

## Proposed 2015 Traffic Signs Regulations and General Directions,

### **This document is the response of the Institute of Highway Engineers (IHE) to the above consultation.**

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## **1. Summary**

### **1.1 New Regulations and Policy Proposals**

The IHE welcomes the proposed new format of TSRGD and the flexibility it brings. We consider that, with the necessary guidance, traffic authorities will benefit from being able to use the greater range of signs this document prescribes, and the greater control they are given over electrical illumination of traffic signs and the indication on the ground of parking places.

Nevertheless, we have a number of serious concerns about some proposals, one of which we consider seriously detrimental to road safety. We therefore strongly urge the DfT to reconsider these measures before this SI is finalised. We are happy to suggest minor changes to the existing wording that would achieve these objectives. The fact that the remainder of this document focuses on these concerns and our suggested changes should not be interpreted as a negative comment on the proposals as a whole.

IHE is also concerned that the extensive guidance that practitioners will need to implement the new TSRGD must be available simultaneously with its introduction and that DfT must recognise the difficulty that some authorities with limited in-house expertise will have in assimilating the changes.

### **1.2 Summary of main concerns**

These recommendations are made and the reasons behind them explained in the sections following:

	<i>Section/ paragraph</i>
1 Removing the ability of traffic engineers to indicate road status and priority on map-type signs is a dangerous and retrograde step that we believe will lead to more road accidents and cause additional signs to be needed, thus adding to clutter. We therefore strongly recommend that arms widths should continue to be variable.	7.1

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|---|--|------------|
| 2 | Whilst we have mixed feelings about the Guildford rules for directional signs, we believe this proposal to revert to the pre-1994 situation is rushed and overlooks potentially better options. We therefore recommend that the 2015 TSRGD retains the Guildford rules but that these should be fully reviewed in the future.                              | 7.2        |
| 3 | The new format of TSRGD and the greater flexibility it offers will demand more skill and experience on the part of those designing signs, so DfT should guide the industry by indicating the level of training and accreditation necessary to undertake this task.   | 2.2        |
| 4 | The new TSRGD should not be introduced without full detailed guidance (in updated chapters of the Traffic Signs Manual) being available at the same time.  | 2.3        |
| 5 | We support giving authorities more flexibility with regard to sign lighting, but recommend specifying particular classes of retroreflective material to avoid authorities and manufacturers using the very lowest grade (which is not generally considered suitable for traffic signs).  | 5          |
| 6 | We recommend that DfT should continue to approve 'Stop' signs when they are first used at a priority junction and 'No entry' signs in situations where there is no traffic order. Discontinuing these seldom-requested approvals would save only a small amount of time for DfT, but cause significant disbenefits for highway authorities and road users. | 4.2<br>4.3 |

## 2. General comments

### 2.1 Proposed new structure

Most of us felt the new style of regulations worked well and gave the desired flexibility. We were able to follow the examples and arrive at appropriate sign designs. But several of us preferred the style of the current regulations, particularly for Schedule 1 and the circular signs in Schedule 2, for which there are few permitted variants.

Traffic signs are erected only to help the road user, but some of the changes proposed appear to pay little regard to their needs. In the consultation document and draft introductory circular, much importance is given to reducing regulation and simplifying sign design, but without any detailed consideration of how the proposals will affect road users. We say that the needs of the road user are paramount, and that any reduction in the complexity of the regulations themselves or in the task of designing traffic signs should be a very much lower priority and must not be made at the expense of the ease of understanding and usefulness of the sign.

A major concern is that sign designers will need to rely much more heavily upon the Traffic Signs Manual (TSM) and other guidance, but that those documents are not yet available. We therefore cannot comment in detail upon how traffic authorities will cope with there being no legal link between (for example) a single yellow line and an upright plate giving the times that the restriction operates. The documents as they stand appear to place authorities in a very difficult position when trying to ensure that measures are legal and enforceable. When is a regulatory measure enforceable just with a road marking alone, and when will an upright sign also be needed? When the guidance is available, we hope that these issues will resolve, but DfT needs to be aware that all parties (including parking adjudicators and appellants) will need to refer to guidance documents to make sense of the recommended requirements, not just scheme and sign designers. In many cases, TSM will become the document people refer to in Court and at parking appeals, rather than TSRGD.

A further concern relates to any errors or omissions that remain in the implemented SI. In a document of this length and complexity it seems an almost impossible task to ensure that every cross-reference is correct and that no currently prescribed sign or permitted variant has been overlooked. We would ask DfT to ensure that a fast-track procedure can be implemented to introduce amendment regulations to correct urgently any major error that slips through, particularly one that prevents the enforcement of any type of regulatory sign.

We like the current unique table numbers used throughout the draft document, but we understand that this will disappear in the final version. It will then be necessary to distinguish “Schedule 2, Table 1” from “Schedule 1, Table 1”. This seems to us a great pity and likely to detract from the usability of the new format. Sometimes it will be necessary to have a reference of the form “Schedule w, Table x, Item y, Column z”, which seems very cumbersome and prone to possible error.

We understand that there will be Regulations or Directions requiring most signs to be retro-reflective (if not electrically lit) and relating to other matters such as sign mounting and backing boards, but as these are not included in the consultation we are unable to comment on them at this stage.

## **2.2 Highway authorities, training and accreditation**

We are concerned that many local highway authorities will use the new flexibilities given to them simply to cut cost, without considering the road safety implications or needs of the road user. The current regulations should not therefore be seen as unnecessary “red tape” – they are there to ensure a degree of uniformity across the country, help protect Britain’s enviable record on road safety and to ensure that regulatory measures can be successfully enforced in a way that is fair to the road user. Even when conscientious engineers ‘at the coal face’ have designed measures correctly, there is a danger of (and widespread evidence for) them being over-ruled by people above them who are less knowledgeable about signs. There is also the problem of ‘design and build’ and similar contractual arrangements, when the company specifying and providing the signs has a financial incentive to minimise their number and cost regardless of traffic engineering and safety consequences.

We are also aware that there is a widespread public perception that authorities are motivated by financial concerns when considering parking measures. Some authorities have done little to counter this in publications they have produced. The ability of authorities to introduce further measures without a traffic order (and possibly therefore without consultation) will exacerbate these fears.

The answer to most of these worries is both good training for staff who design and specify signs and proper recognition of people with the relevant skills and experience. This will give them the appropriate status in their organisations and the confidence to defend their decisions and ensure that they are not without good reason over-ruled by those above them. Traffic signing itself needs to be recognised as a specialism at least as complex as traffic signal design, and not just lumped in with “traffic engineering” in official documents. With DfT support, IHE launched in 2007 the Professional Certificate in Traffic Sign Design. Take up of this qualification has been slow, and will continue to be until there is greater recognition of the importance of traffic signing as a specialism. Without any official recognition of it or requirement to hold it, there is no incentive for anyone to obtain this accreditation, and yet it is currently the only means by which sign designers in the UK can show that they are competent in this field.

It is true that the legal responsibility for sensible and correct traffic signing rests entirely with highway authorities. Unlike in many other areas of local government provision, there is no policing or inspection of authorities’ performance on traffic signing. As a result, examples of appallingly bad and in some cases dangerous signing are visible in a large number of authorities and even on trunk roads. DfT should acknowledge that they could have significant influence over the situation and is therefore the only body able to protect the road user from authorities that create unsafe or unclear situations by getting signing wrong. DfT has rightly been involved in encouraging good practice in minimising sign clutter. It needs to be similarly vigilant and proactive with regard to signing that is poor in other respects. Promoting minimum standards of experience, training or qualification for sign designers would be one way to help achieve this.

### **2.3. Guidance documents**

Provided that there is suitable guidance in place at the time these proposals become effective, they are likely to work well and give a significantly more concise but more flexible regulatory regime for traffic signs.

However, in view of the ambitious time scale DfT has set for introducing these new regulations, and the time it has taken in the past to produce new chapters of the Traffic Signs Manual, it seems unlikely that this guidance will be finished in time, leading to the possibility of practitioners being expected to interpret the new regulations on their own. One of the reasons IHE opposes any major change to directional signing at this time is to avoid the need to re-write TSM Chapter 7, thus allowing DfT to focus its attention on other guidance documents.

In explanation and guidance DfT have referred to authorities undertaking a “risk analysis” (before, for example dispensing with electrical illumination for certain signs). Authorities need guidance on how to undertake this analysis, what form it should take and what records they should keep.

IHE would be most concerned if new Regulations came into force before the corresponding detailed guidance was available.

## 2.4. Sign referencing

We are pleased that DfT has responded to the concerns we and others raised at the Peer Review stage by continuing the use of diagram numbers for the majority of signs. We suggest the DfT should go further in assisting the industry to specify and supply the intended variant of a sign by giving reference letters to each diagram where multiple versions of a sign appear under the same diagram number in the same cell of a table. For example, in Schedule 1 Table 1, the three variants of diagram 504.1 should be labelled “A” to “C” (following the convention used already for some diagrams in Schedule 4).

## 3. Responses to the specific Consultation questions

<i>Question</i>	<i>Response</i>	<i>Comments</i>
1	Agree	The proposals do offer much greater flexibility, but we can envisage signs for which authorisation would still be needed.
2A	Agree	It is in the spirit of other deregulations of lighting for highway authority judgement to also apply to all signs in 20 mph zones.
2B	Disagree	These signs are of equal importance to other warning signs, so should have the same lighting requirement.
2C	n/a	(question for individual authority response)
3A	Yes	<p>Allow arm widths to continue to show route status/priority on map-type directional signs thereby avoiding the need to erect extra warning signs additional to those currently required.</p> <p>Redesign tiger-tail and series 72xx roadworks and similar signs to make them smaller, less cluttered and easier to understand (and easier to handle and reuse for temporary signs).</p> <p>Emphasise that training (and preferably an appropriate qualification) is needed for those designing new signs and signing schemes, to avoid creating unnecessary clutter for the future.</p> <p>Provide more advice in TSM Chapters 1 and 4 to help highway authority staff justify refusing requests for unnecessary signs. (See section 6 below).</p>
3B	Yes	Those of us responsible for sign provision will take advantage of the new flexibilities where it is safe to do so and unlikely to hinder enforcement.

Question	Response	Comments
4A	Yes	<p>However we consider consultation should be a legal requirement (as it is for new pedestrian crossings), not just a recommendation.</p> <p>We are concerned about the enforceability of markings placed on the road without a TO. There needs to be DfT advice (that has been discussed with adjudication services) recommending how an authority should prove that particular markings were laid after due process (and not a mistake by the contractor or placed by someone other than the highway authority).</p>
4B	n/a	(question for individual authority response)
5A,B,C	n/a	(question for individual authority response)
6A	Yes	Yes, providing the 'saving' for existing Pelican crossings is at least 20 years.
7A,B,C	n/a	(question for individual authority response)
8	Yes	Such a definition is needed to help authorities in England to manage the number of brown signs they erect.
9	No	<p>We believe this proposal is premature and needs further consideration. Examples produced to illustrate this proposal have been limited to simple junctions and do not address more complex situations (such as where a primary route makes a sharp turn). There are alternative ways to reduce sign size that should also be considered, such as this suggestion (illustrated only as a discussion point, not as a definite proposal), based upon the example in the question:</p>



**We are strongly opposed to standardising route arms widths at 5 stroke widths for vital road safety reasons.**

Question	Response	Comments
10	No	<p>We had varying views on this, but a majority felt that further exemption plates under a 616 would weaken its message, and that the good level of compliance is currently due to road users expecting to be driving the wrong way down a one-way street if they ignore a 'no entry' sign. Were this to often be no longer the case, we expect compliance levels for 616 signs would drop, causing significant road safety disbenefits.</p> <p>We observe that the replacement of signs to diagram 953.x might cause difficulties for Civil Enforcement outside London where the relevant authorities have powers to enforce 'bus lanes' but not 'no entry' signs.</p>
11	No	<p>The research shows that these signs are well understood without sub-plates, but that if any improvement in their recognition were needed then red diagonal bars should be considered again.</p>
12	No	<p>In the event of an authority name being material to a driver, a Notice to Owner would have been sent that gave the authority name. There would never be a case where a road user needed to make a DPA subject access request unless such a document had been received. Cameras for law enforcement are exempt from most DPA requirements anyway.</p>
13	Yes	<p>See above and below for further comments.</p>

## 4. Regulatory signs (Schedule 2)

### 4.1 Parking signs

IHE very much welcomes the flexibility these proposals give to the design of parking plates and the fact that fewer requests for special authorisation will be needed. The approach of Schedule 2 Part 2, in particular, to allow almost any combination of plates to be abutted, whilst maintaining essential requirements such as the waiting prohibition being uppermost, are excellent and will save sign area and therefore clutter.

The fourth clause of Table 10 Column 1 is unnecessarily restrictive and we suggest should be removed:

*but where two panels are alongside each other, they shall be of the same height and of the same colour.*

That would preclude, for example, butting beside each other a white and a yellow plate at a transition point between permitted parking and a waiting restriction:





Clause 5 needs to commence “Within each column, any white panel...” As currently drafted it prohibits a transition point arrangement such as this (where there is a double yellow line to the left of the sign, so no yellow plate is needed):



#### 4.2 No entry signs without an order

The current TSRGD recognises that there are rare occasions when ‘no entry’ signs and/or road markings should be used in circumstances where there would be a clear safety problem if vehicles entered a slip road or similar from the wrong end, but where there is no traffic order. This applies mainly to dual carriageways (for which no traffic order is required to enforce the ‘one-way’ status of each carriageway and associated slip-roads) and short lanes adjacent to traffic islands in urban situations. At present authorities can apply for authorisation to use ‘no entry’ signs in these situations (Direction 7(3), Item 3). The proposal (in section 5.1 of the draft Circular) to require a full traffic order in all these circumstances imposes an unduly onerous, expensive and time-consuming procedure on authorities for locations that would not otherwise need an order. It is understood that the number of such applications DfT receives each year is very small, and the corresponding workload therefore minimal.

#### 4.3 SoS approval to place ‘Stop’ signs

The current requirement in Direction 6 for Secretary of State approval before a ‘Stop’ sign to diagram 601.1 is first used at a junction is to be discontinued. We consider this proposal to be very detrimental to road safety, as it is likely to result over time in a proliferation of these signs at junctions where they are not really warranted. This in turn will lessen respect for and compliance with them at the few junctions with poor visibility where they are really needed.

This requirement for SoS approval has been in traffic signs regulations since 1957 for the reason that some (perhaps just a few) authorities would be tempted or pressurised into using these signs incorrectly. We see no evidence that local authorities have suddenly become more capable on traffic signing matters in recent years. In fact the contrary is true, with many authorities lacking the



necessary in-house skills and others allowing public and political pressure to override good engineering judgment. If this provision was required in the 1950s and subsequently, then it is still required.

It is understood that the number of applications for these signs that DfT receives each year is very small, and the corresponding workload is therefore minimal.

Very little attention has been drawn to this proposal in the consultation documents, so we believe that the majority of respondents will be unaware of it and thus unable to comment upon it. The only mention of it is in a table on the penultimate page of Annex B of the draft of the Circular that will introduce the new regulations. There is no other reference to it or any discussion of the reasons for it.

## **5. Sign Illumination**

The IHE supports giving more discretion to highway authorities on sign illumination, but recommends that signs previously requiring electrical illumination (in street-lit areas) should use retroreflective material to BS EN 12899-1 Table NA.1 class R3B.

The regulations that specify the 'default' illumination for the majority of signs have not yet been drafted. We strongly recommend that this clause insists upon retroreflective performance of BS EN 12899-1 class RA2 material or better. Without this provision, unscrupulous sign manufacturers and 'design and build' contractors could use the lowest grade of material (RA1), which is no longer recommended in BS EN 12899-1 for use on traffic signs because it has far too low a performance.

Highway authorities will need guidance on using their new responsibilities for deciding whether or not to electrically illuminate many types of sign. An explanation of EN 12899 classes for retroreflective performance is also needed. We recommend that these topics be covered in Chapters 1, 3 and 4 of the Traffic Signs Manual if it is no longer proposed to devote a whole chapter of TSM to this subject.

There appears to be some error or confusion in the consultation draft relating to the illumination of diagram 670 terminal speed limit signs, which we refer to in section 8 below.

## **6. Reducing Sign Clutter**

The IHE is in favour of all initiatives aimed at reducing traffic sign (and other) clutter on our streets. We consider that the erection of new signs is mainly influenced by the Traffic Signs Manual and other guidance rather than by regulation. As regulation is loosened, TSM will increasingly be seen as "the law" and be referred to in Court and at parking appeals even more frequently than at present. Therefore TSM needs to be clear that it is guidance and that authorities will find occasions when they need to depart from it.

Chapter 1 of TSM should be clearer on the negative affects of over provision of signs, and the legal and other consequences of allowing unlawful and superseded signs to remain. Chapter 4 could explain in more detail the potential adverse effects on safety of too many or unjustified warning signs. This advice is needed to help authorities avoid becoming ‘risk averse’ in their signing. It should recognise that they are under a great deal of pressure to address real and perceived safety issues on the highway, so tend to err on the side of over provision. It should also cover the issue of record keeping, so that future staff can understand the reasons why a sign was put up when deciding many years later whether to renew or remove it.

The proposals relating to map-type directional signs will cause a small increase in their size, but more worryingly will require additional warning signs to be erected, thus exacerbating sign clutter and causing additional expense. These proposals should therefore be abandoned, as explained in the following section.

## 7. Directional signs (Schedule 4)

### 7.1 Arm widths on map-type advance direction signs

We strongly oppose the proposal for all arms on map-type signs to have a uniform width of 5 stroke widths (sw). The only explanation given for this is to “simplify the complex design rules and remove design complexity”. There is nothing about the effect this change would have on road users or safety, and no research to back it up. This is totally the wrong reason for changing the appearance of a traffic sign. **The needs of the road user must come first** and it is outrageous to put supposed issues of complexity for sign designers above considerations of road safety, network usability and driver comprehension.

We consider this proposal to be seriously detrimental to road safety, as arm widths on map-type signs are a valuable indication of the priority at a junction. The removal of this facility on map type signs would add to the need for additional warning signs to indicate junction priority, causing additional expense and sign clutter. It would also result in a small increase in the size of these ADSs in most cases.

Consider, for example, diagram 2122 of the current TSRGD, described as *Sharp bend in main road at a junction ahead with a minor road*. See how that message is conveyed much more clearly by the current sign than by an equivalent one using only 5 sw arms:



*Existing TSRGD diag. 2122*



*Same sign under proposed new rules*

The proposed sign would lead many drivers to think they have priority if travelling straight on, whilst the existing sign clearly indicates that they do not. This is even more likely if an ahead destination is added; in this case we suggest that almost all drivers unfamiliar with the area would take the route to “Pooting St Mary” without giving way to oncoming traffic, causing a major collision problem:



Erecting an additional warning sign to diagram 506.1 would mitigate these problems to some extent, but not eliminate them.



But **why add the expense and clutter of a separate warning sign** when the sign under the existing regulations is doing a good job on its own? And there are many situations where a standard warning sign cannot accurately represent the road layout ahead. In these cases a map-type sign is the only tool the engineer has to advise road users of the priority and layout of the road ahead. Please do not remove this vital tool from their armoury.

It has been suggested that road users do not understand arm widths on map-type signs. We believe that they do subliminally and intuitively, even if they cannot answer a direct question about it. If they have no concept of arm width indicating likely priority, then the messages conveyed by warning signs to diagrams 504.1 to 509.1 will also be meaningless to them.

There is no evidence that designers have difficulty using different arm widths on signs. All sign design software in common use in UK copes competently with this matter, requiring little effort on the part of the designer to specify signs containing different widths of arm.

A further issue is aesthetics. Signs for bypassed communities (diags. 2025 and 2121) become very clumsy and overbearing with the links representing those features indicated with route symbols 5 sw wide (Table 61, Items 5 and 6 in the consultation draft TSRGD). Undue prominence would be given to stubs indicating minor junctions and many signs containing them would need to be larger to accommodate the larger stubs (TSM Chapter 7 Figure 5-5, for example), adding to clutter and expense.

Arm width distinction on map-type signs was introduced in 1960s for a good reason and is important for safety. We strongly recommend that it be retained. The relationship between arm width and route status does not need to be prescribed by regulation, and could be covered by guidance, giving highway authorities the flexibility to vary the rules at junctions where the priority is unusual.

## 7.2 Guildford rules

We have mixed feelings about the Guildford rules that in 1994 introduced white and green panels on advance direction signs at junctions between primary and non-primary routes. Several of us believe that some improvement to the current system is possible, but that there are many options for reform other than simply reverting to the pre-1994 situation. Having just about reached the end of the transition period that started in 1994, throughout which a mixture of sign types has been in place (often at a single junction), we would be reluctant to inflict on road users a similarly long transition whilst the process was reversed. We believe that there are ways to modify the Guildford rules that would reduce the possibility for confusion during the transition period.

As issues relating to the Guildford rules were not raised during the 3-year Traffic Signs Policy Review and are not mentioned in the resulting policy document *Signing the Way*, they are clearly not a pressing concern either of DfT, highway authorities or others involved in the Review. Removing this change from the 2015 TSRGD will avoid the need for a major revision of Traffic Signs Manual Chapter 7, allowing DfT to progress more quickly other essential new guidance.

We do not consider that the timescale for the introduction of the 2015 TSRGD permits a proper consideration of possible changes to the Guildford rules and we therefore **strongly recommend that this proposal be postponed** and revisited when time and resources permit a full evaluation of the options.

## 7.3 New directional and advisory signs

The draft TSRGD prescribes for the first time tiger tail and other innovative lane indication signs, some of which are already in widespread use under individual authorisations. Nevertheless, this is the first opportunity for any public comment on or review of these signs. We think the majority of these signs could be simplified and made smaller, easier to read and less cluttered.

For example on tiger tail signs (Table 61, items 1 and 2 in the draft document) the main message to be conveyed is that you may take the exit from either lane 1 or 2 (and that you must be in lane 2 or greater to stay on the main line). The issue of not being able to cross between lanes 1 and 2 of the exit arm (across the chevron markings) is a minor point in comparison and probably adequately conveyed by the road markings. There is no need for the chevrons to appear on the sign at all and they should be replaced by a single dotted or solid line.

More generally, we believe that the dotted lane lines on many permanent directional signs could be eliminated without detracting from the message, thereby improving readability and reducing sign size. The lane lines are already omitted

between main line lane arrows in the current diagrams 868 to 875 and temporary signs in the 72xx series. We think the dotted lane lines could be removed (or made optional) on dedicated lane signs between lanes leading to the same destination, as has been done in Table 47, Item 7.

This same principal should also be applied to advisory signs in Schedule 3 that indicate lanes. For consistency with diagrams 872.1 (Table 41, Item 15), there should be no dotted line between vertical arrows on the new diagrams 888 and 889 (Items 17 and 18 of that table). This thinking could be extended to diagram 877 (Table 41, Item 22), but perhaps at a later date.

## **8. Minor issues, corrections and possible oversights**

This section records where we have noticed possible oversights or mistakes in the draft TSRGD.

### **Standards**

BS873 was withdrawn in 2005, but is referenced in Table 67, Item 2 (5, 10 & 14) and Table 68, Item 2.

### **Schedule 1: Warning signs**

#### **Missing signs or options**

The following existing TSRGD diagram numbers are missing from the proposed Schedule 1: 543 (with the option of a plate to current diag. 543.1), 563.1 (but it is referred to in Table 72, item 5) and 773.

The option of a diag. 773 sign under diag. 529 (Table 1 item 18): “Stop when lights show” has been omitted.

The permitted variant of current diag. no. 511 (Table 2 Item 1) “Heavy Plant Crossing” has been omitted.

### **Schedule 2: Regulatory signs**

#### **Structural and Environmental weight limits**

Allowing the numerals on the environmental lorry ban sign, diag. 622.1A (Table 6, Item 13) to be varied to any value would cause enforcement problems and inconsistency across the country, as the Police can only determine particular bands of weight (such as 7.5T and 18T) by inspection of the plates displayed on the vehicle. If greater flexibility is needed on weight limits, it should surely be for structural weight limits (diag. 626.2A, Table 34 Item 2) where there is arguably a greater need to tailor the maximum weight indicated to the actual structural capacity of the road.

#### **Miscellaneous errors**

Table 18, Item 3, Column 3 should refer to symbols in Table 13 (not Table 12).

Table 39, Item 4 is poorly worded and imposes a more onerous requirement to electrically illuminate terminal speed limit signs (diag. 670) than at present.

Table 43, Item 11 allows the cycle symbol to be removed from a diagram 958 advisory sign on the approach to a bus lane. The regulatory sign (Table 34, Item 9, Diagram 959B) permits no such variation. It might be undesirable to encourage cyclists to use an off-side bus lane or one that leads directly to a bus gate or other facility not suitable for cycles.

## Terminology

The terms “red route” (used in Table 24, Items 1 and 2 for example), “controlled parking zone”, “restricted parking zone”, and “permit parking area” need to be defined to ensure that different authorities use them in a consistent manner.

## Time/date ranges

Table 34, Item 9 (diag. 959B). Change “At any time” to “At all times” to make it better English and for consistency with other signs (e.g. Table 31, Items 1-4). Change Table 43 Item 8 in the same way for consistency of the advisory sign on the approach to a bus lane.

Schedule 8, Item 1 should include “Market” & ”market” in clause 5.

## Schedule 3: Advisory signs and markings

### Diagram 877 – traffic lanes for different manoeuvres (Table 41, Item 22)

The shorter (645 mm high minimum) variant for use where there is no double-headed arrow or red bar appears to have been omitted.

The lower illustration needs revising, as it appears to show that traffic in lane 2 must turn left across chevron markings. The upper right illustration is also suspect, as buses travelling ahead from lane 2 would conflict with right turning vehicles from lane 1.

More generally we recommend that the chevron marking should not appear on any illustration of this sign. Whilst this is a permitted variant of the current diagram 877 it is rarely useful in the urban low-speed situations where this sign is normally used. It simply adds to the sign size (and makes it more cluttered and difficult to comprehend) without differing in meaning in any way from the version that uses only simple vertical dotted lane lanes. The chevron marking is only sensible (and satisfactory aesthetically) when it has an arrow alongside it that is also angled at 22.5 degrees from vertical.

If diagram 877 is to be extensively revised, a lane bifurcation arrow (as in Table 61, Item 3, but shorter and without the associated enlarged border), could usefully be added to the options. Options to vary the text “Except buses” above a red bar to “Except cycles” or “Except buses and cycles” would also be useful.



## Other errors and omissions

Diagrams 826 and 826.1 “depth of water at a ford” are not included. If they are reinstated, change “M” to “m” as the correct abbreviation of metres.

Table 43, Item 7: “bus lane” should be “Bus lane”.

## Schedule 4: Directional signs

### General

Nothing in the draft TSRGD says that sign type “B” is used only at the junction itself and means “turn here”. Presumably this will be covered in guidance, but this relatively simple point seems to have escaped some highway authorities. The Highway Code and other instructions to road users will doubtless continue to explain the difference between “direction signs” and “advance direction signs”, so highway authorities should be required to use these signs correctly rather than just being advised to.

### Map-type Signs

Table 48 Items 1 to 3. By stating that the approach arm may curve, the document strongly implies that other arms may not curve, thus precluding signs such as the current diagrams 2102 and 2112. Item 1 allows the shape of the symbol to be varied, but if this covered curving the arms then there would be no need for permitted variant 2 relating only to the approach arm.

There is no indication that the roundabout symbol in Table 48 item 2 may be rotated (when used as a second roundabout or in conjunction with a sharply curved approach arm) or that the gap angle may be reduced (when there is a steep-angled right arm), except for the rather vague permitted variant: “The shape of the roundabout symbol may be varied”.

We are unclear why the route arm leading to a red T-bar (for a no-through road) should be thinner than other arms. It makes a cross-roads where the opposing arm is a simple stub arm of equal status look very strange (Table 48, unnumbered item after 6).

Table 49. There does not appear to be any provision for panels to have a cut-out corner (L-shaped panels).

There is no indication that symbols in Table 57 when used on a map-type sign should be placed on the route arms cutting through them. Indeed this would arguably change the appearance of the route symbols defined in Table 48 to the extent that they were no longer as prescribed.

### Symbols

It is a pity that Table 57 is needed, as it only illustrates warning and regulatory symbols already shown in Tables 1 and 6. The present TSRGD simply provides



for warning and regulatory symbols on directional signs to be varied to any other symbol from the appropriate schedule, and it seems to us that the new TSRGD could do so also. The height of each symbol in stroke widths could be left to guidance, as it is at present. It would aid the future maintenance of TSRGD for new warning and regulatory signs to be inserted only into Table 1 or 6 (as appropriate) without needing to consider whether they were also required in Table 57.

Table 61, Item 21 (Test centre sign). We suggest that the symbol be added to Table 50, avoiding the need to show this as a separate sign and adding the flexibility to indicate directions to test centres on general signing.

## **Schedule 6: Traffic signals**

A better heading for this Schedule would be “Traffic Signals, Pedestrian Crossings and Traffic Control”, as it includes all of these.

Table 69 Item 38. The diagram needs redrawing as it has overlapping text.

## **Schedule 10: Interpretation of “Unladen Vehicle” (sic)**

We suggest DfT reconfigures its spelling checker not to ignore words entirely in upper case.