

Chicago's Must-See Urban Oasis



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Dragonflies dance above gently waving grasses; bees and butterflies flit in and out of bright blossoms; songbirds add their lilting melodies to the soothing sounds of slowly flowing water. This tranquil setting lies within the 5-acre [Lurie Garden](#) nestled within Chicago's 24.5-acre Millennium Park. The park is steps from the heart of the city, extending along Michigan Avenue. It's also one of the world's largest green roofs, topping seven levels of underground parking garages and an active commuter train system.

The plantings within the Lurie Garden were inspired by the native prairie of Illinois and designed by Piet Oudolf, a plantsman based in the Netherlands and known worldwide for his imaginative garden designs. A wooden boardwalk suspended over shallow water divides the garden into a "dark plate" of trees, shrubs and shade-loving plants and a "light plate" of sun-loving plants in an ever-evolving prairie. A hedge of mixed plants and 14-foot-tall metal structure enclose the north and west sides of the garden. The hedge muffles urban noise and protects the garden from the crowds of pedestrians gathering for concerts and special events in other areas of the park.



Jennifer Davit uses her smartphone to snap photos of areas that need attention to more efficiently convey information to both staff and volunteers.
PHOTO BY STEVE TRUSTY.

Piet's focus for the Lurie Garden is on durability even more than sustainability. Plants selected must be dependable, disease-resistant, and easy to maintain. To meet Piet's standards, they must perform well, not overgrow themselves, look good through the seasons, and come back year after

year. His input continues to guide all major plant replacements and additions.

Jennifer Davit became director and head horticulturist of the Lurie Garden on March 15, 2010. She met with Piet in 2011 and the two walked the garden together, assessing it critically. The collaboration continues with contact about every few months via email or Skype.

"We're able to operate with no fertilizers or chemical controls because of Piet's design philosophy of durability and adaptation to our climate and the use of native soil from an undisturbed site as our growing media," says Davit. "From the beginning, every detail of each plant has been considered, from its basic environmental needs and growth habit, to its leaf shape and color; flower type, color and blooming period; seed head production; and winter silhouette. With nearly 3 of the 5 acres devoted to plants, the garden contains more than 35,000 perennials and 5,200 woody plants. Sixty percent are natives. We've also integrated 120,000 spring flowering bulbs."

The maintenance plan

Though the city of Chicago owns the land, all of the maintenance work of the Lurie Garden is handled by contract through the foundation board of Millennium Park, Inc., and Davit reports to them. A \$10 million endowment to maintain the garden was a gift from Ann Lurie, in memory of her husband, Bob. Davit says, "Our maintenance program operates on the 4 percent annual earnings from the endowment."



Director Jennier Davit, in blue, points out bottle gentian blossoms among a patch of calamint to two docents during a pre-tour walk.
PHOTO BY STEVE TRUSTY.

Millennium Park, including the Lurie Garden, is open to the public from 6 a.m. to 11 p.m. year-round. More than 1.25 million people visit the garden annually, ranging from locals to international tourists to participants in the extensive adult and family workshops, lectures, garden walks and special events.

Davit is the Lurie Garden's sole full-time, year-round employee. Horticulturist Laura Ekasetya and volunteer coordinator Melanie Scott are seasonal full-time employees, working from March through mid-November. A horticultural intern works from mid-May into September.

"We also have eight hands-on volunteers who each commit to three hours a week, usually from mid-April through mid-September. Approximately 55 additional volunteers serve as docents, conducting our free tours on Thursdays, Fridays and Sundays and helping with our educational programming and our spring and fall plant sales."



PHOTO: Gustafson
Guthrie Nichol Ltd,
Lurie Garden Winter

'08, Millennium Park

Strategic management

With the garden always in the spotlight and a very small maintenance staff, strategic management is essential. Davit is continually prioritizing, plotting allocation of resources and determining the best way to handle various tasks.

Ekasetya spends 40 hours a week hands-on in the garden and Davit plans to spend 20, but during this year's growing season, the garden often required 100 hours of weekly maintenance, so both must focus on tasks that require their expertise. That ranges from training by demonstration to weeding in areas where it's difficult to distinguish the weeds from the desirable plants.

Subcontractors take on high-tech tasks such as maintaining the night lighting system, pruning ornamentals and removing coins from the water features.

"We also subcontract work that requires equipment that we'd only need once, or most a few times a year," says Davit. "Christy Webber Landscapes handles much of the subcontracted work."

At times, strategic management requires an immediate investment of time, money or both to gain long-term savings. The pathway upgrade is a prime example. Originally, the garden's internal pathways were loose gravel that could be scattered by foot traffic or washed away by rains.

"Leveling the pathways and raking gravel from the plant beds averaged 20 hours a month," says Davit. "We found a source for postconsumer granite, the remnants from countertops, and had Christy Webber Landscape install them. They're set vertically rather than horizontally to reduce stress from traffic and freeze/thaw cycles, and to make them less appealing to vandals. It's an attractive alternative that is paying for itself in reduced maintenance."

Maintenance master plan

Preserving the elements of the original design as the garden matures requires determining which plants in each section to encourage, to thin or to remove. It's all about knowing the plants, their needs and how they perform in their space.

A basic maintenance plan was in place when Davit arrived. She has expanded it, tracking each plant species and recording the timetable from emergence through blooming, seed head formation and dormancy. She then developed a monthly calendar of needed tasks, breaking it into weekly and daily tasks as each season progresses. Results are recorded. Obviously, plant growth cycles are based on environmental conditions.



This view of the Lurie Garden shows the contrast between the light plate and dark plate sections. Note the stunning effect the upgraded pathway bring to the light.

"The past mild winter and early spring required intensive modification to the master plan, both accelerating the timing and condensing the time span we had to work with," says Davit. "Some of the removal and dividing we normally do in May was needed in March. Some of the September bloomers flowered in July. By fall, plants were still five to six weeks ahead of a typical season and many of the plants we'd cut back were reblooming."

A primary goal of the garden is to connect people, plants and wildlife, so each maintenance decision must also consider the impact on the visitors' experience.

Davit says, "When some of the leggy plants that tend to lean over and hide blossoms grow to approximately half their height, we cut them back halfway. Or we'll use the natural adaptation techniques of the native prairie, interplanting leggy plants with grasses or other compatible perennials for the support needed to make the flowers more visible. We use groupings of plants with similar needs to create plant communities throughout the garden that are low maintenance, yet striking in appearance. We're introducing a program called Garden Artistry to inspire and equip the public to do the same." (See sidebar.)

Cultural practice adjustments are a major part of the garden's no-chemical policy. The garden is equipped with an inground irrigation system and with strategically placed irrigation risers with quick couplers. Generally, irrigation needs are minimal, focused mainly on spring installations. Davit says, "With this summer's drought and string of temperatures in the high 90s, we irrigated areas we've never watered before, including the meadow, twice. We also hand-watered many small areas, especially along the pathways, where plants struggled."

The garden's abuzz

Beekeeping is in its second year as part of the Lurie Garden program. The hives are kept in the maintenance area adjacent to the garden and tended by beekeeper Michael Thompson and Ekasetya. The bees pollinate the plants and the honey they produce will be sold during the fall plant sale.



Special events draw crowds to the Lurie Garden. Here hawks and owls are introduced to the visitors. In all, more than 1.25 million people visit the garden annually.

Birds and other beneficial insects assist with pest control. Plants that prove too susceptible to pests are replaced with less susceptible alternatives. Davit says, "We have no linden, ash or birch trees and no grapes or roses, so we have no Japanese beetles. We often bring in beneficial insects to control pests on plants we've chosen to retain. We assess each situation to match the number of insects and the timing of the release to the problem. One of our ladybug releases cleaned up an aphid infestation in just three hours."

As the garden matures, plants are growing faster and many are producing more

seed than needed or desired. These seeds germinate in the spring producing so many seedlings it was taking hours of weeding to keep the plants under control.

"Excessive seed production was the real problem," says Davit. "We only need to retain the seed heads on plants with ornamental value for the fall and winter garden and those of plants we want to multiply. We did a complete garden assessment, noting which plant varieties weren't mature enough to bear seeds and which were. Then we evaluated the mature plants individually by variety to determine and record the timing of seed viability as related to seed pod formation. We also noted which seeds dropped directly to the ground and which were scattered by the wind. One seed pod may contain 30 or more individual seeds, so in an hour of pod removal we are eliminating thousands of seedlings, and the time it would take to remove them."



Here, 120,000 spring flowering bulbs burst with color. Note the perennials at ground level, preparing to take over the show as the season progresses.

Time spent on seed removal for each plant species per area is tracked and added to the master plan. "We need to know how much time to allocate," says Davit. "If we must make a choice, windborne seeds will be removed first, as those seedlings will be the most time-consuming to pull. On plants such as the Rattlesnake Master (*Eryngium yuccafolium*), a prolific producer of dramatic seed heads, we selectively leave some of the most visible seed heads, removing others to minimize the seedlings."

Previously, spring cleanup was done by hand, a weeks-long process using string trimmers and pruning shears to trim down the foliage and removing the debris as it was cut. Then a light layer of mulch was brought in.

After analyzing the potential labor and material savings, Davit determined cutback mowing was a workable alternative. She presented the concept and anticipated results to the foundation board for approval prior to contracting for the service.



The Garden takes on a more stark, futuristic appearance under a blanket of fresh snow. The warm lights of the structures give the scene an appealing warm touch.

She says, "We considered the impact on each plant before acting and pruned a few of the mounding grasses by hand prior to the mowing to protect the growth points from damage. This past spring, a mower equipped with mulching blades set at a 6-inch height did the cutback in six hours. It took five to seven passes, depending on which plants were being trimmed, to reduce the material to small enough pieces to filter to the soil surface and form permeable mulch."

Timing is critical. Davit says, "Temperatures must be below freezing so the mower won't cause ruts. Weeks of just stubble are not desirable, but if we delay too long, the mower will damage the emerging spring flowering bulbs. Most years, we've started the cut back in early March. This year, they mowed

during the first week of February. We saw no decline in plant quality from using this process and the natural mulch actually improved the visual appeal of the garden.”



So while public gardens have the advantage of always considering the long-term, maintenance companies may want to recommend similar plant replacement and maintenance strategies to their clients, including the anticipated cost savings as part of the presentation. As the Lurie Garden program demonstrates, the results can be spectacular.

Garden Artistry

Garden Artistry is a collection of unique plant combinations selected through the collaboration of the horticultural staff at the Lurie Garden and Midwest Groundcovers LLC, with technical expertise provided by Roy Diblik of Northwind Perennial Farm. Several of these combinations of perennial plants individually-grown in pint-size pots will be included in the Lurie Garden fall plant sale. They will be available from garden centers this coming spring. For details on the development of the Lurie Garden, the symbolism of its design, and identification of the plants within it, go to www.luriegarden.org.



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