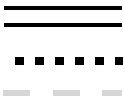
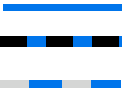
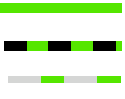









## Trail System Master Plan Trail Types – Summer

### Paved Surfaces




	<p><b>Multi-Use Paths (MUPS)</b></p> <p>Existing</p> <p>Near-Term</p> <p>Long-Term/Planned</p>	<p>Also known as Class I bike paths, accommodate two pedestrian and wheeled traffic including: bicyclists, joggers, dogwalkers, and skaters. 10' recommended width, 12' in heavy use areas, typically not along roadway</p>
	<p><b>Bike Lanes (Class II)</b></p> <p>Existing</p> <p>Near-Term</p> <p>Long-Term/Planned</p>	<p>Portion of roadway designated for bicycle use, 5-6' in width</p>
	<p><b>Bike Routes (Class III)</b></p> <p>Existing</p> <p>Near-Term</p> <p>Long-Term/Planned</p>	<p>Signed routes that are shared motor vehicles, motor vehicles will typically have to change lanes to pass a bicyclist</p>
	<p><b>Promenades</b></p> <p>Existing</p> <p>Near-Term</p>	<p>Wide pedestrian walkways, clearly distinguished from Multi-Use Paths with sidewalk coloring or paving, low speed bicycle and pedestrians</p>

### Soft-Surface Trails






	<p><b>Type 4 - Shared Multi-Use</b></p>	<p>Tread width: 8'-12', allows for passing, grades less than 5%, native or imported materials, good sightlines</p>
	<p><b>Type 3 - Shared Non-Motorized</b></p>	<p>Tread width: up to 48", allows for passing, native materials, grades up to 10%, clearances and turning radius accommodates all users</p>
	<p><b>Type 2 - Preferred Mountain Bike</b></p>	<p>Tread width: less than 36", minimal allowance for passing, native materials, overhead obstacles may be present over 6', Obstacles expected, grades occasionally over 8%</p>
	<p><b>Type 2 – Preferred Equestrian</b></p>	<p>Tread width: less than 30", minimal allowance for passing, native materials, head clearances over 12', obstacles expected, grades occasionally over 10%</p>
	<p><b>Type 2 – Preferred Hike</b></p>	<p>Tread width: less than 36", minimal allowance for passing, native materials, Overhead obstacles may be present, grades occasionally over 10%, may include stair steps</p>
	<p><b>Type 1 – Route only</b></p>	<p>Narrow single file trail, obstacles frequent or continuous, grades may be over 25%</p>

## Trail System Master Plan Trail Types - Winter









### Winter Use - Multi-Use Paths (MUPS)

	Cleared/Plowed	Paths that are cleared of snow to provide a similar level of use during all seasons
	Groomed for Nordic Use	Multi-use paths groomed for nordic use
	No winter maintenance	Multi-use paths with no winter maintenance











### Soft Surface Trails (Over Snow)

	<b>Type 4 – Shared Multi-Use</b>	Motorized and non-motorized users, Tread width: 15'-20', can accommodate two-way groomed tracks, grades less than 5%, good sight lines throughout
	<b>Type 3 – Shared Nordic/Skate</b>	Tread 9'-12', allowance for passing, nordic tracks on right side, grades less than 5%, clearances and turning radius accommodates novices and children
	<b>Type 2 – Preferred Snowshoe/Hiking</b>	Tread width: 24"-36", machine groomed corduroy, packed surface, grades occasionally steeper than 10%, supports dog walking
	<b>Type 2 – Preferred Nordic</b>	Tread width: 12" to 18", corridor width 5'-6', machine-groomed or user packed, grades occasionally steeper than 10%, supports advanced trails
	<b>Type 1 - Route Only</b>	Narrow trail or route, single-file travel, user created tread, Route may not be groomed or maintained, no removal of trees to create, minimal signage, grades may be steeper than 25%

## Trail System Master Plan Facilities

 	<p><b><u>Tunnels</u></b> Existing Proposed</p>	<p>Under-crossings are the preferred type of grade separated crossings for Multi-Use Paths, 18’ diameter pipe is recommended for allowance of snowcats for winter maintenance</p>
	<p><b><u>Barriers</u></b></p>	<p>Gates, seasonal closures</p>
	<p><b><u>Bridges</u></b></p>	<p>Designs vary based on usage</p>
	<p><b><u>Portals</u></b></p>	<p>Include trailheads, lodging, restaurants, and should be served by frequent public transportation</p>
	<p><b><u>Parks</u></b></p>	<p>Self contained recreation facilities, generally have same facilities as trailhead, serve as trailhead and also have amenities unique individual park</p>
	<p><b><u>Trailheads</u></b></p>	<p>Should provide: Automobile and Bicycle Parking, trash/recycling, restrooms, signage</p>
	<p><b><u>Access/Egress Point</u></b></p>	<p>Have same characteristics a GIC points, but have been formalized, and access is legal and regularly maintained</p>
	<p><b><u>Key GIC Point</u></b></p>	<p>GIC Points are the basis for selecting Recreation Nodes, may include official and unofficial locations where recreation transition occurs</p>

### Additional symbols used throughout the Trail System Master Plan

	<p><b>1991 TOML Future/Alternative Trails</b></p>		<p><b>Parks and Open Space</b></p>
	<p><b>Private Dirt Trails</b></p>		<p><b>Campgrounds</b></p>
	<p><b>Recommended Boardwalk</b></p>		
	<p><b>Existing Sidewalks</b></p>		
	<p><b>Near-Term Sidewalks</b></p>		
	<p><b>Long-Term/Planned Sidewalks</b></p>		
	<p><b>Existing MMSA Bike Trails</b></p>		
	<p><b>Existing USFS Trails (INF)</b></p>		

**Table 6-2. Trail Type Classifications**

Trail Type	Tread Width	Trail Corridor	Surface	Average Grade*	Max Grade*	Outslope (soil)	Turn Radius	
							Climbing	Switchback
Type 4 Shared Multi-use	1-way: <8' 2-way: 12-20'	12-16' (w) 12'-15' (h) 22' (w) 12-15' (h)	Native soil and rock	<= 5%	10%	2-5%	15-20 ft*	>=10 ft
Type 3 Shared NM	24"-48"	4-8' (w) 10-15' (h)	Native soil	<= 5%	15%	3-8%	7-15 ft	3-8 ft
Type 2 Bicycle	12"-36"	2-6' (w) 6-8' (h)	Native soil and rock	<= 10%	25%	3-8%	> 7 ft	2-8 ft
Type 2 Horse	8"-30"	4-8' (w) 12-15' (h)	Native soil	<= 5%	15%	3-8%	> 10 ft	3-8 ft
Type 2 Hike	18"-36"	3'-5' (w) 7-8' (h)	Native soil and rock	<= 8%	25%	3-8%	> 7 ft	2-8 ft
Type 1 Route or Foot path	6"-30"	Varies by terrain	Native soil and rock	varies	25%	N/A	N/A	N/A

\* Grades may exceed recommendation over rock surfaces.

**Table 6-7. Winter Trail Type Classifications**

Trail Type	Tread Width	Trail Corridor	Surface	Average Grade	Max Descending Grade	Max Climbing Grade	Turn Radius
Type 4 Shared Multi-use	1 or 2-way Nordic: 15-20'	18-25' (w) 10' (h)	Groomed Tracks and Corduroy Snow	<= 5%	10%	8%	>=20 ft
Type 3 Shared Nordic/Skate	1-way Nordic: 9-12'	12-15' (w) 7'-9' (h)	Groomed Tracks and Corduroy Snow	<= 5%	15%	10%	>=15 ft
Type 2 Snowshoe/Hiking	36-48"	5-6' (w) 6-8' (h)	Groomed Corduroy or Packed Snow	<= 10%	20%	20%	2-8 ft
Type 2 Classic Nordic	12"-18"	5-6' (w) 6-8' (h)	Groomed or Trekked-in Tracks	<= 10%	15%	20%	8-15 ft
Type 1 Route	12"-30"	2-4' (w) 6-8' (h)	Power or packed Snow	varies	N/A	N/A	N/A