

Tameside MBC

Cycle Audit - Guide Lane/Denton Road Advanced Stop Lines

Final Report



November 2008

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1.0 Introduction

- 1.1 This cycle audit has been prepared in response to a request made by Chijioke Ebizie of Tameside MBC to Cycling England's Local Authority Professional Support Service. For more details of this service see <http://www.cyclingengland.co.uk/engineering-planning> and click on professional support.
- 1.2 A cycle audit is a check of a scheme to ensure no problems have been created for cycling and all opportunities for improving cycling are considered. An Audit can apply to a scheme specifically for cyclists or one that is designed for all road users. Recommendations are put forward to make the scheme more cycle friendly and so increase its potential for encouraging people to cycle more often, more safely
- 1.3 The reason for the audit is due to suggestions that the existing Advanced Stop Lines should cover all 3 traffic lanes and that the manoeuvre for cyclists to get into the right turning feeder lanes is dangerous.
- 1.4 No costings for the suggested improvements have been given as this is beyond the scope of the support service at present.

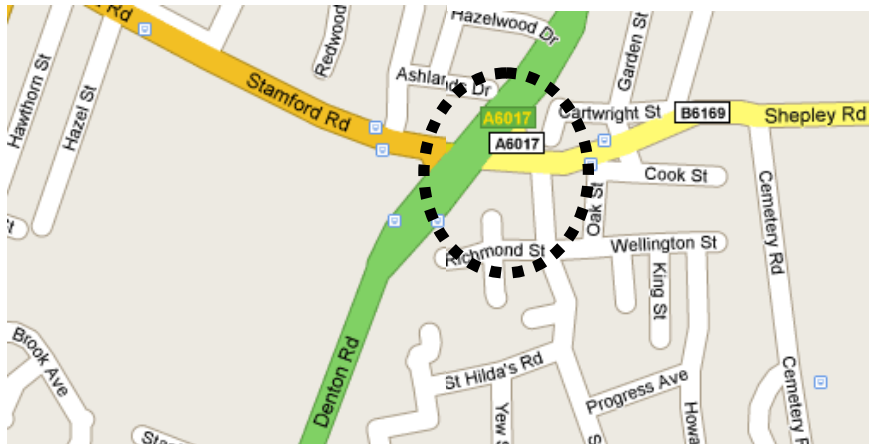
2.0 Methodology

- 2.1 The work has been undertaken by Tim Pheby of Transport Initiatives in the following manner:
- I. **Site visit:** was carried out on the 30th of September by Tim Pheby and Chijioke Ebizie with plans. Photos and notes of the various issues were taken,
 - II. **Research:** 1 plan has been examined on site and in the office
 1. A6017 Guide Lane/Denton Road/Shepley Rd/Audenshaw Junction Improvement Drawing No HS5298/01 Revision D July 01
 - In addition the Council's cycle map and Google earth has been used for 'virtual site visits'.

III. Reviewed against core principles: The proposals have been examined with reference to 4 of the 5 the five basic cycling infrastructure requirements: Convenient, Accessible, Safety and Comfortable.

3.0 Background Information

- 3.1 **Site Description:** The Guide Lane/Denton Road junction is signalled controlled with 3 traffic lane approaches on the A6017 with 2 partial width Advanced stop lines. Under current Traffic signs regulations partial width Advanced stop lines require special authorisation from the Department of Transport. The right turn lane has its own signal stage and the advanced stop line is feed by a lead in cycle lane. The straight on and left turn movements run together and the advanced stop line is feed by a “gate” tapered road marking.
- 3.2 On the B6169 there are 2 traffic lane approaches with full width Advanced stop lines feed by a “gate” tapered marking on Stamford Road and Shepley Road. The layout is shown at the back of this report in **Figure 2**.
- 3.3 There is a mixture of land uses around the junction including a 2 pubs, a secondary school off Stamford Road, shops and houses. There are good width cycle lanes on the A6017 which stop short of the junction.



- 3.3 **Cycle use:** no cycle flow data was supplied as part of the audit background nor were any cyclists observed using the junction during the site visit. This may have been due to the heavy rain and time of day – mid morning.

It is strongly recommended that traffic and cycle counts data is checked for this junction to see how many people are cycling. This should include all turning movements on the carriageway.

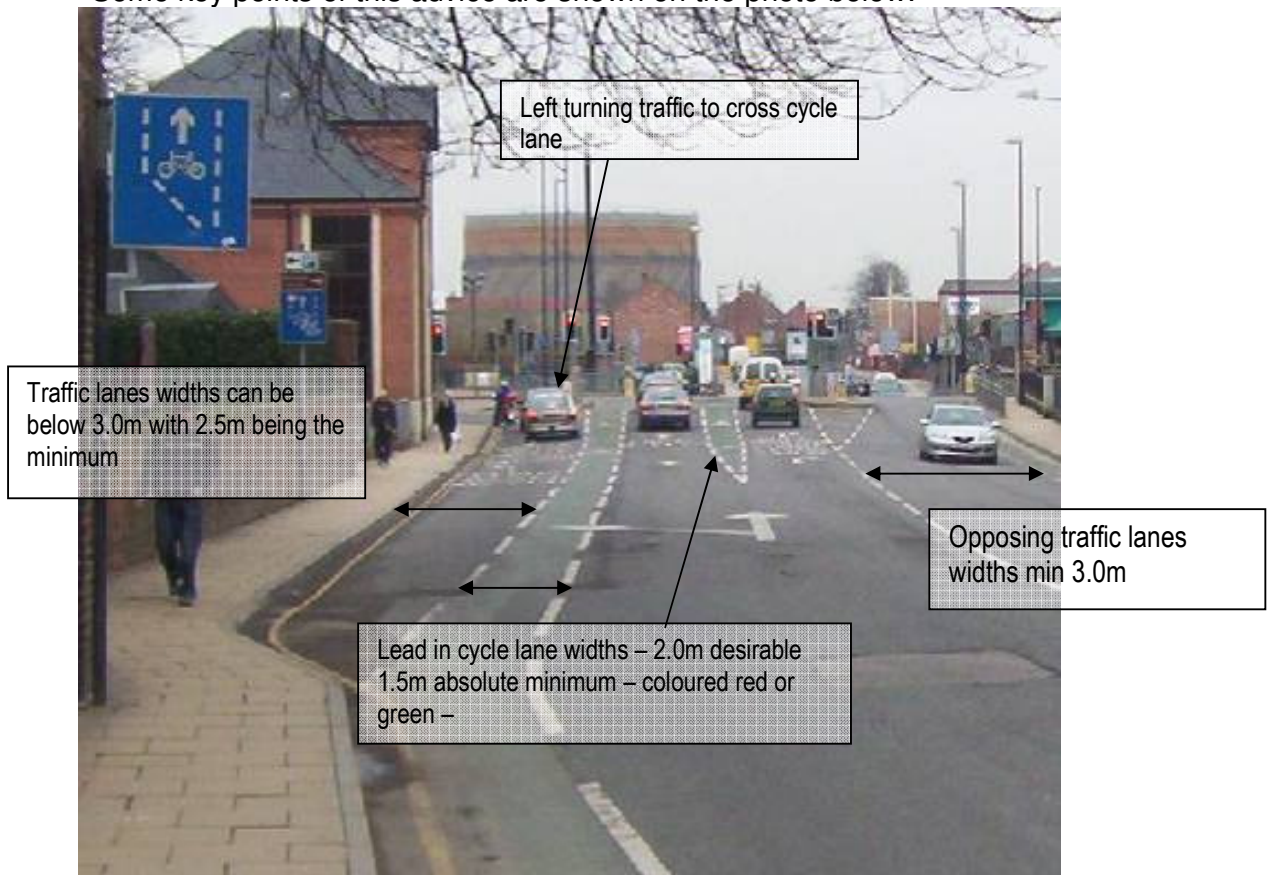
If no data is available cycle turning counts should be carried out and include cyclists on the carriageway and off the carriageway.

Also local school travel survey data should also be looked at to see how many children currently cycle to school and if there is a potential for increasing this.

4.0 Relevant Design Advice

- 4.1 Cycling England has developed a Design Checklist covering most aspects of cycle infrastructure design from reducing traffic volumes and speeds on road to creating off road paths away from traffic. For the full Design Checklist see: <http://www.cyclingengland.co.uk/engineering-planning> .
- 4.2 A photo gallery has also been developed themed on the hierarchy of measures – showing examples of best practice from around the UK. To access the gallery click on <http://www.cyclingengland.co.uk/gallery/>
- 4.3 Design advice on Advanced Stop Lines can be found at http://www.cyclingengland.co.uk/site/wp-content/uploads/2008/10/a09_advanced_stop_lines.pdf

Some key points of this advice are shown on the photo below:



Cycle lanes to Advanced Stop Lines - Peasholme Green York – Tim Pheby

The Design note also has useful links to Lancashire – the cyclists’ county design guide Page 6.4.6 and London Cyclists Design Standards – Advanced Stop Lines 5.3.9 page 94-97. **None of these design guides shows advanced stop lines at junctions with more than 2 traffic lanes on the approaches.**

5.0 Summary of Cycle Audit for Guide Lane/Denton Road Traffic Signals

5.1 Convenient - *routes should be direct based on desire-lines. Detours and delays will deter and inconvenience users. There should be advantage and convenience for cyclists and good, clear signing.*

- While not tested on a cycle due to the inclement weather during the site visit the junction does not look that that convenient to use due to the lack of continuous cycle lanes and the need to cross two lanes of traffic to make a right turn. Existing design guidance does not cover layouts with 3 traffic lanes.

5.2 Accessible - *the cycling infrastructure should form a coherent entity, linking all trip origins and destinations; routes should be continuous and consistent in standard.*

- The lack of continuity of the cycle lanes on the A6017 at this junction is an issue which could be addressed. This would enable cyclists going straight on to get into the nearside advanced stop line past queuing traffic.

5.3 Safe - *designs should minimise casualties and perceived danger for cyclists and other road users. Measures that reduce traffic flows, speeds and reallocate carriageway space are likely to result in fewer conflicts with vehicles. For off road routes natural surveillance is important.*

- The junction looks like it has been widened to provide more traffic lanes as the approach roads are single lane. This will have increased the potential for conflict with cyclists especially for the right turn movement requiring 2 lanes of traffic to be crossed. This manoeuvre would only be suitable for an experienced cyclist who had been trained at Bikeability Level 3. Less experienced cyclists would be encouraged to stop at the pedestrian crossings and use them to cross the road though this would not be convenient.
- Installing an advanced stop line across all three traffic stop lines on the A6017 however could be confusing in that cyclists may stay in the nearside lane and then use the Advanced stop line box to cross into the right hand lane. The present partial advanced stop lines do make it clear which lane to use but the cycle lanes could be extended further back to make it clearer.

5.4 Comfort - *cyclists need smooth, well-maintained surfaces, good transitions over flush kerbs and gentle gradients. Routes should avoid complicated manoeuvres and interruptions. Traffic-calming should be cycle-friendly. Cycle paths and lanes should be of adequate width.*

- The road surfaces looked smooth and well maintained.

The detailed Cycle Audit is shown in **Appendix 1** attached to this summary report

6.0 Recommendations

6.1 From the cycle audit it is recommended that Tameside MBC consider the following actions:

6.2 *Engineering – 2 options are suggested*

a) *Traffic Lane Reduction* – reducing the number of approach traffic lanes from 3 to 2 on the A6017 at the junction would enable longer and wider lead cycle lanes to be installed feeding full width Advanced stop lines. This would enable cyclists to get past queuing traffic and would be easier to use than the present arrangement. This could be unpopular with motorists as it is likely to increase delays and queuing at the junction. It would require traffic signal modelling to see the effects of this change on the capacity of the junction. A sketch of this proposal is shown in **Figure 1** at the end of this report.

The road scales approximately 9.0m at the stop lines which is wide enough to get 2 cycle lanes at 1.5m wide and 2 traffic lanes at 3m wide. Ideally the cycle lanes should be a bit wider and the traffic lanes reduced accordingly.

Or

b) *Extending lead in cycle lanes* – if the modelling shows that delays at the junction would be significantly increased then

- extending the existing lead in right turn cycle lanes back into the hatched area and
- replacing the nearside lane “gate” entries with a new nearside lead in cycle lane from the existing cycle lanes on the A6017 should be considered.

This would enable cyclists to get past queuing traffic.

6.3 **Monitoring** – to ensure adequate ‘before and after’ cycle count data is collected at the junction, all cycle turning movements on and off the carriageway should be recorded to enable meaningful monitoring to be carried out.

Travel to school surveys for the local schools should also be considered to see how many children currently cycle to school and the potential for increased use in the future.

Accident data – at least 3 years of road traffic accident data should be studied 50m around the junction to see if the concerns raised about cycling at the junction are resulting in accidents.

6.4 **Cycle Training** – if Level 3 cycle training is carried out at the local schools using this junction get feedback from trainers and pupils on the current layout.

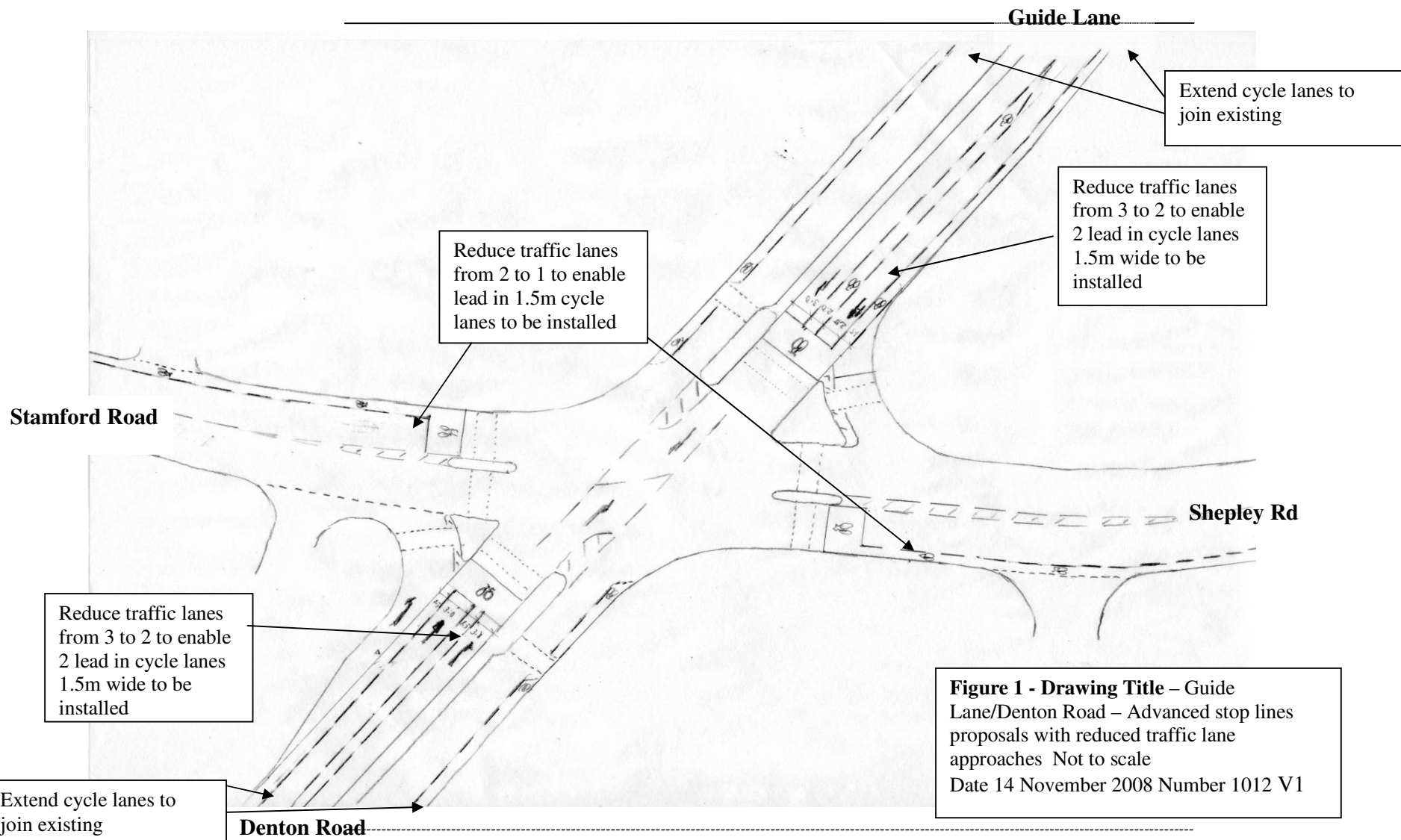


Figure 1 - Drawing Title – Guide Lane/Denton Road – Advanced stop lines proposals with reduced traffic lane approaches Not to scale
Date 14 November 2008 Number 1012 V1

Figure 2 – Guide Lane/Denton Road – existing layout.

