

Evergreen decided on a three-phase program to upgrade and maintain the property. The first was to clean out beds and reestablish weed control and native area encroachments. Watering, fertilization and turf improvement practices were implemented.

During the second phase, site modifications and improvements were made to align maintenance with foot traffic and public use patterns. Bed mulching was improved and chemical technology began to play a larger and increasingly effective role.

The third and current phase involves increased emphasis on edging, pruning and shaping plants as they mature, and establishment of permanent standards of maintenance.

Throughout the five years, budgets have remained constant with allowances for inflation only. The combination of upgrading and maintenance under one budget has made upgrading a longer-term project.

A twelve-month program is carried out by two full-time workers. Mowing operations must cover steep banks, boggy areas, high-traffic areas and native transition areas. Edge maintenance ranges from formal to natural edges. All clippings are removed from both rough and fine turf for thatch, appearance, and fungus control. A 72-inch rotary Excel Hustler with grass catcher and a 36-inch Lawn Genie flail mower with grass pickup are the largest pieces of cutting equipment. The Lawn Genie is also used to dethatch large turf areas. Bobcat rotaries and a Flymo floating rotary for mowing wet, soft areas are used for close mowing. A Jacobsen Edger-trim is used for formal edging and a number of Green Machine monofilament trimmers are also used for trimming. A backpack blower is used for walkway and parking lot sweeping as well as leaf control in the fall and winter.

Watering of turf areas is 90 percent manual using soakers, hoses and impact heads. The glaciated soil wets quickly to the point of runoff and dries quickly thereafter. During drought periods watering priorities are followed.

Fertilizing turf areas is influenced by subsoil conditions and is done on an as-needed basis with a slow-release 15-5-10 granular fertilizer with trace elements. Overall, turf areas receive 6 lbs. nitrogen per year. Weed control is accomplished mainly by spot sprays. Insecticides are used only when indicated.

Groundcovers are fertilized regularly. Both ivy and *Hypericum* are pruned to maintain a natural transition between turf and groundcover areas. Parking lots are below grade and surrounded by berms to preserve the natural appearance of the area.

More than 350 rhododendrons are carefully maintained while in bloom to remove all spent flower heads. Bed areas are treated twice a year with pre-emergence herbicides. Native areas are maintained by removal of deadfall and debris, pruning and mulching bare areas.

Significant numbers of hand tools, hoses, irrigation heads and spraying equipment are maintained on site.



**Drought tolerant plants** as they appear at dawn around the Tucson Credit Union.

#### **Harlow and Co., Inc., Tucson, AZ**

Project: Tucson Municipal Employees Federal Credit Union

Landscape Architect: Daniel Elder, Tucson, AZ

The Credit Union project was awarded a design/build Environmental Improvement Award by ALCA because it was one of the first public buildings to be landscaped entirely with drought tolerant plants. The challenge was lack of water and Harlow and Co. found a beautiful solution.

Instead of turf or groundcover, decomposed granite was used. Unlike pea gravel, decomposed granite does not show foot prints or shatter. This was important due to the large amount of foot traffic at the building and because a bus stop was located next to the property. Underneath the granite, gravel mill reject was used instead of topsoil. This eliminated any trouble from weed seeds. Usually, preemergence herbicides are needed to control weeds in gravel yards.

Drought tolerant plant species including fountain grass, Texas ranger, eucalyptus, mesquite and *caffia artemisoides* were used in designs around granite boulders. A drip irrigation system provides water when needed at a cost of less than \$30 per month. Part of the two acre site is covered with brick walkways illuminated by architectural lighting.

Bill Harlow told Weeds Trees and Turf, "Ten years ago we used no more than 100 yards of rock per year, now we use almost 20,000 yds. per year. Still, there has been a noticeable return to grass since the drought scare has been relaxed."



**Green Brothers Landscape Co., Smyrna, GA**

Project: Dana Jones Residence

Landscape Designer: Jim Gibbs

A design/build winner this year in ALCA's Ninth Annual Environmental Improvement Awards Program, the Dana Jones residence is a contractor's dream. Green Brothers were essentially asked by the Jones family to design and build the best landscape possible. And they did.

Actually one job led to another. Green Brothers was hired to provide a more inviting appearance to the Jones home in College Park, GA. The house was

white, positioned on top of a steep grass-covered slope to the street. Turf quality was poor and there were very few landscape plantings. The net effect was a cold, glaring appearance.

Gibbs recommended the house be painted in a softer shade, a circular drive be built, groundcover planted on the slopes, and installation of a brick walk bordered by fine turf. Shade trees were planted to provide a canopy effect.

Pleased with their work, the Jones asked Green Brothers to do the rest of their yard over a period of three years.

The back yard faces south and drainage is relatively poor. Deciduous trees were planted to provide shade in the summer and raised beds and mounds were used for much of the plant material. Brick walks, summer house, arbor, and an activity area were designed for foot traffic.

Instant use of the back yard was achieved the first year with construction of a brick patio and lattice brick wall. A small garden pool with a bronze wall fountain and recirculating pump provided a water feature for the patio. Potted plants and urns soften and add interest to the patio.

A summer house was constructed as a place to view the gardens. A wooden planter was placed on top of the brick wall and filled with Hans ivy.

An architectural mound constructed of field stone was added and planted with Hosta lily, ferns Carissa holly, and Gumpo azalea as accent plants.

An arbor was constructed as an activity area and to tie in the back of the property with the rest. A curved walk to the arbor gives the garden a feeling of being much larger than it really is.

In another area, a path of stepping stones was installed and a groundcover of Mondo grass was placed between the stones. Finally, flowering displays were added for color.

Green Brothers takes care of all pruning, spraying, and fertilizing. The firm boasts that as a design/build firm, the work of its designers, contractors, mason and carpenter result in a unified and improved level of quality.



**Arbor at rear** of Jones residence ties back of yard with house.



**Stark appearance** of Jones residence before (left) and more inviting appearance after professional landscaping.





Looking over pool and waterfall toward street from Lackey residence

**Landscape Associates Inc., Little Rock, AR**

Project: William Lackey Residence

Landscape Architect: Robert L. Shaheen,  
Little Rock, AR

This ALCA winner was the result of the site not lending itself to the construction of a swimming pool in the rear yard as well as the client's desire for more direction to the front door for arriving guests. Therefore, the swimming pool was constructed in the front yard where it serves as both a functional swimming pool and a whirlpool bath as well as a garden pool when viewed as part of the total project.

At the street a lantern designates the entry point into the garden. Guests are then led through the space on large stepping stones to a large stone bridge which directs them to the front door. The space is night lighted by using subtle downlight fixtures which illuminate the walks and flagstone areas, with sunken uplight fixtures that high-light the multi-trunk Yaupon Holly trees around the pool area. Lights were also used on some of the existing large native trees in the space.

Informal plantings of Dwarf Chinese Hollies, Azaleas and English Ivy as a ground cover along with multi-trunk Yaupon Holly trees were used to humanize the scale among the large native species around the pool.

To provide separation from the street, plantings of Chinese Holly, Cotoneaster, and Japanese Black

Pine were intermingled to establish a dense buffer. Areas of flagstone and decking were used around the pool to provide a hard surface for gathering and circulation.

The carport and driveway were both designed and constructed by the landscape contractor. The carport not only provides shelter for the automobile but also has a complete cooking range, sink and bar facilities which can be covered when not in use.

To add to the more natural appearance of the pool, chrome ladders and diving board were eliminated, steps were built into the pool wall at several locations and for diving a large stone was cantilevered out over the water. Also, to add interest a small waterfall was located close to the bridge stone. This waterfall is connected directly to the circulation system of the pool filtration system. The pool inlets were also adjusted upward to add additional water motion.

Although the total space is relatively small, many exciting landscape features were achieved as well as the separation and privacy that was needed for the pool. Landscape Associates acted as the Landscape Architect and Contractor and performed all the work, including the construction of the carport, driveway and entertainment center. In addition to this the Landscape Architect consulted the clients as to the change of color for the house to make it more harmonious with the landscape.

### **Frost and Higgins, Burlington, MA**

Project: Faneuil Hall Marketplace, Boston, MA

Landscape Architect: William Pressley, Newton, MA

Frost and Higgins won an award during AAN's 25th Landscape Awards Program this year for this attention getting project in Boston. William Rae received the award for Frost and Higgins.

Take 150 years of history, 10 years of restoration work, and finally just a few weeks to add the final touch of trees surrounded by a cobblestone walkway. But that's not all. Add temperatures in the 90's, the need to find 22 large and matching honey locusts, and to install them without injury in a tightly packed construction location filled with other workers.

First a little history. The Faneuil Hall Marketplace is in the center of the government and financial district of Boston. Before the marketplace, the area consisted of a 100 foot wide street between two 500 foot long, 150-year-old buildings. There were no trees, just granite walls and paving, with the resulting glare and noise. New high rise buildings had modified the wind patterns turning the area into a wind tunnel.

To prepare for the 150th anniversary of the area, the Rouse Co. of Baltimore had spent more than ten years planning, designing and restoring the area. As the date approached the pedestrian mall, which had been the street, was not completed or planted. Press coverage made the completion of the project even more critical.

Frost and Higgins had to locate 22, seven to ten inch caliper, honey locusts. Tre-ease of Millbrook,

NY, had them. The trees were watered well before digging and hardened off for a few days. Each tree weighed about 15,000 lbs. with root ball.

Because of extreme heat the trees had to be moved to Frost and Higgins main yard in Burlington at night. Upon arrival they were thoroughly watered and kept under cover.

Due to other construction taking place in the mall area during the day, the trees had to be installed at night to avoid any injurious delays. The project took six nights and planting was hampered by news cameramen.

The results were spectacular and the trees were in a week before deadline. The deadlines were important because the trees had to be in place prior to cobblestone paving. The 22 trees 30 feet above the cobblestone walkway buffered the wind, stopped the glare and provided a soft light and warm atmosphere, and replaced the noise of traffic with the rustle of leaves.

Three little leaf lindens and numerous planters were also installed in the area. Taxus and seasonal flowers in the planters add another natural dimension.

Frost and Higgins currently maintains the mall plants with watering, spraying, pruning and inspection. Today, the marketplace contains 36 honey locusts and three nine-inch caliper lindens. Six three-inch locusts are in large planters with the rest planted at grade, surrounded by cobblestone walkway.



**Faneuil Hall Marketplace's** new look.





Twenty-nine tons of river rock were hauled from mountain streams to provide a natural appearance.

#### **SaBell's Inc., Lakewood, CO**

Project: The Crestwood Restaurant, Littleton, CO  
Landscape Architect: Don Godi & Associates, Lakewood, CO

Atmosphere is a good part of enjoying any restaurant. This merit award winning project of the 25th AAN Landscape Awards and the 1978 ALCA Environmental Improvement Awards, took this fact and provided a customer conscious exterior environment for the Crestwood Restaurant.

"We want people to feel the quality of our restaurant from the time they get out of their car until they leave," says owner Peter Winfield. "The landscape beauty is the first and last impression we make with every meal."

LA Don Godi commented that the site is small with no natural features to really capitalize on, except for a few trees. Godi planned a mound and tons of stream rock to act as natural features.

"Since there was no waiting area in the restaurant, we designed the front to serve as one, Godi points out. "Under tree canopy, two parking spaces were removed, and two benches were installed. The design is very pedestrian oriented."

A rock and concrete stream winds through the design. Since the site is small, plant beds with floral displays and groundcover replaced turf. Honey locusts provide canopy and are highlighted during the night with overhead, indirect lighting.

"Of all the initial impact," says Wally SaBell, "the soft canopy effect of the honey locust trees, combined with the running fountain water give an overall effect of peace, serenity, and luxury. Sun loving annuals will eventually be replaced with impatiens, sultanias or other florals as the honey locust canopy provides increased shade. The stream is designed to be maintenance free."

Lighting ties the project together. "The three corners of the parking area are lit and landscaped like the restaurant area, says SaBell. "Fountain lighting is changed to coincide with the season; i.e. amber in summer, red and green during the Christmas holidays.

Appreciating the value of landscaping, Winfield says, "We have been very cognizant of maintaining our property. We try to provide it the same care as a Classic automobile. The older the project gets, the better it looks."

**WTT**

# FALL IS THE TIME TO REVIEW OR BEGIN PREVENTATIVE MAINTENANCE PROGRAM

by Philip A. Taylor, manager, Turf Products Service, Jacobsen Div., Textron Inc.

As the end of the season approaches we begin to plan for winter equipment storage. It is also an excellent time to review your maintenance program and implement a preventative system of equipment and personnel management.

Preventative maintenance becomes more important every year. In today's economy, the only thing that remains within reason, at least from your boss' viewpoint, is your budget after he cuts it. And since funds are tighter, labor more scarce, regulations stiffer, and back-up units a thing of the past, keeping your equipment in excellent working order can only add up to full season productivity, safety and economy when you start up next spring.

Preventive maintenance is simply a program for making routine inspections of equipment to discover and correct minor faults before they develop into major problems. Read that line over again. It really is that simple.

One of the keys to the definition is the word routine, which implies a methodical going-over of the functional areas of the equipment.

If you don't already have one on stream probably the best time to start a preventive maintenance

program is right now, at the close of the season. And one of the steps is putting your equipment in prime condition before storage.

Here is our schedule of routine start-up maintenance:

**Visual Inspection** — The first step to take in readying equipment for storage is to give it a visual inspection before cleaning it. Steam cleaning it, for instance, will remove telltale oil leaks and other signs you'll want to note for attention.

**Steam Cleaning** — Next comes a complete cleaning of all parts. There is nothing quite as fast and thorough as the steam method, though portable high-pressure washers can do an excellent job, too. But you'll want to take care not to focus the pressurized stream toward the air cleaner, oil dip stick opening or any area that may allow moisture to enter the engine or other enclosed systems.

**General Inspection** — With any leaks noted and the machine clean, you're ready for a more detailed inspection. Now you'll be looking for indication of condition, proper assembly, security of connections and excessive wear. By good condition we

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mean components should not be bent or twisted, chafed or burned, broken or cracked, bare or frayed, dented or collapsed, torn or cut, improperly aligned and so forth. Correct assembly means just that: parts in the normal position, properly aligned, and secured. The multitude of fasteners should be examined: cotter pins and locking wires, lock nuts and washers, nuts and bolts, screws, etc. should be well secured and in good condition. Excessive wear is the kind that is likely to result in failure if the item in question is not replaced. Action should be taken as warranted in all these areas.

**Tires** — You'll want to check the pressure for each tire and adjust it to the recommended level for steering and driving wheels. Each tire should be inspected for uneven wear and damage.

**Battery** — This should be removed from the vehicle to a cool (not freezing) area, and kept on a wooden bench or wooden blocks; not a concrete floor. Every 30 days, it should be brought up to par using a trickle charger. When a gravity reading appropriate for your battery is reached, disconnect it till next month. Back at the machine, be sure the cable connectors are clean. Inspect the ground for sufficient metal-to-metal contact for a good current flow. Apply a light coating of petroleum jelly or chassis lubricant to both terminals to prevent corrosion later on. Clean up the hold-down bracket and its rods while you're at it. This is an excellent time to take care of little details like this that might be overlooked in the haste to get moving come spring.

**Sparkplugs** — Remove and inspect the electrodes for carbon or burnt condition. If they are reusable, clean them with a wire brush and regap each plug according to specifications for your engine. If they can't be used, buy an identical set, gapping them as specified. While the plugs are out, add a small quantity of oil to the upper cylinders. A tablespoon of 10 to 20 weight per cylinder is right. Reinstall plugs and tighten to correct torque.

**Air Cleaner** — An engine starved for air uses more fuel and will not deliver the performance expected. Inspecting the filter takes only a moment and even less time to time to replace — with the type approved by the manufacturer.

**Oil** — If the season's service schedule indicates a change is about due, drain the crank case and refill with fresh oil of the weight and performance recommended by the machine's manufacturer. Change the filter too, if so equipped. Follow the same procedure for your transmission and hydraulic system tank, if your machine is equipped with the latter. Pay special attention to the hydraulic oil you use as the improper kind can damage seals and cause other operational problems when you don't need them.

If your machine utilizes hydraulic cylinders, be sure that you protect the portion of the rod that is exposed. Some units can be stored with the rods retracted; others must be stored with the rods exposed. If you must store yours with the rods exposed be sure to coat the rods with a protective coat of grease. Failure to do this can result in rusted and pitted rods with subsequent seal failure.

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