

APPENDIX B:
DESIGN & DEVELOPMENT GUIDELINES



CITY OF CAMAS
Washington

parks, recreation and open space
comprehensive plan update

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DESIGN & DEVELOPMENT GUIDELINES

Design and development guidelines are intended to provide planning and site programming guidance and direction. However, every site is different, and every neighborhood is different. The guidelines are not intended to override site specific concerns or judgments. For example, during the design of a specific park, if community preferences differ from the guidelines but are consistent with park function and the overall guidance of the Plan, citizen preferences should take precedence.

For each park classification, a description of the classification, considerations for site selection, features to provide, amenities to consider, and features to avoid (if any) are described.

I. NEIGHBORHOOD PARKS

Definition: Neighborhood parks provide close-to-home recreation opportunities. These parks provide both active and passive recreation opportunities for people living within approximately one-half mile of the park. Typical facilities found in a neighborhood park include playground equipment, picnic areas, open grass areas for passive use, outdoor basketball courts, and multi-use open grass areas for practice field sports. Neighborhood parks in Camas often include sports fields such as soccer or baseball. Grass Valley Park and Goot Park are examples of typical neighborhood parks in Camas. Neighborhood parks should be located and designed based on the scale and type of surrounding uses. During site master planning, parks in locations with higher residential density should be designed with more resilient features and facilities that can withstand more intensive use.

Site Selection and Design:

- Neighborhood park sites should be 5 to 10 acres in size. The minimum size for neighborhood parks is 3 acres when land constraints do not allow a larger site.
- At least 50% of a neighborhood park site should be suitable for active uses.
- The site should have good visibility from surrounding streets and have a minimum of 200' of street frontage.

- The site should be relatively central to the area it is intended to serve (within about ½ mile of the intended users).
- The site should be accessible by walking, bicycling, or driving. Connections to the community trail network should be provided, where possible, to facilitate walking and bicycling. Sidewalks should be provided.

Recommended Park Features to Include:¹

- Playground equipment
- Picnic area with shelter
- Open lawn area, minimum 75' x 100'
- Multi-use field intended for practices and informal games
- Paved courts (minimum 1 basketball or 2 tennis courts)
- Interior accessible path (paved route connecting all site elements)
- Water fountain
- Site furnishings (benches, picnic tables, bicycle racks, trash receptacles, signs, etc.)
- Restrooms (permanent structure)
- Parking should be provided on a neighborhood scale, minimizing additional impacts to neighbors. On-street parking is preferred.

Additional Park Features to Consider:

- Sports fields for baseball, softball, or soccer (artificial turf and field lighting subject to site conditions)
- Skate park or skate facilities
- Sand or grass volleyball courts
- Other sporting facilities (horseshoes, bocce, lawn bowling, etc.)
- Water playground
- Community gardens
- Off-leash dog area
- Natural area interpretation (if features are present on the site)

¹ Pending site conditions and master planning.

- Other features in keeping with the function of neighborhood parks

Park Features to Avoid:

- Regional-scale facilities (large sports complex, community center, etc.)

II. SPECIAL USE AREAS

Definition: Special use areas are sites that are occupied by a specialized facility or that fulfill a specialized purpose. Some uses that fall into this park type include waterfront parks, boat ramps, interpretive centers, botanical gardens, community gardens, single purpose sites used for a particular field sport or sites that offer indoor recreation opportunities. Fallen Leaf Park and the Camas Community center are examples of special-use areas in Camas.

Site Selection:

- Site size should be adequate to support the proposed specialized use, as well as necessary supporting facilities, including parking, stormwater management, etc.
- Site selection criteria will be dependent on the specific specialized use proposed, and may include criteria determined through an economic feasibility study.
- The site should be accessible from the communitywide trail system.
- Prior to the addition of any special use areas, the City should prepare a detailed cost/benefit analysis and maintenance impact statement for each proposed site being considered.

Minimum Park Features to Include:²

- Specialized use facility (indoor or outdoor)
- Site furnishings (benches, picnic tables, bicycle racks, trash receptacles, signs, etc.) appropriate for the intended scale and use of the park
- Restrooms (permanent structure)
- Parking, on or off-street

Additional Park Features to Consider:

- Additional features and amenities that support the primary special use on the site. These could include
 - Playground equipment
 - Open lawn area
 - Picnic area with shelter

² Pending site conditions and master planning.

- Multi-use fields
- Sports fields for baseball, softball, or soccer designed for intensive use, including formal practices, games and tournaments.
- Skate park or skate facilities
- Sand or grass volleyball courts
- Other sporting facilities (horseshoes, bocce, lawn bowling, etc.)
- Water playground
- Community gardens
- Off-leash dog area
- Natural area interpretation (if features are present on the site)
- Concessions, vendor, or lease space

Park Features to Avoid:

- Features that conflict with or detract from the site's specialized use.

III. NATURAL OPEN SPACE AREAS

Definition: Natural open space is defined as undeveloped land primarily left in its natural form with passive recreation use as a secondary objective. It is usually owned or managed by a governmental agency and may or may not have public access. This type of land often includes wetlands, steep hillsides or other similar undevelopable spaces. In some cases, environmentally sensitive areas are considered as open space and may include wildlife habitats, stream and creek corridors, or unique and/or endangered plant species. There are currently a number of natural open space areas with a variety of functions and landforms in Camas.

Site Selection:

- Site size should be based on natural resource and connectivity needs.
- Public use of natural open space sites should be encouraged through trails, viewpoints, and other features, but environmentally sensitive areas should be protected.
- The site should have access to a public street, to public land, or contribute to the planned open space network.
- Features in natural open space areas should be limited to those appropriate for the numbers and types of visitors the area can accommodate, while retaining its resource value, natural character, and the intended level of solitude.

Minimum Park Features to Include:

- Trails
- Site furnishings (benches, picnic tables, bicycle racks, trash receptacles, signs, etc.) appropriate for the intended scale and use of the natural area

Additional Park Features to Consider:

- Trailhead or entry kiosk
- Interpretive signage or exhibits
- Viewpoints
- Parking, on or off-street
- Restrooms
- Picnic area with shelter
- Outdoor classroom/gathering space
- Interpretive center or building
- Environmental restoration areas

Park Features to Avoid:

- Features that conflict with or detract from the site's natural resources, such as turf, ornamental plantings, and active uses such as sports fields.

IV. TRAIL DEVELOPMENT STANDARDS

The Trail Development Standards accompany the recommended trail segment descriptions listed in Chapter Four of the PROS Plan and shown on the Trail System Concept Map. The proposed system includes both paved and unpaved trails, under the City's ownership or managed by other jurisdictions or private entities.

For proposed trails located within Camas , the City will accept, acquire, own and maintain the trail and its related right-of-way. On recommendation of the Parks Commission, and approval of the City Council, the City may additionally, in the future, recognize other trails for inclusion in the City-owned and maintained system. As trails and open space are reviewed for inclusion in the City-owned and maintained systems, cost of maintenance is a factor to be considered in the review.

Trail right-of-way and trail width and surfacing will vary, depending on the unique conditions of each trail segment. Unless otherwise specified, interpretation of these standards is intentionally flexible to allow for site conditions such as right-of-way or easement width, steep slopes, setbacks and environmentally sensitive areas.

The trail development standards are described below, including general trail development policies, trail classifications, and trail design standards.

General Trail Development Policies

- 1) The Camas trail network is designed to meet multiple objectives, providing recreation as well as active transportation for pedestrians and bicyclists.
- 2) Whenever possible, the trails depicted on the Draft Trails System Concept Map should not be a part of a street roadway. Where routes use existing streets, the pathway should be designed to minimize potential conflicts between motorists and trail users through the use of both physical separation distance and landscaping.
- 3) The trail network should be aligned to maximize the number and diversity of enjoyable viewing opportunities, to increase user enjoyment and provide multiple benefits.

- 4) Specific trail alignments should take into account soil conditions, steep slopes, surface drainage and other physical limitations that could increase construction and/or maintenance costs.
- 5) Trails should be planned, sized, and designed for non-motorized uses, in accordance with the design standards. Trails should also be designed to accommodate maintenance and emergency response to the extent practicable.
- 6) Centralized and effective staging areas should be provided for trail access. Trailheads should include parking, orientation and information, and any necessary specialized unloading features.
- 7) The trail network should be looped and interconnected to provide a variety of trail lengths and destinations. The trails should link various parts of the community, as well as existing park sites.
- 8) Developers should be encouraged to provide pathways through their development and provide access to the communitywide trail system.
- 9) Trails should be developed throughout the community to provide linkages to schools, parks, and other destination points. Each proposed trail should be reviewed on a case by case basis to determine if it should be part of the city's overall trail system.
- 10) Accessible trails should be designed to meet accessibility guidelines for trails.

Trail Classifications

The four classifications of trails include: Regional, Local, Rustic, and Semi-Primitive. A primary distinguishing feature of City-owned trails is that these trails predominantly serve community-wide and regional purposes and receive this level of use. Local and secondary trails generally serve a local scale, at the neighborhood level. Such local and secondary trails will generally be owned and maintained by Homeowners Associations. While Regional and Local trails are designed as multiple use trails, Rustic and Semi-Primitive trails can be designed as single use trails.

A detailed description of each of these classifications follows on subsequent pages.

1A. Regional Trail

This trail type is designed to accommodate multiple uses (walking, running, bicycling) and connect to adjoining jurisdictions or destinations. The surfacing should be a minimum of 12 feet wide and be constructed of a hard surface material such as asphalt or concrete. Exceptions to surfacing materials may occur to mitigate impacts to critical or sensitive areas. Equestrian use could be permitted if an additional unpaved shoulder area is provided. The right-of-way required for regional trails should be 26 to 52 feet, depending on their location and surroundings. This type of trail is typically located off roadway surfaces and within its own corridor. A diagram of this trail standard is located in Figure B1.

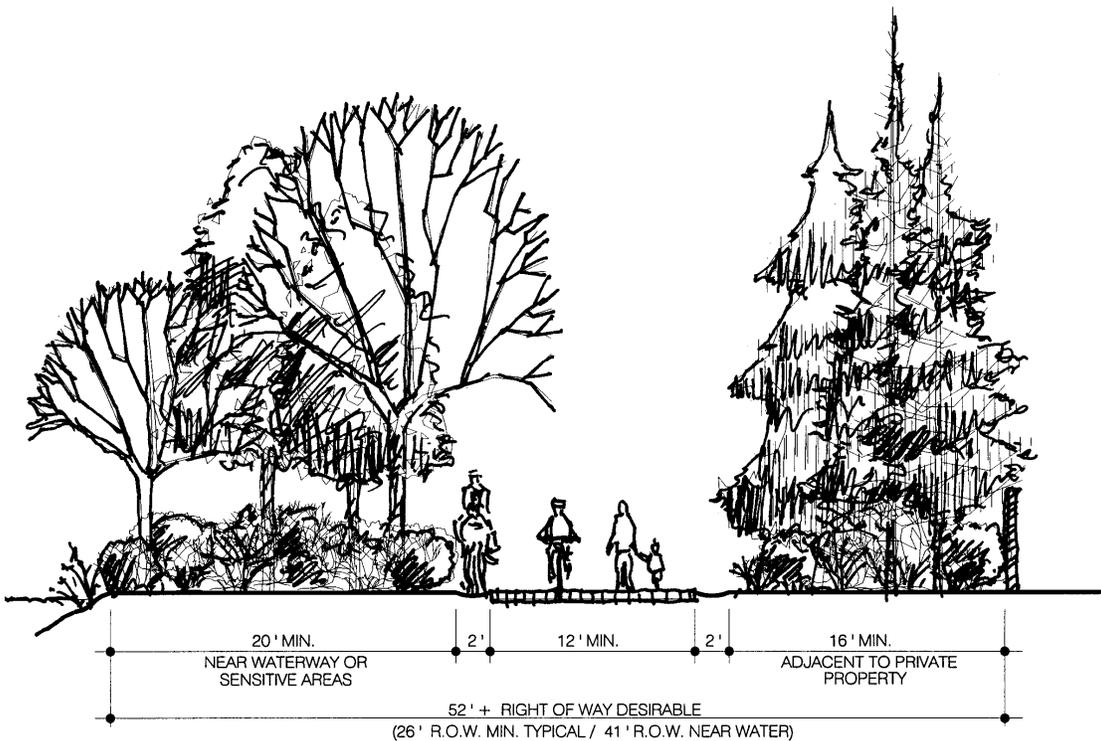


Figure B1
Section of Typical Regional Trail
(Class 1A)

2A. Local Trail

This trail type is designed to serve the local community and also provide access to the regional trail systems. It should be considered the “backbone” of the city’s trail network. The trail width should range from six to ten feet depending on the use and the terrain involved. It can be designed to accommodate the same uses listed for the regional trail. The surface for this type of trail may be paved or crushed aggregate depending on the use. Exceptions to surfacing materials may occur to mitigate impacts to critical or sensitive areas. The right of way for the local trail can range from 24 feet to 40 feet and can also be located on-road or off-road. Figure B2 is a typical configuration of a local trail.

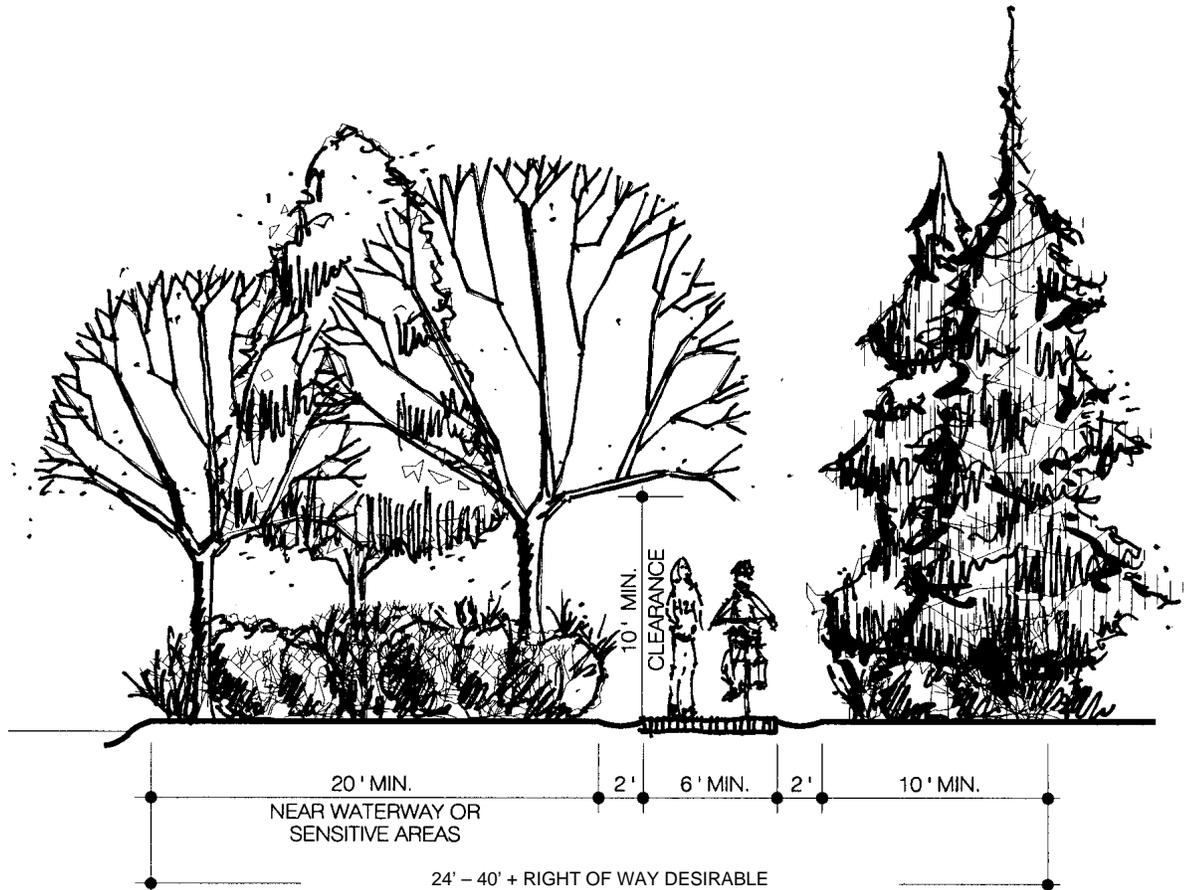


Figure B2
Section of Typical Local Trail
(Class 2A)

3. Rustic Trail

This trail type provides access to local trails, and is more neighborhood-oriented. These trails will act as collectors for neighborhoods or developments and provide links to the communitywide trail system and other adjoining destinations. The rustic trail should be a minimum of four feet wide and be surfaced with stable accessible surfacing. The primary uses of a rustic trail are intended to be walking, bicycling and equestrian. The right-of-way widths desired for the rustic trail can range from 24 feet to 30 feet or more. These trails are always off-road in nature. Figure B3 details this trail classification.

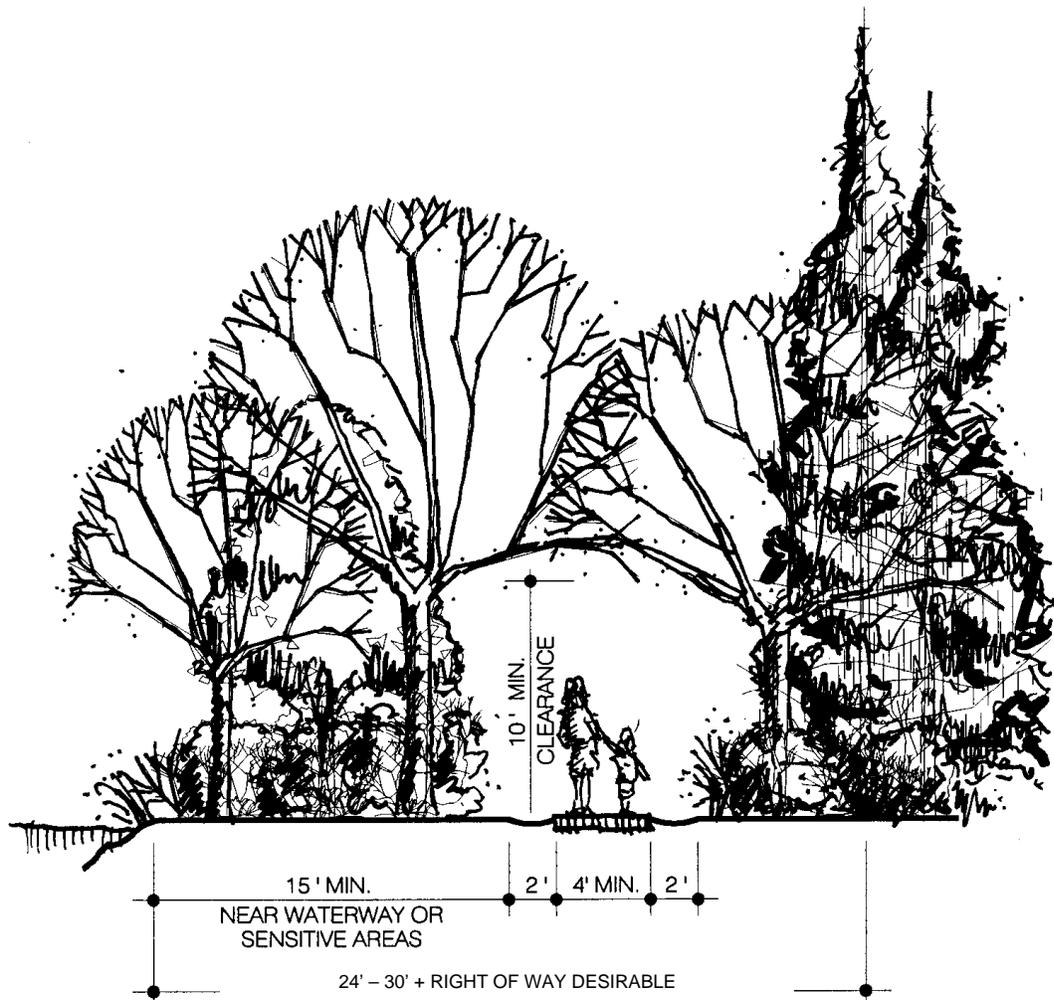


Figure B3
Section of Typical Rustic Trail
(Class 3)

4. Semi-Primitive Trail

This trail type is more specialized with regard to use, but it is more easily adaptable to the open space areas. It will serve in the more sensitive open space areas located within the city. It is designed to accommodate walkers, hikers, bicyclists, and equestrian users. It is typically two to four feet in width and is made up of compacted earth or other stable surfacing. The right-of-way width can range from ten to 20 feet. Typically, maintenance of these trails is minimal. Figure B4 below details the standards for this trail.

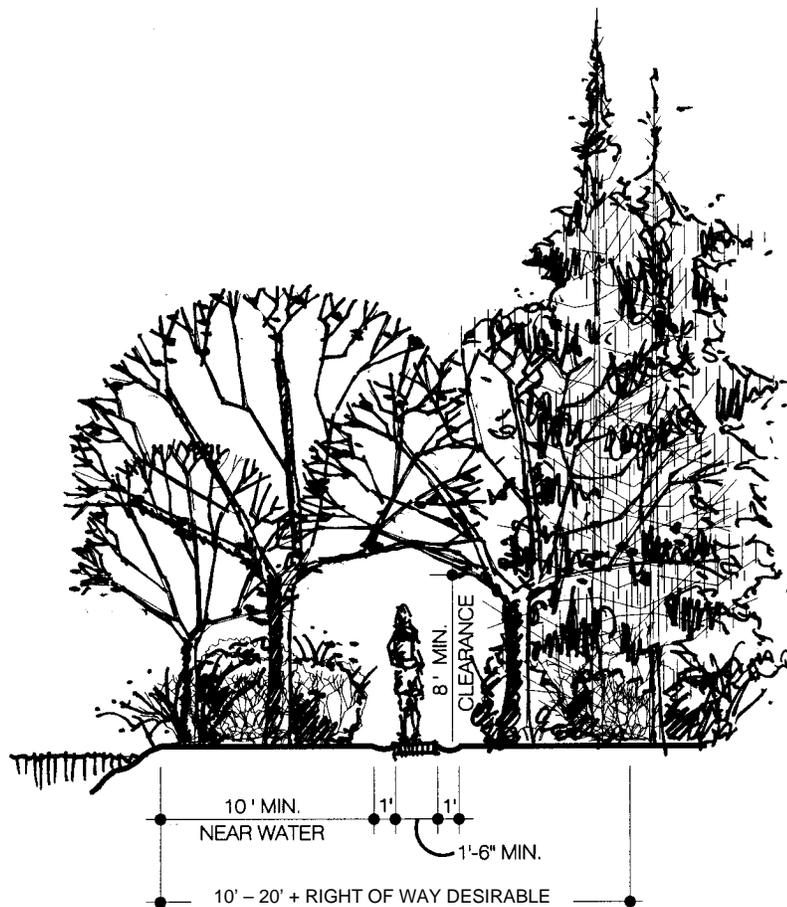


Figure B4
Section of Typical Semi-Primitive Trail
(Class 4)

Summary of Trail and Bikeway Standards

Table B1 summarizes trail standards by trail type. In addition to the trail classifications described previously, the table includes bike lane standards as specified the City’s *Design Standard Manual* and *Clark County’s Bicycle and Pedestrian Master Plan*.

Table B1
Summary of Trail/Bikeway Classifications

TRAIL TYPE	R.O.W. WIDTH	TRAIL/ FACILITY WIDTH	SURFACING	CLEARANCE
1A. Regional Multi-Use Trail	26’ Min. (52’ or more desired)	12’ min.	paved asphalt or concrete	side: 2’ min. height: 10’ min.
1B. Regional Bike Lane	N/A	6’ min.	paved asphalt or concrete	side: 2’ min. height: 10’ min.
2A. Local Trail	24-40’ or more desired	6-10’	paved or stable, accessible surfacing	side: 2’ min. height: 10’ min.
2B. Local Bike Lane	N/A	4’ min. (may not be striped)	paved asphalt or concrete	side: 2’ min. height: 10’ min.
3. Rustic Trail	24-30’ or more desired	4’+	stable, accessible surfacing	side: 2’ min. height: 10’ min.
4. Semi-Primitive Trail	10-20’ or more desired	1.5’+	compacted earth or similar	side: 1’ min. height: 8’ min.
Accessible trails should not exceed a 1:12 (8.33%) running slope for more than 30% of the total length of the trail, or exceed more than a 1:8 (12%) running slope for any trail segment. Source: 2013 Outdoor Developed Area Guidelines, Architectural Barriers Act.				

Locating Trails in Sensitive (Critical) Areas

The large number of environmentally sensitive (critical) areas in Camas makes it likely that trails will be developed in some of these areas. The benefits of public access to natural areas (bird watching, nature appreciation, and environmental education) need to be balanced with the impacts of access.

Trails in environmentally sensitive areas will need to be carefully and appropriately located and designed. Exceptions to the trail

improvement standards set forth in this Plan may be authorized in sensitive areas consistent with current best practices. This document recommends a thorough review and assessment of existing and proposed trail corridors, and careful placement of trails within sensitive areas to aid in minimizing the impacts. Guidelines for determining the suitability of trail locations in sensitive areas include the following:

- 1) Provide a minimum 20-foot wide vegetated buffer between wetland, sensitive area or water edge and the trail.
- 2) Construct boardwalks, railings, see-through fences and viewpoints to allow visual access to the areas and to keep trail users on the trail and away from the habitat.
- 3) Design wetland crossings for maximum protection of the wetland and locate them in an area suitable for public use.
- 4) Provide adjacent vegetation at access points that is dense enough to discourage off-trail travel. If necessary, install additional thick or thorny vegetation to prevent access.
- 5) Cover earthen based trails with dense turf where it crosses floodplains or other areas subject to periodic flooding to reduce puddling and walkers skirting the area.
- 6) Site trails away from active stream channels to prevent local bank erosion cause by trampling. In streamside locations where access is permitted or encouraged, provide access via boardwalks.
- 7) Locate bridge crossings in locations that will provide minimum impact to the water's edge and habitat while providing a rewarding experience for the trail user.

Trailheads

Two classifications of trailheads exist in Camas: primary trailheads and secondary trailheads. The majority of trailheads can occur within existing and proposed park sites. Where no other option is available and a trailhead is necessary, then a freestanding trailhead may be required.

A. Primary Trailheads

Typically, primary trailheads will include:

- Off-street parking. The number of parking spots is dependent on use – 20 spaces is a guideline, but this amount is not necessarily required.
- Restroom facilities
- Drinking fountain
- Telephone
- Picnic areas
- Appropriate signage/directories

B. Secondary Trailheads

Secondary trailhead will generally include:

- Appropriate signage/directories
- Off-street parking may or may not be provided for secondary trailheads. However, secondary trailheads in remote locations should have a maximum of three spaces.

Trailhead design will need to consider the need for utility connections and regular maintenance. Ongoing monthly and long term capital costs should be minimized through the use of labor saving design elements where ever possible.

V. TRAIL SAFETY

The ideal trail is planned and designed with safety considerations taken into account. There are two issues involving safety concerning trail users. One is danger due to normal trail use, and the other is personal safety of users.

A number of methods can be implemented to increase the safety of trails to users. Some of these are outlined below:

- **Open and Visible Trails:** If trail guidelines are followed, the resulting trails will provide open and visible corridors to both users and law enforcement personnel. Visibility increases a person's sense of safety.
- **Safe Design:** If deemed necessary, techniques such as emergency call boxes, lighting, security vehicle access, and landscaping can be designed can be installed to increase safety.
- **Reduction of Trail Conflicts:** A number of problems occur on multi-use trails where two types of users are interacting. Good design, signage, and awareness of trail etiquette all reduce problems associated with these conflicts.
- **Coordination with Public Safety:** By making area law enforcement and public safety officials aware of trail routes, trailheads, and potential problem areas, they can develop emergency response plans and a method of policing the area the most efficiently.
- **Bicycle Patrols:** These patrols, made up of police or volunteers, can provide security on the trails. In addition to safety, patrols can provide information, offer bicycle safety checks, and do other service duties. Overall, the most important part is providing "eyes" on the trail system to reduce potential problems.
- **Organized Programs:** The City can set up programs of volunteer guides to accompany those who wish to use a specific segment as a group. This can either be on a specific request basis or be integrated into the recreation programs. Organized programs, such as a special event nature walk, increase "eyes" on the trail.

- **Adopt-A-Trail Program:** Through an adopt-a-trail program, private groups, organizations, or individuals are encouraged to adopt trail segments or corridors by volunteering or providing donations for maintenance and development.
- **Neighborhood Trail Watch Program:** Through a neighborhood trail watch program, property owners adjacent to trails can be encouraged to monitor nearby trails and report maintenance or operation problems to the City, and to report vandalism or other inappropriate activity to the Police Department.