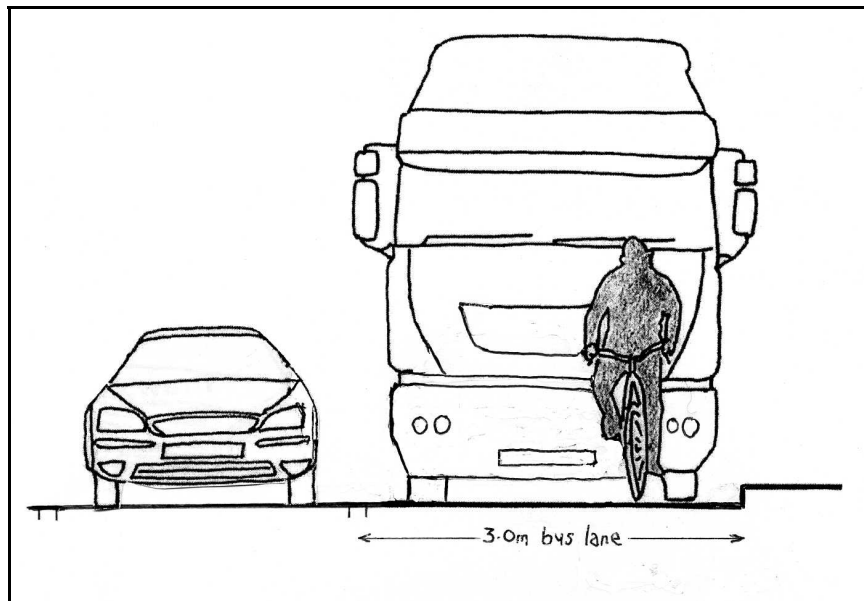




BIG RISK LITTLE GAIN: **The case against allowing** **HGVs to use bus & cycle lanes** **in Newmarket Road, Norwich**



Profile drawn to scale

1. Background

On 10th January 2008, Norwich Joint Highways Agency Committee decided to introduce an experimental Traffic Regulation Order allowing the use of the Newmarket Road bus lanes by Heavy Goods Vehicles (HGVs) servicing the new Freight Consolidation Centre being developed at Snetterton. This was a majority decision by the four voting members of the committee. The trial period is for six months, commencing in March 2008.

The Freight Consolidation Centre is a joint initiative by Norfolk County Council and Foulger Transport Ltd labelled as part of Norwich's CIVITAS project, supported by the European Union. It is claimed the project will reduce the number of vehicle movements making deliveries into the city centre. The anticipated number of vehicles involved in the six month experiment is said to be 4 or 5 HGVs per day.

There was no consultation with user groups in advance of the six month trial. The project managers have stated that the impacts on cyclists will be 'monitored' and a 'code of practice' will be developed for lorry drivers, but no details have so far been provided.

The decision may be seen in the context of previous lobbying by particular groups to gain use of bus/cycle lanes, including the Freight Transport Association, taxi and minicab drivers and motorcycle user groups. In 2005 there was an attempt by Norfolk County Council to allow freight vehicles, motorcycles and multi-occupancy cars in all Norwich's bus lanes during the "rush hour period", but this was not proceeded with.

2. Local context

Newmarket Road carries approximately 15,000 motor vehicles per day. There is no reliable data on cycle use of the bus/cycle lane, but this is known to be an important strategic route connecting Eaton and the Greenways area to the city centre, and includes various dedicated cycle elements including some stretches of mandatory cycle lane. Cycle movements along St Stephen's Street (within the Inner Ring Road) are in the order of 1000 cycles per day.

The nearside bus lane was introduced in Newmarket Road in the early 1990s, since when it has remained in operation between 0700 and 1900 hrs Monday to Saturday. The bus lane is not continuous, but includes lengthy gaps especially each side of the Outer Ring Road (ORR) roundabout junction.



Existing 3m bus lane at Newmarket Road

Numerous hazardous situations for bicycle users have been reported relating to the existing bus/cycle lane. Significant hazards on the city-bound section outside the ORR include

- 40mph speed limit within narrow lanes in urban setting with numerous residential driveways and side turnings,
- part-time operation causing hazardous and intimidating conditions outside hours of operation owing to twin-lane running (this is quite unnecessary because there is nothing to be gained by using the nearside lane when traffic flows are low),
- undersize width (3.0m) creating hazard from overtaking vehicles or intimidation from following vehicles especially during peak period when the offside running lane is occupied by queuing vehicles.

The main difficulties to bicycle users on the section within the ORR occur at school dropping-off and collection time because of legal and illegal parking of vehicles associated with Norwich High School and Town Close School.

Other feedback to Norwich Cycling Campaign includes problems with vehicles exiting Brunswick Road impinging on the cycle lane, the narrowness of the outbound single carriageway at the city end, and the poor condition of the existing nearside surfacing inbound in the vicinity of The Eagle public house.

3. Road safety issues

There is a considerable amount of published guidance nationally and internationally on the requirements for safe design for bicycle users, and the specific hazards of mixing HGVs and cyclists are well known. For example, in 2006 RoSPA issued a special paper entitled 'Cyclists and Lorries'.

A. Design guidance on free space

The space needed by a cyclist in order to cycle in safety and comfort depends on three factors: the cyclist's dynamic envelope, the distance to fixed objects and the distance to (and speed of) other traffic.

The best current UK guidance comes from the Government-backed Cycling England, in the Design Portfolio A.04 'Clear Space'. This document specifically calculates a required minimum lane width of 4.325m for situations where HGVs are overtaking cyclists at 20 mph, and 4.525m at 30 mph. By comparison, it should be noted that the existing lane width on parts of Newmarket Road is 3.0m with the speed limit at 40 mph, which is a grossly sub-standard 'narrow' geometry where HGVs will be unable to pass cyclists.

The Cycling England guidance is similar to that provided by other selected references, notably:

- Wilkinson et al 1994: this is a key reference used to compile DfT/CTC 'Cycle Friendly Infrastructure' and recommends a minimum 4.2m from the lane stripe to the gutter pan, the latter being taken as a point 0.3m out from the kerb, making 4.5m.
- DfT/CTC 'Cycle Friendly Infrastructure' states that a bus lane should be 4.25-4.6m in width to avoid the bus having to leave the lane when overtaking a cyclist. It may be noted that since publication of 'Cycle Friendly Infrastructure', bus widths have increased from 2.5 to 2.6m, so these figures should be increased by 0.1m.
- Traffic Advisory Leaflet 01/97 'Cyclists at Road Narrowings' quotes Local Transport Note 2/95 as recommending that where a pedestrian refuge island is introduced, a vehicle lane width of 4.5m should be maintained.
- DfT's new document 'Cycle Infrastructure Design' is at Consultation Draft stage, and this includes a table showing minimum width to achieve safe passing distances of 4.6m for situations where HGVs are overtaking cyclists at 20 mph, and 5.1m at 30 mph.

B. Actual road safety experience

It is well recognised by road safety professionals that there is a massive difference in the operational characteristics and physical constraints of visibility and vulnerability of cyclists between HGVs and buses.

From a crash analysis viewpoint (to ascribe technical causes rather than blame), the cause is always a 'critical combination of circumstances' (CCC), and the placement of

HGVs, buses and cyclists in the same road space reduces the number of additional circumstances required to cause a collision.

Most urban buses will be low floor with deep windows and see-through/collapsible doors at the crucial blind spot. Cyclists who will be visible to a bus driver are only seen from a truck cab if they stick their arms above their heads and attract the driver's attention (convincingly demonstrated by Youtube video references).

While buses knock down more pedestrians than any other class of vehicle, the introduction of HGVs into that space could well change that position (TRL 592 from review of Stats 19 data). Buses collide with cyclists at roughly the same rate as HGVs but with a quarter of the fatality rate (TfL figures). This is primarily because of the lower speeds and the deep and flat skirted sides which perform like a stiff trampoline. While most trucks have life guards, they often create considerable side draughts when passing. In major conurbations it is HGVs that are at the root of over 50 per cent of cyclist fatalities yet they represent around 5 per cent of the vehicle count.

Transport for London figures show that in the twelve months to June 2006, 17 cyclists were killed on London's roads. Of those 17 cyclists, nine were killed in collisions with goods vehicles in Greater London (which accounted for 53 per cent of all cyclist deaths during that period). A further 48 cyclists were seriously injured in collisions involving goods vehicles. In the twelve months to June 2006, LGVs (under 6 tonnes) were involved in four fatal and 30 serious cyclist collisions, MGVs (6-42 tonnes) were involved in six serious cyclist collisions, and HGVs (over 24 tonnes) were involved in five fatal and 12 serious collisions. Between 1999 and 2004, 56 per cent of cyclist fatalities in London were with HGVs.

Transport infrastructure works most efficiently when the same type of vehicles operates under the same regime. Aside from the emissions problem, buses work with bikes reasonably well most of the time because their average speeds are similar, and the bike, being manoeuvrable can get out of the way or overtake easily if required. Trucks on the other hand will want to keep moving and will tend to bunch up behind buses which they cannot overtake.

4. Perception issues

Central Government is now strongly encouraging cycling by ensuring local authorities promote cycling as part of an integrated transport system. A key part of Norwich's urban transport policy, referred to in Norwich Area Transportation Strategy and the Local Plan, is the encouragement more cycling for utility trips. This will be done only by making cycling attractive thus influencing personal travel decisions. It is known that many new cyclists will have switched from car travel (either as drivers or passengers).

Newmarket Road is an important strategic cycle route. Allowing HGVs into the bus lane will not only intimidate existing users, but will also seriously reduce the chances of enticing novice cyclists onto the road. If anything, this is likely to lead to an increase in the number of private cars on Newmarket Road.

While if the initial number of HGVs per day using the route is expected to be small, the 'fear factor' will still be there amongst bicycle users. Even if the lane width were wide enough to allow 'safe' overtaking of cyclists, it is an unnerving experience for many people to be passed by a large truck with its associated noise and wind suction effects.



Being passed by an HGV is intimidating

The decision to allow use in Newmarket Road will almost certainly set a city-wide precedent for lorries in bus lanes elsewhere, and potentially lead to growth in vehicle numbers to a level far higher than those during the initial trial period.

5. Economic issues

It is necessary to separate the argued benefits of a Freight Consolidation Centre from the claimed necessity of allowing the HGVs to use the bus/cycle lane.

Most of the economic and environmental benefits of freight consolidation accrue from the combination of loads and reduction in numbers of vehicles and deliveries for a given level of supply activity. In most circumstances the use of the bus/cycle lane is capable of providing only a marginal environmental benefit in terms of emissions, and also only a marginal economic benefit in terms of time saving. This considered view takes into account the trip length between Snetterton and Norwich, the relatively short stretches of bus lane that exist, the likely difficulty of HGVs being able to pass buses and cyclists using the lane, and the fact that traffic queuing bad enough to cause significant delay (i.e. to make it worth using the bus lane) occurs only during a limited period each day.

We consider these slight advantages are *insufficient to offset the serious safety hazards caused to cyclists* and the *large environmental disbenefits of deterring cycling*. [It is strongly suspected that the hidden motive for including this element in the freight consolidation proposals is as a means of setting a precedent for HGV use of bus/cycle lanes elsewhere.]

It could be argued that in reality the main beneficiary of the economic advantages of freight consolidation will be the larger retail stores in the city centre who will increasingly be able to consider converting low-value storage space over to higher value retail space, thanks to the ability to re-supply at short flexible notice which could eventually generate more truck movements.

6. Conclusions

This paper has sought to explain sound reasons underlying Norwich Cycling Campaign's strong objection to the decision to allow certain HGVs use of the Newmarket Road Bus & cycle lane on a trial basis. It is matter of considerable regret that the decision was taken by the Joint Highways Agency Committee without any form of prior consultation with cycle user groups, and with inadequate advice from officers.

The two main problems highlighted are (a) a demonstrable and significant physical hazard to cyclists caused by being made to share very constrained road space with heavy goods vehicles, and (b) a serious deterrent effect on cycling on an important strategic cycle route.

The first of the above problems is well understood from the published Government guidance and will be difficult to discount in the event of a claim following a collision, which the available statistics show has a high chance of being a fatality.

The promoters of the Freight Consolidation Centre have failed to explain adequately why it is necessary to allow HGVs into bus/cycle lanes, and this element of the proposals should be dropped.

Norwich Cycling Campaign has no confidence that Norfolk County Council has either the serious intent or the ability to carry out effective monitoring of the real and perceived impacts on cycling.

The proposed written 'code of practice' for HGV drivers is extremely unlikely to have any lasting beneficial effect on the driving standards of otherwise competent trained drivers in actual on-street conditions, where external pressures are likely to dictate driver behaviour.

7. References

NORWICH HIGHWAYS AGENCY COMMITTEE, Agenda and Minutes, 10 January 2008

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TRANSPORT FOR LONDON (TfL) London Road Safety Unit *Pedal cyclist casualties in Greater London*, April 2005