

ANSI A300

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By Guy Meilleur



The health, stability, and longevity of this veteran oak tree are greatly improved, by using the A300 Tree Care Standard to develop simple specifications, following **83.1.3**, “Soil volume, fill, air and water movement, drainage, and the distance between roots and infrastructure should be considered.”

“All work shall be performed according to ANSI Standards” is common language in U.S. contracts these days. Unfortunately, those words alone mean very little, in the landscape or in courts of law.

The American National Standards Institute (ANSI) A300 Tree Care Standard, Parts 1 through 9, covers Pruning, Soil Modification, Support Systems, Lightning Protection, Construction, Planting, Vegetation Management, Root Management, and Risk Assessment. In other countries,

the A300 is used as a reference, just as other countries’ standards are referenced when the U.S. standard is revised. The first step in applying this standard is to establish the Objective. The client’s goals are not automatically adopted, they are adapted. In the light of the A300, best practices, and site conditions, arborists establish the Objective, and define their own assignments.

The A300’s mission: *To develop consensus performance standards based on current research and sound practice for*

writing specifications to manage trees, shrubs, and other woody plants. With the client agreeing, the second step is to describe specific tasks, or Specifications. These “specs” keep everyone literally on the same page. Simple jobs can be spelled out in 20 words or less, as a proposal to a client, or the brief work order on this post oak: 1. Clear flare 6”. 2. Expose root collar. 3. Measure adventitious roots. 4. Reduce branches south and west 1-9’ using 1-3” cuts, <10% overall.

The A300 Standard helps determine and communicate these details. Brief or long, written specifications connect performance and management with a common objective. Without this connection, chaos is more likely. To avoid chaos in this article, we’ll update the current state of all 11 Parts in order, showing the (year) of the current publication. The images are from a hollow post oak (*Quercus stellata*). The captions contain excerpts from the new Part 8, Root Management. From the beginning:

Part 1 (2008) **Pruning** is currently in revision, most recently at the semiannual A300 meeting of October 2013. The committee heard from arborists who find A300’s stripped-down style needs interpretation, and are requesting a more user-friendly format. One change underway is to describe potential Objectives in more detail and toward the front of the document, because the pruning objective has to be established by the arborist and the owner before Specifications can be written. Another fundamental change is to incorporate utility pruning, instead of confining it in its own section.

Part 2 (2012) **Soil Management: Modification, Fertilization, and Drainage** now has a broader range of potential practices, like soil aeration, replacement, injection, and amendment. Increasing the amount and activity of beneficial microorganisms is a vital objective, but more guidance is needed. By referencing the section on soil drainage, the movement of air, and water, arborists can enable healthy growth in tree roots and their associates.

Part 3 (2013) **Supplemental Support Systems** has also evolved to embrace new procedures. Installing through-cabling systems “into decayed areas where sound wood is less than 30% of the trunk or branch diameter” complies with 33.4.3, because only the cable itself passes through the tree. Washers are no longer required with through-hardware, unless the manufacturer recommends them. The use of offset washers to align systems was not included in this revision, and lag hooks are still not acceptable in wood over 10” diameter.

Part 4 (2013) **Lightning Protection Systems** now incorporates more terminology and parameters from the National Fire Protection Association (NFPA), to be consistent with the broader national standard. These systems can protect adjacent property by preventing sideflash to buildings, and damage to utilities through contact with roots. Those benefits are not mentioned, because that would conflict with the NFPA standard.

Part 5 (2010) **Management of Trees and Shrubs during Site Planning, Site Development, and**



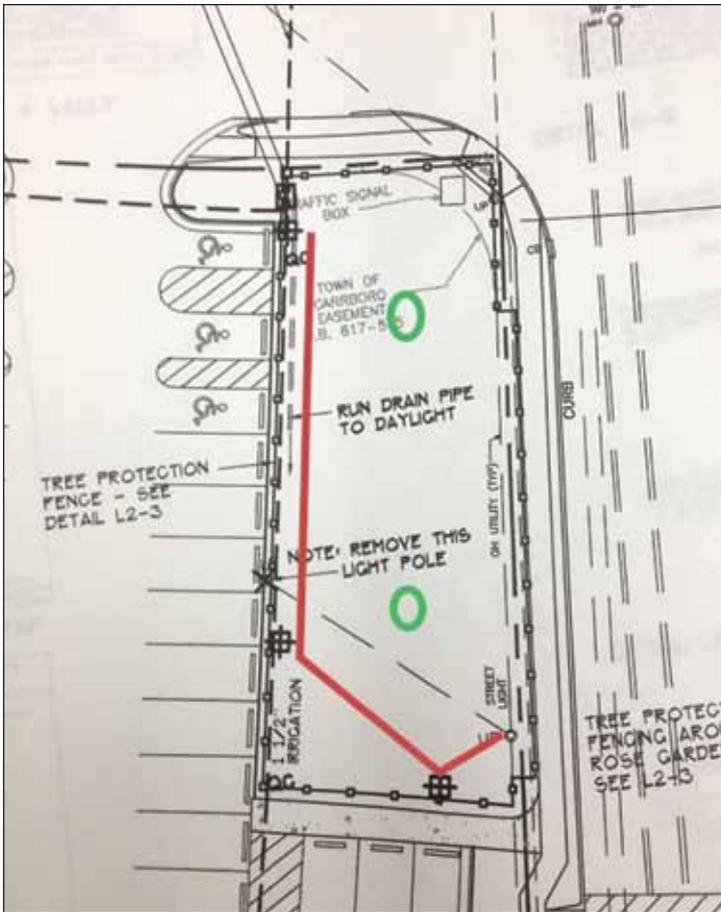
Section 83.3.4 states, “Inspection should include. . . Conditions in the crown that reflect root conditions. . .” Branches that had historically been reduced were removed, aggravating health and stability concerns. Wound closure was poor.



Section 83.3.5 states, “Mulch, soil, and other materials should be removed as needed to allow for inspection.” After fresh mulch was removed, a 2” layer of compacted mulch remained above the soil. No root growth was found in this shredded hardwood, which looked and smelled as sterile as peat.

Construction has grown substantially. Many contracts call for a certified arborist to be involved in development, but this involvement is too often too little, too late. Per 53.3.9.2, “The arborist shall note the trees’ function in the ecosystem, the incentives for conservation, and mitigation potential for the site.” (“Shall” indicates a requirement, “should” indicates a recommendation.) This echoes our roles and responsibilities in risk assessment, and IPM as well. Part 5 empowers arborists to persuade towns and developers to proactively manage trees before, during, and after construction.

Part 6 (2012) **Planting and Transplanting** can also improve the odds for success when a knowledgeable



Town planners specified the power line just inside the pavement, following **84.5.1**, “When non-selective root cutting is necessary, roots shall be cut as far from the trunk as practical.” Unsupervised, contractors trenched the shortest path possible (red line), cutting off over 500 square feet of rootzone. This damage was discovered via **80.4.5**, “The location of utilities and other obstructions both below and above ground shall be considered prior to root management operations.”

arborist is involved. Most arborists know **64.5.4**, “The bottom of the trunk flare shall be at or above finished grade.” Now, **64.4.3** clarifies that “The soil **directly** beneath the rootball should be undisturbed or prepared to prevent settling.” Soil deeper than, but outside of the rootball can be aerated and amended to promote healthy roots.

Part 7 (2011) **Integrated Vegetation Management (IVM)** is intended to “promote sustainable plant communities that are compatible with intended uses of the site, and discourage incompatible plants. . .” Part 7 calls for proactive communication with stakeholders, cultural and biological control, and a quality assurance program. Dave Nowak provided technical advice based on a mutual understanding that “IVM is used to understand, justify, choose among, selectively apply, and monitor different types of treatments, with an overall goal of eliciting site-specific, ecosystem-sensitive, economically sensible, and socially responsible treatment effects that lead to refined achievement of management objectives.”

Part 8 (2013) **Root Management** is the newest Part of the A300 Standard. First conceived as Root and Rootzone Management, Part 8 was revived when Part 2 Fertilization became Soil Management. Part 8 focuses on inspection, establishment, pruning and cutting roots, blocking roots with barriers, and guiding roots with channels. Defining selective root pruning as distinct from non-selective cutting was a turning point in Part 8’s development. The same distinction applies to cutting or pruning branches, in Part 1. The root subgroup included talented and tenacious technical advisors, and public commenters also played a key role. After several years of discussion, Part 8 passed a final public review and was approved by ANSI.



Section **83.2.8** states, “Evaluation of decay, callus and woundwood growth, and response growth in the trunk and crown shall be considered.” Adventitious support roots were found on both sides of the cavity and in the other sinuses. These were measured up to 2 3/4”. Measuring response growth over time documents a gain in strength with numerical data.

