



Securing the Chain: Tree Risk

By Michael Palat, West Coast Arborists and Mark Duntemann, Natural Path Urban Forestry

We as a society enjoy the benefits that nature provides. We have a daily opportunity to appreciate these benefits in a municipal setting through our urban forests. A thriving urban forest provides greater benefits to the community than liabilities. Benefits can include aesthetic and economic qualities, but also significant environmental contributions such as stormwater retention, carbon uptake, pollutant particulate capture, and energy savings for trees that are planted strategically.

When an urban forest is managed in a proactive manner, the following goals are realized: reduced costs, a well-managed work approach, trees with reduced likelihood of failure, reduced infrastructure conflicts, planting trees in appropriate vacant sites and the recognition of the value of trees as a positive asset.

One significant tool for managing trees for risk is the use of an interactive tree inventory program. Tree inventory programs include attributes designed to maximize management related to trees, such as: location: address, global position, species, diameter, height, condition, maintenance needs, risk rating, Infrastructure conflicts and the ability to record work history records. Tree inventories, used affectively, are a tool to streamline tree maintenance and management operations to the specific needs of the community. These needs can include tree trimming, removals and plantings. Not only useful in projecting work, tree inventories can serve as archive of work history. Maintaining work records with the type and dates of work performed is critical for showing due diligence. With modern mobile technology, work records can be registered in the field to help with real time accuracy and reduced paperwork.

A tree inventory is only a picture in time. Trees are dynamic, biologic structures that change on an irregular basis. For this reason. It is important to routinely assess the condition of trees to evaluate the risks associated with them. There are many individuals that can identify tree risks, these include; tree inventory specialists doing data

collection, City or contract staff doing routine inspections, field maintenance crews conducting tree maintenance activities and even residents observing trees adjacent to their homes.

Tree-related issues to notice include; visually obvious cavities, tree trunks showing no root flare at its base, trunk oozing, cracked, broken or hanging branches, sudden leans, fungal or fruiting bodies and declining canopies. Once an issue has been identified, depending on its severity, a mitigation action can be initiated and, once completed, recorded in the tree inventory. For trees that are retained, maintenance recommendations should include one of the following: Routine / grid trim, monitor for disease or decline, trim for poor structure and /or young tree care. For trees that have been identified for removal, it is ideal to document what the removal rational is including: dead tree, spacing criteria (infrastructure conflicts), overhead spacing issues, diseased or declining, or poor structure. After the data is updated the tree work should be prioritized based on the highest risk trees being completed first. Factors that can dictate the risk level should include the tree part size and its potential impact to targets. Consideration for the consequences of impact to targets should be weighted as part of the prioritizing process. This effort can also be based on community risk tolerance and budget. If trees with defects are preserved there should be mitigation actions taken to reduce the risks to an acceptable level. This level is dictated by the risk threshold dictated by the various stake holders of a city.

Mitigation actions should be organized into lists based on the proposed work types. For example, high risk trees identified for removal should be organized into a high priority tree removal list. This list should be issued to a tree maintenance crew to perform the work in an expedited, professional manner. After the work is completed, all work performed on trees should be entered in the city's tree inventory program. If

appropriate spacing allows, the now vacant site should be transitioned to a plantable space. The goal should be to always plant the right tree in the right place. This process allows the city to perpetuate its urban forest in a sustained way.

Regarding routine tree pruning, in recent years, a 3 to 4 year tree pruning cycle interval with a between cycle inspection program to review higher risk trees has proven to be a sustainable method of reducing risk. High risk trees can include large canopy trees in high traffic areas or tree species that have a propensity to shed limbs in the heat of summer.

Other considerations to help with reducing risk associated with trees is to make certain that the trees are being maintained by qualified, professional tree workers. Proper understanding of structural pruning on young trees is critical to reduce or eliminate defects that can cause catastrophic failures later. Tree climbing and tree felling techniques are a long-term training necessity to keep employees and the public safe. The knowledge and training to perform this type of work is derived from intensive preparation like that offered as part of the International Society of Arboriculture's Certified Tree Worker and Certified Arborists programs.

In California there has been a recent increase from public agencies to include tree maintenance services in their public bidding process for landscape maintenance services, which require only a C27 landscape contractor's license. Public agencies traditionally lead the way for the general public in how they approach hiring companies for their tree care needs. Traditionally, C27 licensed contractors are focused on landscape services and do not invest the time in appropriate training for tree care operations as compared to contractors that hold a C61/D49 License for tree service. Both licenses are capable to do tree work according to the California State License Board, however, there is no real testing requirement relating to tree knowledge for contractors to receive these licenses.

There has been a recent increase in the accident rates from unqualified workers which has caused a great deal of issues for the industry related to enhanced CAL-OSHA inspections and scrutiny. These inspections are an effort to enhance the safety of the industry. An additional effort to enhance safety is a recent petition submitted by tree care professionals from the industry to the State License Board to improve on the requirements to perform contracted tree work. These suggested improvements include improved testing requirements for the license

subcategory C61/D49 – Tree Services (i.e., tree safety, tree knowledge, arborist certification requirement, etc.); prohibit the use of the license C27 – Landscaping from performing tree maintenance services, and finally, develop a marketing campaign to help residents, agencies and contractors become aware of these new requirements to help to make the industry safer.

It is important to understand that all trees do come with an element of risk. However, the benefits that trees provide outweigh that risk if the proper maintenance activities are performed. When these activities are delegated to a trained, skilled work force, the risk exposure can be greatly reduced. Efforts like this will help all stakeholders enjoy the full benefits that urban forests provide for many generations to come.

CONTACT FOR MORE INFORMATION

Michael Palat
Area Manager
West Coast Arborists Inc.
ISA Board Certified Master Arborist
ISA Utility and Municipal Specialist #6541BCMA-U/M Tree
Risk Assessment Qualified
714 920 4366 Cell
858 566 4204 Phone
858 566 4098 Fax
www.wcainc.com