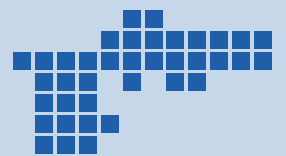




PARKWAY DESIGN GUIDE



*City of West Hollywood
March 2010*



WHY ARE PARKWAYS IMPORTANT?

1

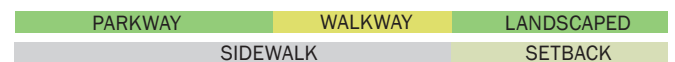
The parkway is the strip of land between the street and the walkway. In other geographic regions, it is known as tree lawn or planting strip. The parkway and walkway together make up the sidewalk, which is part of the public right-of-way. Street trees are planted in the parkway and are the most important plants in the parkway.

Parkways are important to individual property owners and the City as a whole for the following reasons:

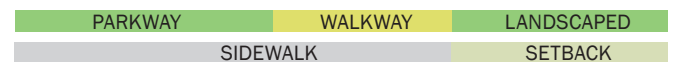
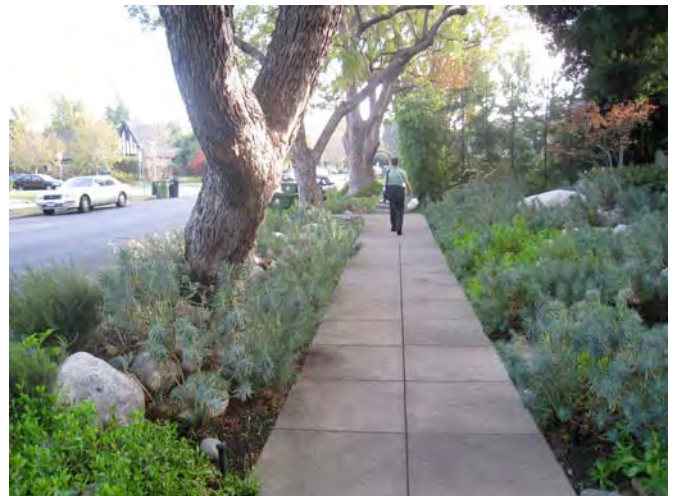
- Parkway provide soil volume that street trees need to grow into healthy, mature trees that provide shade, collect stormwater, consume carbon and provide other environmental and health benefits.
- Parkway can collect stormwater and irrigation runoff and return it to the groundwater table.
- Parkway provide a buffer between pedestrians on the walkway and cars in the street.
- Parkway improve the curb appeal of your home, potentially increasing its value.
- Parkway provide a buffer between pedestrians on the sidewalk and cars in the street.
- Parkway enhance the visual quality of the city.

In West Hollywood, the adjacent property owner is responsible for maintaining all of the parkway except the street trees, which are maintained by the City. They can only be planted, trimmed and removed by the City and not by private property owners.

Parkways can be designed in a variety of ways, depending on the individual property owner's design objectives and commitment to maintenance. However, all parkways should require relatively little supplemental water, little mowing and little fertilizing to reduce their carbon footprint. In particular, conventional grass parkways that require high levels of supplemental water and regular mowing and fertilizing should be avoided. West Hollywood property owners are encouraged to convert their conventional grass parkways (and front yards) into drought-tolerant, sustainable parkways (and front yards). This brief document provides guidance for making that transition.



Typical residential parkway of the past, based on those on the East Coast and Midwest where supplemental irrigation typically is not required and where parkways are called "tree lawns."



In Southern California, we need to reduce the use turf grass to reduce water use and the greenhouse gases generated by lawn mowers. The parkway of the future will be drought-tolerant, collect runoff and require minimal gas or electric powered maintenance.



2

PARKWAY DESIGN CRITERIA

To reduce water use and carbon emissions and provide storm and irrigation water infiltration, soil volume for street trees, a buffer between pedestrians and the street, pedestrian access between the street and walkway, visibility of both motorists and pedestrians, erosion/fugitive dust control, and the visual benefits of landscaped parkways, all parkways shall be:

- As wide as possible up to 8' wide, given minimum walkways widths of 4' in residential zones and 5' in commercial zones.
- At the same elevation as the curb and walkway within 6" of them, for example, soil 2" below edge of curb and walkway elevations and covered with 2" of mulch, so the surface elevations of the walkway or curb and adjacent parkway are the same.
- At least 75% unpaved and either 1) slightly swaled, that is, sloping a few inches to the center at not more than a 3:1 slope, to collect storm and irrigation water if the plant materials in the parkway are not walkable or 2) at the same finished elevation as the walkway if the plant materials in the parkway are walkable.
- Irrigated in a manner that results in no overspray onto the walkway or street, e.g., buried in-line drip, and consistent with the City's landscape ordinance and State Model Landscape Ordinance (9-10-09).
- At least 50% covered with plant materials, which 1) do not require mowing more frequently than once every few months, 2) are drought tolerant and can survive with irrigation only occasionally from November - March, once a week April - June, and twice a week July - October (for example, plants listed in WUCOLS III¹ as having Moderate, Low or Very Low water use- see Table 1 for examples), 3) do not exceed a height of 2' within 5' of a driveway/curbcut and, excluding trees, 4' elsewhere, 4) do not have thorns or sharp edges adjacent to any walkway or curb, and 5) are located at least 4 feet from any tree trunk.
- Where unpaved, covered with a permeable natural material, e.g., mulch, stabilized decomposed granite, gravel, or stones, that prevent erosion and dust.



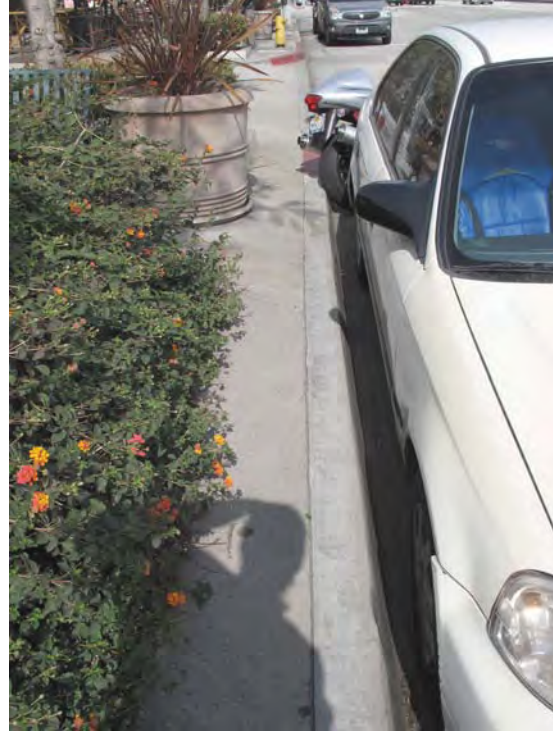
¹ WUCOLS, an acronym for Water Use Classification of Landscape Species, can be downloaded at <http://www.water.ca.gov/wateruseefficiency/docs/wucols00.pdf>

For parkways adjacent to curbside parking, if the parkway planting is not walkable (see Table 1 for examples of plants that are walkable), a means of access from the curb to the walkway shall be provided. It may vary with the adjacent use and street characteristics, for example:

- On heavily trafficked streets (major and minor arterials), an 18" wide paved, walkable strip along the back of the curb that is at the same finished elevation as the curb should be provided.
- Where there are striped curbside parking spaces, a path across the parkway should be provided every two cars between two marked spaces.
- Adjacent to single-family homes and low-density multi-family housing (2 to 4 units/5,000 SF lot), stepping stones or a walkway across the parkway should be provided every 50 feet.

Where there is no curbside parking and the parkway is not walkable, a path or stepping stones shall be provided every 50 feet.

As specified on page 2, plants with thorns should not be planted adjacent to any walkway where someone might come in contact with the thorns.



A "landing strip" at the curb allows easy access from parked cars.



A path across the parkway completes access from parked cars to the walkway.



3

DESIGNING YOUR PARKWAY

WHAT'S YOUR TYPE?

Type 1 Parkway - Low-Maintenance, Walkable Plants

If you want a parkway that requires minimal design and maintenance, install walkable plants. Table 1 lists some examples. Most of the grasses listed do not require mowing. Sedge, Buffalo and Grama Grass can be mowed a few time a year to maintain a lawn-like appearance.

Type 2 Parkway - Low-Growing, Low-Maintenance Plants

If you want a parkway that requires a little more design and the addition of a walkway or stepping stones, but still requires minimal maintenance, plant low-growing grasses and/or groundcover. There are many choices; Table 2 lists some of them. Your parkway might be meadow-like in appearance with a mix of grasses and perennials, including some from Table 1 and some from Table 2.

Type 3 Parkway - Complement Your Front Yard

If you want a parkway that is an extension of your sustainable, non-lawn front garden, use low- to medium-height grasses, shrubs and perennials. There are many plant choices with this parkway type. Table 3 lists some reliable drought-tolerant natives that are taller - but still less than 3 feet tall - that can be mixed in with plants in Table 2.

Note: there are many other plants that are suitable for parkways, which you can find in the on-line resources. Email us your parkway success stories and we will add them to the parkway list.

DIGGING IN

Preparing Your Parkway Soil

The most important thing you can do to ensure your parkway's success is to prepare the soil. Soil preparation saves you money in the long run because it reduces the need to replace plants, lowers water use and reduces fertilizer applications.

- Remove all existing turf - let it die and dig it out.
- Remove enough soil to create the swale described on page 2 and then remove 2-3" more.
- Till the parkway soil to depth of one foot.
- Amend it with compost.

Watering Your Drought-Tolerant Parkway

Too much water can kill drought-tolerant plants. So, don't over-water, especially in clay soil. The best approach is to water only when the soil is dry at a depth of 3" to 4". Or, turn on your in-line drip irrigation three times a week (45 minutes each time) to establish your parkway (first 3 months); then, once it is established, once a week from October through March and twice a week from April through September.

On-Line Resources

Use these resources see see images, recommended spacing, and detailed descriptions of these plants and others:

- bewaterwise.com
- theodorepayne.org
- elnativo.com
- smggrowers.com
- monrovia.com
- sunset.com and *Sunset Garden Book*
- California Native Plants for the Garden* Bornstein et al.

Table Legend

- N = California or Southwest native
- L= Low water use
- M = Moderate water use
- o.c. = on center



Table 1. Example Type 1 Walkable Plants - No Path Required

Botanical Name	Common Name	Water Use	Height x Spacing	Notes
Low Water Use/Low or No Mow Turf or Grass-like Perennials				
<i>Buchloe dactyloides</i> UC Verde™	UC Verde™ Buffalo Grass	N, L	6" x 6"	winter dormant (brown)
<i>Bouteloua gracilis</i> 'Hachita'	'Hachita' Blue Grama Grass	N, L	6" x 6"	
<i>Carex pansa</i> (<i>C. praegracilis</i>)	California Meadow Sedge	N, M	6" x 9"+	Grows in shade or sun
Low-Growing Perennials (12 inches or less)				
<i>Achillea millifolium</i> cultivars	Achillea cultivars	L	12" x 3'	mow 3-4x/year
<i>Chamaemelum nobile</i>	Chamomile	M	8" x 12"	
<i>Dymondia margaretae</i>	Dymondia	L	3" x 6"	slow growing

Other untested ideas: there are several lawn substitute seed mixes, including Fleur de Lawn and Ecology Lawn, that may work.

Buchloe dactyloides UC Verde™*Bouteloua gracilis* 'Hachita'*Carex pansa* (*C. praegracilis*)*Achillea millifolium* cultivar mowed

Chamomile

*Dymondia margaretae*

Table 2 Example Type 2 Low-Growing, Low-Maintenance Plants - Path Required

Botanical Name	Common Name	Water Use	Height x Spacing	Notes
Low-Growing Grasses or Grass-like Perennials (18 inches or less)				
<i>Carex divulsa</i> (C. <i>tumincola</i>)	Berkeley Sedge	N, M	12" x 2'	
<i>Festuca glauca</i> 'Siskiyou Blue' & other var.	Blue Fescue	M	12" x 12"	
<i>Pennisetum alopecuroides</i> 'Little Bunny'	Little Bunny Fountain Grass	L	12" x 12"	
<i>Sesleria autumnalis</i>	Autumn Moor Grass	M	15" x 2'	
Low-Growing Perennials/Succulents (18 inches or less)				
<i>Achillea millifolium</i> 'Terra Cotta'	Yarrow Terra Cotta & other cultivars	L	12" x 4'	mow 1/year for meadow
<i>Aptenia cordifolia</i> /A. <i>cordifolia</i> 'Red Apple'	Heartleaf Ice Plant	L	6" x 12"	
<i>Delosperma cooperi</i>	Trailing Ice Plant	L	8" x 15"	
<i>Drosanthemum floribundum</i>	Rosea Ice Plant	L	8" x 15"	
<i>Dudleya hassei</i>	Santa Catalina Live Forever	N, VL	8" x 18"	
<i>Erigeron karvinskianus</i> & E. <i>glaucus</i>	Santa Barbara & Seaside Daisy	N,M	12" x 2'	
<i>Fragaria vesca</i> ssp. <i>Californica</i> or F. <i>chiloensis</i>	Woodland or Coastal Strawberry	N, M	8" x 2'	Grows in shade
<i>Gazania rigens leucolaena</i>	Gazania (grayish lvs.)	M	6" x 2'	
<i>Gazania linearis</i> 'Colorado Gold'	Colorado Gold Gazania (green lvs)	M	6" x 2'	
<i>Hypericum calycinum</i>	Creeping St. Johnswort	M	12" x 12"	Clip yearly; likes shade
<i>Iris douglasiana</i> & 'Pacific Coast Hybrids'	Douglas & Pacific Coast Iris	N, M	12" x 18"	Mix with grasses
<i>Lantana</i> Patriot series cultivars	Dwarf Lantana	L	12" x	
<i>Lessingia filaginifolia</i> 'Silver Carpet'	Beach Aster	L	12" x 4'	
<i>Monardella villosa</i>	Coyote Mint	N, VL	15" x 2'	
<i>Nepeta mussinii</i> (N. <i>faassenii</i>)	Catmint	M	15" x 18"	
<i>Osteospermum fruitcosum</i>	Trailing African Daisy	L	6" x 18"	
<i>Oenothera caespitosa</i> & other species	Tufted evening primrose	N,L	12" x 2'	
<i>Rosmarinus officinalis</i> 'Huntington Carpet' or other prostrate varieties	Prostrate Rosemary	L	18" x 2'	
<i>Scaevola aemula</i> varieties	Fairy Fan Flower		8" x 2'+	
<i>Senecio serpens</i> , S. <i>mandraelisca</i>	no common name	L	12" x 2'	
<i>Thymus</i> species	Thyme	M	8" x 2'	
<i>Verbena peruviana</i> & hybrids	Verbena	L	6" x 2'	
<i>Vinca minor</i>	Dwarf Periwinkle	M	12" x 4'	Plant in shade
Low-Growing Shrubs (18 inches or less) - all require regular trimming at parkway edges				
<i>Ceanothus</i> 'Centennial'		N, L	18" x 4'	needs good drainage
<i>Cotoneaster dammeri</i> 'Lowfast', C. <i>salicifolia</i> 'Repens', C. <i>apiculatus</i> 'Tom Thumb'	Groundcover Cotoneaster varieties	M	18" x 4'	
<i>Juniperus horizontalis</i> & J. <i>procumbens</i> var.	Groundcover Juniper varieties	L	6-18" x 4'	see Sunset for list

West Hollywood

Carex divulsa



Festuca glauca



Sesleria autumnalis



Pennisetum 'Little Bunny'



Achillea 'Terra Cotta'



Apena cordifolia 'Red Apple'



Delosperma cooperi



Drosanthemum floribundum



Dudleya hassei



Erigeron glaucus 'Wayne Roderick'



Gazania rigens leucolaena



Gazania linearis



Fragaria chiloensis



Hypericum calycinum



Iris douglasiana



Lantana 'Patriot Rainbow'



Lessingia filaginifolia 'Silver Carpet'



Mondardella villosa



Nepeta mussinii



Osteospermum fruitcosum



Oenothera caespitosa



Rosmarinus officinalis



Scaevola aemula



Senecio mandraealiscae



Thymus



Verbena peruviana varieties



Vinca minor



Ceanothus 'Centennial'



Cotoneaster dammeri



Juniperus procumbens



Juniperus horizontalis var.



Table 3 Example Type 3 Medium Height, Drought Tolerant Plants - Path and More Maintenance Required

Botanical Name	Common Name	Water Use	Height x Spacing	Notes
18" to 36" Tall Grasses				
<i>Helictotrichon sempervirens</i>	Blue Oat Grass	L	2' x 2'	
<i>Leymus condensatus</i> 'Canyon Prince'	Canyon Prince Wild Rye	N, L	2' x 3'	
<i>Nasella tenuissima</i> (<i>Stipa tenuissima</i>)	Mexican Feather Grass	N, V L	2' x 2'	
<i>Pennisetum orientale</i>	Oriental Fountain Grass	L	18" x 18"	
<i>Pennisetum setaceum</i> 'Eaton Canyon'	Dwarf Red Fountain Grass	L	2' x 3'	
18" to 36" Tall Perennials/Succulents				
<i>Aloe</i> 'Blue Elf' & other small varieties	Blue Elf Aloe	L	18" x 18"	
<i>Anigozanthos</i> 'Bush Pearl', 'Bush Ranger' & 'Bush Devil'	Kangaroo Paws varieties		2' x 2'	
<i>Limonium perezii</i>	Statice	L	2' x 3'	+ flower height
<i>Lomandra longifolia</i> 'Breeze' & 'Little Con'	Lomandra cultivars	M	2' x 3'	
<i>Penstemon heterophyllus</i> 'Margarita BOP'	Foothill Penstemon	N, M	18" x 18"	
<i>Phormium</i> 'Tom Thumb' & 'Jack Spratt'	Small Flax hybrids	M	2' x 2'	
18" to 36" Tall Shrubs				
<i>Arctostaphylos densiflora</i> 'Pacific Mist'		N, L	2' x 6'	
<i>Artemisia pycnocephala</i> 'David's Choice'	David's Choice Sandhill Sagebrush	N,	2' x 3'	
<i>Ceanothus gloriosus</i> 'Anchor Bay'		N, L	2' x 6'	
<i>Cistus salvifolius</i>	Sageleaf Rockrose	L	2' x 3'	
<i>Iva hayesiana</i>	Poverty Weed	N, VL	2' x 3'	
<i>Lantana montevidensis</i>	Trailing Lantana	L	2' x 3'	Cut back yearly
<i>Lantana</i> 'Gold Rush', 'New Gold' & 'Chapel Hill Yellow'			2' x 3'	Monrovia
<i>Mimulus</i> hybrids inc. 'Jelly Bean Yellow'	Shrubby Monkeyflower hybrids	N, L	2' x 3'	
<i>Rosa</i> Flower Carpet varieties	Groundcover Roses	M	2' x 3'	Monrovia
<i>Salvia apiana</i>	White Sage	N, VL	3' x 4'	
<i>Salvia</i> 'Bee's Bliss'	Bee's Bliss Sage	N, L	2' x 4'	
<i>Verbena lilacina</i> & <i>V. lilacina</i> 'De La Mina'	Lilac Verbena	N, L	3' x 3'	

Helictotrichon sempervirens



Leymus condensatus 'Canyon Prince'



Nasella tenuissima



Pennisetum orientale



Pennisetum setaceum 'Eaton Canyon' Aloe 'Blue Elf'



Anigozanthos 'Bush Pearl'



Limonium perezii



Lomondra longifolia 'Breeze'



Penstemon heterophyllus 'Margarita BOP'



Phormium 'Jack Spratt'



Arctostaphylos densiflora 'Pacific Mist'



Artemisia pycnocephala 'David's Choice'



Ceanothus gloriosus 'Anchor Bay'



Cistus salvifolius



Iva hayesiana



Lantana montevidensis



Lantana 'Gold Rush'



Mimulus 'Jelly Bean Yellow'



White Flower Carpet Rose



Red Flower Carpet Rose



Amber Flower Carpet Rose



Salvia apiana



Salvia 'Bee's Bliss'



Verbena lilacina



4 EXAMPLES

Good Examples of Type 1 Parkway (Walkable Plants)



California Meadow Sedge (*Carex pansa*) can manage with little or no supplemental water from November - April and irrigation once a week the rest of the year. It can be mowed a few times a year for a more lawn-like appearance.



UC Verde Buffalo grass (*Buchloe dactyloides* UC Verde™) is a drought-tolerant cultivar of Midwest native Buffalo grass.



Dymondia (*Dymondia margaritae*) (Rangle Ave.) is a low growing, walkable groundcover

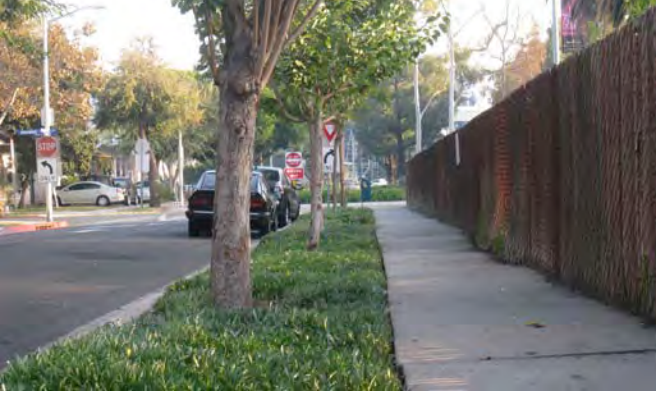


Regularly mowed Yarrow (*Achillea millifolium*) is lawn-like.

Good Examples of Type 2 Parkway



Berkeley Sedge (*Carex divulsa*) (Westmount Drive) requires very little care and similar water to California Meadow Sedge.



Gazanias (Norwich Dr.) are a reliable relatively drought-tolerant groundcover that tolerates light traffic.



Autumn Moor Grass (*Sesleria autumnalis*) requires very little care and similar water to the Sedges.



A prostrate Rosemary like 'Huntington Carpet' (Pointsettia Dr.).



Blue Fescue (*Festuca cultivars*) (Dorrington Ave.) require good drainage and tolerate some shade.



Dwarf Periwinkle (*Vinca minor*) is a good choice for a shady parkway.

Good Examples of Type 3 Parkway: Perennial Gardens



This mix of drought-tolerant perennials (Orlando Ave.) extends the front yard landscaping to the curb and incorporates river rock. It is beautifully maintained and would be a perfect example if the parkway were swaled rather than mounded.



This mix of fairly drought-tolerant perennials (Westbourne Dr.) provides color to brighten the street and includes a pathway.

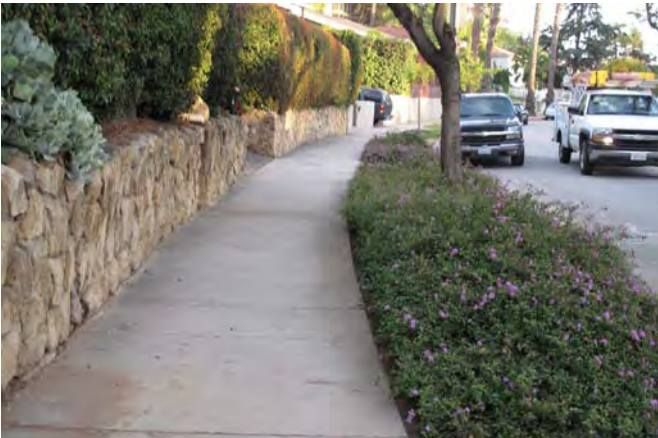
Other Good Examples



Mexican Feather Grass (*Nasella tenuissima*) (Pointsettia Drive) needs to be cut back to about 9” high every winter. It self-seeds and spreads but can be managed.



Native Deer Grass (*Muhlenbergia rigens*) needs a wide parkway.



Lantana needs to be cut back so it does not become too tall and woody.



Autumn Moor Grass and other low, clumping grasses require little maintenance.

Special Parkway Conditions



Pots or other elements may be appropriate in some locations. An encroachment permit is required for elements other than plants and paving.



While plants should not be placed within 4' of a tree trunk to reduce competition for nutrients, grasses and clumping perennials may be planted between large surface roots farther away, provided they do not adversely affect the tree.