

DESIGN CRITERIA BEST PRACTICES

PROJECT NO. 4449 Mississauga Cycling Network Master PlanTYPE OF PROJECT: Master Plan MUNICIPALITY: City of Mississauga

NOTE: MEASUREMENTS ARE IN METRES	TAC (Geometric Design Guidelines)	AASHTO (Guidelines to Develop Bicycle Facilities)	MTO Ontario Bikeways Planning and Design Guidelines (1996)	Waterfront Trail Guidelines (1997)	Town of Richmond Hill (2007)	City of Windsor (2001)	City of Hamilton Design for Bikeways	Recommendation
BICYCLE OPERATING SPACE / ENVELOPE AND CLEARANCES								
Minimum Clearance to edge of traffic lane: • 60km/hr • 80km/hr	0.5 1.0	- -	- -	- -	- -	- -	- -	0.5-1.0
Vertical Clearance for Structures overhanging bikeways	2.5-3.6	2.5-3.0	2.5m min (3.6m desirable)	2.5-3.0m	3.0m	2.5m min.	2.5-3.0	2.5-3.6
Clearance to barrier or other fixed object	0.2 – 0.5	0.6-1.1	0.25m min. (0.5m desirable)	0.3-0.5m	-	0.6m	0.5-1.0	0.2-1.0
Clearance to unfenced drop-off e.g. river	1.0	0.6-1.1	-	-	-	-	0.5-1.0	1.0
General horizontal clearance	0.6	-	1.0m min.	-	1.0m	0.6m	0.5-1.0	0.6-1.0
BIKEWAYS								
<i>Other design Criteria (off-road)</i>								
Pathway Materials	-	Asphalt or concrete desirable; crushed aggregate may be used in some situations	Asphalt, concrete or limestone screenings (only when grades are <5%)	Asphalt desirable for high-use trails; compact stonedust for lower use trails	Asphalt or porous pavement for main trails; asphalt or limestone screenings for supporting connections.	Granular 'A', stonedust or asphalt	Asphalt, concrete, limestone screenings or aggregate lift with surface treatment binder	Asphalt
Cross – Slope	-	Min. 2.0%- 3.0% max	2%	Min. 2.0%	2.0%-2.5%	2.0-4.0% (for asphalt, gravel, crushed stone and earth trails)	Max 4%	Min 2.0% Max 4.0%
Longitudinal Slope	-	<5.0% desirable; 8.0% for up to 90m; 11+% for up to 15m	<5.0% desirable	<5.0% desirable	<5% desirable (May increase to max. 8.3% for short sections of trail)	-	Max. 5% on paved surface; Max.3.0% on granular surfaces	<5.0% desirable; 8% for up to 90m; 11+% for up to 15m (barrier-free considerations may supersede these requirements in certain cases)
Minimum distance to access points	-	-	-	-	250-500m	-	-	250 metres preferred 500m maximum spacing
Minimum turning radius	-	Based on lean angle and path design speed; min. 10m radius for 20km/h design speed and 20d lean angle	15m for 25km/h design speed	Min 10.5m	-	-	-	Based on lean angle and path design speed; min. 10m radius for 20km/h design speed and 20d lean angle
Minimum distance between off-road facility and roadway	-	-	-	-	-	-	-	1.5m min