



Natural Resource Conservation:

Components of a Tree and Landscape Ordinance, Part III

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This paper describes several potential elements of a Tree and Landscape Ordinances. The focus is landscape standards for different parts of commercial development, out-parcels as a special type of development, requirements for re-developed property, and residential subdivisions. The landscape standards focus on the planting requirements and the final desired appearance of landscapes. These standards also take into account the preserved trees and specify the nature of new planting. The elements of a Tree and Landscape Ordinance addressed in this paper are:

- (1) green space
- (2) street yard, side yards and rear yard
- (3) vehicular use area
- (4) retention/detention areas
- (5) out-parcels
- (6) previously developed property
- (7) residential subdivisions.

(1) GREEN SPACE. The term *Green Space* refers to open areas in the community with trees, shrubs, grass and other vegetation. Each community should establish a goal for the amount of Green Space to be preserved during development. The absence of a Green Space goal will likely result in a community lacking Green Space. The lack of Green Space is one of the key reasons for the poor environmental quality, excessive amounts of run-off water and poor surface water quality in many cities.

Communities should set a Green Space goal as early as possible in their development, while land is reasonably priced and before natural resources are diminished. It is difficult to retain Green Space and almost impossible to “make up” for lost Green Space as a community advances to the later stages of development. The statement often heard in small communities at an early stage of growth, “We’ll deal with this

later,” usually implies resistance to dealing with this important issue. The establishment and adherence to goals early in the development cycle allows the community to set reasonable standards. Also, the burden is shared equitably among early and late development projects.

Once the standards are established by the community and specified in the Tree and Landscape Ordinance, Green Space should be noted on the Landscape Plans submitted for review and approval. Green Space approval should occur prior to any land disturbance activity. The Green Space standards are usually set as a percentage of the area to be developed. On a state level, the 2000 Georgia state legislature established a goal of 20 percent Green Space. Meeting the 20 percent Green Space within each community requires that each development project contribute to the goal. This can be accomplished by requiring each developed property to have about 20 percent Green Space.

Areas within a developed parcel that could count toward the 20 percent Green Space if landscape standards are satisfied include street, side and rear yard areas, islands in the vehicular use area, landscaped beds around the structures, and retention/detention areas. Establish minimum dimensions for land to qualify as Green Space. This is necessary to avoid small, narrow strips of property not capable of supporting trees being submitted as Green Space. A minimum area and dimension to qualify as Green Space could be 100 square feet and a width of 3 feet. This provides an area capable of supporting tree growth.

(2) STREET YARD, SIDE YARDS AND REAR YARD AREA FOR COMMERCIAL PROPERTY. The street yard is the land adjacent to a street right-of-way. Most property has one street yard. Corner

lots, however, will probably have two street yards, since they border two streets. The rear yard area is along the rear of the property. The side yards refer to what is usually the two side dimensions of the lot. For instance, if a property is 100 feet (width) by 150 feet (length or depth), the side yards would be the designated land along the 150-foot property line.

The two aspects of yard areas with greatest impact on the community is (a) width of the yards and (b) landscape requirements. The surface area of the yards, if properly landscaped, can count toward the 20 percent Green Space requirement.

The street yard is generally of wider dimension than the side or rear yards. The street yard is more visible and has a greater impact on the aesthetic quality of a community. The side and rear yard areas, however, are important in their buffering effect between properties and their contribution to the community Green Space. A recommended range for the minimum width of the street yards is 10 to 15 feet. Wider street yards provide greater landscaping possibilities.

The width of the street yard should be measured from the right-of-way line (not the property line) to the nearest impervious area. If a property borders a street, a sidewalk and utility lines usually occupy several feet of right-of-way space. Starting the street yard with the right-of-way lines ensures that the property will have the minimum 10 to 15 feet of ground for landscaping. This also minimizes disturbance to trees and shrubs at a later date from public activities such as utility maintenance.

The planting requirements for a street yard should include specifications for trees, shrubs, vegetative ground cover, sod and mulch. The street yard, in addition to being wider than the side and rear yards, usually has a higher density of trees and shrubs (than the side and rear yards) for a more finished landscape appearance. Canopy-type trees should be required every 300 square feet of street yard, with a minimum number per street yard, to achieve complete canopy coverage. The minimum requirement can also be based on lineal feet of street yard. In this case, one tree per 25 lineal feet is suggested.

The landscape standards for side and rear yards should be established in the Tree and Landscape Ordinance. The width of the side and rear yards is usually the same and less than the street yard. A width of 5 to 7 feet for the side and rear yards should provide reasonable Green Space and sufficient area for tree

and shrub growth. The side and rear yards should run the entire length of the property. A tree planting requirement of one tree per 30-40 feet provides reasonable canopy cover. The side and rear yards also provide a continuum of Green Space in the urban area that is vital for wildlife habitat. A ratio of 10 to 20 shrubs per tree provides a reasonable landscape effect. Sod and vegetative ground cover, consistent with community standards, should be required.

The ordinance should specify the type of trees desired, especially the ratio of trees with small mature size versus large canopy-type trees. A minimum of 70 percent canopy-type trees on each site would help ensure a reasonable amount of shade. The ordinance should also address whether the percentage must be adhered to for each landscaped area (street yard, side yard, rear yard, parking island) or applies to the entire site. This is more often an issue for the street yard since businesses are concerned about site line (exposure) of their establishment. The Tree and Landscape ordinance could allow a smaller percentage of canopy-type trees in the street yard and a higher percentage for the parking islands and other green areas. The issue of overhead power lines (usually associated with street yards) and the need for small trees under power lines suggests that the developer meet the 70 percent requirement for the site and be allowed to vary the percentage for the street yard.

The ordinance may suggest landscape designs with particular tree species listed. In some communities, the tree and landscape ordinance requires the use of specific landscape plans and specifies the tree and shrub species to be planted in the street yard. This provision allows the community to develop a particular aesthetic appeal, especially for gateways (main streets) to the community.

(3) VEHICULAR USE AREA. The vehicular use area is better known as the parking lot area. In communities without a Tree and Landscape ordinance, the parking lots of large shopping centers are essentially "asphalt deserts." There are large areas of asphalt without trees. If the community does not require the planting of trees in parking lots, most developers will not plant trees. Parking lots are a major source of heat during summer days and increase storm water flows.

The size criteria and percentage of canopy-type trees specified for street yards should also apply to the parking lots. Since parking lots are

a major source of heat, the percentage of canopy-type trees may need to exceed 70 percent. Parking lots are generally unimpeded by overhead or other utilities and can be an excellent place for large trees.

The additional decisions required for parking lots include the quantity of trees to plant, placement and size of the islands, and other landscape requirements. The minimum size planting area of 130 square feet per tree with irrigation and 150 feet without irrigation should support tree growth. Curbing is required for the islands to prevent damage to trees. Irrigation and mulch should be required in parking islands, since they are among the most stressful sites for plants. The density of trees required usually ranges from 1 tree per 1500-2000 square feet. Clustering of certain species of trees within an island can be allowed. However, tree islands should be located throughout the parking area as equidistantly as possible. Clustering, especially of islands, reduces the desired benefits of canopy cover and shade for asphalt areas.

To enhance store visibility, the ordinance could allow smaller trees to be planted in the front area. Also the lower limbs of canopy-type trees can be pruned to provide an enhanced sight line.

The planting islands should also contain small shrubs and be mulched.

(4) RETENTION/DETENTION AREAS. Many communities require installation of detention areas to hold storm water run-off for a short period of time. This reduces the amount of water entering the storm water system shortly after rainfall and improves the quality of water entering streams. The requirement for a detention area can be added to the Tree and Landscape Ordinance if your community does not currently have a provision.

Detention ponds can be shallow areas capable of supporting trees. At present, most of these areas require only sod. This is a lost opportunity area and one that could be changed into an oasis of trees. To provide incentives to plant trees, when feasible the detention area could be included in the 20 percent Green Space. Trees should be installed at a density of 1 tree per 300 square feet to qualify as Green Space. This is a very inexpensive way for large developments to meet the 20 percent Green Space, since the land is already removed from development. Also, the area around the detention pond could be counted as Green Space

provided that trees are planted at a density of 1 tree per 300 square feet.

(5) OUT-PARCELS. The term *out-parcel* refers to the portion of property left undeveloped at the time of the initial development. The most common type of out-parcel is the undeveloped property associated with large retail developments. Typically, there is an anchor store perhaps with other stores, but the outer portion of the property is left undeveloped. At a later date, usually once the anchor stores are established, the remaining property is subdivided and developed. Out-parcels are highly visible developments. Therefore, landscaping associated with out-parcels has a pronounced visual effect on the community. Typically, the out-parcel is not landscaped at the time of the initial development.

Since out-parcels are not part of the original development, they need to be identified in the Tree and Landscape Ordinance as a separate type of development with associated landscape standards. Typically, the number of trees, size of trees and planting islands in the vehicular use area follows that of other developments in the ordinance. Since out-parcels are stand-alone areas, it is important to require a landscaped street yard, side yards and rear yard. Usually the width of the yards is greater than for other development as is the number of shrubs. For example, if the typical side yard area is 4 feet, the side yard for an out-parcel could be 5 feet or 6 feet. Planting islands should be required in the parking area of the out-parcel.

(6) PREVIOUSLY DEVELOPED PROPERTY. The Tree and Landscape Ordinance is often established after substantial development has occurred in a community. While it is difficult to make up for the absence of an ordinance or a weak ordinance, there are several opportunities for previously developed property to conform with the current ordinance. These opportunities include (a) renovated or substantially improved property, (b) property annexed into the city, and (c) property that changes ownership.

Some property in the community may require rehabilitation due to age or change in use. This renovation may or may not include a change in ownership. Property undergoing significant renovation should become compliant with the current ordinance. This allows the community to reclaim older less desirable development and to enhance the appearance and value of property. This is especially true for

older shopping centers with massive asphalt areas and no tree islands. These asphalt deserts can be turned into an urban forest.

Renovation triggers the need for a building permit, and this simplifies tracking of such property. The level of renovation that triggers compliance with the Tree and Landscape Ordinance could be about 25 percent of the ad valorem tax value. This allows businesses to make small changes without the added requirement of landscaping. However, once the value of renovated property reaches 25 percent, the property could be required to implement 100 percent of the tree ordinance. Alternatively, a sliding scale could be used. With the sliding scale, a 25 percent renovation may require 25 percent compliance, 35 percent renovation would require 35 percent compliance; and at 50 percent renovation, 100 percent compliance would be required.

Property annexed into the city should become compliant with the Tree and Landscape Ordinance. Often the city but not the county has a Tree and Landscape Ordinance. Therefore the city will annex property that was built without the guidance of a Tree and Landscape Ordinance. A stipulation of annexation into the city could be that property conform with the Tree and Landscape ordinance. A grace period such as 6 to 12 months for compliance would allow a smooth transition for the business. This requirement for annexation is important to ensure (a) one group of property owners does not have a competitive advantage and (b) uniformity of appearance in the community.

Another opportunity to bring older property into compliance with a new ordinance is at the sale of commercial property. With the exchange of property, the new owner could be required to bring the property into compliance with the Tree and Landscape Ordinance. This provision is harder to track and ensure compliance than renovation or annexation provision. However, advertised property could be required to identify this requirement in the realty listing. The requirement would become a condition of sale.

(7) RESIDENTIAL SUBDIVISIONS. Residential subdivisions are an important element of the

community. Subdivisions with larger lots are generally not a problem regarding removal of trees. However, the high density subdivisions with small lots can result in large clear-cut areas within the community. Suggestions for subdivision provisions include (a) landscaped street yard (entrance areas to the subdivision and along the street right-of-way), (b) undeveloped lots for Green Space and (c) conservation easement on the rear yard of individual lots for planting of trees.

The subdivision should be required to have a well-landscaped entrance and street frontage. The street frontage is usually a smaller portion of a subdivision land area than for commercial property. Therefore, the width of the street yard should be wider than commercial property. A recommended width for subdivisions is 15 feet to 20 feet. The required number and size of trees and shrubs can be similar to that for commercial street yards.

Subdivisions zoned R-10 (10,000 square-foot lots) or less should require that a percentage of the lots be left as Green Space. A reasonable set-aside would be 1 reserved Green Space lot for every 30 lots. Establish minimum vegetation requirements for the Green Space lot.

Require each lot in a subdivision to have a minimum number of trees at the time of home building. To accomplish this, a conservation easement can be established on the rear portion of each lot for planting of trees. The Green Space goal for the subdivision should be about 20 percent, as in commercial lots. The conservation easement, street yard, and reserved Green Space lots should count toward the 20 percent Green Space requirement.

Other areas in a subdivision development that could be included in the Green Space calculation would include wetlands, retention/detention areas and medians. These areas should meet minimum established landscape requirements, such as 1 tree every 300 square feet, to be considered as Green Space. Subdivisions should also be subject to tree inventory and tree replacement requirements as specified for commercial property.

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