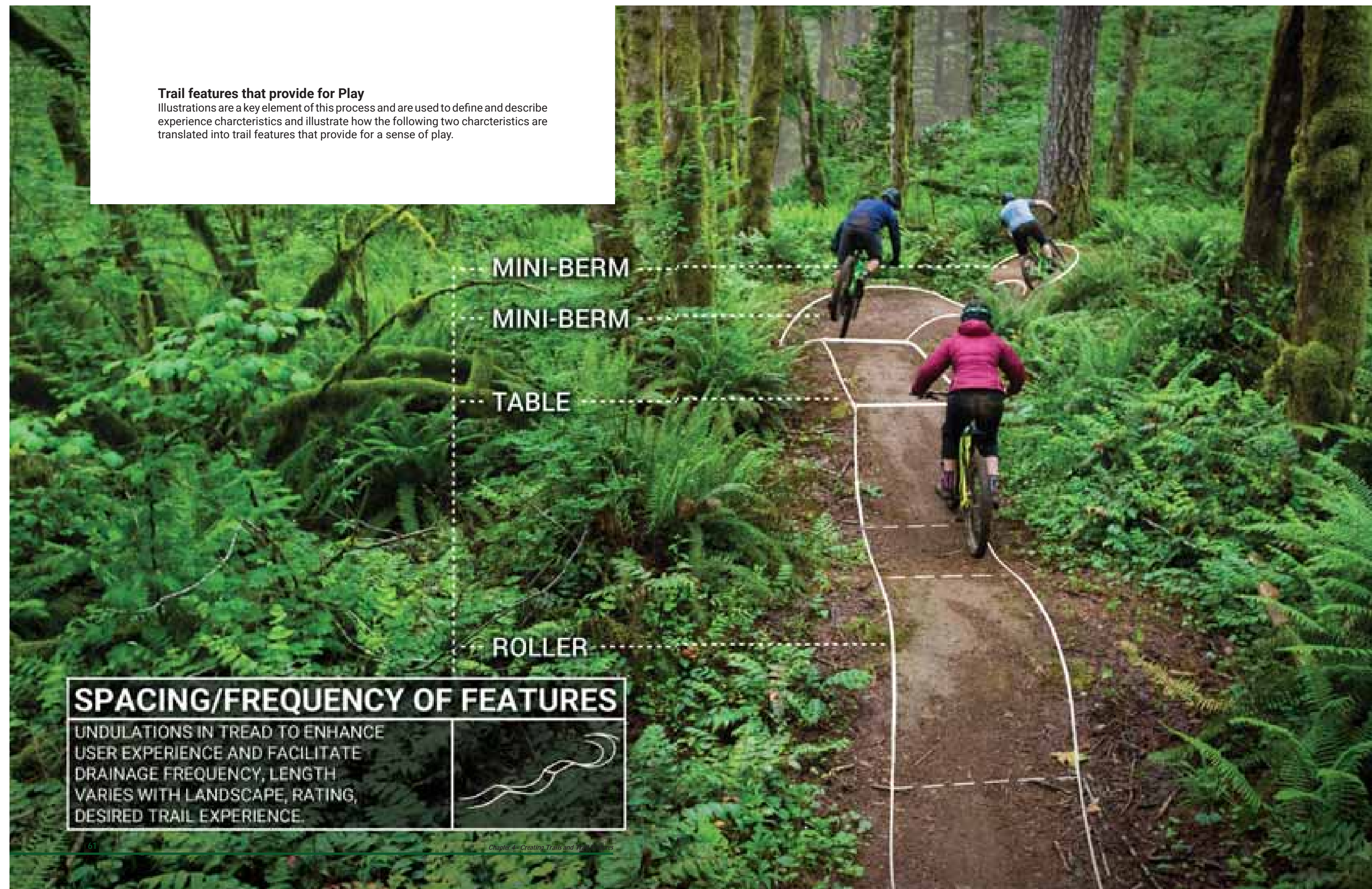


CHESTER CREEK SINGLE TRACK TRAIL



“Guidelines for a Quality Trail Experience, 2017” By Bureau of Land Management and IMBA

EXAMPLE FEATURES

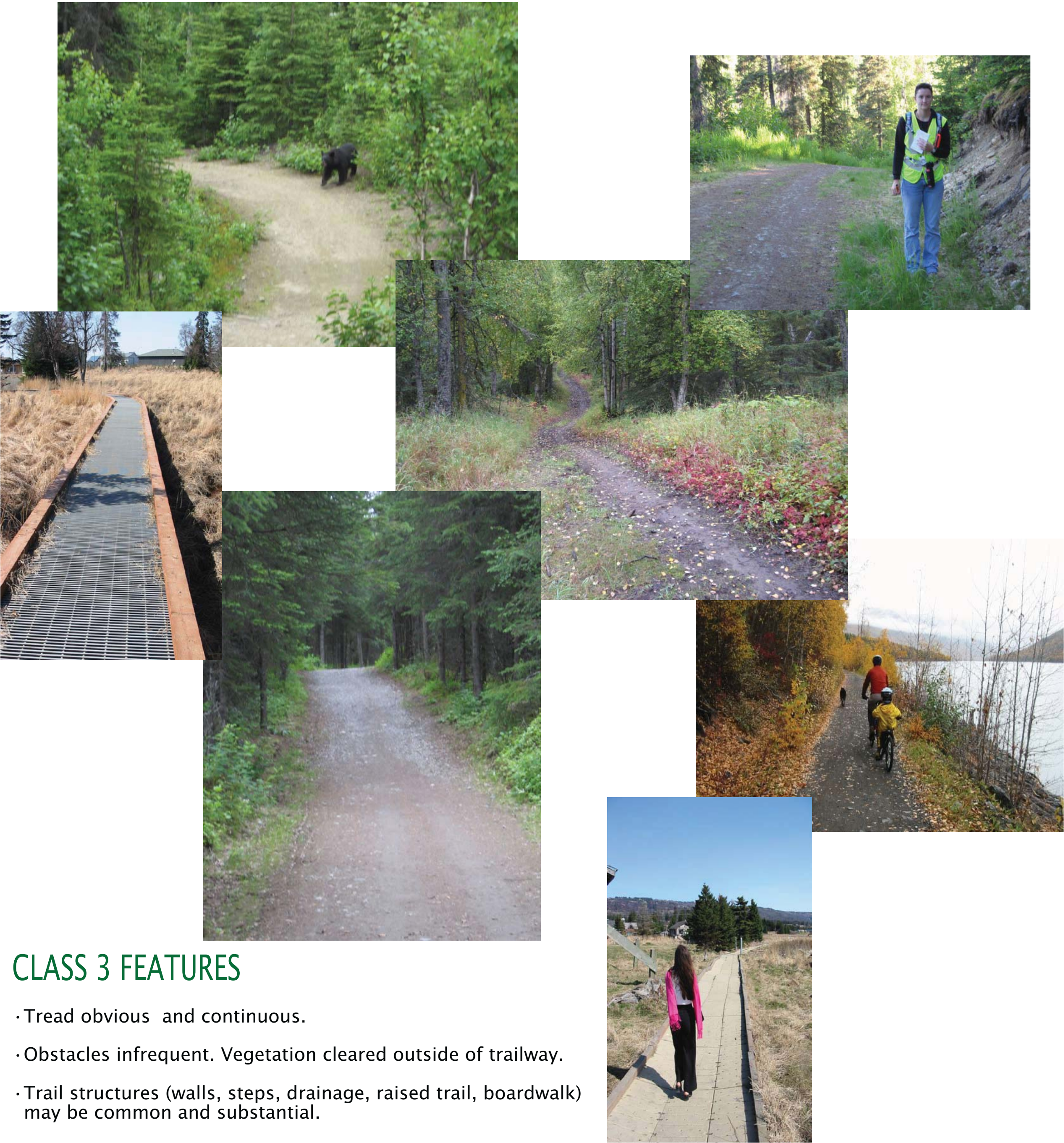


“Guidelines for a Quality Trail Experience, 2017” By Bureau of Land Management and IMBA

CHESTER CREEK SINGLE TRACK TRAIL

TRAIL CLASS 3

BICYCLE



CLASS 3 FEATURES

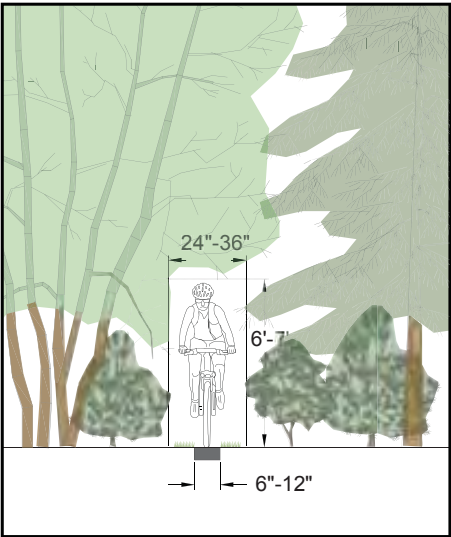
- Tread obvious and continuous.
- Obstacles infrequent. Vegetation cleared outside of trailway.
- Trail structures (walls, steps, drainage, raised trail, boardwalk) may be common and substantial.
- Directional signs at trail junctions.

Trail Design Parameters provide guidance for the assessment, survey and design, construction, repair and maintenance of trails, based on the Trail Class and Designed Use of the trail. Exceptions and variances to these parameters can occur, however, when site-specific circumstances demand such exceptions.

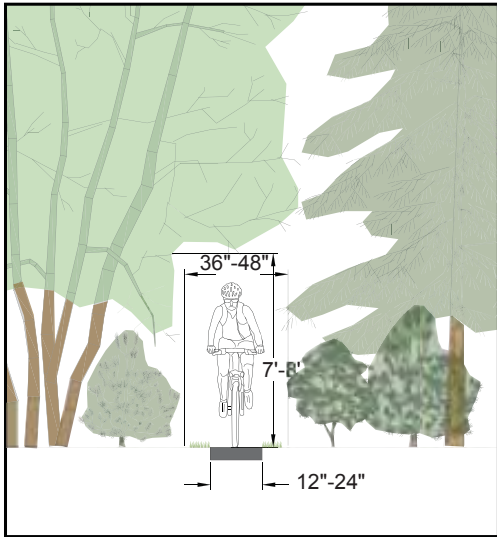
Designed Use		Trail Class 1	Trail Class 2	Trail Class 3	Trail Class 4	Trail Class 5
BICYCLE	One Lane	6' – 12"	12' – 24"	18' – 30"	24' – 48"	36' – 60"
	Two Lane	Not applicable.	Not applicable.	48' – 60" Accommodate two-lane travel with passing lanes.	60' – 84"	72' – 120"
Design Surface	Type	Native. Rough, unstable or soft tread.	Native, with limited grading. Unstable or soft sections likely.	Native with some on-site borrow or imported materials. Some soft areas.	Likely imported or stabilized tread. Few, if any, loose or soft surfaces.	Firm, hardened surface.
	Obstacles	Rocks, logs and roots up to 6-12" common. Forced portages likely.	Embedded rock, protrusions to 6". Some portages may be needed.	Generally smooth with few protrusions exceeding 3".	Smooth, few obstacles. 1 – 2" protrusions.	No obstacles to wheeled transport.
Design Grade [*]	Target Range (>90% of Trail)	15% – 18%	< 12%	< 10%	< 8%	< 5%
	Short Pitch Max (Up to 200' lengths)	30% 50% on downhill-only travel.	25% 35% on downhill-only travel.	15%	10%	8%
	Max Pitch Density***	< 10% of trail	< 5% of trail	< 5% of trail	< 3% of trail	< 3% of trail
Design Cross-Slope	Target Range	5% – 10%	5% – 10%	5%	3% – 5%	3% – 5%
	Maximum					
Design Clearing	Width	24' – 36' Some vegetation may encroach into clearing area.	36' – 48' Some light vegetation may encroach into clearing area.	12' – 18" outside of tread edge.	12' – 18" outside of tread edge.	18' – 24" outside of tread edge.
	Height	6' – 7'	7' – 8'	8'	8' – 9'	8' – 9'
Design Turns	Radius	3' – 4'	4' – 6'	6' – 8'	8' – 10'	8' – 12'

^{*} Grade variances should be based upon soils, hydrological conditions, use levels, and other factors contributing to surface stability and erosion potential. Due to effects of use on tread and erosion, steeper pitches should be carefully evaluated based on potential effects of these various factors.

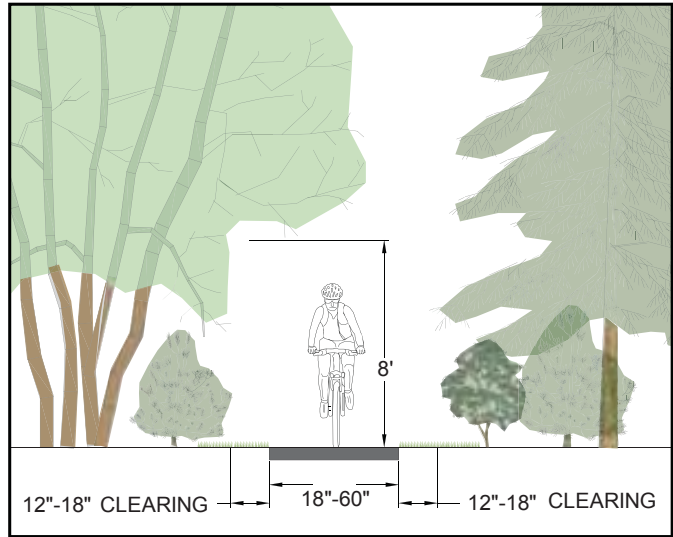
^{**} Maximum pitch density refers to the percentage of the trail that is within 5% (+/-) of the Short Pitch Maximum Grade.



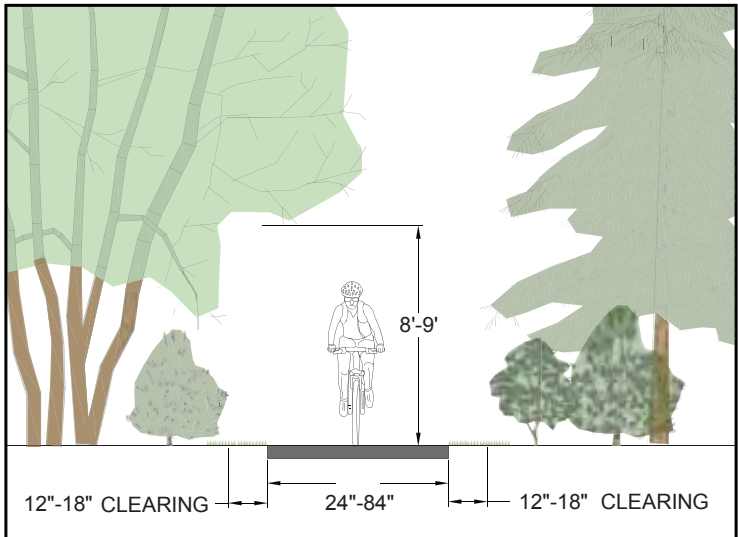
Trail Class 1



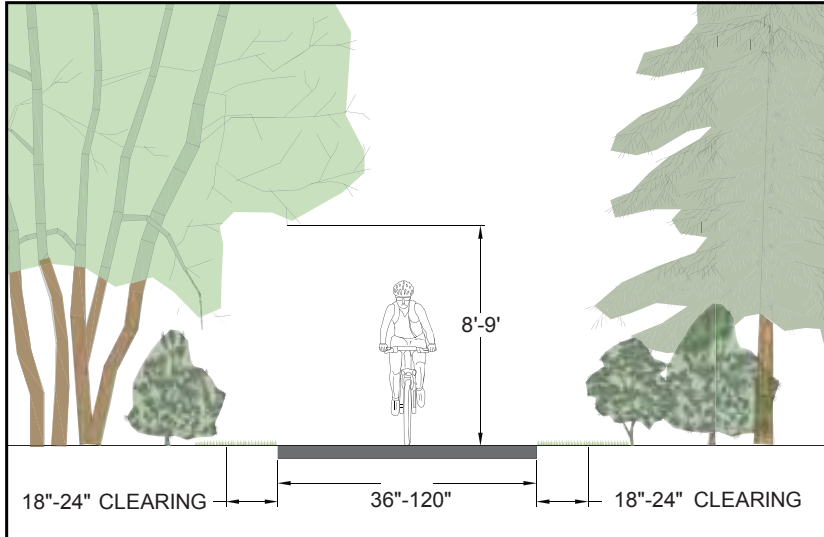
Trail Class 2



Trail Class 3



Trail Class 4



Trail Class 5

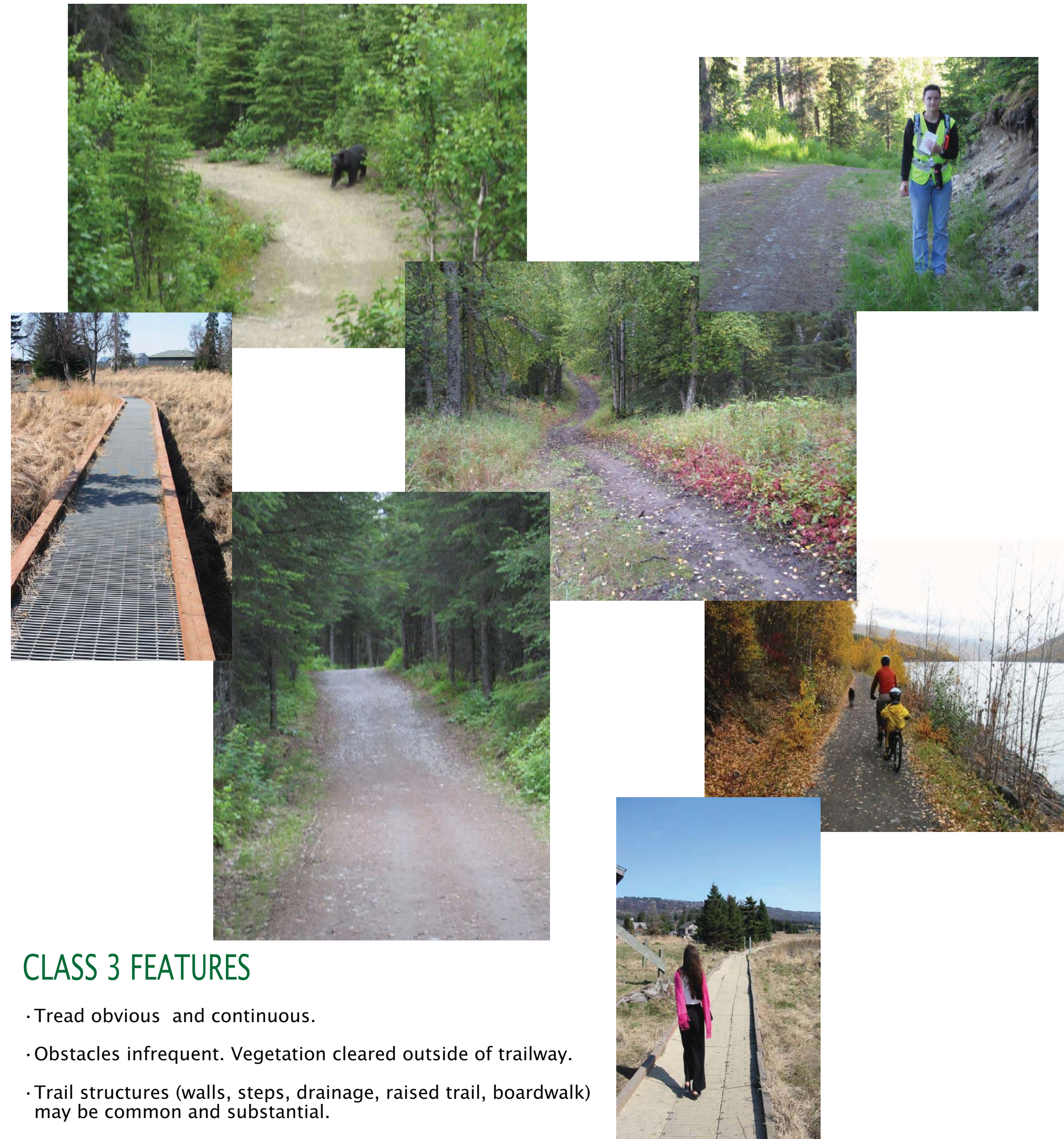
“FNBP Trail Improvements Plan, 2011” By Parks and Recreation and DOWL

EXAMPLE TRAIL TYPE

FAR NORTH BICENTENNIAL PARK

CHESTER CREEK SINGLE TRACK TRAIL

TRAIL CLASS 3



CLASS 3 FEATURES

- Tread obvious and continuous.
- Obstacles infrequent. Vegetation cleared outside of trailway.
- Trail structures (walls, steps, drainage, raised trail, boardwalk) may be common and substantial.
- Directional signs at trail junctions.

HIKER-PEDESTRIAN

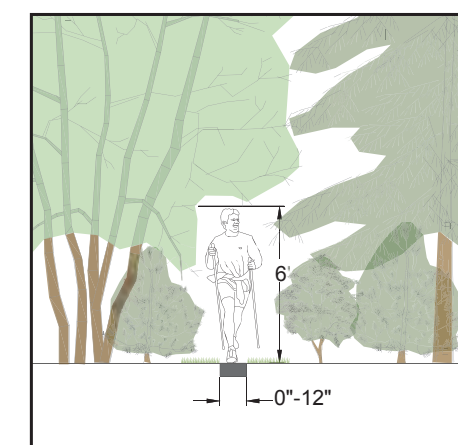
Trail Design Parameters provide guidance for the assessment, survey and design, construction, repair and maintenance of trails, based on the Trail Class and Designed Use of the trail. Exceptions and variances to these parameters can occur, however, when site-specific circumstances demand such exceptions.

Designed Use		Trail Class 1	Trail Class 2	Trail Class 3*	Trail Class 4*	Trail Class 5*
HIKER-PEDESTRIAN						
Design Tread Width		0' – 12'	6' – 18'	18' – 48'	32' – 96'	36' – 120'
Design Surface	Type	Native, un-graded. Intermittent, rough.	Native with limited grading. Continuous, rough.	Native with some on-site borrow or imported materials.	Imported materials or hardening is common.	Uniform, firm, and stable.
	Obstacles	Roots, rocks, logs, steps to 24".	Roots, rocks and log protrusions to 6"; steps to 14".	Generally clear. Protrusions to 3"; steps to 10".	Smooth, few obstacles. Protrusions 2-3"; steps to 8".	Smooth, no obstacles. Protrusions <2".
Design Grade**	Target Range (>90% of Trail)	< 20%	< 15%	< 12%	< 10%	< 5%
	Short Pitch Max (Up to 200' lengths)	25%	20%	20%	15%	10%
	Max Pitch Density***	< 10% of trail	< 5% of trail	< 5% of trail	< 3% of trail	< 3% of trail
Design Cross-Slope	Target Range	Not applicable	5 – 10%	5 – 10%	3 – 7%	2 – 3% (or crowned)
	Maximum	Up to natural side-slope.	Up to natural side-slope	15%	10%	3%
Design Clearing	Width	Sufficient to define trail corridor.	24" – 36", with some encroachment into clearing area.	12" – 18" outside of tread edge.	12" – 18" outside of tread edge.	12" – 24" outside of tread edge.
	Height	6'	6' – 7'	8'	8'	> 8'
Design Turns	Radius	No minimum.	2' – 3'	3' – 6'	4' – 8'	6' – 12'

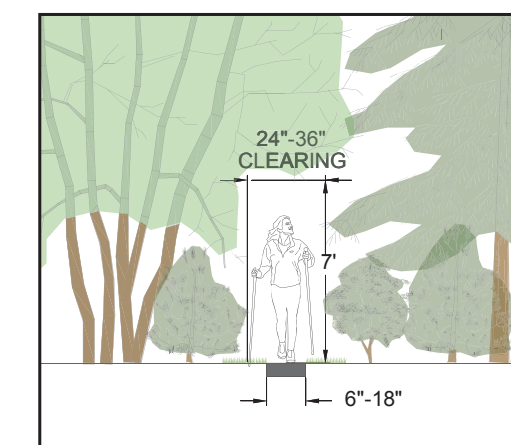
* Trail Classes 3, 4 and 5 may potentially provide accessible passage. If assessing or designing trails for accessibility, refer to current Agency trail accessibility guidance.

** Grade variances should be based upon soils, hydrological conditions, use levels, and other factors contributing to surface stability and erosion potential.

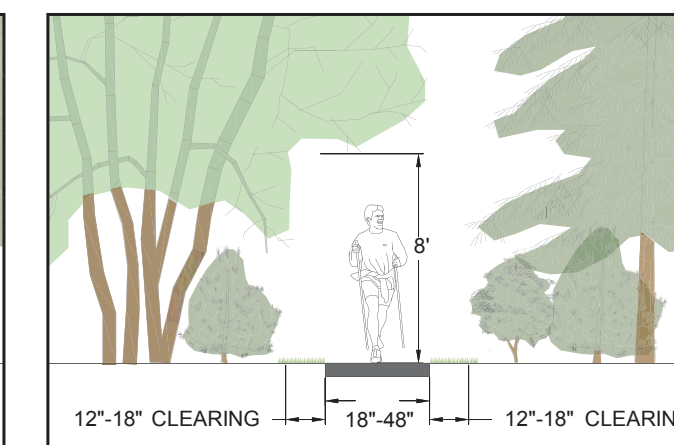
*** Maximum pitch density refers to the percentage of the trail that is within 5% (+/-) of the Short Pitch Maximum Grade.



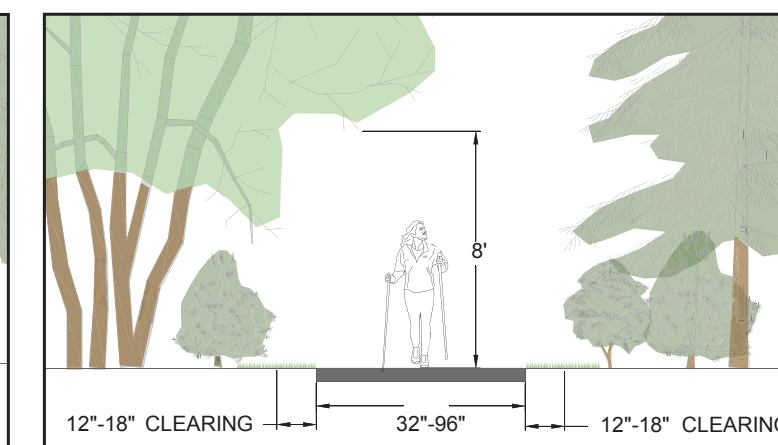
Trail Class 1



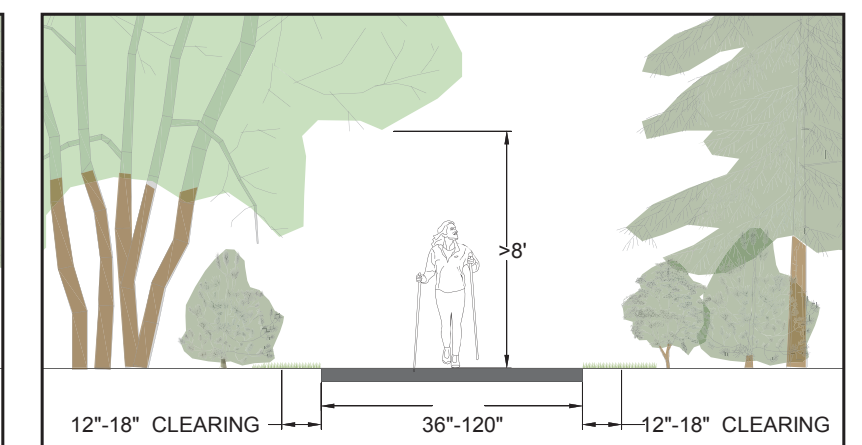
Trail Class 2



Trail Class 3



Trail Class 4



Trail Class 5

“FNBP Trail Improvements Plan, 2011” By Parks and Recreation and DOWL

EXAMPLE TRAIL TYPE

FAR NORTH BICENTENNIAL PARK

CHESTER CREEK SINGLE TRACK TRAIL

INTERSECTION SCENARIO EXAMPLE

POSSIBLE DESIGN TREATMENTS:

- Narrow radius or decreasing radius turns (pinch points)
- Chicanes
- Grade changes (uphill grade before approaching the trail)
- Clear sight lines at intersections
- Design trail with choke points (likely two close trees or a fallen logs) to slow riders naturally when approaching the bike path
- Yield or Stop signs for the singletrack at each merge or crossing point

