

Landscape Design Guide

for Parking Lots in the
City of Milwaukee





This guide was prepared by the
City of Milwaukee
Department of
City Development

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Landscaping and screening requirements for parking lots and other uses and site features are described in section 295-405 of the City of Milwaukee Code of Ordinances. Section 295-405 is found within the general provisions, subchapter 4, of the city's zoning code.

The zoning code can be accessed online at:

city.milwaukee.gov/zoningcode

Questions about landscaping and screening requirements should be directed to:

Department of Neighborhood Services
Development Center
809 North Broadway
Milwaukee, WI 53202

(414) 286-8210

DevelopmentCenterInfo@milwaukee.gov
city.milwaukee.gov/permits

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INTRODUCTION



The City of Milwaukee values its many pedestrian-friendly neighborhoods and commercial districts and recognizes that an attractive and well defined public realm is critical to maintaining and enhancing the unique character of these places.

The City also recognizes the growing need for more sustainable landscaping solutions to protect residents and property owners from the effects of intense rainfall events and to improve water quality in our streams, rivers and in Lake Michigan.

Surface parking lots have a substantial impact on the quality of the urban environment, and appropriate landscaping is critical to mitigating their potential negative effects. Standards for parking lot landscaping are established as part of the City of Milwaukee Zoning Code to protect and enhance the aesthetic and environmental quality of the City.

Landscaping and screening standards include requirements for screening parking lots from public streets and properties in residential districts as well as overall parking lot landscaping. These standards are written to be flexible, attainable and easy to understand.

This guide is intended to serve as a resource for property owners, businesses, designers and contractors by illustrating and describing options for parking lot landscaping that meet the minimum requirements of the City of Milwaukee Zoning Code.

A variety of options for meeting the standards exist in order to provide flexibility, as each site is unique and different solutions may be appropriate in different circumstances.

The guide is not intended to be inclusive of all standards found in the City's zoning code, and users should refer to Section 295-405 of the City of Milwaukee Code of Ordinances for all applicable landscape standards.

Additional standards related to parking lots, landscaping and stormwater management are found in other sections of the Code of Ordinances as well, and compliance with the landscaping standards in Chapter 295 does not assure compliance with other sections of the code.

In any circumstance where this guide and the Code of Ordinances may be in conflict, the provisions of the code shall always apply.

ABOUT THE GUIDE



SCREENING FROM STREETS

Screening is required when a parking lot is adjacent to a public street.

Landscape elements between parking lots and streets help to define the public realm, enhance the appearance of commercial districts and mitigate the visual impact of parking lots in neighborhoods.

Options for screening parking lots from streets are outlined on the following page. In each option, low-level plants and/or fences or walls provide a continuous edge below 3 feet in height, and closely spaced canopy trees provide a continuous edge above 6 feet in height.



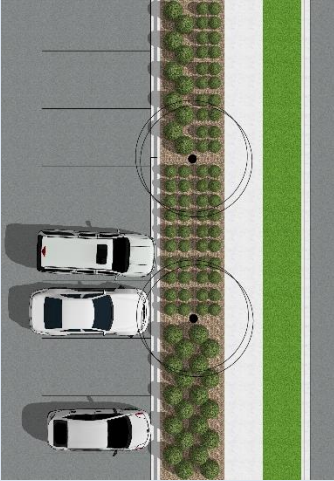
OPTIONS FOR SCREENING PARKING LOTS FROM STREETS

	OPTION A	OPTION B	OPTION C
Minimum width of landscape area	10 feet	5 feet	none
Low-level plants required	low shrubs, perennials and/or ornamental grasses	low shrubs, perennials and/or ornamental grasses	none
Canopy trees required	1 tree per 20 linear feet	1 tree per 20 linear feet	1 tree per 40 linear feet
Fence/wall required	none	3-foot tall ornamental metal fence	3-foot tall masonry wall

The minimum number of low-level plants required is describe on page 32.

OPTIONS FOR SCREENING PARKING LOTS FROM STREETS

OPTION A



10 ft. wide landscape area
low shrubs, perennials
and/or ornamental grasses
1 tree per 20 feet.

OPTION B



5 ft. wide landscape area
3 ft. tall ornamental metal
fence
low shrubs, perennials
and/or ornamental grasses
1 tree per 20 feet.

OPTION C

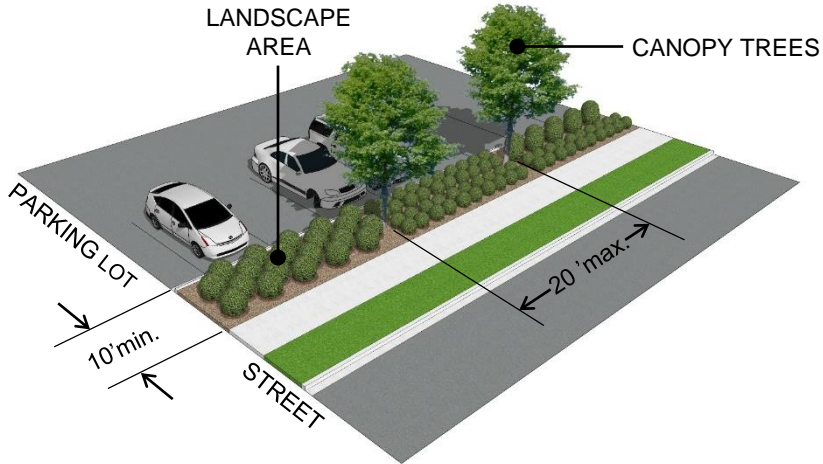


3 ft. tall masonry wall
1 tree per 40 feet.

SCREENING FROM PUBLIC STREETS

OPTION A

A continuous 10-foot wide landscape area between the parking lot and the street filled with closely spaced low shrubs, perennials and/or ornamental grasses and one canopy tree per 20 linear feet.





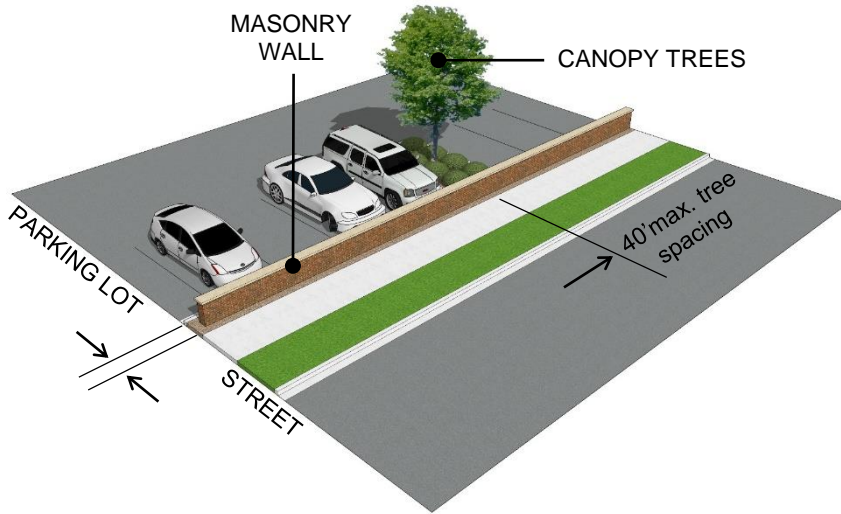
SCREENING FROM PUBLIC STREETS OPTION B

A continuous 5-foot wide landscape area between the parking lot and the street filled with closely spaced low shrubs, perennials and/or ornamental grasses, an ornamental metal fence at least 3 feet in height and one canopy tree per 20 linear feet.



SCREENING FROM PUBLIC STREETS OPTION C

A 3'-foot tall masonry wall between the parking lot and the street property line and one canopy tree per 40 linear feet.



SCREENING FROM RESIDENTIAL DISTRICTS

Screening is required when a parking lot is adjacent to a property in a residential district.

Screening parking lots from residential districts provides visual separation and protects homes from the negative effects of excessive light, noise and dust.

Options for screening parking lots from residential districts are outlined on the following page. In each option, eye-level plants and/or fences or walls provide a continuous opaque edge at least 4 feet in height. When adjacent to a residential front yard, screening should be provided in the same manner as along streets.



OPTIONS FOR SCREENING FROM RESIDENTIAL DISTRICTS

	OPTION A	OPTION B	OPTION C
Minimum width of landscape area	10 feet	5 feet	none
Eye-level plants required	evergreen trees and/or tall shrubs*	evergreen trees and/or tall shrubs*	none
Fence/wall required	none	4-foot tall solid fence or wall*	4-foot tall masonry wall*

** Where a parking lot is adjacent to a residential front yard, the height of fences or walls may be reduced to 3 feet and tall shrubs or evergreen trees should be replaced with low shrubs, perennials and/or ornamental grasses.*

The minimum number of eye-level plants required is describe on page 40.

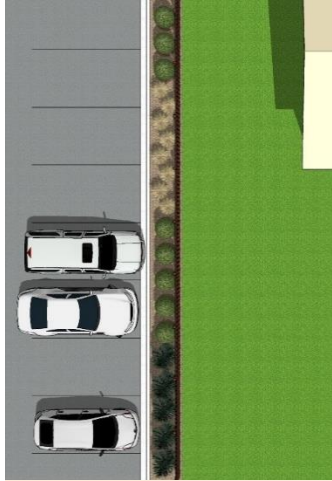
OPTIONS FOR SCREENING FROM RESIDENTIAL DISTRICTS

OPTION A



10 ft. wide landscape area
evergreen trees and/or
tall shrubs

OPTION B



5 ft. wide landscape area
4 ft. tall solid fence or wall
evergreen trees and/or
tall shrubs

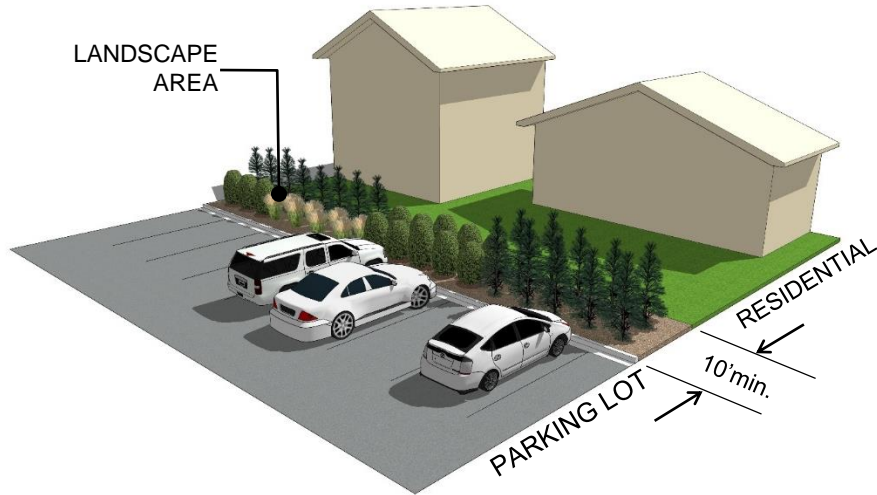
OPTION C



4 ft. tall masonry wall

SCREENING FROM RESIDENTIAL DISTRICTS OPTION A

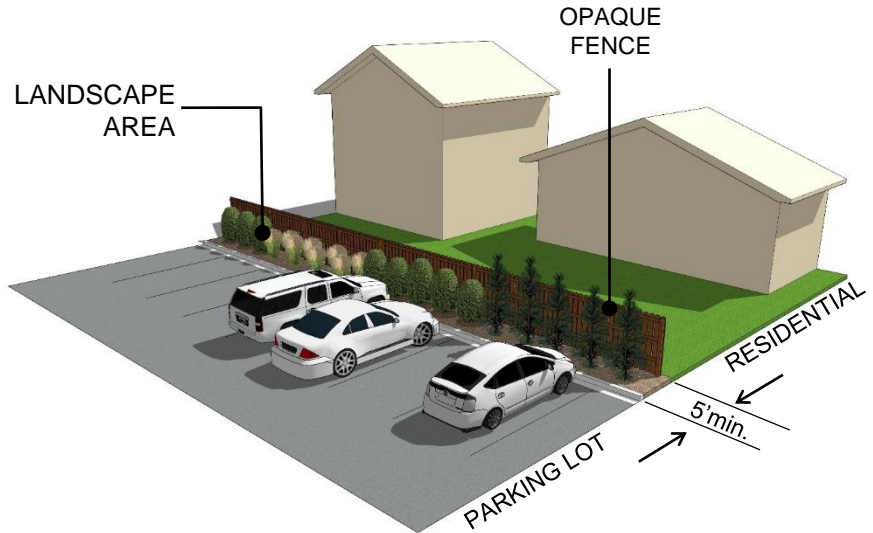
A continuous 10-foot wide landscape area between the parking lot and the common property line filled with closely spaced evergreen trees and/or tall shrubs.





SCREENING FROM RESIDENTIAL DISTRICTS OPTION B

A continuous 5-foot wide landscape area between the parking lot and the common property line filled with closely spaced evergreen trees and/or tall shrubs and a continuous opaque fence or wall at least 4 feet in height.



SCREENING FROM RESIDENTIAL DISTRICTS OPTION C

A continuous opaque masonry wall at least 4 feet in height.



PARKING LOT LANDSCAPING

A minimum amount of trees and landscape areas are required at all parking lots.

Trees and landscape areas reduce the impact of storm water runoff on the City's storm sewers, improve air and water quality and increase the urban tree cover.

Green infrastructure elements such as permeable paving and bioswales are also counted towards landscaping requirements and may reduce the number of trees and the amount of landscape areas required.



AMOUNT REQUIRED

1 canopy tree and 100 square feet of landscaped area is required for every 4 parking spaces or fraction thereof.

The amount of trees and landscaped areas required may be reduced if green infrastructure features are provided.

LOCATION AND DISTRIBUTION

Canopy trees, landscape areas and green infrastructure must be located within 50 feet of the parking lot in order to count as parking lot landscaping.

No portion of a parking lot may be more than 100 feet from a landscape area or more than 150 feet from a canopy tree.

Large parking fields must be divided into areas of no more than 50,000 square feet each through the use landscaped islands, peninsulas and/or medians.

LANDSCAPE REQUIREMENTS

Parking lot landscaping includes all trees and landscaped areas in close proximity to the parking lot. This includes both perimeter trees and landscape areas used for screening as well as interior trees and landscaped areas within the parking lot.

Parking lots with wide perimeter landscape areas will need less additional landscaping to meet the minimum requirements.

Parking lots screened with walls or fences and narrow landscape areas will need to find additional space on site for landscaping.

GREEN INFRASTRUCTURE

The amount of trees and landscaped area required may be reduced if green infrastructure features are provided as a substitute.

Allowable green infrastructure features include permeable paving, rain gardens and bioswales. The amount of each feature needed to replace 1 tree and 100 square feet of landscaped area is described to the right.

Required trees and landscaped areas may not be reduced to less than 1 tree and 100 square feet of landscaped area for every 8 parking spaces.

PERMEABLE PAVING

Each 100 square feet of permeable paving may be substituted for 1 tree and 100 square feet of landscaped area.

RAIN GARDENS

Each 100 square feet of rain garden with a rain water catchment area of at least 1,000 square feet may be substituted for 1 tree and 100 square feet of landscaped area.

BIOSWALES

Each 50 cubic feet (375 gallons) of bio-retention capacity with a rain water catchment area of at least 1,000 square feet may be substituted for 1 tree and 100 square feet of landscaped area.

GREEN INFRASTRUCTURE FEATURES

The following green infrastructure features may be used for parking lot landscaping



Permeable Paving

Permeable paving is a surface paved with permeable pavers, porous concrete or porous asphalt that allows water infiltration into the soil.



Rain Gardens

A rain garden is a landscaped area filled with deep rooted plants specifically designed to capture and infiltrate stormwater runoff.



Bioswales

A bioswale is a depressed area designed to capture and infiltrate stormwater runoff and remove pollutants. Constructed wetlands and other bio-retention facilities may also be used.

LANDSCAPE ELEMENTS

The following section describes requirements for landscape elements including fences and walls, canopy trees, low-level plants for landscaping and screening along streets and eye-level plants for screening along property lines.

Plant lists are provided for various plant types and include recommended species that have been successfully grown in Milwaukee. Plant species that are not on the list may also be acceptable if they have characteristics which allow them to meet the intent of the requirements.



FENCES AND WALLS

MASONRY WALLS

Masonry walls may be used along streets and common property lines and are intended to replace perimeter landscaping where little or no space for planting exists.

When used along public streets, masonry walls may have portions consisting of ornamental metal fencing, provided the wall is at least 50% opaque (non-transparent) in portions below 3 feet in height. Walls along streets must be at least 50% open in portions above 4 feet in height.

When used to screen parking lots from residential properties, walls must be 100% opaque (non-transparent) in portions below 4 feet in height.



FENCES AND WALLS CONTINUED



ORNAMENTAL METAL FENCES

Ornamental metal fences may be used along streets and are intended to complement low-level plants where space for planting is limited.

Ornamental metal fences must be a minimum of 3 feet tall, and portions above 4 feet must allow for visibility through the fence.

In Downtown districts and some commercial districts, ornamental metal fences require masonry piers. Masonry piers must be spaced no more than 25 feet apart and must also be provided on corners and at changes in direction. Masonry piers must be at least 16 inches wide with a minimum height of 3 feet.

FENCES AND WALLS CONTINUED

OPAQUE FENCES

Opaque fences are intended to completely obscure the view of parking lots from residential properties.

Opaque fences may be constructed of masonry, stone, metal, wood, vinyl or composite material, gabions filled with stone material, or a combination of such materials.

Chain link fences with slats or mesh screening are not considered opaque fences.

PROHIBITED FENCE OR WALL MATERIALS

A fence or wall used to meet the minimum screening requirements may not include corbeled masonry blocks or other dry stack blocks, structural corrugated metal, metal siding or a metal panel and batten system, exterior insulation and finish systems (EIFS) or simulated stucco products.



CANOPY TREES

Canopy trees should be of a deciduous street tree variety with a leaf and branch structure that creates a uniform crown and an opaque tree canopy.

Trees should grow to at least 20 feet tall at maturity with the lowest branches kept to minimum height of 6 feet.

When used along streets, trees may be planted at regular or irregular intervals, but should never be spaced more than 50 feet apart.

No single species of trees should compromise more than 50% of total trees.

PLANTING AREAS FOR TREES

Planting areas for trees must have a minimum surface area of 100 square feet per tree.

TREE SIZE

Trees must be at least 2.5 inches in diameter.

2 trees at least 1.5 inches in diameter may be substituted for 1 tree of 2.5 inches in diameter.

CREDIT FOR EXISTING CANOPY TREES

An existing tree may be counted if it meets the standards and if no soil within 5 feet of the tree is disturbed.

A tree greater than 12 inches in diameter may be counted as 2 trees if no soil within 10 feet of the tree is disturbed.

A tree greater than 18 inches in diameter may be counted as 3 trees if no soil within 15 feet of the tree is disturbed.



Armstrong Maple
Acer x freemanii 'Armstrong'



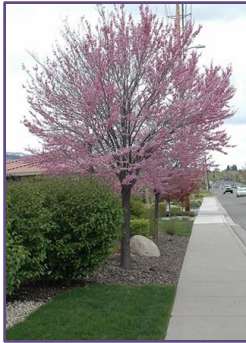
State Street Miyabe Maple
Acer miyabei 'Morton'



Musclewood
Carpinus caroliniana



Hackberry
Celtis occidentalis



Eastern Red Bud
Cercis canadensis



Ginkgo (Male)
Ginkgo biloba



Swamp White Oak
Quercus bicolor



Baldcypress
Taxodium distichum

LIST OF RECOMMENDED CANOPY TREES

BOTANICAL NAME	COMMON NAME	HEIGHT	SPREAD	SUN	ATTRIBUTES
<i>Acer x freemanii</i> spp. *	Freeman Maple	50'	30-40'	☉	N
<i>Acer x freemanii</i> 'Armstrong'	Armstrong Maple	50-60'	15-20'	☉	N
<i>Acer x freemanii</i> 'Autumn Blaze'	Autumn Blaze Maple	50'	40'	☉	
<i>Acer miyabei</i> 'Morton'	State Street Miyabe Maple	50'	40'	☉	S
<i>Acer truncatum</i> x <i>A. platanoides</i> *	Sunset Maple	35'	25'	☉ ☾	S
<i>Amelanchier arborea</i> *	Downy Serviceberry	25'	15'	☉ ☾	
<i>Alemanchier laevis</i> *	Allegheny Serviceberry	25'	15'	☾	
<i>Amelanchier x grandiflora</i> *	Apple Serviceberry	25-30'	25-30'	☉ ☾	N D S
<i>Betula nigra</i> *	River Birch	40-70'	40-60'	☉	N R S
<i>Carpinus betulus</i> *	European Hornbeam	35'	15-30'	☉ ☾	
<i>Carpinus caroliniana</i> *	Musclewood	25-30'	25-30'	☉ ☾ ●	N R
<i>Catalpa speciosa</i> *	Northern Catalpa	40-60'	20-40'	☉	

☉ Full Sun ☾ Part Sun ● Full Shade

N=Native to Wisconsin

R=Rain Garden/Bioswale

D=Drought Tolerant

S=Salt Tolerant

P=Pet Urine Tolerant

* Choose improved cultivars (cv.) or straight species (spp.)

** Male cultivars only

CANOPY TREES CONTINUED

BOTANICAL NAME	COMMON NAME	HEIGHT	SPREAD		ATTRIBUTES
<i>Celtis occidentalis</i> *	Hackberry	40-60'	40-60'	○	N R D S
<i>Celtis occidentalis</i> 'Prairie Sentinel'	Prairie Sentinel Hackberry	45'	15'	○	N R D S
<i>Cercidiphyllum japonicum</i> *	Katsuratree	40-60'	20-35'	○	
<i>Cercis canadensis</i> (northern grown)	Eastern Redbud	20-30'	25-35'	○◐	
<i>Crataegus</i> spp. *	Hawthorn	25-30'	20-25'	○◐	
<i>Crataegus crusgalli</i> var. <i>inermis</i>	Thornless Cockspur Hawthorn	20-30'	25-35'	○	S P
<i>Ginkgo biloba</i> (male only) **	Ginkgo	40-50'	25-35'	○◐	R D S P
<i>Gleditsia triacanthos</i> *	Thornless Honeylocust	40-60'	30-45'	○	N D S P
<i>Gleditsia triacanthos</i> 'Draves' PPAF	Street Keeper Honeylocust	45'	20'	○	R D S
<i>Gymnocladus dioica</i> **	Kentucky Coffeetree	50-60'	50-60'	○	N D S P
<i>Liriodendron tulipifera</i> *	Tuliptree	60'	30'	○	
<i>Maackia amurensis</i> *	Amur Maackia	20-30'	20-30'	○	D

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** Male cultivars only

CANOPY TREES CONTINUED

BOTANICAL NAME	COMMON NAME	HEIGHT	SPREAD	SUN	ATTRIBUTES
<i>Magnolia loebneri</i> *	Loebner Magnolia	15'	20'		
<i>Malus spp.</i> *	Flowering Crabapple	8-25'	8-25'		D
<i>Phellodendron amurense</i> **	Amur Corktree	45'	40'		
<i>Platanus x acerifolia</i> *	London Planetree	50-60	30-45'		D S
<i>Prunus maackii</i> *	Amur Chokecherry	25'	15'		
<i>Prunus sargentii</i> *	Sargent Cherry	25'	15-20'		
<i>Pyrus calleryana spp.</i> *	Flowering Pear	35'	20-30'		D S
<i>Quercus bicolor</i> *	Swamp White Oak	75'	65'		N R D S P
<i>Quercus robur</i> 'Crimschmidt'	Crimson Spire English Oak	45'	15'		S
<i>Quercus robur x bicolor</i> 'Long'	Regal Prince English Oak	45'	18'		S
<i>Syringa reticulata</i> *	Japanese Tree Lilac	15-25'	10-20'		S P
<i>Taxodium distichum</i> *	Baldcypress	50'	15-20'		R S P

 Full Sun  Part Sun  Full Shade

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** Male cultivars only

CANOPY TREES CONTINUED

BOTANICAL NAME	COMMON NAME	HEIGHT	SPREAD		ATTRIBUTES
<i>Syringa reticulata</i> *	Japanese Tree Lilac	15-25'	10-20'	 	S P
<i>Taxodium distichum</i> *	Baldcypress	50'	15-20'	 	R S P
<i>Tilia americana</i> *	American Linden	50-60'	30-50'	 	N
<i>Tilia cordata</i> *	Littleleaf Linden	60-70'	30-40'		
<i>Tilia tomentosa</i> *	Silver Linden	40-50'	20-30'	 	
<i>Ulmus minor</i> 'Homestead'	Homestead Elm	55'	35'		
<i>Ulmus minor</i> 'Pioneer'	Pioneer Elm	50-60'	45-50'		
<i>Ulmus minor</i> 'Regal'	Regal Elm	50-60'	50-60'		
<i>Ulmus minor</i> 'Danada Charm'	Danada Charm Elm	60-70'	50-60'		
<i>Ulmus parvifolia</i> 'Frontier'	Frontier Elm	30-40'	20-30'		
<i>Ulmus wilsoniana</i> 'Prospector'	Prospector Elm	40-50'	20-25'	 	
<i>Ulmus x spp.</i> *	Hybrid Elm	40-55'	25-45'		D S P

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** Male cultivars only

LOW-LEVEL PLANTS

Low Shrubs, Perennials and Ornamental Grasses

Low-level plants help to define spaces while allowing for natural surveillance of public areas. They should be used along street frontages and in interior landscape areas.

Low-level plants should generally be kept below 3 feet in height. Plants taller than 4 feet in height are prohibited along streets.

Landscape areas may include a combination of low shrubs, perennials and/or ornamental grasses with 1 low shrub being equivalent to 2 perennials or ornamental grasses.

MINIMUM PLANT SIZE

Low Shrubs	1.5 feet tall 3 gallon container size
Perennials or Ornamental Grasses	1 foot tall 1 gallon container size

MINIMUM NUMBER OF PLANTS REQUIRED

Option A: Street edge landscape area without a fence or wall	4 low shrubs or 8 perennials/ornamental grasses per 10 linear feet
Option B: Street edge landscape area with an ornamental metal fence	4 low shrubs or 8 perennials/ornamental grasses per 20 linear feet
Interior landscape area	4 low shrubs or 8 perennials/ornamental grasses per 100 square feet

LOW SHRUBS



Dwarf Bush-honeysuckle
Diervilla lonicera



Annabelle Hydrangea
Hydrangea arborescens 'Annabelle'



Little Devil Ninebark
Physocarpus opulifolius 'Donna May'

PERENNIALS



Coronation Gold Yarrow
Achillea x 'Coronation Gold'



Pardon Me Daylily
Hemerocallis x 'Pardon Me'



Denim & Lace Russian Sage
Perovskia atriplicifolia 'Denim & Lace'

ORNAMENTAL GRASSES



Karl Foerster Feather Reed Grass
Calamagrostis acutiflora 'Karl Foerster'

















Prairie Blues Little Bluestem
Schizachyrium scoparium 'Prairie Blues'



Prairie Dropseed
Sporobolus heterolepis

LIST OF RECOMMENDED LOW SHRUBS

BOTANICAL NAME	COMMON NAME	HEIGHT	SPREAD	SUN	ATTRIBUTES
<i>Buxus spp.</i> *	Boxwood	2-4'	2-5'		
<i>Ceanothus americanus</i> *	New Jersey Tea	2-3'	2-4'		N R D
<i>Cotoneaster apiculatus</i> *	Cranberry Cotoneaster	2-3'	3-6'		D S P
<i>Deutzia gracillis</i> *	Deutzia	2'	4'		
<i>Diervilla spp.</i> *	Dwarf Bush-honeysuckle	3-4'	4-5'		N D
<i>Forsythia spp.</i> *	Forsythia	2-3'	3-5'		D S P
<i>Fothergilla gardenii</i> *	Fothergilla	2-4'	3-4'		
<i>Hydrangea spp.</i> *	Hydrangea	3-5'	3-5'	  	S
<i>Hypericum kalmianum</i> *	St. John's Wort	2-4'	2-4'		N R D S
<i>Juniperus spp.</i> **	Juniper	1-3'	4-8'		D S P
<i>Microbiota decussate</i> *	Siberian Cypress	1'	5-8'		
<i>Physocarpus opulifolius</i> *	Ninebark	3-4'	3-4'		N R D

 Full Sun  Part Sun  Full Shade

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P=Pet Urine Tolerant

* Choose improved cultivars (cv.) or straight species (ssp.)

** Short cultivars only

*** Tall cultivars only

LOW SHRUBS CONTINUED

BOTANICAL NAME	COMMON NAME	HEIGHT	SPREAD	SUN	ATTRIBUTES
<i>Picea abies</i> **	Dwarf Norway Spruce	2-3'	4-6'	☉	
<i>Picea pungens</i> **	Globe Colorado Spruce	3-6'	5-10'	☉	S P
<i>Pinus mugo</i> **	Mugo Pine	3-6'	3-6'	☉	D S P
<i>Potentilla fruticosa</i> *	Potentilla	2-3'	3-4'	☉	N R S
<i>Rhus aromatica</i> 'Gro-low'	Gro-low Sumac	2-3'	6-8'	☉ ☾	N D S P
<i>Ribes alpinum</i> *	Alpine Currant	3-5'	3-6'	☉ ☾ ●	S P
<i>Rosa</i> spp. (hardy cultivars)	Rose	2-4'	2-4'	☉	
<i>Spiraea</i> spp. *	Spirea	2-4'	2-4'	☉ ☾	S P
<i>Stephanandra incisa</i> *	Stephanandra	2-3'	3-6'	☉ ☾	
<i>Taxus</i> spp. **	Yew	2-4'	4-6'	☉ ☾	
<i>Thuja occidentalis</i> **	Globe Arborvitae	2-3'	2-3'	☉ ☾	N S
<i>Weigela florida</i> *	Weigela	2-4'	2-4'	☉	

☉ Full Sun ☾ Part Sun ● Full Shade

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LIST OF RECOMMENDED PERENNIALS

BOTANICAL NAME	COMMON NAME	HEIGHT	SPREAD	SUN	ATTRIBUTES
<i>Achillea</i> spp.	Yarrow	24"	18"	☉	D S P
<i>Actaea simplex</i> *	Brunette Snakeroot	30"	30"	☾ ●	
<i>Agastache rugosa</i> *	Blue Fortune Hyssop	24"	24-36"	☉ ☾ ●	
<i>Allium</i> spp.	Ornamental Onion	12"	12"	☉	
<i>Amsonia</i> spp.	Blue Star Flower	24-42"	18-24"	☉ ☾	
<i>Arunca</i> spp.	Goats Beard	12-60"	18-30"	☾ ●	
<i>Asclepias tuberosa</i> *	Butterfly Weed	30"	18"	☉	N D
<i>Aster</i> spp.	Hardy Aster	12-36"	18"	☉	N D S P
<i>Baptisia</i> spp.	False Indigo	24-36"	24"	☉ ☾	D S
<i>Boltonia asteroides</i> cv.	Bolton's Aster	40"	24"	☉	
<i>Calamintha</i> spp.	Calamintha	18"	18"	☉ ☾	
<i>Centranthus ruber</i> *	Jupiter's Beard	30"	15"	☉	

☉ Full Sun ☾ Part Sun ● Full Shade

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P=Pet Urine Tolerant

* Choose improved cultivars (cv.) or straight species (spp.)

** Short cultivars only

*** Tall cultivars only

PERENNIALS CONTINUED

BOTANICAL NAME	COMMON NAME	HEIGHT	SPREAD	SUN	ATTRIBUTES
<i>Coreopsis</i> spp.	Tickseed	15-20"	18"	☉	D
<i>Echinacea</i> spp.	Coneflower	18-36"	18"	☉	N R D S
<i>Eupatorium maculatum</i> *	Joe-Pye Weed	48"	48"	☉ ☾	R
<i>Hemerocallis</i> cv.	Daylily	12-36"	18-24"	☉ ☾	R S P
<i>Heuchera</i> spp.	Coral Bells	18"	18"	☉ ☾ ●	
<i>Hosta</i> spp.	Hosta	6-36"	12-48"	☾ ●	S P
<i>Iris germanica</i> cv.	Tall Bearded Iris	28-40"	18"	☉	D S P
<i>Iris sibirica</i> cv.	Siberian Iris	28-36"	18"	☉	R S P
<i>Leucanthemum superbum</i> cv.	Shasta Daisy	8-30"	18"	☉ ☾	S P
<i>Liatris</i> spp.	Blazing Star	18-36"	18"	☉ ☾	
<i>Monarda</i> cv.	Bee Balm / Bergamot	15-60"	18"	☉ ☾	N R
<i>Nepeta</i> spp.	Catmint	12-24"	15-18"	☉ ☾	D S P

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PERENNIALS CONTINUED

BOTANICAL NAME	COMMON NAME	HEIGHT	SPREAD	SUN	ATTRIBUTES
<i>Paeonia cv.</i>	Peony Hybrids	22-36"	36"	☉	
<i>Penstemon spp.</i>	Beardtongue	20-40"	15-24"	☉	D S P
<i>Perovskia atriplicifolia cv.</i>	Russian Sage	28-40"	18-24"	☉	D S P
<i>Phlox paniculata cv.</i>	Tall Garden Phlox	18-36"	18"	☉	S
<i>Physostegia cv.</i>	Obedient Plant	18-24"	15-18"	☉ ☾	S P
<i>Rudbeckia spp.</i>	Black-eyed Susan	15-60"	15-24"	☉	N S
<i>Salvia spp.</i>	Salvia	18-24"	15"	☉	D
<i>Sedum spp. (no groundcovers)</i>	Stonecrop	18-24"	15-18"	☉	D S P
<i>Solidago spp.</i>	Goldenrod	24-36"	18"	☉	N D S
<i>Tradescantia ohiensis cv.</i>	Spiderwort	15-30"	15"	☉ ☾	N R
<i>Vernonia lettermannii cv.</i>	Ironweed	30"	18"	☉	D
<i>Veronica cv.</i>	Speedwell	15-30"	15"	☉ ☾	D

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LIST OF RECOMMENDED ORNAMENTAL GRASSES

BOTANICAL NAME	COMMON NAME	HEIGHT	SPREAD	SUN	ATTRIBUTES
<i>Andropogon gerardii</i> *	Big Bluestem	72"	24"	☉	N R D S
<i>Calamagrostis</i> spp. *	Feather Reed Grass	36"	24"	☉	D S P
<i>Chasmanthium latifolium</i> *	Northern Sea Oats	36"	24"	☉ ☾	N D S P
<i>Deschampsia cespitosa</i> cv. *	Tufted Hair Grass	24"	18"	☉ ☾	R S
<i>Festuca glauca</i> *	Blue Fescue	12"	12"	☉	
<i>Helictotrichon sempervirens</i> *	Blue Oat Grass	18-24"	18-24"	☉	
<i>Miscanthus sinensis</i> cv.	Maidengrass	24-36"	24"	☉	D S P
<i>Molina arundinacea</i> cv. ***	Tall Moor Grass	72-84"	24"	☉	
<i>Molinia caerulea</i> cv. **	Moor Grass	36"	24"	☉	
<i>Panicum virgatum</i> **	Switch Grass	36"	24"	☉	N D S
<i>Schizachyrium scoparium</i> *	Little Bluestem	36"	18"	☉	N D S P
<i>Sporobolus heterolepis</i> *	Prairie Dropseed	24-36"	18"	☉	N D S

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EYE-LEVEL PLANTS

*Evergreen Trees and
Tall shrubs*

Eye-level plants are intended to completely obscure parking lots from residential properties. Closely spaced plants should be planted in multiple staggered rows.

Eye-level plants are expected to grow to a mature height of at least 6 feet. They are not permitted along street frontages or adjacent to residential front yards because they limit the ability for natural surveillance.

Landscape areas along common property lines may include a combination of both evergreen trees and tall shrubs with one evergreen tree being equivalent to 2 tall shrubs.

MINIMUM PLANT SIZE

Evergreen Trees	6 feet tall
Tall Shrubs	4 feet tall 3 gallon container size

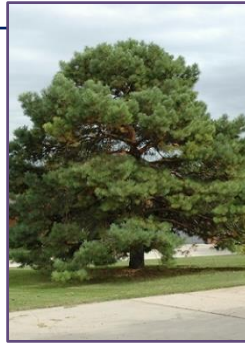
MINIMUM NUMBER OF PLANTS REQUIRED

Option A: Landscape area along a residential property without an opaque fence	1 evergreen tree or 2 tall shrubs per 5 linear feet
Option B: Landscape area adjacent to a residential property with an opaque fence	1 evergreen tree or 2 tall shrubs per 10 linear feet

**EVERGREEN
TREES**



Eastern Redcedar
Juniperus virginiana



Scots Pine
Pinus sylvestris



Colorado Spruce
Picea pungens

TALL SHRUBS



American Filbert
Corylus americana














Hedge Cotoneaster
Cotoneaster lucidus



Lilac
Syringa vulgaris

LIST OF RECOMMENDED TALL SHRUBS

BOTANICAL NAME	COMMON NAME	HEIGHT	SPREAD	SUN	ATTRIBUTES
<i>Cornus spp.</i> ***	Dogwood	5-12'	5-10'		N R
<i>Corylus Americana</i> *	American Filbert	8'	8'		N D S
<i>Cotoneaster lucidus</i> *	Hedge Cotoneaster	8-10'	8-10'		D S P
<i>Forsythia spp.</i> ***	Forsythia	5-10'	7-10'		S
<i>Hamamelis spp.</i>	Witchhazel	6-20'	10-15'		N S
<i>Hydrangea paniculata</i> ***	Panicle Hydrangea	6-12'	6-12'		S
<i>Juniperus chinensis</i> *	Upright Juniper	10-15'	6'-8'		D S
<i>Physocarpus opulifolius</i> ***	Ninebark	8-10'	8-10'		N R D S
<i>Rhus aromatica</i> (no Gro-low)	Fragrant Sumac	6'	8-10'		N D S P
<i>Sambucus nigra</i> *	Elderberry	8'	4-8'		
<i>Syringa vulgaris</i> *	Lilac	6-12'	6-12'		S
<i>Viburnum spp.</i> *	Viburnum	6-15'	6-20'		N D S

 Full Sun  Part Sun  Full Shade

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** Short cultivars only

*** Tall cultivars only

LIST OF RECOMMENDED EVERGREEN TREES

BOTANICAL NAME	COMMON NAME	HEIGHT	SPREAD	SUN	ATTRIBUTES
<i>Juniperus virginiana</i> *	Eastern Redcedar	25-35'	6-15'		N D S P
<i>Juniperus scopulorum</i> *	Rocky Mountain Juniper	10-15'	5-10'		S
<i>Picea abies</i> *	Norway Spruce	50-70'	25-30'		S
<i>Picea glauca</i> *	White Spruce	40-60'	10-20'		N
<i>Picea glauca</i> 'Densata'	Black Hills Spruce	45'	30'		
<i>Picea omorika</i> *	Serbian Spruce	50-60'	20-25'		
<i>Picea pungens</i> *	Colorado Spruce	40-60'	20-30'		S P
<i>Picea pungens</i> 'Fat Albert'	Dwarf Blue Spruce	15'	10'		
<i>Pinus sylvestris</i> *	Scots Pine	30-60'	30-40'		D S
<i>Thuja plicata</i> *	Western Arborvitae	25-30'	20'		
<i>Thuja occidentalis</i> *	Eastern Arborvitae	20-30'	5-15'		N S
<i>Thuja occidentalis</i> 'Techny'	Mission Arborvitae	15'	8'		

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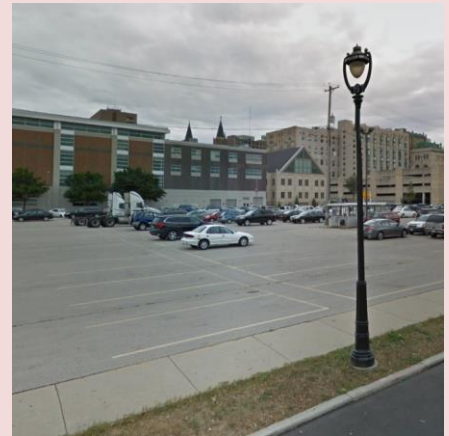
*** Tall cultivars only

RETROFITTING EXISTING SITES

Existing sites with excessive paving can contribute to flooding and water pollution, and can result in unattractive places and a poor pedestrian experience.

Retrofitting existing sites is key to furthering the City's goals of increasing the urban tree canopy, reducing the amount of impervious surfaces and fostering strong neighborhoods and successful commercial districts.

Existing parking lots that do not comply with current screening and landscape standards present unique challenges. In recognition of this, the zoning code allows for reduced screening and landscape standards at some existing sites.



REDUCED SCREENING FROM PUBLIC STREETS

Options A & B:
Minimum width of
Landscaped Area.

The minimum width of the landscaped area may be reduced by up to 50% if necessary to maintain existing pavement.

Option C:
Alternative to
Masonry Wall

Where existing pavement is less than 5 feet from the street property line, an ornamental metal fence with masonry piers may be used instead of a masonry wall.

REDUCED PARKING LOT LANDSCAPING

1 canopy tree and 100 square feet of landscaped area is required for every 8 parking spaces or fraction thereof.

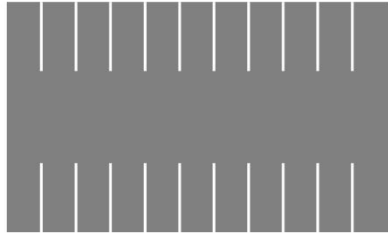
The amount of trees and landscaped areas required may be reduced to not less than 1 tree and 100 square feet of landscaped area per 16 parking spaces if green infrastructure features are provided (see page 20).

REDUCED SCREENING AND LANDSCAPING REQUIREMENTS FOR EXISTING PARKING LOTS

When a pre-existing parking lot is brought into compliance with current screening and landscaping requirements, reduced standards may be permitted.

To be eligible for reduced standards the parking area must be accessory to another permitted use on the premises, and the maximum number of spaces allowed may not be exceeded.

For reduced parking lot landscaping, the applicant must also demonstrate that full compliance would result in a loss of more than 10% of existing parking spaces.



Existing Parking Lot Layout



Modified Parking Lot Layout

CREATING SPACE FOR SCREENING PARKING LOTS

In order to provide landscape areas for screening, parking areas should be setback from streets and residential properties. When existing parking areas extend to property lines, creating space for perimeter landscape areas may involve reducing the size of parking spaces and bays, modifying the layout of the parking lot and/or reducing the number of spaces provided.

When parking spaces or bays are unnecessarily large, restriping spaces to no more than 9 feet wide and bays to no more than 60 feet wide can reduce the footprint of the parking lot, and free up areas for perimeter landscaping.

When parking spaces are oriented parallel to the perimeter, removing one parking space in each row can provide space for perimeter landscaping.

When parking spaces are oriented perpendicular to the perimeter, modifying the parking bay by changing from perpendicular parking to angle parking or by changing one row of parking to parallel parking can provide space for perimeter landscaping.

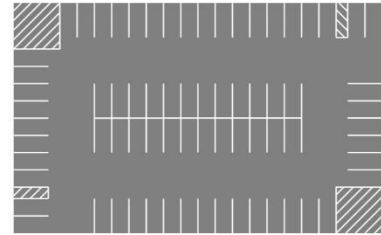
CREATING SPACE FOR PARKING LOT LANDSCAPING

Parking lot landscaping includes all canopy trees, landscaped areas and green infrastructure features within 50 feet of the parking lot.

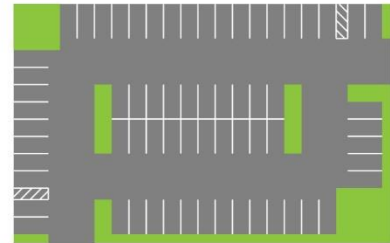
In some cases where wide landscape areas are used for screening, perimeter landscaping alone may be sufficient to meet the requirements. When walls or fences and narrow landscape areas are used for screening, other areas of the site will need to be identified for additional landscaping.

Paved areas that are not used for parking or circulation, such as the corners of parking lots, are great opportunities to remove pavement and create landscaped areas. Landscape islands are most appropriate at the ends of parking bays and can have the additional benefit of improving safety for pedestrians and vehicles.

Green infrastructure may also be counted toward the requirements. Permeable paving can reduce the number of trees and landscape areas required without reducing the amount of area used for parking. A properly placed bioswale can also be an efficient way to add landscaping while minimizing the impact on parking areas.



Existing Parking Lot



Parking Lot with Landscaping

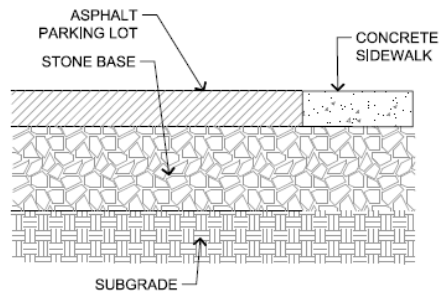
REMOVING PAVEMENT “DEPAVING”



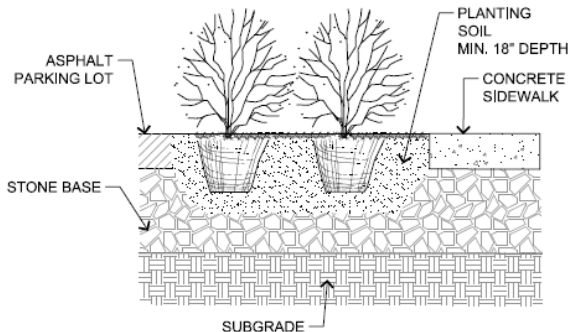
Once space for screening or landscaping has been identified, existing pavement in these areas should be removed. When a parking lot is being resurfaced or reconstructed, removing sections of old pavement for landscape areas should be included as part of the overall project.

Asphalt is not as difficult to remove as one may think. A special saw with a masonry blade can be used to create a straight line between the pavement being removed and the pavement to be preserved, and then a pry bar and pickax or sledge hammer can be used to remove the material. Cutting the asphalt into smaller pieces can also make removal easier. Concrete is more difficult to remove and may require a jack hammer. Most contractors are capable of removing pavement.

Asphalt and concrete are both recyclable materials so make arrangements for recycling before you begin the project, and keep materials separated during the removal process. Used pieces of concrete can also make for interesting stepping stones or garden features, allowing them to be reused on site.



Parking Lot
Edge Before
Pavement
Removal



Parking Lot
Edge After
Pavement
Removal

Once the pavement is removed, the stone and soil underneath should be replaced by healthy planting soil to a depth of at least 18 inches.

IMPORTANT: Before you dig make sure to call diggers hotline at 811 to have the utility companies come out and mark your property showing where utility lines are buried.

Parking Lot Retrofit at
5601 North Hawley Road



Parking Lot Retrofit at
1701 West North Avenue



BEFORE



AFTER

