

## **GUIDE TO DESIGNING TRAFFIC SIGN INSTALLATIONS IN LINCOLNSHIRE**

<b>HGD NO: 4.8</b>	<b>POST: PRINCIPAL ENGINEER (LIGHTING, SIGNS AND CAD)</b>
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### **1. Introduction**

The purpose of this document is to promote consistent and high standards of design for the installation of new traffic signs in Lincolnshire along with promoting the review of existing installations, when considering their maintenance or alteration to existing installations.

This document covers the most commonly encountered feasibility and design related decisions when considering signing alterations/additions in Lincolnshire. It is provided to assist all those involved in planning and designing new installations.

#### **1.1. Traffic Signs in Lincolnshire**

The design of traffic sign installations presents a challenge to the delivery of high quality highway improvement projects. Successful projects can only be delivered with a high level of project management, co-ordination and attention to detail.

The design of traffic signs is work of a highly specialist nature and the final delivery of any scheme on site is very visible and public.

Traffic signs and road markings within Lincolnshire are considered to be free standing entities, but their usefulness and appropriateness needs to be considered not only in the context of where they are, but the wider area surrounding them; this is to ensure that a consistent approach is used across the whole county, so that the understanding by the public is reinforced in each and every location.

The Government target in relation to casualty reduction figures is high on the political agenda and as such developments in the area of traffic signs are generally carried out under the remit of the Lincolnshire Road Safety Partnership. However new materials and methods can be trialled in other locations under the guidance of the Highway Standards Group.

## **1.2. National Design Guidelines and Standards**

This document clarifies the Lincolnshire County Council interpretation of the national design guides and standards.

The requirements contained in this document do not contradict national guidelines and standards. This document is provided to assist the design decision process and clarify any areas of ambiguity which exist in these documents.

## **1.3. Preparatory Work**

In order to progress any design a full site investigation should be carried out and existing data captured. This data capture should not only include any existing road markings and signs, but also other street furniture, the location of utilities, and future possible restrictions, such as foliage growth.

Another part of this preparatory work is to consider the location in terms of environmental restrictions e.g., conservation area, SSSI, protected roadside verge etc. so that they may be taken into account during the design stage.

Risk assessments and safety audits must be carried out in accordance with Lincolnshire County Council Policies.

Principal Engineer, Lighting Signs and CAD (The Signs Manager) should be consulted at an early stage for large schemes, and upon the completion of the preliminary design for all other schemes, to ensure that the proposals meet with the legal requirements prescribed within the prevailing version of Traffic Signs Regulations and General Directions (TSRGD) and Traffic Signs Manual (TSM).

## **2. Standard Drawings**

Details for foundations for sign posts and for mounting heights and carriageway clearances of sign plates and posts are shown on the Lincolnshire County Council standard drawings. These all show minimum dimensions, therefore consideration can be given to increasing them at any location.

There are also a number of standard drawings which show traffic calming details, and these should be used when carrying out this type of work in order to encourage consistency throughout the Authority.

### 3. Direction Signs

The provision of Tourism (brown and white) signs is governed by its own Policy which is available on-line and is administered by TSP Signs and Lines team. There is a cost for this type of signing which must be met by the applicant.

The provision of local direction signs is on the basis that the venue is publicly accessible. This generally allows for a small direction sign to destinations such as schools, churches or village halls (recognising that these venues are used in the evenings for meetings and social gatherings) and doctors surgeries. Signs are normally provided in the latter stages of a journey only and where a venue is difficult to locate. It is normally inappropriate to provide individual direction signs to venues if they are located within a village or town that is already signed from a main road; for example, Leasingham Church would not be signed from the A15 - Leasingham would be, but not the church. The church would be signed from within the village and only if it is difficult to find, and if there was no car parking at the venue it may be appropriate for pedestrian style signs instead. Adequate car parking is expected in order for vehicular direction sign to be provided, however, if there is no car park, pedestrian signs will be considered as an alternative - perhaps from the nearest car park or where there is suitable on street parking.

There is a cost for this type of signing which must be met by the applicant.

There is a restriction on the number of destinations permitted on a sign so a set of principles have been determined to ensure that this restriction can be achieved. These are:-

- Next Primary Route Destination as laid down in Local Transport Note 1/94; this includes destinations outside of the county boundary
- Next major town, again including destinations outside the county
- Next village

Where many villages are accessed off Primary and Principal roads, only the first town and/or village will normally be signed from this route. All other settlements will then be signed onward.

In rural locations there will generally be only two destinations in any one direction; this is to try and minimise the size of the sign and to create a balanced design that restricts the visual impact on the environment.

In urban areas, in addition to the provision of local direction signs (listed above), many buildings/establishments request signing to be provided. The ones that will be considered are: -

- Education establishments
- Places of worship
- Village halls

- Community centres
- Industrial estates
- Business parks

This list is not exhaustive and does not confirm that signing will be provided. All requests of this nature must be forwarded to the Signs and Lines team for its attention so that consistency throughout the county can be maintained and signs only provided at appropriate locations.

Applicants must be made aware at the initial enquiry stage that they will be required to pay for any signs which may be permitted and provided through the Highways Term Maintenance Contract (HTMC) on their behalf.

#### **4. Warning Signs (requests from members of the public)**

Requests for warning signs from members of the public should be directed to their parish council to verify and support the request. Only when supported should the council representative approach Highways with a summary of the problem (not the perceived solution).

If the defect can not be repaired or fixed and Highways believe signs should be considered, and are prepared to meet the costs involved, they should check any proposal is supported by the local member before approaching TSP Signs Team for advice and a design solution when necessary.

Lincolnshire is a rural county and hazards of a rural nature (animals, farm vehicles etc.) will be expected. Quite often these hazards are moving, they are not fixed like a bend, and as such signing the hazard with fixed signs is unlikely to have an effect on driver behaviour. Signs on hierarchy 1 and 2 are likely to benefit more from rural hazard warning signs, because they are likely to be used by drivers unfamiliar with the area and driving at speed. If a road has good forward visibility and the hazard is likely to be seen in the same view as a fixed warning sign, then a sign assembly should not be considered. But if a road has poor vertical or horizontal alignment it may be appropriate to consider the use of warning signs because there is a chance that the hazard will be momentarily hidden.

Rural hazard warning signs should not be encouraged on hierarchy 3, 4 (or other) unless very good reason, or supported by LRSP.

#### **5. Traditional Road Signs (TRiL)**

The county has maintained its investment in refurbishing and reinstating large numbers of these signs throughout the county in partnership with other stakeholders. As a result, this work has achieved a high level of recognition along with public appreciation. There is a memorandum of

understanding and a working group that meets to consider locations where maintenance is required and for any new requests or enquiries.

Should any existing TRiL require maintenance, the Signs and Lines team must be contacted. This ensures that all the stakeholders are kept aware of ongoing works and the Historic Environment Record (HER) is updated accordingly. It may be possible for the works to be arranged by the Signs and Lines team depending on cost and budget restraints. If the works are carried out by another LCC Maintenance Gang they MUST adhere to the specification. Under absolutely no circumstances should hybrid modern or faux heritage style posts be used for highway direction signs. The choices are TRiL or the Lincolnshire Modern Guide Post (based on Diagram No. 2141 - TSRGD) – however, in conservation areas it is possible for the latter to be finished in black which creates a third option for locations that want a more traditional looking arrangement but don't qualify for a Traditional Road Sign (TRiL).

## 6. Temporary Signs

Temporary (Red and White) signs to advise of a new road layout or other change as a variant of Diagram 7014, shall be erected prior to the final removal of all coning/temporary traffic management. This type of sign is not normally used where the works have been ongoing for some time – capital road improvements for example – this is because drivers that regularly use the road will be familiar with changes during construction works, and strangers will be unfamiliar with how the road used to look. A separate works order should be raised to remove the signs stating the date (3 months after substantial completion) for removal. In the case of signs to Diagram 7032 the date should be 6 months after the implementation of the new 30mph limit. Diagram 7032 must be erected in accordance with guidance in Traffic Signs Manual Chapter 3 and not to appease the perception of speeding through villages. Since 2016 it is a requirement in TSRGD for the rear of these signs to be date stamped to aid timely removal.

Temporary (Black and Yellow) signs are permitted for events. This signing is facilitated by TSP Signs Team and a small application/admin fee is applied. All event signing correspondence is shared with LCC's events management team [eventsmanagement@lincolnshire.gov.uk](mailto:eventsmanagement@lincolnshire.gov.uk). Temporary signs are not permitted for the purposes of advertising commercial premises and/or sales. This is especially important in coastal areas that try to have this type of signing for the whole of the season for venues such as caravan parks. This will only be considered if they are in the process of applying for tourism signs and the Highways Term Maintenance Contractor is unable to have the signs erected with the required timescale.

It's not unusual for housing development signs to be required for many years so care must be taken when Local Highways are removing this type of potentially unauthorised sign to ensure that only non-approved signs are removed. Placement of this type of sign tends to follow the logic of standard direction signs i.e., from the nearest main road.

## **7. Street Lighting/Illumination**

In the event of a sign requiring illumination or disconnection of an existing service, the exact requirements shall be determined by the Principal Engineer Lighting, Signs and CAD (Signs Manager).

In order to determine if illumination is required reference should be made to the prevailing version of the TSRGD (and any subsequent amendments).

If a sign that was previously illuminated is to be considered for de-illumination in accordance with TSRGD, an initial email to LRSP is required to ensure there are no recorded injury accidents. AIP Officers are to advise if illumination should remain and, if so, the sign assembly would then be considered as enhanced on accident grounds.

Where direct illumination can be removed it is good practice to remove all visual clues to suggest the assembly is or was illuminated. This includes replacing any wide base posts with a plain post. The main reason for this is to avoid any future concerns that a sign/post could still be live, thereby resulting in wasted visits to prove otherwise and Street Lighting Contractors being called out to vehicular accidents in order to make the assembly safe.

Quite often, if a Street Lighting Officer can confirm that an assembly has been disconnected, they can liaise with a Sign Design Officer who will raise a job for the sign assembly to be changed to a non-lit assembly, checking the design and bringing it up to date at the same time.

## **8. Sign Posts**

Sign posts will generally be of hollow circular galvanised steel construction of either 76mm or 89mm diameter. Larger sizes of post will be used where advised by the Signs and Lines team.

Where posts in excess of 89mm diameter are required, consideration will be given to the use of passively safe posts. These are most likely to be used on high speed roads (50mph and greater speed limit) roads which also form part of the Principal Road Network. Consideration may be given to these types of posts in other locations based on accident statistics, local knowledge and the knowledge of the area officer.

When replacing posts of a larger diameter, consideration should also be given to the type of posts to be used and the same criteria applied. The only exception to this will be where the posts are erected behind safety barrier, which is provided for a reason other than the protection of the posts.

Posts of a different specification to the type normally used in Lincolnshire (hollow circular galvanised steel) can be considered, but prior to first use the post specification should be submitted for review and agreement by LCC Highway Standards Group.

## 9. Sign Face Materials

Composite sign face substrate is preferable and now specified in the term contract and on all major schemes.

The sign face material used on all signs will be Class RA2 (BS EN 12899-1:2007) unless it meets the exceptions listed below: -

Exceptions: -

The sign face material used on Waiting Restriction (TRO) / Cycle and Pedestrian (NMU) Direction Signs will be Class RA1 (BS EN 12899-1:2007) – except where those for vehicular traffic face a moving vehicle where RA2 should be used.

Enhanced sign face materials can be requested for Local Safety Schemes only.

Temporary signs – conform to the same rules as above, logic being if a sign is needed the same level of illumination or reflectivity should be used.

## 10. Coloured Backing of Signs

Backing boards are used to improve the conspicuity of signs, usually against a complex or dark background. The requirements for their provision are set out in Traffic Signs Manual Chapter 7.

Grey backing boards are used to group separate signs together, though this creates a larger sign which can cause visibility splay and maintenance issues – the use of grey should therefore be given careful consideration before use.

In Lincolnshire yellow backing boards are used to enhance a lower speed limit terminal sign on A Class Roads, speed limits for Schools (including School warning signs) – a check of the prevailing Speed Limit Policy should take place to ensure this Policy has not changed.

LRSP officers can specify the use of yellow backing boards for Local Safety Schemes.

Yellow backing must not be used for other purposes.

Whenever yellow backed signs are replaced LRSP should be asked to check 5 year injury accident records and advise whether the use of yellow backed signs should be maintained. If no longer necessary, the sign should revert to a standard ‘back to basics’ design and be replaced without the yellow backing board.



Since the introduction of yellow backed signs, many teams in Highways have used them and this has led to their overuse. Not only are they environmentally intrusive but their overuse will, in the long term, erode their effectiveness.

Yellow backing should be limited to use where stated in Policy (as above). Where there is a desire to see improved or enhanced signing at other locations the following levels of improvement should be considered: -

New signs should be designed to standard and basic principles in accordance with TSRGD and the Traffic Signs Manual. Where existing signing is shown to be ineffective and is being considered for improvement, or is constantly being damaged in non-injury Road Traffic Collisions, first consideration should be to look at the following alternatives: -

- Assess the requirement for retention of the sign
- Reposition the signs
- Increase the size of the signs
- Double up the signs
- add further standard signing

Where chevrons are being constantly damaged on bends replacement with a flexible chevron should be considered; these signs can be costly to install but will sustain damage better than a standard sign assembly. In the long run they could save highway maintenance resources, and may mitigate the seriousness of any personal injury sustained as a result of an accident. A standard design flexible chevron should be installed where they are funded by Highways, yellow backed when funded by LRSP as part of a local safety scheme.

## **11. Reactive Signs**

This is regarded as an enhanced design which would be instructed by LRSP as a Local Safety Scheme measure. Reactive signs shouldn't necessarily replace a standard sign – this is dependent on the design used - this is because reactive signs have trigger speeds and if the sign face is blank (unless triggered) it will remove the message for lower-speed drivers.

Speed Indicator Devices are not regarded as a reactive sign because they are not prescribed in TSRGD. They are permitted in the highway under the LRSP Community Speed Watch initiative.

## **12. Road Safety Initiatives**

Where LRSP initiatives require signs that are not prescribed in The Traffic Sign Regulations and General Directions (TSRGD) they must be referred to as road safety notices. Further advice on this type of installation should be sought from the Signs Manager.



### **13. Environmentally Sensitive Areas**

Where traffic signs are to be provided in an environmentally sensitive area or conservation area, care should be taken to use only signs which are appropriate and necessary. Care should also be taken not to over sign and cause a visual intrusion on the area; this is especially important if considering the use of backing boards. Posts may be finished in black (or other finish to match the surroundings), and the rear of signs may be finished in black (usually in conservation areas). Rear of signs may only be finished in black, grey or a natural metal finish.

If signs are being considered within Lincolnshire Wolds anything deemed inappropriate will be passed to Lincolnshire Wolds Countryside Service for its agreement.

#### **Superseded Document/Instruction**

HAT 32-1-06

#### **Review Date**

The review date of this HGD is February 2023

#### **Appendices**

N/A