

# Airport Landscaping Resource Guide for Property Owners, Businesses and Neighbors near Chicago Midway International Airport (“Midway”)

Mayor Richard M. Daley is encouraging the planting of trees throughout the City of Chicago wherever trees can be accommodated. The benefits of trees are numerous and increasingly important in this age of climate change, to achieve Mayor Daley’s goal of a cleaner, greener, and more sustainable environment.

Research has shown that trees vastly improve the environment by moderating air temperatures, improving air quality, absorbing stormwater and buffering noise.

*“Trees soften the edges of life in a large urban setting. They add beauty to the environment, help cleanse the air, increase property values and provide shade that can lower energy costs on hot days.”*

*Mayor Richard M. Daley*

The Chicago Department of Aviation has created the Airport Landscaping Resource Guide to provide information for residents and businesses located within the Midway International Airport Landscape Area. The Guide contains helpful information about the types and species of plants that are acceptable and preferred around Midway.

## **Purpose of this Guide:**

The Chicago Department of Aviation has developed this Airport Landscaping Resource Guide to:

1. Provide help for property owners, developers, design professionals, Aviation staff, and other city departments or public agencies;
2. Encourage sustainable landscapes that minimize wildlife hazard for aircraft operating at Midway; and
3. Prevent development of airspace obstructions that could present a navigation hazard for aircraft operating at Midway.

## **Midway International Airport Landscape Area:**

The Midway International Airport Landscape Area is contained within the following boundaries:

1. Northern Boundary: 52<sup>nd</sup> Street (except Lavergne Avenue and Kenneth Avenue, where the boundary is Archer Avenue).
2. Eastern Boundary: Kenneth Avenue.
3. Southern Boundary: 65<sup>th</sup> Street (except between Cicero Avenue and Kenneth Avenue, where the boundary is 67<sup>th</sup> Street).
4. Western Boundary: Mayfield.

### **What can you do?**

The Chicago Department of Aviation encourages our neighbors near Midway – both residents and businesses – to use this Guide when making landscaping decisions.

### **Why are we doing this?**

The Chicago Department of Aviation takes great pride in welcoming thousands of domestic and international travelers to Chicago on a daily basis. Midway International Airport is a gateway to the great city of Chicago, and the beauty of Midway Airport's landscape is enhanced by the landscaping efforts of surrounding property owners. When you plant trees and other plants, you beautify the community and improve the environment. However, there are special environmental considerations when landscaping near an airport, such as:

- a) minimizing use of landscape plants that attract large birds and mammals;
- b) planting lower-growing trees that won't obstruct air navigation; and
- c) avoiding maintenance-intensive lawns, hedges and other plantings that increase the use of noise-producing power tools.

### **What should you plant?**

If you are considering landscaping improvements at your home or business, please use our reference lists of trees and other plants that are acceptable and preferred within the Midway International Airport Landscape Area.

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While this guide has been specially prepared for property owners near Midway International Airport, the concepts and plant list may be used in any neighborhood located near an airport.

**Thank you for your support and cooperation. Should you have any questions, please contact the Chicago Department of Aviation at 773.838.0600.**

## Sustainable Landscape Guidelines and Wildlife Management

If you are interested in making landscaping improvements to your home or business, we strongly encourage you to follow these guidelines to minimize wildlife hazards at and around Midway. Wildlife hazards may be associated with large birds such as waterfowl (ducks, geese), gulls, and raptors (hawks), small birds such as blackbirds and starlings that congregate into large flocks, and small mammals such as rabbits that may attract predatory birds such as hawks.

Landscaping should not provide nesting or roosting habitat for wildlife, or wildlife edible fruit and seeds or palatable forage for grazing animals.

**Table 1 – Recommended Plant Species**

Please select from the following recommended plant species when making landscaping improvements within the Midway International Airport Landscape Area:

Common Name(s) (botanical name)	Native	Size (H,HxW)	Bloom Time	Flower/Fall Color	Comments
<b>TREES</b>					
American Hornbeam, Bluebeech, Musclewood ( <i>Carpinus caroliniana</i> )	Y	25' x 25'		Yellow- Orange	Best in moist soil conditions but tolerates some dryness
Eastern Redbud, Redbud ( <i>Cercis canadensis</i> )	Y	20' x 20'	Apr-May	Pink/ Yellow	Generally unused by wildlife
Ginkgo, Maidenhair Tree – Magyar, Princeton Sentry, Autumn Gold, Emperor ( <i>Ginkgo biloba</i> )	N	60' x 40'	Mar-Apr	Yellow	Salt and air pollution tolerant; female (fruit-bearing) plants not recommended
Honeylocust – Shademaster or Imperial ( <i>Gleditsia triacanthos</i> var. <i>inermis</i> )	N	50' x 35'	Apr-May	Yellow	Must be non-fruit/seed bearing
Kentucky Coffee-tree ( <i>Gymnocladus dioica</i> )	Y	100' x 50'		Yellow	Must be non-fruit/seed bearing. Ensure that only male trees are planted.
Seven-Son Flower ( <i>Heptacodium miconioides</i> )	N	20' x 10'	Aug-Sep	White	Flowers attract butterflies
American Hophornbeam ( <i>Ostrya virginiana</i> )	Y	35' x 25'		Yellow	Low fruit/seed abundance, medium drought tolerance (USDA)
Chicago Blues Black Locust ( <i>Robinia pseudoacacia</i> )	N	80' x 40'	Apr-May	White/ Yellow	Must be non-fruit/seed bearing
Japanese Tree Lilac – Ivory Silk, Summer Snow ( <i>Syringa reticulata</i> )	N	30' x 25'	July	White/ Yellow	Adaptable to urban uses
Chinese Tree Lilac – China Snow, Summer Charm, Beijing Gold ( <i>Syringa pekinensis</i> )	N	20' x 15'	June	White/ Yellow	Adaptable to urban uses

Common Name(s) (botanical name)	Native	Size (H,HxW)	Bloom Time	Flower/Fall Color	Comments
American Elm – Princeton or Valley Forge ( <i>Ulmus americana</i> )	Y	40-60' x 20-40'	Apr-May	Yellow-Red/ Yellow-Brown	Dutch elm disease resistant; tolerant of urban conditions; susceptible to Asian Longhorn Beetle (ALB)
Hybrid Elm – Accolade, Cathedral, Commendation, Danada Charm, Discovery, New Horizon, Patriot, Triumph, Vanguard ( <i>Ulmus X hybrida</i> )	N	75' x 45'	Apr-May	Yellow	Dutch elm disease resistant; tolerant of urban conditions; susceptible to Asian Longhorn Beetle (ALB)
<b>SHRUBS</b>					
Oakleaf Hydrangea ( <i>Hydrangea quercifolia</i> )	Y	5' x 4'	June- July	White/ Red-Purple	'Snow Queen' variety is more winter hardy
Inkberry 'Chamzin' (Nordic®) ( <i>Ilex glabra</i> )	Y	4' x 4'	June	White/ Purple	Male varieties only; evergreen but thin-leaved canopy (not shelter producing)
Bush Cinquefoil ( <i>Potentilla fruticosa</i> )	Y	3' x 3'	June- Oct	Yellow / Insignificant	Several varieties; long bloom time
Northern Lights Azalea series – Northern Lights, Pink Lights, Rosy Lights, Orchid Lights, Lemon Lights, White lights, etc. ( <i>Rhododendron X hybrida</i> )	Y	6' x 6' or more	May	Pink, white	Requires acidified organic soil
<b>VINES</b>					
Western White Clematis ( <i>Clematis ligusticifolia</i> )	Y	up to 20'	Jun-Aug	White	Western US native; climbing vine
<b>PERENNIALS AND GRASSES</b>					
Butterfly Weed ( <i>Asclepias tuberosa</i> )	Y	3' x 3'	Jun-Aug	Orange- Yellow	
Sky Blue Aster ( <i>Aster azureus</i> )	Y	2' to 3'	Aug-Oct	Blue	Partial shade tolerance
Smooth Blue Aster ( <i>Aster laevis</i> )	Y	2' to 4'	Aug-Oct	Blue	
Side-Flower Aster, Calico Aster ( <i>Aster lateriflorus</i> )	Y	2' to 3'	Sep-Oct	White	Shade tolerant
New England Aster ( <i>Aster novae-angliae</i> )	Y	3' to 6'	Aug-Oct	Pink-Purple	
Flowering Spurge ( <i>Euphorbia corollata</i> )	Y	2' to 4'	Jul-Aug	White	
Blanket Flower, Gaillardia ( <i>Gaillardia aristata</i> )	Y	2' x 2'	Jun-Jul	Red-Yellow	Native; low seed production (USDA)
Yellow Gentian ( <i>Gentiana flavida</i> )	Y	6" to 1'	Aug-Sep	Yellow	
Prairie Alum Root ( <i>Heuchera richardsonii</i> )	Y	2' x 2'	Jun-Jul		Attractive foliage
Wild Quinine ( <i>Parthenium integrifolium</i> )	Y	3' to 5'	Jun-Sep	White	Disease-, pest-resistant
Wood Betony, Canadian Lousewort ( <i>Pedicularis canadensis</i> )	Y	12" to 18"	Apr-Jun	Red-Yellow	Partial shade tolerance
Woodland Phlox ( <i>Phlox divaricata</i> )	Y	1' to 2'	Apr-Jun	Blue	Partial shade to shade
Prairie Phlox ( <i>Phlox pilosa</i> )	Y	12" to 18"	Apr-Jun	Pink	
Jacob's Ladder ( <i>Polemonium reptans</i> )	Y	1' to 2'	Apr-Jun	Blue	Shade tolerant

<b>Common Name(s) (botanical name)</b>	<b>Native</b>	<b>Size (H,HxW)</b>	<b>Bloom Time</b>	<b>Flower/Fall Color</b>	<b>Comments</b>
Yellow Coneflower; Gray-Headed Coneflower ( <i>Ratibida pinnata</i> )	Y	3' to 6'	Jul-Sep	Yellow	
False Solomon's Seal, Solomon's Plume ( <i>Smilacina racemosa</i> )	Y	18" to 36"	Apr-Jun	White	Partial shade to shade
Ohio Spiderwort ( <i>Tradescantia ohioensis</i> )	Y	2' to 4'	Jun-Jul	Blue	Partial shade tolerant
Trillium ( <i>Trillium grandiflorum</i> )	Y	12" to 18"	May-Jun	White	Partial shade to shade
Hoary Vervain ( <i>Verbena stricta</i> )	Y	2' to 4'	Jul-Sep	Blue-Purple	
Culver's Root ( <i>Veronicastrum virginicum</i> )	Y	3' to 6'	Jul-Aug	White	Shade tolerant
Heart-Leaf Alexander ( <i>Zizia aptera</i> )	Y	1' to 3'	Apr-May	Yellow	Shade tolerant
<b>GROUNDCOVERS/ GREEN ROOF PLANTS</b>					
Goldmoss Stonecrop ( <i>Sedum acre</i> )		3" x 12"	Jun-Jul	Yellow	
Golden Stonecrop ( <i>Sedum acre 'Aureum'</i> )		3" x 10"	May- June	Yellow	
Aizoon Stonecrop ( <i>Sedum aizoon 'Euphorbioides'</i> )		15" x 15"	Jul-Aug	Orange- Yellow	
White Stonecrop ( <i>Sedum album cultivars</i> )		4" x 18"	Jul-Aug	White	
Bertram Anderson Stonecrop ( <i>Sedum caudicicola</i> )		4" x 12"	Jul-Sep	Purple-Pink	
Weihenstephaner Gold ( <i>Sedum floriferum</i> )		4" x 10"	Jul-Aug	Yellow	
Orange Stonecrop ( <i>Sedum kamtschaticum</i> )		5" x 12"	Jul-Oct	Yellow	
Autumn Stopnecrop ( <i>Sedum matrona</i> )		2' x 2'	Aug-Sep	Purple-Pink/ Red-Orange	Bee/Butterfly attractant
Chinese Mountain Stonecrop ( <i>Sedum middendorffianum</i> )		5" x 12"	Jul-Aug	Yellow	
Spruce Stonecrop, Jenny's Stonecrop ( <i>Sedum reflexum</i> )		8" x 15"	Jun-Jul	Yellow	
Rocky Stonecrop ( <i>Sedum rupestre</i> )		(3"-6") x (12"-24")	Jun-Aug	Yellow	
Angelina Stonecrop ( <i>Sedum rupestre 'Angelina'</i> )		8" x 24"	May-Oct	Yellow	
Tasteless Stonecrop ( <i>Sedum sexangulare</i> )		4" x 8"	Jun-Jul	Yellow	
Woody Stonecrop ( <i>Sedum sichotense</i> )		6" x 12"	Jul-Aug	Yellow	
October Daphne ( <i>Sedum sieboldii</i> )		8" x 12"	Aug-Sep	Pink	
Two-Row Stonecrop ( <i>Sedum spurium</i> )		6" x 10"	Jul-Sep	Dark Pink	
Bronze Carpet, Dragon's Blood, Fuldaglut, John Creech, Summer Glory, Tricolor, Voodoo ( <i>Sedum spurium cultivars</i> )		4" x 8"	Jun-Aug	Red	
Red Carpet Stonecrop ( <i>Sedum spurium var. coccineum</i> )		(4"-6") x 10"	Late Summer	Dark Pink	

Common Name(s) (botanical name)	Native	Size (H,HxW)	Bloom Time	Flower/Fall Color	Comments
Stonecrop ( <i>Sedum stefco</i> )		(4" -6") x 10"	Late Summer -Early Fall	White	
Stonecrop ( <i>Sedum tatarinowii</i> )		(12"-18") x 12"	Late Summer -Early Fall	Pink	
Rosy Glow Sedum ( <i>Sedum X 'Rosy Glow'</i> )		(6"-9") x 12"	Aug-Sep	Ruby Red	
Fame Flower, Rockpink ( <i>Talinum calycinum</i> )	Y	12" x 7"	Jun-Oct	Pink	
<b>ORNAMENTAL GRASSES AND SEDGES</b>					
Broomsedge Bluestem ( <i>Andropogon virginicus</i> )	Y	18" to 36"	May	Insignificant	Very drought tolerant; keep plants adequately spaced to prevent cover for wildlife (mammals); best as specimen plant
Bicknell's Sedge ( <i>Carex bicknellii</i> )	Y	12" to 24"	May	Insignificant	Fine leaves; tolerates sandy soils and partial shade
Junegrass ( <i>Koeleria macrantha</i> )	Y	18" to 24"			Used for soil stabilization; may provide forage for wildlife during spring and fall if unmowed
<b>TURF GRASSES (MATURE HEIGHT OR MOW HEIGHT 5" to 8")</b>					
Buffalo Grass ( <i>Buchloe dactyloides</i> )	Y	4" to 6"			Warm season grass, widely adaptable prefers clay but tolerates drought, cold, and poor soil; mow no less than 3".
Inland Saltgrass ( <i>Distichlis spicata</i> )	Y	8"			Salt tolerant
Fescues ( <i>Festuca sp.</i> )		up to 8" to 12"			Many acceptable varieties
Tall Fescue: 2nd Millennium, Bonsai, Cayenne, Cochise III, Constitution, Covenant, Coyote II, Crossfire II, Dakota, Dynasty II, Escalade, Mustang 3, Rendition, SR8600, Taos, Titan Ltd., Titanium, Tombstone ( <i>Festuca arundinacea</i> )	N				Endophyte infection makes this species unattractive to wildlife; many varieties (Kentucky 31 may be used only at the bottom of Detention Basins or other areas subject to water inundation and as approved; avoid Illinois 96 cultivars), see T-901 Spec for planting information.
Red Fescue ( <i>Festuca rubra</i> )	Y				
Creeping Red Fescue ( <i>Festuca rubra sub. trichophylla</i> )	Y				
Spreading Fescue ( <i>Festuca rubra sub. rubra</i> )	Y				
Chewings Fescue ( <i>Festuca rubra sub. commutata</i> )	Y				
Sheep Fescue ( <i>Festuca ovina</i> )	N				

<b>Common Name(s) (botanical name)</b>	<b>Native</b>	<b>Size (H,HxW)</b>	<b>Bloom Time</b>	<b>Flower/Fall Color</b>	<b>Comments</b>
Hard Fescue ( <i>Festuca ovina</i> var. <i>duriuscula</i> )	N				Sometimes called F. longifolia
e.g. "No-Mow" Seed Mix (Prairie Nursery, Westfield, WI), Chicago Park District No- Mow Mix ( <i>Festuca seed mix</i> )		4" to 6"			"No Mow" of Prairie Nursery contains proprietary blend of SR3100 Hard Fescue, Scaldis Hard Fescue, Dawson Red Fescue, Creeping Red Fescue, SR5100 Chewings Fescue, Sheep Fescue. Requires no mowing.
Junegrass ( <i>Koeleria macrantha</i> )	Y	18" to 24"			Tolerates dry, gravelly soil, Minimum mow height 5"; used for soil stabilization; may provide forage for wildlife during spring and fall.
Perennial Ryegrass ( <i>Lolium perenne</i> )	N	up to 18"			Use for quick germination (< 4 days); numerous varieties with high endophyte levels.

Source: Chicago Department of Aviation, Master Specifications, Vol. IIIA, Rev. 8, Sustainable Airport Landscaping-Section 02905, February 1, 2010.

## Table 2 – Prohibited Trees and Plantings

In general, landscape that provides food or shelter to large birds, small birds that congregate into large flocks, as well as small mammals that may attract raptors are to be avoided to decrease wildlife hazards at and around Midway. Specific guidelines include:

- Please refrain from planting evergreen trees or shrubs, including, but not limited to Junipers, Spruces, Pines, Yews and Arborvitae.
- Densely branched or densely foliated trees should not be planted in order to avoid nesting. This includes, but is not limited to, Maples, Linden and Cypress.
- Trees, shrubs and plants that produce wildlife edible fruit and seeds or provide palatable forage for grazing animals should be avoided. Non-fruiting or male plants of a given species may be satisfactory in some instances.

The following trees, shrubs, perennials and grasses are *NOT* preferred for landscaping within the area around Midway:

<b>Botanical Name</b>	<b>Common Name</b>	<b>Concern</b>
<b>Trees and Shrubs</b>		
Acer sp.	Maples	Nesting, roosting site due to dense foliage and branching
Amelanchier sp.	Serviceberry	Fruit
Cornus sp.	Dogwoods	Fruit
Ilex sp.	Holly	Fruit, shelter
Juniperus sp.	Junipers	Shelter, nesting site
Malus sp.	Crabapples	Fruit
Picea sp.	Spruces	Shelter, roosting site, nesting site
Pinus sp.	Pines	Shelter, nesting site
Prunus sp.	Cherries	Fruit

<b>Botanical Name</b>	<b>Common Name</b>	<b>Concern</b>
Taxodium distichum	Bald Cypress	Dense foliage, seeds, shelter for waterfowl
Taxus sp.	Yews	Shelter, nesting site
Thuja sp.	Arborvitae	Shelter, nesting site
Tilia americana	American Linden	Seeds, shelter due to dense foliage
Vaccinium sp.	Blueberry	Fruit
<b>Perennials and Grasses</b>		
Bouteloua curtipendula	Side Oats Grama	Seeds
Dalea purpurea	Purple Prairie Clover	Seeds, forage
Echinacea sp.	Coneflowers	Seeds
Elymus canadensis	Canada Wild Rye	Seeds
Helianthus sp.	Sunflowers	Seeds
Liatris sp.	Blazingstar	Seeds
Panicum ramosum	Brown Top Millet	Seeds, forage
Penstemon sp.	Penstemon, Foxglove	Seeds
Silphium sp.	Cupplant, Prairie Dock, Rosinweed	Seeds
Solidago sp.	Goldenrods	Seeds
Sorghastrum nutans	Indiangrass	Seeds
Sporobolus sp.	Dropseed	Seeds
Botanical Name	Common Name	Concern

Source: Chicago Department of Aviation, Master Specifications, Vol. IIIA, Rev. 8, Sustainable Airport Landscaping- Section 02905, February 1, 2010.

## Other Useful Information

In concert with wildlife management goals, it is recommended that landscaping around Midway be low-maintenance and environmentally sound.

1. Plants that have little maintenance requirements should be used. Plants that minimize or eliminate fertilization, mowing, pest control, and irrigation should be used whenever possible.
2. If possible, plants native to the Midwest region of the United States should be used.

## Turf grasses

Low maintenance, drought resistant turf grasses should be used in place of traditional lawn/turf grass (i.e. Kentucky bluegrass) whenever possible.

1. **Selection Criteria** – The list of recommended turf grasses presented in Table 1 was based on the following criteria:
  - a) Low or Slow Growing – Recommended turf grass species should grow at a rate that does not require excessive mowing, i.e. more than twice a month during the growing season or no more than six times a year or the mature height of the species does not exceed the recommended mow height.



- b) Drought Tolerant – Turf grass species should require no additional irrigation except during establishment. The species should also be suitable to Chicago’s climate and precipitation ranges. Kentucky Bluegrass (*Poa pratensis*) varieties should be avoided.
  - c) Non-Wildlife Attracting – Turf grass species are to be unattractive to wildlife either due to low palatability of the vegetation (e.g. endophyte toxicity) or through low seed production although the latter can be mitigated through mowing. Clover (*Trifolium* sp.), Rhus aromatics, *Chasmanthium latifolium*, and *Carex grayii* varieties should be avoided.
2. **Seed Mixes** – It is recommended that seed mixtures consist of a variety of acceptable turf grass species that promote diversity and thereby minimize susceptibility to disease and to promote a longer growing season by utilizing complimentary cool-season and warm-season grass species where possible. An annual nurse crop may be added to the seed mix to aid establishment of the turf.
3. **Maintenance** – A maintenance plan for turf grasses should be devised and implemented that addresses the following maintenance issues:
- a) Mowing: All turf grass areas should be maintained at a height of 5 to 8 inches. This recommended mowing height reduces the attraction of geese, gulls, and crows and at the same time does not promote excessive cover for small mammals that may attract large raptors. In addition, the mowing frequency should be reduced as much as possible to limit the disturbance of insect populations that may attract wildlife in the mowed areas.
  - b) Irrigation: Additional irrigation is to be avoided beyond what is required for initial establishment.
  - c) Fertilization: Beyond initial establishment, fertilizer should be used sparingly on native turf grasses and in some cases eliminated all together as it is detrimental to some species and also because it exacerbates weed problems. Periodic fertilization for native, low maintenance turf should only occur every other year and at half the recommended application rate for typical commercial lawn fertilizers. The recommended application rates should not exceed 3 pounds of nitrogen (N) per 1000 square feet per year. Depending on the turf species, this rate may be as low as 1 pound N per 1000 square feet per year.

### **Other Landscape Elements**

Acceptable landscape elements for use, such as non-living (non-vegetation) landscape elements (hardscapes), include but are not limited to the following:

1. Landscaped earthen berms or terraced flower beds.
2. Raised planters, planter boxes, and containers.
3. Hanging baskets.
4. Free-standing trellises less than six feet above grade.
5. Decorative stones or pavers.

6. Benches and seating areas.
7. Vine-covered retaining or free-standing walls less than four feet above grade.
8. Ornamental fences.

Landscape elements should not provide nesting or roosting habitat for wildlife. Additionally, ornamental water features are to be avoided (e.g., fountains, ponds, pools, etc.). If necessary, use bird wire, porcupine wire, or other physical means to deter wildlife from landscape elements and features. To increase sustainability considerations where possible, the use of recycled, salvaged, renewable, and locally available materials is encouraged.