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Overview

This guide is separated into two sections, covering Orange County's tree protection and landscape ordinances. The purpose of the guide is to highlight submittal requirements for the DRC landscape review process. As every project is unique, additional information may be requested of you to show compliance with current codes and policies. This guide should not be used as a substitute for codes, standards, or regulations. The applicant is responsible for complying with all codes and rules whether or not described here. Please be advised, failure to submit required information will lead to delays in the review process.

Required

Tree Preservation Plan
Tree Protection Plan
GIS Shapefile
Landscape Plan

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Current Codes

- Chapter 15 Environmental Control, Article VIII. Tree Protection and Removal
 - o Sec. 15-276 to 306
- Chapter 24 Landscaping, Buffering and Open Space
 - o Sec. 24-1 to 13
- Chapter 38 Zoning
 - When applicable, landscape requirements within overlays, districts and planned developments

Tree Protection and Removal Requirements

Important Updates

- A. Arborist Contact Information
 - a. 407-836-5807
 - b. Arborist@ocfl.net
- B. Notable amendments to the Chapter 15 and 24
 - a. The recommended stock list expanded to include more tree species, such as pines (Sec. 24-12). All trees listed in the recommended stock list shall be provided regulatory protections consistent with Chapter 15.
 - b. Palm trees, including cabbage palms, do not need to be mitigated. However, regarding preservation credits, a preserved cabbage palm shall receive 2 inches regardless of its clear trunk. For replanting, 3 palms at minimum clear trunk height of 7 feet shall be deemed equal to one understory tree.
 - c. Understory trees are limited to 25% of the replacement tree calculations.
- C. Increased protections for all regulated trees
 - a. Regulated trees located in areas proposed as open space (pursuant to Sec. 24-26) must remain (Sec. 15-301(f)(1)).
 - b. Changes to the existing grade of a site that will impact regulated trees shall only occur when necessary to meet county Code or other regulatory requirements (Sec. 15-301(f)(3)). A justification citing applicable regulatory requirements shall be submitted.
 - c. Regulated trees within the property line setback areas or buffer areas may only be removed if required fill or removal of grade exceeds twenty-four (24) inches from natural grade. If fill or the removal of grade is less than twenty-four (24) inches, the natural grade within the drip line of the affected trees must be left undisturbed (Sec. 15-301(f)(3)).
- D. Increased protections for heritage and specimen trees
 - a. Overall
 - i. Heritage and Specimen trees shall be preserved to the maximum extent practicable with minimal disturbance to the natural grade (Sec. 15-301(f)(2)).

one-third (1/3) acre.

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- ii. Specimen and heritage tree preservation shall not be required to exceed three (3) trees per developable acre or an average of three (3) trees per acre for properties larger than one acre, fractional, rounded up to the nearest
 - 1. Please be advised that this restriction does not cap mitigation requirements.
 - b. Standards for residential, commercial, institutional or recreation development (Sec. 15-302):
 - i. Heritage and specimen trees may not be removed within property line setback areas or buffers areas, including wetland buffers
 - ii. If located within a proposed parking lot or near a stormwater pond, specimen and heritage trees must be incorporated into the overall design.
 - iii. Heritage trees must be incorporated into the design of a single-family residential preliminary subdivision plan.
 - c. Standards for industrial development (Sec. 15-303):
 - i. Heritage and specimen trees may not be removed within property line setback areas or buffers areas, including wetland buffers.
 - ii. If located within a proposed guest or employee parking lot, specimen and heritage trees must be incorporated into the overall design. The applicant may apply to the Zoning Manager for a deviation from the number of parking spaces in order to accomplish this under Sec. 38-1476(c).

E. Automatic Denials

- a. Failure to provide the requested information outlined below will automatically result in a failed review and require the submittal to be corrected.
 - i. Not providing proper tree identification (i.e., common name, scientific name, regulated, specimen, heritage)
 - ii. Not submitting a GIS Shapefile
 - iii. Outdated tree surveys older than 2 years from the date of the application.
 - iv. Identifying and including trees located in wetlands, upland buffers or surface waters will result in an automatic denial.
 - v. Not submitting requested plans or tables.
 - vi. Not providing information in the format requested.

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Tree Preservation Plan

The following information shall be incorporated into the tree preservation plan on separate sheets as necessary.

A. Tree Survey

- a. Applicability:
 - i. A signed and sealed tree survey at a scale of at least 1" = 300' that was completed within two (2) years from the date of the application by a professional surveyor. (Sec.15-277 & Sec.15-301(e))
 - ii. If trees do not exist on the property, then have a surveyor sign and seal a letter stating, "Per Sec. 15-301(e), there are no recommended or restricted stock trees on this property."
- b. Identify on the survey:
 - i. Limit of work
 - ii. All restricted, regulated, specimen and heritage trees (Sec. 24-12 and Sec. 15-283). Use different symbols to identify each type listed
 - iii. Identify and number each tree's location, DBH, common name, and scientific name. The numbering system must be consistently carried over throughout all the plan pages
 - iv. Existing and proposed easements
 - v. All wetlands, upland buffers and surface waters areas
 - 1. Do not identify trees located in these areas.
 - vi. Provide building and buffer setback lines and call them out
- B. Tree Disposition and Site Plan
 - a. Identify on the sheet:
 - i. Limit of work
 - ii. Proposed site plan
 - 1. Provide building and buffer setback lines and call them out
 - iii. Trees proposed to be preserved or removed.
 - Ensure tree numbering consistency between all plan sets and tables.
- C. Tree Disposition and Grading Plan
 - a. Identify on the sheet:
 - i. Limit of work
 - ii. Proposed grading and drainage plan
 - 1. Provide 1 ft contour lines for existing and proposed grade changes, note the elevation for each contour.
 - iii. Trees proposed to be preserved or removed
 - Ensure tree numbering consistency between all plan sets and tables.
- D. Summary Tables
 - a. Tree Survey and Disposition Table

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- b. Tree Disposition Summary Table
- c. Preservation Credit Table
- d. Replacement Credit Table
- e. Regulated Mitigation Summary Table
- f. Specimen and Heritage Mitigation Summary Table
- g. Subdivision Tree Replacement Table (if applicable)

See pages 11-15 for table templates and additional requirements.

Tree Protection Plan

This plan is to help visualize how tree protection barriers will be built on site and to ensure compliance with all protection requirements. Please be advised, prior to construction activities, County Arborist will inspect barriers to confirm they are built to specifications.

- A. Identify on the plan:
 - a. Limit of work
 - b. Proposed site plan
 - c. Proposed grading plan
 - d. Proposed trees to be preserved.
 - e. Plot each tree's barricade and callout the dimensions.
 - i. The dripline of the tree shall be measured as the Tree Protection Zone (TPZ).
 - 1. TPZ = 1 foot x DBH
 - ii. Refer to Sec. 15-282(c)(1) for barrier specifications and dimensions. On the plan, provide setback callouts.
 - iii. Ensure the proper barrier is proposed for regulated vs. specimen and heritage trees.
 - iv. Clustering trees within a barrier is allowed.
- B. Tree Protection Barrier Detail
 - a. Per Sec. 15-282(c)(1), provide a tree protection barrier detail that satisfies barrier requirements based on whether regulated, specimen or heritage trees are proposed to remain.
 - b. Orange County has provided a detail for the applicant's convenience. See details on pages 16-17.

Orange County Tree Preservation Notes

When applicable, please provide these notes verbatim on the relevant plan outlined below.

- A. Tree Preservation Plan
 - a. Tree Replacement Fund payments for a PSP shall be processed prior to the recording of the plat or permit issuance if a DP.
 - b. All trees listed within the restricted stock table found within Sec. 24-12(b) shall be removed from all upland areas. Please be advised, all category one (1) and two (2) plants identified by the Florida Invasive Species Council shall be removed as well.

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- c. Tree removal mitigation per lot is the responsibility of each lot owner and shall be consistent with the tree preservation plan.
- d. Prior to the recording of the plat, payment of any tree mitigation fees shall be paid.
- e. Per Sec. 15-284, any trees proposed to be preserved on this approved tree preservation plan that are subsequently removed, shall be considered a violation and subject to one or more administrative penalties as follows:
 - i. Nineteen thousand ninety dollars (\$19,090.00) per acre (fractional rounded up to the nearest one-fourth (1/4) acre) if DBH inches unknown;
 - ii. One hundred six dollars (\$106.00) per DBH inch if verified on-site;
 - iii. Three hundred eighteen dollars (\$318.00) per DBH inch for impacts to specimen trees;
 - iv. Three hundred eighteen dollars (\$318.00) per DBH inch for impacts to any permit identified preserved tree;
 - v. Five hundred thirty dollars (\$530.00) per DBH inch for impacts to heritage trees.
- f. A Tree Preservation Plan is included with this plan submittal. Due to final site engineering evaluation, up to (but no more than) 10% of the amount of trees (in inches) shown to be preserved may be removed, provided such removals are reflected in an adjusted Tree Preservation/Mitigation Plan submitted and approved by the Zoning Arbor Office prior to removals. Such removals and mitigations shall be in accordance with regular mitigation requirements, and shall not be considered a violation. However, any proposal or removal of more than 10% shall require that the Tree Preservation/Mitigation Plan (and PSP) return to DRC for a Change Determination, where the proposal for excess removal may be considered a Substantial Change, and/or may consider the removals to be a violation of the Tree Preservation/Mitigation Plan (and PSP) thereby requiring penalty mitigation to be provided in accordance with the fee for impacts to any permit identified preserved tree.

B. Tree Protection Plan

- a. Protective barriers shall remain in place until all construction activity is completed on site, until a final landscaping inspection is made, or until authorization is granted by the county to remove the protective barrier. During site development, no soil shall be added, removed, or otherwise disturbed, nor shall any construction equipment, liquids, debris or materials, be located within the area.
- b. It shall be the responsibility of the permittee to ensure that any tree or stand of trees designated to remain be protected with protective barriers during construction. Barriers for the designated protected trees shall be in place prior to any land clearing occurring near protected trees designated to remain. The property owner shall guarantee survival of retained or replacement trees for one (1) year from the issuance of a certificate of completion or certificate of occupancy, as applicable, or until the issuance of a certificate of occupancy on single-family residential lots.



Arborist Tree Survey Inspection

Please be advised, during the DRC landscape review process, County Arborist will perform an onsite audit to confirm identified trees and measurements are accurate per the submitted tree survey. An on-site audit will not occur until all the information requested is properly submitted. Failure to provide proper identification, DBH sizes, locations and information will prevent County Arborist from providing a complete review of the submitted plan. We strongly recommend applicants have their tree survey reviewed by an ISA Certified Arborist, Landscape Architect or other qualified professional for accuracy.

GIS Shapefile

A GIS shapefile is required to be submitted for all plan types that provides our arborist staff with the geographic information required to conduct an onsite audit of the accompanying tree survey. The GIS shapefile's data and tree survey shall be consistent with each other with respect to tree identification, DBH, numbering, and all requested information. Failure to provide an accurate GIS shapefile that is consistent with your submitted tree survey will result in delays in the review process.

For your convenience, Orange County's GIS Team has created an example and a how-to-guide found on the <u>DRC webpage</u> under Forms. Please review the provided items to ensure your submitted data accurately follows format requirements. Failure to submit data in the required format will result in our team being unable to upload your data for review. If you have questions, please contact Orange County's Arborist staff prior to submitting plans to avoid delays.

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Landscape Requirements

Landscape Plan

A. Applicability

- a. The landscape plan shall conform to requirements set forth in Chapter 24 of this Code. Landscape plans for projects that are more than ½ acre in size shall be prepared and certified by a Landscape Architect who is registered in the State of Florida. Landscape plans for projects of ½ acre or less in size shall be prepared and certified by a Landscape Architect who is registered in the State of Florida or by other Qualified Professional (Sec. 24-3(b)) (Sec. 24-4(2)
- b. Nothing in this ordinance shall be construed to prohibit or be enforced to prohibit any property owner from implementing county-approved low impact development techniques for storm water management and capture or Florida friendly landscaping on his/her land.

B. General Requirements

- a. Preserved trees shall be identified on the landscape plan.
- b. Per Sec. 34-131(c)(1)a, the landscape plan shall contain no more than 60% turf based upon the total square footage of landscaped and irrigated common areas, excluding qualified retention ponds, storm water conveyance systems and active recreation areas/ball fields.
- C. Water-Efficient Landscaping (Sec. 24-6)
 - a. Label the landscape plan as either:
 - i. 40-40-20 Plan, **or**
 - ii. Florida Friendly Plan
- D. Irrigation (Sec. 24-7)
 - a. The irrigation shall be designed and installed to conform to Chapter 37, Sec. 601-613 of this Code.
 - b. Label whether the irrigation system will be:
 - i. Permanent, or
 - ii. Temporary "for the purpose of establishing the plant material".
- E. Residential PSP requirements
 - a. Summary Table Requirement
 - i. Residential PSP Lot Tree Table
 - 1. See Summary Table Templates
 - b. Per Sec. 34-131(c)(1), all preliminary subdivision plans submitted after October 1, 2010 shall include a landscape plan to include any common or recreation areas lots within the subdivision and excluding storm water management areas.
 - c. No more than 60% of the landscaping on individual residential lots may be irrigated turf grass. Include a typical lot diagram, with driveway and building footprint that shows that landscaping shall be comprised of no more than 60% irrigated turf grass.
 - d. Residential PSP's shall comply with Sec. 24-13 concerning the minimum trees required per lot.



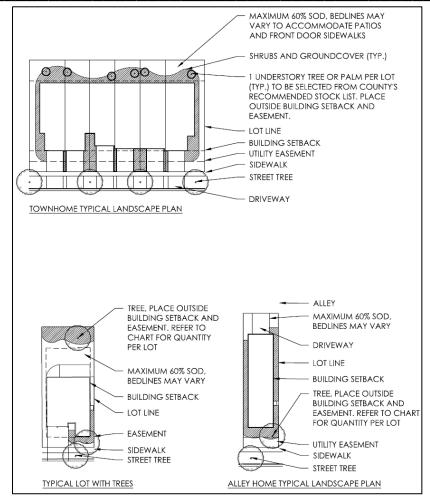


Figure 1. Example of a typical lot landscape diagram

Orange County Landscape Notes

In verbatim, please provide these notes or statements by the appropriate party on the relevant plan when applicable.

- A. All plan types shall have these notes:
 - a. To schedule a landscape inspection for all completed permits, use the "Fast track" application at https://fasttrack.ocfl.net/OnlineServices/ and request a code "270" Landscape/Zoning Inspection. Please be advised, the bike pad and bike racks will also be inspected at the time of the landscape inspection if a zoning hold is on your permit. If you are having trouble scheduling, please call the Building Safety Division at (407) 836-5550. All permits associated with the project that are complete and have a landscape or zoning hold should be entered in order for all landscape/zoning holds to be released upon satisfactory inspection. Inspections are conducted on Tuesdays and Fridays only and shall be scheduled no later than midnight on the night before those days in order to ensure that the inspection will take place.





 Mulch, Per Sec. 24-6(b)(4), shall be organic and shall not be placed on top of the root ball or placed against the trunk. Mulch shall be applied a minimum of 12" to 18" from the trunk of any sized tree. Materials such as rock and shells that do not

biodegrade are not deemed acceptable. Failure to install mulch (and type of mulch) as provided in the specification above may result in a failed inspection. See

http://hort.ifas.ufl.edu/woody/over-mulching.shtml for more information.

c. A tree planted or retained as required by this article shall not be severely pruned, including in such a manner so as to appear stunted. A tree shall be pruned as needed to maintain its health and form in such a way that retains or improves the natural form of that tree species. Improper pruning techniques shall be as determined by the Zoning Manager, consistent with the purpose and intent of this article. All tree pruning shall be conducted according to the latest edition of American National Standards Institute (ANSI) A300. A tree damaged or destroyed due to severe pruning shall be replaced in accordance with Sec. 15-306. Pruning shall be in accordance with the latest edition of the ANSI publications (with the exception of section 2.3.1 of the ANSI A300 Standards, which requires that pruning be performed only by arborists or arborist trainees). A tree shall not be severely pruned, hat racked, hacked or headed back.

- d. Where street trees are proposed, no trees shall be planted within 75' of the stop sign side of the road extension line.
- e. Per Sec. 34-131(c)(5), nothing in this ordinance shall be construed to prohibit or be enforced to prohibit any property owner from implementing county-approved low impact development techniques for storm water management and capture or Florida friendly landscaping on his/her land.
- B. All PSPs types shall have this note:
 - a. Per Sec. 34-131(c)(3), the landscape plan shall contain certification by the landscape architect or other qualified professional, whichever is appropriate, that "the landscape plan is designed in compliance with this Code". The certification shall be stated directly on the PSP/DP, and shall be submitted to the County as a component of the initial submittal of the PSP/DP.
- C. Residential PSPs shall have these additional notes:
 - a. The landscape plan shall contain signed certification by the developer stating that "the landscape plan will hereafter be maintained in compliance with this Code and that such maintenance obligations shall be included in the deed restrictions associated with the subdivision". Per Sec. 34-133(k), the developer shall include language in the CC&R's stating that this landscape compliance language cannot be changed without county approval and such landscape plan compliance enforcement shall be the responsibility of the homeowners association. (Sec. 34-131(c)(3))

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Summary Table Templates

Please strictly adhere to the table formats provided. If necessary, adjustment can be made to accommodate code requirements that these templates do not account for depending on your project. Please be advised, mitigation deficits can be offset by paying into the Orange County Tree Replacement Fund (Sec. 15-306(a)(7) at its current rate of \$106 per inch. Payments for a PSP shall be processed prior to the recording of the plat or permit issuance if a DP. Add a row to the appropriate mitigation table and provide the amount to be paid.

Tree Survey and Disposition Table

Provide the following information for each tree.

- Tree Number
 - Number each tree on the survey and match it to the table. The numbering system shall be consistently carried over throughout all the plan pages.
- Common and Scientific Name
- DBH
- Type (Sec. 15-277 and 15-283)
 - o Regulated, Specimen, Heritage or Restricted
- Preserve (Y/N)
- Preservation Credit (+)
 - o Sec. 15-306(a)(4)
 - o If an existing tree is proposed to be preserved, input the preservation credit amount.
- Mitigation (-)
 - o Sec. 15-306(a)(1)
 - $\circ\quad$ If an existing tree is proposed to be removed, input the mitigation amount.

	Tree Survey and Disposition Table							
Tree	Common Scientific DBH Type Preserve Preservation Mitigation				Mitigation (-)			
no.	Name	Name	(in.)		(Y/N)	Credit (+)		
1								
2								
3								
4								
5								
Total								



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Tree Disposition Summary Table

Summarize the tree survey table based on the type of tree and preservation vs. removal.

	Tree Disposition Summary Table						
Type	Ratio	Totals					
		Preserved (in.) Preserved (%) Removed (in.) Removed (%)					
Regulated (U)	1:1						
Regulated (C)	1:1						
Specimen	3:1						
Heritage	5:1						
Total			100		100		

Preservation Credit Table

Provide proposed preservation credits within the respective limits outlined in Sec. 15-306(a)(4). Only 25% of preserved trees applied toward preservation credits shall be understory trees.

Preservation Credit Table					
Preserved Trees	Ratio	Total Inches	Percentage		
Regulated (U)	1:1				
Regulated (C)	1:1				
Specimen	3:1				
Heritage	5:1				
Total			100		

U = Understory

C = Canopy

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Replacement Credit Table

See Sec. 15-306 for tree replacement criteria. Specimen and heritage trees shall be replaced by greater than or equal to 5-inch caliper canopy trees. Three palms at minimum clear trunk height of 7 feet shall be deemed equal to one understory tree.

Replacement Credit Table						
Proposed	Quantity	Ratio	Replacement Trees	Inches	Percentage	
Canopy Trees						
5" Cal.		1:1				
3" Cal.		1:1				
Total						
					<u> </u>	
Understory Tree	es					
3" Cal.		1:1				
Palms (2" Cal.)		3:1				
Total						
Totals					100	

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Regulated Mitigation Summary Table

Only provide mitigation calculations for regulated trees proposed for removal. See Sec. 15-306 for tree replacement criteria. The 90-inch rule, per Sec. 15-306(a)(2), is only applicable for mitigating regulated trees.

Regulated Mitigation Summary					
Limit of Work (ac.)					
Total Regulated Inches Removed					
90-Inch Max Adjustment (if applicable)					
Allocated Preservation Credits					
Allocated Replacement Credits					
Balance (+/-)					

Specimen and Heritage Mitigation Summary Table

Only provide mitigation calculations for specimen and heritage trees proposed for removal. See Sec. 15-306(a)(3) for tree replacement criteria. Specimen and heritage trees shall be replaced by greater than or equal to 5-inch caliper canopy trees.

Specimen and Heritage Mitigation Summary					
Limit of Work (ac.)					
Total Amount of Specimen/Heritage Trees					
Preserved					
Total Specimen Inches Removed					
Total Heritage Inches Removed					
Combined Inches					
Allocated Preservation Credits					
Allocated Replacement Credits					
Balance (+/-)					



Subdivision Tree Replacement Table

If applicable, provide this table on the tree preservation plan that indicates the amount of inches to be mitigated, if any, per lot (or tract). The inches shall be distributed and apportioned to the individual lots (or tract) within this PSP based on lot size. The required mitigation (in inches) per lot may be satisfied by onsite planting to meet Ch. 24 landscape requirements, by paying into County Tree Fund or by some combination of planting and payment. Mitigation shall be satisfied prior to permit issuance.

Subdivision Tree Replacement Table							
Tract	Acres	Mitigation Amount	Replacement Credits	Preservation Credits	Tree Replacement Fund		
Tract 4A							
Tract 4B							
OS-1							
Totals							

^{*}Tract callouts are examples, please provide the appropriate tract titles.

Residential PSP Lot Tree Table

If applicable, residential PSPs must provide a summary table that details how many trees will be planted on each lot in accordance with Sec. 24-13.

Residential PSP Lot Tree Table						
Lot no.	Area (sf)	Required Trees/lot	Provided Trees/lot	Preserved Trees/lot*		
1						
2						
3						

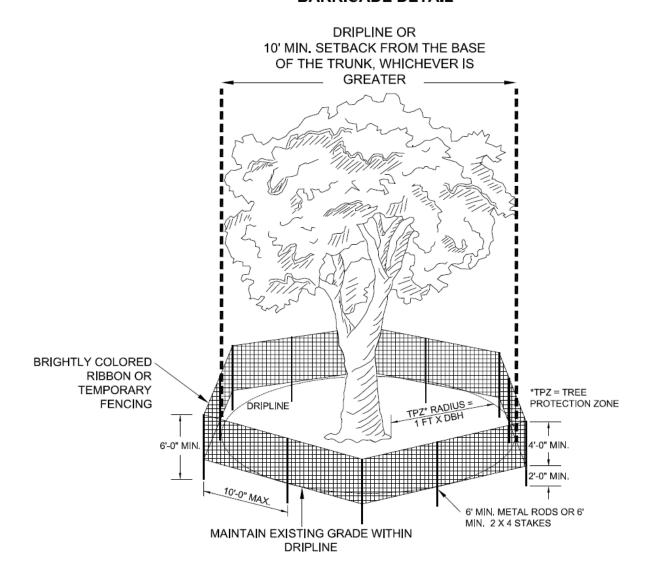
^{*}Provide this column if applicable to your project.



Orange County Tree Protection Barrier Detail

Regulated Tree Barricade Detail

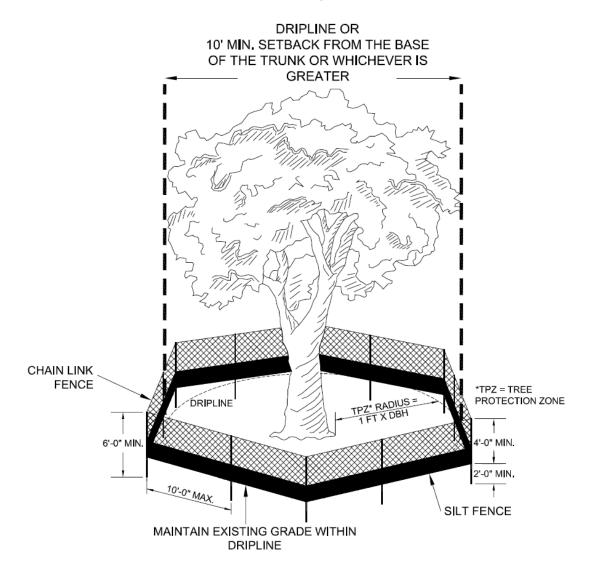
FIGURE 1. REGULATED TREE BARRICADE DETAIL





Heritage and Specimen Tree Barricade Detail

FIGURE 2. HERITAGE AND SPECIMEN TREE BARRICADE DETAIL





Protection Barrier Detail for Tree Groupings

FIGURE 3. PROTECTION BARRIER DETAIL FOR TREE GROUPINGS

