

SECTION IV

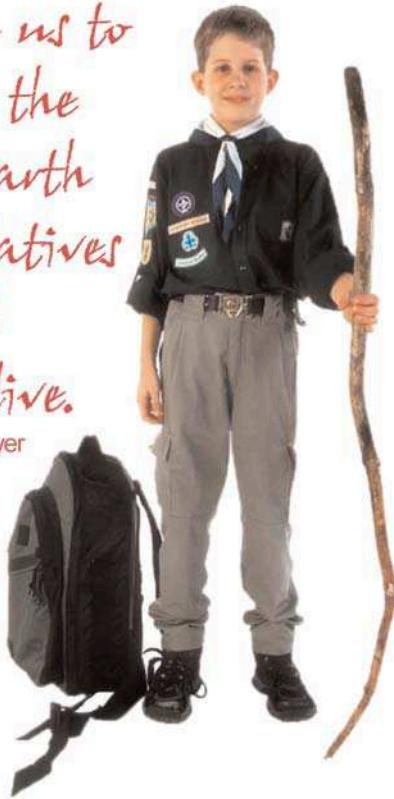
TRAILS

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TRAAILS

Teach us to
walk the
soft earth
as relatives
to all
that live.

Lakota Prayer



IV

The citizens of Johnstown and Milliken feel that trails should:

- Provide safe links to destinations within the community (i.e.: parks, schools, civic facilities, shopping, housing, employment centers);
- Allow two-way traffic on a wide surface that will accommodate a full range of users;
- Connect to the regional trails system;
- Be located with respect for the environment and adjacent landowners;
- Educate trail users about the environment and the history of the community;
- Link the old with the new and reinforce the community's small town character;
- Include amenities tailored to the trail location and type of path surface (i.e.: directional and interpretive signage, maps at trailheads, mileage markers, trash receptacles, benches);
- Be located, designed and constructed through cooperative efforts; and
- Respect private property rights.

Cooperation will be essential to develop the comprehensive trails network. Trails will generally follow the arterial streets, rivers, and irrigation ditches. The plan set forth will develop over time. Many of the neighborhood trails will be developed in conjunction with adjacent land development. Landowners, ditch companies, utility companies, Colorado Department of Transportation, and Weld and Larimer Counties must be involved in the site

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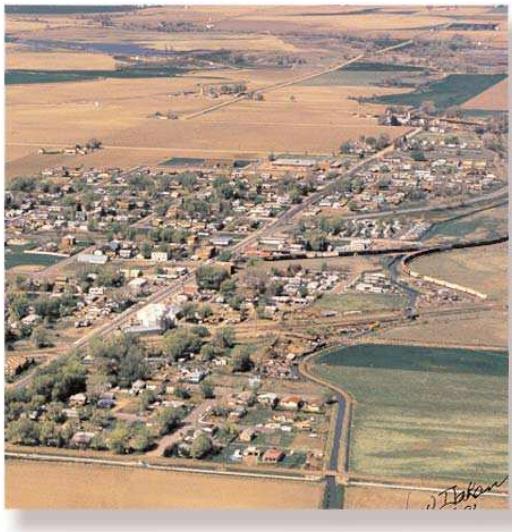
INTRODUCTION

Milliken and Johnstown are linked together through a shared agricultural heritage and school system. **The citizens expressed a strong desire to strengthen this tie, nurturing the social and economic connection by providing a safe, integrated physical connection via a trail system.** The community is excited about expanding the limited trail system. The citizens' top priority is to install an off-street trail adjacent to Highway 60 to connect Johnstown and Milliken. Currently, children are walking and riding their bikes along this busy highway to get to and from school. Thus, grade-separated crossings of Highway 60 in each community are also very important.

selection and design process so that the new neighborhoods can be linked together. It may be possible to share a right-of way with a ditch or utility company to limit the amount of land necessary for a trail to provide those links. Cooperation will also be essential to fund and maintain the trails.

Intent

This section of the Master Plan provides a framework for good planning and design of community trails to ensure that Milliken and Johnstown develop a safe, interconnected trail network. It should serve as a reference to guide future trail-related decisions.



Function of Trails

Trails have numerous important functions:

- Trails form a cohesive community network by connecting residential neighborhoods, community facilities, shopping, parks, employment centers, recreational facilities and open space;
- They allow for safe movement between and throughout the communities and provide an

alternative to automobile transportation;

- They link important places and activities in the community and out-of-town destinations by connecting to regional trail networks;
- They provide outdoor recreational opportunities and enhance the area's quality of life;
- They enhance property values and strengthen neighborhoods; and
- They provide an opportunity to communicate the community's history and value of its natural resources through interpretive educational signage.

Trail Types

The trail system in Milliken/Johnstown will include the following types of trails (see trail cross-sections on page 55).

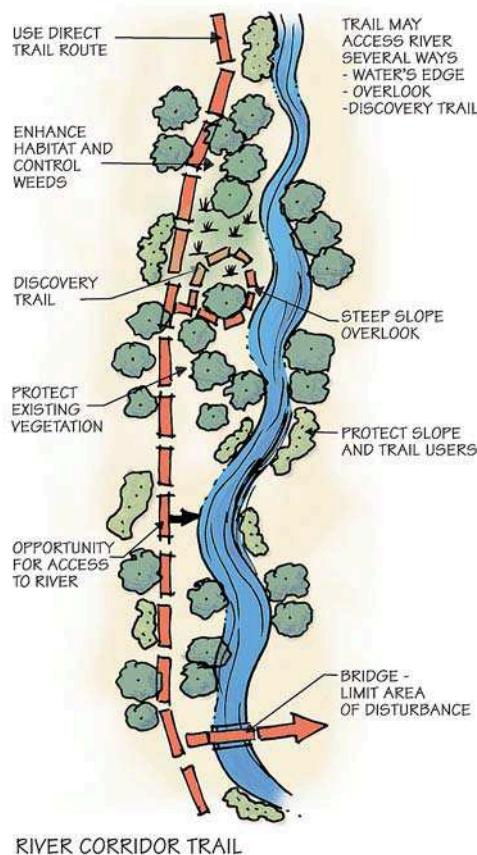
Arterial Transportation Corridor Trail

Arterial Transportation Corridor trails will facilitate commuting between the communities and across town for non-vehicular modes of transportation. These trails will be within the right-of-way adjacent to major arterials (streets).

Highway 60 and Weld County Road 46 1/2 will provide the main east - west connections between Johnstown and Milliken. The remainder of the arterial street network generally follows the existing county road network and will be improved over time in association with adjacent development. Coordination with the Colorado Department of Transportation will be required during the design and construction process. Typical activities on

regional transportation corridors include biking, rollerblading, and walking. With the exception of trail maintenance, motorized vehicles will not be permitted on any type of trail in Milliken/Johnstown.

River Corridor Trail



River Corridor trails will be developed to allow people to enjoy the riparian corridors and to facilitate safe travel between and within the communities (riparian areas are lands that are adjacent to and influenced by flowing water). These trails will provide off-street connections to major destinations in each town, tie Johnstown and Milliken together and connect the community to the regional trail systems in Weld and Larimer Counties (see Regional Context Map on page 20). These trails will generally follow the Big Thompson, Little Thompson and South Platte rivers. In addition to biking, walking, jogging and skating, portions of

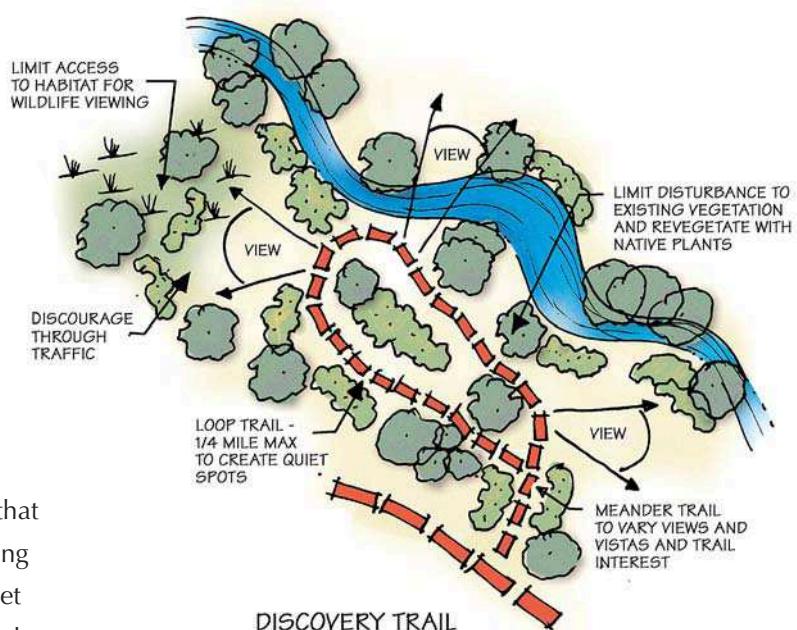
these trails may allow for horseback riding.

Neighborhood Trail

Neighborhood trails will help form cohesive community trail networks by linking parks, community facilities, neighborhoods, schools, shopping, employment centers and the regional trail system. **These trails will be located through cooperative efforts with landowners and developers during the preliminary plat process or in conjunction with trail development programs initiated by the community.** Typical activities on these trails may include walking, jogging, rollerblading and biking. Neighborhood trails should be accessible to all ages and types of activities.

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Discovery Trail



Discovery trails are short, narrow paths that allow limited access to sensitive areas in a manner that will not damage the habitat. This may include a trail up to the edge of a wetland or access to the water's

edge in sensitive areas. Typical activities on these trails include passive activities such as bird watching, photography or quiet observation of the area's natural character. Access is limited to pedestrians and wheelchairs.

Trailheads

Trailheads are the gateways of the trail network. Trailheads will be located within all neighborhood, community, and regional parks. They may also be strategically located in the linear parks system to provide access to river corridor trails. The goal is to distribute trailheads throughout the parks and trails system so that they provide access to the trails system for each neighborhood and are available approximately every two miles along the river corridor trails. Each trailhead should have a parking area, a drinking fountain, a trash receptacle and appropriate signage. Trailheads should be incorporated into other community facilities whenever possible (i.e. museum, library, schools).

Trail Amenities

All trails will provide an opportunity to educate users about the history of Milliken, Johnstown, the surrounding landscape, trail safety and etiquette. Amenities will be tailored to the trail location and type of trail. For example, a nature trail may include a viewing blind while a neighborhood trail in a residential subdivision could include fitness stations. Interpretive and directional signage, benches, picnic areas, trash receptacles, and plantings will be integrated into the trail corridors as appropriate.



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Arterial Transportation Corridor Trail Cross Section

IV

River Corridor Trail Cross Section

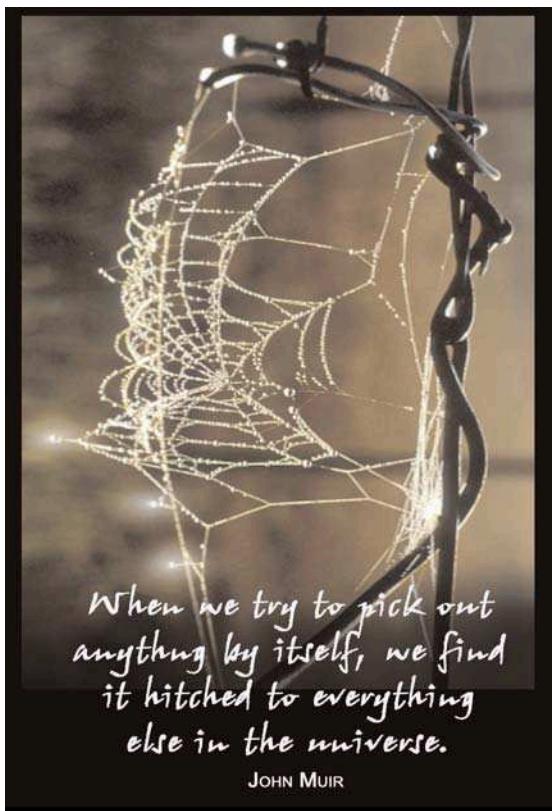
IV

Neighborhood Trail Cross Section

IV

Discovery trail

TRAIL GOALS, POLICIES AND STRATEGIES



GOAL T1:

Build a safe, multi-purpose, comprehensive trail network in Milliken and Johnstown.

Policy T1.1: Link the towns, neighborhoods, parks, schools, open spaces, employment centers, community facilities and adjacent communities with a multi-purpose trail system.

Strategy T1.1.1: Make the trails wide enough to minimize conflict among trail users. See trail cross-sections on pages 55 to 58.

Strategy T1.1.2: Include access for equestrians where appropriate throughout the trail system. Work with the neighborhood and Town when designing the trail to determine if there is a need for equestrian access and if it will be compatible with the adjacent land use.

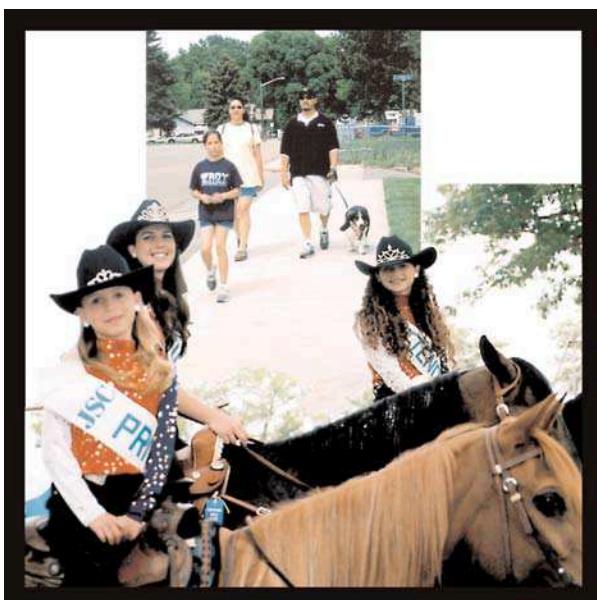
Strategy T1.1.3: Encourage preservation of the railroad rights-of-way for commuter rail and trails.

Strategy T1.1.4: Work with the ditch companies to preserve existing ditch corridors for irrigation purposes and as trail corridors.

Policy T1.2: Develop on- and off-street pedestrian and bicycle trails that provide safe access throughout the communities. The general location of the trail network is shown on the Master Plan Map on page 9.

Strategy T1.2.1: Develop streets in accordance with Johnstown's and Milliken's adopted transportation plans to ensure streets are bicycle- and pedestrian-friendly.

Strategy T1.2.2: Work with the development community to provide bikeways and sidewalks in new developments. New developments shall follow the standards set forth in this plan to ensure the ultimate trail system is consistent and connected.



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Strategy T1.2.3: Require all trails to comply with American Disability Act (ADA) standards for accessibility.

Strategy T1.2.4: Design different types of trails to come together at strategic points to allow travelers several different choices to reach a desired location.

Policy T1.3: Develop trailheads so they are distributed throughout the park and trail system, are available every two miles along river corridor trails, and provide access to every neighborhood.

Strategy T1.3.1: Strategically locate trailheads in areas that are centrally located (i.e. they are easily accessible from neighborhoods, parks, schools, other trails).

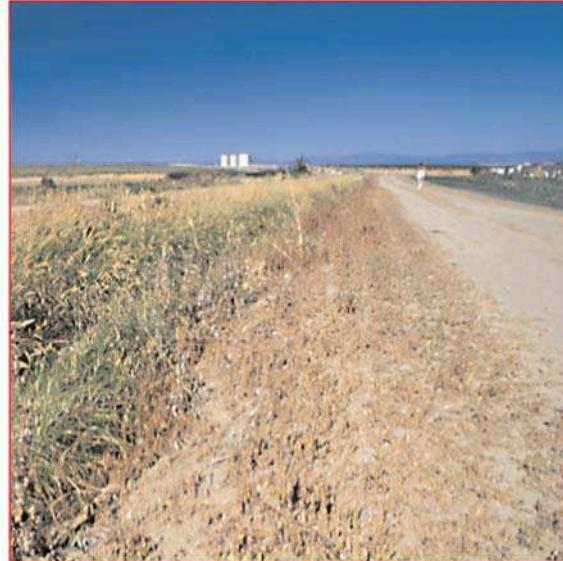
Strategy T1.3.2: Include trailheads in every neighborhood, community and regional park.

GOAL T2:

All trails should be sensitive to the environment.

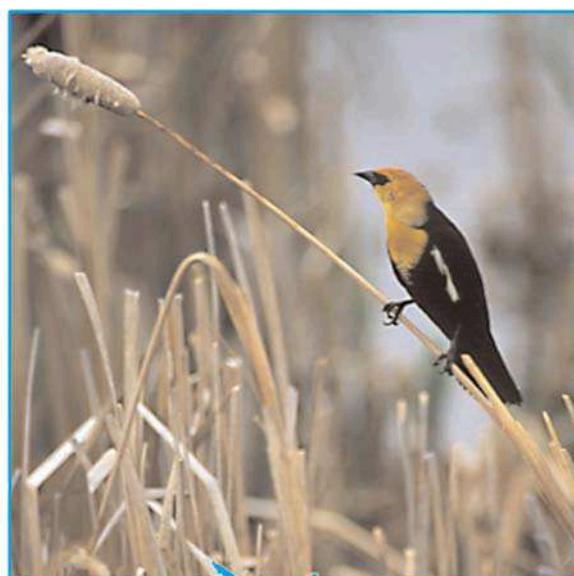
Policy T2.1: When siting trails, avoid sensitive areas and minimize impacts to wildlife and wetlands.

Strategy T2.1.1: Use appropriate setbacks from riparian corridors, valuable habitat and other sensitive areas. Work with the Colorado Division of Wildlife or qualified ecologist to determine appropriate setbacks (see resource assessment section on page 21 and trail cross sections on pages 55 to 58).



Strategy T2.1.2: Site trails in areas that have already been disturbed or are less sensitive (i.e. on an abandoned farm road or through an upland area instead of through a wetland).

Strategy T2.1.3: Close portions of trails in sensitive habitat areas as necessary during periods when species are extra sensitive to human encroachment (such as nesting season).



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Strategy T2.1.4: Enlist the help of the Colorado Division of Wildlife, local conservation groups and ecologists when planning and designing trails.

Strategy T2.1.5: Educate trail users on the importance of “leaving no trace” and staying on trails through signage at trailheads, educational curriculum at the local schools and articles in the local paper.

Policy T2.2: Design trail improvements to fit into the natural environment.

Strategy T2.2.1: Design new trails in a manner that responds to the natural environment, fits into the setting and protects scenic view corridors.

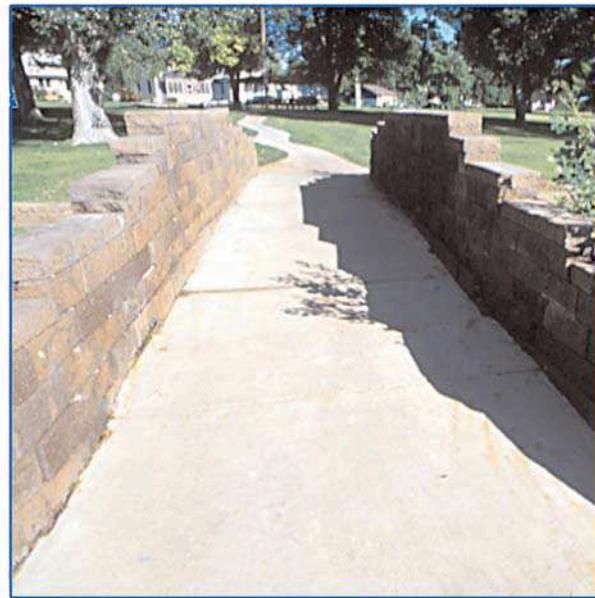
Consider issues such as topography, erosion, natural drainage, view corridors, sensitive areas and the transition between the trail and the surrounding landscape.

Strategy T2.2.2: Design trails to take advantage of the diversity in the landscape through which they pass. As the landscape changes, ensure that dominant features can be clearly seen from the paths. Locate trails to take advantage of good views and vistas toward landmarks.

Policy T2.3: Use native, drought-tolerant species for landscaping whenever possible.

Strategy T2.3.1: Incorporate the following xeriscape principles in trail design:

- Turf Alternatives: Consider alternatives to turf such as native and low water-use plantings. Native turf should be used in areas where intense traffic is not anticipated.
- Mulches: Use mulches to cover the soil, minimize evaporation, reduce weed growth and slow erosion.



- Zoning of Plants: Group plantings based on their water use and locate them to take advantage of microclimates and their specific needs.
- Soil Improvements: Prior to planting, enhance soils with organic matter to allow for better water absorption and improved water holding capacity.
- Appropriate Maintenance: Apply water according to plant needs rather than a schedule; prune, weed and fertilize as necessary to further water savings.

GOAL T3:

Pursue trail development with a spirit of cooperation.

Policy T3.1: Cooperate with federal, state and local governments, private landowners, developers, the school districts, the Recreation District, non-profit organizations and citizens to facilitate trail connections and to acquire funding.

Strategy T3.1.1: Work with Weld and Larimer Counties and neighboring municipalities to link communities, facilitate land acquisition, pursue funding opportunities and construct trails.

Strategy T3.1.2: Monitor trail initiatives within the planning area and adjacent communities to maximize potential for connections and cooperative funding (see Regional Context Map on page 20 for current status of planned trails within the planning area).

Strategy T3.1.3: Develop cooperative agreements with ditch companies regarding joint use of ditch rights-of-way for trails. Address safety, maintenance and liability issues in the agreements.

Policy T3.2: Acquire right-of-way through negotiation and consensus.

Strategy T3.2.1: Work with landowners to determine appropriate locations for trails.

Strategy T3.2.2: Keep the public informed of decisions regarding trail design and location.

Policy T3.3: Encourage community participation in trail design, development and management.

Strategy T3.3.1: Work with the Recreation District, the school districts, teachers, and citizens to create educational trails near the schools and integrate educational elements into the trail corridors.

Strategy T3.3.2: Cooperate with the Weld County Youth Conservation Corps to hire local youth to help build and maintain the trails.

Strategy T3.3.3: Host community events such as community walks and guided nature walks (with volunteer naturalists).

GOAL T4:

Use trails to enhance the quality of life in Milliken/Johnstown.

Policy T4.1: Design all trails to reflect Johnstown/Milliken's unique character.

Strategy T4.1.1: Ensure that proposed trails reflect the design elements (for materials, signage, benches, landscaping, trailheads, rural character, etc.) outlined in the **Trail Design Considerations** section of this plan (pages 65 and 66).

TRAIL DESIGN, DEVELOPMENT AND MAINTENANCE

Site trails in Milliken and Johnstown as the communities grow according to the purpose that they will serve within the overall trail system. The trail corridors are identified on the Parks, Trails, Recreation and Open Space Master Plan Map. The

map depicts general locations of the trail corridors. Specific locations will be determined in cooperation with the landowner after the resources along the corridor have been evaluated (see resource assessment section on page 21).

Following are a basic design process and general design considerations for developing a trail.

I. Site Inventory

Identify the resources, unique features, opportunities and constraints that the proposed site offers. The inventory will likely address:

- Neighborhood and Community Context – Note adjacent land uses and identify possible trail locations that provide convenient access to neighborhoods and other community destinations. Minimize conflicts between trails and incompatible uses. For example, if the trail is planned to go through the heart of sensitive habitat or near people's homes, identify alternative routes or buffer the trail from the habitat/homes as necessary.
- Vegetation and Wildlife Habitat – Map habitat types and determine how sensitive each area is to human intrusion. Also determine where there are opportunities to improve habitat quality in conjunction with trail development.
- Aesthetic Characteristics – Note both immediate and distant views from the proposed trail area (i.e junkyard 100 yards away versus tremendous view of mountains), the quality of the natural environment, and adjacent land uses. Also note the overall character of the

proposed site. The trail should fit into the existing landscape (i.e. more formal design adjacent to a residential subdivision versus a nature trail along a river corridor).

- Accessibility – Consider how people will be able to enter the trail corridor from adjacent properties, other trails and nearby roads.
- Floodplains – Identify the limits of the floodplain on the proposed site and what precautions may be necessary (i.e. flood gates to close trail during events, bridges, bank stabilization) when laying out the trail.
- Topography – Note the topography and opportunities and constraints it may pose.
- Water Resources – Evaluate river or ditch hydrology, water quality and bank stability as necessary.



- Property Ownership – If the town does not own the proposed portion of the trail corridor, coordinate with property owners for trail right-of-way acquisition.

- Unique Features – Map special areas such as interesting geologic formations, historic sites, or wetlands and determine how sensitive these areas are to human intrusion.
- Hazardous Areas – Map areas that pose safety or environmental hazards.

II. Site Analysis

Evaluate the site inventory and make recommendations to improve the area, minimize conflicts and maximize trail benefits.

III. Site Design

Site the trail taking the site inventory and analysis into consideration. Design the trail to fit within the natural environment and take advantage of the diversity in the landscape through which it passes. Design the trail to reflect Milliken/Johnstown's unique character (refer to **Parks, Trails, Recreation and Open Space Design Guidelines** for information regarding Milliken/Johnstown's character). Consider who will use the trail and what type of experience the user will have when determining the type of trail materials and amenities to be placed along the trail. Develop an operations and maintenance (O&M) plan at the time of site design to facilitate the allocation of resources. Address necessary equipment, anticipated maintenance tasks (i.e. mowing, snow removal, trash removal, weed management, trail repair and replacement) and discuss who will be responsible for each task.

Involve the public. Citizens are interested in participating in trail construction. This involvement will lead toward a feeling of connection to the community and evoke a positive attitude towards the trails system.

IV. Site Development

Consider the development parameters outlined on the following page prior to designing the site. Develop a construction cost estimate to establish a preliminary budget for the design and development of the trail.

V. Maintenance

Consider trail maintenance during site design. Design trails to minimize long term maintenance obligations. Educate trail users to respect the community's trail network and invoke a "leave no trace" ethic.

IV

TRAIL DESIGN CONSIDERATIONS

| ITEM | DESIGN CONSIDERATION | | | | | | | | | | | |
|---------------|---|--------------------|--|-------|----------------------|--------------------|---------------|-----------------------------|---------|--------------|---|-----|
| Access | Consider the proposed trail's relationship to planned trailheads and streets to facilitate maintenance. Consider how people will be able to enter the trail corridor from adjacent properties, other trails and nearby roads. All trails should meet the ADA standards. | | | | | | | | | | | |
| Aesthetics | Note both immediate and distant views from the proposed trail area (i.e. junkyard 100 yards away vs. tremendous view of mountains), the quality of the natural environment, etc. | | | | | | | | | | | |
| Alignment | Align the trail to take advantage of land forms and other features. Install landscaping at appropriate locations to create interest along the corridor. Curves in trail should be smooth and respond to land forms, landscaping and other features along the trail. | | | | | | | | | | | |
| Clearance | Think of the trail design in all three dimensions. Trails should be clear of tree limbs and trunks, rocks and brush. <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: center;">Trail</th> <th style="text-align: center;">Horizontal Clearance</th> <th style="text-align: center;">Vertical Clearance</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Crusher fines</td> <td style="text-align: center;">2' for limbs, logs, & brush</td> <td style="text-align: center;">7' - 8'</td> </tr> <tr> <td style="text-align: center;">Horse / Bike</td> <td style="text-align: center;">6' for trees & rock ledges 3' for limbs & logs</td> <td style="text-align: center;">10'</td> </tr> </tbody> </table> | | | Trail | Horizontal Clearance | Vertical Clearance | Crusher fines | 2' for limbs, logs, & brush | 7' - 8' | Horse / Bike | 6' for trees & rock ledges 3' for limbs & logs | 10' |
| Trail | Horizontal Clearance | Vertical Clearance | | | | | | | | | | |
| Crusher fines | 2' for limbs, logs, & brush | 7' - 8' | | | | | | | | | | |
| Horse / Bike | 6' for trees & rock ledges 3' for limbs & logs | 10' | | | | | | | | | | |
| Connectivity | Use trails to connect homes and businesses to destinations within neighborhoods and throughout the community. Cross creeks and ditches in strategic locations to connect neighborhoods and destinations within the community. Maximum distance between ditch and river crossings to be ½ mile. Town to review type of crossing at preliminary plat to determine if a pedestrian or maintenance vehicle crossing will be required. | | | | | | | | | | | |
| Context | Note adjacent land uses and site the trail to provide convenient access to neighborhoods, and other community destinations and to minimize conflicts. | | | | | | | | | | | |
| Drainage | The edge of the trail should match the adjacent ground. Provide appropriate conveyance for drainage that crosses the trail corridor to allow nuisance flows over the trail where possible. Piping run off under trails is not preferable as it will add maintenance. Establish minimum grades to assure proper drainage. | | | | | | | | | | | |
| Education | Integrate opportunities for education to the maximum extent possible along the trail corridors. Install interpretive signage to educate trail users about the community and the environment (i.e.: native plants, history, agriculture, birds, sensitive habitat). | | | | | | | | | | | |
| Facilities | Place picnic tables, benches, trash receptacles along River Corridors with a maximum spacing of ½ mile. Choose furnishings that are long lasting, durable, and compliment the natural environment. | | | | | | | | | | | |
| Floodplain | Identify what portions of the proposed trail will be in the floodplain and what precautions are necessary. Install signage and gates to limit access to flooded trails during storm events. | | | | | | | | | | | |
| Landscaping | Use native materials outlined on the plant list in this plan whenever possible. Strategically locate resting areas near shade with maximum spacing of ¼ mile between rest areas. Avoid winter shade on the walk where possible. Use a variety of colors, textures, fragrances and provide visual interest for all seasons. | | | | | | | | | | | |
| Maintenance | Design trails considering the ease in which they may be maintained. Limit pesticide and herbicide use. Do not apply de-icing materials to the trail. | | | | | | | | | | | |
| Orientation | Orient trails so that the user's relationship with the sun and the surrounding landscape varies as he/she travels. | | | | | | | | | | | |

TRAIL DESIGN CONSIDERATIONS (CONTINUED)

| ITEM | DESIGN CONSIDERATIONS |
|----------------------|--|
| Overall Trail Design | Ensure that all of the trail elements fit together into a unified whole. The design should respond to the area's unique setting, character and heritage. |
| Phasing | Build trails in logical places from one connection point to the next. Consider using interim connections such as streets to avoid dead ends. |
| Public Art | Incorporate public art throughout the trail system. Choose locations that are visible to people both on and near the trail. |
| Setbacks | Please refer to trail cross-sections for appropriate setback guidelines. Work with an ecologist or Colorado Division of Wildlife to determine appropriate setbacks from existing vegetation and wildlife habitat. Keep trail as far away from existing trees as possible – at least out of drip line. |
| Slope | Consider both linear grade and cross-slope when developing trail. Maximum 1% cross-slope; maximum 5% grade (may need handrail for roller bladers), try to keep grade below 5%. All trails should meet Americans with Disabilities Act standards. |
| Special Areas | Locate overlooks, discovery trails and rest stops to take advantage of unique landmarks and features. |
| Trailheads | Combine trailheads with parks and other community facilities where ever possible. Every neighborhood, community and regional park shall contain a trailhead. River Corridor trails should have trailheads every two miles unless a trailhead in an adjacent park will provide this access. Locate trailheads with access to major streets. Amenities should include: parking (with adequate room for horse trailers if horses are allowed), signage (trail rules, directional and interpretive), bicycle racks, garbage cans, plastic bags (to encourage dog and horse manure removal) signature plantings that are appropriate for the area. Also consider providing water fountains, trail maps and restrooms. |
| Trail Safety | Provide adequate shoulders to ensure there is a sufficient fall zone (at least 4'). Avoid blind curves. Place protective railing in areas with steep slopes and on bridges. Prune dead and damaged trees to protect trail users. |
| Turning Radius | Turns should be wide enough to accommodate maintenance vehicles (minimum inside radius 20'). Avoid blind curves. |
| Vegetation | Evaluate existing vegetation along trail prior to trail construction. Limit disturbance to high quality vegetative cover (i.e. cottonwoods, willows, cherry and plum trees, grassy areas). Prune dead and damaged trees to protect trail users. |
| Visibility | Ensure visibility is adequate from adjacent land uses so people feel safe on trails. |
| Visual Complexity | Design trails to take advantage of the diversity in the landscape through which they pass. As the landscape changes, ensure that dominant features can be clearly seen from the paths. Create good views and vistas to landmarks. |
| Water Resources | When crossing ditches and drainage areas minimize disturbances by using bridges and boardwalks where possible rather than regrading the site to accommodate the trail. |
| Wildlife | Take appropriate measures to protect habitat areas while building the trail. Site and build trails away from sensitive habitat. Try to construct trails between September 1st and April 30th if nesting birds are in close proximity. |

NATIVE PLANT SELECTION GUIDE FOR TRAILS

| COMMON NAME | SCIENTIFIC NAME | HEIGHT | SPREAD | PLANTING SIZE | WATER REQUIREMENTS | SUN REQUIREMENTS |
|------------------------|-----------------------------------|------------|-----------|---------------|--------------------|----------------------------|
| Shrubs | | | | | | |
| American Plum | <i>Prunus americana</i> | 15' | 10' | 5 gallon | low | full sun |
| Apache Plume | <i>Fallugia paradoxa</i> | 3' to 5' | 3' to 5' | 5 gallon | low | full sun |
| Big Western Sage | <i>Artemisia tridentata</i> | 3' to 4' | 3' to 4' | 5 gallon | low to moderate | full sun |
| Boulder Raspberry | <i>Rubus deliciosus</i> | 3' to 6' | 3' to 6' | 5 gallon | adaptable to low | sun |
| Buffaloberry | <i>Shepherdia sorbifolia</i> | 8' to 15' | 6' to 12' | 5 gallon | low | sun |
| Coyote Willow | <i>Salix exigua</i> | 6' to 12' | 4' to 8' | 5 gallon | high to adaptable | sun |
| Cranberrybush Viburnum | <i>Viburnum trilobum</i> | 10' | 6' | 5 gallon | low to moderate | full sun |
| Fernbrush | <i>Chamaebatiaria millefolium</i> | 3' to 5' | 3' to 5' | 5 gallon | low | full sun |
| Four-wing Saltbush | <i>Atriplex canescens</i> | 4' to 5' | 3' to 4' | 5 gallon | very low to low | full sun |
| Golden Current | <i>Ribes aureum</i> | 2' to 5' | 2' to 4' | 5 gallon | moderate | full sun to full shade |
| Horizontal Juniper | <i>Juniperus horizontalis</i> | 1' to 2' | 4' to 8' | 5 gallon | adaptable to low | full sun to filtered shade |
| Leadplant | <i>Amorpha canescens</i> | to 4' | to 4' | 2 gallon | low to moderate | full sun |
| Lewis's Mockorange | <i>Philadelphus lewisii</i> | 6' to 8' | 5' to 6' | 5 gallon | moderate | full sun to full shade |
| Mountain Mahogany | <i>Cercocarpus montanus</i> | 4' to 6' | 4' to 6' | 5 gallon | low | sun to filtered shade |
| New Mexico Privet | <i>Forestiera neomexicana</i> | 10' to 15' | 10' | 5 gallon | moderate | full sun to part shade |
| Ninebark | <i>Physocarpus opulifolius</i> | 5' to 10' | 6-10' | 5 gallon | adaptable | full sun to part shade |
| Rabbitbrush | <i>Chrysothamnus nauseosus</i> | 2' to 4' | 2' to 4' | 5 gallon | low | full sun |
| Red Coralberry | <i>Symphoricarpos orbiculatus</i> | 3' to 6' | 3' to 6' | 5 gallon | adaptable | filtered shade |
| Redtwig Dogwood | <i>Cornus stolonifera</i> | 8' to 10' | 8' to 10' | 5 gallon | high | full sun to full shade |
| Rocky Mountain Sumac | <i>Rhus glabra cismontana</i> | 2' to 3' | 2' to 3' | 5 gallon | adaptable to low | full sun to filtered shade |
| Shrubby Cinquefoil | <i>Potentilla fruticosa</i> | 2' to 4' | 2' to 3' | 5 gallon | moderate to high | full sun to full shade |
| Three-leaf Sumac | <i>Rhus trilobata</i> | 2' to 5' | to 25' | 5 gallon | low to moderate | full sun to full shade |
| Western Sand Cherry | <i>Prunus besseyi</i> | 4' to 6' | 4' to 6' | 5 gallon | adaptable to low | sun |
| White Snowberry | <i>Symphoricarpos albus</i> | 3' to 4' | 3' to 5' | 5 gallon | adaptable | shade |
| Woods Rose | <i>Rosa woodsii</i> | 3' to 6' | 3' to 6' | 5 gallon | adaptable to low | full sun |

NATIVE PLANT SELECTION GUIDE FOR TRAILS (CONTINUED)

| COMMON NAME | SCIENTIFIC NAME | HEIGHT | SPREAD | PLANTING SIZE | WATER REQUIREMENTS | SUN REQUIREMENTS |
|-----------------------------|---|-------------|------------|---------------|--------------------|------------------------|
| Trees | | | | | | |
| Bristlecone Pine | <i>Pinus aristata</i> | 20' to 40' | 20' to 40' | 5' and 7' | adaptable to low | sun to part shade |
| Bur Oak | <i>Quercus macrocarpa</i> | 70' to 80' | 70' to 80' | 2.0" | moderate | full sun |
| Colorado Spruce | <i>Picea pungens</i> | 30' to 60' | 20' to 30' | 6' | moderate to high | full sun |
| Common Hackberry | <i>Celtis occidentalis</i> | 50' to 60' | 50' | 2.0" | moderate to high | full sun |
| Downy Hawthorn | <i>Crataegus mollis</i> | 20' to 25' | 20' to 25' | 2.5" | adaptable to low | sun |
| Green Ash | <i>Fraxinus pensylvanica</i> | 35' to 75' | 15' to 35' | 2.5" | moderate to high | full sun |
| Honeylocust | <i>Gleditsia triacanthos F. inermis</i> | 30' to 70' | 30' to 70' | 2.0" | moderate to high | full sun |
| Kentucky Coffee Tree | <i>Cynnocladus dioica</i> | 50-60' | 40-50' | 2.0" | low | sun |
| Lanceleaf Cottonwood | <i>Populus x accuminata</i> | 40' to 60' | 30' to 40' | 2.5" | adaptable | full sun |
| Narrowleaf Cottonwood | <i>Populus angustifolia</i> | 30' to 50' | 20' to 30' | 2.5" | adaptable | full sun |
| Pinon Pine | <i>Pinus edulis</i> | 20' to 30' | 20' to 25' | 5' and 7' | very low to low | full sun |
| Plains Cottonwood | <i>Populus deltoides</i> | 75' to 100' | 50' to 75' | 2.0" | moderate to high | full sun to part shade |
| Ponderosa Pine | <i>Pinus ponderosa</i> | 60' to 100' | 25' to 30' | 5' and 7' | adaptable | full sun |
| Rocky Mt. Juniper | <i>Juniperus scopulorum</i> | 15' to 20' | 15' to 20' | 15 gal and 6' | very low to low | full sun |
| Saskatoon Serviceberry | <i>Amelanchier alnifolia</i> | 6' to 12' | 6' to 12' | 6.0' clump | low to moderate | sun to part shade |
| Thornless Cockspur Hawthorn | <i>Crataegus crus-galli 'inermis'</i> | 15' to 25' | 15' to 20' | 2.0" | adaptable | sun |