

SUSTAINABLE AIRPORT LANDSCAPING

SECTION 02905

{Instruction to Consultants: The Master Specification must only be considered to be general guidelines as it is not prepared for a Specific Project. If the items described in the Master Specification do not match the items actually going to be used in a Specific Project, then the Consultant must add new text or modify the existing text so that the final Specification is fully coordinated and consistent with the Contract Drawings. The Master Specification must not be considered complete. Additions and deletions necessary to make it Project specific are required from the Consultant. Items that are not part of the scope of the Specific Project must be deleted.

The Consultant must add to and/or delete paragraphs, items, etc. to the Master Specification Section as required by the scope and nature of the Specific Project. The general format and general statements of the various Sections must remain unchanged. The Consultant must modify and finalize the footer to identify the Specific Project as to name of Project, Project number, and issued for/issue date.}

PART 1 GENERAL

1.01 SUMMARY

- A. The O'Hare Modernization Program (OMP) has made sustainable design a major priority. One component of the sustainable design at O'Hare (ORD) includes sustainable landscaping. The key focus of the landscaping design elements is that it is aesthetically pleasing and at the same time, low maintenance, ecologically and financially sustainable yet does not compromise Airport security and aircraft safety.
- B. This Specification supersedes the Chicago Landscape Ordinance (Chapter 17-11). Airport sensitive issues such as aircraft safety, which are not addressed in the Chicago Landscape Ordinance and in some cases contradict aircraft safety concerns, are to be addressed using this Specification Section. These standards are applicable to all ORD property.
- C. OMP requirements for sustainable landscaping at ORD are based primarily on FAA Advisory Circular No. 150/5200-33A which discusses wildlife issues at or near Airports and the Cleary and Dolbeer document titled "Wildlife Hazard Management at Airports" with additional supporting documentation provided in 1.04 of this Section. This Specification Section is closely related to the sustainability requirements from the sustainable design categories as defined in the OMP Sustainable Design Manual (SDM). These categories include, but may not be limited to, the following sustainable design categories:
 - 1. Credit 1.1 - Erosion & Sedimentation Control.

2. Credit 1.6 - Stormwater Management, Rate and Quantity.
 3. Credit 1.7 - Stormwater Management, Treatment.
 4. Credit 1.8 - Landscape & Exterior Design to Reduce Heat Islands, Non-Roof.
 5. Credit 1.9 - Landscape & Exterior Design to Reduce Heat Islands, Roof.
 6. Credit 2.1 - Water Efficient Landscaping.
 7. Credit 9.0 - Innovation in Design.
- D. This Specification applies to all ORD property. All landscaping within ORD property boundaries falls into the following two categories:
1. Landside – This area includes all public and private roadways and buildings that are not within the Aircraft Operation Area (AOA) which is delineated by the perimeter security fence. This includes but is not limited to the I-190 corridor, Manheim Road, Irving Park Road, York Road, Mt. Prospect Road, Touhy Avenue, Bessie Coleman Drive, Taft Road, Zemke Road and other roadways, private drives that are arterial to these public roads, and all buildings outside the AOA, such as the Post Office, the AMC Buildings, and remote parking areas. Facilities, such as the Airport terminals, that are partially within the AOA are to be considered Airside (see 1.01.D.2) except for the Landside approaches to the terminals and their associated parking structures.
 2. Airside – This encompasses all the areas within the AOA not covered by 1.01.D.1. All buildings and structures within the AOA fall into this category. This includes but is not limited to the terminals, air traffic control towers, cargo facilities, hangar facilities, maintenance facilities and yards, parking lots, and areas adjacent to runways, taxiways, and Airport perimeter areas within the AOA security fence.
- E. Abbreviations
1. ALP – Airport Layout Plan (Sep 2005)
 2. AOA – Aircraft Operations Area
 3. CDOT – Chicago Department of Transportation

4. DOA – Department of Aviation
5. FAA – Federal Aviation Administration
6. OMP – O’Hare Modernization Program
7. ORD – O’Hare International Airport
8. SDM – Sustainable Design Manual (Sep 2003)
9. USDA – United States Department of Agriculture

F. Definitions

1. AOA – The AOA includes all areas within the perimeter security fence line as shown on the ALP.
2. Airside – Airside includes all areas in the AOA.
3. Landside – Landside includes all areas outside of the AOA (i.e. non-Airside areas). That is all areas outside the perimeter security fence.

1.02 SECTION INCLUDES:

- A. Work under this Section is subject to the requirements of the Contract Documents.
- B. This Section provides the landscaping selection criteria to be applied to the Airport areas as described in 1.01.C. The Chicago Landscape Ordinance (Chapter 17-11) shall be applicable except when superseded by criteria in this Section. OMP reserves the right to approve or deny any plant species or landscape feature proposed that is not specified herein.

1.03 RELATED WORK:

- A. As specified in the following divisions:
 1. Division 1 - General Requirements
 2. Division 2 – Site Work
 3. Division 2 – Plant Preparation
 4. Division 2 – Exterior Plants
 5. Division 2 – Seeding

6. Division 2 – Sodding
7. Division 2 – Top Soil
8. Division 7 – Green Roof Systems

1.04 REFERENCES:

- A. Cleary, E.C. and R.A. Dolbeer. July 2005. "Wildlife Hazard Management at Airports", FAA and USDA, 2nd ed.
- B. Washburn, B.E. and T.W. Seamans. 2004. "Management of Vegetation to Reduce Wildlife Hazards at Airports." FAA Worldwide Airport Technology Transfer Conference
- C. "Hazardous Wildlife Attractants on or Near Airports." July 27, 2004. FAA Advisory Circular No. 150/5200-33A.
- D. "Airport Landscaping for Noise Control Purposes." January 31, 1978. FAA Advisory Circular No. 150/5320-14.
- E. United States Department of Agriculture (USDA), Natural Resources Conservation Service. Plant Database.
- F. University of Illinois Extension Service.
- G. The Chicago Landscape Ordinance – Applicable Sections or referenced by DOA Landscape Standards.
- H. "List of Native Trees for Use Along Roadsides in Illinois". Illinois Natural History Survey, Center for Biodiversity.
- I. "Trees and Shrubs That Attract Birds". The Morton Arboretum, Lisle Illinois.
- J. Barras, S.C. and T.W. Seamans. 2002. "Habitat Management Approaches for Reducing Wildlife Use at Airports." Proc. 20th Vertebr. Pest Conf. (eds. R.M. Timm and R.H. Schmidt) University of California – Davis, pp. 309-315.
- K. "List of Native Plants for Northeastern Illinois". Conservation@Home Program, The Conservation Foundation, Naperville, Illinois.
www.theconservationfoundation.org.
- L. Catalog and Growing Guide, 2005. Prairie Nursery, Westfield, Wisconsin.

- M. Wisconsin Dept. of Transportation. "Standard Specifications for Airport Construction". Specifiers' Guide Phase II, December 22, 1999.
- N. Chicago Department of Transportation, Division of Infrastructure Management. "Roadway Plant List", 5th ed.

PART 2 CRITERIA

2.01 BASIC REQUIREMENTS:

- A. The three main criteria for sustainable landscaping at ORD for both Airside and Landside areas are:
 - 1. **Minimize Wildlife Hazards** – The landscaping criteria at ORD are intended to minimize wildlife hazards with particular emphasis on large birds (e.g. waterfowl, gulls, raptors), small mammals that may attract raptors, and small birds that congregate into large flocks (e.g. blackbirds, starlings). In general, landscape that provides food or shelter to these types of birds and small mammals is to be avoided. A list of plant species that are not to be used at ORD is presented in 2.01B. Note that this list is not inclusive of all unacceptable species. Specific guidelines are as follows:
 - a. No evergreen trees or shrubs allowed. This includes but is not limited to Junipers (*Juniperus sp.*), Spruces (*Picea sp.*), Pines (*Pinus sp.*), Yews (*Taxus sp.*), and Arborvitae (*Thuja sp.*).
 - b. Densely branched or densely foliated trees are not allowed. This includes but is not limited to Maples (*Acer sp.*), Linden (*Tilia americana*), and Cypress (*Taxodium sp.*).
 - c. Trees must be spaced apart at such distances that do not allow their canopies to grow together. The minimum distance between trunk centerlines for trees will be equal to one and a half times the spread/width of the crown of the tree at maturity (i.e. two trees that have a 30' spread at maturity cannot be placed closer than 45' between each trunk centerline). When two different tree species are placed near each other, the tree with the larger canopy width at maturity must be used to calculate the minimum distance.
 - d. Trees, shrubs, and plants that produce wildlife edible fruit and seeds or provide palatable forage for grazing animals are not allowed. Non-fruiting or male plants of a

given species may be allowed in some cases, subject to approval by the Director.

- e. No trees, shrubs, or other woody vegetation is permitted within 600' of the centerline of an active runway or taxiway (per FAA Advisory Circular 150/5320-14)
- f. No ornamental water features are allowed (e.g. fountains, ponds, pools, etc.).

2. **Increase Landscape Sustainability** – In concert with wildlife management, Airport landscaping must be low-maintenance and environmentally sound.

- a. Plants that have little or no maintenance requirements are to be used. Plants that minimize or eliminate fertilization, mowing, pest control, and irrigation are to be used whenever possible.
- b. Wherever possible, plants native to the Midwest region of the United States are to be used. Exceptions, when noted, are subject to OMP review for approval.

3. **Safety and Security** – All Airport safety and security protocols related to the placement of landscape features must be adhered to in all cases. This may include sight lines for security-sensitive areas (i.e. guard posts) and the line-of-sight for the air traffic control towers and runway approaches.

B. Plants that will not be allowed for use at ORD include, but are not limited to, the list presented below. The Director reserves the right to approve or reject any proposed species not listed herein.

TABLE 1
Unacceptable Plant Species for Use at ORD

Botanical Name	Common Name	Concern	Source
Trees and Shrubs			
<i>Acer sp.</i>	Maples	Nesting, roosting site due to dense foliage and branching	1
<i>Amelanchier sp.</i>	Serviceberry	Fruit	1
<i>Cornus sp.</i>	Dogwoods	Fruit	1
<i>Ilex sp.</i>	Holly	Fruit, shelter	2
<i>Juniperus sp.</i>	Junipers	Shelter, nesting site	1

TABLE 1

Unacceptable Plant Species for Use at ORD

Botanical Name	Common Name	Concern	Source
<i>Malus sp.</i>	Crabapples	Fruit	1
<i>Picea sp.</i>	Spruces	Shelter, roosting site, nesting site	1
<i>Pinus sp.</i>	Pines	Shelter, nesting site	1
<i>Prunus sp.</i>	Cherries	Fruit	1
<i>Taxodium distichum</i>	Bald Cypress	Dense foliage, seeds, shelter for waterfowl	1
<i>Taxus sp.</i>	Yews	Shelter, nesting site	1
<i>Thuja sp.</i>	Arborvitae	Shelter, nesting site	1
<i>Tilia americana</i>	American Linden	Seeds, shelter due to dense foliage	1
<i>Vaccinium sp.</i>	Blueberry	Fruit	2
Forbs and Grasses			
<i>Bouteloua curtipendula</i>	Side Oats Grama	Seeds	3
<i>Dalea purpurea</i>	Purple Prairie Clover	Seeds, forage	3
<i>Echinacea sp.</i>	Coneflowers	Seeds	3
<i>Elymus canadensis</i>	Canada Wild Rye	Seeds	3
<i>Helianthus sp.</i>	Sunflowers	Seeds	3
<i>Liatris sp.</i>	Blazingstar	Seeds	3
<i>Panicum ramosum</i>	Brown Top Millet	Seeds, forage	4
<i>Penstemon sp.</i>	Penstemon, Foxglove	Seeds	3
<i>Silphium sp.</i>	Cupplant, Prairie Dock, Rosinweed	Seeds	3
<i>Solidago sp.</i>	Goldenrods	Seeds	3
<i>Sorghastrum nutans</i>	Indiangrass	Seeds	3
<i>Sporobolus sp.</i>	Dropseed	Seeds	3

TABLE 1

Unacceptable Plant Species for Use at ORD

Botanical Name	Common Name	Concern	Source
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¹ – “Trees and Shrubs That Attract Birds”. Morton Arboretum, Lisle, Illinois

² – Washburn, B.E. and T.W. Seamans. 2004. “Management of Vegetation to Reduce Wildlife Hazards at Airports.” FAA Worldwide Airport Technology Transfer Conference

³ – Catalog and Growing Guide, 2005. Prairie Nursery, Westfield, Wisconsin

⁴ – “Grasses Attractive to Wildlife”. FAA CertAlert No. 98-05, September 1998.

C. Turf grasses – Low maintenance, drought resistant turf grasses are to be used in place of traditional lawn/turf grass (i.e. Kentucky bluegrass) whenever possible at ORD.

1. Selection Criteria – The list of acceptable turf grasses presented in the Approved Plant List at the end of this Specification Section was based on the following criteria:

- a. Low or Slow Growing – Turf grass species are to 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 (See 2.01C.4.a).
- b. Drought Tolerant – Turf grass species are to require no additional irrigation except during establishment. The species must be suitable to Chicago’s climate (USDA Zone 5) and precipitation ranges. Kentucky Bluegrass (*Poa pratensis*) varieties are not acceptable.
- 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.*) varieties are not acceptable.

2. Seed Mixes – Readily available proprietary or other agency-specified seed mixtures are to be used whenever possible. 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. Installation – Refer to Division 2 – Seeding, Sodding, or Exterior Plants for further details.
4. Maintenance – A maintenance plan for turf grasses should be devised and implemented that at a minimum addresses the following maintenance issues:
 - a. Mowing: All turf grass areas must be maintained at a height of 5 to 8 inches (Source: Cleary, E.C. and R.A. Dolbeer. July 2005. “Wildlife Hazard Management at Airports”, FAA and USDA, 2nd ed., Appendix O). 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: No additional irrigation is to be provided 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 application rates must 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.

2.02 Landside Landscaping Criteria

- A. Plant Selection – Landside plant selection criteria were based on the basic requirements as outlined in 2.01. To obtain the list of recommended plants (including trees, shrubs, vines, grasses, sedges, rushes, and forbs), screening criteria were applied to the Conservation Foundation’s (Naperville, Illinois) “List of Native Plants for Northeastern Illinois”. Two screening criteria were applied to the list: 1) plants that do not attract birds and 2) plants that tolerate dry soil conditions. This plant information was cross-checked with the USDA Natural Resource Conservation Service plant database and with local nursery information (Prairie Nursery, Westfield, Wisconsin). Where there was

conflicting information, the plant was removed from the list. The list of plants is not all-inclusive and other plants may be proposed subject to approval by the Director. The recommended plant list is presented at the end of this Specification Section.

- B. Landside Landscape Uses – Areas where aesthetics will play a larger role such as the terminals, roadway approaches to the Airport, landside normally-occupied buildings/facilities, and other areas of high visibility to the public must be designed using low-maintenance plants where possible. Examples of these uses include parking lot islands, roadway medians and/or roadsides, planting beds, large planter containers, building outdoor courtyards or common areas. Some allowances may be made for the use of annuals where appropriate (e.g. hanging planters, small containers, etc.) and subject to approval by the Director.

2.03 Airside Landscaping Criteria

- A. Plant Selection – Airside plant selection criteria were similar to Landside criteria (Part 2.02) with the following exceptions:
 - 1. General – In addition to screening out bird-attracting plants in the Conservation Foundation’s “List of Native Plants for Northeastern Illinois”, mammal-attracting species are also excluded from airside plantings. The species that did not meet these criteria are *Aster sp.* and *Ratibida pinnata*.
 - 2. Trees – No trees of any kind are to be used anywhere within the AOA (Airside).
 - 3. Shrubs – The basic landscaping criteria as described in 2.01 apply for selection of acceptable shrub species. In addition:
 - a. Mass plantings of shrubs or hedge rows are not allowed. The tree spacing criteria provided in 2.01A.1.c are to be used when spacing shrubs.
 - b. Shrubs may be used only as ornamental specimen plants at any normally occupied airside building site or parking lot. Shrubs are not to be placed in open areas of the airfield.
 - c. Shrubs must be maintained at a height no greater than 6’. Shrubs that mature at a height less than or equal to 6’ are preferable to reduce maintenance.

4. Forbs and Grasses – Acceptable species as indicated in 2.01C (for grasses) and 2.02 (for forbs with the exception of *Aster sp.* and *Ratibida pinnata* as explained in 2.03A.1).
 - a. Forbs and ornamental grasses are only to be used in areas as described in 2.03B and are prohibited within 600' of an active runway or taxiway (see 2.01A.1.e).

B. Airside Landscape Uses –

1. Airfield Turf Areas – Areas of the airfield that are within 600' of any active runway or taxiway (see also 2.01A.1.e) are to be planted only with turf grasses as described in 2.01C. Mowing heights and frequencies are to be strictly enforced within these areas.
2. Green Roofs – Green roof plant selection is to follow the guidelines specified in this Section and Division 7 – Green Roof Systems. Green roof species will typically include *Sedum sp.* (Stonecrop) as shown in the Approved Plant List.
3. Ornamental Airside Landscaping – Areas where aesthetics are a higher priority, which include terminals, normally-occupied airside buildings/facilities, and the like, should include plants as indicated in 2.03A.4. Examples of these uses include parking lot islands, roadway medians and/or roadsides, planting beds, large planter containers, building outdoor courtyards or common areas.

2.04 Approved Plant List

- A. Plant species approved for use at ORD are summarized in the attached list which includes additional plant information such as physical characteristics and planting requirements. Substitutions or additions to this list are subject to approval by the Director.

2.05 Other Landscape Elements

- A. Non-living (non-vegetation) landscape elements (hardscapes) that are acceptable for use at ORD are listed below. Any additions or substitutions must be approved by the Director and meet the basic criteria for Airport landscaping:
 1. Minimize Wildlife Hazards – Landscape elements must not provide nesting or roosting habitat for wildlife. When necessary, use bird wire, porcupine wire, or other physical means to deter wildlife from these structures.

2. Increase Sustainability – Where possible, the use of recycled, salvaged, renewable, and/or locally available materials are to be used. Refer to SDM for opportunities to increase ORD sustainability.
 3. Maintain Safety and Security – Landscape features must not interfere with aircraft operations nor create security issues. Where possible, the use of landscape elements is encouraged to aid in safety and security (e.g. planter boxes for traffic protection/deterrents).
- B. Acceptable landscape elements for use at ORD 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.

PART 3 EXECUTION – NOT USED

END OF SECTION 02905

ORD APPROVED PLANT LIST*

Botanical Name	Common Name(s)	Native	Size (H, HxW)	Bloom Time	Flower Color	Fall Color	Comments	Source	Location Permitted (Landside/Airside)
TREES									
<i>Carpinus caroliniana</i>	American Hornbeam, Bluebeech, Muscledwood	Y	25' x 25'			Yellow-Orange	Best in moist soil conditions but tolerates some dryness	2, 4, 9	Landside
<i>Cercis canadensis</i>	Eastern Redbud, Redbud	Y	20' x 20'	Apr-May	Pink	Yellow	Generally unused by wildlife	4, 9	Landside
<i>Fraxinus pennsylvanica</i> (seedless)	Marshall's Seedless Green Ash	Y	50' x 40'			Yellow	Use seedless (male) varieties only	2, 4, 5, 10	Landside
<i>Ginkgo biloba</i>	Ginkgo, Maidenhair Tree	N	60' x 40'	Mar-Apr		Yellow	Salt and air pollution tolerant; female (fruit-bearing) plants not recommended	4	Landside
<i>Gleditsia triacanthos var. inermis</i>	Skyline Honey Locust	N	50' x 35'	Apr-May	Yellow	Yellow	Must be non-fruit/seed bearing	2	Landside
<i>Ostrya virginiana</i>	American Hophornbeam	Y	35' x 25'			Yellow	Low fruit/seed abundance, medium drought tolerance (USDA)	2, 4, 9	Landside
<i>Pyrus calleryana var.</i>	Ornamental Pear, various hybrids	N	35' x 20'	Apr-May	White		Not salt tolerant, select hybrid based on site conditions	2, 4	Landside
<i>Ulmus x various</i>	Ulmus x Homestead, various hybrids	Y	40-60' x 20-40'			Yellow-Red	Dutch elm disease resistant; tolerant of urban conditions; susceptible to Asian Longhorn Beetle (ALB)	4, 5, 9, 10	Landside
SHRUBS									
<i>Hydrangea quercifolia</i>	Oakleaf Hydrangea	Y	5' x 4'	June-July	White	Red-Purple	'Snow Queen' variety is more winter hardy	4, 5	Landside, Airside
<i>Ilex glabra (non-fruiting)</i>	Inkberry 'Chamzin' (Nordic®)	Y	4' x 4'	June	White	Purple	Male varieties only; evergreen but thin-leaved canopy (not shelter producing)	2, 10	Landside
<i>Kalmia latifolia</i>	Mountain Laurel	Y	6' x 4'	May-June	White-Pink	Insignificant		2, 10	Landside, Airside
<i>Potentilla fruticosa</i>	Bush Cinquefoil	Y	3' x 3'	June-Oct	Yellow	Insignificant	Several varieties; long bloom time	4, 10	Landside, Airside
<i>Rhododendron periclymenoides</i>	Pink Azalea	Y	6' x 6' or more	May	Pink	Insignificant	Requires organic soil	2	Landside, Airside
VINES									
<i>Clematis ligusticifolia</i>	Western White Clematis	Y	up to 20'	Jun-Aug	White		Western US native; climbing vine	2	Landside
FORBS									
<i>Asclepias tuberosa</i>	Butterfly Weed	Y	3' x 3'	Jun-Aug	Orange-Yellow			1, 2, 3	Landside, Airside
<i>Aster azureus</i>	Sky Blue Aster	Y	2' to 3'	Aug-Oct	Blue		Partial shade tolerance; not for Airside use	1, 2, 3	Landside
<i>Aster laevis</i>	Smooth Blue Aster	Y	2' to 4'	Aug-Oct	Blue		Not for Airside use	1, 2, 3	Landside
<i>Aster lateriflorus</i>	Side-Flower Aster, Calico Aster	Y	2' to 3'	Sep-Oct	White		Shade tolerant; not for Airside use	1, 2, 3	Landside
<i>Aster novae-angliae</i>	New England Aster	Y	3' to 6'	Aug-Oct	Pink-Purple		Not for Airside use	1, 2, 3	Landside
<i>Euphorbia corollata</i>	Flowering Spurge	Y	2' to 4'	Jul-Aug	White			1, 2, 3	Landside, Airside
<i>Gaillardia aristata</i>	Blanket Flower, Gaillardia	Y	2' x 2'	Jun-Jul	Red-Yellow		Native; low seed production (USDA)	2	Landside, Airside
<i>Gentiana flavida</i>	Yellow Gentain	Y	6" to 1'	Aug-Sep	Yellow			1, 2, 3	Landside, Airside

ORD APPROVED PLANT LIST*

Botanical Name	Common Name(s)	Native	Size (H, HxW)	Bloom Time	Flower Color	Fall Color	Comments	Source	Location Permitted (Landside/Airside)
<i>Heuchera richardsonii</i>	Prairie Alum Root	Y	2' x 2'	Jun-Jul			Attractive foliage	1, 2, 3	Landside, Airside
<i>Parthenium integrifolium</i>	Wild Quinine	Y	3' to 5'	Jun-Sep	White		Disease-, pest-resistant	1, 2, 3	Landside, Airside
<i>Pedicularis canadensis</i>	Wood Betony, Canadian Lousewort	Y	12" to 18"	Apr-Jun	Red-Yellow		Partial shade tolerance	1, 2	Landside, Airside
<i>Phlox divaricata</i>	Woodland Phlox	Y	1' to 2'	Apr-Jun	Blue		Partial shade to shade	1, 2, 3	Landside, Airside
<i>Phlox pilosa</i>	Prairie Phlox	Y	12" to 18"	Apr-Jun	Pink			1, 2, 3	Landside, Airside
<i>Polemonium reptans</i>	Jacob's Ladder	Y	1' to 2'	Apr-Jun	Blue		Shade tolerant	1, 2, 3	Landside, Airside
<i>Ratibida pinnata</i>	Yellow Coneflower; Gray-Headed Coneflower	Y	3' to 6'	Jul-Sep	Yellow		Not for Airside use	1, 2, 3	Landside
<i>Smilacina racemosa</i>	False Solomon's Seal, Solomon's Plume	Y	18" to 36"	Apr-Jun	White		Partial shade to shade	1, 2, 3	Landside, Airside
<i>Tradescantia ohiensis</i>	Ohio Spiderwort	Y	2' to 4'	Jun-Jul	Blue		Partial shade tolerant	1, 2, 3	Landside, Airside
<i>Trillium grandiflorum</i>	Trillium	Y	12" to 18"	May-Jun	White		Partial shade to shade	1, 2, 3	Landside, Airside
<i>Verbena stricta</i>	Hoary Vervain	Y	2' to 4'	Jul-Sep	Blue-Purple			1, 2, 3	Landside, Airside
<i>Veronicastrum virginicum</i>	Culver's Root	Y	3' to 6'	Jul-Aug	White		Shade tolerant	1, 2, 3	Landside, Airside
<i>Zizia aptera</i>	Heart-Leaf Alexander	Y	1' to 3'	Apr-May	Yellow		Shade tolerant	1, 2, 3	Landside, Airside
GREEN ROOF PLANTS									
<i>Sedum acre</i>	Goldmoss Stonecrop		3" x 12"	Jun-Jul	Yellow				Landside, Airside
<i>Sedum acre</i>	Aureum		3" x 10"	May-June	Yellow				Landside, Airside
<i>Sedum aizoon 'Euphorbiodes'</i>	Aizoon Stonecrop		15" x 15"	Jul-Aug	Orange-Yellow				Landside, Airside
<i>Sedum album cultivars</i>	White Stonecrop		4" x 18"	Jul-Aug	White				Landside, Airside
<i>Sedum cauticola</i>	Bertram Anderson Sedum		4" x 12"	Jul-Sep	Purple-Pink				Landside, Airside
<i>Sedum floriferum</i>	Weihenstephaner Gold		4" x 10"	Jul-Aug	Yellow				Landside, Airside
<i>Sedum kamtschaticum</i>	Orange Stonecrop		5" x 12"	Jul-Oct	Yellow				Landside, Airside
<i>Sedum matrona</i>			2' x 2'	Aug-Sep	Purple-Pink	Red-Orange	Bee/Butterfly attractant		Landside, Airside
<i>Sedum middendorffianum</i>			5" x 12"	Jul-Aug	Yellow				Landside, Airside
<i>Sedum reflexum</i>	Spruce Stonecrop, Jenny's Stonecrop		8" x 15"	Jun-Jul	Yellow				Landside, Airside
<i>Sedum rupestre</i>	Angelina		(3"-6") x (12"-24")	Jun-Aug	Yellow				Landside, Airside
<i>Sedum rupestre</i>	Blue Spruce		8" x 24"	May-Oct	Yellow				Landside, Airside
<i>Sedum sexangulare</i>	Tasteless Stonecrop		4" x 8"	Jun-Jul	Yellow				Landside, Airside
<i>Sedum sitchotense</i>	Woody Stonecrop		6" x 12"	Jul-Aug	Yellow				Landside, Airside
<i>Sedum sieboldii</i>	October Daphne		8" x 12"	Aug-Sep	Pink				Landside, Airside

ORD APPROVED PLANT LIST*

Botanical Name	Common Name(s)	Native	Size (H, HxW)	Bloom Time	Flower Color	Fall Color	Comments	Source	Location Permitted (Landside/Airside)
<i>Sedum spurium</i>	Summer Glory		6" x 10"	Jul-Sep	Dark Pink				Landside, Airside
<i>Sedum spurium</i>	Coccineum		(4"-6") x 10"	Late Summer	Dark Pink				Landside, Airside
<i>Sedum spurium</i>	Bronze Carpet		(4"-6") x (12"-24")	Summer	Pink				Landside, Airside
<i>Sedum spurium</i>	John Creech		(4"-6") x 10"	Jul-Aug	Pink				Landside, Airside
<i>Sedum spurium</i>	Voodoo		(4"-6") x 10"	Jun-Jul	Rose Red				Landside, Airside
<i>Sedum spurium cultivars</i>	Two-Row Stonecrop, Dragon's Blood, Fuldaglt, Tricolor		4" x 8"	Jun-Aug	Red				Landside, Airside
<i>Sedum stefco</i>			(4"-6") x 10"	Late Summer- Early Fall	White				Landside, Airside
<i>Sedum tatarinowii</i>			(12"-18") x 12"	Late Summer- Early Fall	Pink				Landside, Airside
<i>Sedum X</i>	Rosy Glow		(6"-9") x 12"	Aug-Sep	Ruby Red				Landside, Airside
<i>Talinum calycinum</i>	Fame Flower, Rockpink	Y	12" x 7"	Jun-Oct	Pink				Landside, Airside
ORNAMENTAL GRASSES AND SEDGES									
<i>Andropogon virginicus</i>	Broomsedge Bluestem	Y	18" to 36"				Very drought tolerant; keep plants adequately spaced to prevent cover for wildlife (mammals); best as specimen plant	4, 10	Landside
<i>Carex bicknellii</i>	Bicknell's Sedge	Y	12" to 24"	May	Insignificant		Fine leaves; tolerates sandy soils and partial shade	2	Landside, Airside
<i>Koeleria macrantha</i>	Junegrass	Y	18" to 24"				Used for soil stabilization; may provide forage for wildlife during spring and fall if unmowed	6	Landside, Airside
TURF GRASSES (MATURE HEIGHT OR MOW HEIGHT 5" to 8")									
<i>Agrostis pallens</i>	Bentgrass	Y	8" to 16"				Cool season; shade tolerant; mow once in early spring	6	Landside, Airside
<i>Buchloe dactyloides</i>	Buffalo Grass	Y	4" to 6"				Warm season grass, widely adaptable prefers clay but tolerates drought, cold, and poor soil; mow no less than 3".	6	Landside, Airside
<i>Distichlis spicata</i>	Inland Saltgrass	Y	8"				Salt tolerant	2, 6	Landside, Airside
<i>Festuca sp.</i>	Fescues		up to 8" to 12"				Many acceptable varieties	5, 6	Landside, Airside
<i>Festuca arundinacea</i>	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)	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 by the Director; avoid Illinois 96 cultivars), see T-901 Spec for planting	6, 7	Landside, Airside

ORD APPROVED PLANT LIST*

Botanical Name	Common Name(s)	Native	Size (H, HxW)	Bloom Time	Flower Color	Fall Color	Comments	Source	Location Permitted (Landside/Airside)
<i>Festuca rubra</i>	Red Fescue	Y						2, 6	Landside, Airside
<i>Festuca rubra sub. trichophylla</i>	Creeping Red Fescue	Y						2, 6	Landside, Airside
<i>Festuca rubra sub. rubra</i>	Spreading Fescue	Y						2, 6	Landside, Airside
<i>Festuca rubra sub. commutata</i>	Chewings Fescue	Y						2, 6	Landside, Airside
<i>Festuca ovina</i>	Sheep Fescue	N						2, 6	Landside, Airside
<i>Festuca ovina var. duriuscula</i>	Hard Fescue	N					Sometimes called F. longifolia	2, 6	Landside, Airside
<i>Festuca seed mix</i>	e.g. "No-Mow" Seed Mix (Prairie Nursery, Westfield, WI), Park District No-Mow Mix		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.	3	Landside, Airside
<i>Koeleria macrantha</i>	Junegrass	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.	6	Landside, Airside
<i>Lolium perenne</i>	Perennial Ryegrass	N	up to 18"				Use for quick germination (< 4 days); numerous varieties with high endophyte levels.	5, 8	Landside, Airside

* Additions and substitutions are subject to OMP approval.

Sources:

- 1 - "List of Native Plants for Northeastern Illinois". The Conservation Foundation. Conservation@Home Program. www.theconservationfoundation.org.
- 2 - USDA Natural Resource Conservation Service, Plant Database, <http://plants.usda.gov>.
- 3 - Prairie Nursery, Westfield, Wisconsin, www.prairienursery.com.
- 4 - "Roadway Plant List" Chicago Department of Transportation, Division of Infrastructure Management, 5th ed.
- 5 - University of Illinois Extension. "Suggested Lawn Mixes for Northern Illinois", www.urbanext.uiuc.edu/lawntalk/lawntalk01.html.
- 6 - "Easy Lawns" 1999. Brooklyn Botanic Garden, S. Daniels, ed., pp. 96-101.
- 7 - Barras, S.C. and T.W. Seamans. 2002. "Habitat Management Approaches for Reducing Wildlife Use at Airports." Proc. 20th Vertebr. Pest Conf. (eds. R.M. Timm and R.H. Schmidt) University of California – Davis, pp. 309-315.
- 8 - Wisconsin Dept. of Transportation. "Standard Specifications for Airport Construction". Specifiers' Guide Phase II, December 22, 1999.
- 9 - "Native Trees for Use Along Roadsides in Illinois". K.R. Robertson, Illinois Natural History Survey, Center for Biodiversity.
- 10 – University of Connecticut, Plant Database of Trees, Shrubs, and Vines. <http://www.hort.uconn.edu/Plants/index.html>.