

science of TGR trunk injections be refined, and thus become an economical and effective standard practice for the utility industry.

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## UTILITY AND MUNICIPAL COMMUNICATIONS RELATING TO THE URBAN FOREST<sup>1</sup>

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**Abstract.** Municipal and utility companies working together can protect and enhance urban trees. Augering, instead of trenching, through the root zone area of trees using the Parkway Tree Augering Specification developed by the Municipal Foresters in Northeast Illinois, and using various trimming techniques other than "topping", for clearance of electrical transmission lines, should be used to protect the urban tree population.

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Communications is defined in Webster's *New World Dictionary* as the act of transmitting, the giving or exchanging of information, signals, or messages by talk, gestures, writing, etc. Clear communication between municipalities and utility companies is the key to understanding the goals and objectives of each organization. Once the goals and objectives of each are clearly understood, it's easier to work towards accomplishing these goals and objectives.

In Park Ridge, I have the responsibility for approving all utility permits that involve the City's rights-of-way, including permits requested by the

electric, telephone, and gas companies. Prior to my being assigned this responsibility, I asked that I have the opportunity to review any construction plans, where parkway trees exist, prior to the issuance of a permit or the start of work if accomplished by the City or its contractor. It's important for each of us to be a part of the review process for construction permits so that we understand and have full knowledge of what's going to occur when construction begins on our urban rights-of-way. You should also attend preconstruction meetings.

In Park Ridge, applications for work in the rights-of-way are received in written form, and it clearly states on the application, along with attached map, what work is to be accomplished. Trenching damage to a tree's root system causes slowing of the growth rate, dieback and decline of the tree's crown and/or root system, deadwood formation, windthrow, invasion of wood decaying fungi or insects or total tree mortality. Augering, or boring

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1. Presented at the annual conference of the International Society of Arboriculture in Vancouver, B.C. in August 1988.

through the root zone of the tree, on the other hand, will help protect the root system from extensive damage.

In 1983, the Municipal Foresters in Northeast Illinois developed a Parkway Tree Augering Specifications (1) for augering tree roots. This specification states that trees with a diameter of 2" or less shall be augered 1' from the face of the tree in all directions. Trees with diameters of 3" to 4" will have a 2' auger from the face of the tree in all directions. Five to 9" diameter trees would be augered 5' from the face of the tree in all directions. Ten to 14" diameter trees would be augered 10' from the face of the tree in all directions. Fifteen to 19" diameter trees would have a 12' auger from the face of the tree in all directions, and trees 19" and over in diameter would be augered 15' from the face of the tree in all directions. The diameter is measured at 4.5' above the ground (dbh). Also, the minimum depth of the auger within the root zone will be 24" below the soil surface. No trenching within the root zone of the tree shall be permitted. It's important, as I indicated before, to be a part of the review process, when permit applications are submitted.

In Park Ridge, I have a very good working relationship with all the utility companies that work in our community. We have both mutually grown to understand each other's need and objectives and this has made for a good working relationship between us.

The trimming of trees for the clearance of electrical transmission lines is a very important function of utility companies in order to maintain uninterrupted service. However, this type of trimming work is not perceived very favorably by most homeowners and often meets with resistance and objections by citizen's groups. Our local electrical company, Commonwealth Edison, contracts with a private tree service company for tree trimming clearance of electrical wires in the Chicago area. Prior to the start of any electrical line trimming projects, whether the trees are located on City property or in backyards, the representative of the electric company contacts me, and we sit down and discuss the type of trimming that they plan to do at each of the various locations and when the work will start. We insist that the property owners be notified in advance of the scheduled line trim-

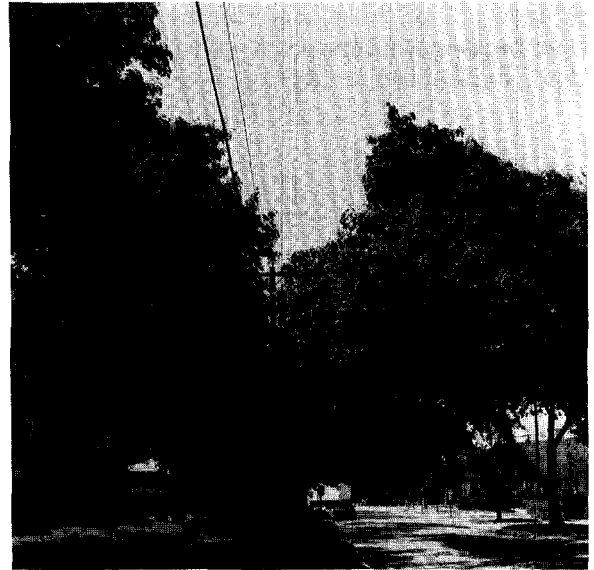


Fig. 1. Trimming parkway trees by utility companies for clearance of electrical transmission lines.



Fig. 2. Planting appropriate parkway trees under power lines.

ming work. This helps to alleviate the shock that the homeowner finds when he returns home from work if they have not had any prior knowledge of the scheduled trimming of the trees in their area. It also gives the homeowner the opportunity to ask questions about the type of tree trimming work that will be accomplished.

The topping of trees is no longer practiced in our area on a regular basis. There are some unique circumstances that still require the topping of trees but that's usually when the wrong species of trees has been planted directly under the transmission lines. As foresters, we should be making recommendations for the planting of appropriate species of trees under power lines, species of trees that will not require or necessitate continuous trimming by the electrical power company. Commonwealth Edison, our electrical utility company, offers communities a list of trees that are acceptable for planting under their transmission lines. They are also experimenting in one of our communities, Mt. Prospect, with a shared cost program for removing undesirable species of trees and then in replacing these trees with species approved for planting under power lines. This, of course, would not only benefit the City but also the utility company by helping reduce maintenance costs for utility companies.

The common techniques of trimming used by our local utility company is the "V-shaped" and "side" trim. The "V-shaped" trimming method is used on trees planted directly under power lines.

The center of the tree is trimmed but the exterior branches are allowed to grow up and around the power lines so ultimately the power lines would pass through the center of the tree with the tree growing above and below and on the sides. The "side" trim is used where the trees are planted along the transmission wires and only the side branches that are interfering with the wires are removed.

Communicating to residents prior to tree trimming will help to alleviate a lot of the objections citizens have to tree trimming. If utility companies increase their trimming cycle, this would necessitate trimming more often and increase the costs, but it would also, in time, reduce the quantity of branches needing to be trimmed or removed.

As municipal foresters we need to make sure that the appropriate species of trees are planted under transmission lines. Further, we need to have open communications with utility companies; we need to work together so that we can achieve the goals and objectives of our organizations while protecting our urban trees.

#### **Literature Cited:**

1. Morell, John D., 1984, *Parkway tree augering specifications*, J. Arboric. 10:129-132.

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