



Chapter Five

PARKS, OPEN SPACE AND TRAILS

The Villages
Master Planned Development

OVERVIEW

The preservation and enhancement of existing natural systems is one of the primary guiding principles in the City's Comprehensive Plan and is a main part of the principle framework for the development of neighborhoods in The Villages. The parks and open space system builds upon this foundation of natural systems to create community gathering spaces, provide recreational and educational opportunities, contribute to the high quality of life of residents living in Black Diamond, perform the role of infrastructure by capturing and cleaning storm water, and contribute to the distinct identity and character of each neighborhood. These are multi-tasking landscapes that perform multiple functions and fill multiple roles simultaneously, thereby achieving the highest possible value for the community, as envisioned in the City's Comprehensive Plan.

The parks and open space system consists of a series of inter-connected parks and trails typologies ranging from small intimate pocket parks to medium-sized community parks to linkages to larger regional facilities at Lake Sawyer. They are programmed with a variety of uses throughout all seasons of the year. The parks and trails typologies are distributed throughout The Villages in order to provide ease of access and close proximity to all residents. No home is more than a quarter-mile walking distance from a park, natural open space area or trail. The character of each park is based on the character of the surrounding natural open space and/or the character of an individual neighborhood. They are a combination of the natural and the manicured - the informal and the formal - the active and the passive - depending upon their location and functions. The landscape planting palette is primarily derived from indigenous or regional plant species in order to fit the climate and character of the area.

The trails system consists of a combination of hard and soft-surfaced trails that link major destinations within The Villages such as schools and village centers and provide links to destinations beyond the community boundaries such as Lake Sawyer, the Green River and the regional equestrian facility. The network forms a series of loops of differing lengths. The loops provide alternative routes and allow choices between short, medium and long distances for recreation and exercise. The trails run through various parks and open space conditions and their design reflects these differing conditions. In the neighborhoods or village centers, the trails reflect their urban context in surfacing and furnishings, while in natural areas, they are more natural and informal. The trails provide for a range of users groups including equestrians, bikers, runners and pedestrians.

WILDLIFE CORRIDORS

The Villages contains a network of wetlands complexes - the most significant of which is Black Diamond Lake and bog complex. This area is part of the Wildlife Habitat Network identified by the King County Comprehensive Plan. This network transects the City of Black Diamond and connects the Cedar River riparian corridor with the Green River corridor. Lake Sawyer, Jones Lake and Black Diamond Lake are important components of the habitat network. The network is completely protected in The Villages and acts as the major natural open space feature of the community.

Educational and stewardship opportunities for these sensitive lands will be supported through programming at the schools as well as through interpretive signage on the internal trail network. Hiking trails will be narrow and carefully aligned throughout natural open space areas of The Villages so as not to impede the movement and habitat of wildlife.

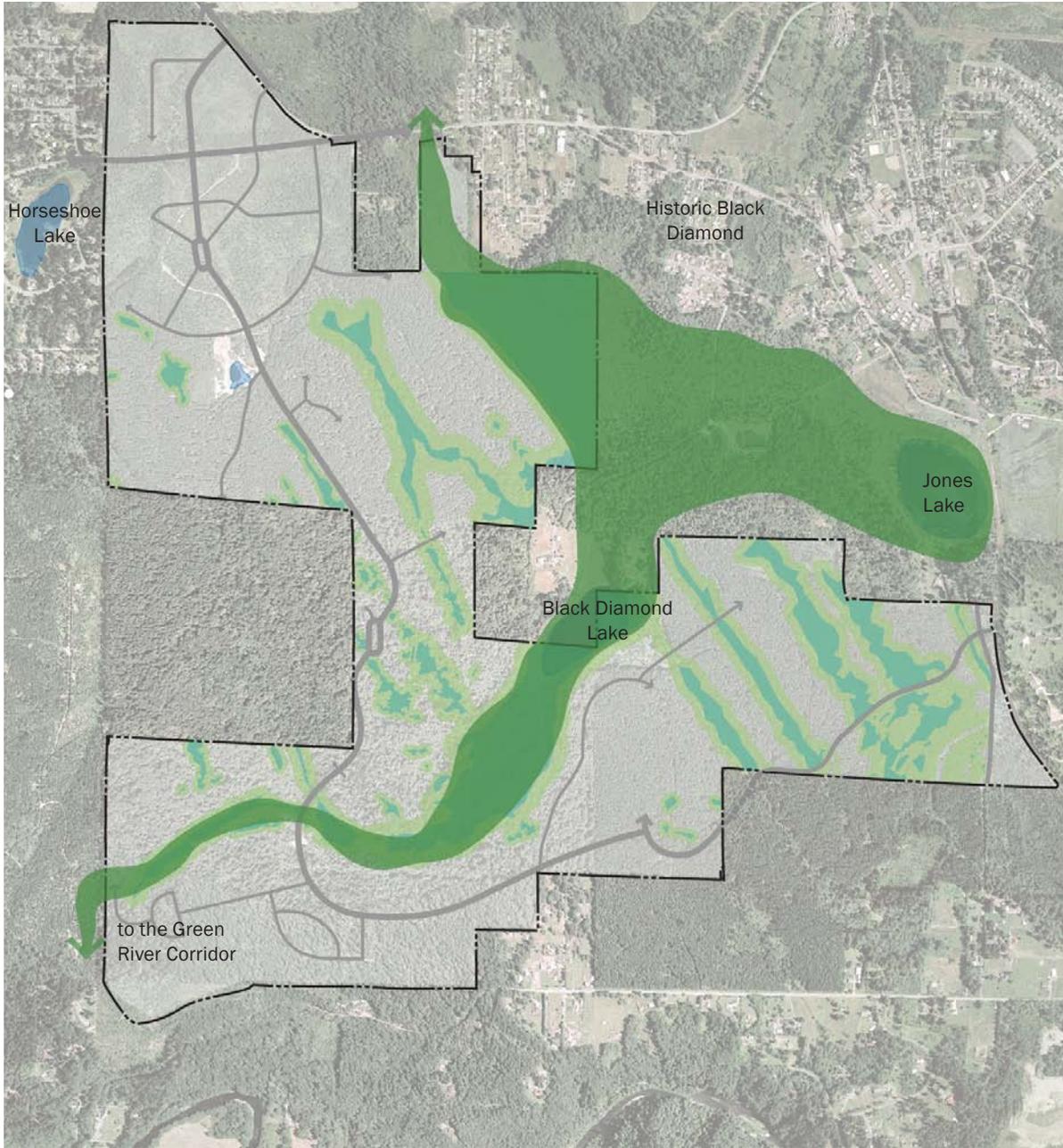
OWNERSHIP AND MAINTENANCE OF PARKS, RECREATION, OPEN SPACE AND TRAILS

SENSITIVE AREAS AND BUFFERS

Ownership and maintenance of sensitive areas and buffers shall be consistent with the requirements of the City of Black Diamond Sensitive Area Ordinance, BDMC Chapter 19.10, which allows sensitive area tracts to be held in undivided ownership by all lots within the development, dedicated to the City of Black Diamond or other governmental entity, or conveyed to a non-profit land trust.

NON-SENSITIVE AREA PARK, OPEN SPACE AND TRAILS

All non-sensitive area park, trail and open space areas will be owned and maintained by the Home Owner's Association (HOA) or Master Developer.



Wildlife Corridors

LEGEND

■ Wildlife Corridor

LEVEL OF SERVICE STANDARDS

The parks and open space system in The Villages exceeds the total acreage of pocket parks, neighborhood parks, and community parks required by the 2008 Black Diamond Parks, Recreation, and Open Space Plan. Double the neighborhood and community parks are provided and the number of pocket parks meets the standard. Additional pocket parks may be added to the community as individual neighborhoods are designed and platted. While there are no regional parks planned at The Villages, joint use of play fields and other recreational facilities at the elementary and middle school sites will serve many of the active recreational needs of the community. It is also anticipated that The Villages will contribute funds to assist in the construction of off-site regional park facilities within the City of Black Diamond. In addition to the parks, there are areas of the community dedicated to preservation of natural open space and more than 12 miles of multi-use trails. The exact locations and configurations of the parks are conceptual only and may be modified as neighborhoods are designed and platted.

**Table 5-1
Level of Service Standards**

VILLAGES AT BLACK DIAMOND LEVEL OF SERVICE		Level of Service Standards	Individual Park Area Requirements (acres)	Recommended Total Acreage at The Villages	Recommended # of Parks at The Villages	Parks per the Plan (# or Acres)
Size in acres:	1,196	* Based on information from the City of Black Diamond (WA) Parks, Recreation, and Open Space Plan (December 23, 2008)				
Dwelling units	4,800					
Projected Population:	12,624					
Pocket park*		None	0.5	0	0	8
Neighborhood Park		75% of population within 1/2 mile	1	2.00	2	4
Community Park		90% of population within 1.5 mile	1-5	2.00	1	2
Trail/Greenway**		75% of population within 0.5 mile				
Open Space		10% of City Area (10% of site)	119.6	119.6		505 ac.
School Park		Variable	N/A	N/A	N/A	2

* Additional pocket parks will be provided by implementing plats

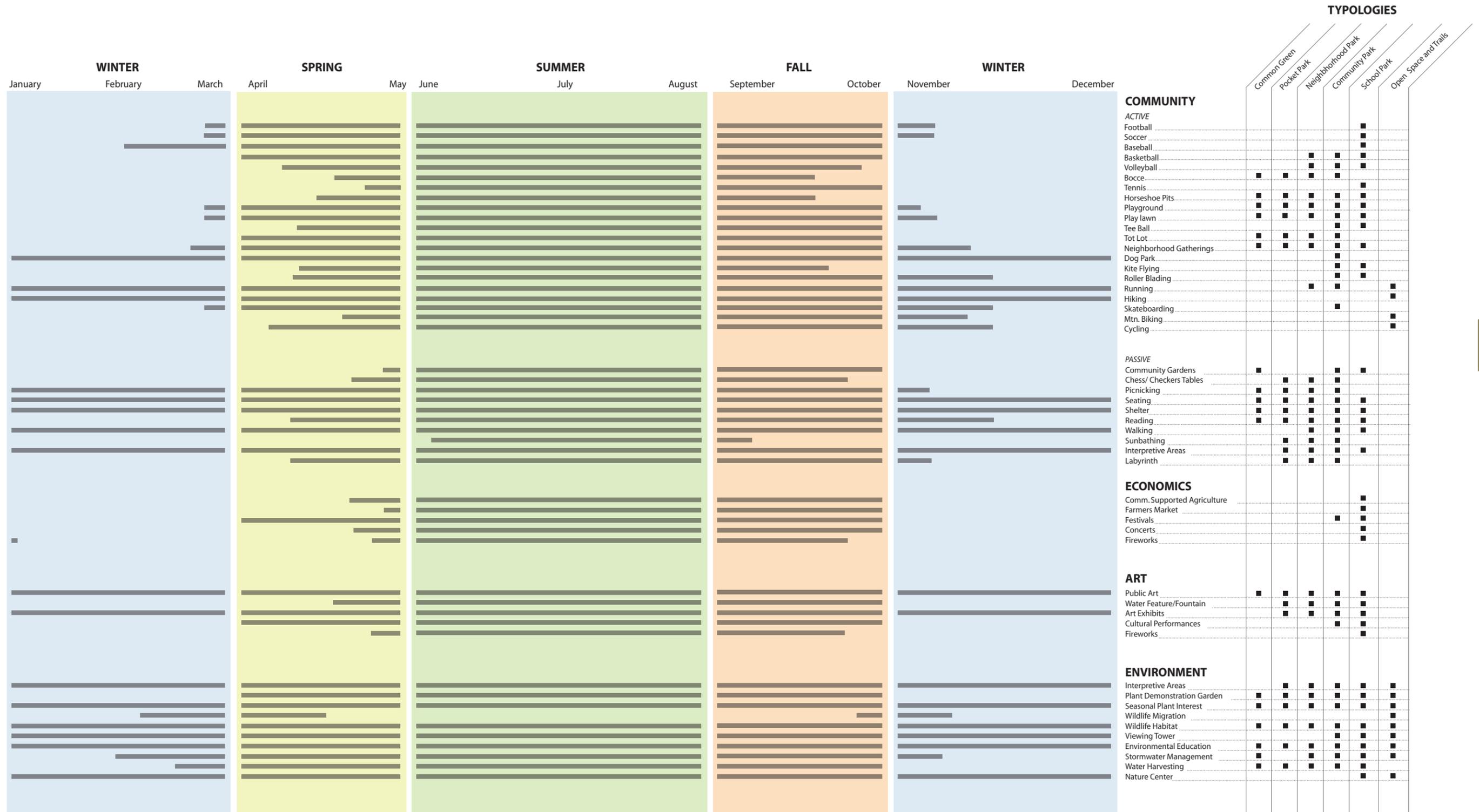
** There are approximately 12 miles of proposed trails within The Villages.

PARKS AND OPEN SPACE PROGRAMMING

The parks, open space and trails system at The Villages has been carefully designed to provide for the social and cultural needs of the community throughout the year. In addition, activities and spaces that contribute to the local economy, provide inspiration through public art and design, and preserve or enhance environmental systems have also been provided. The parks, open space and trails system

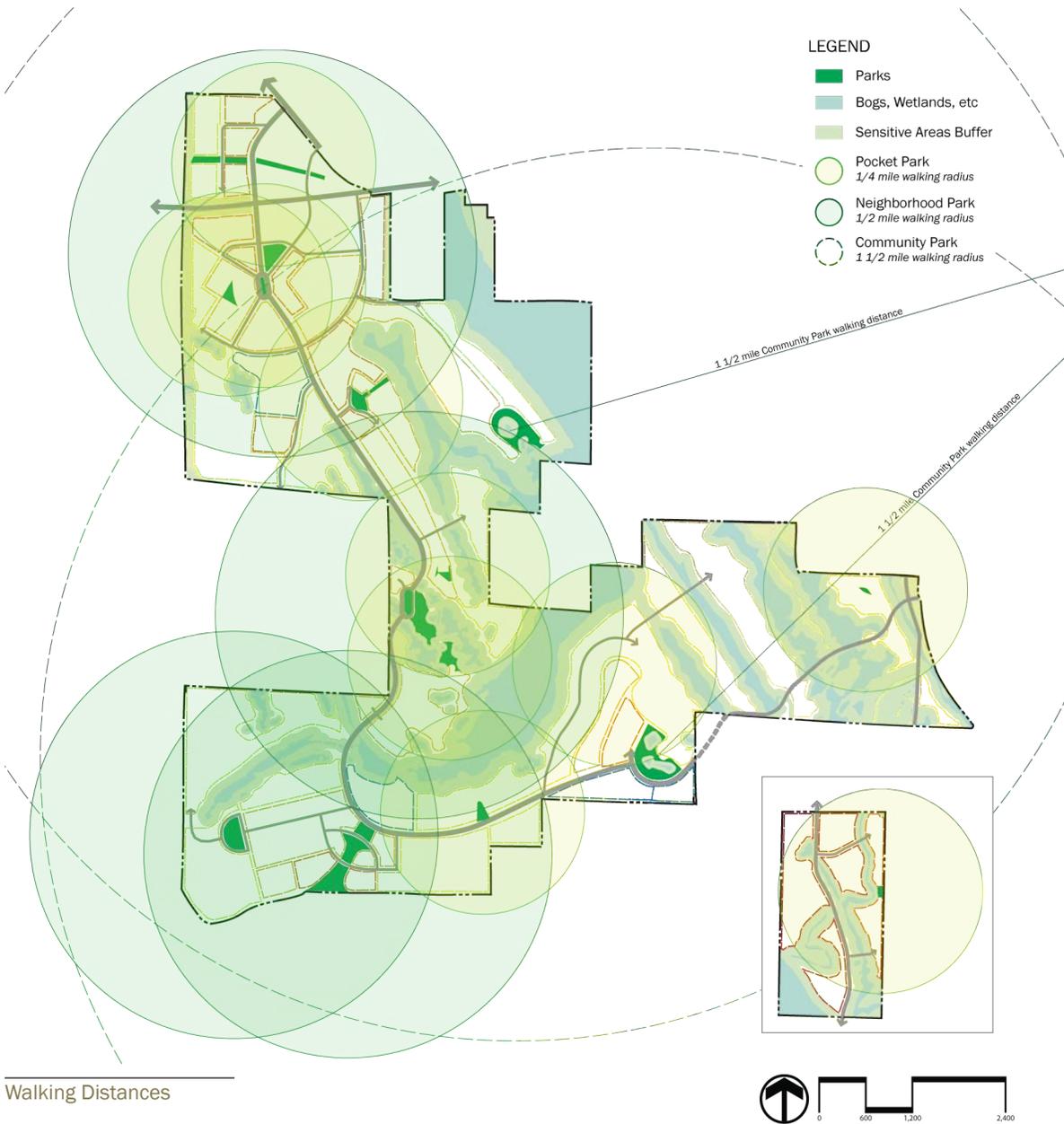
will provide a range of activities throughout the day and throughout the year. Each park type has a role to fill in providing this extensive range of activities. The Programming Recommendations Matrix below provides a list of anticipated activities and the appropriate park locations for those activities while illustrating when the activities may occur throughout the seasons of the year.

seasonal



WALKING DISTANCES

The parks and open space system is distributed across The Villages in order to provide easy and convenient access to all residents. No home in The Villages is more than ¼ mile walking distance from a park, natural open space area or trail alignment. This public network serves to engage residents with the natural world and to encourage walking for health and recreation. Each park typology has a different service radius. Pocket parks serve residents within a ¼ mile walking distance and serve the needs of the people living within that circumference. Neighborhood parks serve a ½ mile radius while community parks service a 1.5 mile radius. All parks are accessible to residents and guests along the trails network or at the end of the sidewalks that parallel each street.



PARKS AND OPEN SPACE TYPOLOGIES

The parks and open space systems is comprised of many differing typologies. The sizes, functions, configurations and locations of the parks are dependent upon their surrounding natural features, neighborhood demographics, and social/cultural needs. The typologies are distributed across the site to service the entire community and provide easy and convenient access to all residents. The typologies include:

Town Center Plaza – The plaza serves as the focal point of the village center and accommodates passive uses by shoppers and their children. It is a flexible space that is comfortable for intimate conversations or solitary people-watching but can also accommodate larger gatherings of the entire community such as art festivals, sidewalk sales, and other community celebrations. The streets of the Town Center are designed in such a way that they can be closed and used for additional festival and plaza space on special occasions. In conjunction with the Town Green, the Town Center plaza is designed to host large community events.

Community Parks - Community parks are typically between 1 and 5 acres in size and are recreational destinations that serve community-wide needs. They contain larger active recreational uses such as basketball, volleyball, tennis, playgrounds and informal play fields and are used by all residents of the community.

Neighborhood Parks – Neighborhood parks are typically between .5 and 1 acre in size and differ from community parks in that they serve as the smaller recreational and social needs of the neighborhood. Smaller in scale and amenities, they are a collection of residential-scale green spaces that accommodate a range of neighborhood activities such as small playgrounds, sitting and picnic areas including barbecues, and court sports such as basketball. These are locations where residents and guests of the community congregate and interact with one another and enjoy family gatherings.

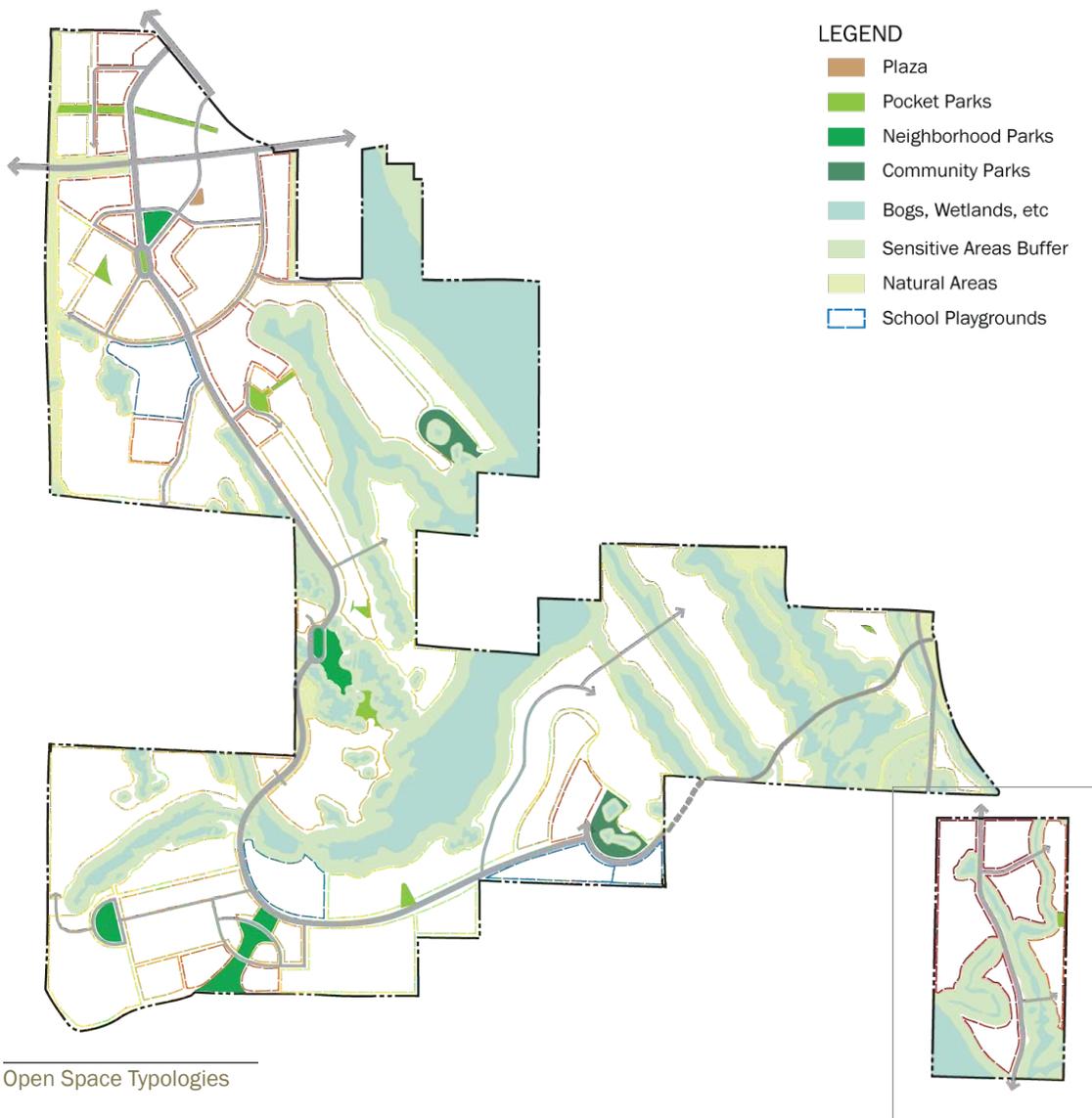
Pocket Parks – Pocket parks are typically .5 acres or less in size and serve the informal needs of the immediately-adjacent residents. They provide very small, intimate gathering places and include tot-lots, seating areas or simply small gathering places for children to play. Pocket parks are located and sized to fit the unique characteristics of the neighborhood design.

Common Greens – Common greens are semi-public, pedestrian-oriented passageways. They are intended for the use of the residents of the homes that face directly onto them and act as a collective front yard for them. They also serve as connectors between streets and serve as local pathways through the neighborhood. Common greens open onto neighborhood streets or directly onto residential boulevards. Common greens are counted as pocket parks in the Level of Service matrix.

Community Gardens – Community gardens serve the community by providing locations for local food production as well as a social space for residents. Residents lease a plot of

land within the garden and grow, flowers for cuttings or vegetables for eating. These areas of production help the region maintain unity and productiveness in the community. Community gardens are best suited within larger park spaces such as community or school parks or in natural open space buffers serviced by the trail network. Where land is available, small community gardens can also be located in common greens.

Natural Open Space – The natural open space system, in the form of wetlands, bogs and their surrounding buffer areas, are a major key to the long-term environmental sustainability in The Villages. These spaces are protected from intrusive human uses and take advantage of natural systems to capture and clean storm water for the community. They provide wildlife movement corridors and important habitat. In some instances, they will support local environmental education initiatives from the schools. Stewardship of the natural environment begins with understanding this beautiful resource and educating residents and guests on its proper use and protection.



Open Space Typologies

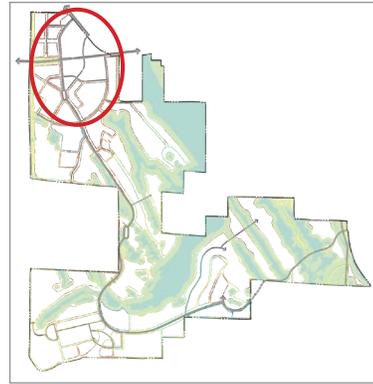
Town Center – The Town Center neighborhood has a comfortable, informal quality that feels as if it grew in place over time. It derives its character from the materials of the surrounding natural environment and the rich cultural history of the Black Diamond area. It offers cues and references to the past but does not attempt to re-create it. It is composed of native plants, industrial materials such as rough concrete and rusting cor-ten steel and asymmetrical geometries.



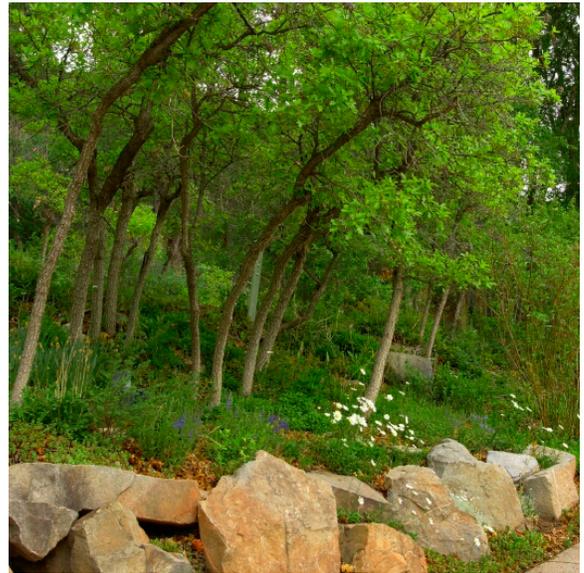
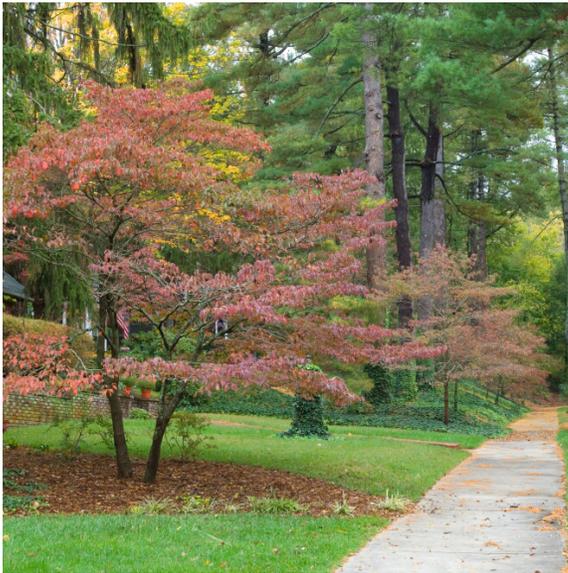
CONCEPTS

Connected
Organic Urbanism, "The new rural"
Formal / Structured
Entry / Arrival / Earthform gateway
Urban Stormwater – structure
Civic

KEY PLAN



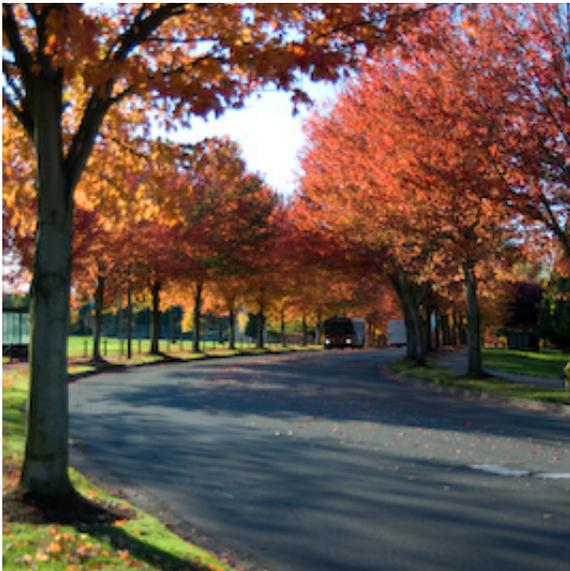
Diamond Park – The Diamond Park neighborhood derives its character from the forests that surround it. Manicured park areas are inserted into the natural context in an organic, free-flowing way that mimics the natural systems. The parks are comprised of informal turf areas, ornamental and native plants, and natural materials such as stone boulders and decomposed granite pathways.



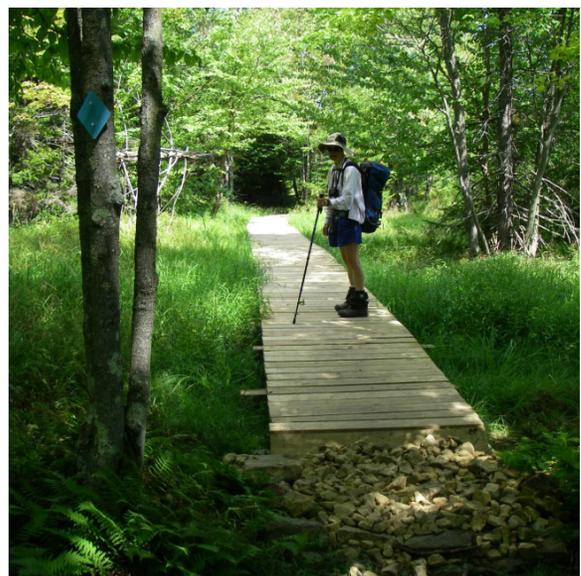
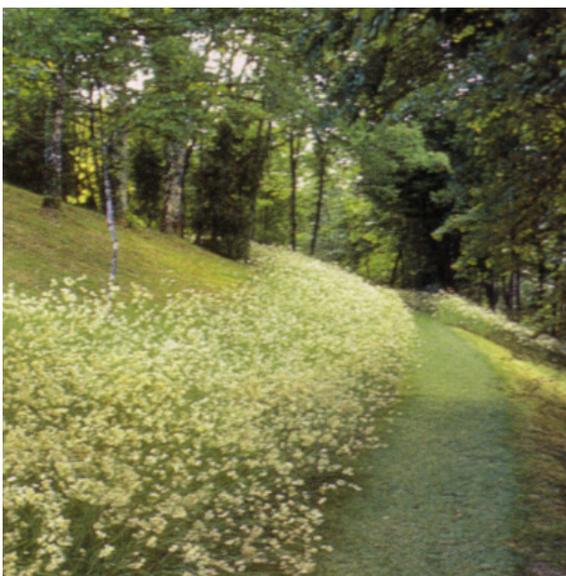
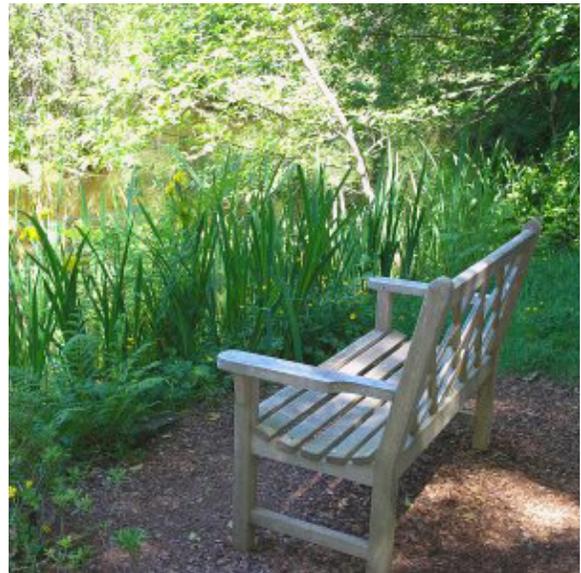
CONCEPTS

- Enchanted forest
- Nature trails - connected
- Mossy/Fern ; Cool
- Intimate spaces
- Secluded/Quiet
- Less formal landscape (clusters)

KEY PLAN



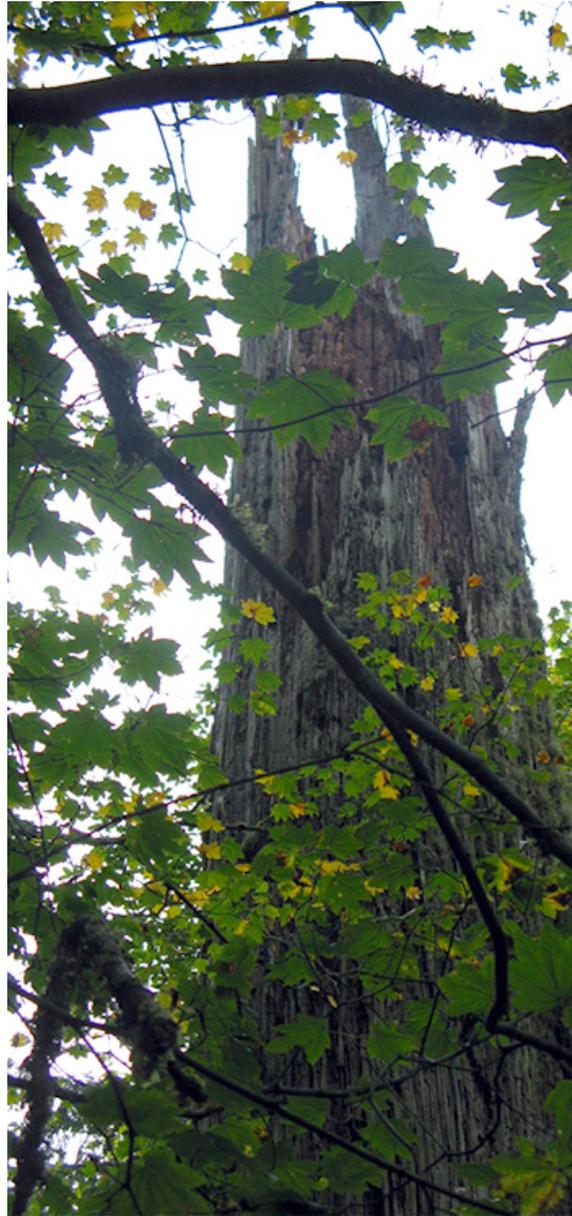
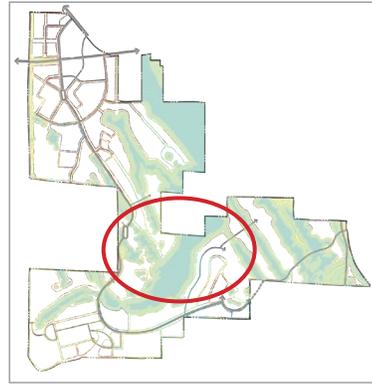
Black Diamond Lake – The Black Diamond Lake neighborhood is located adjacent to the Black Diamond Lake Wildlife Habitat Network. It will have the most natural and organic feel of any neighborhood within The Villages. The landscape will utilize primarily native plants that are found on the site. Trails will have soft-surfaces or wooden boardwalks through sensitive areas. Materials used within parks will be natural stone and wood. The landscape seeks to seamlessly blend with the natural environment.



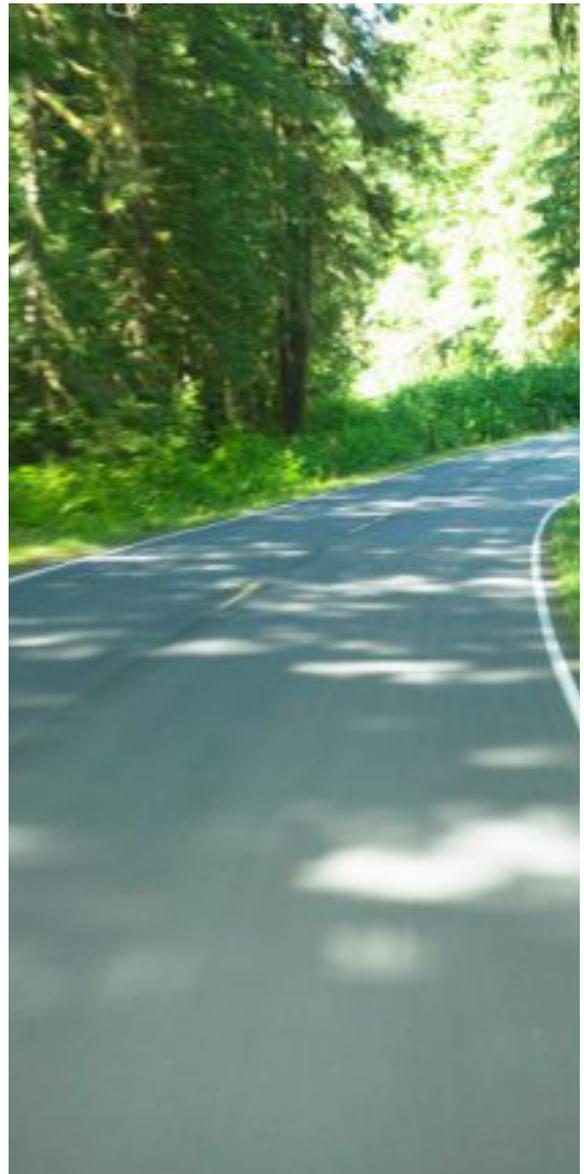
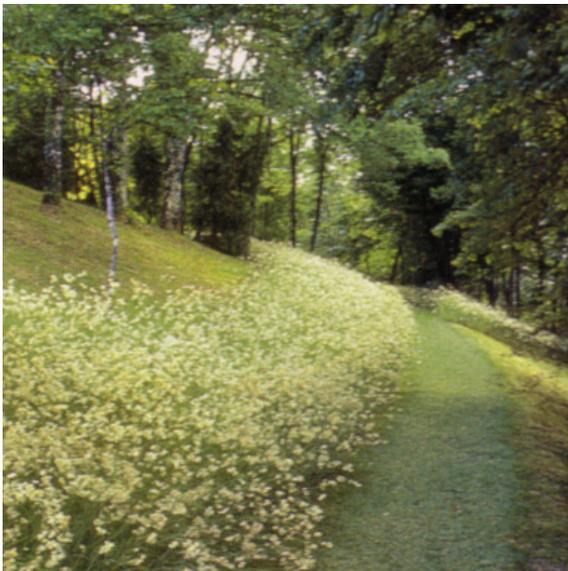
CONCEPTS

- Lots facing open space
- Framed views
- Nature / interpretive
- Natural materials – soft
- Controlled + protected
- Light on the land

KEY PLAN



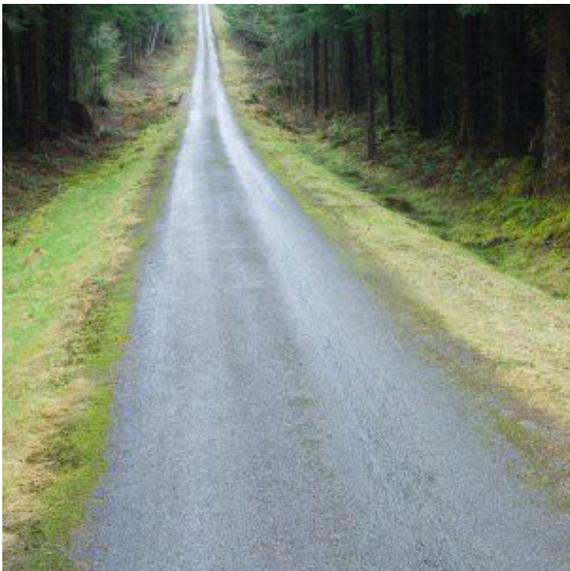
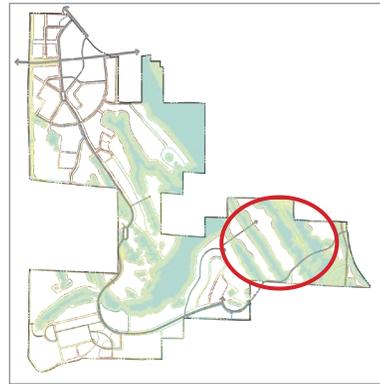
The Narrows – The Narrows neighborhoods are linear in character and are inserted between sensitive wetlands. The character of the landscape will reflect and emphasize the linear nature of these neighborhoods through the alignment of streets and trails. The neighborhoods will be sensitive to the natural surroundings and utilize native plantings. Materials used within parks will be natural wood and stone in keeping with its environment character.



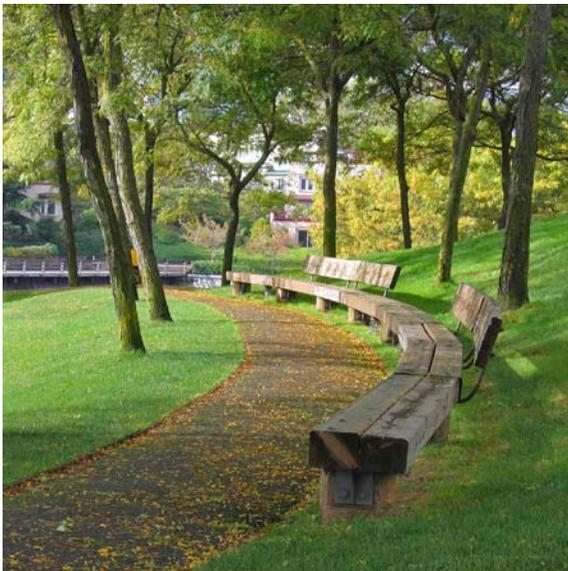
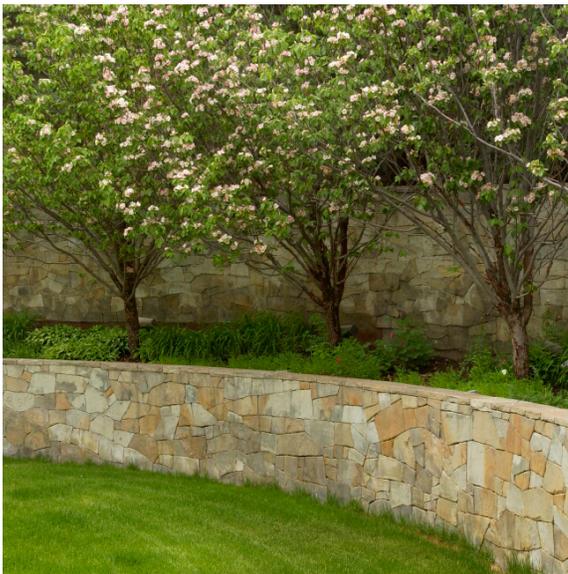
CONCEPTS

Rural country road
Informal
Nature / interpretive

KEY PLAN



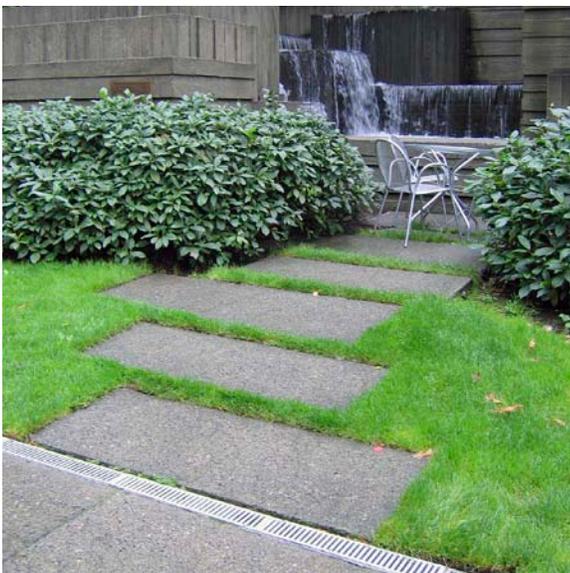
Forest Green – The Forest Green neighborhood is a gridded country village. The landscape character reflects the geometries of this neighborhood and creates an urbane, small town feel. The parks in this neighborhood are more formal in nature and accommodate active recreation uses such as field and court sports. The landscape will utilize both native and ornamental plants to achieve this look and feel. Materials will be of traditional parks including steel, cut stone, turf, and contemporary site furnishings.



CONCEPTS

- Urbane
- Country village
- Formal streetscape
- “Country Urban”
- Younger families

KEY PLAN



PARKS CONCEPT SKETCHES

The park concept sketches included in this document are intended to illustrate the general character, activities and functions of differing parks typologies. These concepts will be refined and adapted to actual site conditions during neighborhood design and platting.

Town Center Plaza – The Town Center Plaza is a major contributor to the eclectic, organic nature of the village center. It is organized to provide flexibility for a range of activities and uses from people-watching to community festivals and events. The main gathering space in the center of the plaza is flanked by a shade and rain protection pavilion which acts as a stage during performances or a sitting pavilion during regular use. The irregular paving pattern frames planting areas filled with native grasses, shrubs, and trees. Trees are planted in an organic pattern that softens the architecture and frames activity zones. The paving pattern directs pedestrians to safe, raised street crossings at the main intersection and at the center of the plaza and privileges pedestrians over automobiles. The streets of the village center are designed so they can be closed during special events such as street fairs, sidewalk sales or farmers markets and they act as extensions of the plaza space.



NOT TO SCALE

Town Green – The Town Green is the main civic green space of The Villages. It acts as an extension of the Town Center plaza during large community events. Trees are spaced to accommodate festival booths. The great lawn embraces crowds, sunbathers, lunch-time cat-nappers and Frisbee-throwers. The sloped lawn on the south acts as amphitheater during events and screens the park from the village roundabout. A series of small gardens on the northern edge of the park provides intimate spaces for individual users and screens performances from the residential uses across the street. The performance pavilion and gazebo is a platform for musical performances and outdoor movies. This is the place where the whole community comes together for shared experiences and events.



Black Diamond Lake Nature Park – The Black Diamond Lake Nature Park inserts passive recreational and leisure activities into a natural setting. It is a small clearing in the woods, between .75 and 1.25 acres in size, that provides an informal playing field, neighborhood playground, picnic and seating areas, and trail connections to the greater trails network of The Villages. It is designed to educate residents and guests about the natural world through interpretive design of indigenous landforms, vegetation patterns and water systems.

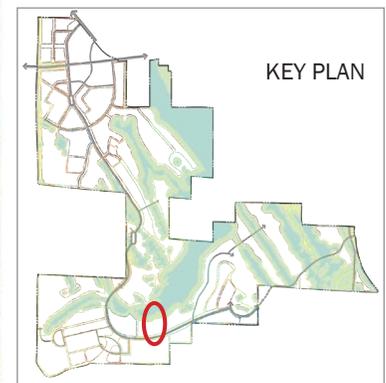
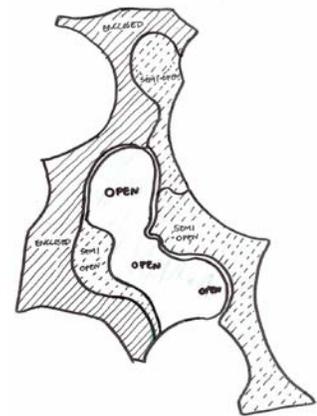


INSPIRATION : MIMA MOUNDS

The geology formation which can be found in Olympia, Washington.



SPACE DIAGRAM : OPEN / ENCLOSED SPACE



NOT TO SCALE

Diamond Park – Diamond Park illustrates the common components of a typical neighborhood park of 1 to 1.5 acres with a small multi-purpose green, walking paths, small court games such as bocce, a tot lot and a flexible space for informal volleyball or badminton. This pocket park serves as the focal point of the immediate neighborhood and provides trail connections through the block to the streets and sidewalks beyond. It takes its design cues from natural, braided streambeds to wind its way into the surrounding neighborhood.



INSPIRATION : OUTWASH
The geology formation which can be found in Olympia, Washington.



⬆️ NOT TO SCALE

Common Greens –A common green is the shared front lawn for the surrounding homes on the block. It provides flexible play space for young children who can be easily watched by residents and serves as place for next-door neighbors to socialize and interact. In this concept, large boulders are used as climbing rocks by children at play. In other common greens, other features such as vegetable and cutting gardens or seating areas may take the place of boulders. Each common green has its own character, configuration and uses.



LANDSCAPE CHARACTER

The character and identity of each neighborhood is shaped by its landscapes. At The Villages, there are multiple neighborhoods and each neighborhood has its own unique landscape look and feel. There are common elements in each that serve to tie the whole community together but each neighborhood will be an identifiable and distinct district with the overall community. The landscape character of each neighborhood is described below:



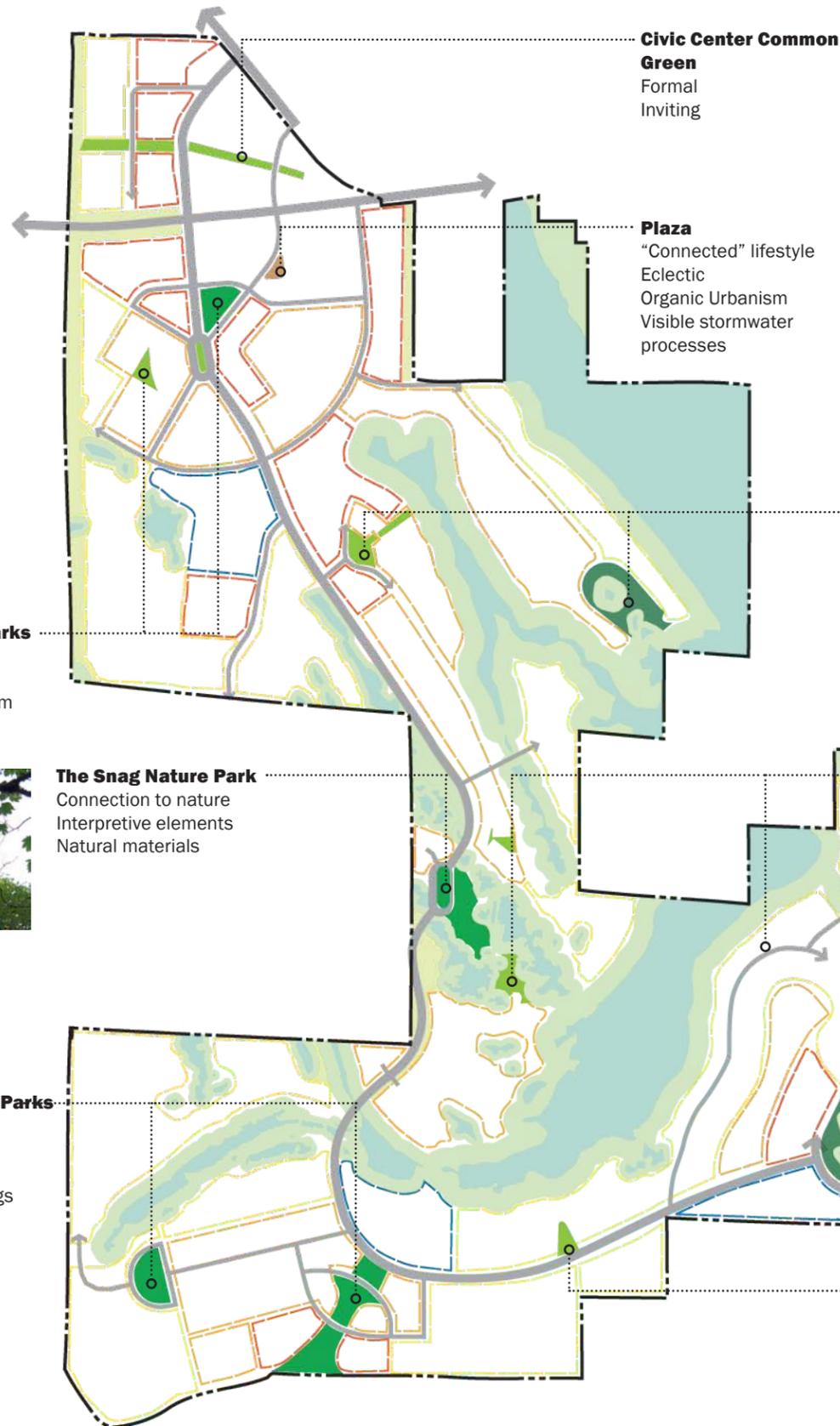
Town Green Parks
Tot-lots
Eclectic
Organic Urbanism



The Snag Nature Park
Connection to nature
Interpretive elements
Natural materials



Forest Green Parks
"Urbane"
Formal
Refined space
Small gatherings



Civic Center Common Green
Formal
Inviting



Plaza
"Connected" lifestyle
Eclectic
Organic Urbanism
Visible stormwater processes



Diamond Community Park + Pocket Park
"Enchanted Forest"
Informal
Families w/ active teens/tweens
Small-scale soccer and multi-use fields
Flexible spaces
Trail connections / passive recreation
Active



Black Diamond Lake Nature Parks
"Northwest Bog" character
Connection to nature
Light on the land
Passive
Interpretive
Natural materials (soft)
Quiet reflection
Protected



The Heights Community Park
Active
Sense of entry to the community
Formal



Common Greens
Formal
Refined plant palette
Small gathering spaces

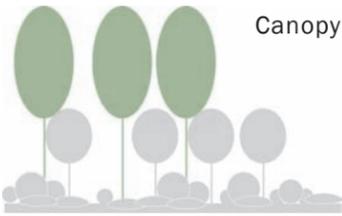
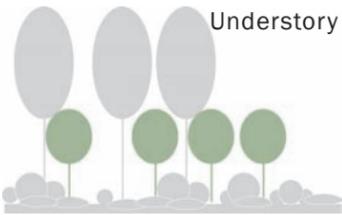
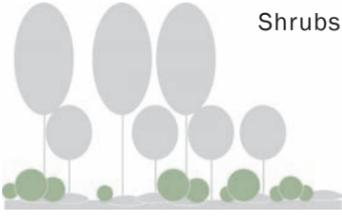


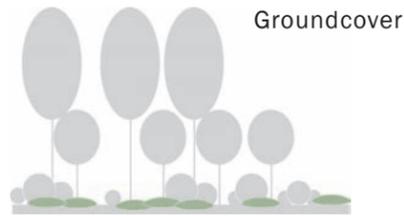
Streetscapes – The streetscapes of The Villages play a vital role in establishing the character of each neighborhood within The Villages. The streetscapes will change depending upon their location in the community and the neighborhood of which they are a part. In general, the streetscapes utilize primarily native plants supplemented by ornamentals and trees to create water-wise landscapes throughout the community. Streetscapes also use plant materials to capture and clean storm water runoff in neighborhoods.

LANDSCAPE PLANT PALETTE

The landscape plant palette for The Villages is comprised primarily of plants native to the region or adapted to the climatic conditions of this location. These plants will be supplemented with other ornamentals where needed but the intent of the landscape is to fit it as closely to the regional climatic conditions as much as possible. The native upland and wetland plant palettes are illustrated below and

are a combination of trees, shrubs, groundcovers and grasses. Wetlands and Bog plants will be used throughout the community in the landscape areas that capture and clean storm water, in low areas where the water table is near the surface, and in areas within wetlands and bog buffers that have been disturbed such as road crossings and trail alignments.

Canopy	Abies grandis Grand Fir	Acer macrophyllum Bigleaf Maple	Alnus rubra Red Alder	Arbutus menziesii Madrona	Fraxinus latifolia Oregon Ash
	  Picea sitchensis Sitka Spruce	  Populus balsamifera Black Cottonwood	  Pseudotsuga menziesii Douglas Fir	  Thuja plicata Western Redcedar	  Tsuga heterophylla Western Hemlock
Understory	 Acer Circinatum Vine Maple	 Acer glabrum Douglas Maple	 Crataegus douglasii Black Hawthorn	 Cornus nuttallii Pacific Dogwood	
	 Prunus emarginata Bitter Cherry	 Rhamnus purshiana Cascara	 Salix lasiandra Pacific Willow	 Taxus brevifolia Yew	
Shrubs	 Amelanchier alnifolia Serviceberry	 Andromeda polifolia Bog Rosemary	 Cornus sericea Red-osier Dogwood	 Corylus cornuta var. californica Beaked Hazelnut	 Gaultheria shallon Salal
	 Holodiscus discolor Oceanspray	 Kalmia microphylla Bog Laurel	 Mahonia aquifolium Tall Oregon Grape	 Mahonia nervosa Low Oregon Grape	 Myrica californica Pacific Wax Mrytle
	 Oelmaria cerasiformis Indian Plum	 Oplopanax horridus Devil's Club	 Philadelphus lewisii Mock Orange	 Physocarpus capitatus Pacific Ninebark	 Rhododendron macro- phyllum Pacific Rhododendron
	 Ribes lacustre Black Gooseberry	 Ribes sanguineum Red-flowering Currant	 Rosa gymnocarpa Bald Hip Rose	 Rosa nutkana Nootka Rose	 Rubus parviflorus Thimbleberry
	 Rubus spectabilis Salmonberry	 Sambucus caerulea Blue Elderberry	 Sambucus racemosa Red Elderberry	 Spiraea densiflora Subalpine Spirea	 Spiraea douglasii Hardhack; Spirea
	 Symphoricarpos albus Snowberry	 Vaccinium ovatum Evergreen Huckleberry	 Vaccinium parvifolium Red Huckleberry		



Groundcover



Achillea millefolium
Yarrow



Aruncus sylvestris
Goat's Beard



Clarkia amoena
Farewell-to-Spring



Fragaria virginiana
Wild Strawberry



Maianthemum dilatatum
False Lily of the Valley



Sidalcea hendersonii
Checker Mallow



Vancouveria hexandra
Inside-out Flower



Grass-like

Carex deweyana
Dewey's Sedge



Festuca idahoensis
Idaho Fescue



Vines

Lonicera ciliosa
Orange Honeysuckle



Achlys triphylla
Vanilla Leaf



Asarum caudatum
Wild Ginger



Cornus unalaschkensis
Bunchberry



Grindelia stricta
Coastal Gumweed



Mimulus guttatus
Yellow Monkey Flower



Smilacina racemosa
False Solomon's-seal



Viola glabella
Stream Violet



Carex lyngbyei
Lyngbye's Sedge



Juncus ensifolius
Daggered-leaf Rush



Lonicera hispidula
Hairy Honeysuckle



Adiantum aleuticum
Maidenhair Fern



Athyrium filix-femina
Lady Fern



Dicentra formosa
Bleeding Heart



Heuchera micrantha
var. *mircantha*
Sm. Flower Alumroot



Polystichum munitum
Sword Fern



Stachys cooleyae
Cooley's Hedge Nettle



Carex obnupta
Slough Sedge



Scirpus acutus
Hardstem Bulrush



Rubus ursinus
Blackberry



Arctostaphylos uva-ursi
Kinnikinnik



Blechnum spicant
Deer Fern



Fragaria chiloensis
Beach Strawberry



Linnaea borealis
Twinflower



Sedum divergens
Spreading Stonecrop



Tolmiea menziesii
Piggyback Plant



Deschampsia cespitosa
Tufted-hair Grass



Scirpus microcarpus
Small-fruited Bulrush



Armeria maritima
Thrift; Sea Pink



Camassia quamash
Common Camas



Fragaria vesca
Woodland Strawberry



Lysichiton americanus
Swamp Lantern



Sedum spathulifolium
Broad-leafed Stonecrop



Trillium ovatum
Trillium



Elymus mollis
Dunegrass



Typha latifolia
Cattail

Trees



Alnus rubra
Red Alder



Fraxinus latifolia
Oregon Ash



Picea sitchensis
Sitka Spruce



Pinus contorta
var. *contorta*
Shore Pine



Populus balsamifera
Black Cottonwood



Rhamnus purshiana
Cascara



Salix lasiandra
Pacific Willow



Thuja plicata
Western Redcedar



Tsuga heterophylla
Western Hemlock

Shrubs



Andromeda polifolia
Bog Rosemary



Cornus sericea
Red-osier Dogwood



Kalmia microphylla
Bog Laurel



Oplopanax horridus
Devil's Club



Physocarpus capitatus
Pacific Ninebark



Ribes lacustre
Black Gooseberry



Rosa nutkana
Nootka Rose



Sambucus racemosa
Red Elderberry



Spiraea douglasii
Hardhack; Spirea

Groundcover



Adiantum aleuticum
Maidenhair Fern



Athyrium filix-femina
Lady Fern



Blechnum spicant
Deer Fern



Grindelia stricta
Coastal Gumweed



Lysichiton americanus
Swamp Lantern



Mimulus guttatus
Yellow Monkey Flower



Sidalcea hendersonii
Checker Mallow



Stachys cooleyae
Cooley's Hedge Nettle

Grass-like



Carex deweyana
Dewey's Sedge



Carex lyngbyei
Lyngbye's Sedge



Carex obnupta
Slough Sedge



Elymus mollis
Dunegrass



Juncus ensifolius
Daggered-leaf Rush



Scirpus acutus
Hardstem Bulrush



Scirpus microcarpus
Small-fruited Bulrush



Typha latifolia
Cattail

RECREATION AND USEABLE OPEN SPACE STANDARDS

A. All Dwelling Units shall be located within $\frac{1}{4}$ mile of a Park. If an existing Park is not located within $\frac{1}{4}$ mile of a proposed Development, then the Development shall provide a new Park at a rate of 100 square feet per Dwelling Unit to be served by the Park.

B. Parks shall be designed to serve the unique characteristics of the neighborhood that they serve.

C. The recreation and useable Open Space requirement shall be fulfilled on Development parcels or non-sensitive Open Space within $\frac{1}{4}$ mile of the Dwelling Units proposed to be served.

D. Unless otherwise noted on Table 9-5, Recreational Facilities constructed by the Master Developer, may be located: (1) on joint use school sites, (2) within off-site regional parks or (3) within the Villages MPD in community parks, community center or neighborhood parks. The recreational facilities may be provided in combination with one another and other informal space or each facility may be provided as a standalone amenity.

E. The Master Developer shall have the option, at the Master Developer's discretion, of providing a lump sum payment in lieu of constructing recreational facilities. The amount of the payment that may be provided in lieu of construction is set forth in table 9-5. In the event the Master Developer elects to make a lump sum payment the City shall use the funds for the sole purpose of constructing the recreational facility and such construction shall be completed within five years.

F. The Master Developer's obligation to provide recreational facilities as set forth in table 5-2 is based on the Level of Service standards set forth in the City's Park and Open Space Plan. To determine the number of recreational facilities required the number of housing units was multiplied by the following population generation rates: 2.7 persons per household for single-family housing units and 1.85 persons per household for multi-family housing units. In the event the total number of housing units constructed in the Villages MPD is less than the 3600 single family units and 1200 multi-family units the recreational facilities requirements shall be adjusted accordingly.

Table 5-2
Recreation Facilities

Facility Type	Level of Service	Required Facilities	Timing of Facilities	Optional off-site construction or Fee-in-Lieu
Basketball Court	1:2000	6	Must provide a minimum of one (1) half-court basketball facility prior to each 600th single-family housing unit receiving Certificate of Occupancy	The Master Developer may elect to pay a fee-in lieu of constructing the required Basketball Courts. The Fee shall be \$35,000 per Basketball Court and shall be paid prior to each 600th single-family housing unit receiving a certificate of occupancy.
Soccer Field	1:2000	6	Must provide a minimum of one (1) soccer field prior to each 600th single-family housing unit receiving a Certificate of Occupancy. Up to 3 of the required soccer fields shall be designed as Micro Soccer Fields.	The Master Developer may elect to pay a fee-in lieu of constructing the required soccer fields. The fee shall be \$100,000 per soccer field and shall be paid prior to each 600th single family housing unit receiving a Certificate of occupancy.
Tennis Court	1:2000	6	Must provide a minimum of one (1) tennis-court prior to each 600th single family housing unit receiving Certificate of Occupancy.	The Master Developer may elect to pay a fee-in lieu of construction for up to 3 of the tennis courts. The fee shall be \$35,000 per tennis court and shall be paid prior to each 600th single family home receiving a certificate of occupancy.
Play Area	1:2000	6	Must provide a minimum of 1 Play Area prior to each 800th unit receiving Certificate of Occupancy. Play Areas will primarily be located in community parks, community center or neighborhood parks but may also be located on school sites.	The Master Developer may elect to construct or pay a fee-in-lieu for at least one of the Play Areas off-site within the Lake Sawyer regional park or other such land of a value up to \$100,000.

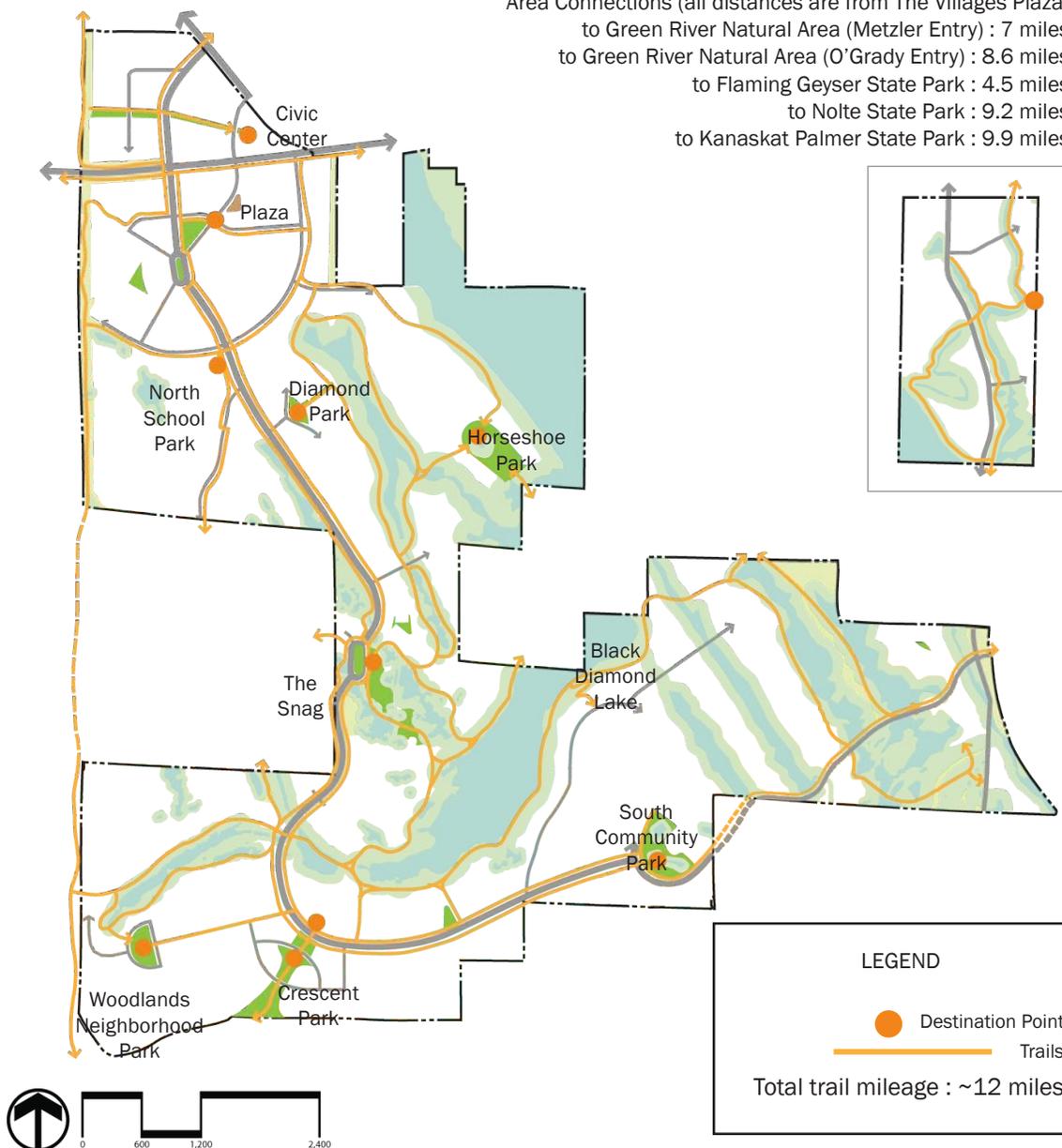
Facility Type	Level of Service	Required Facilities	Timing of Facilities	Optional off-site construction or Fee-in-Lieu
Youth Baseball / Adult Softball field	1:2000	6	Must provide a minimum of 1 Youth Baseball / Adult Softball field prior to each 800th unit receiving Certificate of Occupancy.	The Master Developer may elect to construct or pay a fee of \$100,000 per Youth Baseball / Adult Softball field not otherwise provided. Construction or fee shall be prior to each 800th occupancy.
Adult Baseball Diamond	1:5000	2	Must provide a minimum of 1 Adult Baseball Diamond prior to each 2,400th unit receiving Certificate of Occupancy.	The Master Developer may elect to pay a fee of \$125,000 per Adult Baseball Diamond not otherwise provided. The fee shall be paid prior to each 2,400th occupancy.
Community Center	1:10,000	1	A Community Center must be provided prior to the 3,000th unit receiving Certificate of Occupancy. The Community Center may be co-located with a swimming pool, skate park, tennis and basketball courts, play area, required fields and/or other recreational amenities. The community center shall primarily benefit the residents of the MPD, but the Master Developer may elect to make it available on a fee basis to the entire community.	
Skate Park	1:10,000	1	A Skate Park must be provided prior to the 3,000th unit receiving Certificate of Occupancy. The Skate Park may be co-located with other recreational facilities or located off-site.	The Master Developer may elect to pay a fee-in lieu for the required skate park to be constructed by the City. The fee shall cover the actual cost of construction up to a maximum value of \$80,000. The fee shall be paid prior to the 3,000th unit receiving Certificate of Occupancy

Facility Type	Level of Service	Required Facilities	Timing of Facilities	Optional off-site construction or Fee-in-Lieu
Youth Football Field	1:10,000	1	Must provide a minimum of 1 Youth Football Field prior to the 3,000th unit receiving Certificate of Occupancy.	The Master Developer may elect to pay a fee in lieu of construction of the Youth Football Field that is not otherwise provided. The fee shall be \$100,000 and shall be paid prior to the 3,000th unit receiving a Certificate of Occupancy.
BMX Track	1:20,000	0		
Community Swimming Pool	1:20,000	0	Any swimming pool provided shall be combined with a community center or other similar facility to provide restrooms and changing facilities. The facility shall primarily benefit the residents of the MPD. The Master Developer shall determine the hours of operation and may elect to charge reasonable use and maintenance fees. At the Master Developer's election, the pool may also be made available on a fee basis to residents of the City of Black Diamond.	Each community swimming pool provided shall receive a 1:1 credit towards either an Adult Baseball Diamond or Soccer Field, the choice to be made at the discretion of the Master Developer.
Trails	N/A	N/A	The MPD contemplates several miles of differing trail types. The Master Developer shall receive credit towards any of the required recreational facilities at a rate of \$25,000 per each mile or fraction of trail constructed and open to the public up to a maximum credit of \$300,000.	
Other Recreational Facilities	N/A	N/A	The Master Developer shall retain the right to request recreational credit for other types of recreation provided against the required facilities (such as a designated mountain biking area).	

TRAILS NETWORK

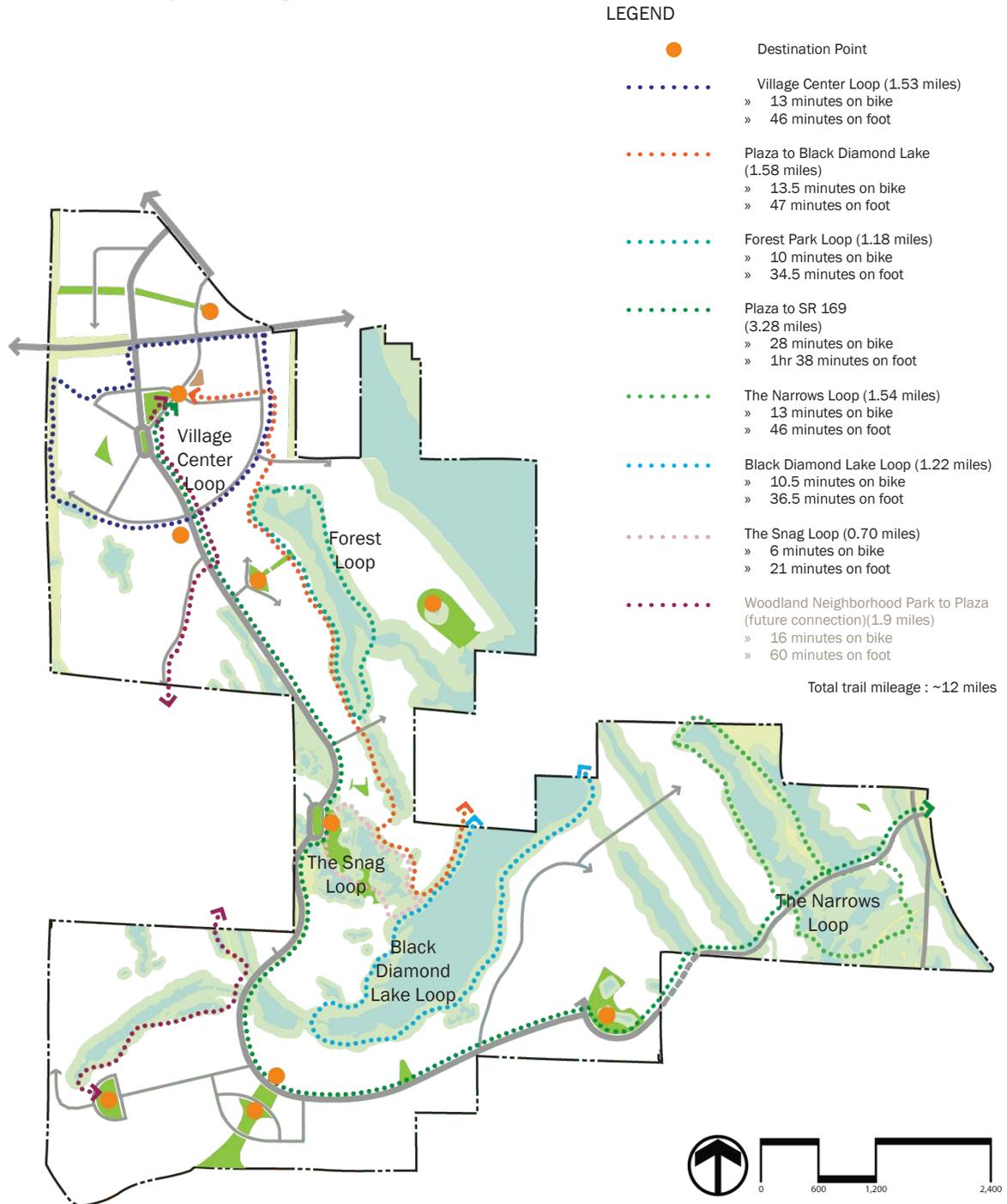
The trails network at The Villages is designed to connect major destinations within the community and to link to the regional trail network outside of The Villages to provide access to significant regional destinations such as Lake Sawyer, the Green River and the regional equestrian facility. Trails, sidewalks and pathways are one of the most desired and popular open space features in new communities because they contribute to a healthy lifestyle, promote alternatives to automobile travel and create a high quality of life for residents. The trails network provides safe and convenient access to parks, natural open spaces, adjoining neighborhoods, schools, the village center, and regional destinations. The trails network is comprised of a series of loops that provide differing surfaces and accommodate differing modes of transportation.

Area Connections (all distances are from The Villages Plaza)
 to Green River Natural Area (Metzler Entry) : 7 miles
 to Green River Natural Area (O'Grady Entry) : 8.6 miles
 to Flaming Geyser State Park : 4.5 miles
 to Nolte State Park : 9.2 miles
 to Kanaskat Palmer State Park : 9.9 miles



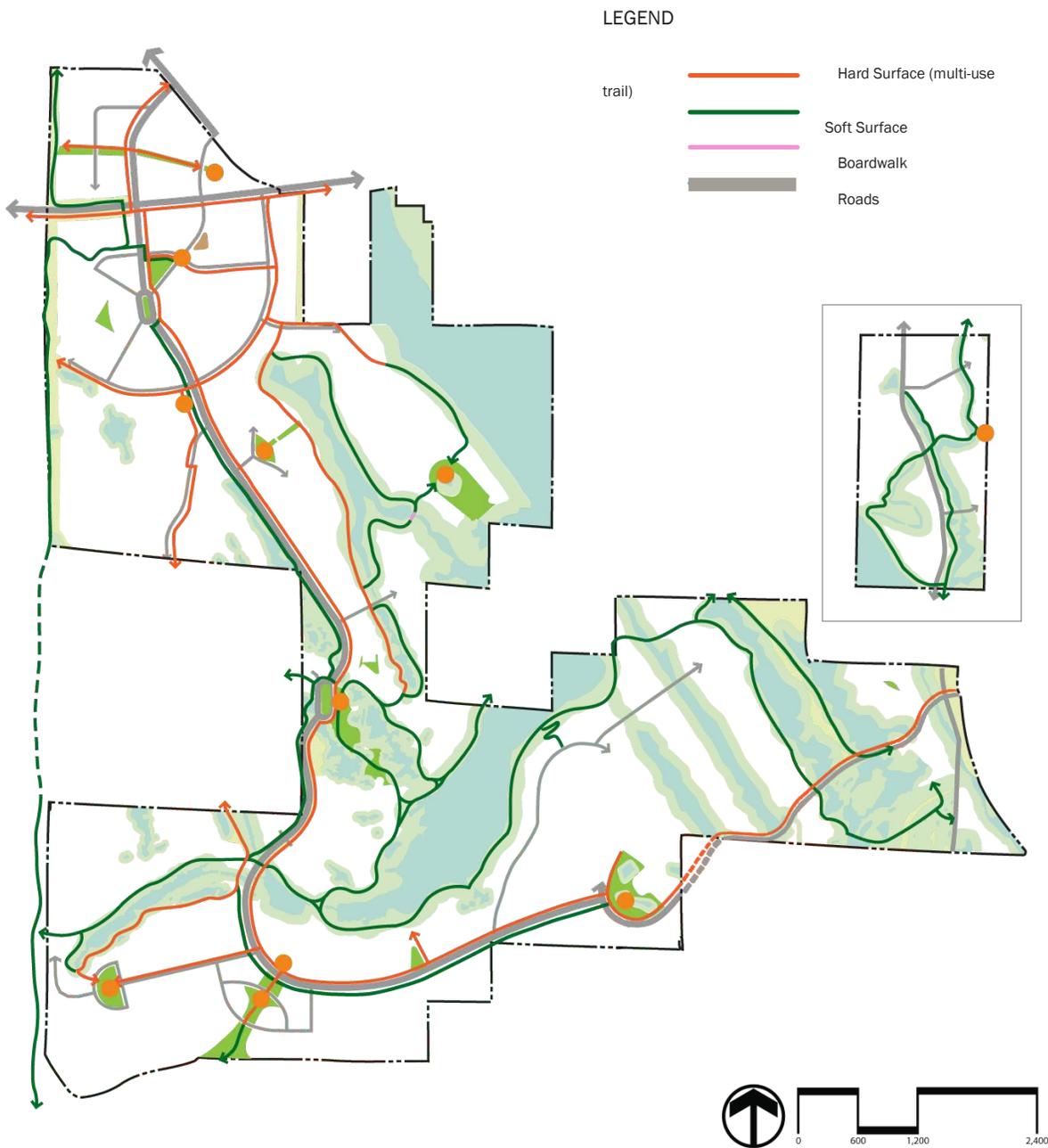
TRAIL LOOPS

Creating multiple looping routes within the community is an important objective of the trails network. Loops provide route choices to destinations, offer differing experiences along their alignments and allow users to fit a route to the time they have available and their recreational needs. They can choose short loops if time is a premium or they can choose longer routes to extend exercise or exploration. Each loop offers an experience different from other locations in the community. Users can customize their experiences to their desires by choosing specific loops.



TRAIL TYPOLOGIES

Trail users have differing needs depending on their skill levels and their purposes for using the trail system. To accommodate a full range of trail users, the trails network combines on-road and off-road trails and provides a variety of paved and unpaved surfaces. The trail network includes sidewalks in most street rights-of-way, on-street bike lanes/routes, off-road multi-use trails (paved or unpaved), and equestrian and hiking trails that link to regional destinations. Access to sensitive wetland areas is controlled and protected with appropriate trail alignments and surface materials. Boardwalks and soft-surface trails are used in these locations and can support wildlife observation and outdoor educational opportunities.



TRAIL STANDARDS

Each trail typology has an associated set of trail standards for widths, surfaces and other design requirements. The standards matrix below outlines the design standards for the proposed trails in The Villages.

RECOMMENDED TRAIL STANDARDS						
Use	Layout	Length	Clearing Width	Clearing Height	Tread Width	Trail Surface
ADA	Loop trails with cutoffs make trails feasible for a variety of different abilities.		Refer to the Americans with Disabilities Act for specific details			
Hiking	Loop system works well to provide variation in distances for day users. Vary landscape type and user experience.	<ul style="list-style-type: none"> Day use: 1/4 -5 miles (1/2 day) 5-15 miles (full day) Backpacking: 25 or more miles 	<ul style="list-style-type: none"> Light use: 4-6 feet (one-way traffic) Heavy use: 8-12 feet (two-way traffic) 	8 feet	<ul style="list-style-type: none"> Light use: 2-3 feet (one-way traffic) Heavy use: 4-8 feet (two-way traffic) 	<ul style="list-style-type: none"> Light use: Natural surface with gravel in wet areas Heavy use: Natural if possible, woodchips or gravel
Bicycling	Single direction trails favored. Loop or linear destination trail.	<ul style="list-style-type: none"> Avg speed: 8-20 mph. Min length is 1 mile, most bicyclists cover 10-20 in a single day, experienced riders up to 50 miles. Day use: 5-10 miles (1/2 day), 10-20 miles (full day) 	<ul style="list-style-type: none"> Mountain bicycle: 6-8 feet Touring bicycle: 8 feet (one way traffic), 10-14 feet (two-way traffic) 	8-10 feet	<ul style="list-style-type: none"> Mountain bicycle: 2-3 feet Touring bicycle: 4-6 feet (one way traffic), 8 feet (two-way traffic) 	<ul style="list-style-type: none"> Mountain bicycle: Natural surface. Touring bicycle: 2" asphalt surface with a 3-4" base of compacted gravel.
Multi-Use	Design varies depending on context: greenway or river trail, paved urban trail, rail-to-trail, or roadside separated pathway.	Varies	14-26 feet	<ul style="list-style-type: none"> Pedestrian/ Bicycle: 8 feet Equestrian: add 4-6 feet 	<ul style="list-style-type: none"> Pedestrian/ Bicycle: 6-12 feet If narrower nature pathway, provide passing areas. Equestrian: 4-10 feet 	Can be combination of paved and natural surface depending on bike/jogging use. Soft surface optimal for equestrian, hiking and mountain bicycle.

Turning Radius	% Grade	Sight Distance	Compatible Uses	Incompatible Uses	Facilities
Not critical, avoid sharp-angled turns if possible to prevent short-cut trails from occurring.	Desired: 0 - 5% Max: 15% sustained, 40% shorter than 50 yards Outslope: 4% max	Not critical except with multi-use or intersections.	Equestrian (low use), accessibility trails.		Parking area, picnic area, resting areas, overlooks, water, info board, signs.
Wide, gentle curves are ideal, tight turns require run outs and warning signs. • Mountain bicycle: 4 feet (min)	Switchbacks with barriers and run outs can be utilized on steep slopes. Intersections with motorized roadways should be located on level grades. • Desired: 0-3% • Max: 5-10% (sustained), 15% (<50 yards) • Outslope: 2-4% max	100 feet or more critical at motorized road crossings and two-way trails. • Desired: 100 feet • Min: 50 feet	Summer: Hiking and accessibility trails.	Equestrian	Parking area, bicycle racks, information board, signs.
Varies	• Desired: 1-10% • Max: 10% (sustained), 20% (<50 yards)	50-100 feet	• Summer: Hiking, equestrian and accessibility trails. Biking may be incorporated if there is sufficient trail width.	Summer: ATV, Equestrian	Parking area with space for trailers, picnic area, water, bicycle racks, shelters or rest stops, rest rooms, info board, signs.

MULTI-USE TRAIL SECTION CONCEPT

The trail concepts depict typical cross-sections for both hard and soft-surfaces trails and illustrate the dimensional standards contained in the standards matrix. These trails accommodate a variety of users including hikers, runners, bicyclists, and equestrians. The typical cross-sections may vary in certain locations in order to fit existing natural conditions and site constraints.



SOFT-SURFACE TRAIL SECTION CONCEPT



BOARDWALK TRAIL SECTION CONCEPT

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