Florida’s population was about 529,000 in 1900 and by 2000 it had increased to just less than 16 million people. The U.S. Census Bureau population projections estimate Florida’s 2030 population will be 29 million. Most of these new residents will look to live within the existing metropolitan regions of the state. Urban cores will be redeveloped to allow higher densities and adjacent urban-rural interface forestlands will be annexed. Redevelopment and expansion of our cities will require more open land for roads, residencies, schools, shopping centers, industrial parks, hospitals, etc. The extent of urban open space and vegetation, forests, woodlands, scrub habitat, streams, rivers, ponds, and lakes will diminish.

This is happening as a broad and growing body of scientific literature is documenting the basic ecological services and associated economic values provided by urban trees and woodlands and urban-rural interface forests. It is becoming increasingly clear with each passing day that these services are critical to the health and well-being of our expanding urban population. In light of these findings, the conservation and restoration of these urban and interface forests must now be seen as a fundamental goal of any viable public works program or land-use planning process.

Existing urban infrastructure that can be potentially damaged by tree roots include sewer and septic lines, storm water drains, water supply lines, building foundations, sidewalks, streets, parking lots, curbs, and swimming pools (Coder 1998). The remedial repair of infrastructure is expensive. California alone spends approximately $70 million a year repairing damage to sidewalks, curbs and gutters (McPherson and Peper 2000). This figure does not include repairs that need to be made but were not, or damage to driveways, building foundations and sewer lines found on private property. In Hillsborough County, Florida it is estimated that annual sidewalk and curb repairs — simply to meet the Americans with Disability Act guidelines -- could exceed $9 million per year. The City of Tampa estimates a cost of $1 million per year to meet these same guidelines. Maintenance costs for trees that are damaging infrastructure can exceed the dollar value of the ecological, economic and psychological benefits that they provide to residents (McPherson and Peper, 1995 and Nicoll and Armstrong, 1998). Attempts to protect existing infrastructure have led to a greater acceptance of removing the larger older trees that provide the greatest benefits. The young replacement trees used to mitigate this loss are a net cost for at least the first 5 to 10 years due to high establishment costs (McPherson et al., 1999b). Clearly this is not a sustainable situation for residents or municipal governments and fuels the debate over the value of trees in an urban environment.

Experience and science have demonstrated that the best time to prevent potential infrastructure and tree conflicts is long before a tree is planted. Much cost and damage to both infrastructure and trees can be avoided if site requirements for long-term growth and vigor of trees are made an integral part of the original plans for urban streetscapes or development projects. In pre-existing sections of our cities, species selection is the key element in any strategy to reduce infrastructure and tree damage (Costello et al. 1997). Species selection should be directly focused on the specific tree species’ ability to thrive in a specific urban site with its limited space and altered soil conditions (Nicoll and Couts, 1997). The concept of right tree, right place has been too loosely interpreted and applied without attention to the often-narrow range of environmental factors that define a given tree species’ habitat needs. Bringing arborists and urban foresters into the early stages of streetscape design and landscape plans can lead to economic efficiency and greater success in maintaining longer-lived large trees within our cities.

continues on pg. 3
PRESIDENT’S MESSAGE

As 2013 comes to an end, it is time to reflect on the many accomplishments this year has brought and be thankful to everyone who has made this year a huge success. It has been an honor and a privilege to serve as President of the Florida Urban Forestry Council. I would like to thank Sandy Temple our Executive Director for doing an outstanding job. Sandy is always right on queue and never misses a beat. A shout out is in order to Charlie Marcus, our Florida Forest Service liaison, for the generous support from the Florida Forest Service. A thank you is also in order for our wonderful Executive Committee members and FUFC members who have produced a year of very successful programs and venues which support our mission of promoting sound urban forestry policies and practices by educating our citizens and communities throughout the state of Florida.

The topic for this issue of The Council Quarterly is Trees and Infrastructure in the Urban Forest. This is a subject that affects many urban foresters. Root and pavement conflicts, sidewalks and trees and trees and construction are all concerns and issues that cities deal with on a daily basis. This topic will also lead into our 2014 Urban Forestry Institute that will be held March 13-14 at Nova Southeastern University in Fort Lauderdale.

We will also finalize addressing the questions from the 2012 FUFC member survey in this issue. We truly treasure the feedback of our membership—whether it is favorable or critical. We are always striving to improve our outreach to our membership and those who work in the industry that deal with issues of the urban forest and the challenges it brings.

Our Trail of Trees program was a great success once again this year and reached over 3,000 students from Orlando to Tampa and down to Fort Lauderdale. The last of the i-Tree Workshops that were scheduled for 2013 was held in Jacksonville at the end of November. Complimentary “Tree Advocate” memberships were included with the registration costs for the i-Tree Workshops bringing in over 40 new members to the Council.

As I relinquish my role as 2013 FUFC President, I wish our incoming president, Ken Lacasse, a successful and prosperous 2014! I hope that as my year ends I have left a good and valuable impression on this organization. It has been a pleasure working with all Executive Committee members and committees. I feel we have had a very fruitful year that has touched many people in our professions and served our purpose as a Council in our communities. I wish all a Happy Holiday Season and the best going into the New Year.

Sincerely,

Elizabeth Harkey
FUFC President
Wrong tree in the wrong place

Sidewalk repair and damage to tree

In Reducing Infrastructure Damage by Tree Roots - A Compendium of Strategies (Costello et al. 2003), the authors suggest three broad approaches to reducing the potential for infrastructure damage in pre-existing urban settings tree-based strategies, infrastructure-based strategies and rootzone-based strategies.

These broad approaches can be used to prevent future damage or used to correct an existing condition (remedial). The Compendium provides arborists, engineers and planners a solid technical introduction to avoiding infrastructure and tree conflicts. Arborists most often work directly within the tree-based approach while providing consulting advice and occasional direct assistance to engineers and planners who work hardscape infrastructure and rootzone-based approaches. Species selection and root pruning are the two activities most associated with a tree-based approach. Arborists most often cite species selection as the key factor in reducing tree hardscape conflicts.

Using tree selection to reduce the potential for infrastructure tree conflicts requires an intimate knowledge of trunk flare and root buttress characteristics often associated with damage to sidewalks, curbs, etc. (Wagar and Barker 1983). Diameter at ground level (DGL) is a direct measurement of trunk flare or root buttress. DGL at tree maturity can be as much as 2 to 3 times the diameter of a tree at breast height (4.5 ft.). Some species exhibit a consistent stronger flare, while other tree species may vary in the amount of flare due to the influence of the regional environment and site conditions. In the Compendium, Costello et al. (2003) describe a straightforward survey methodology for determining ranges of DGL for common tree species and provide examples of the work undertaken in several cities across the nation. DGL values can be used in planning to identify minimum planting space requirements for specific species (preventive) or as a measure of suitability when making a judgment about managing a problem tree (remedial). They caution that DGL values should be established locally; they might not be applicable in other cities.

Urban foresters, on the other hand, are as likely to be working on the urban fringe where farmland and forests is either being converted to residential sites or is being annexed to provide new areas for true urban expansion. This is perhaps the optimal time to plan for the new urban forest, well before even the first preliminary plat for subdivision or engineering sketches are prepared. As our urban cores expand, we will need to consider the conflicts that occur between new infrastructure and remnants of native forests that will become the new urban forest and the cornerstone of green infrastructure systems that will support the sustainability of our cities. Arborists, with their intimate knowledge of individual tree biology, and management working together with urban foresters, with their background in forest ecology, will provide critical guidance in the development of regional park systems, protection and management of natural areas and organization of urban forest programs that support the health and well-being of area residents. It is a business opportunity for and social responsibility of the maturing arboriculture and urban forestry profession.

The short history of urban and rural forest conservation and management in the United States can now be seen as a dialogue between societal values and our scientific understanding of tree biology and forest ecology. While changes are afoot, the societal values being expressed through many land-use management programs today do not match our ecological understanding of the values of trees and forests. As a result, we continue to make mistakes that lead to the loss of the trees and woodlands and the societal benefits they provide. What is required is the adoption of a conservation ethic that recognizes the need to address existing infrastructure and tree conflicts within our older urban areas and provide for the conservation of the ecological values of rural forestland adjacent to cities that will become our next generation of urban forests. To accomplish this, planning and public works departments will need to have qualified staff knowledgeable in arboricultural and urban forest systems.
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2” POROUS CONCRETE & A LAYER OF BIO BARRIER OVER ROOT BALL
Crape myrtle was introduced to the southern United States over one hundred and fifty years ago. It refers to several *Lagerstroemia* species and hybrids that are deciduous shrubs or trees with origins in China, Japan and other parts of Southeast Asia. They have been cultivated there for centuries and were a favorite tree of Chinese emperors. Crape Myrtle derives its common name from its crepe-like, crinkled petals and the resemblance of its leaves to the true myrtle, *Myrtus communis*.

**Leaves:**
Many of the *Lagerstroemia indica* cultivars are rounded or spoon-shaped and up to 3 inches long. Most hybrid cultivars have lanceolate (lance-shaped) leaves up to 5 inches long and 3 inches wide. Leaves are often tinged red in the spring and dark green in summer. Several cultivars are known for new growth that is bronze, red or burgundy. In central Florida and northwards, foliage may turn brilliant yellow, orange or red in autumn.

**Bark:**
When the leaves fall in late fall, the crape myrtle becomes a living sculpture. The trunk and branches of tree-form species have an attractively gnarled, sinuous character with smooth bark. Strips of bark peel off in early summer to reveal a mottled new bark ranging in color from pale cream to dark cinnamon to rich brown to bright orange.

**Flower and Fruit:**
Crape myrtle provides landscape interest year-round. Flowering begins as early as May in some cultivars and continues into the fall. Each 6 to 18 inch cluster of flowers (or panicle) develops on the tips of new growth and is composed of hundreds of one to two-inch red, pink, white, lavender, or purple flowers. Some cultivars have bicolor flowers and other cultivars have panicles composed of a mix of flower colors.

**Form:**
Crapes are vase-like, upright and open or rounded, moderate density, multiple trunks with dense branching or single trunk. They range in size to 30’ tall.

**Environment:**
The Crape Myrtle is hardy from plant zones 7A to 10B and prefers full sun. It grows well in limited soil space in urban areas, such as along boulevards, in parking lots and in small pavement cutouts, if provided with some irrigation until well established. Crapes tolerate clay and slightly alkaline soil well.

**Pruning Tips:**
For the uninitiated, crape murder refers to the odious practice of using chainsaws and loppers to reduce beautiful Crape myrtles to hideous stumps every spring. Not only does this ruin their sculptural form, but it also prevents them from developing that wonderfully mottled, smooth, flaky bark so welcome in the winter landscape.

Don’t chop your large Crape myrtles down to ugly stubs each spring. This ruins the natural form and encourages the growth of spindly, whip-like branches that are too weak to hold up the flowers. To reduce a Crape myrtle’s height, use hand pruners or loppers to shorten the topmost branches by 2–3 ft. in late winter, always cutting back to a side branch or bud. For branches more than 2 in. thick, always cut back to the crotch or trunk. Don’t leave big, ugly stubs.

**Pests:**
Crape myrtle can be one of the most pest-free landscape plants with proper cultivar selection and with proper siting. Primary pests are powdery mildew and crape myrtle aphid with its associated sooty mold. Powdery mildew can be avoided by planting resistant Crape myrtle varieties.

**Popular cultivars:**
Natchez (white), Muskogee (lavender), Tuskegee (dark pink), and Tuscarora (coral pink) are the larger varieties (20-30’). Tonto (fuschia red), Catawba (purple), Sioux (light pink), and Seminole (medium pink) are under 20’ and excellent for under power lines.
**STUMP THE FORESTER**

**QUESTION:** I have a Chinese Elm tree in my backyard and it looks like it is dying. My wife and I noticed a small dead area on the trunk and then within the past year it has grown in size and the dead area now extends up one of the branches. Do you know what this is and should we remove the tree?

Fretful Homeowner
San Antonio, Florida

**ANSWER:** Chinese Elm (*Ulmus parvifolia* ‘Drake’) is a wonderful shade, specimen, street, or parking lot tree. It is relatively fast growing and nearly evergreen with showy, exfoliating bark. It is no wonder that you selected this tree for your backyard!

The description and pictures you provided looks like your tree has a canker. Cankers are localized dead areas in the bark of stems, branches, or twigs of many types of trees and shrubs. Most canker diseases are caused by fungi, which grows between the tree’s bark and wood, killing the living portion of the bark called the cambium. Canker symptoms vary depending on the species and type of fungus that caused the canker.

Your tree appears to have a **diffuse canker** that has caused death to a large part of the tree’s cambium. Diffuse cankers form little or no callus (a mass of woody tissue at the outer margins of a canker formed by rapid cell growth) because the fungus grows too quickly, overcoming the callus barrier and then the tree responds by forming another callus to try to contain the pathogen. This cycle of callus formation forms the concentric rings giving the canker a target appearance. Note that this canker progresses more slowly than a diffuse canker.

A guess for the fungal pathogen causing the diffuse canker on your Chinese Elm would be a weak canker pathogen, such as *Fusarium solani.* It probably gained entry to the tree’s trunk at a wound or pruning scar. The rapid development of the canker implies that the tree was probably already stressed. Diffuse cankers are usually lethal and diseased branches should be removed immediately. If the canker is more than one-half way around the circumference of the main trunk, the tree development should be carefully watched for internal decay in the future. If structural integrity is threatened, the tree may have to be removed.

A tree risk assessment is recommended by a Qualified Tree Risk Assessor to provide you and your wife with the necessary information to make an informed decision on the future of your Chinese Elm.

“Nothing in life is to be feared, it is only to be understood. Now is the time to understand more, so that we may fear less.” – Marie Curie

*Question and Answer submitted by Erin Givens, a Certified Arborist with Legacy Arborist Services.*
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- installs osprey nesting dishes atop of the utility pole cross arms as needed for these magnificent birds.
- places squirrel guards atop the transformers to protect a variety of animals from danger, particularly squirrels.
- offers net metering to members interested in renewable generation such as photovoltaic systems.
- recycles retired power equipment, scrap steel, aluminum, copper, porcelain, fluorescent lights, ink printer and copier cartridges, plus much more.
- researches and writes *Nature’s Reflections*, a special column in the members’ newsletter developed to educate the community on the flora and fauna of Florida with eco-friendly topics like xeriscaping and conservation.

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REQUEST FOR ARTICLES

Please let us know what urban forestry projects you have going on in your neck of the woods. The Florida Urban Forestry Council would greatly appreciate the opportunity to share your information in our newsletter. These articles can include:

- New trends in the industry
- News about tree advocacy groups
- Volunteer projects
- City tree programs
- Letters to the Editor
- Questions for “Stump the Forester”

We look forward to hearing from you on this or any other interesting topic related to the urban forestry industry and profession. Please send any articles or ideas to Jerry Renick, FUFC newsletter editor, at jrenick@landdesignsouth.com.

Thanks for contributing!
MEMBERSHIP SURVEY RESPONSES

Kathy Beck, Membership Committee Chairperson

As we wrap up our review of survey responses, it was important for your Executive Committee to know who “we” were and the professions that make up our membership. We wanted to know what industry affiliations were associated with your profession, the types of educational programming needs you had and whether our membership would be interested in participating or volunteering in the Florida Urban Forestry Council. The outstanding response to our survey will guide our programs and efforts through 2014. We appreciate your support and look forward to increased membership and advancing Urban Forestry efforts throughout the State!

Which of the following is your profession related to:
Our membership is a diverse group of urban forestry professionals (52%), government employees (45.3%), arborists (34.7%), consultants (25.3%), maintenance professionals (24%), educators (21.3%), horticulture (21.3%), development (16%), architecture (10.7%), construction (10.7%) and nursery/grower (8.0%). Other expertise among membership includes damage assessment, landscape inspections, research, tree board members, elected officials, landscape architects and utility arborists. Our membership covers the entire spectrum of the industry and consists of a dynamic group of professional experience. We hope to expand membership throughout the State and encourage you to invite a colleague to join our ranks.

Are you interested in attaining continuing education units at upcoming events?
Our survey response had an overwhelming “yes” for ISA CEU’s (76%), Pesticide Applicator (28.8%), Florida Nursery Growers and Landscape Association and Society of American Foresters (23.7% for both), Landscape Inspectors Association (15.3%), and the American Institute of Certified Planners (10.2%). Providing CEU’s at our programs is a major attendance draw, a testament to the professionalism of our membership and the desire to maintain current industry information for our professional affiliations.

What topics do you consider to be the most significant Urban Forest Management issues that FUFC should address through their educational programs?
Survey responses have indicated membership priorities for educational programs should focus on the Environmental Benefits of Urban Trees (67%). This information covers a broad spectrum of information as municipalities across the State are prioritizing and quantifying this information as part of their Urban Forestry programs. We can draw from science-based research that will quantify the economic and environmental benefits of the Urban forest in communities that have performed inventories and spatial analysis. Other topics include Right Tree, Right Place (59.7%), Tree Planting and Establishment, Community Inventory and Management Plans (54.7% respectively), Tree Ordinances (54.5%), Minimizing Construction and Utility Conflicts, and Community Volunteer Programs (45.5%). The Council has clearly defined objectives for 2014 educational programs and will present a dynamic program for our 2014 Urban Forestry Institute. The Council has heard your suggestions and ideas and invites you to join us March 13 and 14 at Nova Southeastern University for “Conflict Resolution: Trees versus Infrastructure.”

Would you be interested in participating in FUFC volunteer efforts in your community?
Again, our membership has stepped up to the plate with 52% of you wanting to assist in the Urban Forestry effort on a local level. We will be contacting those who left information for opportunities to assist at tradeshows and events. Thank you for your interest!

Would you be interested in becoming an Executive Committee member or serving on a Committee?
22.5% of our responses have indicated they would be interested in a position on the Executive Committee! This response was a significant indication of those people who truly believe they can make a difference as we move forward with Urban Forestry efforts around the State. Please make sure you read our notices of vacancies on the Committee and submit your names and biographies to the Florida Urban Forestry Council, we are always looking for fresh ideas and faces to join us as we take the organization forward.

Are you affiliated with other “green industry” groups?
Again, the strength of the Urban Forestry community is partnerships with other organizations such as the ISA (82%), FNGLA (32.3%), ASLA (16.1%), Society of American Foresters (14%), Master Gardener’s (14.5%), Certified Landscape Inspectors (12.9%), and Garden Club members (8.1%). Other affiliations include Tampa Bay Association of Environmental Professionals, Florida Native Plant Society, Florida Turf Grass Association, Master Naturalist, Wetland Scientists, and ASCA. These types of affiliations build a strong base for Urban Forestry efforts and are paramount to our success.

The Florida Urban Forestry Council appreciates our membership response to our survey questions, thanks again for helping us provide the best in Urban Forestry education and programs!
Over the years, we have all read or seen first-hand the damage trees can cause when a conflict arises with infrastructure – lifted sidewalks and driveways, topped trees under powerlines, crushed roofs, etc. We are all familiar with the “First Commandment” in urban forestry management, “Thou shall plant the right tree in the right place.”

Oftentimes, however, trees must be trimmed or removed when infrastructure is being built or expanded such as in the case of a new or widened roadway or a new or expanded utility easement. Removing or trimming the trees removes the conflict, but creates a monetary loss to the property owner. Determining the value of the loss is necessary to allow for adequate compensation to the owner of the trees.

I am fortunate, that as both a Certified Forester and Certified Arborist, I have the background and knowledge to be able to determine the value of trees in both a commercial timber situation, as well as in an urban or ornamental situation. This article will examine the approach taken as a tree appraiser to determine the value of trees removed or trimmed in three different scenarios.

Scenario #1: Commercial Timber

I was asked by an attorney to determine the market value of timber which was to be removed on a 55,000 acre property in the Panhandle of Florida due to the expansion of an existing two-lane highway to four lanes. This property contained thousands of acres of pine timber and the growing and selling of timber was a major part of this landowner’s business. The widening of the highway through approximately eleven miles of timber would result in the loss of approximately 185 acres of planted pine timber of varying species and ages.

When dealing with thousands of trees over many acres, it is impossible to measure every tree and assign an individual value to each tree. As a forester, I am familiar with the process of sampling a large population of trees by establishing a number of sample plots, measuring the trees within each plot, assigning the measured trees to a “product class” of timber (pulpwood, sawtimber, poles, etc.), determining the market value for each product, and then determining the value to a “stand” of timber based on the results of the sample plots.

A number of sample plots were established within each species and age of planted pine. Each of these different ages and species is known as a timber stand. Enough plots must be established within each stand to establish a statistically reasonable result. The stands were determined from a timber stand map provided by the landowner. Plots were placed within each of these stands within the boundaries of the proposed right-of-way expansion. Trees were measured for diameter, height and assigned a product class as described above. The data were entered into a software program which provides per acre averages for each product along with statistical accuracy by stand and product.

Determining the value of each product is the next step. Landowners are paid different prices for each product; this price paid for standing timber is called stumpage.

Determining what a timber buyer will pay for timber on a particular tract is determined by studying the local timber markets and determining the prevailing price for each product. The prices paid for the various timber products on the “subject tract” must be adjusted based on size of the tract, access, timber volume, haul distance to the mills, seasonality of logging, and other factors.

Once all of this data have been collected and analyzed, the anticipated timber prices for the subject tract are reconciled and a price for each product is determined. The total volume for each product is then multiplied by the reconciled stumpage value for each product and a total timber value is determined.

However, the above procedure is suitable only for timber which is considered as currently merchantable. In other words, is the timber of sufficient size and volume to attract one or more timber buyers? What happens in a situation where the timber is too young to harvest, or in forestry jargon, pre-merchantable? Such was the situation for several of the stands on the subject tract.

In this case, the timber must be “grown out” to a merchantable size, the value determined when merchantable based on stumpage prices, and then “discounted back” to the present to determine a Net Present Value (NPV). This process is based on utilizing many assumptions such as determining a reasonable discount rate, determining management costs during the life of the timber, assuming an after-tax rate, etc. Fortunately, software programs do the hard part – such as growing out the timber and calculating NPV, but the inputs are still done by the appraiser. Data taken in the field, to include average height of the stand and number of trees per acre, must be utilized in the calculations.

The final value in this case was fairly substantial. The Panhandle of Florida is a major timber growing region and several mills are within a short distance of this tract. The property was large enough where timber was almost constantly being harvested and numerous timber buyers are present in the area. The process described above is typical for determining the value of timber. The timber value determined in the appraisal was used to compensate the property owner in addition to the value of the real estate taken in the road widening. For smaller tracts, the timber value would not be as substantial as in this case; however, where present, timber value should be considered and a determination made as to whether the value is sufficient.
enough to be included in the final appraisal of the property.

Scenario #2: Trees within a proposed gas line R-O-W
I have been involved in the appraisal of trees where a proposed gas line would result in the removal of a substantial number of trees through a landowner’s property. In some cases, the property was a large ranch and quite rural in nature. In another case, the tract was in a more urban setting. How does one determine the value of trees in these cases?

The approach to the appraisal is based on both the types of trees being removed and the location of the tract. In the case where the trees being removed can be considered as merchantable timber, such as pine, cypress and some hardwood species, I would appraise these trees in a similar fashion as described in Scenario #1 above. If the trees being removed are non-timber species, such as live oaks or red cedars, I would appraise the trees as ornamental or non-timber and utilize the approaches as described in the “Guide to Plant Appraisal, 9th Edition.”

The “Guide” provides for detailed approaches for trees of replacement size as can be found in a nursery or trees of larger size which can be appraised utilizing the Trunk Formula Method (TFM) wherein the value of a tree is assigned a “per square inch value” based on the cross-sectional area of the trunk. The Basic Value, based on the per square inch value, is then depreciated by the species, condition and location values assigned by the appraiser. This method requires substantial subjectivity on the part of the appraiser. Other types of trees, such as palms, may be appraised by height where a dollar value is assigned per foot of height and then depreciated by species, condition, and location.

What happens in the case where a large number of trees are involved or a “hybrid” scenario where the property is rural but contains non-timber species? The appraiser must use caution here as the tree value cannot exceed the land value. One cannot use timber value for species not considered as timber and utilizing the TFM or replacement value may result in very high values. That is where the experience of the appraiser must reconcile the tree/plant value with the overall property value. The appraiser must use caution and keep his/her values reasonable and defensible. Utilizing reasonable condition and location ratings will serve to moderate values.

Scenario #3: Trees trimmed but not removed along a power line R-O-W
I was asked by a homeowner recently to determine the value of trees damaged when trimmed back approximately 10 feet when a utility expanded the “air rights” without seeking the permission of the property owner. Three large live and laurel oaks were substantially pruned back to accommodate the utility’s expansion. The trees were pruned to the “property line” so proper pruning methods were not employed. In one case, much of one side of the tree was removed, resulting in a substantial loss of canopy, as well as pruning stubs and subsequent sprouting from the improper cuts.

In this situation, I appraised the total value of the trees utilizing the Trunk Formula Method (TFM) as described in the “Guide to Plant Appraisal, 9th Edition.” I then determined the percentage loss of canopy by measuring the area of the canopy of each tree after the pruning versus the area of canopy before pruning. I then determined the dollar value loss of each tree by multiplying the percent canopy loss by the total tree value as determined by the TFM. I then added an additional dollar value loss due to the improper pruning and the long-term effects on the trees. While this latter dollar determination was strictly subjective, I made it conservative and defensible enough to where the utility accepted my appraisal without argument or modification.

We all have experienced these types of infrastructure/tree conflicts. As long as we desire the benefits from utilities (I don’t want to go without power!), we will continue to experience the loss or partial loss of our trees. As arborists, we can only do two things – try to prevent the conflict in the first place when possible and be sure that the owner of the trees is adequately compensated for the loss when conflicts are unavoidable. I hope these above scenarios shed some light on how trees can be appraised in different situations and how we can assist landowners and homeowners when these conflicts arise.

Eric Hoyer is a Certified Arborist, Certified Forester, Registered Consulting Arborist, and a Qualified Tree Risk Assessor with Natural Resource Planning Services, Inc. He can be reached at erich@nrpsforesters.com.
URBAN FORESTRY IN OUR NATION’S OLDEST CITY

Charlie Marcus, Urban Forestry Coordinator – Florida Forest Service

The City of St. Augustine, which contains roughly 14,000 residents and occupies an area of nine square miles, is located about an hour south of Jacksonville along Florida’s east coast. It is the oldest continuously occupied settlement of non-indigenous peoples in the entire United States, having been founded by the Spanish in 1565. This pre-dates the English colonies of Jamestown and Plymouth by several decades.

The City’s historic features, as well as the natural environment and proximity to the Atlantic Ocean, attract an estimated four-million visitors each year. This makes it imperative for City leaders to continuously maintain St. Augustine’s attractive appearance and pleasing environment. Managing the tree canopy within the City limits is an essential part of this effort.

A recent study by the US Forest Service found that St. Augustine has a tree canopy coverage of 23%, which compares favorably with other Florida coastal cities. Certain historical areas of the City, such as along Magnolia Avenue and within the Historic Plaza, contain numerous live oaks in excess of 100-years old. Maintaining these older trees, whose existence helps define the City, and resolving tree conflicts with City infrastructure present an ongoing challenge.

In response, St. Augustine has made an ongoing commitment to the City’s trees. For 30 years, they have qualified as a certified Tree City USA by the Arbor Day Foundation. In fact, they are one of 18 Florida communities that is recognized as a Sterling Tree City USA because of the longevity of their program and the extra efforts they put forth. In addition, St. Augustine’s community tree program fits the US Forest Service’s definition of a “managing community” because they have the four necessary components to meet the Forest Service definition (also known as SOAP).

**Staff:** Program oversight and direction come from Martha Graham, Director of Public Works, and Charlene Putz, Manager of Streets and Grounds. Chuck Lippi, ISA Board Certified Master Arborist, conducts a significant amount of the necessary specialized tree care, and Greg Dunn of the Florida Forest Service provides technical input. This gives the City combined expertise in engineering, geology, recreation management, forestry, and arboriculture. The City recently went with contract tree maintenance services in an effort to reduce equipment and labor costs. Under Ms. Putz’s watchful eye, tree care by specialized contractors has not compromised service and quality on maintaining the tree canopy in St. Augustine. In 2011, the City used ARRA grant funds to perform corrective pruning and soil aeration on almost 90 trees in the historic district.

**Ordinance:** Their tree ordinance has been in effect since 1987 and has been since revised on a number of occasions. The stated purpose of the ordinance includes providing physical and psychological benefits to residents and visitors through the use of landscaping, breaking up the monotony and softening the harsher aspects of urban development, encouraging the preservation of existing and native vegetation, and maintaining pervious areas to mitigate storm drainage runoff. The ordinance authorizes and empowers the City to have jurisdiction over all trees in City rights-of-way and public spaces such as parks. Trees above a certain size on private property require a permit for removal from the City’s Code Enforcement Board, as well as some type of mitigation following the removal. The Planning and Building Director can also mandate that private property owners must mitigate or remove hazard trees on their properties that have the potential to adversely impact public thoroughfares.

**Advocacy:** The City Street Tree Advisory Committee (STAC) has been in existence for over 20 years. Eight members include ISA certified tree professionals, City staff and involved community residents. They meet quarterly to discuss ways to educate City residents on the value of trees, receive input from citizens to the City tree program, and address particular needs for immediate action. The STAC is currently working on developing a list of approved or recommended street trees and an educational brochure regarding guidelines on planting/landscaping in the public rights-of-way.

**Plan:** Management of the tree canopy is incorporated into the City’s comprehensive plan, under the Conservation and Coastal Management section. This section includes maintenance of natural vegetation, landscaping and tree protection. The plan is revised every five years. The Department of Public Works regularly commissions tree inventories in publicly-owned areas. Data from these inventories forms the basis for scheduling tree pruning, removals, planting, and other maintenance priorities.

Overall, the City of St Augustine’s urban forestry program serves as an example for other Florida communities to follow.
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This year marks over a decade that the Florida Urban Forestry Council has sponsored Tim Womick and the Trail of Trees program to perform at schools throughout the state of Florida.

Many of us remember hearing the tale of Johnny Appleseed, the generous tree planting pioneer who traveled America spreading gifts of fruit and conservation education. The historical figure may have died in 1845, but his spirit lives on in the form of an energetic activist, Tim Womick. Traveling America spreading the word about his love of trees to children and adults alike, Tim has a unique and unforgettable program in which he incorporates his African drum, numerous props, volunteers, and even a water-filled squirt bottle. Kids of all ages are unable to avoid Tim’s passion for trees and the environment.

Trail of Trees is a very special part of a non-profit educational effort known as Tree Family that targets public lands like parks and schools with projects and programs that address an array of issues. From stirring school children to an awareness about trees, encouraging advanced instruction of tree care workers and lobbying elected officials to continue to develop and refine local tree ordinances, the program is directed to a variety of people, with emphasis on the value of the “trees where you live.” All who participate in Tree Family learn that the caring for the forest where they live is not only good for personal health and that of the environment, but it is good citizenship, enhancing individual and neighborhood character as well. The focus is to educate children about Arbor Day and the importance of trees in our community.

The kids are informed about the basic knowledge of trees, their biology, the value of trees, and why we should plant more trees. They are encouraged to learn to care for the trees where they live. Audiences were exposed to scientific concepts about earth materials, trees, water, air, all an integral part of the public education system, all important information in elementary school days and beyond. One of Tim’s many lessons to be learned is ‘Trees give us books, books give us knowledge and knowledge gives us power.’ As the nation educators are searching for ways to make school relevant to students and to curb the number of students who drop out of school, Tim has found that jump-starting students’ imagination about the world around them and making school and learning more relevant to them is the program’s desired outcome.

During October, thanks to the support of people and agencies like Orlando Utilities Commission, the Urban Forestry Organization, ICA, Keep Orlando Beautiful, the Florida Forest Service, and Friends of the Urban Forestry Council, over 3,000 students at schools throughout Orlando, Tampa, St. Petersburg and Ft. Lauderdale were fortunate to witness the antics of our modern-day Johnny Appleseed. Students and teachers laughed and shouted and those lucky enough to work closely with Tim during his visit may have even received a tiny silver acorn or a packet of trees to remind them that even the smallest object can grow into something large and magnificent.

The Florida Urban Forestry Council is proud to be a supporter of Tim Womick and
the Trail of Trees Program. We have been involved with him for many years and hope to continue our support of the program for many years. This takes volunteers and sponsorship in order for programs of this caliber to reach our youth. Next year we hope to be in the Jacksonville, Orlando, Tampa and Ft. Lauderdale area. If you are interested in sponsoring this program or having it come to your area, please contact us.

“Remember, Trees are the lungs of the Earth and get your Johnny Appleseed on.”

- Tim Womick
New and renewed members through December 15, 2013. Please let us know if we fail to mention your name.

Thank you for your continued support.
2013-2014 Grower Members

**The Arbor Group**
Orlando/407-235-8492

**Nature Coast Tree Corp**
Bell/386-935-9349

**BE-MAC Farms**
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**Fish Branch Tree Farm**
Zolfo Springs/863-735-2242

**Snapper Creek Nursery**
Ft Pierce/772-216-9993

**Marshall Tree Farm**
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**Spectrum Tree Farms**
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To Subscribe to the RPG Times Newsletter or to request copies of the Tree Grading, Planting or Pruning Cue Cards contact an RPG member or visit www.rootsplusgrowers.org
WHEN "PRUNING" A TREE TURNS INTO "KILLING" A TREE

Cutting down the communication barrier between utilities and landowners
Tim Lawyer, Business Development Manager – ACRT, Inc.

Negative customer interactions in any industry can have detrimental outcomes including scathing E-mails and phone calls to company managers, threats of litigation, plenty of complaining to friends, family and anyone who will listen and, in extreme circumstances, communication with the media. In the end, one unhappy customer can lead to a large group of people with a negative impression of your company.

Thankfully, a good communication plan and trained ambassadors can help avoid these ugly scenarios altogether. Are your Utility Arborists trained to be good ambassadors of your brand?

It all starts with communication.

Most landowners will have an immediate negative response to crews ‘defacing’ their property. It’s the utility’s responsibility to help landowners understand why their trees and vegetation need to be pruned or removed.

Many utilities leave door hangers or fliers to do their dirty work and avoid the awkward face-to-face confrontation. Others might communicate tree-trimming activities via ads in local newspapers that landowners may or may not read. By not giving the landowner a chance to ask questions and fully understand why a tree needs pruned, the process starts with a negative impression.

It’s important to engage your audience in person by sending ‘ambassadors’ that are suited to represent your company in a positive manner, dressed appropriately and trained to speak on your behalf.

Here’s a telling exercise: when you think about the person out in the field representing your company, imagine him knocking on your grandmother’s door about the tree she planted 60 years ago when she first moved into her home. Are you cringing or do you feel confident he or she will treat your grandmother with the respect she deserves?

The solution is active listening.

Since landowners will rarely have an understanding of utility vegetation management (UVM), it is important that the ambassador approach the situation with respect and understanding – employing an ‘active listening’ approach. Once a conversation has taken place, the listener first confirms that he or she has understood the concern of the speaker by paraphrasing the information back.

If the information seems to be misunderstood, the arborist should use clarifying statements to show empathy with the landowner, such as “You’ve said so much, let me make sure I’ve got it all...” or “Just to be clear, let me try and repeat what I think you said...”

Perception checking can also be used to check out assumptions of the landowner. An example might be “Let me make sure

I have this straight, you planted this tree 60 years ago and it is very special to you and your family...”

To complete the conversation, the arborist should summarize the conversation, pulling together and organizing the major ideas, facts and feelings. The objective is to show the landowner primary empathy and that the arborist has an understanding of his or her experiences and feelings.

Unfortunately, active listening does not work in all situations, and your ambassador needs to be trained for these unpleasant situations as well.

Diffusing the angry customer

After exhausting all active listening tactics, the customer may still be angry. It’s important to remember that the customer is not angry at you, but the situation. Never get angry back, as arguing only adds fuel to the fire.

Apologize to the angry customer for the specific action only and take immediate action to put it right (if possible). In many cases, the utility arborist or company ambassador has no control over the situation. In this case, be direct about what needs to be done and, sometimes, walk away from the situation.

Overall, the goal is to turn “We’ve come to kill your tree!” into “We are here to ensure your safety and the reliability of your electric service,” with proactive communication and active listening. This will help elevate the company’s brand image, facilitate positive relationships with customers and reduce refusals.

Lawyer has a Bachelor of Science in Forestry and Outdoor Recreation from Southern Illinois University. He is a certified arborist and utility specialist through the International Society of Arboriculture. Lawyer also serves on his city’s tree board, as well as the UAA training committee. He is a published author and presenter and will be presenting at FUFC’s 2014 Urban Forestry Institute in March, 2014.
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Categories (please check one):

- **Professional @ $25.00**
  (Professional membership is open to anyone who is actively working in the profession of Urban Forestry or any related profession.)

- **Tree Advocate @ $20.00**
  (Tree Advocate membership is granted to those volunteers who are members of a tree board, beautification committee or other Urban Forestry volunteer group.)

- **Supporting @ $200.00**
  (Supporting membership is granted to those individuals, groups or other entities expressing a desire for a strong supportive role in the Council. Membership will be granted for up to five individuals of an organization or business.)

- **Government/Non-Profit Agency @ $100.00**
  (Government/Non-Profit Agency membership is granted to those individuals, groups or other entities actively working in the profession of Urban Forestry or any related profession. Membership will be granted for up to five individuals within the agency.)

- **Student @ $10.00**
  (Student membership is granted to anyone who is actively enrolled as a full-time student and who is considering pursuing a career in Urban Forestry.)

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Would you be interested in further information regarding serving on a Council subcommittee?  [ ] Yes  [ ] No

Area of interest:
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