

By Eric Truelove, Associate AIA

When landscaping around commercial buildings, most landscapers choose some form of ornamental grass to carpet the open ground. They have this grass planted as seed or delivered on the back of a truck rolled-up like a carpet. Ornamental grasses are native to England and some areas of France where the climate is wet and cool but rarely freezing. These grasses are not well-suited to live in our hotter, drier, colder conditions. Nevertheless, we have simply made it a habit to install this "imported" grass and put it on expensive life support just so we can have a landscape that looks like every other building on the block.

In the United States, we have an estimated 27.6 million acres of turf grass, which is an area almost equal to the size of Pennsylvania. In 1998, annual turf grass maintenance in the United States cost \$30-billion or \$1,100 per acre. The added cost of installing and maintaining ornamental grass is compounded by many environmental problems including the following:

- Domestic drinking water is typically used to keep the grass green during dry periods.
- Grass must be fertilized to stay green. In 1984, we applied more synthetic fertilizer to our lawns than India applied to its food crops.
- Insects breed rapidly in grass, so we apply pesticides. We use up to ten times more pesticide on our grass, per acre, than our farmers use on our crops.
- Herbicides must be applied regularly or the weeds will kill off the grass.
- Gasoline-powered mowers are used to keep the grass trim and this generates air pollution.
- Even though ornamental grasses require water during

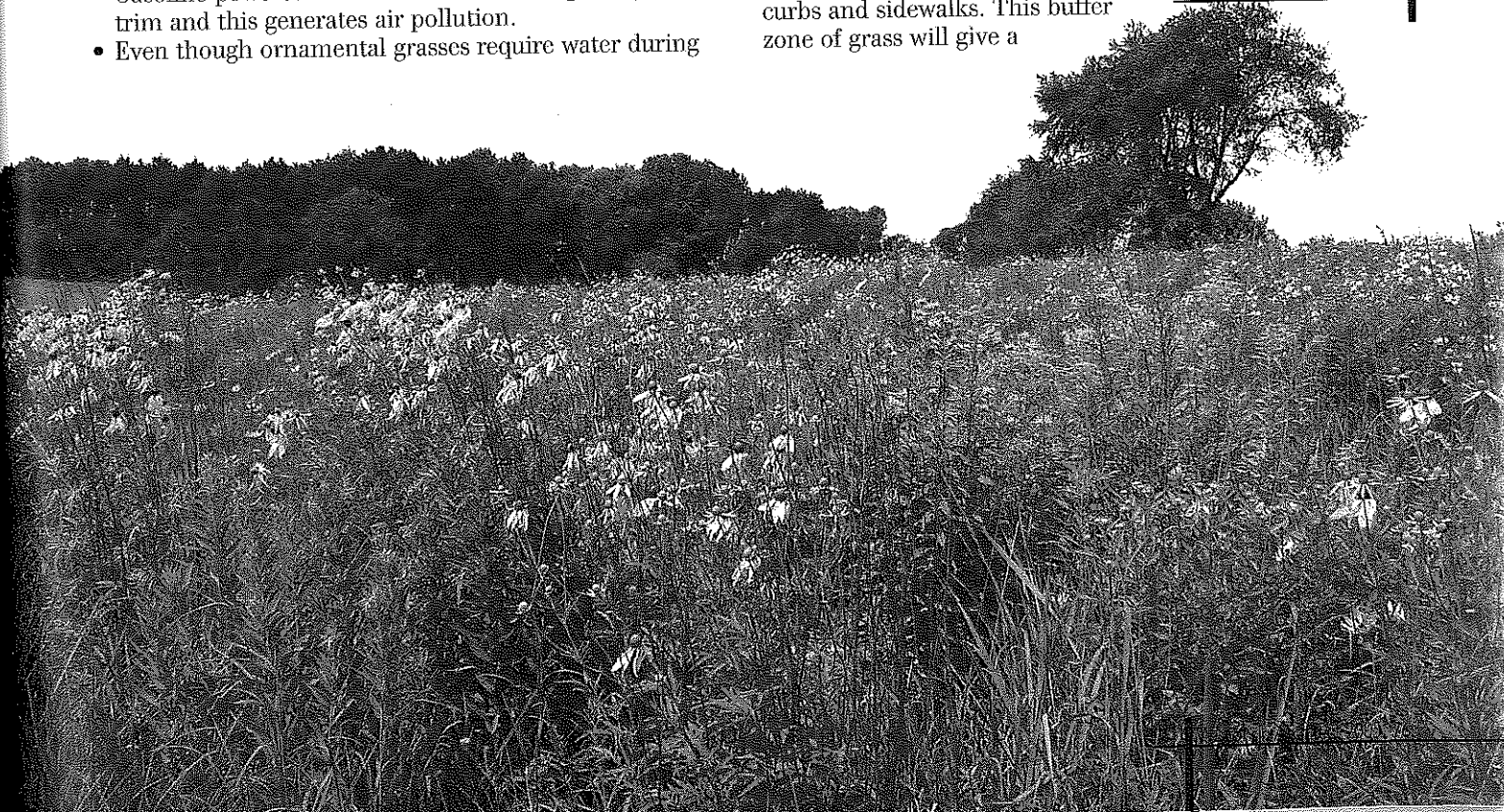
dry periods, when the rain finally comes, the grass can't handle it. By replacing native plantings with turf grass, we have increased runoff and the resulting pollution of our waterways. The pollution includes, among other things, half the fertilizer, herbicide and pesticide we put on the grass.

In the Midwestern United States we have an excellent native alternative to much of this turf grass. Native prairie has developed and survived in our climate for thousands of years. Once established, prairie requires no watering, no fertilizer, no herbicides, very little maintenance, and can absorb enormous amounts of rainwater in a 24-hour period. The challenge is to understand how and where to establish prairie.

Prairie should be planted on the lowest point of the site to absorb rainwater runoff from the building, parking lot and sidewalks. It doesn't take much to make a difference. A 2,500 square-foot patch of established prairie can absorb runoff from one acre of land. Furthermore, the prairie quickly absorbs the water into its root system so insects, like mosquitoes, do not have standing water to breed in.

Don't plant prairie everywhere. Ornamental grasses do have a place on many sites. Keep prairie 20-feet away from buildings and 3-feet away from curbs and sidewalks. This buffer zone of grass will give a

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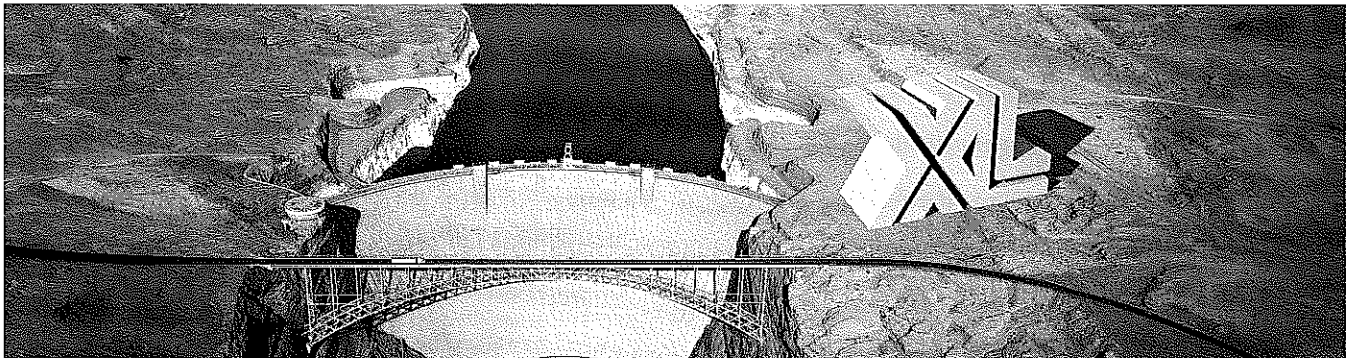


cleaner appearance and make it safer to have a prairie burn every few years without having combustion taking place near the building.

When sending plans out for bid, specify that the landscape contractor must be familiar with prairie and have them include a five-year maintenance contract to get the prairie established. Prairie will not grow naturally on a site just by throwing prairie seed on bare ground. Weeds will quickly take over and crowd out the young prairie plants. The landscape contractor will have to come back once or twice each year, for five years, to eliminate the weeds and let the prairie become fully-established. Once this five year period is complete, the prairie only needs cutting or burning once each year to stay healthy. It does not need fertilizer, herbicide, pesticide, weekly grooming or watering. It also is recommended that a minimum of 25 plant species from plants grown within 100 miles of the site be specified.

Wisconsin Electrical Employees Benefit Fund (WEEBF) office building, located in Madison and scheduled for completion in June 2005, is installing a small strip of prairie along the lowest point of the site. This facility will be zero-discharge for storm water runoff, will use less domestic water, will produce less air pollution and will have lower maintenance costs, yielding a simple payback of just three years. The prairie upgrade, along with many other environmentally-friendly features, allowed WEEBF to file for certification through the United States Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED) program.

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