whenever electric lines, telephone lines, gas lines, water lines, sewer lines, or other improvements, public or private, upon a public area will be implicated or jeopardized by any authorized tree, shrub or other plant activity, the proper authorities of the utilities involved, and property owner involved shall be consulted prior to performing any work activity and all requested precautions by any such authority shall be followed.

3.8 The Arboricultural Specifications Manual, the standard for work performed on or with trees, shrubs and other plants on a daily basis, shall be updated by the Aurora Tree Board with advice and assistance of a certified arborist at least every five years.

4. Plants

4.1 Street Tree Definition: All trees on public right-of-way between the curb and the property line along the side of streets or in medians of all streets, avenues or ways within the City.

4.2 Species, Cultivars and Varieties

4.2.1 **Table I: City of Aurora Approved Street Tree Species List**, lists the approved tree species or their varieties and cultivars acceptable for planting on City right-of-way or City-owned property. The trees are listed by their scientific name, common name, and size. The size of tree to be planted will depend on the width of the planting strip and available vertical growing height. The approved species list is available on the City of Aurora website www.aurora-il.org.

4.2.2 It is recommended that Northern Illinois native tree species be favored in selection due to their inherent characteristics and adaptability to our environmental conditions.

4.2.3 Unacceptable tree species or their varieties contained in Table II shall not be planted on City right-of-way or other City-owned except in special locations when approved by the Tree Board. The list of unacceptable trees for parkway plantings is available on the City of Aurora website www.aurora-il.us

It is recognized that there are trees contained in the list of unacceptable trees presently growing in the city right-of-way because of previous planting. Upon the removal of these trees, if the planting space is to be replanted, it shall be replaced by an approved and accepted species.

4.2.4 Tree genera and species not listed in either table or the approved species list may or may not be acceptable. Plants, which fall under these criteria, should be brought to the attention of the Tree Board for review. The Tree Board shall review the list of acceptable and unacceptable trees no less than every five years to determine appropriate revisions.

4.2.5 When a specified site has been assigned a particular species and/or variety of plant, only that designated plant shall be used at the site. If that species shall be replaced, it shall be replaced by the same species and/or variety upon removal except upon revision, and approval by the Tree Board or a certified arborist employed or contracted by the city, of the planting plan, which governs the site.

4.2.6 All new plantings shall adhere to Santamour (1990) guidelines for tree plantings within a city which specifies that municipalities should plant no more than 30% of a single Family (e.g. Aceraceae, Maple), no more than 20% of a single Genus (e.g. Acer) and no more than 10% of a single species (e.g. Acer saccharum).

4.2.7 All new plantings shall be recorded on a list (a tree inventory) that will be turned into a publicly available map and/or database to ensure no one species is overplanted.

5. Planting Stock Requirements

5.1 Size

5.1.1 All medium to large trees and their cultivars or varieties to be planted shall conform to the latest version of the American Standards for Nursery Stock ANSI Z60.1, unless otherwise specified by the official City designee. The trees and their cultivars or varieties shall be single-stemmed, have one dominant trunk, branches should be less than two-thirds trunk diameter, be a minimum of 1-1/2 inches in diameter, measured six (6) inches above the ground, have a root ball no less than twenty (20) inches in diameter and be no less than eight (8) feet in height.

Medium and Large Trees

Caliper diameter (inches)	1.5”	2.0”	2.5”	3.0”
Minimum root ball diameter	20”	24”	28”	32”
Minimum height	8’	10’	10’	12’
Maximum height	12’	14’	14’	16’

All small trees and their cultivars or varieties to be planted shall conform to American Standard for Nursery Stock ANSI Z60.1, 2004 unless otherwise specified by a certified arborist.

Small Trees

Height	5 feet	6 ft. and above		
Caliper diameter (inches)		1”	1.5”	2.0”
Minimum root ball diameter	16”	18”	20”	24”

5.2 Grade: All trees and their cultivars or varieties at the time of planting shall be free from disease, harmful insects, mechanical injuries or other objectionable features that will affect the future health and/or the overall appearance. They shall have straight trunks and well-developed, balanced branching patterns. The trees shall have a well-developed root system characteristic of the species and cultivar or variety and exhibit evidence of proper nursery pruning practices. Additional grade requirements shall be in accordance with the standards set forth in American Standard for Nursery Stock, ANSI Z60.1, 2004.

5.3 Type: All trees and their cultivars or varieties to be planted shall be balled and burlapped. No bare rooted plants will be accepted. Trees grown in root-control bags and containers are acceptable with approval by a certified arborist either employed or contracted by the city.

5.4 Acceptance: All planting stock shall be inspected upon arrival. Any plant that does not meet the standards of this manual will not be accepted.

5.5 Transport
All planting stock shall be handled with care as to minimize damage to any part of the tree. Planting stock shall be handled by the root ball and is not to be dragged, thrown or dropped off an elevated platform. Any tree that exhibits poor handling or has sustained damage during transport to planting site or holding site shall be rejected and replaced at the contractor’s cost.

Root balls of planting stock shall be monitored to prevent drying out and kept moist by watering as needed. If trees are not to be planted immediately root balls should be covered with mulch and kept moist.

Plants shall be secured during transit. The crowns of planting stock shall be covered when transporting over extended distances or at high speeds to prevent wind desiccation.

6. Planting Specifications

6.1.1 Site criteria and assessment of the planting site shall be conducted prior to the planting of trees as follows:

Visibility
Above and belowground hazards
Probability of long-term survival
Soil conditions (e.g. slope, drainage, compaction, new construction)
Amount of sunlight
Access to water or irrigation
Obstacles and utility location
Overall benefit to the community

6.2 Development

City projects: The development or redevelopment of a site owned by the City shall be subject to the planting standards of this manual. City projects include but are not limited to parks, streets, medians, substations, treatment plants, plazas, and city buildings. These projects shall allow for the appropriate amount of street tree plantings.

Private projects: Parkways or public thoroughfares within areas that are developed or redeveloped by a privately funded individual, partnership or entity shall be planted with the appropriate amount and composition of street trees. The street tree planting will be the financial responsibility of the individual, partnership or entity responsible for the project. The street trees shall be planted in the City- owned parkways according to the standards of this manual. Special consideration should be given to plant lists, location and spacing standards and planting standards.

6.3 Locations and Spacing

6.3.1 The size limit for tree sizes regarding parkway widths are as follows.

Tree Size	Minimum parkway width
Large Tree	8 feet
Medium tree	6 feet
Small tree	6 feet

6.3.2 Where there is a parkway width less than four (4) feet, the tree shall be planted beyond the sidewalk toward private property if the city has easement rights. If the city does not have easement rights then it is recommended that the city take the necessary steps to obtain easement rights.

6.3.3 Where trees are to be planted in the parkway or median they shall be centered and spaced evenly according to size along the planting strip.

6.3.4 No tree shall be planted on the parkway or in any public thoroughfare at a distance less than fifty (50) feet of an intersection and one hundred (100') feet from a traffic signal.

6.3.5 Trees shall be planted at least six (6') feet from driveways and fifteen (15') feet from alleys.

6.3.6 Medium to large trees shall not be planted closer than twenty (20') feet from all utility poles, to allow for line maintenance, and lamp posts, for proper lighting. Small trees shall not be planted closer than ten (10) feet from any utility poles or lampposts. All trees shall be planted a minimum of ten (10) feet from all utilities, including but not limited to: fire hydrants, water lines, sewer lines and water sewer mains.

6.3.7 Trees planted near any road sign shall be placed in a manner not to obstruct the visibility of any part of the sign at time of planting or in the future. If a sign will be moved to accommodate a tree, the sign shall be moved before the time of planting.

6.3.8 When overhead wires are present above planting strips, only small trees listed in TABLE I Approved Species List shall be planted. Exceptions may be made by the official City designee or Tree Board if the wires overhead are either transmission or main distribution lines that are at a height that will allow the planting of a medium sized tree.

Minimum Planting Distance from Objects

Above Ground	Minimum tree planting distance	
Object	**Medium and Large Trees**	**Small Trees**
City of Aurora water box	Ten (10) feet	Ten (10) feet
City of Aurora fire hydrant	Ten (10) feet	Ten (10) feet
City of Aurora streetlight	Twenty-five (25') feet	Twenty-five (25') feet
Utility pole	Ten (10') feet	Ten (10) feet
Driveway entrance	Six (6') feet	Six (6') feet
Alleys	Fifteen (15') feet	Fifteen (15') feet
Building or permanent structure	Fifteen (15) feet	Fifteen (15) feet
Proposed parkway tree		
Residential Streets	Thirty-five (35') feet	Twenty-five (25') feet
Arterial Roadways	Fifty (50') feet	Thirty-five (35') feet
Cross walk	Ten (10') feet	Ten (10') feet
Street Intersection		
Intersection	Fifty (50') feet	Fifty (50') feet
Stop Sign Light or Yield	Seventy-five (75') feet One Hundred (100') feet	Seventy-five (75') feet One Hundred (100') feet

Below Ground	Minimum tree planting distance	
Object	**Medium and Large Trees**	**Small Trees**
Water line	Ten (10) feet	Ten (10) feet
Sewer line	Ten (10) feet	Ten (10) feet
Water Sewer mains	Ten (10) feet	Ten (10) feet
Sanitary Line	Ten (10) feet	Ten (10) feet
Storm Sewer	Ten (10) feet	Ten (10) feet
Fiber Optic	Ten (10) feet	Ten (10) feet

6.3.9 Spacing of sizes

6.3.10.1 The largest possible tree size shall be used for each planting site (within the 1.5” - 3” caliper range)

6.3.10.2 Spacing of trees shall be determined according to the local site conditions, the species used and growth characteristics of the tree to be planted. General specifications are as follows:

Tree Size	Center to Center Spacing	Minimum planting distances
Large Tree	35 feet	33 feet
Medium tree	35 feet	33 feet
Small tree	25 feet	25 feet

6.3.10.3 When planting a new tree next to an existing parkway tree of a different size class, the minimum spacing should be calculated by averaging the spacing requirements for the two size classes. For example, a small new tree planted next to an existing large tree, should be planted at a distance of 30 feet.

6.4 Tree Planting Site Standards
No tree pit will be dug unless the official City designee marks the location and JULIE has been notified and has marked underground utilities.

6.4.1 Pits for the planting of street trees shall be two (2) to three (3) times the width of the root ball. The pit should be saucer-shaped or bowl-shaped. The sides should slope gradually. Maintain undisturbed soil beneath the root ball; do not loosen soil in center of hole. The center of the hole should be firm to help stabilize the tree. Deglaze; scarify sides of hole with a shovel to allow for better root penetration.

6.4.3 Directional orientation of tree in pit. Tree trunk should be marked in nursery. At the time of planting, orient tree so it faces the same direction as it was grown in nursery. For example, mark all trees on north side and transplant trees with mark facing north.

6.4. 4 The tree should be planted slightly higher than it was originally grown to allow for settlement. In poorly drained soil, the root ball shall be elevated in relation to the surrounding grade. The depth of the root ball shall be measured from the bottom of the root flare to the bottom of the root ball. Soil above the root flare shall not be considered in the ball depth measurement and should be removed. If there is extra soil over structural roots, leave soil intact until tree is placed in hole. The resulting hole shall place the root flare not more than one-inch (1”) above of surrounding soil grade.

6.4.5 Do not amend soil. In all but exceptional cases, the backfill around root ball shall be the same soil as that which was removed from the hole. In cases where large number of rocks, stones, other debris are encountered, debris shall be removed and supplement the backfill with topsoil. In soils that have high clay content, the soils should be amended with twenty-five (25) percent organic matter.

6.4.6 Around the edge of the root ball of all newly planted trees, a small berm of soil slightly larger than the root ball shall be constructed. Organic mulch shall also be added within the soil berm. Initial depth of organic mulch should be between 2 to 4 inches. Keep mulch a minimum of 3” from tree trunk; mulch shall never be in contact with trunk.

6.4.7 All waterproof, water repellant and non-biodegradable wrappings shall be removed from around the root ball. Remove ropes, strings and wrappings from around trunk and the top 50% of the root ball after tree has been set in pit.

6.4.8 Baskets: When full baskets are used in the delivery of balled and bur lapped trees, remove at least the top half of the wire basket before backfilling. When low profile baskets are used, the removal of basket is not required. Root containment grown trees must have the entire bag removed.

6.4.9 Backfilling shall be done in a way to minimize air pockets. Do not cover the top of root ball with soil. Back fill soil shall be tamped lightly. Excessive tamping may compact soil and limit water penetration and slow root growth. Planting areas are to be finish graded to conform to surrounding grade.

7. Early Maintenance (1-4 years after planting)

7.1 Establishment: Newly planted trees need special attention to ensure that they become established. The first few years after transplanting are a critical time in the life of a tree as mortality rates may be excessively high. All maintenance practices shall follow approved arboricultural practices.

7.2 Watering: Promptly after planting, the soil surrounding the tree should be thoroughly saturated. A second watering to completely saturate the soil should be done seven to ten (7-10) days after planting. Additional watering every 10 to 14 days during the balance of the current season and next growing season is recommended (or required?) to help maintain adequate soil moisture. When natural precipitation maintains good soil moisture, watering may be delayed until the next cycle time if needed. Take care not to over water. Excessive heat and drought require special attention given to newly planted trees and soil moisture levels must be maintained.

7.3.1 When stability is a problem, newly planted trees shall be staked according to the methods recommended by International Society of Arboriculture. Stakes and support lines should be removed after the first growing season.

7.4 Fertilization: Fertilization of newly planted trees is generally not recommended unless it is determined that soil lacks essential nutrients, or soil conditions prevent the uptake of essential nutrients. Only slow-release fertilizer shall be used on newly transplanted trees to prevent fertilizer injury. Tree fertilizing methods shall conform to American National Standards Institute (ANSI) A300 Standard for Tree, Shrub, and Other Woody Plant Fertilization specifications.

7.5 Inspection: Periodic inspections of newly planted trees for pests and diseases should be done to ensure the continued health of the tree. Inspections may be done in conjunction with waterings.

7.6 Pruning: The pruning of newly planted trees is not recommended, except for the removal of dead or broken branches. Water sprouts growing on lateral branches should be removed when they reach the diameter of a pencil.

8. General Maintenance

8.1 Pruning

8.1.1 All pruning of City trees shall conform to International Society of Arboriculture recommendations, ANSI Pruning and Safety Standards: ANSI A300 Tree, Shrub, and Other Woody Plant Maintenance – Standard Practices (Pruning), and ANSI Z133.1-2006 Pruning, Repairing, Maintaining and Removing Trees and Cutting Brush – Safety Requirements. Pruning should be done to develop good structure, promote general good health and vigor of the tree. To the extent possible, pruning shall maintain tree crown shape and symmetry typical of species growth habit.

8.1.2 All trees shall be maintained as not to endanger, interfere or conflict with public safety

8.1.3 Under no circumstances shall a City owned tree be “topped”. Topping is the practice of severely pruning of a tree, disregarding nodes and crotches, to drastically reduce the height of a tree. Topping adversely affects the natural growth structure of a tree and has the potential to create a hazardous tree.

8.1.4 All established medium to large trees shall be pruned to allow free passage of pedestrians and vehicles at a height no less than ten (10) feet of clearance above sidewalks and sixteen (16) feet of clearance at curbside.

8.1.5 All pruning cuts shall be made with a saw or by-pass style pruning shear and only at nodes or crotches. A pruning cut that removes a branch back to the trunk or parent limb shall be made just before the branch bark collar. Cuts shall be made without cutting into the branch collar. No tipping of branches shall be allowed. Tipping is a practice of cutting lateral branches between nodes to reduce crown width. A pruning method known as drop crotch pruning shall be used to reduce the length of a branch or parent stem. The three cut pruning method shall be followed to avoid the splitting or tearing of the bark. Large limbs shall be lowered safely in a controlled manner with ropes and other equipment.

8.1.6 Unless under emergency situations or during tree removal, spurs or climbing irons shall not be used for pruning live trees.

8.1.7 Oak trees shall be pruned only during the months of November through March. Avoid pruning between April through October to prevent the spread of Oak Wilt.

8.1.8 After working on a diseased tree, all pruning equipment shall be disinfected before working on another tree and should align with any municipal, state or federal policy/procedure.

8.1.9 Upon the completion of work performed on City trees all branches, twigs, leaves, chips and larger portions of the tree shall be promptly removed and properly disposed of by those performing the work.

8.2 Spraying

8.2.1 Precautions shall be undertaken to inform, warn and protect the public before spray applications of pesticides and other potentially hazardous chemicals begin. Local conditions such as wind and temperature shall be considered before spraying. Drift potential shall be examined in relation to the proximity to playgrounds, schools and high traffic density areas before any spraying is performed.

8.2.2 Spraying shall only be performed by Certified Commercial Pesticide Applicators and in accordance with accepted arboricultural standards and all State and Federal regulations. The Applicator shall read and understand label information of the chemicals being used.

8.2.3 Spraying shall only be done for specific insects or diseases with the proper materials and equipment, in the necessary strength, and applied at the proper time to ensure control.

8.2.4 All spray equipment should be kept clean and in good working order. Spray machines should give uniform coverage. Tanks and other equipment shall be washed out and drained in approved drainage areas.

8.2.5 Ineffectual control, damage, injury or death to plants, animals or persons resulting from the use of spray materials exceeding the limitations of the manufacturer’s guarantee shall be considered the responsibility of the licensed operator.

8.3 Fertilization: The fertilization of City trees shall be in accordance with accepted arboricultural standards. Methods of applications for fertilizers shall be determined by the official City designee and conform to ANSI A300 Standard for Tree, Shrub, and Other Woody Plant Fertilization specifications.

8.4 Cavities: The treatment of cavities shall be in accordance with accepted arboricultural standards. The official City designee shall determine the method for treatment of cavities.

8.5 Cabling and Bracing

8.5.1 The City does not, as a policy, cable and brace parkway tress. If warranted, cabling /bracing methods and materials shall conform to the ANSI A300 Tree, Shrub, and Other Woody Plant Maintenance – Standard Practices (Support Systems a. Cabling, Bracing, and Guying) or accepted arboricultural standards.

8.5.2 Bracing is not to be used as a substitute for cabling but rather in conjunction with cables.

9. Tree Protection

9.1 Protection or Removal: In the circumstances where construction and utility operations underground will affect the health of a tree, a determination will be made considering the overall value of the tree. The criteria for determining a value for a tree will be based on species, age, condition, cost of preserving the tree, and urgency of work to be completed. A decision based on this value will be made concerning the protection or removal of the tree in question by a certified arborist in conjunction with the Public Works Department with notice provided to the Tree Board.

9.2 Cutting Roots. Cuts made to large roots should be avoided if possible. If circumstances require cutting roots, then clean, flush, smooth cuts shall be made using the proper pruning equipment.

9.3 Open Work Pits: Work pits that need to be open for an extended time requires special protection methods for trees. The roots shall be cut closer to the tree in relation to the construction zone. A temporary wall shall be put up between the tree and construction zone. The area between the root zone and the construction zone should then be backfilled and kept moist. Work pits should not stay open any longer than necessary to complete work. The licensed contractor shall secure work site and close off work site to pedestrian and vehicular traffic.

9.4 Tree Lighting: All work on the lighting shall be performed while the trees are dormant. Holiday light displays must be removed after the holidays and before trees break dormancy (maximum 3 months), they must be removed earlier if scheduled maintenance such as pruning is to be performed. The preferred method of installation is ‘draping’ or ‘tracing’. These methods have been found to be the least harmful to trees. Lights that are tightly wrapped around trunks and branches, especially for younger trees, can cause damage and warped growth. The use a staple gun, nail hooks, or any method to hang up and secure lights that pierces the bark and vascular tissue beneath the trunk is prohibited. Both installation and removal of tree light displays must be done in a manner that ensures minimal damage to tree trunks & branches.

9.4 Construction Zones

9.4.1 Trees to be protected in construction zones and the dimensions of those zones shall be determined by the City Engineer or appropriate City Official.

9.4.2 All trees in a construction zone shall be protected by a physical barrier which encircles the drip line of the tree. A highly visible physical barrier such as orange vinyl construction fencing, chain link fencing, snow fencing or other similar fencing shall be used for protection around the critical root zone area. The critical root zone of a tree can be estimated by measuring the radius out from the tree trunk as defined as one foot for each inch of trunk diameter at breast height (54 inches). Protective fencing shall be supported at a maximum of 10-foot intervals by metal T-posts or approved methods substantial enough to maintain fence upright and in place. Wooden stakes and rebar are not considered substantial enough support.

9.4.3 In situations where a protected tree remains in the immediate construction area and the tree trunk and is in danger of being damaged by equipment or other activity, the contractor shall protect the tree by encircling the trunk with 2" x 4" lumber secured with wire or other means that do not cause damage. This trunk protection material shall be removed upon completion of construction project. Short term matting, such as plywood or plastic ground mats, should be used around the tree in these circumstances to avoid soil compaction and root damage

9.5.0 Utility Operations

9.5.1 Any underground utility installations or operations that come in conflict with city street tree roots are subject to the review and approval of a certified arborist.

9.5.2 Open trenching is prohibited inside the drip line of a city tree unless deemed necessary by a certified arborist employed or contracted by the city. In a situation where trenching is necessary within the drip line, the trench shall be dug by hand so roots can be bridged or tunneled to minimize damage.

9.5.3 Tunneling under trees: A certified arborist employed or contracted by the city should determine the tunneling depth and distance for underground utility installations or operations near city-owned trees. Under no circumstances is the tunnel to be less than two (2) feet in depth.

TABLE IV: Specifications for Trenching and Tunneling for Utility Operations

Tree Diameter	Distance of Tunnel from Center of Tree	Minimum Depth of Tunnel or Trench
5" to 9"	6 ft.	2-1/2 ft.
10" to 14"	10 ft.	3 ft.
15" to 19"	12 ft.	3-1/2 ft.
20" +	15 ft.	4 ft.

10. Tree Removal

10.1 Determination and Criteria: a certified arborist employed or contracted by the city will make determination for the removal of a tree if any of the following conditions exist:

10.1.1 A tree that is infected with an epidemic disease or insect, and chemical or mechanical treatments are not possible methods of control, or removal is the recommended practices to prevent transmission.

10.1.2 A tree that poses a safety hazard that cannot be corrected by pruning, transplanting, or other treatments.

10.1.3 A tree that interferes with the growth of a more desirable tree(s).

10.1.4 A tree that has a negative aesthetic value.

10.1.5 Work improvements or installations will kill or render a tree a public hazard

10.1.6 Preservation of a tree is not cost effective.

10.1.7 A tree which is a recurring problem due to root interference with water mains, sewer mains, water service lines, and sewer service lines.

10.1.8 A tree is dead

10.1.9 A tree is declared a Public Nuisance (see Section 47-8. Public Nuisances of City Code)

10.1.10 A tree is injured by construction, lightning, vandalism, or auto accident and cannot be reasonably saved.

10.1.11 More than fifty percent (50%) of the crown is missing, dead or dying.

10.1.12 Unauthorized trees recently planted that do not meet code requirements due to species selection, spacing or location.

10.1.13 Tree trunk is growing into and damaging a fence, utility pole, fire hydrant or other utility fixtures.

10.1.14 Large-growing species growing under power lines that cannot be pruned for adequate clearance without compromising the tree's long-term survival, structure or appearance.

10.2 **Standards:** All work performed in the removal of a tree shall be in accordance with the International Society of Arboriculture and American National Standards Institute (ANSI).

10.2.1 Stumps: All stumps on city property shall be removed to a depth of at least eight (8) inches and all holes remaining shall be filled in with soil and planted with sod or seed unless removal of the stump will result in destabilization or erosion.

10.2.2 Disease Prevention: Certain precautions must be taken when removing a diseased tree to ensure the disease will not continue to be transmitted after the tree is removed. A certified arborist shall determine the appropriate course of action. After work is completed on a diseased tree, all saws and other cutting equipment must be disinfected before working on another tree.

10.2.3 Debris Removal: Upon the completion of work performed on City trees all branches, twigs, leaves, chips and larger portions of the tree shall be promptly removed and properly disposed of by those performing the work.

Amendments

The Arboricultural Specifications Manual may be modified, amended, or extended at any time that experience, new research or laws indicate improved methods or whenever circumstances make it advisable. The amendments shall be made with the advice, assistance and approval of the Tree Board in conjunction with a certified arborist. All amendments to this document shall be approved by the City Council.

Appendix

A	Name:	Date:	
B	Street address:	Ward:	
C		Irrigation? Y N	
	Details:		
D	Quantity of trees granted?		
		Yes	No
1	Minimum of 50’ from intersection?		
2	Minimum of 100’ from traffic signal?		
3	Minumin of 30’ from any other tree?		
4	At leaset 25’ from streetlight?		
5	10’ from fire hydrant or utility pole?		
6	Adequate area for future growth (6’X6’)		
7	6’ away from any driveway or v-Box		
8	Parkway must ne at least 6’ wide		
9	Overhead wires		
10	Stump removal		
11	Grindings removed		
12	Approved		
13	*Location of paint marking for new tree location.		
	Comments:		

CITY OF AURORA TREE BOARD

ARBORICULTURAL SPECIFICATIONS MANUAL AURORA, ILLINOIS

AURORA
ILLINOIS

Attachment D

Updated: August 2023

TABLE I: City of Aurora Approved Street Tree Species List

Santamour (1990) established guidelines for tree planting within a city:

Plant no more than 30% of a **family:** i.e. Aceraceae
Plant no more than 20% of a **genus:** i.e. *Acer ´ freemanii*, *Acer rubrum*, *Acer platanoides*, *Acer saccharum*, etc.
Plant no more than 10% of a **species:** i.e. *Acer saccharum*

Limit use of Trees due to Overplanting

Legend

Salt Tolerance:
T= Plants with highest degree of salt tolerance. Use in the most exposed areas
M = Plants with a moderate degree of salt tolerance. Use in low salt areas

Size:
L= > 40 ft.
M = 30 to 40 Ft
S = up to 30 ft

Location:
Residential Parkway: located in front/side of premises
Non-Residential Parkway: Commercial, large roadways
Under Wires: maximum tree height up to 25 ft.

Scientific Name											
Family	Genus	Species	Cultivar	Common Name	Size	Residential Parkway	Non-Residential Parkway	Under Wires	Salt Spray Tolerance	Soil Salt Tolerance	Spring Planting best
Aceraceae	*Acer*	*miyabei*		Miyabe Maple	L	•			T		
Aceraceae	*Acer*	*miyabei*	Morton'	State Street® Miyabe Maple	L	•			T		
Aceraceae	*Acer*	*nigrum*		Black Maple	L	•			M		
Aceraceae	*Acer*	*rubrum*	Redpointe 'Frank Jr.'	Redpointe® Maple	L	•					
Aceraceae	*Acer*	*saccharum (very site specific)*	Green Mountain'	Green Mountain® Sugar Maple	L	•					
Aceraceae	*Acer*	*saccharum (very site specific)*	Morton'	Crescendo Sugar Maple	L	•			M		
Aceraceae	*Acer*	*x freemanii (A. rubrum x A. saccharinum)*	Autumn Fantasy'	Autumn Fantasy Maple	L	•			M		
Aceraceae	*Acer*	*x freemanii (A. rubrum x A. saccharinum)*	'Marmo'	Marmo Maple	L	•			M		
Aceraceae	*Acer*	*x freemanii (A. rubrum x A. saccharinum)*	'Sienna'	Sienna Maple	L	•			M		
Hippocastanaceae	*Aesculus*	*hippocastanum*	Baumannii'	Baumann Horse chestnut	L	•			T	•	
Hippocastanaceae	*Aesculus*	*octandra*		Yellow Buckeye	L	•			M		•
Bignoniaceae	*Catalpa*	*ovata*		Chinese Catalpa	L		•		T	•	
Bignoniaceae	*Catalpa*	*speciosa*		Northern Catalpa	L		•		T	•	
Ulmaceae	*Celtis*	*occidentalis*		Hackberry	L	•			M		
Ulmaceae	*Celtis*	*occidentalis*	'Chicagoland'	Chicago land Hackberry	L	•			M		
Ulmaceae	*Celtis*	*occidentalis*	'Windy City'	Windy City Hackberry	L	•			M		
Ginkgoaceae	*Ginkgo*	*biloba*		Ginkgo (male only)	L	•			M	•	
Ginkgoaceae	*Ginkgo*	*biloba*	Autumn Gold'	Autumn Gold Ginkgo	L	•			M	•	
Ginkgoaceae	*Ginkgo*	*biloba*	'Magyar'	Magyar Ginkgo	L	•			M	•	
Ginkgoaceae	*Ginkgo*	*biloba*	Princeton Sentry'	Princeton Sentry Ginkgo	L	•			M	•	
Fabaceae	*Gleditsia*	*triacanthos var. inermis*	Skycole'	Skyline Honey locust	L	•			T	•	
Fabaceae	*Gymnocladus*	*dioicus*		Kentucky Coffee tree	L	•			T	•	
Fabaceae	*Gymnocladus*	*dioicus*	Expresso'	Kentucky Coffee tree	L	•			T	•	
Hamamelidaceae	*Liquidambar*	*styraciflua*	'Moraine'	Moraine Sweet gum	L	•			M		•
Magnoliaceae	*Liriodendron*	*tulipifera*		Tulip tree	L	•					•
Moraceae	*Maclura*	*pomifera*	Whiteshield'	Whiteshield Osage Orange (fruit & thornless)	L	•			M		
Taxodiaceae	*Metasequoia*	*glyptostroboides*		Dawn Redwood	L		•				•
Platanaceae	*Platanus*	*x acerifolia*	Exclamation	London Plane Tree	L	•			M		•
Fagaceae	*Quercus*	*alba x robur*	Crimschmidf	Crimson Spire Oak	L	•					•
Fagaceae	*Quercus*	*bicolor*		Swamp White Oak	L	•			M	•	•
Fagaceae	*Quercus*	*macrocarpa*		Bur Oak	L	•			M	•	•
Fagaceae	*Quercus*	*muehlenbergii*		Chinquapin Oak	L	•			M		•
Fagaceae	*Quercus*	*rubra*		Northern Red Oak	L	•			T		•
Fagaceae	*Quercus*	*robur*		English Oak	L	•			T		•
Fagaceae	*Quercus*	*robur*	Regal Prince	Regal Prince English Oak	L	•			T		•
Fagaceae	*Quercus*	*robur*	'Pyramich'	Sky master® English Oak	L	•			T		•
Fagaceae	*Quercus*	*x macdanielii*	'Clemons'	Heritage® McDaniel's Oak	L	•					•
Fabaceae	*Robinia*	*pseudoacacia*	'Chicago Blues'	Chicago Blues Black Locust	L	•			T		•
Taxodiaceae	*Taxodium*	*distichum*		Bald cypress	L		•		T	•	•
Taxodiaceae	*Taxodium*	*distichum*	Shawnee Brave	Shawnee Brave	L		•		T	•	•
Tiliaceae	*Tilia*	*americana*		American Linden	L	•					
Tiliaceae	*Tilia*	*americana*	'Boulevard'	Boulevard Linden	L	•					
Tiliaceae	*Tilia*	*americana*	'Wandell'	Legend™ Linden	L	•					
Tiliaceae	*Tilia*	*americana*	'Redmond'	Redmond Linden	L	•					
Tiliaceae	*Tilia*	*americana*	'American Sentry'	American Sentry Linden	L	•					

Tiliaceae	*Tilia*	*platyphyllos*		Big leaf Linden	L	•			M		
Tiliaceae	*Tilia*	*tomentosa*	PNI6051	Green Mountain® Silver Linden	L	•			M		
Tiliaceae	*Tilia*	*tomentosa*	Sterling'	Sterling Silver™ Silver Linden	L	•			M		
Tiliaceae	*Tilia*	*cordata*		Little leaf linden	L	•					
Ulmaceae	*Ulmus*	*japonica x wilsonia*	Morton'	Accolade Elm	L	•					
Ulmaceae	*Ulmus*	*wilsoniana*	Prospector'	Prospector Wilson's Elm	L	•					•
Ulmaceae	*Ulmus*	*carpinifolia*	Commendation	Commendation Elm	L	•					
Ulmaceae	*Ulmus*	*carpinifolia*	Regal'	Regal Elm	L	•					
Aceraceae	*Acer*	*campestre*		Hedge Maple	M	•			M		•
Hippocastanaceae	*Aesculus*	*glabra*		Ohio Buckeye	M	•			M		
Betulaceae	*Carpinus*	*betulus*		European Hornbeam	M	•					•
Betulaceae	*Carpinus*	*caroliniana*		American Hornbeam	M	•					•
Betulaceae	*Corylus*	*columa*		Turkish Hazelnut	M	•					•
Betulaceae	*Ostrya*	*virigniana*		Ironwood	M	•			M		•
Fagaceae	*Quercus*	*ellipsoidalis*		Hill's Oak	M	•			M	•	•
Fagaceae	*Quercus*	*imbricaria*		Shingle Oak	M	•			M		•
Oleaceae	*Syringa*	*pekinensis*	Morton'	China Snow® Peking Lilac	M	•		•	T		•
Rosaceae	*Amelanchier*	*x grandiflora*		Apple Serviceberry	S	•		•	T		
Rosaceae	*Amelanchier*	*laevis*		Allegheny serviceberry	S	•		•	M		
Cornaceae	*Cornus*	*mas*		Cornelian cherry Dogwood	S	•		•	M		•
Rosaceae	*Crataegus*	*crusgalli*	var. inermis	Thornless Cockspur Hawthorn	S	•		•			•
Rosaceae	*Crataegus*	*viridis*	Winter King'	Winter King hawthorn	S	•		•			•
Rosaceae	*Malus*	*baccata*	*var.jackii*	Korean Crabapple	S	•		•			•
Rosaceae	*Malus*		'Beverly'	Beverly Crabapple	S	•		•			•
Rosaceae	*Malus*		'Cardinal'	Cardinal Crabapple	S	•		•			•
Rosaceae	*Malus*		Purple Prince	Purple Prince Crabapple	S	•		•			
Rosaceae	*Malus*		'Jewelcole'	Red Jewel Crabapple	S	•		•			•
Rosaceae	*Malus*		Red Peacock'	Red Peacock Crabapple	S	•		•			•
Rosaceae	*Malus*	*sargentii*		Sargent's Crabapple	S	•		•			•
Rosaceae	*Malus*	*transitoria*	'Schmidtcutleaf	Golden Raindrops® Crabapple	S	•		•			•
Rosaceae	*Malus*	*x zumi*	*var 'Calocarpa'*	Zumi Crabapple	S	•		•	M		•
Oleaceae	*Syringa*	*reticulata ssp. reticulata*	'Ivory Silk'	Ivory Silk Japanese Tree Lilac	S	•		•	T		
Oleaceae	*Syringa*	*reticulata ssp. reticulata*	'Summer Snow'	Summer Snow Japanese Tree lilac	S	•		•	T		

Sources:

Illinois Department of Agriculture - Increasing Tree Diversity in the Urban Landscape: Alternatives to Planting Ash - February 2007

Salt Tolerance of Trees and Shrubs - Morton Arboretum

Native Trees, Shrubs, and Vines for Urban and Rural America - A Planting Design Manual for Environmental Designers. Gary Hightshoe Iowa State University 1988

A Practitioner's Guide to Stem Girdling Roots of Trees - Impacts on Trees, Symptomology and Prevention. Gary Johnson - University of Minnesota, Richard Hauer - Minn. Dept. of Agriculture

List of Native Trees for Use along Illinois Roadways - Corridors for Tomorrow Project, Kenneth R. Robertson

Alternative to Ash Trees: Commercially Available Species and Cultivars - Dr. Laura G. Jull Dept. of Horticulture, University of Wisconsin-Madison

Crab Apple Culitvars Tested as Street Trees: Second Report - Henry D. Gerhold Journal of Arboriculture January 2000

City of Batavia Stree Tree List (2001)

Attachment E

Tree Maintenance Agreement

This Tree Maintenance Agreement between The City of Aurora and the Applicant certifies that customary and reasonable tree care and maintenance will be **performed for at least two years post planting for trees planted under the terms of the USDA Urban and Community Forestry Inflation Reduction Act Grant.**

Maintenance recommendations are detailed in *International Society of Arboriculture Tree Planting Best Management Practice.*

Trees must be mulched and watered appropriately for two to three years to enable trees to become fully established and thrive. During the growing season approximately 10-15 gallons of water or 1" of water should be applied once weekly by the Applicant to[LD1] the root ball of newly planted trees unless adequate soil moisture is present. The City of Aurora will attach watering bags to trees planted under this agreement to facilitate proper watering. The Applicant, under this agreement, is responsible for watering as instructed for the period of two to three years.

A 3" – 4" layer of organic, wood chip mulch will be maintained in a circular area around the base of the tree that is at least 3 feet in diameter. The City of Aurora will provide appropriate wood chip mulch at planting.

All tags, rope and wire ties will be removed. Trunk wrap may remain in place for only the first winter season if necessary for thin-barked trees. Stakes will only be used in windy locations and will be removed after one year.

All trees will be monitored for pests or other signs of stress, and conditions will be remedied when appropriate and possible.

I certify that, according to the above, my organization will comply with tree maintenance requirements.

_____ _____

Applicant Representative Name - PLEASE PRINT *Entity*

_____

Title

_____ _____

Applicant Representative's Signature *Date*