

ChiCycle Coordinator
Mark Record
22 Barton Road
Chichester
West Sussex
PO19 3LJ
Tel 01243 781445
recordm@btinternet.com

Simon Elliott
Programme Manager (Construction)
Regional Investment Programme South East
Highways England
Bridge House
1 Walnut Tree Close
Guildford
Surrey | GU1 4LZ

Monday 29 June 2020
Re Designated Funds A27 Link Improvement Package Feasibility Study

Dear Mr Simon Elliott,

ChiCycle are delighted that funds and planning efforts are being invested into walking and cycling infrastructure between Chichester and Emsworth.

However, we are reluctant to support the designs within the feasibility study because they involve relocating cyclists onto the pavement in built up areas. This will result in a significant reduction in provision for both cyclists and pedestrians alike.

Please find a detailed list of our concerns, observations and recommendations at the end of this correspondence, which we hope will be considered during the further development of this scheme.

ChiCycle would welcome an assurance from you, that plans to put fast two-way cycle traffic onto the pavement, in built up areas, with the cycleway running on a single side of the road, will be thoroughly reconsidered.

Please let us know how you intend to review and revise the existing designs. Ideally, we would like a statement that you are happy for us to share by publishing on our website.

Thank you in advance for sharing your intentions,

Philip Maber, Jenny Cole, Michael Neville, Pauline Gaskin, Debbie Carter, Gabrielle Adams, Julia Smith, Keith Sutton, Sarah Sharp, Ping Jiang, Liwen Shi, Mark Record

ChiCycle Concerns, Observations and Recommendations regarding the Highways England Designated Funds A27 Link Improvement Package Feasibility Study Plans

30 kph Commuter/Utility Cycle Traffic on Shared Use Pavements will Threaten Vulnerable Residents

[DMRB CD195 Designing for cycle traffic](#) (page 17) recommends a cycle-way design speed of 30 kph. It indicates an absolute minimum design speed of 20 kph. However, the standards states this minimum speed can only be applied over a short distance:

E/3.17 Absolute minimum values for cycle track design speed shall only be used for distances **up to 100 metres**.

E/3.17.1 Where absolute minimum design speed values are used for cycle tracks, 'SLOW' markings should be included.

30 kph will be an intimidating speed of traffic for vulnerable residents sharing the pavement. Parents may be discouraged from walking young children to school, choosing to make these journeys by car instead. This may force a car-dependent lifestyle on the very youngest members of our community. Frail elderly residents may also lose the confidence to go shopping locally when fast moving cycles are relocated onto the pavement. This could prevent elderly people living independently. People with sensory impairment may feel particularly at risk.

[DfT LTN 1/12 Shared Use Routes for Pedestrians and Cyclists](#) (page 6) discusses related issues:

The Equality Act

1.13 Shared use schemes are often implemented to improve conditions for cyclists, but it is essential that they are designed to take into account the **needs of everyone expected to use the facility**. Poorly designed schemes, and schemes where the available width is insufficient to comfortably accommodate the expected flows of pedestrians and cyclists, are likely to **reduce the amenity value of the route**.

1.14 **Disabled people and older people can be particularly affected by shared use routes**. Ultimately, however, it will depend on the quality of the design. Consideration of their various needs is an important part of the design of shared use, and the duties under the Equality Act 2010 are particularly relevant.

ChiCycle are concerned that removing existing cycle lanes from the carriageway and re-locating fast cycle traffic onto existing pavements will represent a significant reduction in the quality of provision for both pedestrians and cyclists alike.

Our recommendation is to preserve the existing pavements/footways for pedestrian use only.

Feasibility Study Incorrectly Relies on CD195 Specifications for Shared Use Pavements/Foot-ways

Feasibility Study 5.1.4. (Page 65) States:

To determine the required widths of proposed cycle infrastructure, based upon peak hour cycle flow, reference has been made to Table E/3.1 of the Highways England guidance. Table E/3.1 has been re-produced below in Figure 5-3.

However, [DMRB CD195 Designing for cycle traffic](#) does not contain any specification for shared use pavements/footways!

The Introduction of CD195 makes the following statement:

This document refers to the provision for **cycle traffic only** which allows for a higher design speed when **separated from pedestrian and equestrian traffic**.

Chapter 1 of CD195 clarifies that the scope of the document excludes shared use paths.

1. Scope (Aspects covered)

1.1 This document shall be used for the design of routes and assets used by cycle traffic.

NOTE This document **does not cover the design of shared use facilities for pedestrians, equestrians and cyclists**.

ChiCycle observe that CD195 recommendations have been inappropriately applied and therefore falsely indicate a shared use pavement might be an appropriate solution in built up areas. This mistake casts doubts over the conclusions of the entire study. We recommend the proposal of reallocating pavement space for shared use is reconsidered.

Side Road Junctions do not follow CD195 Standard

[DMRB CD195 Designing for cycle traffic](#) (page 27) identifies only two methods where a cycle track can cross a side road while maintaining priority.

E/4.7 Cycle tracks which intersect the minor road at priority junctions shall cross the minor road in one of two ways - either **bent-out** or **bent-in** crossings.

The "bent in" method is not appropriate for use with two way cycle tracks.

E/4.16 Cycle tracks at bent-in crossings **shall be one-way**.

ChiCycle doubt there is adequate space in the built the up areas to "bent out" the cycle track by a minimum of 5 metres at all access roads and minor junctions.

E/4.15 At bent-out crossings, where cycle tracks cross minor private access roads carrying less than 2000 AADT, there shall be a **minimum set-back distance of 5 metres**.

ChiCycle recommend stepped cycle tracks as a more appropriate solution. CD195 indicates stepped cycle tracks are acceptable as long as a speed limit of no more than 30 Mph is applied where they are employed.

Table shows a stepped cycle track is a suitable solution even with the high 15697 AADT traffic flow of the A259.

E/1.1 Table E/1.1 shows the minimum cycle route provision which shall be used for different traffic speeds and volumes.

Table E/1.1 Minimum provision for cycle routes

Speed limit (mph)	Motor traffic flow (AADT-Average annual daily traffic)	Minimum provision for cycle routes
40 and over	All flows	Cycle tracks (excluding stepped cycle tracks)
30	>5,000	Cycle tracks
	0-5,000	Cycle lanes
20	>5000	Cycle tracks
	2,500-5,000	Cycle lanes
	<2500	Quiet streets

LCDS Recommends Against Running Two-Way Cycle Tracks Across the Mouths of Side Road Junctions

[LCDS Ch5 Junctions and crossings](#) (Page 25 - Priority junctions) gives design advice on side road junctions for two-way cycle tracks that is similar to that given in CD195:

For two-way tracks crossing two-way side roads, **'bending-out' by 5 metres** is the recommended option. Where island separation is wide, this can be achieved with little or no deviation of the cycle track. Continuing a two-way track through a priority junction without deviation is possible, but brings with it **various risks**, related to the visibility of cyclists to turning motorised traffic. **It is not recommended** unless traffic speeds and volumes are very low and other measures can be put in place to enhance visibility of cyclists – even then, it should be subject to a site- specific risk assessment. **Closing side streets to motorised traffic is likely to be the only reliable way of dealing with these risks.**

LCDS recommend that if a two way cycle track cannot be "bent out" at junctions the only reliable way of making the arrangement safe is to close the side streets to motorised traffic!

The Feasibility Study may have considered the use of two-way cycle tracks parallel to the road due to the misconception that this arrangement requires the least highway space to accommodate it. However, CD195 and LCDS both include bending out the cycleway by 5 metres where cycle tracks cross minor roads or access-ways. ChiCycle consider the proposed two-way cycle track an

inefficient use of available space due to the requirement of bending out the cycle way at each junction/access-way.

For these reasons ChiCycle recommend that in built up areas, either stepped cycle tracks should be provided on both sides of the road or alternatively traffic volumes and speeds should be reduced to levels where cyclists can safely share the carriageway with motorists.

Proposed Plans Require Properties Adjacent to the Cycle Track to Limit Boundary Heights to 600mm for Visibility Splay Compliance

[DfT LTN 02/08 Section 9.1](#) (page 53) explains visibility requirements at junctions and crossings of cycle tracks. It states:

9.1.1 Where a cycle track meets a road, **visibility splays** are required to ensure **cyclists can see and be seen by approaching motorists**. Splays are defined by their X and Y distances, and Figure 9.1 shows the basic layout. Figure 7.18 in the Manual for Streets (DfT/CLG, 2007) (MfS) shows how splays are measured on curved alignments.

Boundaries of properties immediately adjacent to the cycle track will need to be free from visual obstructions. This is so motor-vehicles at junctions or vehicles emerging from driveways can see and give way to cyclists before pulling out into approaching cycle traffic. A 31 metre SSD is recommended for 30 kph design speed cycle tracks which will be the Y distance a motorist would need to see oncoming cyclists in advance of pulling out across the cycle way. Maintaining adequate visibility will require boundary planting, fencing and walls on private properties, being brought down and maintained at below the DfT recommended height of 600mm.

ChiCycle are concerned residents may be reluctant to comply with requests to modify their front gardens and that future policing of these visibility requirement may prove difficult to enforce.

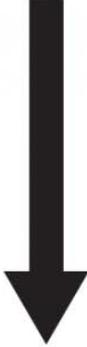
All Current UK Highway Standards Recommend Against Converting Pavements to Shared Use for Two-Way Long Distance Commuter/Utility Cycle Routes running through Built Up Areas

[LCDS Ch4 Cycle lanes and tracks](#) (Page 79) - makes the following statement about shared use footways:

4.6.3 - Partially separated and shared use footways are **not generally recommended alongside the carriageway** where there are better ways of providing for cyclists. They suffer from many of the drawbacks outlined for equivalent off-road facilities in section 4.5 above, with regard to compliance, **compromising pedestrian comfort and deterring use by many people who find sharing with cyclists intimidating, including people with mobility or visual impairments. They also represent a low level of service for cyclists.**

[DfT LTN 02/08](#) (page 10) Table 1.2 Outlines a hierarchy of provision intended to ensure that the needs of the most vulnerable road users are fully considered in all highway schemes.

Table 1.2 Hierarchy of provision

 <p>Consider first</p> <p>Consider last</p>	Traffic volume reduction
	Traffic speed reduction
	Junction treatment, hazard site treatment, traffic management
	Reallocation of carriageway space
	Cycle tracks away from roads
	Conversion of footways/footpaths to shared use for pedestrians and cyclists

[DfT LTN 1/12 Shared Use Routes for Pedestrians and Cyclists](#) (page 22) explores some of the disadvantages of relocating two way cycle traffic onto a shared pavement/footway.

6.12 A common reason for taking cyclists off the carriageway is the perception that it will improve safety. However, it is important to understand that **a shared use route will not necessarily be safer than an on-carriageway alternative**. In particular, careful consideration is needed where a cycle track running alongside a road crosses side a road – see Figure 6.1. At these locations, there is **significant potential for conflict**, which can sometimes **negate the safety benefits** of segregating cyclists from motor vehicles. Section 10.3 of LTN 2/08 discusses this in detail.

6.13 Where cycle tracks alongside roads accommodate **two-way flow**, the **potential for conflict can increase significantly**. It is probable that drivers are less likely to expect cyclists to come from both directions because, intuitively, they might assume cyclists would be travelling in the same directions as traffic in the adjacent part of the carriageway – see Figures 6.1 and 6.2.

Please see figures 6.1 and 6.2 from DfT LTN 1/12 shown on Page 7

Motorists are likely to be concentrating on other motor vehicles when approaching the turn – they may not expect to encounter cyclists at these potential conflict points.

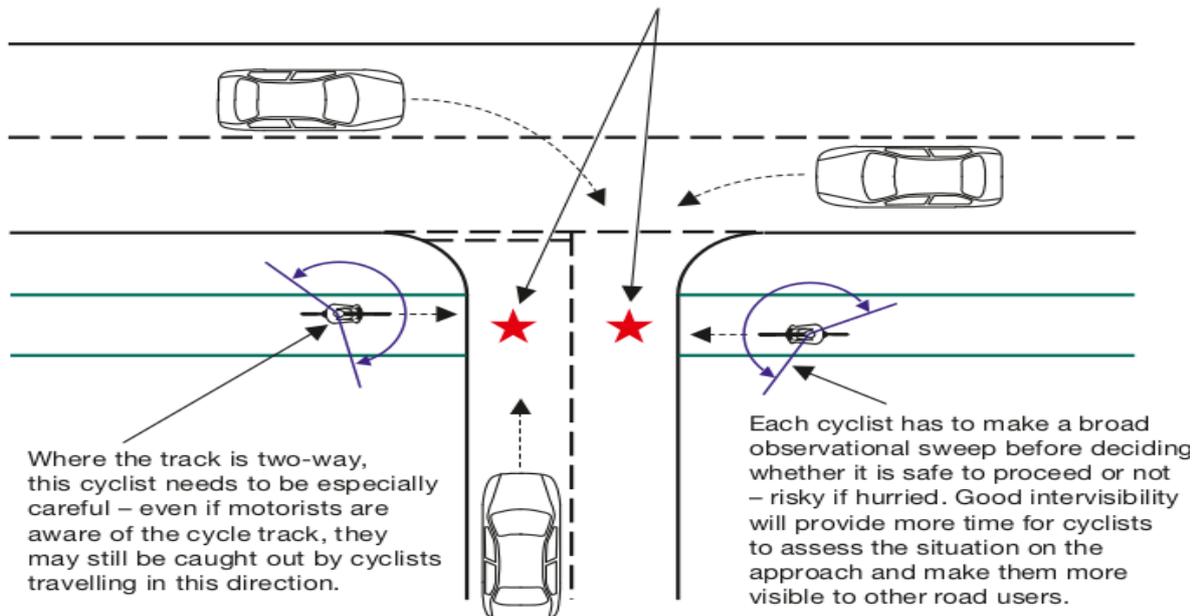


Figure 6.1 Potential conflict issues at cycle crossings near junctions

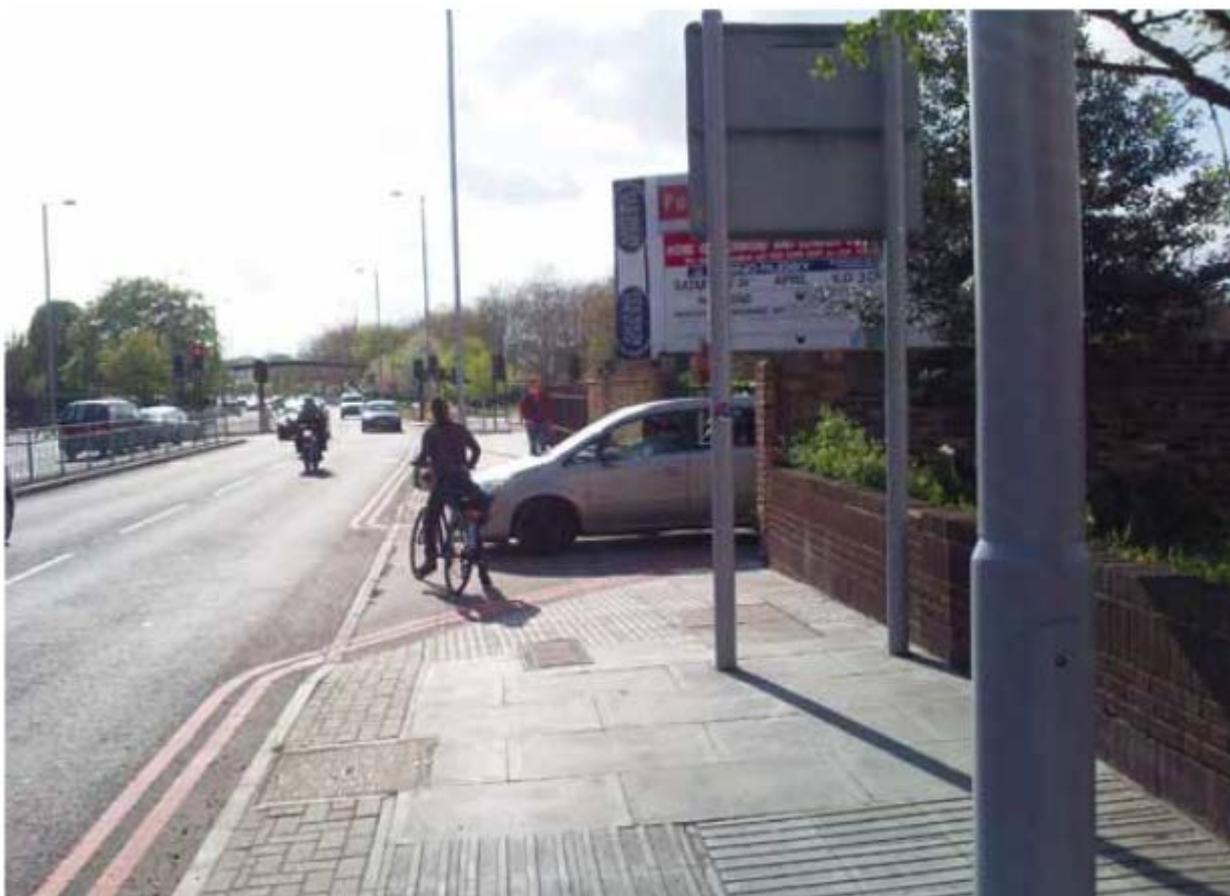


Photo: richmondcycling #31528 CycleStreets, CC Attribution-Share Alike licence

Figure 6.2 Potential for increased conflict where cycle track is two-way

The now obsolete [Sustrans Design Manual Handbook for cycle-friendly design](#) April 2014, Chapter 4 - Streets and roads (page 14) explains the manual's philosophy towards reallocation of road space:

Reallocation of road space. A fundamental aspect of the provision of cycling facilities is the reallocation of carriageway from motor vehicles to cycling. This can be seen in the majority of figures within this document. **The provision of cycle tracks in urban areas at the expense of the footway is not encouraged (it tends to be unpopular with pedestrians and cyclists)**

Routing the South Coast National Cycleway along pavements, through built up areas, will prove counterproductive to road safety. Motorists often show aggression towards cyclists who choose not to use poor quality cycle provision. This aggression is frequently accompanied by dangerous driving endangering cyclists. West Sussex already contains many examples of unsuitable cycle schemes that cyclists normally bypass by riding in the roadway.

If national cycle design standards are ignored, the Designated Funds A27 Link Improvement Package risks becoming a waste of public money. It may then produce unusable and useless infrastructure that the community do not want to see constructed.

ChiCycle advise that the A27 Designated Funds should only be spent on high quality, national standards compliant (preferably CD195) infrastructure. This will enable the uptake of safe, convenient and confident cycling along the South Coast National Cycle-route.

Plans Confuse Actual Widths Measured between Vertical Features with Recommended Usable Effective Widths Prescribed by National Cycle Standards

ChiCycle have surveyed sections of the A259 pavement and concluded that there has been a misinterpretation of national cycle design guidelines regarding usable track widths. Widths shown in the Feasibility Study appear not to make allowance for the vertical features adjacent to the path such as boundary walls and hedges.

As previously discussed [DMRB CD195](#) Designing for cycle traffic does not contain any specification for shared use pavements/footways. However, even if pedestrians could be removed from the pavement to make way for a dedicated cycle-way, then the standards for track widths have still been misapplied.

[DMRB CD195 Designing for cycle traffic](#) (page 12) states:

E/3.2 Additional width shall be added to cycle tracks to make allowance for fixed objects adjacent to or within the cycle track in accordance with Table E/3.2.

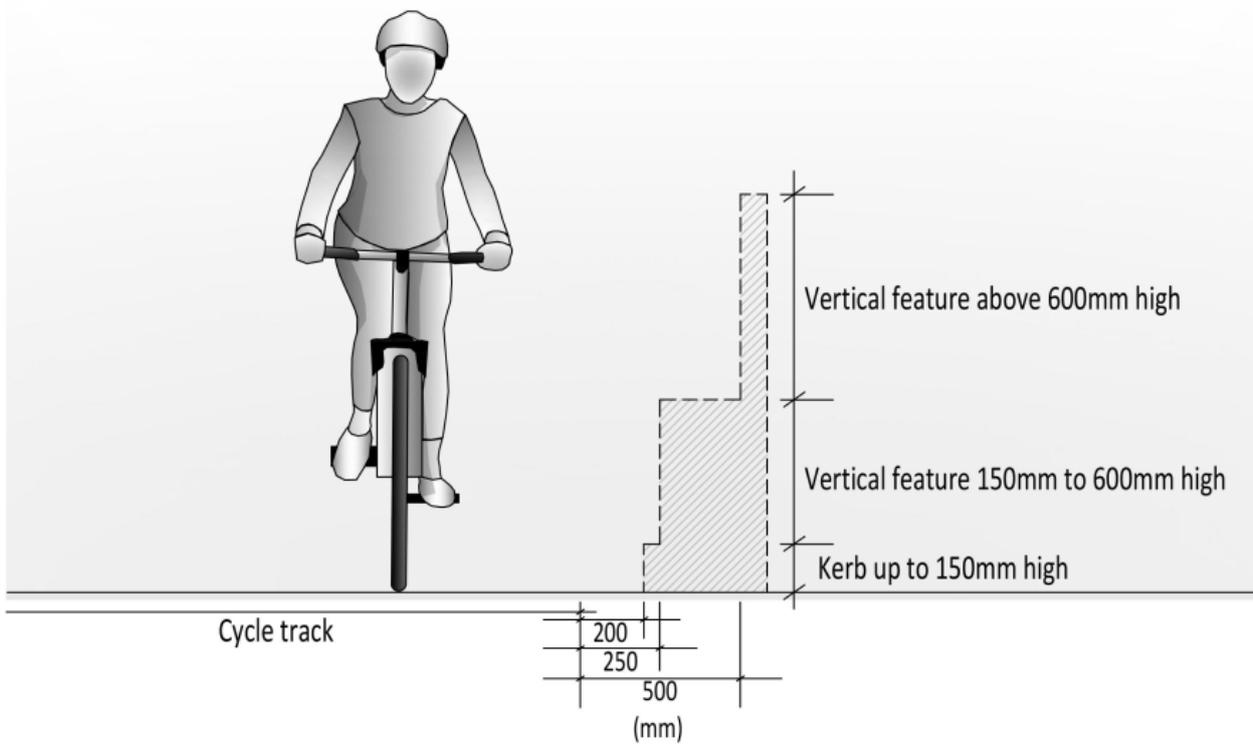
Please see table & figure E/3.2 from CD195 shown on Page 9

Table E/3.2 Additional width required to maintain effective width of cycle tracks

Type of edge constraint	Additional width required to maintain effective width of cycle track (mm)
Flush or near-flush surface (up to 6mm high)	No additional width needed
Kerb or other vertical feature from 6mm to 150mm high	Add 200mm
Vertical feature from 150 to 600 mm high	Add 250mm
Vertical feature above 600 mm high	Add 500mm
Drainage gullies	Add width of drainage gully

E/3.2 Additional widths

Figure E/3.2N Additional width required to maintain effective width of cycle tracks



Where edge constraints are adjacent to both sides of the cycle track, then allowance for each edge constraint shall be made in accordance with Table E/3.2.

Additional width diagram DfT LTN 02/08 (page 43) Table 8.2 Additional width required for footways and cycle tracks gives similar guidance:

Table 8.2 Additional width required for footways and cycle tracks

Type of edge constraint	Additional width required
Flush or near flush surface	Nil
Low upstand up to 150 mm	Add 200 mm
Vertical feature from 150 mm to 1.2 metres*	Add 250 mm
Vertical feature above 1.2 metres	Add 500 mm
* Including bridge parapets etc. over 1.2 metres for short distances	

Although [DfT LTN 1/12 Shared Use Routes for Pedestrians and Cyclists](#) indicates a shared pavement is an inappropriate solution for carrying the National South Coast Cycle Route, it is the current specification to follow for designing shared use paths in situations where shared use is advisable. It gives the following specifications in [LTN 1/12](#) Table 7.5 & 7.5 (Page 43 - 44):

Table 7.4 Additional clearances to maintain effective widths for cyclists

Type of edge constraint	Additional width required to maintain effective width of cycle track in mm
Flush or near-flush surface	No additional width needed
Kerb up to 150 mm high	Add 200
Vertical feature from 150 to 600 mm high	Add 250
Vertical feature above 600 mm high	Add 500

Table 7.5 Minimum widths summary

Type		Minimum widths
Unsegregated shared use		3 m preferred (effective)*
Segregated shared use	Pedestrian path unbounded on at least one side, e.g. segregated by white line	1.5 m (actual)
	Pedestrian path bounded on both sides	2 m (actual)
	One-way cycle track	2 m preferred (effective)*
	Two-way cycle track	3 m preferred (effective)*

* Additional width is needed where there are edge constraints – see Table 7.4

ChiCycle are unable to replicate LCDS Cycle Level of Service (CLoS) analysis figures shown in Feasibility Study report

Details of the studies LCDS CLoS scoring for existing infrastructure was given in Appendix A, but the report omits detailed scoring analysis of Option-1 and Option-2. ChiCycle performed their own CLoS analysis for link number 4 for Option-1 (Southbourne to Farm Lane) but have been unable to replicate similar score to that reported in the feasibility study.

The Feasibility Study awards Option-1 link number 4, an extremely high CLoS score of 85%. Several legitimate concerns resulted in the existing infrastructure on the same section, being awarded a low score of only 24%. There are a number of scoring issues we are unable to follow:

- The existing traffic arrangement is marked as a critical fail due to "Heavy streams of turning traffic cut across main cycling stream". However, it is not clear how moving cyclists onto the pavement will resolved this issue.
- Another critical fail identified in the existing arrangement is "Cycle Lanes <1.5m alongside parking loading with no buffer. This raises the issue of conflict with "Kerbside activity or risk of collision with door". Because CD195 requires two way cycle tracks to be divided into opposing direction lanes, Option-1 presumably will have a lane less than 1.5 meters wide, adjacent to the kerb where "collision with door" are to be expected. It is also difficult to see how a cyclists riding on a pavement might be isolated from kerb side activity?
- Option-1 fails to provide the convenience or directness of a route absent from frequent road crossing or free from obstruction from other road users, so it is difficult to understand how a CLoS scoring of 85% has been calculated. [DfT LTN 02/08](#) states that:

8.2.1 On commuter routes, cyclists usually want to be able to travel at speeds of between 12 mph and 20 mph, preferably without having to lose momentum. **Frequent road crossings**, tight corner radii, **the presence of other users** and restricted width or forward visibility all affect the speed with which cyclists can travel and the effort required. Cyclists tend not to favour cycle routes that frequently require them to adjust their speed or stop.

ChiCycle recommend future CLoS assessments are conducted with input from the community of cycle users in the area. A full cycle audit and review should also be conducted with the input of local cycling groups following the recommendations of [DfT LTN 02/08](#) 1.7 (page 15).

Scope of the Cycle-way Improvement Scheme may be too Narrow and Ignores Wider Aspects of Town Planning.

There are a significant number of housing developments under construction in the South East of England with significant pressure from National Government to build even more. Fishbourne, Nutbourne and Southbourne are small village high streets that could become appealing local centres. However, for the street scene of these villages to remain appealing as local centres, something needs to be done about the increasing volume of traffic travelling on the A259.

The expansion of housing will bring an associated rise in local population. This seems likely to increase motor vehicle use still further unless steps are taken to mitigate against it. With the A259 being the main conduit for local traffic between Chichester and Emsworth it is difficult to imagine the small villages retaining an appealing sense of place with increasing traffic flow along the A259. Perhaps solving this problem requires stepping back from the narrow details of cycle track specification and considering wider issues from the alternative perspective of town planning.

ChiCycle have the following town planning recommendations for the A259 corridor between Chichester and Emsworth.

1. Provide employment, shops, schools and other local amenities to reduce the need for motor vehicle journeys.
2. Improve the convenience of public transport by providing more train stations, more frequent trains or a parallel tram service. This will provide viable alternatives to journeys by car.
3. Expand and improve the cycle network in the region to provide further alternatives to motor vehicle dependency.
4. Provide local roads with new access connections onto the A27 to relieve village centres from heavy traffic. If there must be an increase in motor vehicle use then infrastructure will be needed to divert this traffic away from the National South Coast Cycle Route and the villages/communities it connects together.
5. If it is not possible to reduce traffic volumes on the A259, an alternative, direct and high quality cycle route should be constructed parallel to the railway line.

Conclusion

The transport sector is now the UK's greatest contributor of CO2 emissions. It is generally accepted that unless global CO2 emissions are halted by 2030, there will be a bleak future for humanity. ChiCycle also believe getting around by bike is more health and fun than a sedentary lifestyle with hours spent stuck inside stuffy motor-vehicles. Considering the urgency of Climate Crisis, ChiCycle hope the Designated Funds A27 Link Improvement Package plans can be reconsidered to include something more aspirational and appealing than cyclists riding on existing pavements. At this time of Climate Crisis is vital we move away from unsustainable motor vehicle dependency and embrace sustainable modes of transport.

I hope this provides a constructive input to the Designated Funds A27 Link Improvement Package scheme,

Mark Record (on behalf of ChiCycle)

For your convenience an electronic copy of this document has also been sent to A27DesignatedFunds@highwaysengland.co.uk

