Transport for London's Draft London Cycling Design Standards (LCDS) Consultation response from CTC, the national cycling charity

Introduction

CTC, the UK national cycling charity, was founded in 1878. CTC has 67,000 members and supporters, provides a range of information and legal services to cyclists, organises cycling events, and represents the interests of cyclists and cycling on issues of public policy.

Overall, CTC strongly welcomes the draft London Cycling Design Standards (LCDS). A great deal of thought, attention to detail and sheer hard work has gone into producing it, and it contains much that we are very happy to support.

CTC's aspiration is to create the conditions where anyone, of any age or ability, can cycle anywhere, safely, conveniently and enjoyably, so that cycling becomes the normal choice for shorter journeys, or for connecting with public transport as part of a longer journey.

In general terms for urban areas, this requires:

- Low traffic volumes and speeds for the majority of urban streets, supplemented by high-quality well-connected traffic-free routes; and
- Protected space along, across or around major roads and junctions where traffic volumes and/or speeds are too high for comfortable cycling conditions for all.

CTC's 'Space for Cycling; a guide for decision-makers' booklet[1] provides a concise (8pp) summary of what we are calling for – or a slightly fuller version is provided by Cyclenation's 'Making Space for Cycling' guide.[2]

However we also recognise that it won't always be possible to progress immediately towards this state from current highly unsatisfactory conditions. One of the many benefits of the Cycling Level of Service (CLoS) concept put forward in LCDS is that it gives appropriate weighting to measures which achieve continental levels of cycle-friendliness, whilst also allow for the implementation of measures that deliver more limited improvements that can be implemented quickly, but without them the same high scores that would be achieved by schemes involving higher levels of road-space and/or junction capacity reallocation, and/or a greater degree of physical separation of cycles from other traffic. Therefore, when more compromised schemes are implemented due to political, financial or regulatory constraints, the CLoS scoring system will still flag up the desirability of introducing more ambitious measures when the opportunity arises.

Key points

Our main comments, which we hope can be rectified in the final version, are:

1. The introductory chapter should spell out clearly that LCDS aims to create the conditions where people of all ages and backgrounds can cycle safely, conveniently and enjoyably, for all local journeys (or to reach a public transport interchange as part of a longer journey). The aim, ultimately, must be to make all roads and streets are (and feel) safe enough for use by accompanied 8-year old or unaccompanied 12-year old cyclists.
2. This in turn means that, on roads with typical (85th percentile) speeds above 20mph and/or traffic volumes above a comfortable threshold level, the aim should either be to provide some form of dedicated space – with a clear preference for physical segregation – or else to reduce the traffic volumes and speeds to below these thresholds, so that cyclists and would-be cyclists throughout the age-range can cycle safely and comfortably. In short, the higher the traffic volumes and speeds, the greater the need for

[1] Downloadable from http://www.ctc.org.uk/blog/chris-peck/space-for-cycling-guide-sets-out-what-councillors-need-to-do.
[2] See http://www.makingspaceforcycling.org/

physical separation. Alternatively, if there is insufficient space to provide the degree of separation needed to provide comfortable cycling conditions for people of all ages and abilities, then traffic volumes and speeds need to be reduced. These points need to be spelled out clearly in the introduction.

3. The Roads Task Force's matrix of street types is a useful concept. However TfL needs to spell out far more clearly that the street-types with a high level of conflict between the 'movement function' and the 'place function' (i.e. the four types nearest the top right corner of the matrix: city boulevards, high roads, high streets and city streets) are problematic, and that efforts should be made to change their function towards a street-type with a lower degree of conflict.
4. The guidance does not sufficiently emphasise the importance of progressing towards 20mph being the normal speed limit for most urban streets, with higher speed limits applying only on a relatively small minority of the length of the road network (even though those roads may be the busiest and most important roads).
5. CTC strongly support the principle behind the process of assessing levels of service for cycling – indeed, it is potentially a major conceptual breakthrough in cycle-friendly planning – and we hope it will prove to be effective in practice. We are concerned however that the Cycling Level of Service (CLoS) assessment matrix appears to provide insufficient weight to the creation of traffic-free conditions (e.g. by closing a road to motorised traffic), relative to the creation of conditions with low traffic volumes and speeds. We have proposed an amendment that reflects this, as well as adding emphasis to the importance of greater physical separation where traffic speeds (as well as volumes) are high.
6. CTC agrees on the critical importance of avoiding lane widths between 3.2 and 3.9m. However lane widths below 3.2m are also uncomfortable where traffic volumes or speeds are high, particularly where there are significant bus or lorry flows. Lane widths below 3.2m are only acceptable for short sections or where traffic flows are light enough that motor vehicles can overtake cyclists reasonably easily by crossing the centre of the road, rather than being trapped behind cyclists (who thus become 'human traffic calming'). See also point 2 above.
7. We suggest replacing the word 'bicycle' with either 'cycle' or 'pedal cycle'. Although we recognise that this is at odds with common parlance, it reflects the fact that (as LCDS notes), many people with disabilities use a variety of cycles, not all of which are two-wheeled. Their needs need to be constantly kept in mind, both for legal reasons (compliance with disability discrimination and equality law) and as a point of principle.
8. LCDS is weak on road maintenance. In particular, CTC urges TfL to recommend that highway authorities should aim to maximise the synergies between their cycling and planned highway maintenance programmes. In other words, there should be a systematic process for considering what cycling improvements might incorporated into any planned resurfacing work, thereby "cycle-proofing" the local authority's planned maintenance schemes as well as other schemes. This approach has been used very successfully by the New York Department of Transport, to introduce high-quality but adaptable (usually light-segregated) cycle provision at marginal extra cost, at a time when a work-gang was going out on the site in any event. Plymouth and Bristol City Councils have adopted this approach in the UK, and CTC urges London to do likewise.
9. Finally, the draft LCDS rightly notes that several of the solutions it puts forward guidance are new in the UK (despite some of them being well established continental good practice), and some are awaiting regulatory changes before they are fully authorised for use on UK roads. Conversely, other solutions which had previously been regarded as UK good practice may well be superseded over time, as these newer solutions become more firmly established in UK law and practice. In short, 'good practice' in UK cycle planning is very much in flux at present. We therefore recommend that LCDS2 is published in ring-binder form, so that it can be updated in the light of anticipated regulatory changes, and the experience and evidence that will be gained from implementing new solutions into UK practice.

Chapter 1: Design requirements

1.1 Raising standards

General comment
CTC strongly welcomes the Mayor's vision to make London a 'cyclised' city. We support the 6 design outcomes (p5-6), including the 5 Dutch criteria of safety, directness, comfort, coherence and attractiveness. We also recognise the value of the additional 6th outcome, 'adaptability', however we would note that this is primarily a system requirement rather than a user requirement. We do nonetheless support its inclusion in the Cycling Level of Service (CLoS) assessment process.

We also broadly support the 20 guiding principles, indeed we unequivocally support those principles which we have not commented on in the paragraphs below.

Paragraph 1.1.5
"[LCDS] carries no legal obligation". We recognise that there is no statutory duty on London local authorities to adhere to the guidance, nor do TfL or the Mayor have the powers to impose one even if they wanted to. Nonetheless, case law has established that action can be taken against authorities for unreasonable decisions to depart from guidance, and the 'reasonableness' test in turn reflects the spirit in which the guidance is written.[3]

We therefore suggest amending this sentence along the following lines:

> "Adherence to this guidance is not legally binding, moreover one of its 'guiding principles' is to know when to depart from the guidance (see p12). On the other hand, much of the advice contained in this guidance is safety-critical for a disproportionately vulnerable road user group. London local authorities should therefore be prepared to provide reasoned justifications for decisions to depart from this guidance."

Paragraph 1.1.9
Here and at several other places in the document, we suggest replacing the term "bicycle" with "cycle" or "pedal cycle" (or in some cases, refer to "cycling" instead of "the bicycle"). This is to avoid reinforcing unwitting discrimination against disabled riders who use non-standard cycles with more than 2 wheels (see also our introductory 'key comment' 7).

Requirement 3: "[Bi]cycles should be treated as vehicles
We support this requirement, including the importance of avoiding cycle/pedestrian conflict, or treating cyclists like pedestrians at junctions.

However, there are situations where cycles and pedestrians can safely share space – essentially, this is true where there are adequate widths and sightline for the expected use by both groups. In these situations, we do not agree with the preference for providing white lining etc to segregate the two groups from one another.

As a general rule, segregation is preferable where (a) there is sufficient room to provide ample space for both groups and (b) where most walking activity is likely to be purposeful rather than recreational. Conversely, in situations where pedestrians are likely to be simply enjoying their surroundings, children playing etc, then they are unlikely to notice (let alone adhere to) segregation markings. In this situation, it is better to provide indications that cyclists are permitted to share their space, but to use signing, surfacing or other design

---

[3] See http://www.localgovernmentlawyer.co.uk/index.php?option=com_content&view=article&id=12165%3Adecision-by-council-to-depart-from-national-guidance-on-tactile-paving-qunlawfulq&catid=64%3Atransport-articles&Itemid=32

elements to signal to cyclists that they do not have an unequivocal right of free movement and that they should ride at a speed which respects pedestrians' safety.

Requirement 4: Cyclists need space separated from volume motor traffic
Requirement 5: Where full segregation is not possible, semi-segregation may be the answer
We broadly agree. However, for consistency with advice elsewhere in the LCDS, we support the use of the term 'light segregation' rather than 'semi-segregation'. It should not necessarily be viewed as a less satisfactory 'half measure'.

Traffic speeds (as well as volumes) also affect the importance of segregation. We therefore suggest amending the title to say "…from high traffic volumes or speeds", and the addition of a sentence saying:

> "The higher the volumes and/or speeds of the adjacent motor traffic, the greater the need for cyclists to be provided with full physical separation."

Requirement 6: Separation can also be achieved by using lower-traffic streets
We support the creation of a network of 'Quietways' using back-streets, subject to certain caveats. The first is that these should be addition to a comprehensive network of routes built to Superhighway standards – over time, London's strategic cycle route network will need to consist of a lot more than just 12 radial routes. The second is that 'Quietways' should also have a high level of directness and priority. See also our comments on paragraphs 1.3.2 - 1.3.8.

Requirement 7: Where integration with other road users is necessary, differences of speed, volume and vehicle type should be minimised.
Again, we agree. However, for clarity's sake, we suggest adding the following to this paragraph:

> "On roads whose traffic volumes and speeds are too high for cyclists of all ages and abilities to feel comfortable sharing roadspace with them, but where there is inadequate space to provide protected space, then solutions will need to be found which reduce the traffic volumes or speeds."

Requirement 8: Cyclist interventions need not be attempted on every road
We strongly disagree with the statement in this paragraph that "Some busy narrow main roads can never be made truly safe for cyclists". This may be true in the short term. However it is unacceptable to plan on the assumption that such streets will inevitably be 'no go' areas for some cyclists. Over time, solutions must be found to reduce the traffic volumes and speeds on these streets. See also our introductory 'key point' no. 3 (regarding the street types with the most acute conflict between the 'movement' and 'place' functions) and our comments on 'Requirement 7' above.

Requirement 9: Routes must flow.
We agree. In the sentence "Chicanes and 'cyclists dismount' signs must be avoided", we suggest adding the word "strenuously" before "avoided", to add emphasis. (N.B. We strongly agree with the statement on cyclists dismount signs under 'requirement 12'.)

Requirement 18: All designers must experience the roads on a bicycle
We strongly support this requirement (although we suggest rewording "on a bicycle" to say "by cycling them" – see our comment on paragraph 1.1.9). Does TfL have a programme to provide Bikeability cycle training for all TfL and London borough engineering staff / contractors? If not, we strongly urge that such a programme should be established. A commitment to do so (or a statement that such a programme exists) would be a very welcome addition to LCDS and/or the LCAP.

Requirement 19: As important as building a route itself is maintaining it properly afterwards
CTC strongly agrees but believes this recommendation could and should go further. When roads are being fully resurfaced (i.e. when planned, rather than reactive, road maintenance is being undertaken), this is an excellent opportunity to consider how the road could be redesigned to be more cycle-friendly – see our introductory 'key point' no 6. We strongly urge TfL to include a commitment to adopt policies and processes to integrate its cycling and planned highway maintenance programmes, and to encourage London boroughs to do likewise.

1.2 Levels of service for cycling

Paragraphs 1.2.2 and 1.2.5, and Figure 1.3
We reiterate our introductory 'key point' no 3. The LCDS's commentary on the RTF 'street types' needs to clarify that the street types nearest to the top right corner of the matrix have an undesirable level of conflict between the 'place' and 'movement' functions, hence the aim needs to be to reduce this conflict – usually by reducing traffic volumes and/or speeds – particularly where space is limited.

Figure 1.4 and paragraphs 1.2.7 - 1.2.8
We agree with this diagram, however the commentary on it should state that the solutions which will achieve the highest CLoS scores will lie toward the top of each 'lozenge'. These higher-end solutions should therefore be preferred over those at the lower end, particularly on routes which are of strategic importance in the cycle network. Conversely, unsegregated provision should only be accepted where traffic volumes and speeds are low enough for comfortable cycling by people of all ages and abilities, particularly where road-space is limited. As a minimum requirement, roads with unsegregated provision should have 20mph limits – see our introductory 'key comment' no.4.

Paragraphs 1.2.9 - 1.3.0
CTC strongly supports the concept of the CLoS assessment – see introductory 'key comment' no 5. Clearly it remains to be seen how well will work in practice, and specifically, how the combined outputs of the Cycling Level of Service (CloS) assessment, mesh density analysis and accessibility analysis will be used). Nonetheless we are hopeful that it will prove to be an extremely useful tool.

1.3 Applying LCDS

Paragraphs 1.3.2 - 1.3.8
CTC supports the conceptual distinction between 'Superhighways' and 'Quietways'. However we are concerned that there is insufficient ambition either for the density of the 'superhighway' network or for the design standards of 'Quietways'. In Dutch practice, a distinction is made between the 'basic network' (i.e. roads with no specific cycle provision and very low cycle flows, below 750 cycles per day), 'cycle routes' (still with light cycle flows, up to 2,500 cycles per day) and 'main cycle routes' (which are built to higher standards, for routes carrying 2,000-10,000 cycles per day). The cycle route network typically has a mesh density of 200-250m, with the main cycle route network having a mesh density of 400-1000m. The latter is a vastly higher mesh density than the superhighway network as presently proposed.

So the proposal in LCDS that Quietways are to be "low intervention routes, with largely unsegregated cycling provision because they are on quieter streets" (paragraph 1.3.6) suggests a lack of the necessary ambition to achieve higher standards of design on strategically important routes for cycling, other than the designated 12 superhighways. Given that other parts of LCDS (notably Chapter 4) seem to assume that cycle provision consists entirely of either 'Superhighways' or 'Quietways', it is important either to explain that the term 'Superhighways' is intended to apply to a much more extensive network of main cycle routes (with a mesh density of 400-1000m), or that such a network will be progressively developed to superhighway standards (even if this takes longer to deliver).

In paragraph 1.3.8, the bullet points about right turns are puzzling, since Quietways are by definition meant to be quiet roads. If they relate specifically to the points where, "for the sake of directness, Quietways may [briefly] need to join main roads", then this needs clarifying.

Paragraph 1.3.15
Although the Prime Minister stated his wish to see "a cycling revolution", and "for cycling to soar", regrettably he did not include the numerical increases in the percentage of trips cited this paragraph (they come from the Get Britain Cycling Report, not the PM's statement).

Paragraph 1.3.16 and Figure 1.5
It might be useful if these included references the duty in section 122 of the Road Traffic Regulation Act (RTRA) 1984 to carry out its functions under that Act in such a way as "to secure the expeditious, convenient and safe movement of vehicular and other traffic (including pedestrians)". The reference to safe and convenient (as well as expeditious) movement is more closely related to the design outcomes of LCDS.

Other items of guidance and legislation that should be referenced in Figure 1.5 include the Manual for Streets and Manual for Streets 2 guidance, and 'Setting local speed limits' (DfT circular 1/2013).

Paragraph 1.3.17
We welcome the reference to the Disability Discrimination and Equality Acts. It would be worth mentioning here that compliance with these Acts should entail consideration of the need to provide for sufficient space for people using non-standard cycles, as set out in paragraphs 3.1.6, 3.1.10 and 3.1.11.

Chapter 2: Tools and techniques

For an overall comment on this chapter, see our introductory 'key comment' no. 5.

2.1 The Tube Network for the Bike

Figure 2.2
Under the 'attractiveness' heading, delete the word "(ideally)" in the last 2 bullet-points. If it is felt necessary to provide a qualifier to indicate that this is not an absolute requirement, this would be better done by adding the word "preferably" at the start of these two bullet-points.

Paragraph 2.1.9
We welcome this paragraph on the importance of stakeholder engagement. We suggest adding an additional sentence (before the final sentence), stressing how engagement of stakeholders at the start of a project can help avoid making errors which can be much harder and more costly to rectify if they are only identified at a later stage.

Figure 2.3: CLoS table
We strongly support the principle of this table. We do nonetheless have a number of comments on it.

Firstly, most of the criteria rated as "basic" (score = 0) would be better described as "poor", even though they may not be "critical". Those rated as "good" (score = 1) are mostly "acceptable", while the label "good" would be better reserved for the "highest" column (score = 2).

Secondly, we suggest that the table row entitled "separation from heavy traffic" should be revised to that it relates to separation from fast as well as heavy traffic (see also our comment on paragraph 3.1.34), and that the units in this row and the 'volume of traffic' row should be Passenger Car Units (PCUs, rather than vehicles) per hour of peak-hour flow, thereby giving greater weight to bus or lorry traffic. We propose the following:

Factor	Indicator	Critical	Poor (score=0)	Acceptable (score=1)	Good (score=2)	Max score
Feeling of safety	Separation from fast and heavy traffic	Narrow (>1.5m) cycle lanes OR No cycle lanes: • IF speeds are high (>30mph) and volumes are high (>1000 pcu/hr peak) • OR IF there are either mid-range speeds (20-30mph) or mid-range volumes (200-1000pcu/hr peak).	EITHER Cycle lanes >1.5m but <2.0m if speeds or volumes are mid-range OR cycle lanes 2.0m or more if both speeds and volumes are high, or if one is high and the other is mid-range.	EITHER Cycle lanes at least 2.0m if either volumes or speeds are high, provided the other is low (volumes >200 pcu/hr peak or speeds 20mph or less) OR Cycle lanes at least 2.0m if both volumes and speeds are mid-range OR cycle lanes >1.5m but <2.0m if volumes and speeds are both low.	EITHER Cyclists physically separated from other traffic at junctions and on links OR traffic volumes and speeds are both low.	6

We recognise that this pushes the total score above 100. If it is felt necessary to correct for this, we have three suggestions of possible ways to do this:

- Remove the row for cycle parking. Whilst cycle parking is undoubtedly valuable, it is arguably not relevant to CLoS. In terms of improving a scheme's CLoS score, designers should not be able to compensate for inadequate scheme design simply by providing cycle parking, which could equally be provided as part of a better scheme design.
- Remove the 'value of time' row. It is not clear what it means or how it is relevant to CLoS.
- For the line on 'surface quality', retain the ability for 'major defects' to have a 'critical' score but still maintain a maximum score of 2 points (rather than 6 points) for good surface quality. Although it is undoubtedly true that major defects should have a 'critical' score, it does not follow that high-quality surfacing is anywhere near as important for attracting mass cycle use as priority at junctions (which only scores 2 points in the line "Other vehicle fails to give way or disobeys signals").

2.3 Scheme delivery

Paragraph 2.3.15
In the interests of accuracy, we suggest rewording this paragraph to say:

> "It is normally a trespass in law to cycle on a footpath away from a road (as distinct from footways, which run alongside roads), but it is not a criminal offence unless prohibited by local traffic regulations or byelaws (in which case a "no cycling" sign should be displayed). Cycling on footpaths can become legal though if the landowner permits it, or if cycling has taken place openly and without causing damage on the path for (usually) 20 years if the landowner has shown no sign of objecting, or if the path (or part of its width) is been converted to a cycle track under Section 3 of the Cycle Tracks Act 1984.

2.4 Maintenance

See our introductory key comment no. 6.

Chapter 3: Cycle lanes and tracks

General comments on this chapter

Without prejudice to the more detailed advice in this chapter on dimensions for traffic lanes, cycle lanes and tracks etc, we suggest that the introduction to this chapter cites the following useful 'rule of thumb':

> "Subject to more detailed advice elsewhere in this guidance, a useful 'rule of thumb' to remember when designing for cycling is that the dimensions needed for cycling are the same as for motor traffic at 20mph, but with all widths (not other dimensions) halved."

See also our introductory 'key comment' no.6.

3.1 Types of facility

Paragraph 3.1.4
We strongly agree with this paragraph's observations that consideration for cycling should be fully integrated into the design process (not seen as an add-on), and that designers should cycle the routes they are designing. See also our comment on 'Requirement 18' in chapter 1.

Paragraph 3.1.7
Whilst agreeing that the use of human-generated power is an important distinguishing feature, it only distinguishes cyclists from motorised road users, not from all road users. We therefore suggest either adding the word "motorised", or – preferably – by amending the last words of this sentence to say:

> "…they rely on human-generated power and the efficiency of pedal cycles in sustaining the momentum generated".

This is an important point which also distinguishes cycling from walking, and which is insufficiently understood by traffic engineers. See "Why cyclists won't stop" by CTC's technical officer Chris Juden[4].

Paragraph 3.1.13
Whilst generally agreeing with this paragraph, we suggest deleting the word "ideally", as it is decidedly uncomfortable, bordering on dangerous, to leave cyclists with less width than the dynamic envelopes suggested in this paragraph. If a qualifying word is felt necessary, it should be "generally", not "ideally" – although we would prefer to have no qualifier here.

Paragraph 3.1.23
For the sake of accuracy, after the word "footway" in the penultimate line, we suggest adding the words "or part of the width of a footway". See also our comment on paragraph 2.3.15.

Paragraph 3.1.28
For accuracy's sake, we suggest amending the start of the sentence before the bullet-point list to say:

> "Cycling on footpaths without the landowner's permission is a trespass, although it is not a criminal offence unless expressly prohibited by a traffic regulation order or local byelaw."

Then start a new sentence.

---

[4] See www.cyclecraft.co.uk/digest/stop.pdf

Paragraphs 3.1.30 - 3.1.31
We suggest amplifying the points made here by spelling out two basic principles:

- The higher the volumes and/or speeds of motorised traffic, the greater the need for physical separation to create safe and comfortable conditions for cyclists or all ages and abilities;
- Where it is impossible to provide sufficient space for the separation needed to create these conditions, consideration should be given to options for reducing the relevant traffic volumes and speeds.

Figure 3.3
Whilst CTC acknowledges that some of the combinations of street types and cycle facilities which are endorsed by this table will necessarily have to be accepted in the short term, they will not score terribly well under CLoS (e.g. unsegregated mandatory or advisory cycle lanes, or shared use bus lanes, on connectors, high roads or high streets). LCDS should state that over time, the aim in these circumstances must be either to introduce some form of segregation or to reduce the traffic volumes or speeds.

Figure 3.6
In a similar vein, we believe LCDS should say that the preferred solutions in this table are those towards the top of each 'lozenge'. Conversely, solutions at the bottom of each 'lozenge' will score less well under CLoS, and should therefore be seen as interim (rather than permanent) solutions, to be upgraded as and when financial, political or regulatory circumstances permit.

Paragraph 3.1.34
If the tests outlined in the preceding paragraphs are to replace the speed/volume matrix from the 2005 edition of LCDS (as suggested here), this makes it all the more important for CLoS to cover separation from traffic speeds as well as volumes. See our comment on Figure 2.3.

Figure 3.7
In the table cell explaining the implications of cycle and pedestrian flows / desire lines, after the words "Where pedestrian and cycle desire lines cross", we suggest adding the words ", where pedestrians are likely to be enjoying their surroundings rather than walking purposefully (including children playing)". In these circumstances, segregating pedestrians and cyclists is unlikely to be effective, unless cycling volumes are so high that they are able to establish dominance in any event (as happens on the Hyde Park cycle track alongside Park Lane). It is therefore better to use design to indicate to both groups that they should be prepared to share space, rather than generate frustration and conflict by creating an expectation among cyclists that they have an area of dedicated space, if in practice this space is unlikely to be respected by pedestrians who are in a state of understandable inattentiveness!

In the next cell down, we suggest replacing the final sentence with "On busy streets with insufficient space to create dedicated cycle facilities, the most intervention is likely to involve reducing traffic volumes, and possibly also traffic speeds." See also our comment above on paragraphs 3.1.30 - 3.1.31.

3.2. Segregated lanes and tracks

Paragraph 3.2.1
After the words, "kerbside activity, we suggest adding "(particularly bus stops").

Paragraph 3.2.2
While we agree with the sentiments of this paragraph, we suggest adding some additional words to make it clear that the "identifiable" advantage should be "in terms of directness, comfort and attractiveness as well as safety." It must not be seen as sufficient to get the cyclists 'out of the way of the traffic' on the pretext that this is 'for their own safety'.

Paragraph 3.2.5
After the first sentence, we suggest adding the following clarification in parenthesis:

> ("contraflow cycling on such lanes is not an offence per se but is likely to be regarded in law as 'careless' or 'dangerous' cycling.)

Paragraph 3.2.12
After the first sentence, we suggest adding the words ", bearing in mind the Mayor's target to double cycle use over the 10 years from 2013, and for cycling to reach 5% of trips by 2026." See also our comment on paragraph 8.2.6.

Paragraphs 3.2.20 - 3.2.21
We believe these paragraphs need to emphasise more clearly the need for sufficient width to avoid collisions with car doors. It is not enough to say that this arrangement is more acceptable if cyclists are travelling in a direction where the resulting injuries would be less severe. The risks from car doors are rightly flagged up as a 'critical' factor in the CLoS assessment matrix (figure 2.3) and again in figure 5.8 and paragraph 5.8.25. They should be stressed here too.

Paragraph 3.2.22
We suggest adding the words ", particularly at junctions" at the end of this paragraph.

Paragraph 3.2.33, first bullet-point
We suggest that a design speed of at least 20mph is more appropriate for cycle tracks (although we agree with 10mph for shared use footways). We reiterate our 'rule of thumb' (see general comment at the start of this chapter), namely that the design parameters for cycle provision should generally be the same as for motor vehicles at 20mph but with the widths (not other design parameters) halved.

3.3. Cycle lanes

Indicative layout 3/03
Rather than relegate a mandatory cycle lane to an advisory lane to get through the width restriction created by a traffic island, we suggest that it would be better to get rid of the traffic island and provide a better form of crossing for pedestrians and cyclists alike.

Paragraph 3.3.17, first bullet-point
We do not see why armadillos cannot be placed outside (rather than inside) any mandatory cycle lane markings. Alternatively, if they are placed inside, the lane width should be adjusted accordingly.

Paragraphs 3.3.22 - 3.3.23
We do not agree that advisory lanes are unlikely to be necessary on streets with 20mph limits. For instance, Dutch practice does make use of advisory lanes on shopping streets with 30kmh limits where there is insufficient space for full segregation. It is not an ideal solution (it would be better to lower the traffic volumes to a level where cycle lanes also became unnecessary), however it is sometimes a necessary one.

It is in any case more important to prevent parking than driving in cycle lanes. Hence a 2.0m advisory lane with appropriate parking restrictions is preferable to a 1.5m mandatory lane.

On streets which are width-constrained but where traffic is not heavy, another option may be to couple advisory lanes with 20mph limits and the removal of centre lines. Removing centre lines is itself known to have a "psychological traffic calming effect", as noted in paragraphs 5.3.10 and 5.3.11. Indicative layout 3/06 omits centre lines but this is not discussed in the accompanying text. This treatment is described in paragraph 3.3.31, but with the implication that it is only suitable for 'cycle streets' subject to the conditions spelled out in paragraph 3.3.29. These paragraphs need revising to make it clear that this solution is applicable more widely.

Paragraph 3.3.42
Where it is intended that cyclists should benefit from the use of bus gates, the gate should be triggered by a reliable detector – it should not rely on cyclists having to push a button. Dutch practice rarely requires cyclists to push buttons, as this involves treating them like pedestrians on wheels rather than as vehicles capable of speed, who wish to maintain their momentum (see our comment on paragraph 3.1.17).

Paragraphs 3.3.43 - 3.3.46
We reiterate our point that the greater the volumes and speeds of motor traffic, the greater the need for physical separation (see our introductory 'key comment' no. 2). This point is equally applicable in determining what provision to make for contraflow cycling.

3.4 Recommended widths

Paragraph 3.4.4
To make it clear that 1.5m cycle lanes are only acceptable in limited conditions, we suggest replacing the final paragraph of this sentence with the following:

> ", subject to the criteria set out in paragraphs 3.4.13 - 3.4.15."

3.5 Priority of cycling facilities

Paragraphs 3.5.1 - 3.5.4
CTC wholeheartedly agrees with the point made here about the importance of improving cyclists' priority at junctions, and the difficulties of achieving this under current UK rules. We welcome TfL's support in lobbying for the regulatory changes needed to rectify this.

Paragraph 3.5.5
We particularly agree with the inclusion in this paragraph of tightened corner radii at junctions as a way to strengthen cyclists priority at junctions (see also our comment on paragraph 4.1.13) – indeed, it is probably the most value of the options listed. We therefore suggest that the photographs accompanying this paragraph should include Brighton's Old Shoreham Road scheme, as it illustrates this point well.

Paragraph 3.5.6
Whilst we understand the point being made about costs and benefits of side road entry treatments etc, the wording of the final sentence comes across as a reason not to implement them. It would be better worded to say that "they may best be pursued as part of a wider traffic management scheme in order to provide the necessary benefits to justify the costs".

Chapter 4: Junctions and crossings

General comment
At several points in this chapter (e.g. in figures 4.2, 4.6, 4.7 and 4.9), it is implicitly assumed that cycle provision will consist either of 'Superhighways' or 'Quietways'. As noted in our comments on paragraphs 1.3.2 - 1.3.8, we believe a much more extensive network of main cycle routes needs to be developed to superhighway standards over time. This should be clarified, either by extending the definition of 'superhighways' to go beyond the 12 identified routes, or by adding the words "or other main cycle routes" after all relevant appearances of the word "superhighways".

4.1. Junction design issues

Figure 4.1
This table should include "'Deviation of route (against straight line)" as an indicator for the 'directness" factor, in addition to or possibly instead of the "Value of time" indicator. As noted in our comments on Figure 2.3, the purpose of the "Value of time" indicator is unclear.

Paragraph 4.1.6
We agree with this paragraph. However, as noted in our introductory 'key comment' no. 9, the fact that various established 'continental best practice solutions are still only being trialled in the UK makes it advisable for LCDS to be published in an easily updateable form. See also our comment on paragraph 6.1.5.

Paragraph 4.1.13
We welcome the assumption that corner radii should be tightened wherever possible.

Paragraph 4.1.15
In some situations where swept path analysis suggests that tightened corners may be problematic for HGVs, it may be better to ban them from making the left turn and requiring them instead to make 3 right turns. For instance, it has been suggest that the deaths of Dorothy Elder and Francis Golding – killed at the same location by a lorry and a bus respectively, each of which was turning from Vernon Street into Southampton Row – might have been avoided if those vehicles were instead required to make right turns into Proctor Street, High Holborn and thence into Southampton Row.

4.2 Crossings

Figures 4.5 and 4.6, plus accompanying paragraphs, and paragraph 4.2.15
It is not clear what is being referred to as a type [4] crossing. If it supposed to be the 'cycling zebra' which awaits full authorisation, this should be made clear. We agree with TfL's assessment of the legal position of cycling on zebras (as set out in paragraph 4.2.15). We urge the Government to clarify the situation (and TfL to lobby for this), so that cyclists can be given the same legal protection as pedestrians.

We do not agree that the first option to consider is type [6]. As Figure 4.6. makes clear, it is only suitable where pedestrian and cycle flows are low.

In any event, the estimation of the flows for this table should take account of potential growth, in line with the advice in paragraph 3.2.12 (see also our comment on that paragraph).

Paragraph 4.2.7
We reiterate our comment made in respect of bus gates in paragraph 3.3.42. Cycle provision should not rely on cyclists having to push buttons, as this involves treating them like pedestrians on wheels rather than as vehicles capable of speed, who wish to maintain their momentum (see our comment on paragraph 3.1.17). Reliable cycle detection systems are available and should be used in preference to buttons.

Paragraph 4.2.19 – 4.2.20
We disagree with way that the statement about the value of pedestrian islands for uncontrolled crossings is followed by the words, "Some speed reduction measures on the carriageway may also be appropriate." We cannot think of any situation where it would not be better to apply some other solution. If it is possible to narrow the carriageway without reducing lane widths below 3.9m, it is likely that the motor traffic volumes and/or speeds will be such as to require some other form of speed reducing measures (including possible road-space reallocation to benefit pedestrians and/or cyclists) *instead of* a 2m traffic island. The solutions proposed in paragraph 4.4.21 are decidedly preferable.

Paragraph 4.2.23
We urge TfL to lobby DfT for changes of rules that would allow 'mini-zebra' crossings of cycle tracks, without the need for zig-zags and belisha beacons (indeed, there is a good case for abolishing the need for belisha beacons altogether). This would simplify the process of enabling pedestrians to cross segregated cycle tracks where pedestrian flows are not particularly high.

4.3. Priority junctions

Figure 4.7
As with our comment above on paragraphs 4.2.19 - 4.2.20, we are concerned at the unquestioning support given here to refuge islands. We acknowledge that they can provide useful protection at junctions for right-turning cyclists (as suggested in paragraph 4.3.6). Otherwise though, we do not believe there are any circumstances where their supposed benefits, both for pedestrians and for slowing traffic, could not be better achieved by some other solution, thereby avoiding the creation of pinch-points that are unsafe for cyclists.

Paragraph 4.3.5 and accompanying photographs
Whilst cycle bypasses of pinch-points do have occasional uses, they are rarely an ideal solution other than when used to achieve filtered permeability. In suggesting them, LCDS should reference the needs of those who use non-standard cycles, including people with disabilities, as noted in paragraphs 3.1.10 - 3.1.11.

Paragraph 4.3.15
CTC does not agree that 4.0m lane widths should necessarily be the norm, even at junctions where no large vehicles will be making turning movements. The second half of paragraph 4.3.15 rightly notes that lower widths may be appropriate "for local streets and others in 20mph zones". As noted in our introductory 'key comment' 4, CTC believes 20mph (which can be zones or limits) should be the norm for the majority of the length of the street network in London, with higher limits for the more major through roads being the exception, rather than the norm (see also our comments on paragraph 5.3.2). Engineers should be encouraged to plan for a design speed of 20mph for most streets (regardless of the actual limit in force). Hence lower lane widths will often be not just acceptable but desirable on many streets where traffic volumes are also low.

Paragraph 4.4.4
120 seconds is a very high maximum delay, and we fear that this paragraph could result in 120 second delays becoming the norm. Instead we suggest that 60 seconds should be the normal maximum for both Superhighways (and/or other main cycle routes) and Quietways, with a requirement to justify any greater delay, up to an absolute maximum of 120 seconds.

Paragraph 4.4.20
We support the proposed 'hold the left turn' arrangement. However we also urge TfL to lobby for new rules that would clarify that left turning motor traffic must give way to cyclists on their inside even when the light is green – possibly with some form of amber flashing light or arrow to indicate this. Although this provides less protection for cyclists than the 'hold the left turn', it would also result in less delays for cyclists, and it may be the only viable option for giving priority to a cycle track where there is insufficient road space for a separate left turning lane.

Paragraph 4.4.26
We suggest that this paragraph should be worded, so that instead of the presence of a 20mph zone being a criterion for calming traffic at a junction, the need to do so can be done (among other things) by introducing a 20mph scheme. As noted in our introductory 'key comment' no. 4, CTC believes 20mph schemes need to be applied much more widely in London – see also our comments on paragraph 5.3.2.

Paragraph 4.4.27
There is a missing word in line 2. It appears that the word “issue” is needed after “particular”.

Paragraph 4.4.41
We agree with this paragraph. Moreover, as suggested in our comment on paragraph 4.1.15, there may be situations where lorries should be required to make 3 right turns rather than one potentially lethal left turn.

Figure 4.10 and paragraph 4.4.46
We agree that it is preferable for ASLs to have lead-in lanes than gateways, and that these lead-in lanes should “preferably” (n.b. not “ideally”) be at least as long as the maximum general traffic queue length at peak times. However we also point out that (a) any road with sufficient width for a lead-in lane probably has enough width for this to be part of a longer cycle lane (i.e. not just a short length running up to the ASL); and (b) where there is insufficient road width for a lead-in lane, it is probably worth considering whether to replace the signals with a different form of junction.

We do not agree that the adjacent general traffic lane needs to have a minimum width of 3.0m if used by buses and HGVs. The normal maximum width for these vehicles is 2.1m (otherwise they have to be treated as special loads), so they are capable of remaining within 2.5m lanes when slow-moving or stationary at traffic lights. It is therefore far safer for cyclists to retain a 2.0m ASL feeder lane, reducing the adjacent general traffic lane to 2.5m, not least because the extra space potentially gives cyclists more time to react if the driver starts turning.

Paragraph 4.4.50
In situations where it is considered necessary to have an ASL feeder lane between general traffic lanes, it may be useful to provide wands on the left of the feeder lane. In common with the idea of a kerb to the right of a cycle lane (as described in paragraph 4.5.51 and shown here in the Stockwell roundabout photograph), this solution could focus the point at which motor vehicles must move into the left hand lane, whilst giving cyclists the flexibility to move out wherever it suits them best given the traffic conditions at the time.

4.5 Roundabouts and gyratories

Paragraph 4.5.1
We suggest adding “UK” before “Roundabouts” at the start of this paragraph. The statement is not true for Dutch roundabouts.

Paragraph 4.5.3
Change the word “accidents” to “collisions”.

Paragraph 4.5.6
The wording of the first sentence suggests (probably unintentionally) that signalisation is not worth doing. It might be better to say “Despite this, large roundabouts are likely to remain a deterrent to non-cyclists or less confident cyclists even after signalising them.” This might be better at the end of the previous paragraph rather than the start of this one.

Paragraph 4.5.7
In the second sentence, full separation of cyclists and motor vehicles is most effectively achieved through grade separation, a solution which therefore needs to be mentioned here. We recognise that the costs of tunnelling, or the visual impact of bridges, will not often be appropriate in urban settings. However, junctions of this size are already a significant intrusion into the urban realm, hence the solution should not be discounted. A better solution, of course, is to plan and design for a less intensely trafficked roundabout.

Paragraph 4.5.18
We suggest adding the words “in the UK” after “motorists” at the start of this paragraph.

Chapter 5: Cycle-friendly street design

5.1 Better places for everyone

Figure 5.2
The table row on 'civilising streets through speed reduction' should explicitly refer to lowering speed limits to 20mph (with or without traffic calming), in accordance with paragraph 5.3.2. See also our comments on that paragraph and our introductory key comment no. 4.

In the table row about 'sharing with pedestrians', we suggest adding the following words after the first sentence:

> ", particularly in traffic-free or traffic-restricted areas where pedestrians are likely to be walking inattentively rather than purposefully, and are therefore unlikely to notice dedicated cycle provision."

See our earlier comments on 'Requirement 3' and Figure 3.7.

5.2. Area-wide improvements for cycling

Paragraph 5.2.3
At the end of this paragraph, we suggest adding the following words:

> "However it [i.e traffic reduction] may have greatest benefits if it can also be achieved on high streets, high roads and city boulevards, where the 'space' and 'movement' functions of streets are most acutely in conflict."

See also our introductory 'key comment' no. 3.

Paragraph 5.3.2
We agree with the first sentence of this paragraph, but believe it should go further. As noted in our introductory 'key comment' no. 4, we believe 20mph should be the normal limit for most urban streets, including some main roads (e.g. high streets and city streets), where there is a high level of conflict between the space and movement functions of the street.

5.4 Physical traffic calming

Paragraph 5.4.3
We agree that central hatching is much over-used and harmful to cyclists' safety. Given the lack of understanding of this point among traffic engineers, we suggest adding the following words at the end of the paragraph, to spell out the reasons why it should be avoided:

> "… as it typically leads motorists to drive closer to the edge of the road, increasing the risks and intimidation they pose to cyclists."

5.5 Decluttering and simpler streets

Paragraphs 5.5.2 - 5.5.3
Some additional text is needed to make the point that 'decluttering' should not be taken as a reason to remove cycle parking – although it may sometimes be desirable to rethink its design and location. When railings are removed, the provision of cycle parking parallel to the kerb can be an effective way not only to retain the ability of cyclists to park securely (this is one positive aspect of guard-railing, which is otherwise generally undesirable), whilst also providing some protection against illegal pavement parking, whilst improving the flexibility of pedestrian movement.

5.6 Sharing with pedestrians

Paragraphs 5.6.2 - 5.6.3
CTC strongly supports these two paragraphs on the undesirability of (a) pavement cycle facilities and (b) taking space from pedestrians to create cycle facilities.

Paragraph 5.6.22
We do not agree that separating pedestrians and cyclists is desirable in most cases – it is more complex than this, as paragraph 5.6.22 explains. We reiterate our comment on the introductory 'Requirement 3' that segregation is generally undesirable where pedestrians are likely to be enjoying their surroundings (including children playing) rather than walking purposefully, since they are unlikely to pay attention to segregation markings.

Paragraph 5.6.22 and figure 5.7
As per the preceding comment, we believe this paragraph and table need to include the point about the general undesirability of segregation where pedestrians are likely to be enjoying their surroundings rather than walking purposefully. In such circumstances, it is generally better to use surface markings to indicate to both user groups that they need to be willing to share space, rather than create an expectation among cyclists that they are entitled to their own space, if the latter is unlikely to be respected by pedestrians who are simply relaxing.

5.7 Integration with bus infrastructure

Paragraphs 5.7.2, 5.7.4, 5.7.8 and 5.7.10
We agree with the points in this section, and particularly the above paragraphs, about the need to balance the safety and priority of cyclists whilst avoiding conflict with pedestrians at bus stops. This is an issue which also remains problematic in more cycle-friendly countries, and we will need to be led by 'trial and error' and by the resulting evidence, in order to establish the best solutions for a range of different situations.

5.8 Integration with kerbside activity

Paragraph 5.8.21
We agree with the commentary in this section about the need to balance cyclists' priority and safety with the needs of deliveries etc. However the above paragraph makes a particularly important point, namely that "Advisory cycle lanes which are regularly blocked by vehicles are a very poor quality facility and very often worse than no dedicated cycling facilities at all". We reiterate our view that it is far more important to prevent parking than driving in cycle lanes, and that a wide advisory lane with parking restrictions is more useful than a narrow mandatory lane (see comment on paragraphs 3.3.22 - 3.3.23).

Chapter 6: Signs and markings

6.1 sign requirements

Paragraph 6.1.5
As noted in our introductory 'key comment' no. 9, the forthcoming update to the Traffic Signs Regulations and General Directions (TSRGD, also referenced in paragraphs 3.5.15, 4.2.2 and 4.2.3) is one of several reasons why we recommend publishing LCDS in an easily updateable form. Another reason is the fact that many established 'continental best practice' solutions are still being trialled in the UK, hence the evidence-base for their effectiveness (or otherwise) in the UK has yet to be established – see our comment on paragraph 4.1.6.

Text box after paragraph 6.1.20: "A cycle route should never disappear abruptly"
We strongly agree with this text box.

6.3 Surface markings

Paragraph 6.3.23
We would agree that coloured surfacing for cycle lanes is 'particularly' beneficial at the locations listed. However, the available evidence suggests that it is beneficial on ordinary cycle lane sections too, not just at the location-types listed. A 2006 study in Edinburgh found that drivers are a lot more likely to respect coloured cycle lanes and bus lanes than uncoloured ones.[5] We therefore suggest inserting the word "particular" before "benefits".

6.4 Direction signing

Paragraph 6.4.11
In the first line after the bullet-points, the word "hen" should read "then".

Paragraph 6.4.18
The effectiveness of Cycle Superhighway signing in persuading people to take up cycling suggests there are real benefits from using minutes (rather than miles) to tell people how far it is to their destination. It surely makes no sense to have direction signs which use minutes for destinations on the superhighway but miles for other destinations. The TSRGD revision proposes to prescribe time-based signing. We therefore urge that LCDS advocates its use more widely once the TSRGD revisions are adopted.

Chapter 7: Construction, including surfacing

7.2 Surfacing

Paragraph 7.2.11
We believe this paragraph significantly downplays the value of coloured surfacing. The available evidence suggests that it helps not only to increase drivers' respect for cycle lanes (whether mandatory or advisory), but also to raise the visibility of the provision being made for cycling, and the sense that cycling is a valued means of transport. We urge that this is revised to encourage the use of coloured surfacing more generally, particularly for other strategic cycle routes beyond the currently designated Cycle Superhighway network.

7.3 Footways and tactile paving

Paragraphs 7.3.24 - 7.3.25
We welcome the stated intention in the Mayor's Manifesto to remove guardrailing, given the restrictions it places on pedestrian movement and the hazard it presents for cycling. However, to avoid a loss of cycle parking opportunities, consideration should be given to the introduction of cycle parking where guardrailing is removed. See also our comments on paragraphs 5.5.2 - 5.5.3.

7.4 Maintenance and asset management

General comment
This section is weak. It needs a lot more information about how the hierarchy mentioned in paragraph 7.4.14 will be used to determine road maintenance standards for different types of street, including inspection frequencies, intervention standards, vegetation clearance, winter maintenance regimes etc.

[5] See www.spokes.org.uk/wordpress/wp-content/uploads/2010/05/0605_mckeownJohn_Napier_dissertation.pdf.

We also reiterate our introductory 'key comment' no. 8. There is a huge opportunity to deliver cycle provision very cost-effectively by encouraging highway authorities to align their cycling and planned road maintenance programmes, to deliver cycling improvements in the course of planned resurfacing works. LCDS needs to spell out how London's highway authorities (including TfL itself) can seize this opportunity.

Paragraph 7.4.1
We agree that the design of cycle infrastructure needs to make provision for access by maintenance vehicles, and that this is particularly important for off-carriageway routes. There is also a need to ensure that local authorities have maintenance vehicles for ice and vegetation clearance which can access physically segregated routes of the kinds described elsewhere in the guidance.

Paragraph 7.4.14 (and section 7.4 more generally)
The word "simply" should presumably be replaced by "simple".

7.5 Structures

Paragraph 7.5.3
We suggest that the sentence "Consideration should be given to the probable growth in both cyclist and pedestrian number from making a new link" should be amended to say:

> "The design of new structures should reflect not only the Mayor's wider aspiration to double cycle in 10 years (and the potential for significant further growth thereafter) but also the additional growth in both cyclist and pedestrian number from making a new link, thereby creating opportunities and advantages for travel on foot or by cycle."

See also our comment on paragraph 8.2.6.

Paragraph 7.5.5
It appears that the word "wide" needs to be added after "100mm" in line 3 of this paragraph.

The second half of this sentence should be amended to say that "wheeling ramps should preferably be provided on both sides" of a flight of steps.

We also suggest adding the following:

> "Care should be taken to position the wheeling ramp and any handrail above it so that the wheeling ramp is directly below the handrail so that they do not interfere with one another. In other words, the wheeling ramp must not be so far away from the wall that it impedes pedestrians (particularly mobility-impaired users) from being able to use the handrail; yet there must also be enough of a gap between the wall, the wheeling ramp and the handrail above it so that cyclists can lean their bikes outwards to avoid even wide handlebars being snagged by the wall or the handrail."

Paragraph 7.5.9 - 7.5.10
We suggest adding a comment, similar to that proposed above for paragraph 7.5.3, about the need to bear in mind the future growth of walking and cycling when defining the widths of new pedestrian and cycle tunnels or underpasses. We also suggest including a photograph of the pedestrian/cycle tunnel under Utrecht station, to indicate the need for really substantial width on key pedestrian/cycle routes.

Chapter 8: Cycle parking

8.1 Why cycle parking is important

Paragraph 8.1.4
We agree with the key principles for cycle parking outlined in this paragraph. We would add though that it is also desirable for cycle parking to be sheltered. This will normally not be possible for on-street parking, however it is valuable for both short-stay visitor parking and particularly for longer-stay parking. We therefore suggest adding the words "and preferably sheltered", either inserting these after "accessible" (in the 2nd principle) or after "well overlooked" (in the 3rd principle, deleting the "and" which precedes these words).

8.2 Procedures

Paragraph 8.2.6
We welcome the statement about the targets and aspirations for the future growth of cycling. We suggest though that it would be better included in the introductory chapter, so that it can also be referenced in paragraphs 3.2.12, 7.5.3 and 7.5.9.

8.5 Cycle parking to support different uses

Paragraph 8.5.1
After "controlled access", we suggest adding, "(the major exception being at rail stations – although it is very desirable if it can be provided)."

Paragraphs 8.5.19 - 8.5.21
We are disturbed at recent reports that some councils are objecting to residents putting up simple cycle sheds in front of their homes (e.g. on driveways or front gardens). We urge TfL to investigate how it might clarify that this is acceptable in planning terms, e.g. through the Residential Cycle Parking Guidance proposed in paragraph 8.5.26.

Paragraph 8.5.33
We suggest rewording the 4th bullet-point so that it refers to step-free access, e.g.

> "conveniently located, with step-free access from outside and inside".

Appendix: Cyclists at roadworks

Page iii line 1
Add an apostrophe after "cyclists".

'Cyclists dismount' signs and 'cyclists and temporary traffic management design checklist' (pages vii and xi)
We strongly support the statement that the use of cyclists dismount signs is unacceptable unless all vehicle access is prohibited through the works. We suggest this should be clarified in the relevant box in the checklist on page ix, which suggests that cyclists dismount signs may be acceptable if all other alternatives have been rejected.

Traffic management options and layouts
We suggest including the option of making the street one-way for motor vehicles, diverting motor traffic in the opposite direction but retaining contraflow cycling. This approach has been successfully adopted on Farringdon Road and Union Street.

CTC, August 2014