

Tree Feeder System Aids Washington Elms

The nation's capitol prepares for the country's 200th anniversary with an evangelical fervor. Construction, restoration and renovation is underway on almost every corner of the capitol, anticipating the millions of visitors who will make the trek to the tree-lined streets seeking a link with the historic atmosphere that permeates the city.

One of the biggest projects connected with the bicentennial is the Bicentennial Mall, a massive improvement project for the grassy



The feeder is built around a 13-inch long cylinder, which has a plastic collar attached to it. The four-inch diameter tube is placed into an augered hole that has been backfilled with aggregate. Once the liner is in place and secured, a filter element which contains the necessary nutrients is inserted and the unit is capped.

stretch that lies between Capitol Hill and the Washington Monument. Vehicular traffic has been closed off, and 40-foot aggregate pathways installed to accommodate the crush of tourists that have already started the pilgrimage.

Lining the boulevard, as they have for perhaps the last 75 years, are over 120 native American elm trees. Already designated as the official bicentennial tree in a ceremonial planting at the White House last year by Betty Ford, the elms are the main component of the mall project, and as such were prioritized by the Capitol Park region of the National Park Service. Because of the construction involved in installing the pathways the length of the mall, the already-distressed trees were subjected to even more abuse.

Feeder roots that had lain in the

heavily compacted soil surrounding the trees were disrupted, and as the aggregate was installed the trees' capacity for obtaining nutrients was further diminished. Clearly a method of delivering food and water to the trees was needed. Elwood Rensch, registered landscape architect and the government coordinator on the job, decided to try the W.A.N.E. (Water, Air and Nutritional Exchange) Tree System, which had been developed precisely for this type of situation.

According to Rensch, "The original design of the walkways did not include anything to protect the trees. Because of the hard surface of the sidewalk and the 40-foot width, we knew we had to do something to help the trees." He contacted Wayne Smith, head of A.A.A. Tree Service in Tampa, Fla. Smith is the inventor of the system; he developed and tested the system in his garage. Smith arranged for shipment of the 1,100 units needed for the job.

The system is a piece of equipment that is placed at regular intervals around the tree, the total number needed depending on tree size and the particular situation of the tree. A PVC liner is inserted into augered holes that have been backfilled with about six inches of gravel. Then, a specially designed filter element is inserted and the unit is capped with one of two different plastic lids.

Designed to use a slow-release fertilizer mix, a vapor-release packet or a custom mix of nutrients, the units are protected from damage due to the collars and lids that are attached to the four-inch diameter liner. Able to withstand heavy vehicular traffic, the rise above grade is 3/32-inch after installation. The rest of the 13-inch unit penetrates well into the feeder root zone of the tree, allowing an even distribution of water and nutrients. In northern areas, a frost anchor is provided, while more temperate regions need only an epoxy bond between the top collar and the paved surface for permanent placement. □

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