



## *Updates to the Landscape Guidelines*

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<b>Application</b>	<b>General Data</b>	
Public hearing and consideration of the updates to the Landscape Guidelines of the City of Alexandria	<b>Planning Commission Hearing:</b>	February 7, 2019
	<b>City Council Hearing:</b>	February 23, 2019
<b>Applicant:</b> City of Alexandria Staff: Departments of Planning & Zoning and Recreation, Parks, and Cultural Activities.		

<b>Purpose of Application</b>
To approve and enact the updates to the Landscape Guidelines of the City of Alexandria to replace outdated practices and policies and incorporate current best practices.
<b>Staff Recommendation:</b> APPROVAL
<b>Staff Reviewers:</b> <u>Planning and Zoning</u> Karl Moritz, Director, <a href="mailto:karl.moritz@alexandriava.gov">karl.moritz@alexandriava.gov</a> Robert Kerns, Division Chief, Development, <a href="mailto:robert.kerns@alexandriava.gov">robert.kerns@alexandriava.gov</a> Nathan Imm, Principal Planner, Development, <a href="mailto:nathan.imm@alexandriava.gov">nathan.imm@alexandriava.gov</a> Stephanie Free, Urban Planner III, Development, <a href="mailto:stephanie.free@alexandriava.gov">stephanie.free@alexandriava.gov</a> <u>Recreation, Parks and Cultural Activities</u> James Spengler, Director, <a href="mailto:james.spengler@alexandriava.gov">james.spengler@alexandriava.gov</a> Bob Williams, Division Chief, Natural Resources, <a href="mailto:bob.williams@alexandriava.gov">bob.williams@alexandriava.gov</a> Jack Browand, Division Chief, Park Planning, Design, Capital Development, <a href="mailto:jack.browand@alexandriava.gov">jack.browand@alexandriava.gov</a> Bethany Znidarsic, Principal Planner, Park Planning, Design + Capital Development, <a href="mailto:bethany.znidarsic@alexandriava.gov">bethany.znidarsic@alexandriava.gov</a> John Noelle, City Arborist, Natural Resources Division, <a href="mailto:john.noelle@alexandriava.gov">john.noelle@alexandriava.gov</a> Rod Simmons, Natural Resource Manager / Plant Ecologist, Natural Resources Division, <a href="mailto:rod.simmons@alexandriava.gov">rod.simmons@alexandriava.gov</a> Suzanne Bouchard, City Horticulturalist, Natural Resources Division, <a href="mailto:suzanne.bouchard@alexandriava.gov">suzanne.bouchard@alexandriava.gov</a> <u>Transportation and Environmental Services</u> Jeffrey DuVal, Deputy Director of Operations, <a href="mailto:jeffrey.duval@alexandriava.gov">jeffrey.duval@alexandriava.gov</a> Melanie Mason, Watershed Management Planner, <a href="mailto:melanie.mason@alexandriava.gov">melanie.mason@alexandriava.gov</a>

<b>PLANNING COMMISSION ACTION, FEBRUARY 7, 2019:</b>
On a motion by Commissioner Brown, seconded by Commissioner McMahon, the Planning Commission voted to recommend approval of the 2019 update of the Landscape Guidelines, with corrections as noted by City Staff. The motion carried on a vote of 7 to 0.

Reason: The Planning Commission agreed with the staff analysis and recommendation to perform minor grammatical and formatting edits, and noted that the revisions provided in the update are a significant and coordinated improvement to the document.

Acting Chairman Macek commented that the update made the document more user friendly with the reordering and prioritizing provided. Acting Chairman Macek directed the comments of Mr. Radice to staff for discussion of the various points raised by the speaker. The Acting Chair further enquired regarding the as-built process and the provenance or source of nursery stock.

Commissioner McMahon stated that she was happy with the changes that have been made in the update, particularly noting the enhanced tree protections, soil performance, and quality of plant materials. She stated that the document helps clarify and focus on the performance of the plants, giving the developers the right criteria to provide a quality canopy for the City. Commissioner McMahon further stated that she felt that the native plant specification was just a piece of the overall requirements and provided sufficient leeway for developers.

Commissioner Wasowski was supportive of the updated Landscape Guidelines and highlighted the importance of quality landscapes. Commissioner Wasowski questioned whether the March 1, 2019 was too soon for applicants to incorporate into their plan submissions. She stated that the staff outreach process was positive and that if it had been lacking there would have been greater response from the local land use attorneys and others to raise their concerns.

Commissioner Brown followed up on a comment by the speaker, Mr. Radice, regarding the source of planting stock.

Commissioner Lyle commented that the as-built process can be a detriment during phased-implementation projects as the process may limit the ability to maintain and alter the work prior to completion, having to wait until the final phase before changes could be made. Chairman Brown noted that if this is a code requirement an adjustment to the code, not the Landscape Guidelines, may be considered.

Commissioner Goebel thanked staff for the consideration of the depth of soil on-structure and the impacts it may have on buildings and the provision of on-structure plantings.

Overall, the Planning Commission commented that the outreach process and revisions to the document were well conceived and provided positive and appropriate solutions to ensure quality landscapes throughout the City.

Speakers:

Jason Radice, RLA, speaking for himself as a practicing landscape architect, spoke in opposition to the approval of the Landscape Guidelines in their current form. Mr. Radice suggested a broader outreach process, including national professional organizations. Mr. Radice noted several specific topics that he recommended alteration of prior to acceptance of the updated Landscape Guidelines, including the specification of native plant species, the acceptable use of “nativars”, the source of nursery stock, the requirement of as-built drawings for landscape installations, and the size of shrubs at planting.

## I. DISCUSSION

The Landscape Guidelines are enabled through the City of Alexandria’s Zoning Ordinance (Section 11-410 (CC)) in order to ensure that developments provide “adequate minimum landscaping.” The Landscape Guidelines (the “Guidelines”) are made available to the public for the use of all applicants in the required preparation, submission for approval, execution and maintenance of landscape improvements.

The Planning Commission plays a fundamental role in the Landscape Guidelines, both in the review of updates of the Landscape Guidelines for appropriateness according to its authority through the Zoning Ordinance, and the implementation of the Guidelines through the review of Development Site Plans and Development Special Use Permits according to its standards and requirements.

In addition to projects reviewed by the Planning Commission, the Guidelines are utilized on projects submitted for City Staff review, particularly grading plans and administrative Special Use Permits.

### A. BACKGROUND

The Landscape Guidelines were first adopted in 1997 as the designated mechanism to establish minimum standards for the performance of landscape plantings for new development projects as well as providing guidance to development applicants for the review process. The last update of the Landscape Guidelines was performed in 2007.

The purpose of the current update of the Landscape Guidelines is to replace outdated practices and policies, incorporate current best practices, and address evolving environmental considerations that have been raised through City public processes. The process of updating the Guidelines has been a collaborative effort between the Departments of Planning & Zoning and Recreation, Parks, and Cultural Activities as these departments have both the expertise in the topic material as well as the responsibility for the management of the implementation of the Guidelines. Additional City departments have provided input throughout the process.

### B. OUTREACH

#### Internal

An internal working group of City Staff with expertise in landscape architecture, arboriculture, horticulture, natural resources management, installation and maintenance of landscape plantings, and other allied fields was assembled to review the working document for the Landscape Guidelines. This group was instrumental in informing the document through experience with the application of the 2007 Landscape Guidelines, and their knowledge of industry standards and best practices. Additionally, the working group reviewed the public input to determine the mechanisms for incorporation into the document.

### Professional Stakeholders

The Department of Recreation, Parks, and Cultural Activities organized and hosted two discussion sessions to gain input from professional stakeholders on the performance of the 2007 version of the Landscape Guidelines and select topics that were proposed for inclusion in the updated Guidelines. The stakeholders were divided into two groups, the first including design professionals who may utilize the Landscape Guidelines in preparation of plan submissions to the City, such as Landscape Architects and allied professionals. The second group included nurseries and landscape contractors who may be responsible for implementing approved plans within the City. Through this process, concerns regarding changes to the Guidelines were discussed and the resulting document utilizes the input provided where appropriate. Any input from the professional stakeholders was incorporated prior to the public outreach so that the effect of such input was available for comment.

### Public Outreach

City Staff met with the Park & Recreation Commission, Environmental Policy Commission and the Alexandria Beautification Commission in October and November of 2018 to discuss the revisions to the Landscape Guidelines and provide an opportunity for review and comment. The draft Guidelines were provided online with the ability to provide comments for a 30-day period. The feedback provided at the meetings and the online comments were predominantly supportive of the changes to the Guidelines.

Issues contained within this update that address public and stakeholder input include, but are not limited to the provision of native plant species, specification of plant diversity, enhancement of tree protection measures, alteration of above-structure landscape standards, and provision of soil criteria.

City Staff also met with NVBIA/NAIOP (Commercial Real Estate Development Association) who represent local and regional development professionals. The members distributed a draft of the Guidelines to their members, who provided input via the online comments available to the public.

## **II. REVIEW OF UPDATES**

The updated Landscape Guidelines retain their core purpose and, to a large degree, their content. The alterations provided will significantly improve the function of the document and the quality of the landscape of the City of Alexandria.

Input received by City Staff from various boards and commissions informed several of these topics. Comments from the Environmental Policy Commission regarding native and invasive plant species, canopy cover, and others were received both prior to and during the Environmental Action Plan process and so were incorporated into the update process.

The following paragraphs offer a brief description of the major improvements and alterations to

the document. Additional minor corrections have been made throughout the document as needed.

### Format

The overall format of the document has been altered to be more user friendly, specifically dividing the document into groupings according to the level of approvals and permits required for development projects. The introductory sections, particularly Chapter 2: Landscape Process, offers a brief explanation to development applicants who may be unfamiliar with the process to direct them to the relevant sections of the Guidelines. From this, minor cases such as grading plans can clearly identify the sections of the Guidelines that are necessary to comply with the requirements for these projects, and not have to review sections and information that are not relevant to their case.

The updated version of the Landscape Guidelines has been reformatted to remove select sections and references from the main body of the document to provide a more flexible platform. These sections were selected based on their expected rate of change or governance by organizations outside of the City of Alexandria. One area in particular that provides an example of the reasons for the reformatting is the invasive plant species discussed below.

The reference standards and invasive plant lists were relocated from the body of the Landscape Guidelines and placed in an online format as references on the City's website. In this regard, the organizations that oversee this material can continually update the information without the City having to amend or update the Landscape Guidelines. For example, invasive species of plants are monitored by a variety of state agencies and non-governmental organizations who regularly update the lists of what are considered invasive species. Over the span of ten years, a number of species may be added to such lists and utilizing the source listing as the reference allows the City to incorporate this new guidance without a full update.

The standard landscape details and notes, native plant lists, and canopy coverage allowances were removed from the body of the Landscape Guidelines and will be placed in an online library of resources for use and reference by project applicants. By utilizing this method, the City can correct or update this material to match current information or best practices without a full update of the Guidelines. The majority of the guidance text remains in the Guidelines similar to the preceding version, as can be seen in the description of select sections below.

### Canopy Cover

A variety of minor changes have been made to the section on Canopy Cover that provide incentives to encourage a greater degree of compliance. These include a bonus percentage for the preservation of significant existing trees, a change in the allowance to fully account for trees planted on structure, and an increase in the canopy area associated with large shrubs.

The fee in lieu of providing the required canopy cover on a development site has been changed to better align with the total costs of planting a tree in an urban environment, including the

construction costs of tree wells and associated infrastructure. With this revision, the fees are brought in line with fees of surrounding jurisdictions as well.

### *Invasive Plants Management*

The 2007 Landscape Guidelines established that invasive plants may not be planted with development projects within the City of Alexandria. The updated Guidelines further this effort by recognizing that sites that contain significant populations of invasive plants negatively impact adjacent sites and resources and the City of Alexandria overall. In an effort to reduce these impacts, the updated Guidelines specify the provision of a survey of invasive species based on the density of invasives or proximity to important natural areas, and an invasive species removal and management plan should the project review deem it necessary.

### *Tree Protection*

The tree protection section of the Landscape Guidelines has been updated to align with industry best practices and incorporate lessons from construction projects within the City of Alexandria. The updates also provide for a greater degree of documentation and coordination for the care and maintenance of protected trees and vegetation during the construction process. The fines for damage to trees designated to be protected has been altered to provide a sliding scale according to the size of the tree(s) damaged.

### *Plant Sizes and Sources*

The required plant sizes have been averaged to a minimum caliper size of 2-3” for large shade trees, and 1 ½-1 ¾” for ornamental trees. The revised sizes are in line with current industry and scientific literature which finds that smaller sized plant material at planting results in greater health and survival of the plants.

A specification has also been added to limit the distance from the plant supply nursery to the project site. Experience within the City and supporting literature demonstrates that plants that have been produced in significantly different environments, including hardiness zones and latitudes, have a markedly different survival rates over both the short- and long-term.

### *Plant Species Diversity*

As stated in the updated Landscape Guidelines, communities across the United States have suffered catastrophic losses of tree canopy cover due to new pests or diseases flourishing within plantings of limited diversity. The Biodiversity Standards contained in the new Guidelines seek to prevent such a situation from occurring in the City of Alexandria by ensuring that there is sufficient diversity of plants to slow the spread of such pests and/or reduce the impact. This is accomplished through standards that set a maximum percentage of the genus and species that can be planted on an individual development site. Exceptions have been provided for small plantings and other unique situations.

### Native Plants and Diversity

An increasing body of research demonstrates that there are tangible benefits - ranging from ecosystem services to community benefits – that are associated with the installation and maintenance of native plant species rather than the planting of exotic species. In addition to these benefits, the aesthetic benefit of enhancing community identity is appreciable, as seen by examples such as the live oak landscape of the American Southeast. The updates to the Landscape Guidelines incorporate the specification of a percentage of native plant species for new developments. Within this, a certain percentage is established for locally or regionally native species to further ensure the suitability of the plant selections.

The Guidelines have been graduated according to the plant types (trees, shrubs, vines, etc.) and environment (paved vs. softscape) to provide for the greatest amount of native species and their benefits, while recognizing that a combination of consumer demands and desires, plant availability, diversity, and the suitability of native plants for urban environments must be weighed in determining a realistic specification of the percentage of native species.

In meetings with landscape professionals and nurseries, the required use of native species was discussed and identified as a particular challenge to contractors and nurseries to provide the volume and diversity of species with immediacy. The discussion resulted in the practice outlined in the Landscape Guidelines where a phased implementation of the use of native species provides time for the nurseries to respond to the changes. The timelines allocated are largely based on the time required for the nursery stock to grow to saleable size.

### Soils

Soil requirements in the 2007 Landscape Guidelines were primarily limited to requirements of a minimum volume or depth. In addition to updates of these standards, a new segment on soil composition has been added to address feedback from experts who expressed that soil quality is similarly critical to the long-term success of plantings.

Pertaining to soil volume and depth, the minimum depth of soil required above structure for tree plantings was revised to three feet. This change reconciles the maximum depth of on-grade soil that can be counted with the minimum above-structure depth. This also addresses feedback that the previous depth of four feet would require a significant increase in structural support, making the provision of trees on-structure untenable.

Soil composition specifications focus on the primary factors of organic matter and soil compaction, seeking to ensure that appropriate levels of either are provided and confirmed via testing. The majority of construction sites within the City of Alexandria contain soils with high clay content and low organic matter content which are highly susceptible to compaction. These conditions greatly limit the flow and availability of water, retention of nutrients, and root growth. The minimum specifications of the revised Guidelines will create a more advantageous soil environment and are expected to result in a much higher long-term success rate.

Above-Structure Landscape

While above-structure landscape is not highlighted in a dedicated section of the Landscape Guidelines, it is useful to note that a number of minor changes have been incorporated to encourage the planting of trees and other larger vegetation on structure. As development projects implement their allowed density, above-structure landscape (whether at-grade or on rooftops) offer an opportunity to increase the attainment of greater canopy cover within the City. In offering such encouragements, the Guidelines also provide limitations to above-structure plantings to ensure the plantings achieve the environmental and aesthetic goals.

Summary

The updates to the Landscape Guidelines incorporate the input of a wealth of expertise and best practices. The revised format offers flexibility and responsiveness to changes within the standards, regulations and practices of landscape planting, making a more effective document. The revised Guidelines incorporate practices that are the leading edge of environmental management, fulfilling the stated goals of numerous citizen groups and commissions.

**III. CONCLUSION**

Staff recommends **approval** of the updated Landscape Guidelines of the City of Alexandria.



# City of Alexandria, Virginia

## MEMORANDUM

DATE: FEBRUARY 6, 2019

TO: ACTING CHAIR MACEK AND MEMBERS OF THE PLANNING COMMISSION

FROM: KARL W. MORITZ, DIRECTOR, DEPARTMENT OF PLANNING & ZONING

SUBJECT: FEBRUARY 7, 2019 PLANNING COMMISSION HEARING - DOCKET ITEM #3

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The 2019 update of the Landscape Guidelines was published to the February 7, 2019 Planning Commission hearing docket on January 25, 2019. Upon further review of the document following its publication, Staff recommends the following minor adjustments to the text prior to its forthcoming adoption by City Council on February 23, 2019:

- Correction of some typographical errors, in-text references and adjustments to sentence structure/phrasing in limited areas;
- Adjustments to two landscape plan preparation checklist items, which are incorrectly listed due to an editing error:
  - Clarify timing for the submission of the Invasive Management Plan (if applicable),
  - Clarify timing for the submission of the tree soil volume diagram plan; and
- Adjustment to the order of the text on page 26 through page 30 for clarity.

Staff finds the above adjustments are necessary to provide a more user-friendly document for those preparing and reviewing landscape plans in the City.



City of Alexandria Planning Commission;

I am a Virginia Licensed Landscape Architect, who has practiced in the City, and whose employer is very active in the city. I have more than 20 years experience, and have been involved on various stakeholder levels in providing commentary on landscape codes for Prince Georges County, MD, DC's Green Area Ratio, Loudoun County, and on the National Level with the American Society of Landscape Architects ASHRAE 189.1 advisory subcommittee of the Professional Practice National Committee. I first became aware of these revisions through a colleague on the NVBIA, who were invited by the City to offer review. I pride myself on keeping current with the latest in landscape trends and technology. Much of the commentary I had previously provided to the City is along the same lines as with the other regional jurisdictions.

I would like to encourage the Commission to reject the current draft of the Landscape Guidelines and have the guidelines more broadly reviewed by the public, and by invitation to professional groups to whom these regulations would create undue difficulties in their practice, such as the Potomac and Maryland chapters of the American Society of Landscape Architects. I would also suggest having a larger meetings to be held by the Planning and Zoning Department to discuss commented items to obtain a broader range of opinion, and to work out more practical regulations.

The reasons for further revision and commentary to the document are many. Here are a few examples:

- The new native requirements are overly restrictive and are not of the very latest thinking in the industry. Often, true natives are not the best plant choice for landscapes as they can be quite fragile outside of their native habitat. For instance, red maples. A very popular tree in the region. However, the true native is prone to leaf scorching and bark split, as natively it's not open grown. This makes them terrible trees for most urban applications, where not much will survive (especially natives) And in some cases, there is not a full native replacement that will perform as well in the landscape and provide desired aesthetics. Trees such as Crepe Myrtles and Ginkgoes fall into this category.
- The exclusion of a "nativars" or certain hybrids as being excluded as natives. Many nativars, or varieties of native trees selected for certain desirable traits, has become an acceptable in the 'native' category. These trees generally perform better in the landscape than the species. Using the red maple example, varieties of the Native have been introduced that will survive and thrive in harsher urban environments. Added benefits are better aesthetics, more range of mature canopy sizes (larger trees in smaller spaces), better disease and pest resistance. Research is being done on these plants for their effects with pollinators (some are sterile to prevent fruiting), but can be easily compensated for by including other pollinator plants in the same landscape utilizing "high performance" landscape techniques.
- The "provenance" requirement of plant material. While good intentioned, this is often not practical. A huge amount of plants, especially "patent" plants, originate in the Northwest US where the growers are. These plants are then sold to local growers for "finishing". This regulation, as authored, would eliminate a huge quantity of available plants, as their origin is not in the states mentioned in the Landscape Guidelines. This is also too restrictive in finding the proper materials in certain times of year. I have had plants come from Georgia and Florida when local availability was thin, and did not have any issues. If the tree or plant is young enough, such as calipers less than 2" for trees, it should not have any issues adapting to the local environment.
- The City should not be maintaining lists, such as for invasive species. It should, however, point to State or certain third party resources which maintain the lists more often without the need for a legislative process for approval.
- "As-Built" process. This is an outdated and expensive practice that, to my knowledge, no other local jurisdiction uses. There should be no reason to as-built a landscape. It is either installed to the approved plan, or its not, and needs to be rectified. A simpler certification process would be more practical, more economical for the City and developer, and achieve the same outcomes, if not better.
- Minimum sizes of plants. For instance, the shrubs minimum height requirement for all shrubs is 18". There are numerous shrubs that do not ever naturally achieve 18" in height. This needs to be changed to an industry "gallon" or pot-number size, or explicitly state that shrubs used for screening must be of a certain height.

There are many other issues that still exist in the revised draft that should be further investigated and re-written to make these regulations practical and in-line with the latest thinking in the landscape industry. Feel free to contact me with any questions or comments.

Regards,

Jason T. Radice, RLA, ASLA, LEED-AP BD+C

# City of Alexandria, Virginia

## MEMORANDUM

DATE: FEBRUARY 7, 2019

TO: ACTING CHAIR MACEK AND MEMBERS OF THE PLANNING COMMISSION

FROM: KARL W. MORITZ, DIRECTOR, DEPARTMENT OF PLANNING & ZONING

SUBJECT: FEBRUARY 7 PLANNING COMMISSION HEARING DOCKET ITEM #3 – 2019 LANDSCAPE GUIDELINES UPDATE

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Staff offers the following points in response to the comments from Mr. Jason Radice on the 2019 Landscape Guidelines Update:

In regard to the overall concerns about outreach and input from design professionals and specifically landscape architects, Staff actively engaged Landscape Architects and other design professionals throughout the process. Staff specifically invited area landscape architecture and engineering firms to participate in input sessions to discuss the potential revisions to the Landscape Guidelines. Additionally, Staff presented the proposed revisions at NVBIA to receive further input. Further, the primary Staff on the project are all registered Landscape Architects who have worked extensively in the area, both in the private and public sectors.

Native plants: Plant selection is an important design consideration on projects to ensure that the correct plant is used to fit the environmental conditions of the site. Native plants are not naturally less fit than exotic plants as broad categories – instead it is important that the design team select the appropriate species. Further, the native plant standards do address the availability and appropriateness for urban situations, where the percentage of native plant species has been lowered compared to more favorable sites, allowing selection of the appropriate plant from a wider palette.

“Nativars”: Cultivars, selections, or hybrids of native plants have not been excluded from use. The only caveat is that native plants that are hybridized with non-native plants are not considered native.

“Provenance”: City Staff have direct experience with problems of survivability of plants originating from significant distances and different latitudes. There is also strong academic research to support this. Further, the Landscape Guidelines includes a broad geography that encompasses a significant number of nurseries.

Invasive species lists: The revised Landscape Guidelines will contain references that link to invasive species lists generated by the State and others.

As-builts: The requirement for as-built drawings for the landscape is the current practice per City Code.

Minimum size of plants: The minimum sizes stated follow nursery standards, specifically referencing AmericanHort, which was formerly the American Nursery & Landscape Association. This reference has not changed with the update (except to reference the organizations new name).