

# Cycling Environment Assessment Tool

Use it at <http://ceat.cyclenation.org.uk/> or read on for more info. Initially just covering links, the intention is to develop a complementary junctions tool then embed both into an online map-based system so crowd-sourced scores for 'immediate' cycling environments can be assigned to links and junctions in eg OpenStreetMap (to power cycle quality maps and routing engines etc), with another version in eg Cyclescape to evaluate proposals.

Screenshot below shows CEAT for links. The first three inputs are used for a "Separation from motors" rating with the rest used for an "Effectiveness" rating, then an overall score from 0 to 5 is calculated from these two ratings.

## Separation from Motors:

Type of Cycling Infrastructure	Motor-free Path/Footway	Road without Infrastructure	Advisory Cycle Lane	Mandatory Cycle Lane	Hybrid Cycle Lane	Light Protection	High Protection
Motor PCUs/day	less than 1,000	1,000 to 2,000	2,000 to 5,000	5,000 to 10,000	more than 10,000		
Speed Limit	20 mph or lower		30 mph		40 mph or higher		

## Effectiveness:

1-way or 2-way	1-way			2-way		
Pedestrian activity	delineated/none	up to 100 per hour	100 to 160 per hour	160 to 200 per hour	over 200 per hour	
Effective Width	sub-standard	minimum	compromised	efficient	future-proof	
Surface Quality	loose or muddy	unsealed	lumpy	smooth	very smooth	
Social Safety (day)	uncomfortable			fine		
Night-time Safety	closed at night	unlit and uncomfy	lit but uncomfy	unlit but ok	lit and fine	

Cycling infrastructure types are: Path, Road, ACL, MCL, Hybrid Track, Light Protection, Full Protection:

Shared Paths or Roadways			Dedicated Cycling Space			Protected Space for Cycling			
Shared <a href="#">path</a> or <a href="#">footway</a>	Road with no cycling infra	Advisory cycle lane	Mandatory cycle lane	Enhanced cycle track	With plastic objects or 2m spatial separation			With kerbs or 4m spatial separation	
<b>Path</b>	<b>Road</b>	<b>ACL*</b>	<b>MCL</b>	<b>Hybrid**</b>	<b>Light***</b>			<b>Full</b>	

\***ACLs** must have parking restrictions to be considered. \*\***Hybrid** includes terraced tracks with a 'forgiving' kerb. \*\*\***Light** includes stepped terraced tracks (with min 60mm vertical kerb) along with armadillos, orcas, wands etc.

**Separation from motors.** Use values for speed, [PCUs](#) and infra to lookup the separation [rating](#) in this table:

PCUs/day:	Rating for:	<50			<250			<1,000			<2,000			<5,000			<10,000			10,000+		
		Road	Road	Road	Low	Med	High	Low	Med	High	Low	Med	High	Low	Med	High	Low	Med	High	Low	Med	High
Speed Limit	20mph	High+	High+	->	->	Road	->	->	Road	->	Road	MCL	ACL	MCL	Hybrid	MCL	Hybrid	Light	MCL	Hybrid	Light	
	30mph	High+	High	->	Road	MCL	Road	ACL	MCL	ACL	MCL	Hybrid	MCL	Hybrid	Light	MCL	Hybrid	Light	MCL	Hybrid	Light	
	40mph+	High	Med	Road	ACL	MCL	Road	ACL	MCL	ACL	MCL	Light	MCL	Light	Light	Hybrid	Light	Light	Hybrid	Light	Full	

**High+** rating achieved by bettering **High**'s infra requirement by one grade. One below **Low**'s requirement = **Low-**

**Effectiveness.** Satisfy all conditions in a column to achieve that rating:

- Pedestrian activity: number of pedestrians per hour, per metre
- Usable Width: consider [buffer requirements](#) to calculate the [effective width](#)
- Surface Quality: sealed or not, smoothness
- Social Safety: day/night ratings for usability

Item		Rating					
		Fail	Low-	Low	Medium	High	High+
<b>Pedestrian Activity</b> (per hour per metre width)			over 200	160 to 200	100 to 160		< 100
Usable Width	Shared-use Path	< 1.5m	1.5m to 1.7m	1.8m to 2.4m	2.5m to 3.4m	3.5m - 4.4m	4.5m+
	Delineated Path	< 1.2m	1.2m to 1.4m	1.5m to 1.9m	2.0m to 2.4m	2.5m - 3.4m	3.5m+
	ACL or MCL	< 1.2m	1.2m to 1.4m	1.5m	1.6m to 1.7m	1.8m - 2.0m	2.1m+
	1way Cycleway	< 1.2m	1.2m to 1.4m	1.5m to 1.7m	1.8m to 2.0m	2.1m - 2.4m	2.5m+
	2way Cycleway	< 2.0m	2.0m to 2.4m	2.5m to 2.9m	3.0m to 3.4m	3.5m - 3.9m	4.0m+
<b>Surface Quality</b>			loose or muddy	unsealed	lumpy	smooth	very smooth
<b>Social Safety: Day</b>			->	->	uncomfy	->	fine
<b>Social Safety: Night</b>		locked	->	unlit and uncomfy	lit but uncomfy	unlit but ok	lit and fine

Overall Score:		Separation from motors rating				
		Low-	Low	Medium	High	High+
Effectiveness rating	Low-	0	1	1	1	1
	Low	1	1	2	2	2
	Medium	1	2	3	3	3
	High	1	2	3	4	4
	High+	1	2	3	4	5

Score = 0 if **either** factor can't achieve a Low- rating.

Scores can be used to audit existing / proposed infrastructure, create maps and assist cycle journey planning

score	description	map colour		
-	un-rated links get no colour	clear		
0	bad (lack of) cycling provision	black	0	#1F1F1F
1	very poor quality, should not be promoted	red	1	#DF0000
2	low-quality provision that needs improvement	amber	2	#FF9900
3	has value but would benefit from improvement	yellow	3	#E7E700
4	good practice, effective and should appeal to all	light blue	4	#009FEF
5	world class, best practice, built for the future	solid blue	5	#0000FF

Cyclenation groups are urged to only support initiatives that score at least 4. Campaigners may seek a score of 5, especially for new developments, or a score of 3 may be acceptable for other - especially existing - situations.