Two inventions in recent years offer a win-win solution to a dual problem. When sidewalks, parking lots, or roadways are installed, compaction of the subsoil is necessary to bear the surface material without cracking or breaking. Unfortunately, the compaction creates a barrier or hostile growing environment for healthy tree roots. These two innovations provide the strength necessary to satisfy engineers while at the same time provide space for tree root growth.

**C-U STRUCTURAL SOIL™**

This is a patented product resulting from research at Cornell University's Urban Horticulture Institute. C-U Structural Soil is a mixture that contains 3/4” – 1 1/2” angular crushed stone to provide the weight-bearing capacity. Clay-loam is added to provide a good growth medium in the spaces between the rocks. Hydrogel is also added to the mix to hold the soil to the stone surfaces rather than letting completely fill the pores needed for aeration, or to compromise the weight-bearing job done by the stone. All is done by licensed producers to ensure adherence to the exacting standards of the formula.

**SILVA CELLS**

Silva Cells were developed by landscape architect James Urban of Annapolis, Maryland, and Deep Root Partners, LP of San Francisco. The product is now available through qualified distributors nationwide. The concept is a series of modular, interlocking “cells” that provide support for surface material and up to 92 percent of the space available for uncompacted soil and healthy root growth.

**THE TREE CITY USA PROGRAM**

The Arbor Day Foundation in cooperation with the U.S. Forest Service and National Association of State Foresters. To achieve the national recognition of being named as a Tree City USA, a town or city must meet four standards:

- Standard 1: A Tree Board or Department
- Standard 2: A Tree Care Ordinance
- Standard 3: A Community Forestry Program with an Annual Budget of at Least $2 Per Capita
- Standard 4: An Arbor Day Observance and Proclamation

Each recognized community receives a Tree City USA flag, plaque, and community entrance signs. Towns and cities of every size can qualify. Tree City USA application forms are available from your state forester, the Arbor Day Foundation in cooperation with the U.S. Forest Service and National Association of State Foresters. To achieve the national recognition of being named as a Tree City USA, a town or city must meet four standards:

**Solutions to tree-sidewalk problems**

- When conflicts between trees and sidewalks arise, I hope you will follow his good advice to head off problems between your own trees and sidewalks, and that you will work to bring about this kind of foresight throughout your community.

- With good planning, the cost of tree-sidewalk conflicts can be substantially reduced.

- Dealing with tree roots and sidewalks that are already tangled can be a more difficult matter. The solutions may require compromises, such as narrowing the sidewalk beside the tree, adjusting the new sidewalk’s location, or wisely accepting imperfect concrete if that saves beautiful trees.

- Solutions to tree-sidewalk problems can enhance your city’s landscape. Brick pavers, tree grates, and retaining walls can be interesting visual elements in the urban fabric. These features, together with the specimen trees which they preserve, can give your town a feeling of quality and distinction. They’ll advertise to your residents and visitors that you care about the things that matter.

When conflicts between trees and sidewalks arise, I hope you will do everything possible to resolve them in favor of the trees.

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**For more information**

For additional information sources to help reduce conflicts between roots and sidewalks, please visit arborday.org/bulletins.