

## Technical Note

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|-------------|-----------------------------------|--------------|---------|
| Project:    | Broad Street and Riverside, March |              |         |
| Subject:    | LTN 1/20 Compliance               |              |         |
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### Client signoff

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|-------------------------|-----------------------------------|
| Client                  | Cambridgeshire County Council     |
| Project                 | Broad Street and Riverside, March |
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| Client signature / date |                                   |

Local Transport Note, LTN 1/20 provides a national standard for the design of cycle infrastructure. The national guidance recommends a basis for those standards based on 5 design principles and 22 summary principles. The guidance contains tools which give local authorities flexibility on infrastructure design and sets out measurable quality threshold to achieve when designing cycling schemes.

The 5 core design principles which represent the essential requirements to achieve more people travelling by cycle or on foot are:

- **Coherent** – Cycle networks should be planned and designed to allow people to reach their day-to-day destinations easily, along routes that connect, are simple to navigate and are of a consistently high quality. Neither cyclists nor pedestrians benefit from unintuitive arrangements that put cyclists in unexpected places away from the carriageway.
- **Direct** – Cycle routes should be at least as direct and preferably more direct than those available for motor vehicles. Routes involving extra distance or lots of stopping and starting will result in some cyclists choosing to ride on the main carriageway instead because it is faster and more direct, even if less safe.
- **Safe** – Not only must cycle infrastructure be safe, it should also be perceived to be safe so that more people feel able to cycle. Space for cycling is important but a narrow advisory cycle lane next to a narrow general traffic lane and guardrail at a busy junction is not an acceptable space for cyclists.
- **Comfortable** – Comfortable conditions for cycling require routes with good quality, well maintained smooth surfaces, adequate width for the volume of users, minimal stopping and starting and avoiding steep gradients. Uncomfortable transitions between on-and-off carriageway facilities are best avoided, particularly at locations where conflict with other road users is more likely.
- **Attractive** – Cycle infrastructure should help to deliver public spaces that are well designed and finished in attractive materials and be places that people want to spend time using. Sometimes well-intentioned signs and markings for cycling are not only difficult and uncomfortable to use, but are also unattractive additions to the street scape.

In relation to cycling, and as per the DMRB GG142 – Walking, cycling and horse-riding assessment and review, a WCHAR has been undertaken. The report reviews the policies and strategies at the time of the review along with accident data, trip generators and current provisions inside and outside of the scheme extents and proposing user opportunities for consideration of the designers.

Due to the rurality of the area and the historic nature of the market towns that developed along the route of the River Nene, road links from town to village and onwards consist of a mix of fast and winding country lanes and busy (mostly) single carriageway A roads. Travel by road to connect to wider links is therefore often slow, especially in comparison to using rail. Within March the road network is heavily constrained due to relative narrow streets, high parking demands and limited river crossings. Due to the rural nature of the district, there is a high dependency on motorised vehicles. There is also a high dependency on heavy goods vehicles (HGVs) due to the nature of the local economy. These issues make opportunities to reallocate road space for walking and cycling more limited and challenging.

At present the cycle network within and around March is not coherent and this was not part of the remit of the scheme. Broad Street has traditionally been considered a destination, rather than a through route for cyclists. Cycle stands are available within the 'central reserve' area which requires pedestrians and cyclists to cross the existing carriageways. Cyclists wishing to travel to or from Station Road to Broad Street also must negotiate the existing signalised junction.

Cycle routes were considered but with the low speeds along Broad Street it was felt that the proposed highway can safely accommodate cyclists, it would have also meant putting in a short length of off-road facility which would create two transitions for the cyclists to negotiate which LTN 1/20 advises against. LTN 1/20 also advises that cycles are treated as vehicles and are physically segregated from pedestrians. The simplest and most easily understood and neatest solution is by providing a kerb which keeps cyclist on the carriageway.

The proposed highway works will reallocate road space to remove car parking (which is currently situated within a 'central reserve' between the north and southbound carriageways) and provide a single two way carriageway with 3.25m lane widths, in line with LTN 1/20 recommendations. This will help reduce the vehicle dominance in the town centre by increasing public space and addressing issues of severance. It will also help reduce the number of different movements by motorists, so making it safer for cyclists and pedestrians

Additional cycle symbols to TRSGD diagram 1057 are to be placed in primary positions to guide cyclists along Broad Street, although this not suitable for roads of high volumes of motor traffic or high speeds, it is felt that with

the lower traffic speeds along Broad Street these will be beneficial to cyclist and alert motorists of their presence. Advanced Stop Lines are also to be provided at the signalised pedestrian crossing at the southern end of Broad Street. This enables cyclists to take up the appropriate position in the waiting area between the two stop lines, for their intended manoeuvre ahead of general traffic, before the signals change to green.

The provision of four new Zebra crossings; three single stage and one split stage crossings will make it easier for pedestrians and cyclists (once they have dismounted) wishing to cross Broad Street and Station Road. The improvement of footway and carriageway surfaces and refurbished guard railings will make it a more comfortable environment for pedestrians and cyclists. There will also be cycle parking based on the capacity suggested within LTN1/20 Table 11-1 with more convenient and secure cycle stands within Broad Street and a covered cycle stand within Grays Lane.

The removal of the existing signalised junction will be replaced with a mini-roundabout this can work well for cycling in a mixed traffic environment when traffic speeds and volumes are low and means that traffic on all arms has to give way. Despite the inscribed circle diameter (ICD) being greater than 15.0m recommended in LTN1/20 paragraph 10.7.35, the provision of single lane approaches and exits means that cyclists and motor vehicles can pass through the roundabout in a single stream compared to multi lane approaches for the existing signalised junction. An ICD in line with the LTN1/20 requirements could not be provided at the proposed mini-roundabout as it would restrict the turning movements of larger vehicles.

Following the stage 2 Road Safety Audit review of the design, no safety concerns were raised in relation to the provisions for cyclists.