



# PARKS AND PATHWAYS

**Planning, Development, and  
Operational Guidelines**



**ROCKY VIEW COUNTY**  
Cultivating Communities



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*Disclaimer: Please note that this document does not provide specific details on how to plan, construct or maintain county lands; rather, this information can be found in various sources listed at the end of this document. These documents should be consulted when designing any new pathway or trail, park development or considering upgrades to existing infrastructure. This document is intended to be reviewed and updated on an ongoing basis to reflect any changes in requirements, best practices, statutes or standards. Diagrams and specifications are representative, and are subject to change.*

# Rocky View County's Parks and Open Space Master Plan

Throughout the years, County land has evolved into a diversified mosaic of public parks, informal open spaces and recreation facilities; ranging from smaller local parks to extensive, regionally and nationally significant land holdings.

Recognizing the crucial value that public parks and open space play in the creation of vibrant and attractive communities; it was decided that a plan was required to provide direction to ensure sustainable growth of the County's natural capital and the evolution of an integrated pathways and trail system.

In 2011, after two years of research, public consultation and visioning strategies; Rocky View County adopted its first Parks and Open Space Master Plan.

The strategy for the Master Plan is to provide direction for the acquisition and development of parks and open spaces; and the continued development and evolution of a regional and local pathway and trail system outward beyond our municipal borders and blend seamlessly with our neighbours.

The County's integrated park and open space system serves a valuable mechanism for accomplishing two distinct, yet equally important purposes:

1. Provide opportunities for residents, employees and visitors to pursue leisure activities in safe, accessible, and enjoyable parks and community recreational facilities; and
2. Protect and preserve environmentally sensitive land, habitat connectivity, and water resources, and areas of archaeological, historical and/or cultural significance.

## Purpose of this Document

In order to ensure that our parks, open spaces, pathways and trails provide a positive legacy for years to come; this document serves as a comprehensive guide for the development community and county residents to use when contemplating this valuable legacy.



# **PARKS AND OPEN SPACE**



The County possesses a strong commitment to conserve and preserve our natural spaces to ensure that a legacy of sustainability is realized for generations to come.

## Parks and Open Space in our Communities

In the County; parks and open space are typically acquired through development activities; including residential, commercial and industrial development. Secured as Municipal Reserve land, these lands may be developed into amenity rich Regional Parks, or kept in a quasi-natural state with minimal recreational amenities present. These classifications serve to accommodate both rural and urban style development and their respective parks and open space needs.

Recognizing the importance of our natural environment, and the critical need to protect and secure these lands from future development; the use of Environmental Reserve dedication is a powerful tool which allows the County to protect sensitive lands in perpetuity. The County possesses a strong commitment to conserve and preserve our natural spaces while also offering educational and recreation opportunities where appropriate to the public to ensure that a legacy of sustainability is realized for generations to come.

## PARK AND OPEN SPACE CLASSIFICATIONS

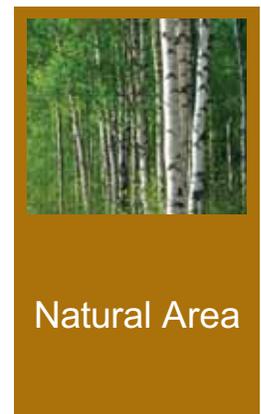
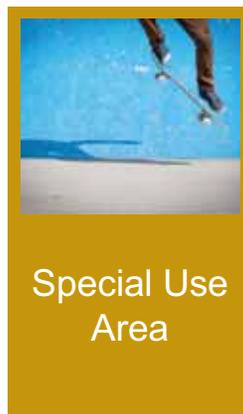
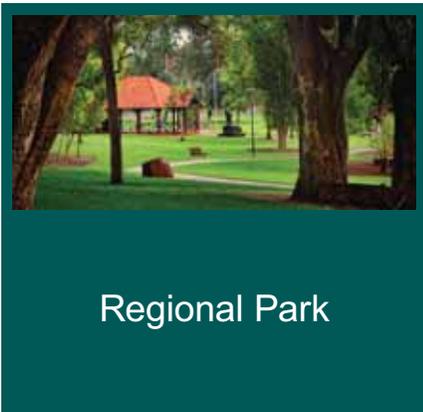
Rocky View County Parks have been classified based upon area and regional context and are scaled to accommodate rural and urban neighbourhoods alike.

Rocky View County Administration recognizes that our communities and neighbourhoods are diverse and therefore have different needs and expectations.

Recognizing our urban communities, the inclusion of the Urban Plaza classification provides residents with an exciting opportunity for congregation within centralized urban commercial locations.

In addition to developed and planned parks, the County also has a large inventory of natural open spaces which are recognized as Greenways and Natural Areas.

In order to facilitate connecting our communities and neighbourhoods, linear Greenways are utilized to accommodate pathway and trail linkages. Purposeful landscaping provides a naturalized aesthetic within these greenways which further enhances our communities and ultimately provides a positive user experience. Natural Areas serve a vital role by preserving environmentally sensitive land, historical and cultural locations and also protect valuable wildlife habitat.





## Regional Park

The purpose of a Regional Park is to serve as a destination area for people of all-ages and abilities to partake in active and passive recreational activities. The overall design of these parks is intended to accommodate structured athletic activities such as tournaments; cultural activities such as festivals; in addition to non-structured recreational amenities such as playgrounds, pathways, picnic areas and informal open spaces. Provisions for indoor recreational activities are possible when a multi-use facility is located within the Regional Park.

# REGIONAL PARK DESIGN GUIDELINES

The following categories explain in detail specific design attributes associated with this classification. The development, operation and maintenance of this classification are subject to the following guidelines, recognized standards and best practices observed and practiced by Rocky View County.

## Access

- Parks should have sufficient street frontage to provide sightlines for safety and access
- Accessible by walking and cycling
- Located near safe street crossings
- Linked to sidewalks, pathways, trails, adjacent parks
- Should provide accessible opportunities to participants of all abilities and mobility
- Provide adequate access for fire, emergency, and maintenance equipment
- Provide adequate off street parking for amenities provided

## Amenities

Examples include but are not limited to:

Aquatic facility	Picnic tables
Benches	Planting beds
Bicycle racks	Playgrounds
Community gardens	Public art
Cultural centres	Restrooms
Farmers markets	Shade structures
Fencing	Signage
Garbage receptacles	Skating rinks
Gazebos	Sports fields
Ice arenas	Spray parks
Lighting	Toboggan hills
Off-leash area	Trees and shrubs
Onsite parking	Viewpoints
Pathways and trails	

## Drainage

- Site should be relatively flat with overall gradient of two – five per cent.
- Low Impact Development principles should be incorporated to ensure functional storm water management

## Functional Design

- Utility right-of-ways should be located along the periphery so as not to interfere with recreational and functional use of park
- Designed for multi-use that has flexibility to change over time
- Ensure mix of shade and non-shade areas to accommodate year round usage and weather conditions.
- Adequate buffering between active and passive use areas, as well as adjacent neighbourhoods.
- Marker posts, fencing, or other methods should be included to delineate site from private space.

## Location

- Adjacent to collector or arterial roads to facilitate vehicular access
- Provide sufficient street frontage to recognize and access park
- Located close to commercial areas where feasible
- Will be considered in commercial, light industrial or institutional areas due to noise levels, traffic, and lighting.

## Functional Size

- Range: From 30 to 100+ acres

## Catchment Area

- Draw participants from a 25 to 50 kilometre radius

## Park Area Requirement Standards

- Six acres per 1000 population



## Community Park

These centrally and strategically located parks serve to provide active and passive recreational needs of several neighbourhoods. Considerably smaller than a Regional Park; Community Parks are intended for community gatherings and small events. In some cases, these parks can be located adjacent to schools and may provide an expanded play area or sports fields.

# COMMUNITY PARK DESIGN GUIDELINES

The following categories explain in detail specific design attributes associated with this classification. The development, operation and maintenance of this classification are subject to the following guidelines, recognized standards and best practices observed and practiced by Rocky View County.

## Access

- Parks should have adequate street frontage to provide sightlines for safety and access
- Centrally located in each community to maximize neighbourhood catchment area
- Should provide accessible opportunities to participants of all abilities and mobility
- Accessible by walking and cycling
- Linked to neighbourhood sidewalks, pathways, trails, adjacent parks, school yards
- Located near safe street crossings
- Provide parking – dedicated street parking or a parking lot

## Amenities

Examples include but are not limited to:

Benches	Pathways and trails
Bicycle racks	Picnic tables
Community gardens	Playgrounds
Cultural installations	Public art
Farmers markets	Restrooms
Fencing	Shade structures
Garbage receptacles	Signage
Gazebos	Sports fields
Lighting	Spray parks
Off-leash area	Toboggan hills
Onsite parking	Trees and shrubs
Outdoor rinks	Viewpoints

## Drainage

- Site should be relatively flat with overall gradient of two to five per cent.
- Low Impact Development principles should be incorporated to ensure functional storm water management

## Functional Design

- Utility right-of-ways should be located along the periphery so as not to interfere with recreational and functional use of park
- Designed for multi-use that has flexibility to change over time
- Ensure mix of shade and non-shade areas to accommodate year round usage and weather conditions
- Provide adequate access for fire, emergency, and maintenance equipment
- Square or rectangular in shape to accommodate sports fields
- Marker posts, fencing, or other methods should be included to delineate site from private space
- Community Parks should be linked with schools where feasible

## Location

- On collector or arterial roads to facilitate vehicular access
- Provide sufficient street frontage to recognize and access park
- Centrally located between neighbourhoods or developments

## Functional Size

- Between eight and 30 acres.

## Catchment Area

- Immediate residential neighbourhood, industrial, or commercial area
- Draw participants from a three kilometre radius

## Park Area Requirement Standards

- Four acres per 1000 population



## Neighbourhood Park

These parks provide nearby recreation and leisure opportunities within walking distance of immediate residential neighbourhoods. Developed to be a social and recreational focus in the neighbourhood, these parks serve as a high use amenity within developed neighbourhoods.

# NEIGHBOURHOOD PARK DESIGN GUIDELINES

The following categories explain in detail specific design attributes associated with this classification. The development, operation and maintenance of this classification are subject to the following guidelines, recognized standards and best practices observed and practiced by Rocky View County.

## Access

- On-street parking is preferred over a delineated parking lot.
- Provision for sufficient street frontage to provide sightlines for safety and access; however they should not have busy street crossings for access.
- Accessible by walking and cycling
- Linked to neighbourhood sidewalks, pathways, trails, adjacent parks.

## Amenities

Benches	Public art
Bicycle racks	Restrooms
Community gardens	Shade structures
Garbage receptacles	Signage
Lighting	Small Playgrounds
Off-leash area	Trees and shrubs
Pathways and trails	Viewpoints
Picnic tables	

## Drainage

- Site should be relatively flat with over gradient of two to five per cent.
- Low Impact Development principles should be incorporated to ensure functional storm water management

## Functional Design

- Square or rectangular in shape to accommodate sports fields
- Marker posts, fencing, or other methods should be included to delineate site from private space.
- Should incorporate open, unobstructed area to accommodate unstructured play
- Ensure mix of shade and non-shade areas to accommodate year round usage and weather conditions
- Location, programming, and design should be consistent with Crime Prevention Through Environmental Design principles.
- Utility right-of-ways should be located along the periphery so as not to interfere with recreational and functional use of park

## Location

- Centrally located within a given neighbourhood
- Provide sufficient street frontage (at least two sides) to recognize and access park
- Locate in close proximity to elementary schools where feasible.

## Functional Size

- Range: From one to eight acres

## Catchment Area

- Immediate residential neighbourhood, industrial, or commercial area
- 500 metre radius

## Park Area Requirement Standards

- Two acres per 1000 population



## Urban Plaza

These gathering areas serve as a social focal point within a commercial development but may also be found adjacent to residential or institutional areas with provisions for off street parking. These plazas provide valuable venues for social interaction and public events such as street festivals, art shows, street performances, and open air markets. Public art or water features may be included as well.

# URBAN PLAZA DESIGN GUIDELINES

The following categories explain in detail specific design attributes associated with this classification. The development, operation and maintenance of this classification are subject to the following guidelines, recognized standards and best practices observed and practiced by Rocky View County.

## Access

- Linked to parks by sidewalks, pathways, trails, adjacent parks
- Minimum of two street frontages to maintain sightlines
- No more than two sides bounded by roads of collector standard
- Perimeter decorative barriers should be installed to block off vehicular access from Plazas

## Amenities

- Function of area will determine amenities

## Drainage

- Site should be relatively flat with over all gradient of two to five per cent
- Low Impact Development principles should be incorporated to ensure functional storm water management

## Functional Design

- Where economically feasible and viable, provisions should be made for frontage to include retail and service establishments to attract people and create a vibrant public space.
- Should be designed for four-season use, day and night use.
- Should be promoted for development in commercial districts, employment centres, and multi-family areas.

## Location

- Variable – based on function and overall neighbourhood design

## Functional Size

- Variable – based on function and overall neighbourhood design

## Catchment Area

- Variable – based on function and draw of adjacent amenity

## Park Area Requirement Standards

- Variable – based on function and overall neighbourhood design



## Pocket Park

Typically, these are small parks which serve the immediate neighbourhood, industrial or commercial use areas and are intended for passive recreation use.

# POCKET PARK DESIGN GUIDELINES

The following categories explain in detail specific design attributes associated with this classification. The development, operation and maintenance of this classification are subject to the following guidelines, recognized standards and best practices observed and practiced by Rocky View County.

## Access

- Parks should have sufficient street frontage to provide sightlines for safety and access
- Accessible by walking and cycling by linking to neighbourhood sidewalks, pathways, and trails

## Amenities

Benches	Pathways and trails
Bicycle racks	Picnic tables
Formalized viewpoints	Planting beds
Garbage receptacles	Public art
Interpretive signage	Shade structures
Lighting	Trees and shrubs

## Drainage

- Site should be relatively flat with overall site gradient between two to five per cent.
- Low Impact Development principles should be incorporated to ensure functional storm water management

## Functional Design

- Ensure mix of shade and non-shade areas to accommodate year round usage and weather.
- May be combined with Neighbourhood Park or small school site where feasible.
- Marker posts, fencing, or other methods should be included to delineate site from private space.
- Utility right-of-ways should be located along the periphery so as not to interfere with recreational and functional use of park

## Location

- Developed adjacent to multi-family areas where feasible
- Spaced throughout community with close proximity to higher density residences

## Functional Size

- Range: from 0.25 to one acre

## Catchment Area

- Immediate neighbourhood, industrial, or commercial area
- Within a 500 metre radius

## Park Area Requirement Standards

- 0.5 acre per 1000 population



## Special Use Area

These areas include a variety of recreational amenities which may include cemeteries, historic sites, campgrounds, day use areas, BMX tracks, mountain bike skills parks, skateboarding parks, off-leash dog parks, nature centres, waterfront parks, equestrian facilities or splash parks. Due to the potential for specialized programming depending on use of site, focused and specific recreational activities for the intended user groups may be required.

## SPECIAL USE AREA DESIGN GUIDELINES

The following categories explain in detail, specific design attributes associated with this classification. The development, operation and maintenance of this classification are subject to the following guidelines, recognized standards and best practices observed and practiced by Rocky View County.

### Access

- Linked to parks by sidewalks, pathways, trails, adjacent park land
- Maintain sightlines into location for sufficient visible street frontage

### Amenities

- Function of area will determine amenities

### Drainage

- Low Impact Development principles should be incorporated to ensure functional storm water management

### Functional Design

- Islands and boulevards within the road right of way that do not receive Municipal Reserve dedication may be considered pocket parks
- Utility right-of-ways should be located along the periphery so as not to interfere with recreational and functional use of park
- Marker posts, fencing, or other methods should be included to delineate public lands from private space.

### Location

- Variable – based on function and overall neighbourhood design

### Functional Size

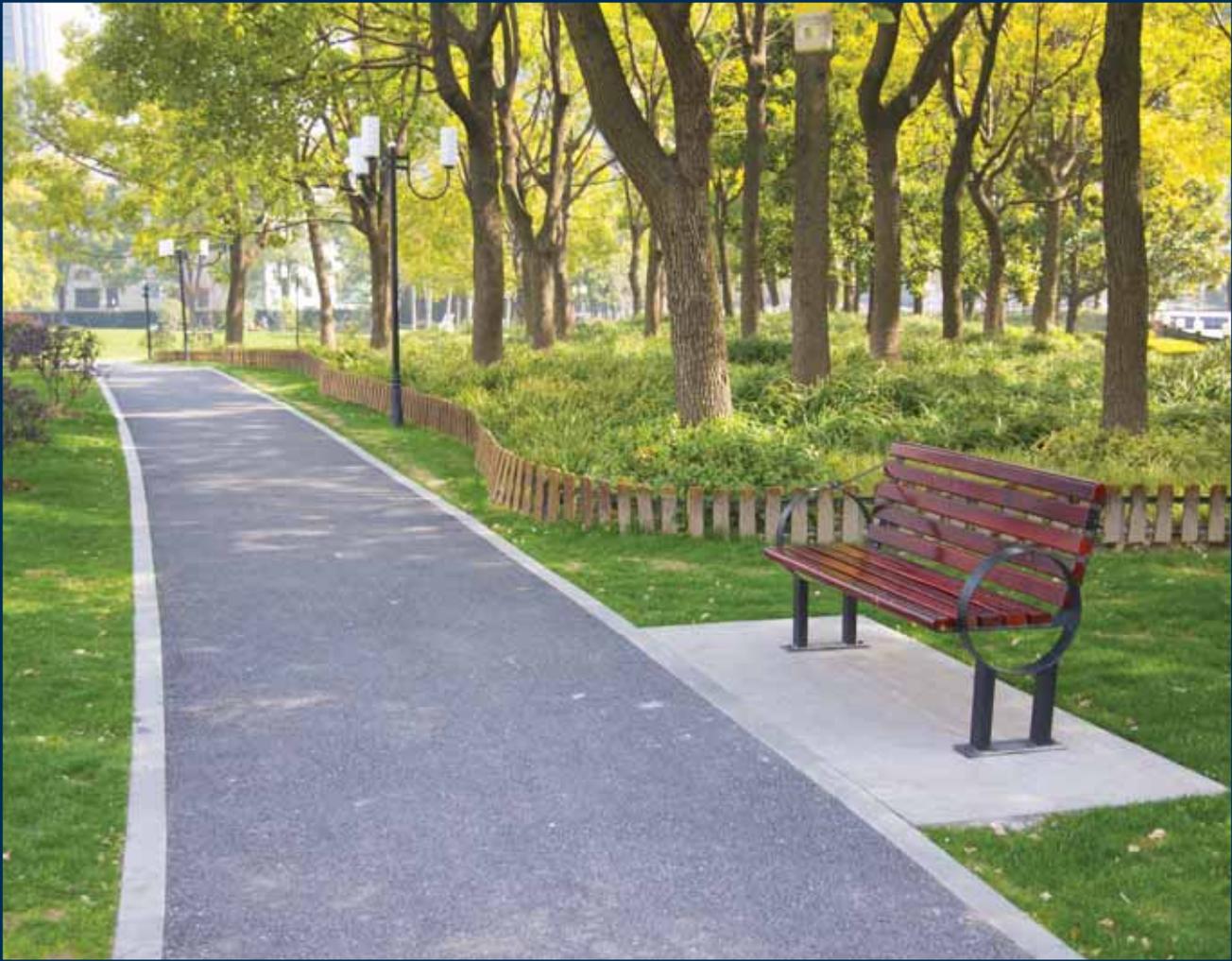
- Variable – based on function and overall neighbourhood design

### Catchment Area

- Variable – based on function and overall neighbourhood design

### Park Area Requirement Standards

- Variable – based on function and overall neighbourhood design



## Greenway

Greenways are typically vegetated linear corridors of land that incorporate pathways or trails within. These features may provide continuous connections between developed communities and country residential developments. In addition, these corridors may also provide complimentary space for linear registered utility right-of-ways.

# GREENWAY DESIGN GUIDELINES

The following categories explain in detail specific design attributes associated with this classification. The development, operation and maintenance of this classification are subject to the following guidelines, recognized standards and best practices observed and practiced by Rocky View County.

## Access

- Linked to open space and parks
- Frequent openings and access points

## Amenities

Benches	Picnic tables
Bicycle racks	Planting beds
Formalized viewpoints	Public art
Garbage receptacles	Shade structures
Interpretive signage	Trees and shrubs
Pathways and trails.	

## Drainage

- May be used for drainage provided that water does not collect within site or around recreational amenities
- Low Impact Development principles should be incorporated to ensure functional storm water management

## Functional Design

- Linear utility right-of-ways may be located within these lands; however, surface installations should not directly interfere with recreational and functional design of greenway - these items should be located along the periphery of the greenway
- May accommodate regional pathway or trails or perform linear recreation function
- Marker posts, fencing, or other methods should be included to delineate these lands from private lands
- Developed through Public Utility Lots, reserve dedication, road right-of-ways, utility right-of-ways and/or easements to permit connectivity
- May serve as adequate protection and habitat to permit animal movement through a developed area
- May also include riparian areas recognized and protected through easement or reserve dedication.

## Functional Size

- Variable – based on function
- Minimum of ten metres in width

## Location

- Located along waterways, natural areas, historic features, roadways



## Natural Area

Commonly dedicated as Environmental Reserve through the subdivision process, these lands serve to preserve and protect natural areas and environmentally significant areas which provide natural habitat for wildlife, maintain natural processes, and support biodiversity. A focus on low impact recreational, educational and interpretive opportunities is intended to maintain the aesthetics of the feature by retaining natural attributes.

## NATURAL AREA DESIGN GUIDELINES

The following categories explain in detail specific design attributes associated with this classification. The development, operation and maintenance of this classification are subject to the following guidelines, recognized standards and best practices observed and practiced by Rocky View County.

### Access

- Linked to neighbourhood sidewalks, pathways, trails, adjacent parks.
- Should contribute to connectivity of open space system.

### Amenities

Benches	Pathways and trails.
Bicycle racks	Picnic tables
Fencing	Planting beds
Formalized viewpoints	Public art
Garbage receptacles	Shade structures
Interpretive signage	Trees and shrubs

### Drainage

- Natural drainage courses commonly found within this classification
- May be used for drainage provided that water does not collect within site or around recreational amenities
- Where applicable, Low Impact Development principles should be incorporated to ensure functional storm water management

### Functional Design

- Protection and management of natural or cultural environment is primary concern and recreational use is secondary objective.
- Improvements should be in accordance with Riparian and Wetland Policy where applicable.
- Develop low impact recreational trails where feasible
- Marker posts, fencing, or other methods should be included to delineate Natural Areas from private space.
- Linear utility right-of-ways may be located within these lands; however, surface installations should not directly interfere with recreational and functional design of greenway - these items should be located along the periphery of the greenway

### Location

- Areas identified as Environmentally Significant Areas should remain undisturbed during subdivision design and construction process and be designated as Environmental Reserve
- Areas that are considered undevelopable in accordance to the Municipal Government Act should be dedicated as Environmental Reserve

# Parks and Open Space: Maintenance Service Levels

## Overview

Rocky View County’s parks and open space system features a broad array of lands from natural grass lands and ravines to urban style parks. Due to the diversity of our lands, a systematic maintenance approach has been identified. This approach allows the County to categorize maintenance activities based on certain location characteristics and amenity types. Based on these, a general list of maintenance tasks have been defined for each Maintenance Service Level.

Please note that the Maintenance Service Levels do not necessarily imply quality; rather, they are developed in response to meeting maintenance service objectives and the level of effort required. The primary basis for establishing maintenance levels is the frequency at which maintenance is required. These frequencies are based on peak seasonal use from April through October, inclusive.

## Maintenance Service Objectives

Maintenance and Service Levels identify minimum acceptable levels of maintenance to be provided. Park and open space maintenance is the key to protection of the public’s health, safety and welfare, as well as the basis of the public’s image of the quality of community facilities and services.

The following objectives are recognized to assist in establishing a comprehensive maintenance program:

- 1. Safety:** Maintain parks and open spaces in a condition which protects the health, safety and welfare of the public.
- 2. Cleanliness:** Maintain facilities in a clean and sanitary condition.

- 3. Amenity Performance:** Maintain amenities in a condition which allows for the intended recreational use.
- 4. Resource Protection:** Protect natural resources, developed improvements, and infrastructure from deterioration, vandalism and natural processes such as erosion.
- 5. Responsiveness:** Respond to public needs, requests and unsolicited concerns in a timely manner.

The following table illustrates parks and open spaces which are subject to these maintenance service levels:

Classification	Maintenance Service	
Regional Park	Level A	Reduced Maintenance Needs
Community Parks	Level A, B, C	
Neighbourhood Park	Level B	
Urban Plaza	Level A	
Special Use Area	Level A	
Pocket Park	Level A, B	
Greenway	Level C,D	
Natural Area	Level C,D	

## MAINTENANCE SERVICE LEVEL A

Examples: High Profile Open Spaces & Athletic Fields, Community Parks, School playing fields, Regional Parks, Pocket Parks, Urban Plazas or undeveloped Municipal School Reserves utilized as playing fields.

Description: These parks and open spaces are typically located in highly populated areas and experience intensive year round use by a variety of user groups.

### 1. Turf Management

- Turf is maintained between three to three and a half inches, cut weekly
- Trim park perimeter and around features before every cut
- Service level frequency is subject to current weather conditions, accumulated precipitation and subsequent growth.

### 2. Planting beds and other amenities

- Maintain beds in a weed free condition
- Ensure adequate mulch depth is consistent
- Ensure edging around beds is maintained

### 3. Garbage and Litter Management

- Site inspected on bi-weekly basis
- Fence lines cleared of visible accumulated litter
- Pick up litter and trash bi-weekly
- Empty trash if more than half full or sooner if strong odour is present or attracting insects, clean up area around garbage receptacle

### 4. Weed Control- Under the direction/control of County Agricultural Services group

- Any weeds identified as noxious under the Alberta Weed Act shall be addressed immediately by an applicator with a valid herbicide application license
- Provide public notice prior to herbicide application

### 5. Tree Maintenance

- Inspect on bi-weekly basis
- Maintain Tree Wells – if cultivated, well should be free of weeds, intact and able to hold water, if mulched, mulch should be spread evenly to a depth of 4 inches and not piled against trunk of tree
- Remove dead, diseased or broken branches
- Remove low hanging branches and branches interfering with clearance zone of signs, benches, pathways etc.

### 6. Fence Maintenance

- Inspect on bi-weekly basis
- Ensure no broken or bent posts are present
- Cable and/or fabric must be tightened as required
- Must be straight and at same consistent height
- All gates must be installed according to standard procedures and fully operational

### 7. Snow clearing and/or removal

- Intensive use areas such as Urban Plazas require more frequent monitoring and maintenance performed to ensure safe conditions.
- Snow accumulation to be removed at a depth of two inches
- Anti-slip compound to be added where required
- Areas prone to frequent ice accumulation must be monitored and dealt with immediately

## **MAINTENANCE SERVICE LEVEL B**

Examples: Undeveloped Municipal School reserves, Neighbourhood Parks, Greenways

Description: These parks and open spaces are typically located in populated areas and experience moderate seasonal use by a variety of user groups including: families, school groups, formal and informal sports assemblies and any other recreational user group.

### **1. Turf Management**

- Turf is maintained between four and eight inches, roughly cut every two to three weeks
- Trim park perimeter and around features before every cut
- Service level frequency is subject to current weather conditions, accumulated precipitation and subsequent growth.

### **2. Garbage and Litter Management**

- Site inspected on monthly basis
- Fence lines cleared of visible accumulated litter
- Removal of unapproved structures (tree forts, building materials etc.)
- Pick up litter and trash monthly
- Empty trash if more than half full or sooner if strong odour is present or attracting insects, clean up area around garbage receptacle

### **3. Weed Control-Under the direction/control of County Agricultural Services group**

- Any weeds identified as noxious under the Alberta Weed Act shall be addressed immediately by an applicator with a valid herbicide application license
- Provide public notice prior to application

### **4. Tree Maintenance**

- Inspect on monthly basis
- Maintain Tree Wells – if cultivated, well should be free of weeds, intact and able to hold water, if mulched, mulch should be spread evenly to a depth of four inches and not piled against trunk of tree
- Remove dead, diseased or broken branches
- Remove low hanging branches and branches interfering with clearance zone of signs, benches, pathways etc.

### **5. Fence Maintenance**

- Inspect on monthly basis
- Ensure no broken or bent posts are present
- Cable and/or fabric must be tightened as required
- Must be straight and at same consistent height
- All gates must be installed according to standard procedures and fully operational

## MAINTENANCE SERVICE LEVEL C

Examples: General open space with minimal site improvements, dry ponds, informal play fields

Description: These are typically located in sparsely populated and/or remote areas and may experience occasional use by a variety of user groups including: off road cyclists, walkers, joggers, and hikers.

### 1. Turf Management

- Turf is maintained between six and ten inches, roughly cut once a month.
- Trim park perimeter and around features before every cut
- Service level frequency is subject to current weather conditions, accumulated precipitation and subsequent growth.

### 2. Garbage and Litter Management

- Site inspected every six to eight weeks
- Fence lines cleared of visible accumulated litter
- Removal of unapproved structures (tree forts, building materials etc.)
- Pick up litter and trash six to eight weeks
- Empty trash if more than half-full or sooner if strong odour is present or attracting insects, clean up area around garbage receptacle

### 3. Weed Control- Under the direction/control of County Agricultural Services group

- Any weeds identified as noxious under the Alberta Weed Act shall be addressed immediately by an applicator with a valid herbicide application license
- Provide public notice prior to application

### 4. Tree Maintenance

- Inspect every six to eight weeks
- Maintain Tree Wells – if cultivated, well should be free of weeds, intact and able to hold water, if mulched, mulch should be spread evenly to a depth of four inches and not piled against trunk of tree
- Remove dead, diseased or broken branches
- Remove low hanging branches and branches interfering with clearance zone of signs, benches, pathways etc.

### 5. Fence Maintenance

- Inspect on bi-weekly basis
- Ensure no broken or bent posts are present
- Cable and/or fabric must be tightened as required
- Must be straight and at same consistent height
- All gates must be installed according to standard procedures and fully operational

## **MAINTENANCE SERVICE LEVEL D**

Examples: Environmental Reserves, bio-swales, canals, storm water “wet” ponds, etc.

Description: These are areas which do not typically support intensive recreational activities due to a natural and native environment and in some cases, location; therefore, minimal maintenance is required.

### **1. Turf Management**

- Turf not normally mowed with the exception of trail heads; parking lots and staging areas; clearance zones along pathways; to reduce fire danger or to perform weed control. Frequency is typically once a season.
- Service level frequency is subject to current weather conditions, accumulated precipitation and subsequent growth.

### **2. Garbage and Litter Management**

- Site inspected on bi-annual basis
- Fence lines cleared of visible accumulated litter
- Removal of unapproved structures (tree forts, building materials etc.)

### **3. Weed Control-Under the direction/control of County Agricultural Services group**

- Inspect once per year and control noxious weeds only.
- Any weeds identified as noxious under the Alberta Weed Act shall be addressed immediately by an applicator with a valid herbicide application license
- Provide public notice prior to application

### **4. Tree Maintenance**

- Inspect on an bi-annual basis
- Remove standing dead trees, or low hanging branches and branches interfering with clearance zone of signs or those which threaten property or amenities

### **5. Fence Maintenance**

- Inspect on bi-annual basis
- Ensure no broken or bent posts
- Cable and/or fabric must be tightened as required
- Must be straight and at same consistent height
- All gates must be installed according to standard procedures and fully operational



# PATHWAYS AND TRAILS



The County possesses a strong commitment to conserve and preserve our natural spaces and offering educational and recreation opportunities to the public to ensure that a legacy of sustainability is realized for generations to come.

## Pathways and Trails in our Communities

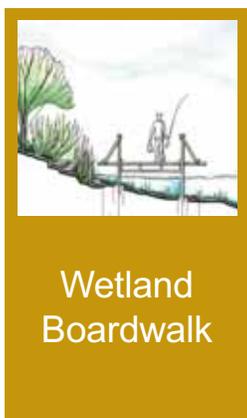
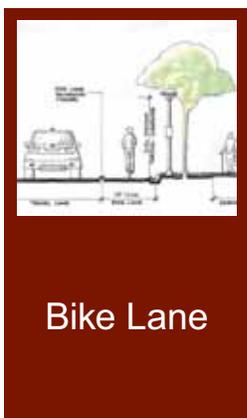
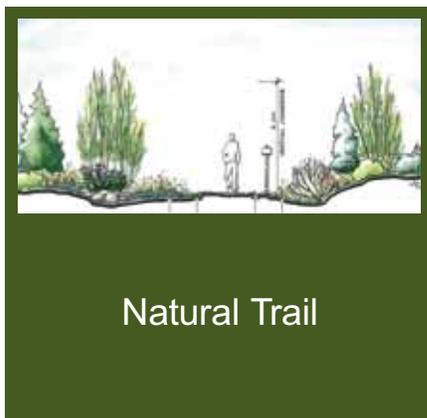
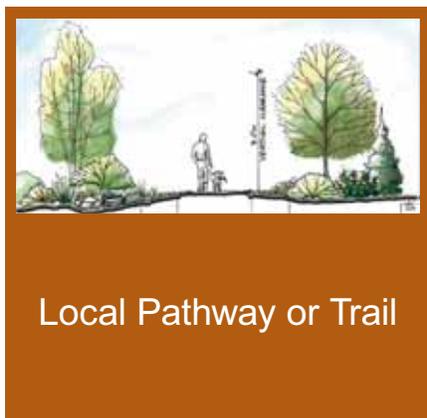
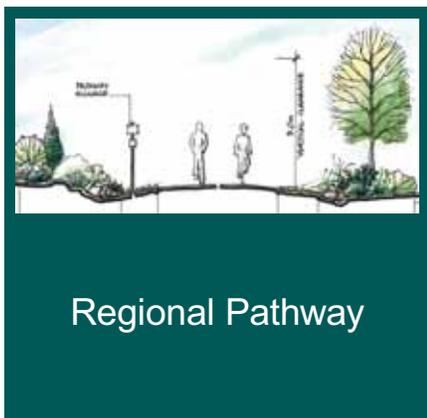
For years, various County community survey results have identified a strong desire from County residents for accessibility to recreational opportunities; specifically pathways and trails. Self-propelled recreational activities such as cycling and walking are popular and accessible; however, performing these activities on secondary highways or roadways is less than desirable due to safety and aesthetic concerns.

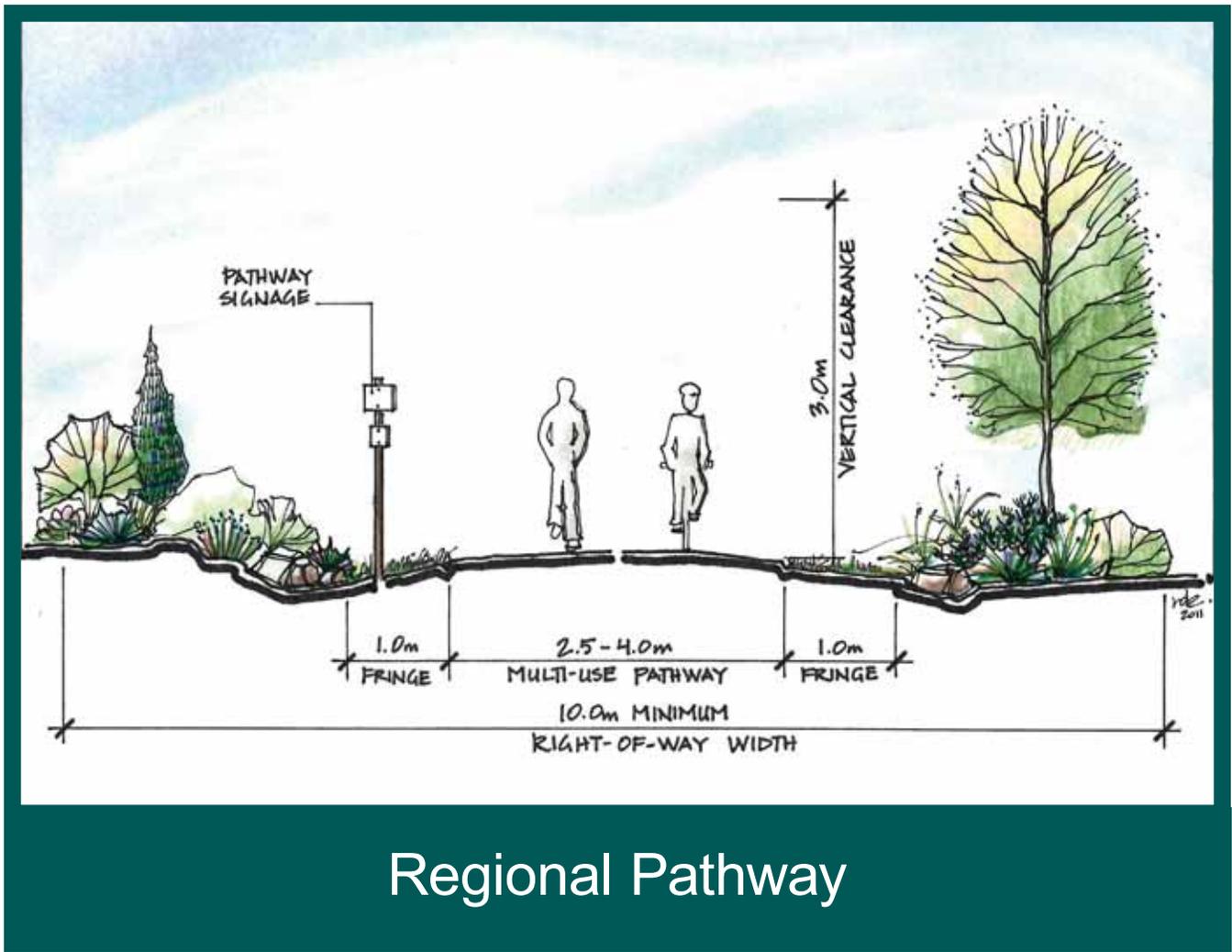
Devised through the Parks and Open Space Master planning process, a comprehensive network of recreational non-motorized, multi-use pathway and trail linkages has been planned throughout the County's open spaces and beyond to our neighbouring municipalities. This wide-ranging network will allow a variety of recreational users of all abilities to appreciate the diverse beauty and rich cultural fabric of the County.

Pathway and trail networks are designed and constructed throughout the County to keep safety, connectivity, context and diversity in mind. Non-motorized and self-propelled recreational activities that

may occur within the County's pathway and trail network include walking, hiking, inline skating, cycling, paddling or equestrian use. These amenities provide connections to and from parks, employment centres, schools and neighbourhoods, while providing users with the benefit of a healthy alternative to traditional vehicle based transportation.

A recognized network of pathways and trails within the vast parks and open space system in the County has been categorized into the following classifications:





# Regional Pathway

The intention for Regional Pathways is to provide a multi-use “backbone” for the greater system of integrated pathways and trails throughout the County. Emphasizing multi-use, Regional Pathways are intended to provide access to all non-motorized users of all abilities throughout rural and urban communities. Provisions for controlled intersections, signage and rest nodes are integrated into the design of this system to enhance the user experience. To capitalize on available resources, maintenance of the regional pathway system will be subject to specific location, with Hamlets and developed areas receiving enhanced service. The Trans Canada Trail is a prime example of this classification.

## REGIONAL PATHWAY DESIGN GUIDELINES

The following categories explain in detail specific design attributes associated with this classification. The development and operation/maintenance of this classification are subject to the following terms, recognized standards and best practices observed and practiced by Rocky View County.

### Access

- Bollards or gates should be located at pathway access points.
- Where stairways are required, they should be designed with a side ramp for bicycles
- Designed to Rocky View County standards and to accommodate maintenance, emergency and patrol vehicles where feasible.
- Pathway sections that function as maintenance access should be able to accommodate the widest piece of equipment and should be a minimum of four metres to accommodate maintenance and emergency vehicles.

### Amenities

- Rest node approximately every two kilometres on linear networks.
- Lighting should be kept to a minimum in compliance with recognized Dark Sky Practices but may be appropriate for pathway access points, staging areas, intersections and bridges.

### Drainage

- Cross slope or crown tread to prevent pooling of water on tread surface.
- Regional Pathways shall not be used as drainage conveyance along longitudinal line of pathway.
- Regional Pathways adjacent to storm pond facilities are to be located above recognized high water line.

### Fringe

- Physical barriers such as concrete barriers, guardrails or tension cables may be utilized where Regional Pathways are located adjacent to roadways.
- Existing vegetation should be preserved where appropriate.
- Grass buffer required between mulch beds and pathway/trail.

### Functional Design

- Regional Pathways designated as part of the TransCanada Trail should be a minimum of three metres, within a ten metre right of way where feasible.
- Regional Pathways that function as maintenance access should be a minimum of four metres and accommodate maintenance vehicles.
- Regional Pathways should be set back from curb three to four and a half metres where street tree plantings occur. Where no trees are included and vehicle speed is 60km/hr or less, setback may be reduced to minimum of two metres.
- Where applicable, Regional Pathways that run through or adjacent to commercial, office and/or industrial developments should be developed in accordance to Commercial, Office and Industrial Design Guidelines in Rocky View County.

## Interface

- Construction of Regional Pathways through parking lots and rear lanes should be avoided.
- No fence, wall, hedge, shrub, structure or other obstruction should impede sightlines where pathways intersect with roadways and other pathway networks.
- Crossings of driveways and streets should be minimized where appropriate. Street crossings should include pavement markings, curb extensions, lights, signage, etc.
- Underpass, overpass, or tunnel crossings should have widths equal to or greater than that of the approaching pathway.
- Pathways should intersect streets at right angles.
- Intersections should have a minimum three metre radius clearance zone.
- Design should address key elements of Crime Prevention Through Environmental Design.
- Access points should have a smooth transition in grade (i.e. dropped curb structures).

## Potential Infrastructure

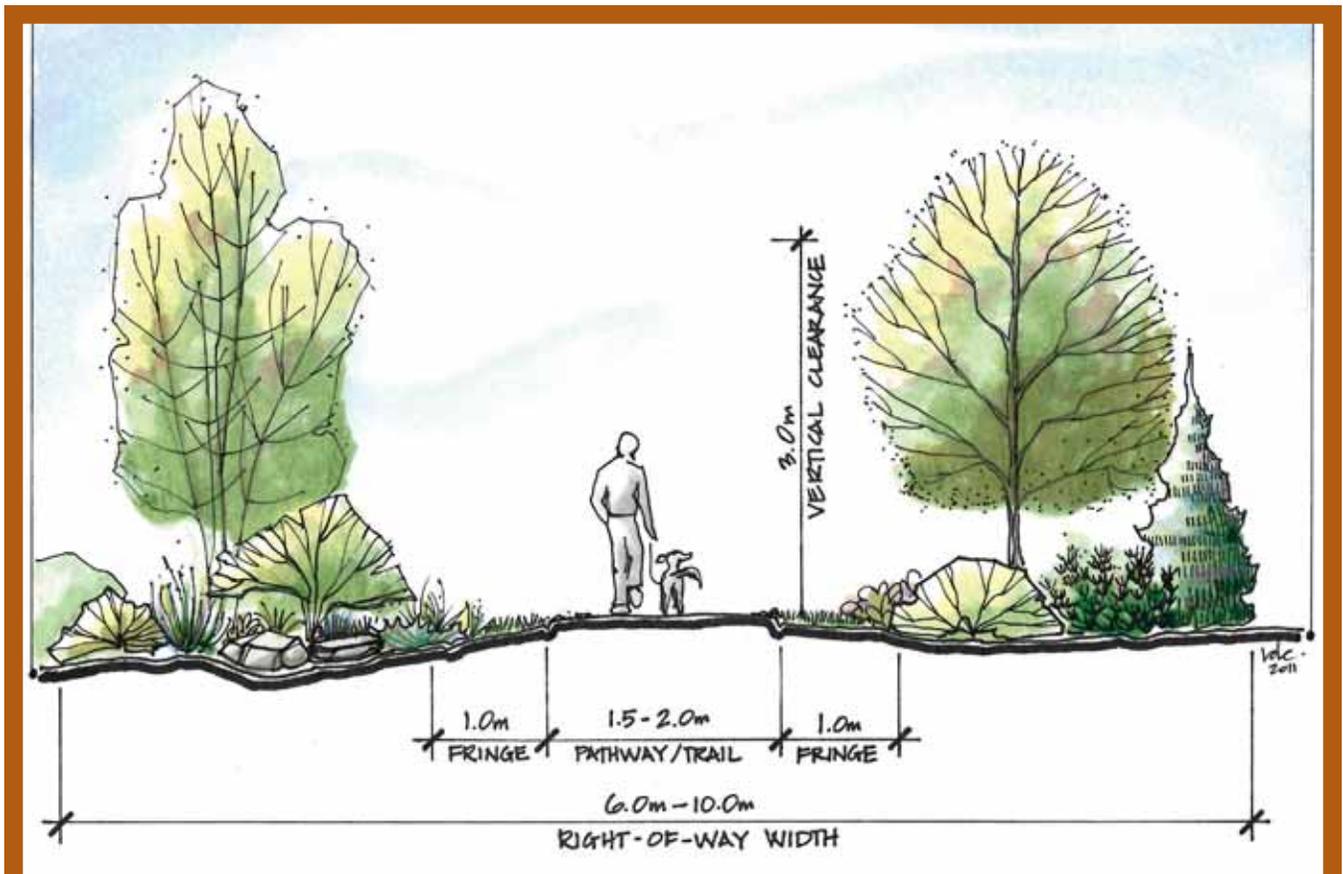
Suggested additions include: Animal-proof garbage receptacles, bicycle racks, bollards, engineered drainage, bridges, signage, benches, geo-textile, boardwalks, railings, lighting, underpass, overpass or tunnel crossings, and staging areas.

## Maintenance and Operation

Regional Pathways will be subject to Rocky View County Pathway and Trails Maintenance Service Guidelines. Typical maintenance may include snow removal, gravel sweeping, pathway litter removal, trailhead and/or rest stop garbage receptacle emptying, inspections, sign maintenance, clearing of drainage culverts, cutting of fringe vegetation, overlays, crack filling or skin patching, line painting.

## REGIONAL PATHWAY

<b>Function and Location</b>	<p>Regional pathways should be developed as a continuous, multi-use amenity that connects individual communities to:</p> <ul style="list-style-type: none"> <li>• Neighbourhood, Community, School and Regional Parks and other recreational facilities;</li> <li>• Greenways and Natural Areas, including escarpments, ravines, coulees, wetlands and other open space;</li> <li>• Commercial and Industrial areas, adjacent communities and historic and cultural amenities;</li> <li>• Other pathways, trails, bikeways, or staging areas</li> <li>• Transit stations and transit routes</li> </ul> <p>Constructed within County owned or administered land, road right-of-ways, utility right-of-ways, rail right-of-ways, and easements on private lands.</p>
<b>Appearance</b>	Formally constructed with options for full signage and surface markings; including speed warnings, directional messages and lane delineation
<b>Pathway Surface</b>	Asphalt, concrete or other solid surface such as recycled rubber
<b>Pathway Width</b>	<p>Range: 2.5 – 4.0 metres</p> <p>Special cases: 3.0 metres TransCanada Trail, 4.0 metres Maintenance and Service vehicles access</p>
<b>Right-Of-Way Width</b>	Minimum: 10.0 metres (Where feasible)
<b>Pathway Clearing</b>	Range: 4.5 – 6.0 metres
<b>Vertical Clearing</b>	Minimum: 3.0 metres
<b>Cross Slope</b>	2% cross fall except where super elevation required on a curve
<b>Pathway Gradient</b>	<p>Flat to 3%: Required to be wheelchair accessible</p> <p>3% to 5%: Ideal</p> <p>5% to 10% is acceptable</p> <p>Greater than 10%: Provision for switchbacks</p>
<b>Maintenance Service</b>	Level 1
<b>Intended Uses</b>	Cycling, running, walking, inline skating, strolling, wheelchair accessible



## Local Pathway or Trail

Connecting communities and developments to the Regional “backbone”, these pathways and trails comprise the bulk of the overall network and serve as an integral component of the greater system. Infill development provides connection opportunities to the established network. This classification includes provisions to utilize unique connectivity solutions such as the use of undeveloped road right-of-ways, utility right-of-ways, irrigation canal right-of-ways and easements over private land.

## LOCAL PATHWAY OR TRAIL DESIGN GUIDELINES

The following categories explain in detail specific design attributes associated with this classification. The development and operation/maintenance of this classification are subject to the following terms, recognized standards and best practices observed and practiced by Rocky View County.

### Access

- Bollards or gates should be located at pathway access points.
- Sections of Local Pathways and Trails that function as maintenance access should be able to accommodate the widest piece of equipment and should be a minimum of four metres to accommodate maintenance and emergency vehicles.

### Amenities

- Benches and interpretive stops may be installed adjacent to the pathway or trail.
- Lighting should be kept to a minimum in compliance with Dark Sky Practices but may be appropriate for pathway access points, staging areas, and bridges.

### Drainage

- Cross slope or crown tread to prevent pooling of water on tread surface.
- Pathways and trails shall not be used as drainage conveyance along longitudinal line of pathway.
- Pathways and trails adjacent to storm pond facilities are to be located above high water line.

### Fringe

- Existing vegetation should be preserved where appropriate.
- Pathway should be set back from curb three to four and a half metres where street tree plantings occur. Where no trees are included and vehicle speed is 60km/hr or less, setback can be reduced to minimum of two metres.
- Localized vegetation and/or local aggregate materials.

### Functional Design Guidelines

- Street crossings should include pavement markings, curb extensions, lights, signage etc.
- Vision Clearance Triangle should be established where pathways intersect with roadways and other pathway networks.
- Pathways should intersect streets at right angles.
- Walkways between residential lots should be separated from private property by grade and/or fencing.
- Grass buffer required between mulch beds and pathway/trail.
- Engineered and constructed with slope and grade considered.
- Where applicable, Local Pathways or Trails that run through or adjacent to commercial, office and/or industrial developments should be developed in accordance to Commercial, Office and Industrial Design Guidelines in Rocky View County

## Interface

- Design should address key elements of Crime Prevention Through Environmental Design.
- Intersections should have a minimum three metre radius clearance zone.
- Access points should have a smooth transition in grade (i.e. dropped curb structures).

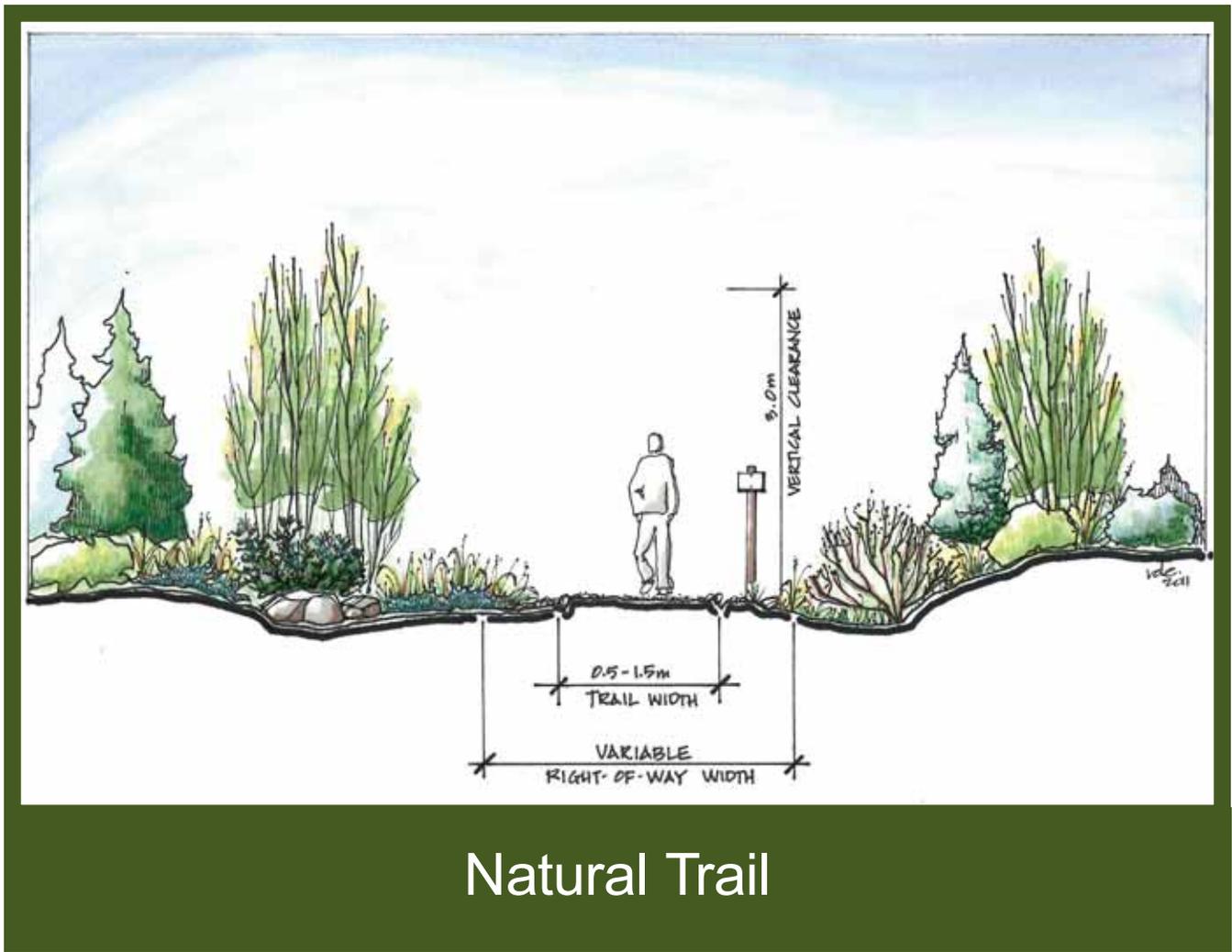
## Potential Infrastructure

Suggested additions include: Animal-proof garbage bins, bike racks, bollards, engineered drainage, bridges, signage, benches, geo-textile, stairs, boardwalks, railings.

## Maintenance and Operation

Local Pathways or Trails will be subject to Rocky View County Pathway and Trails Maintenance service guidelines found in Appendix C. Typical maintenance may include snow removal, gravel sweeping, pathway litter removal, trailhead and/or rest stop garbage receptacle emptying, inspections, sign maintenance, clearing of drainage culverts, cutting of fringe vegetation, overlays, crack filling or skin patching, and line painting.

<b>LOCAL PATHWAY OR TRAIL</b>	
<b>Function and Location</b>	The purpose of this Pathway/Trail is to interconnect and provide linkages to the backbone Regional Pathway. These recreational networks are located within publicly accessible land including County owned land, road right-of-ways, utility right-of-ways, abandoned rail right-of-ways, and easements on privately owned land. Walkways between residential units that provide connection through neighbourhood blocks are considered local pathways/trails.
<b>Appearance</b>	Formally constructed with intentional trailside vegetation control
<b>Tread Surface</b>	Hardened off with local aggregate, introduced materials, concrete or asphalt
<b>Tread Width</b>	Range: 1.5 – 2.0 metres
<b>Right-Of-Way Width</b>	Range: 6.0 – 10.0 metres
<b>Horizontal Clearing</b>	Range: 3.5 – 4.0 metres
<b>Vertical Clearing</b>	Minimum: 3.0 metres
<b>Cross Slope</b>	2% recommended
<b>Pathway Gradient</b>	Flat to 3%: Required to be wheelchair accessible 3% – 5%: Ideal 5% – 10% is acceptable Greater than 10%: Provision for switchbacks or stairs
<b>Maintenance Service</b>	Level 1 or 2
<b>Intended Uses</b>	Cycling, running, walking, strolling, hiking



## Natural Trail

These recreational trails are located within publicly accessible land including County owned land, road right-of-ways, utility right-of-ways, rail right-of-ways, and easements on privately owned land. These trails are typically located within natural areas, including Environmental Reserves and will receive minimal maintenance. In many cases, these trails have originated from game trails resulting in routes which are contoured into the surrounding landscape. In high traffic sections and sections which are impacted by erosion, the use of geo-textiles and engineered drainage may be required to preserve trail integrity. Recognizing the delicate nature of our open spaces, the County will also endeavour to promote responsible trail use through public educational advertisements which will focus on low impact usage.

## NATURAL TRAIL DESIGN GUIDELINES

The following categories explain in detail specific design attributes associated with this classification. The development and operation/maintenance of this classification are subject to the following terms, recognized standards and best practices observed and practiced by Rocky View County.

### Access

- Bollards should be located at pathway access points.

### Amenities

- Rest areas and benches should be provided at viewpoints and trailheads where appropriate.
- Waste bins, maps, trail information and identification signage should be provided at trailheads.

### Functional Design Guidelines

- Trail system should be designed with loops that offer a number of options and variety of experiences.
- Trails should be designed to avoid “terrain traps” which may pose threat to the trail structure and/or trail users.
- Natural trails should be designed and constructed in accordance with the County’s Riparian and Wetland Policies and Procedures.

### Drainage

- Boardwalks or split log platforms may be required over areas prone to intermittent or permanent flooding.
- Natural drainage patterns should be preserved.
- Water bars or other tread drainage should be constructed to mitigate damage.

### Fringe

- Trailside vegetation should be trimmed back to minimize encroachment

### Potential Infrastructure

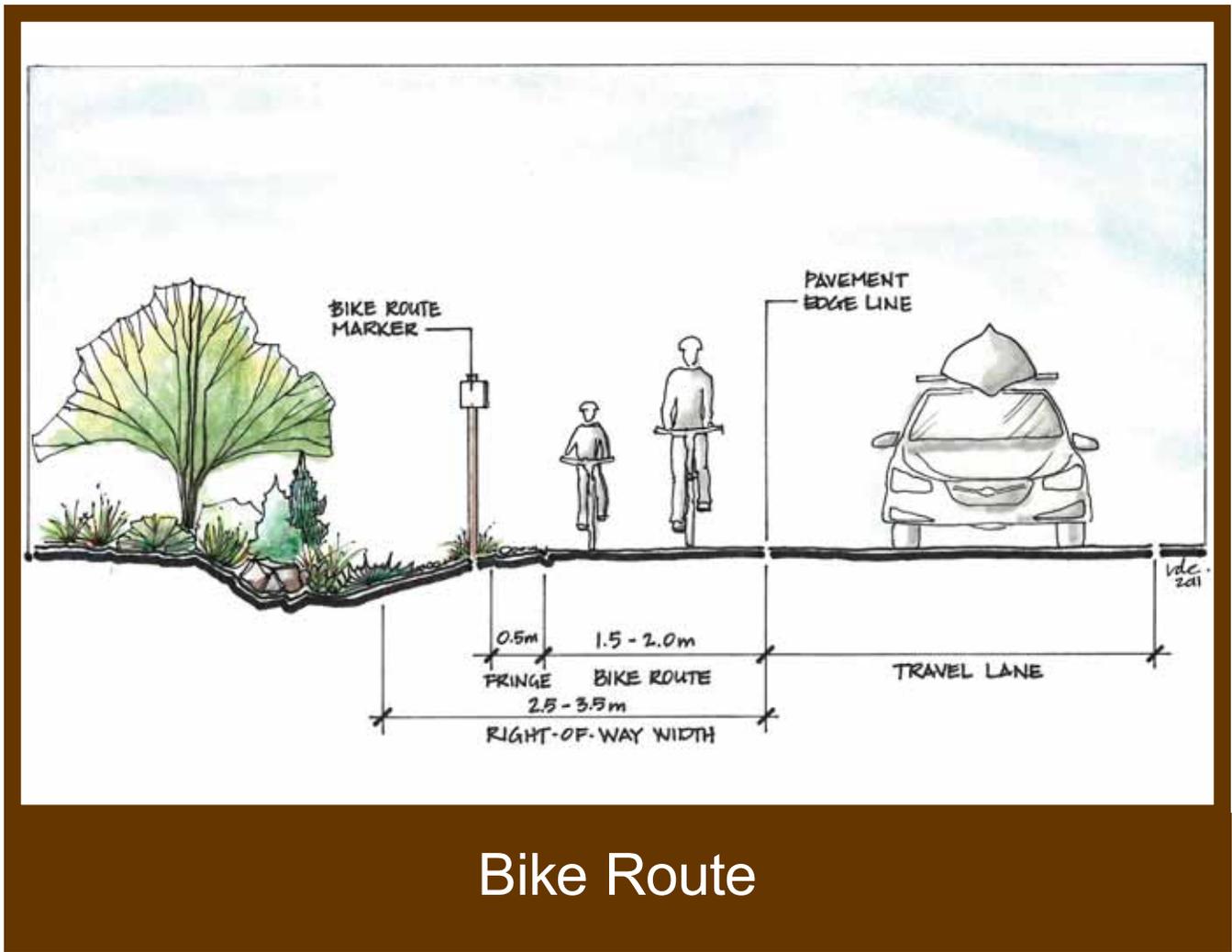
- Suggested trailhead additions include: Signage – directional, informative, interpretive signs and kiosks. Animal-proof garbage bins, engineered drainage, bridges, benches, stairs, boardwalks.

### Maintenance and Operation

Natural Trails will be subject to Rocky View County Pathway and Trails Maintenance Service Guidelines. Typical maintenance includes fallen tree and trail side litter removal, trailhead garbage bins, rest stops, sign maintenance, clearing of drainage culverts, cutting of fringe vegetation for safety issues only.

## NATURAL TRAIL

<b>Function and Location</b>	Throughout the County, many Natural Trails have originated from game trails and are therefore commonly located in remote regions. These routes follow the contours of the land and blend into the landscape which provides trail users an aesthetically pleasing and truly unique experience. Often located in rolling undeveloped terrain, these trails offer users an opportunity to directly interact with nature.
<b>Appearance</b>	Natural surfacing with directional/interpretive signage at trailhead
<b>Tread Surface</b>	Compaction of local and/or introduced aggregate or native-based materials
<b>Tread Width</b>	Range: 0.5 – 1.5 metres
<b>Right-Of-Way Width</b>	Minimum: 2.5 metres
<b>Horizontal Clearing</b>	Range: 1.5 – 2.5 metres
<b>Vertical Clearing</b>	Minimum: 3.0 metres
<b>Cross Slope</b>	2% preferred but will vary depending on landscape contours
<b>Pathway Gradient</b>	Variable, switchbacks and/or stairs may be required for slopes over 10%
<b>Maintenance Service</b>	Level 3
<b>Intended Uses</b>	Mountain biking, running, hiking, snowshoeing



## Bike Route

Bike routes serve as a recognized on road route where cyclists can cover long distances where there are no pathways or trails present. Utilizing highways and secondary roads, these hard surfaced roads are either paved or oiled which provide a suitable surface for most road oriented bicycles. As this classification is typically found in rural areas and in order to promote safety and awareness for motorists and cyclists alike; consideration has to be given for the installation of adequate road side signage identifying the road as a Bike Route.

## BIKE ROUTE DESIGN GUIDELINES

The following categories explain in detail specific design attributes associated with this classification. The development and operation/maintenance of this classification are subject to the following terms, recognized standards and best practices observed and practiced by Rocky View County.

### Functional Design Guidelines

- Gravel shoulders are not recommended for cycling routes.
- Installation of road side signage advising motorists and cyclists that they share the road and to use caution and respect.

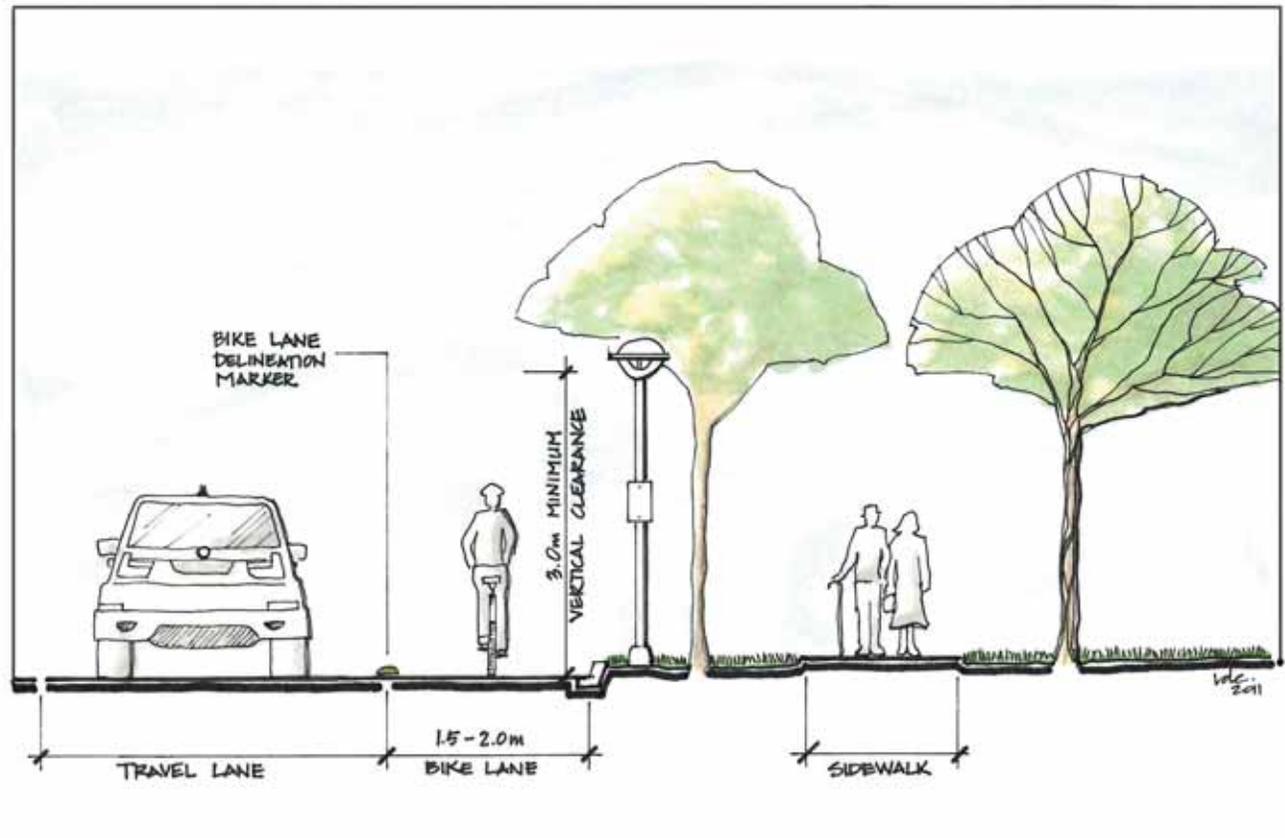
### Potential Infrastructure

Suggested additions include: Signage and dedicated staging areas for park and ride enthusiasts.

### Maintenance and Operation

As this classification is located on a roadway, all maintenance will be subject to the standard maintenance schedule as determined by the relevant (Provincial or County) roads maintenance and operations department.

BIKE ROUTE	
<b>Function and Location</b>	Bike routes are considered to be shared roadways which are typically located along highways with wide (greater than 1 metre) paved shoulders. These are long distance routes which can serve as connections between Regional Pathways and Local Pathways which are predominantly utilized by cyclists as recreational and commuting routes. Lightly used residential and/or rural roads may also present cycling opportunities to users. All recreational users of County, provincially and federally controlled roads are subject to regulations as indicated by the Alberta Highways and Traffic Act.
<b>Appearance</b>	Marked with signage and where appropriate bike route stencils in the roadway.
<b>Tread Surface</b>	Asphalt or concrete
<b>Tread Width</b>	Variable- Depends on Road Specifications
<b>Right-Of-Way Width</b>	Range: 2.5 – 3.5 metres
<b>Vertical Clearing</b>	N/A
<b>Cross Slope</b>	Dependant on roadway specifications
<b>Route Gradient</b>	Dependant on roadway specifications
<b>Maintenance Service</b>	Level 3
<b>Intended Uses</b>	Cycling



## Bike Lanes

Found in populated communities, Bike Lanes serve as a dedicated lane for cyclists to navigate through busy roadways in a safe and efficient manner. Ample identification of the lanes is crucial for safe use as an effective alternate mode of transportation.

## BIKE LANE DESIGN GUIDELINES

The following categories explain in detail specific design attributes associated with this classification. The development and operation/maintenance of this classification are subject to the following terms, recognized standards and best practices observed and practiced by Rocky View County.

### Functional Design Guidelines

- One bike lane sign installed every block in urban areas.
- Bike lane symbols painted on road surface approximately every second block along route.
- Bike lane symbols should also be placed at intersections.
- Bike lanes should be a minimum 1.8 metres when adjacent to on-street parking.
- Bike lane color may be utilized to enhance visibility.
- Bike lane widths should not exceed two metres as they may encourage cyclists travelling two abreast or be mistaken for a motor vehicle lane.

### Interface

- On streets with high travel speeds or high travel volumes, buffered bike lanes may be utilized. Buffers should be half a metre minimum and may include two solid white lines with diagonal hatching or vegetation.
- Physical barriers such as jersey barriers, guard rails or tension cables may be utilized.

### Drainage

- Catch basins and related drainage infrastructure should be flush with the ground and surface grates oriented perpendicular to the path of travel to prevent conflicts with bicycle tires.

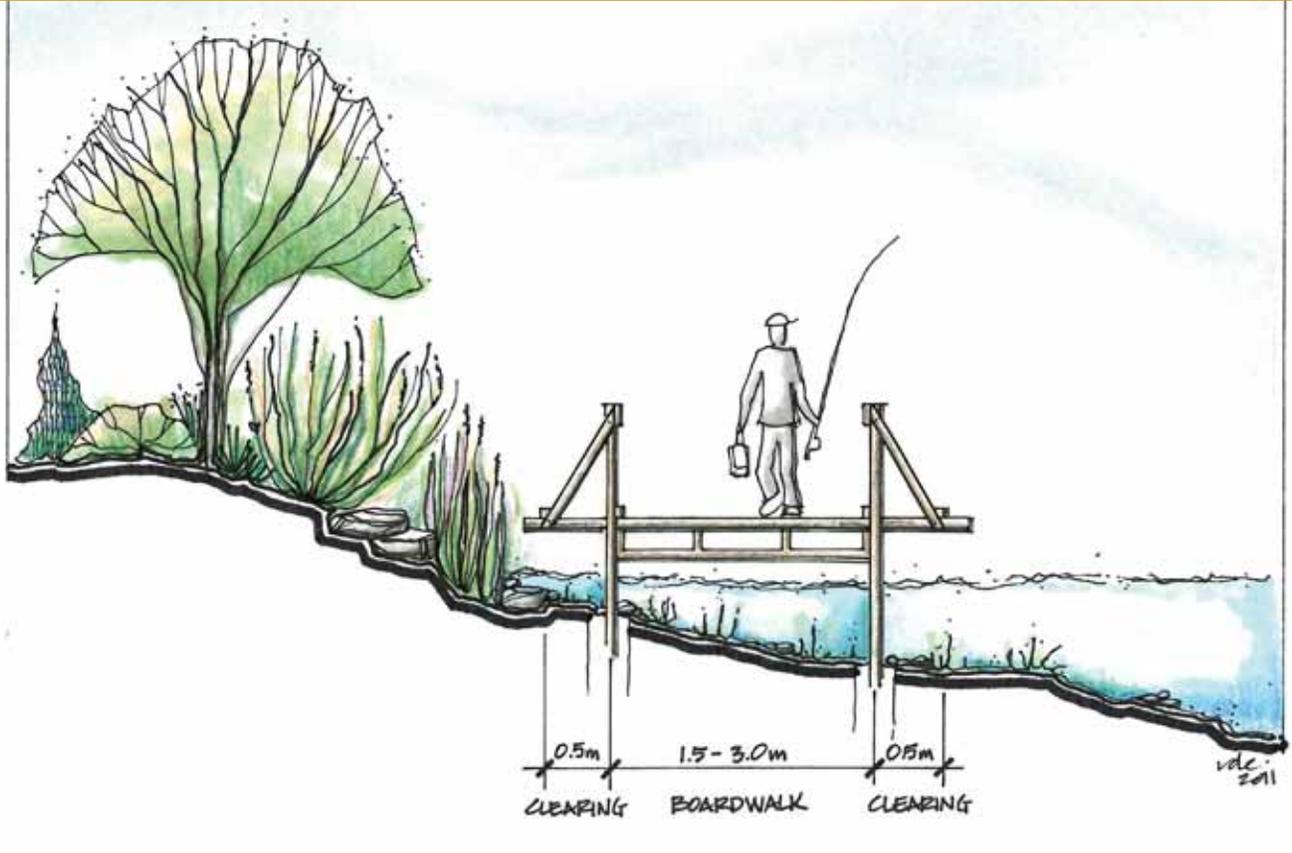
### Potential Infrastructure

Suggested additions include: Signage, surface stencils and dedicated staging areas for park and ride enthusiasts.

### Maintenance and Operation

Typical maintenance may include sign maintenance, cutting of fringe vegetation. Repainting bike lane surface line work and other markings, snow removal, sweeping, overlays, asphalt crack filling or skim patching.

BIKE LANE	
<b>Function and Location</b>	Where off-road routes are not feasible or desirable, bike lanes should be considered to provide connections between residential, commercial, and industrial lands, as well as other pathway and trail systems. Bike lanes are a specific lane for bicycles on the roadway and are identified by a separation line from adjacent vehicles.
<b>Appearance</b>	Portion of the roadway, generally with curbs, designated by pavement striping, roadside signage and/or pavement marking for preferential or exclusive use of cyclists.
<b>Tread Surface</b>	Asphalt or concrete
<b>Tread Width</b>	Range: 1.5 – 2.0 metres
<b>Right-Of-Way Width</b>	Range: 1.5 – 2.0 metres
<b>Vertical Clearing</b>	Minimum: 3.0 metres
<b>Cross Slope</b>	Dependant on roadway specifications
<b>Route Gradient</b>	Dependant on roadway specifications
<b>Maintenance Service</b>	Level 1 or 2
<b>Intended Uses</b>	Cycling



## Wetland Boardwalk

Providing an opportunity for recreational users to interact intimately with nature, Boardwalks offer a unique experience rich in exploration. Encroachment into sensitive areas can be mitigated through the use of Boardwalks with interpretive signs further enhancing the user experience and educational value to the feature.

## WETLAND BOARDWALK DESIGN GUIDELINES

The following categories explain in detail specific design attributes associated with this classification. The development and operation/maintenance of this classification are subject to the following terms, recognized standards and best practices observed and practiced by Rocky View County.

### Access

- Provision for wheelchair access is recommended where the primary access to the boardwalk is constructed to provide full access to all users of all levels of mobility.

### Amenities

- Viewing platforms and interpretive signage should be included in the design and construction of boardwalks.

### Functional Design

- Boardwalk planks in shaded or moist areas may require an anti-slip surface to be installed to prevent slipping.
- Decking should be perpendicular to direction of travel with 10mm (or 3/8 inch) spacing between boards.

- Handrails are necessary if boardwalk is more than two feet off the ground or where safety concerns exist.
- Arsenic-free pressure treated wood or composite materials are recommended for boardwalks.
- Consideration for modular construction designed to allow for removal and/or relocation. Various construction techniques will be implemented based on specific site requirements.

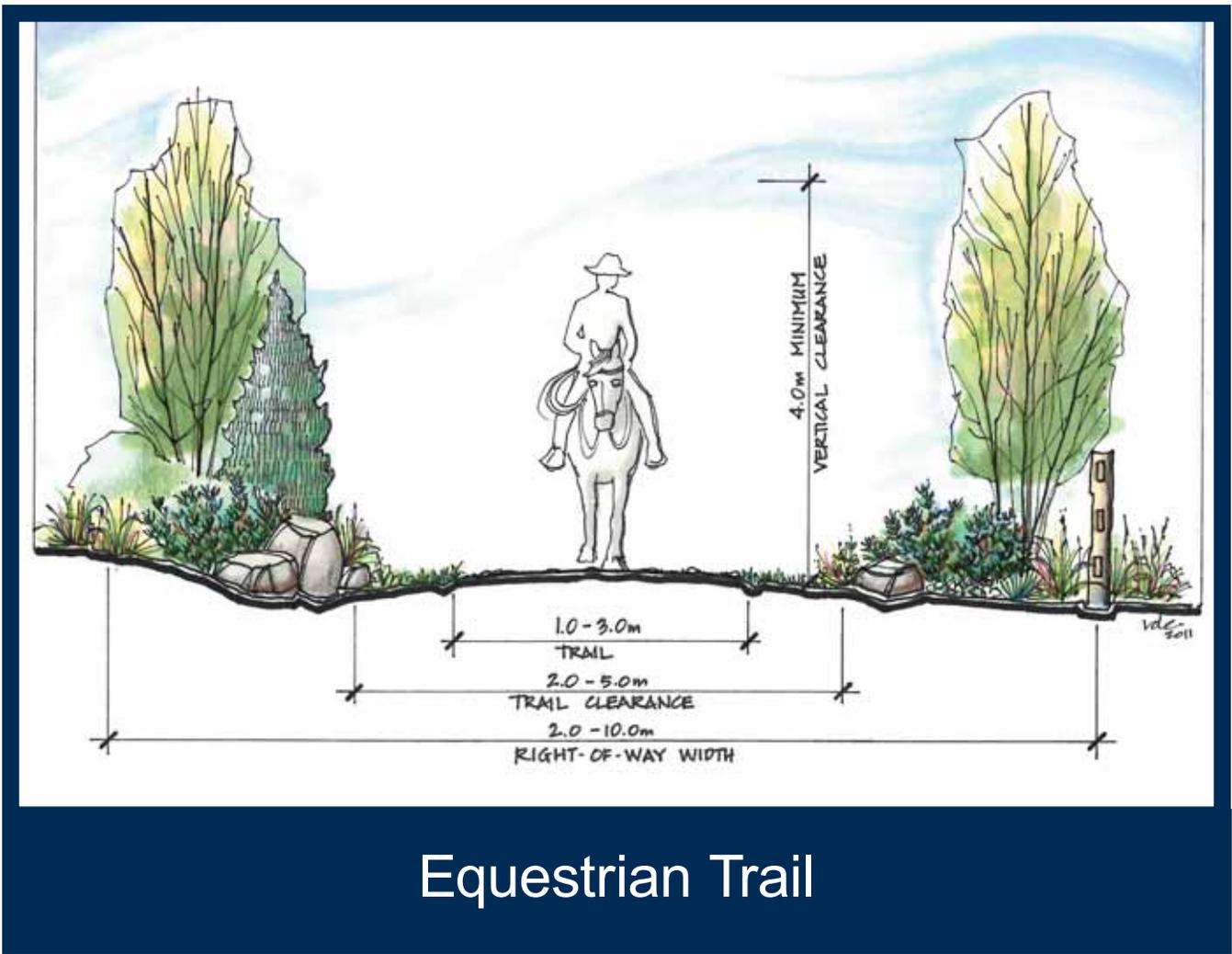
### Potential Infrastructure

Steps or ramps from grade to elevated boardwalks, railings, benches, interpretive signs, viewing platforms.

### Maintenance and Operation

Site specific maintenance: litter removal, regular inspections due to direct environmental impacts from installation of boardwalk, consider snow and ice removal during winter months.

WETLAND BOARDWALK	
<b>Function and Location</b>	Allow movement through environmentally sensitive and/or seasonally wet areas, with the option for offering an interpretive opportunity. Wetland boardwalks can facilitate the intrinsic value of predominantly underutilized and underappreciated open space such as wetlands.
<b>Appearance</b>	A formally constructed elevated or “floating” boardwalk. To minimize negative visual impact along linear sections of land requiring the installation of a boardwalk, the route should be planned with curved or other non-linear routing.
<b>Tread Surface</b>	Pressure treated wood or engineered composite material.
<b>Tread Width</b>	Range: 1.5 – 3.0 metres
<b>Vertical Clearing</b>	Minimum: 4.0 metres
<b>Cross Slope</b>	Minimum: 2% to facilitate drainage
<b>Route Gradient</b>	Flat to 5% is desired
<b>Maintenance Service</b>	Level 2 or 3
<b>Intended Uses</b>	Walking, cycling, wheelchair accessible, wildlife viewing, bird watching and interpretive opportunities.



## Equestrian Trail

Rocky View County boasts a long tradition of equestrian enthusiasts from ranchers to weekend show-jumpers. Recognizing this distinct user group, the County is sensitive to the needs of equestrian riders, their horses and their equipment. Dedicated Equestrian Trails are desired to mitigate the potential for user conflict. Provisions for staging areas are also to be considered. Passive equestrian specific trails may be located throughout the County within regions where residents have personal equestrian facilities; These areas will not require formalized trailheads.

# EQUESTRIAN TRAIL DESIGN GUIDELINES

The following categories explain in detail specific design attributes associated with this classification. The development and operation/maintenance of this classification are subject to the following terms, recognized standards and best practices observed and practiced by Rocky View County.

## Access

- Staging areas should be provided for access to trails.
- Located on publicly owned or accessible lands including County owned parcels, utility, road, and rail right-of-ways

## Interface

- Road and rail crossings should have unobstructed views 30 metres before crossing.

## Amenities

- Staging areas: Provide a roundabout to facilitate loading and unloading animals from trailers, pull through truck and trailer stalls, signage, trailhead kiosks and trailside signs designed to accommodate the increased height of a rider on a horse

## Drainage

- Low lying areas should be avoided or engineered drainage employed to preserve the integrity of the tread

## Fringe Construction

- Localized vegetation and/or local aggregate materials.

## Functional Design

- Tread material should be crushed aggregate with fines to provide maximum traction and minimal displacement, and large rocks and roots removed to prevent tripping hazards.
- On hard packed soils, coarse wood chips may be placed on tread sections
- To minimize erosion, minimal changes in gradient are suggested.
- Bridges must be engineered to support equestrian use.
- Bridges should be constructed to reduce sound and echoes that may startle horses.
- Trails should be constructed to maximize sight lines to a minimum distance of 30 metres.
- Trail route should avoid environmentally sensitive areas and other areas where user conflicts could occur.
- Wherever possible, trail system should be looped or stack looped.

## Potential Infrastructure

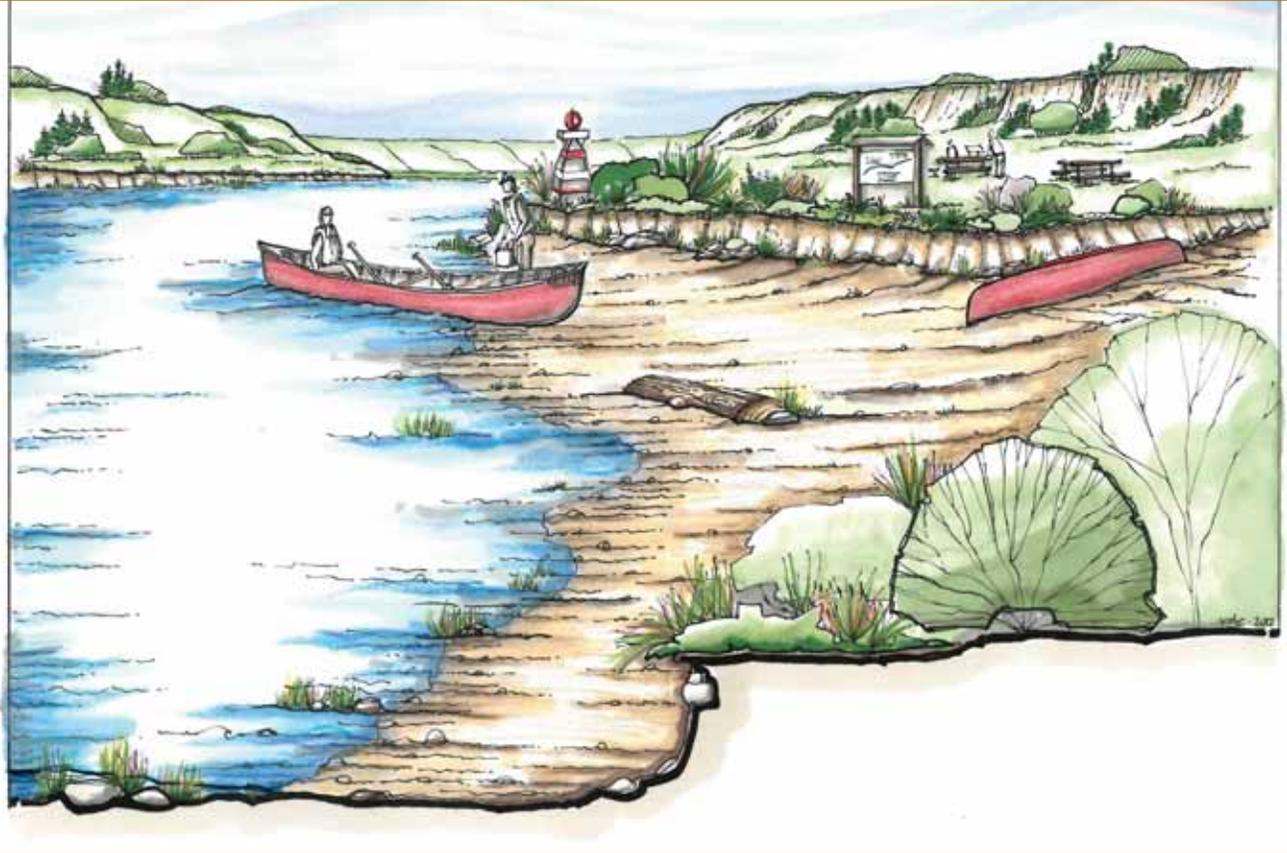
Suggested additions include: Animal-proof garbage bins, bollards, engineered drainage, geotextile, bridges, stream fords, signage, benches, picnic tables, hitching posts, railings.

## Maintenance and Operations

Typical maintenance may include trailside litter removal, trailhead and/or rest stop garbage bin emptying, rest stops inspections, sign maintenance, clearing of drainage culverts, cutting of fringe vegetation.

## EQUESTRIAN TRAIL

<b>Function and Location</b>	<p>The purpose of these equestrian specific trails is to provide a safe location for equestrian users and to minimize the potential for trail user conflict. Equestrian trails construction specifics include:</p> <ul style="list-style-type: none"> <li>• Smooth natural surfaces with minimal trailside debris</li> <li>• Gentle grades to minimize erosion.</li> <li>• Designed to maximize sightlines with minimal vegetation located adjacent or overhanging the trail.</li> </ul> <p>Due to equestrian users equipment needs (truck/trailer, corrals, hitching posts) it is recommended that trailheads are provided of an adequate size to accommodate the loading and unloading of the animals in a safe manner.</p>
<b>Appearance</b>	Formally constructed and maintained with intentional trailside vegetation control
<b>Tread Surface</b>	Soils that are coarsely textured with a high percentage of gravel and sand are good. Finely textured soils with a high percentage of organic matter, silt and clay are poor. Surface should be hardened off with local aggregate, introduced or native-based materials. Crushed stone with fines or crusher fines may be added in soft or low lying areas
<b>Tread Width</b>	Range: 1.0 – 3.0 metres
<b>Right-Of-Way Width</b>	Range: 2.0 – 10.0 metres
<b>Horizontal Clearing</b>	Range: 2.0 – 5.0 metres
<b>Vertical Clearing</b>	Minimum: 4.0 metres
<b>Cross Slope</b>	Desirable: 2%
<b>Route Gradient</b>	Maximum grade: 20% for sections shorter than 10 metres; provision for switchbacks DESIRABLE: Flat to 10%
<b>Maintenance Service</b>	Level 3
<b>Intended Uses</b>	Dedicated for equestrian use only



## Blue Way

The Bow and Elbow Rivers are the largest rivers which flow through the County and consequently provide a tremendous opportunity for the recreational paddling community, anglers and outfitters who all seek to experience these world renowned waters. Promotion of the responsible usage and conservation of these and other waterways within the County are of utmost importance.

## BLUE WAY DESIGN GUIDELINES

- Well maintained pathway or trail should be established from parking to water access.
- Promotion of pack in/pack out philosophy specific to human and animal waste.
- Blue way trail markers should be established along the route for way finding.
- Interpretive signage should be incorporated into rest stops and trailheads.
- Trailhead signs should include maps and descriptions for boat launch locations, Global Positioning System coordinates of features, estimated paddle duration, fishing information, boating regulations.

### Potential Infrastructure

Suggested additions include: public toilets, parking, signage, picnic areas, Animal-proof garbage bins, boat launches: non-motorized public and motorized (restricted for Emergency Services use only)

### Suggested Maintenance

Due to the overall physical nature of this classification, which does not necessitate maintenance; the primary focus is directed to formalized water way boat launches. Typical maintenance may include garbage bin emptying, sign maintenance, removal of dangerous water edge debris negatively impacting the boat launches.

BLUE WAY	
<b>Function and Location</b>	Rocky View County has an abundance of lakes and rivers which provide ample seasonal water focused recreational opportunities. Water-based river routes, lake, and reservoir locations have been identified throughout the County as sites which are suitable for non-motorized, passive water based recreational activities. Most water based corridors are owned by the Crown, therefore the County will work collaboratively with the Province to facilitate and support water routes.
<b>Appearance</b>	Includes any natural water such as rivers, creeks, lakes or man-made water bodies such as canals and reservoirs.
<b>Blue Way Surface</b>	Water
<b>Blue Way Width</b>	Variable
<b>Vertical Clearing</b>	Variable
<b>Maintenance Service</b>	Level 2
<b>Intended Uses</b>	Paddling, paddle boarding, sailing, rowing, angling

# Pathways and Trails: Maintenance Service Levels

## Overview

Rocky View County’s pathway and trail network is an ever expanding system of interconnected routes allowing active families and individuals the opportunity to experience a broad array of lands from natural grasslands and ravines to urban style neighbourhood parks. Due to the diversity of our lands, a systematic maintenance approach has been identified. This approach allows the County to categorize maintenance activities based on the specific pathway or trail classification.

Please note that the Maintenance Service Levels do not necessarily imply quality; rather, they are developed in response to meeting maintenance service objectives and the level of effort required. The primary basis for establishing maintenance levels is the frequency at which maintenance is required. These frequencies are based on peak seasonal use from May 1 through October 31, inclusive.

Pathway and trail maintenance during the winter months (November 1 through April 30) may be affected due to the unpredictability of Rocky View County’s winter months. As a result, seasonal pathway or trail closures or no winter maintenance may be enacted. Any pathways or trails which are intended to be closed or not maintained during the winter months may be signed and advertised accordingly.

## Maintenance Service Level Objectives

Maintenance Service Levels identify minimum acceptable levels of maintenance to be provided. Pathway and Trail maintenance is the key to protection of the public’s health, safety and welfare, as well as the basis of the public’s image of the quality of community facilities and services. The following objectives are recognized to assist in establishing a comprehensive maintenance program:

1. **Safety:** Maintain pathways and trails in a condition which protects the health, safety and welfare of the public.
2. **Cleanliness:** Maintain trailheads in a clean and sanitary condition.
3. **Amenity Performance:** Maintain amenities in a condition which allows for the intended recreational use.
4. **Resource Protection:** Protect natural resources, developed improvements, and infrastructure from deterioration, vandalism and natural processes such as erosion.
5. **Responsiveness:** Respond to public needs, requests and unsolicited concerns in a timely manner.

The following pathway and trail classifications are subject to these Maintenance Service Levels:

Classification	Maintenance Service	
Regional Pathway	Level 1	Reduced Maintenance Needs
Local Pathway or Trail	Level 1 or 2	
Bike Lane	Level 1 or 2	
Blue Way	Level 2	
Wetland Boardwalk	Level 2 or 3	
Bike Route	Level 3	
Equestrian Trail	Level 3	
Natural Trail	Level 3	

# MAINTENANCE SERVICE LEVEL 1

## Pathway and Trail Classifications

Regional Pathways and Local Pathway or Trails

### Description

These fully accessible pathways and trails are typically located in populated areas and experience intensive year round use by a variety of user groups including: cyclists, walkers, joggers, and inline skaters.

#### 1. Tread Surface Management

- Pathway inspected on a monthly basis- Seasonal restrictions may apply
- Ensure pathway or trail tread is free from hazards and obstructions
- Tread surface swept and free of debris- gravel, sand, grass clippings
- Painted line work to be legible and not fading
- Cracks and surface crumbling sealed and repaired

#### 2. Fringe Vegetation Management

- Fringe turf grass is to be regularly maintained so as not to encroach on tread surface

#### 3. Signs and wayside amenities

- Ensure that all signs and wayside amenities are free and clear of any hazards
- Information kiosks or interpretive signage to be free from graffiti and content to be kept current and relative to the location.

#### 4. Adjacent Tree and Shrubbery Maintenance

- Removal of any low hanging branches interfering within the specific vertical clearance zone
- Removal of any standing dead vegetation that may pose a threat (deadfall) to the pathway or trail
- Removal of any vegetation obstructing signs adjacent to pathway or trail

#### 5. Litter Management

- Pick up litter monthly from tread and immediately adjacent to pathway or trail

#### 6. Winter Maintenance

- Maintenance during the winter months is subject to Administration's discretion.

## MAINTENANCE SERVICE LEVEL 2

### Pathway and Trail Classifications

Local Pathway or Trails, Bike Lane, Wetland Boardwalk

#### Description

These fully accessible pathways and trails are typically located in populated areas and experience moderate seasonal use by a variety of user groups including: cyclists, walkers, joggers, hikers, and inline skaters. Specialty structures such as boardwalks are included.

#### 1. Tread Surface Management

- Pathway inspected on a monthly basis- Seasonal restrictions may apply
- Ensure pathway tread, is free from hazards and obstructions
- Tread surface swept and free of debris- gravel, sand, grass clippings
- Painted line work to be legible and not fading
- Cracks and surface crumbling sealed and repaired

#### 2. Fringe Vegetation Management

- Fringe turf grass is to be regularly maintained; Typically cut every 21 days- weather depending

#### 3. Signs and wayside amenities

- Ensure that all signs and wayside amenities are free and clear of any hazards
- Information kiosks or interpretive signage to be free from graffiti and content to be kept current and relative to the location.

#### 4. Adjacent Tree and Shrubbery Maintenance

- Removal of any low hanging branches interfering within the specific vertical clearance zone
- Removal of any standing dead vegetation that may pose a threat (deadfall) to the pathway or trail
- Removal of any vegetation obstructing signs adjacent to pathway or trail

#### 5. Litter Management

- Pick up litter monthly from tread and immediately adjacent to pathway or trail

#### 6. Winter Maintenance

- Maintenance during the winter months is subject to Administration's discretion.

## MAINTENANCE SERVICE LEVEL 3

### Pathway and Trail Classifications

Natural Trail, Equestrian Trail, Wetland Boardwalk, Bike Route

### Description

These primitive or low use trails are typically located in sparsely populated and/or remote areas and experience year round use by a variety of user groups including: off road cyclists, walkers, joggers, hikers and Equestrian users.

#### 1. Tread Surface Management

- Formally constructed trails inspected on a seasonal or annual basis
- Ensure trail tread surface free of debris, hazards and obstructions
- Areas prone to erosion are secured and repaired to mitigate future damage

#### 2. Fringe Vegetation Management

- Ensure horizontal and vertical clearance zones are free from hazards and obstructions
- Ensure horizontal clearance zones are adequate and sufficient to reduce trail braiding.

#### 3. Signs and wayside amenities

- Ensure that all signs and wayside amenities are free and clear of any hazards
- Information kiosks or interpretive signage to be free from graffiti damage and that their content is current and relative to the location.

#### 4. Adjacent Tree and Shrubbery Maintenance

- Removal of any standing dead vegetation that may pose a threat (deadfall) to the trail
- Removal of any vegetation obstructing signs adjacent to trail

#### 5. Litter Management

- Pick up litter bi-annually from tread and immediately adjacent to trail

#### 6. Winter Maintenance

- Maintenance during the winter months is subject to Administration's discretion.



# OTHER HELPFUL INFORMATION

# Glossary

## Active Recreation

A formalized activity conducted at a constructed recreational amenity which may include accessory facilities and other related infrastructure to support recreational activities. Examples include playgrounds, courts, sports fields, indoor recreation facilities, and any recreational area that includes significant infrastructure for the purposes of active sports or organized events.

## Amenity Area Or Space

The area situated within the boundaries of a residential development site intended for recreational purposes, and may include landscaped areas, patios, private amenity areas, balconies, communal lounges, swimming pools, play areas and similar uses, but does not include any area occupied at grade by a building's service areas, parking lots, aisles or access driveways.

## Biodiversity

The variety and variability within and among living populations and species of organisms and the ecosystems in which they occur. This variation is typically studied and analyzed at four levels of diversity: genetic, species, community, and landscape.

## Clearing: Pathway Or Trail

Dimension measured across pathway/trail from which all obstructions should be removed so as not to obstruct movement. Clearing includes area beyond pathway/trail surface.

## Community

An identifiable geographical area within a larger built-up area, primarily used for residential purposes. Communities are places to live, work, recreate and conduct commerce, which are made up of a number of neighbourhoods.

## County Owned Or Administered Land

Means land legally owned by Rocky View County including Municipal Reserves, Environmental Reserves, Municipal and School Reserves, Public Utility Lots, fee simple lands, and land owned by another party but administered by the County including but not limited to road allowances, easements, leased and licensed land.

## Crime Prevention Through Environmental Design (CPTED)

Pronounced "Sep-Ted", it is a style of site design which promotes the effective use of the built environment which may lead to a reduction in the fear and incidence of crime, and in turn an improvement of the quality of life.

## Cross Slope

The slope or gradient of the undisturbed hillside; the amount or grade of the pre-existing sloped that is perpendicular to the direction of the trail.

## Cultural Heritage

Cultural resources, history and practices such as farming, folk arts and crafts, industry, social and religious traditions, arts and literature, military traditions and skills, woodcraft and other human activities that help the present generations know and understand the people, places and events that came before them.

## Cultural Resources

Physical evidence of any past human activity identifiable through field surveys, historical documentation and/or oral history. This evidence includes archaeological sites, man-made objects, historic buildings, structures, objects or districts, cemeteries and the landscapes in which they exist.

## Environmental Reserve

Municipally owned land which is protected for perpetuity that must remain in its natural state or be used as a public park. These lands are comprised of either a swamp, gully, ravine, coulee or natural drainage course; land that is subject to flooding; consists of steep slopes deemed unstable for development or a strip of land not less than 6 metres in width abutting the bed or shore of any body of water for the purpose of preventing pollution or to provide public access to bed and shore of said body water.

## Environmentally Significant Area

Means places that are important to the long-term maintenance of biological diversity, soil, water, or other natural processes, at multiple spatial scales. They are identified as areas containing rare or unique elements, or areas that include elements that may require special management consideration due to their conservation needs.

## Maximum Grade

The steepest slope of the trail or pathway parallel to the direction of travel for each type of intended use.

## Multi-Use Areas

Typically, a location (park, open space or a facility) that can be adapted for more than one type of specialized recreational activity; such as community halls, ice curling rinks, soccer/rugby/foot ball fields, etc.

## Municipal Reserve

Municipally owned land which may be used by a municipality or school board or by them jointly for any or all of the following purposes: public park; public recreation area; school board purposes or to separate lands that are used for different purposes.

## Natural Area

Means areas of land or water representing distinct elements of an area's geological, ecological or species diversity and including natural landscapes or features of value for natural heritage protection.

## Neighbourhood

Means an aggregate of primarily residential lots which may surround a central amenity or commercial area.

## Off Street Parking

Dedicated vehicular parking with constructed ingress and egress located adjacent to a street.

## Open Space

Means open space in its broadest sense includes all land and water areas that are not dominated by man-made structures either publicly owned or offering public access. It preserves natural or cultural resources, provides passive recreation, and can be used for cultivated fields or forests, or exists in a natural and undeveloped state. In urban settings areas of land not covered by structures, driveways, or parking lots.

## Passive Recreation

Indicate uses that generally require or result in little or no alteration of the landscape and produce little or no light, noise or visual intrusion on their surroundings. Examples may include hiking, jogging, birding, photography, nature study, fishing, canoeing or kayaking (depending on the access needs), biking, and horseback riding.

## Pathway

Any recognized route that is formally engineered, constructed and hard surfaced with asphalt or concrete.

## Public Park

Means development of public land specifically designed or reserved for the general public for active or passive recreational use and includes all natural and man-made landscaping, facilities, playing fields, buildings, and other structures that are consistent with the general purpose of public park land.

## Public Building

Means a building which is available to the public for the purposes of assembly, instruction, culture or enlightenment, or for a community activity, but does not include a school or a place of public entertainment for which an admission fee is normally charged.

## Recreation Facility

Means a location designed and equipped for the conduct of sports, leisure time activities and other customary and usual recreational activities.

## Region

Means a geographic area larger than a specific site or location and encompassing multiple communities across Rocky View County and may include communities located in immediately adjacent municipalities to the County.

## Right Of Way Width

Dimension across pathway/trail surface, pathway/trail clearing and beyond for maintenance, rerouting, safety.

## Slope Grades

The vertical distance of ascent or descent of the pathway or trail expressed as a percentage of the horizontal distance, commonly measured as a ratio of rise to length or as a percent. For example, a trail that rises 8 vertical feet in 100 horizontal feet has an 8% grade.

## Staging Area

Areas where users can congregate, park, and begin or end a trip. Designed and managed for day use, whereas a trailhead usually caters to those embarking on an overnight or long-distance trip.

## Terrain Traps

A depression like feature in the landscape which may create a dangerous condition for users during high water flows, deep snow or other environmental concerns.

## Trail

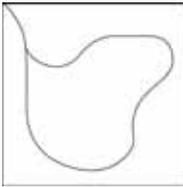
Means any recognized non-paved route which is surfaced with natural or aggregate materials.

## Trail System; Linear



A trail system which covers long distances from point to point. Side trails can access secondary features or amenities such as interpretive sites, viewpoints or significant ecological features.

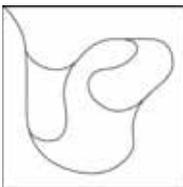
## Trail System; Loop



Trail or trail systems designed so that the routes are closed circuits connecting a number of points of interest, giving users the option of not traveling the same section of trail more than once on a trip. This design is excellent for interpretive

loops or to direct users in a specific direction to minimize risk and exposure.

## Trail System; Stacked Loop



A stacked loop offers users the most variety of experiences whereas users have the option of not traveling the same section of trail more than once on a trip. Large areas or environmental features can be circumnavigated

with internal trails providing additional experiences and potential interpretive opportunities for users.

## Trailhead

An access point to a trail or trail system that can be accompanied by various amenities such as kiosks, signs, waste bins, outhouses etc.

## Tread

The surface portion of a trail upon which users travel excluding back slope, ditch, and shoulder. Common tread surfaces are native material, gravel, soil cement, asphalt, concrete, or shredded recycled tires.

## Tread Width

Horizontal dimension across pathway/trail surface that provides adequate space for comfortable and safe movement

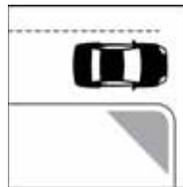
## Utility

Includes utilities (electricity, water, storm and sanitary sewer, and gas companies) and utility-like facilities (pipelines, service roads, lift stations, irrigation canals).

## Vertical Clearing

The minimum vertical height, which must be cleared of all tree branches and other obstructions that would otherwise obstruct movement along a trail or pathway.

## Vision Clearance Triangle



Design of intersections and non-residential driveways to ensure an unobstructed sight distance along all approaches to avoid vehicle conflicts for all approaching or departing vehicles traveling at or less than the maximum speed limit.

# Preferred Landscaping Plants



A walking trail through Trembling Apsen trees (*Populus tremuloides*)

The following plants have been selected due to their suitability within the various climatic regions found in Rocky View County. Please note that this list serves as a guideline, and other species may be considered subject to the County's discretion.

## Coniferous Trees

Common Name	Latin Name
Lodgepole Pine	<i>Pinus contorta</i>
Mongolian Strain Scots Pine	<i>Pinus sylvestris mongolica</i>
Rocky Mountain Juniper	<i>Juniperus scopulorum</i>
Siberian Larch	<i>Larix siberica</i>
White Spruce	<i>Picea glauca</i>

## Deciduous Trees

Common Name	Latin Name
American Elm	<i>Ulmus americana</i>
American Mountain Ash	<i>Sorbus americana</i>
Balsam Poplar	<i>Populus balsamifera</i>
Brooks #6 Poplar	<i>Populus x 'Brooks #6'</i>
Burr Oak	<i>Quercus macrocarpa</i>
Crabapple 'Pink Spires'	<i>Malus x 'Pink Spires'</i>
Fountain Birch	<i>Betula occidentalis (fontinalis)</i>
Green Ash- "Patmore"	<i>Fraxinus pennsylvanica 'Patmore'</i>
Littleleaf Linden	<i>Tilia cordata</i>
Manitoba maple	<i>Acer negundo</i>
Ohio Buckeye	<i>Aesculus glabra</i>
Pincherry	<i>Prunus pensylvanica</i>
River Alder	<i>Alnus tenuifolia</i>
Round Leaf Hawthorne	<i>Crataegus chrysocarpa (rotundifolia)</i>
Russian Hawthorn	<i>Crataegus ambigua</i>
Schubert Chokecherry	<i>Prunus virginiana 'Schubert'</i>
Silver Maple	<i>Acer saccharinum</i>
Snowbird Hawthorn	<i>Crataegus x mordenensis 'Snowbird'</i>
Tatarian Maple	<i>Acer tataricum</i>
Toba Hawthorn	<i>Crataegus x mordensis 'Toba'</i>
Trembling Aspen	<i>Populus tremuloides</i>
Ussurian Pear	<i>Pyrus ussuriensis</i>
Western Cottonwood	<i>Populus deltoides</i>
Western Mountain Ash	<i>Sorbus scopulina</i>



Trees and plants grow along a water way.

<b>Tall Shrub</b>	
Common Name	Latin Name
Bebb Willow	<i>Salix bebbiana</i>
Chokecherry	<i>Prunus virginiana</i>
Double Flowering Plum	<i>Prunus triloba 'Multiplex'</i>
Green Alder	<i>Alnus crispa</i>
Red Elder	<i>Sambucus racemosa</i>
Sandbar Willow	<i>Salix exigua / interior</i>
Saskatoon	<i>Amelanchier alnifolia</i>
Shining Willow	<i>Salix lucida</i>
Silver Buffaloberry	<i>Shepherdia argentea</i>

<b>Medium Shrub</b>	
Common Name	Latin Name
Bog Birch	<i>Betula glandulosa</i>
Canadian Buffaloberry	<i>Shepherdia canadensis</i>
Common Ninebark	<i>Physocarpus opulifolius</i>
Gold Currant	<i>Ribes aureum</i>
Mock Orange	<i>Philadelphus lewisii</i>
Mugo Pine	<i>Pinus mugo mugo</i>
Red Osier Dogwood	<i>Cornus sericea</i>
Sweetberry Honeysuckle	<i>Lonicera caerulea</i>

<b>Low Shrub</b>	
Common Name	Latin Name
Birch Leaf Meadowsweet	<i>Spiraea betulifolia</i>
Bracted Honeysuckle	<i>Lonicera involucrata</i>
Buckbrush	<i>Symphoricarpos occidentalis</i>
Common Juniper	<i>Juniperus communis</i>
Common Wild Rose	<i>Rosa woodsii</i>
Creeping Mahonia	<i>Mahonia repens</i>
Dewberry	<i>Rubus pubescens</i>
Gooseberry	<i>Ribes oxycanthoides</i>
Labrador Tea	<i>Ledum groenlandicum</i>
Lowbush Cranberry	<i>Viburnum edule</i>
Prairie Rose	<i>Rosa arkansana</i>
Prickly Rose	<i>Rosa acicularis</i>
Sage	<i>Artemisia cana</i>
Shrubby Cinquefoil, Potentilla	<i>Potentilla fruticosa</i>
Snowberry	<i>Symphoricarpos albus</i>
Thimbleberry	<i>Rubus parviflorus</i>
Three Lobed Sumac	<i>Rhus trilobata</i>
Wild Raspberry	<i>Rubus ideaus</i>

<b>Vines</b>	
<b>Common Name</b>	<b>Latin Name</b>
Purple Clematis	<i>Clematis occidentalis</i>
Dropmore Honeysuckle	<i>Lonicera bella</i>
Western White Clematis	<i>Clematis lingusticifolia</i>

<b>Ground Cover</b>	
<b>Common Name</b>	<b>Latin Name</b>
Bog Cranberry	<i>Vaccinium vitis-idaea</i>
Bunchberry	<i>Cornus canadensis</i>
Creeping Juniper	<i>Juniperus horizontalis</i>
Dwarf Mugo Pine	<i>Pinus mugo</i> 'Pumilio'
Kinnikinnick	<i>Arctostaphylos uva-ursi</i>
Savin Juniper	<i>Juniperus sabina</i>

<b>Aquatic mixture</b>	
<b>Common Name</b>	<b>Latin Name</b>
Baltic Rush	<i>Juncus balticus</i>
Common Cattail	<i>Typha latifolia</i>
Common Great Bulrush	<i>Scirpus validus</i>
Creeping Spike Rush	<i>Eleocharis palustris</i>
Hard-Stem Bulrush	<i>Scirpus acutus</i>
Hornwort	<i>Ceratophyllum demersum</i>
Horsetail Rush	<i>Equisetum hyemale</i>
Water Sedge	<i>Carex aquatilis</i>
Water Smartweed	<i>Polygonum amphibium</i>

<b>Aquatic Plants</b>	
<b>Common Name</b>	<b>Latin Name</b>
Alkali Buttercup	<i>Ranunculus cymbalaria</i>
Bottel Brush Sedge	<i>Carex comosa</i>
Creeping Spike Rush	<i>Eleocharis palustris</i>
Golden Sedge	<i>Carex aurea</i>
Soft Stem Bullrush	<i>Scirpus tabernaemontani</i>
Small Flowered Bulrush	<i>Scirpus microcarpus</i>
Water Sedge	<i>Carex aquatilis</i>

# Recommended Grass Mixes: Aquatic, Wetland and Aquatic Plants

Any contractors who are seeding County Lands must ensure that all seed intended to be used, must be tested for *Fusarium graminearum* with a "Certificate of Seed Analysis" from the supplier submitted to a Rocky View County Agricultural Fieldman for approval prior to purchasing any grass seed. This is required to assure that seed used is free of weed seeds and is of top quality.

The following are grass seed mixes and a variety of wetland and aquatic plants which have been scrutinized and approved for use. Please note that this list serves as a guideline, and other species may be considered subject to the County's discretion.

## Rocky View Mix #1: Hardy Turf Grass

40% Kentucky Blue Grass  
45% Creeping Red Fescue  
15% Perennial Rye Grass

- Application rate: Not less than 300kg/ha

## Rocky View Mix #2: Roadside Grass

55 % Creeping Red Fescue #1 Certified  
30% Tall Fescue #1 Certified  
15 % Slender Wheat Grass #1 Common

- Application rate: Seeded at 115kg/ha and supplemented with a ½ bushel/acre of annual rye or winter wheat for fast green up and to act as a cover crop.

## Rocky View Mix #3: Riparian Upland

Native Seed Mix (above High Water Line)

15% Northern Wheatgrass  
(*Agropyron dasystachym*)  
15% Western Wheatgrass (*Agropyron smithii*)  
20% Rough Fescue (*Festuca scabrella*)  
25% June Grass (*Koeleria macrantha*)  
25% Green Needle Grass (*Stipa viridula*)

- 150mm depth topsoil.  
Application rate: 50 Kg/Ha

## Rocky View Mix #4: Riparian Area

Riparian Grass Seed Mix (from High Water Line to Normal Water Line)

15% Slough Grass (*Beckmannia syzigache*)  
20% Awned Wheatgrass  
(*Agropyron trachycaulon*)  
15% Bluejoint (*Calamagrostis canadensis*)  
25% Tufted Hair Grass  
(*Deschampsia caespitosa*)  
25% Tall Manna Grass (*Glyceria grandis*)

- Application rate: 20 Kg/Ha

## Rockyview Mix #5: Wetland Planting

Aquatic/Wetland Plantings - seed and plug combination

Common Cattail (*Typha latifolia*)  
Baltic Rush (*Junus balticus*)  
Water Sedge (*Carex aquatilis*)  
Hardstem Bulrush (*Scirpus acutus*)  
Wheat Sedge (*Carex atherodes*)  
Golden Sedge (*Carex aurea*)  
Bottlebrush Sedge (*Carex comosa*)

- Aquatic seeding to be carried out by seeding stratified seed in sludge form; seed application rate: 20Kg/Ha; plugs to be placed at 300mm O.C.
- Aquatic/Wetland plants to be planted mid-summer (July) to ensure establishment when water is present within the Emergent Wetland Zone/ Aquatic Bench.

# Useful Resources

The following resources have provided useful in the creation of the County Lands Handbook:

- The Irish Sports Council: National Trails Office – Classification and Grading for Recreational Trails
- American Trails: <http://www.americantrails.org/>
- Government of Alberta: Alberta Recreation Corridor & Trails Classification System
- Alberta Transportation
- Alberta Highway and Traffic Act
- Leave No Trace Canada: <http://www.leavenotrace.ca>
- Tread Lightly: <http://www.treadlightly.org>
- City of Calgary: Development Guidelines and Standard Specifications – Landscape Construction
- Alberta TrailNet: Risk and Liability
- American Trails: <http://www.americantrails.org/>

# County Standards

- County Servicing Standards
- Commercial, Office and Industrial Design Guidelines in Rocky View County

## **Rocky View County**

**911-32 AVENUE NE, CALGARY, AB T2E 6X6**

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**ROCKY VIEW COUNTY**  
Cultivating Communities