

Tritax Symmetry (Hinckley) Limited

HINCKLEY NATIONAL RAIL FREIGHT INTERCHANGE

The Hinckley National Rail Freight Interchange Development Consent Order

Project reference TR050007

Response to DfT and IEMA Guidance

Document reference: 18.5.2

Revision: 01

24 October 2023

Planning Act 2008

**The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009
Regulation 5(2)(q)**

DfT TAG Unit M4 – Forecasting and Uncertainty and New Traffic Estimates and IEMA guidance ‘Environmental Assessment of Traffic and Movement’ Three documents have recently been published which affect traffic forecasting:

- A revised version of ‘TAG Unit M4 – Forecasting and Uncertainty’ this document was published by DfT in May 2023. It makes particular reference to changes in traffic since the Covid-19 pandemic;
- ‘Road Traffic Estimates in Great Britain, 2022: Traffic on England's road networks’, was published by DfT in July 2023; and
- ‘Environmental Assessment of Traffic and Movement’ published by the Institute of Environmental Management and Assessment in July 2023.

The Applicants Traffic and Transportation team have reviewed the documents listed above below.

- 1) **A revised version of ‘TAG Unit M4 – Forecasting and Uncertainty’ this document was published by DfT in May 2023. It makes particular reference to changes in traffic since the Covid-19 pandemic.**

The TAG Unit M4 update suggest the following in terms of the changes since the Covid 19 pandemic

B.3 Proportionate accounting for COVID-19 in prior-calibrated models

B.3.1 The Department recognises that in the near future, the large majority of transport models used to provide evidence for schemes appraisals will be based on years prior to the pandemic. Rebasement of models takes time and resources; the Proportionate Update Process in TAG allows judgments of proportionality to be made when considering to what extent models need to be updated relative to the scope of decisions required and the surrounding risks. Indeed, it is very plausible that travel patterns at the current time are in themselves subject to some change in following years (such changes being outside of the direct scope and functionality of the model). Therefore the Department accepts that, in many circumstances, the practical course of action is to make proportionate and transparent adjustments at this time.

B.3.2 The summary recommendation is, where model rebasing is judged not to be practical, for analysts to assess the extent of the divergence of travel patterns and volumes from pre-pandemic projections, using the best available data and evidence. If it is clear COVID-19 has had an impact on travel, this should be represented using an appropriate change in travel demand across the trip matrix, considering trip purpose and patterns as appropriate, and apply this to produce an updated core forecast. The summary recommendation is, where model rebasing is judged not to be practical, for analysts to assess the extent of the divergence of travel patterns and volumes from pre-pandemic projections, using the best available data and evidence.

B.3.3 The analyst should aim to adjust their model to appropriately forecast travel demand and traffic and/or passenger kilometres to a high-level proportionate adjustment observed

from national statistics. Alternatively, where appropriate, use of more specific local data is recommended. The analyst should carefully consider scheme specific adjustments, including adjustments specific to trip

purpose, customer segmentation, mode of transport, and locally-led COVID-19 recovery. For example, observed data shows that freight travel patterns have changed in a different way to personal travel.

B.3.4 There are several options as to how appropriate adjustments to transport models may be accomplished. There are examples of possible approaches set out below. It should be noted that other approaches may be acceptable, based on the best judgement and careful consideration of the analyst. Either way, it is important to clearly set out the assumptions and evidence used for any approach. If the analyst is unsure, they may wish to discuss with their scheme sponsor.

1. **Create a forecast to the present day by applying adjustments to include a COVID-19 impact, based on observed data.** This forecast can be used as a “new base year” as a substitute basis for scheme forecast. This effectively provides a “new base year” where the costs and demand are maintained in the initial base year. This allows analysts the potential for a check of travel patterns and/or traffic flow against current observations or statistics in their modelled area. Validation checks can be undertaken to provide greater assurance that their present-day forecast model is a suitable basis for future forecasting, and a revision to the adjustment made if needed. Some judgment will be required here; whilst it may not necessarily be expected to fully align with validation standards set out in TAG, some evidence of suitability is required. This approach may also be required if it is of importance to obtain appraisal results during the 2020-2022 period, although the profile across this time should be handled with due care and transparency.
2. **Apply adjustments to a forecast year model to produce a new scheme opening year forecast, or the first required forecast year, that include a COVID-19 impact to that point.** This will be the new pivot off which further forecast years are based. This approach removes the need to produce a present-day forecast model (as a new/reset base year). Analysts should make use of any official statistics or observed data after the model base year where possible and account for changes after that point up to the opening year, such as the use of NTEM growth factors. However, it comes with the significant disadvantage that there will be no existing observed data (trips and traffic) to ensure validity of the opening year forecast. Analysts should ensure that the model assumptions made are sufficiently transparent and tested and that the arising uncertainty is explored and clearly presented in an appraisal.
3. **Apply the adjustment globally to model results as a post-model adjustment.** This method is the simplest way of applying adjustment. However, as well as including all the issues with the previous method(s), it also presents the most risk to the model results and appraisal. This is because applying adjustments to model results means that the model has effectively not used the change in travel patterns, reflecting the changed conditions. Care should also be taken that adjustments are made consistently across the model results so as not to distort the appraisal (e.g. demand

and costs). It will be expected in these cases that assumptions made are extremely clear and that a series of sensitivity tests will be undertaken to mitigate the risks around potentially unreliable model results. This method should only therefore be considered if quick, proportionate decisions need to be taken, so long as the risks to analytical assurance are explicitly highlighted. There may be situations where a simpler approach is appropriate, for example when looking at short-term projections that are likely to be updated regularly.

The Applicant commissioned LCC NDI Modelling team to undertake a review of the PRTM base line model in July 2023 to understand which options would be best to account for the implications of COVID as per the WEBTAG TAG unit 4 – Forecasting and Uncertainty update in May 2023.

LCC NDI Modelling team highlighted that they were reviewing the Core Base Model for a scheme on the A511, which could also inform and update for the HNRFI site and aligned with Option 1 of the Dft guidance. The outcomes of this initial work were reported in August 2023 and several issues were identified within the report, including significant amounts of additional data required to validate and calibrate the work done. Journey time data was only available for 2019, traffic counts had a mixed coverage (26% in 2019, 20% in 2020 and 54% in 2023) and generally the model validated at a 75% acceptance rate in the PM peak and up to 83% in the AM peak.

Subsequently the Applicant commissioned LCC NDI Modelling team to further review the options further for proportionate accounting for COVID-19 in the prior-calibrated PRTM model. This review was provided on the 24th of October and as such the Applicants team have not explored the suggestions in detail and/or discussed this with the Highway Authorities.

LCC NDI Modelling team response suggests an option that aligns with Option 3 of the TAG guidance would be the most appropriate method at this time. The timeline for the suggested work would be 3 to 5 weeks after acceptance by the Highway Authorities to the approach. A fully rebased model using 2023 flows (as per Dft Option 2) is not likely to be ready for general use until mid to late 2024.

LCC NDI Modelling team as part of this review has undertaken analysis using existing available Automatic Travel Count (ATC) data for March 2019 and March 2023 in Leicestershire to understand the traffic volume changes pre- and post-COVID-19. Subsequent analysis shows that there is a reduction of 5.8% and 8.1% in traffic volume between 2019 and 2023 for the AM Peak (08:00 to 09:00) and PM Peak (17:00 to 18:00) hour respectively.

It is expected that both Warwickshire County Council and National Highways will have monitoring data for their networks also, and the Applicant will liaise with each authority to understand this position and feed this back to LCC NDI Modelling team.

2) 'Road Traffic Estimates in Great Britain, 2022: Traffic on England's road networks', was published by DfT in July 2023.

The DfT traffic estimates show the following trends and highlight that lorries miles travelled have generally stayed level throughout the pre and covid years and are now slightly higher, with miles travelled by car not quite at pre pandemic levels by the end of 2022. They do not however reflect the 2023.

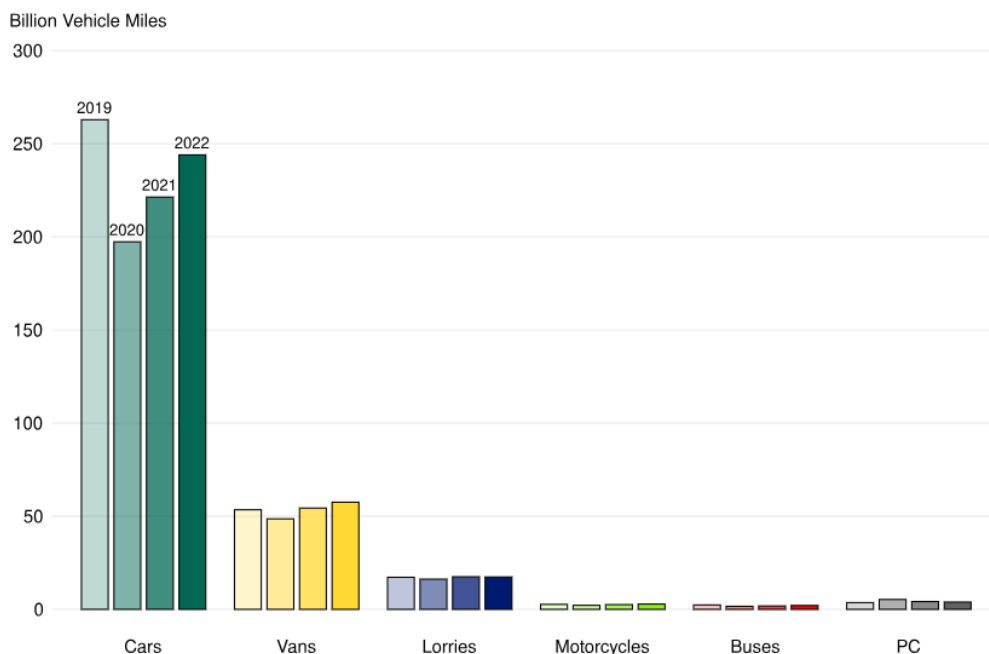
Chart 6 is a bar chart that shows that all motor vehicle types, except lorries, saw an increase between 2021 and 2022. However, overall traffic levels remain below pre-pandemic levels in 2019.

Car and bus and coach traffic saw some of the biggest increases between 2021 and 2022, but still remained below pre-pandemic levels by -7.2% and -12.3%, respectively.

Although van and lorry traffic experienced smaller increases in vehicle miles between 2021 and 2022 than other vehicle types, they both rose above pre-pandemic levels by 7.6% and 1.0%, respectively.

Pedal cycle traffic levels decreased between 2021 and 2022 but remained above 2019 levels by 7.4%.

Chart 6: Vehicle miles travelled by vehicle type in Great Britain, 2019 to 2022



Source: <https://www.gov.uk/government/statistics/road-traffic-estimates-in-great-britain-2022/road-traffic-estimates-in-great-britain-2022-traffic-in-great-britain-by-vehicle-type>

Year on year changes are presented in the subsequent charts and the car, lorry AND cycling charts have been extracted as being relevant for the HNRFI.

Chart 7: Car and taxi miles in Great Britain, 2012 to 2022

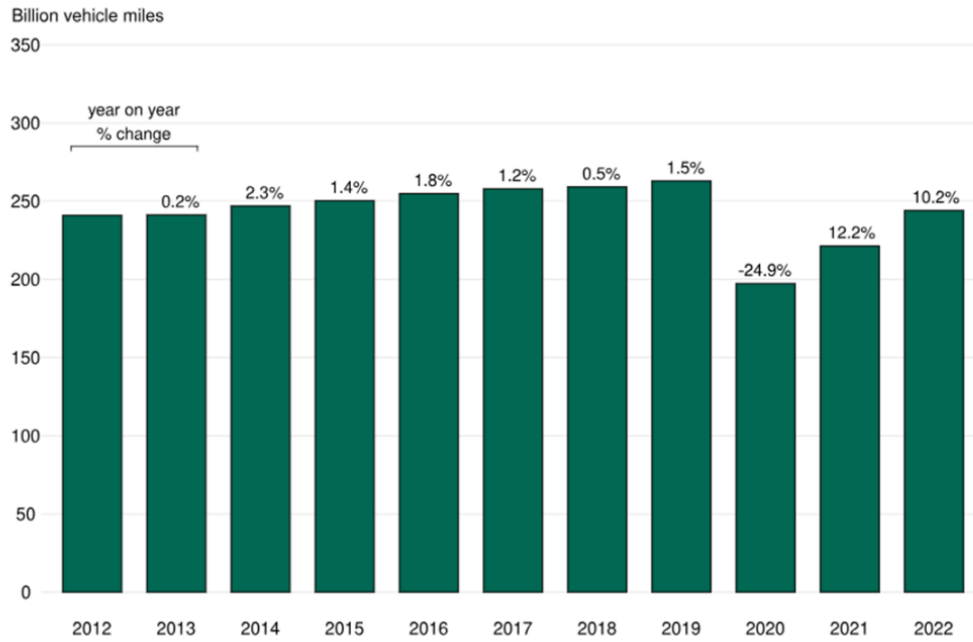


Chart 15: Lorry miles in Great Britain, 2012 to 2022

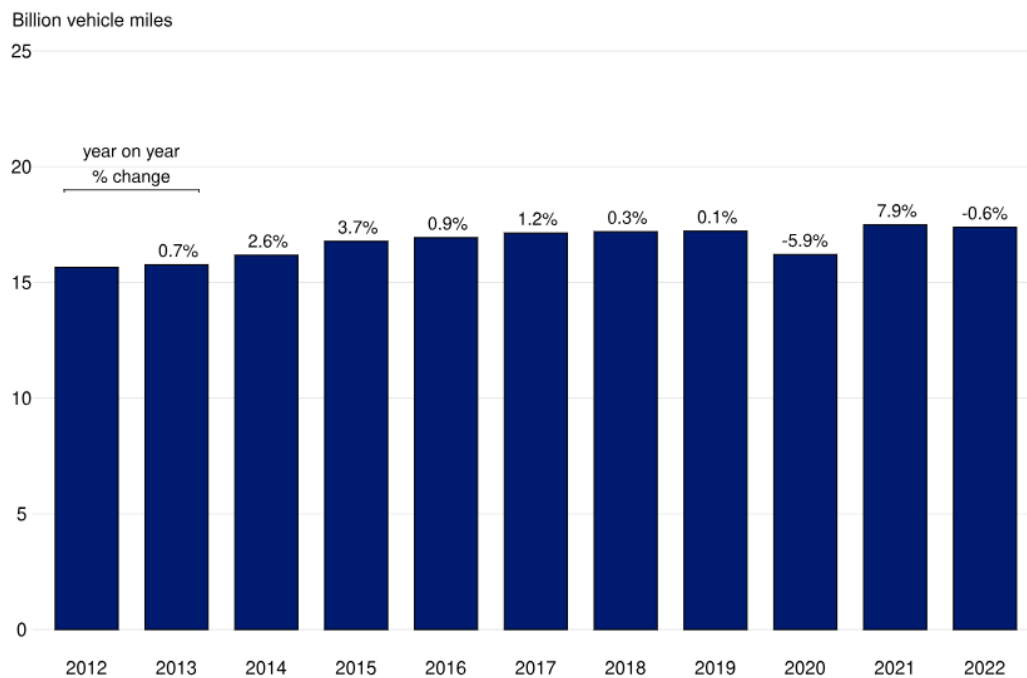


Chart 25: Pedal cycle miles in Great Britain, 2012 to 2022

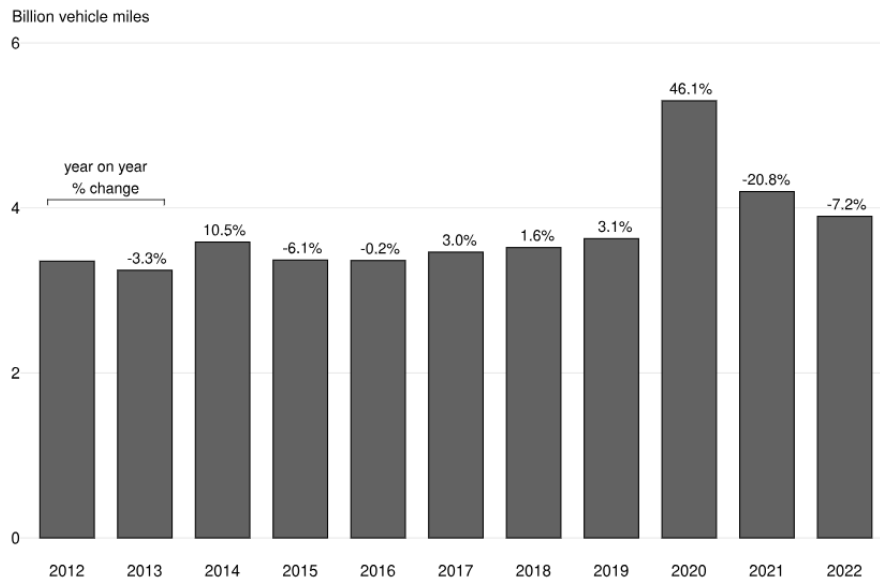
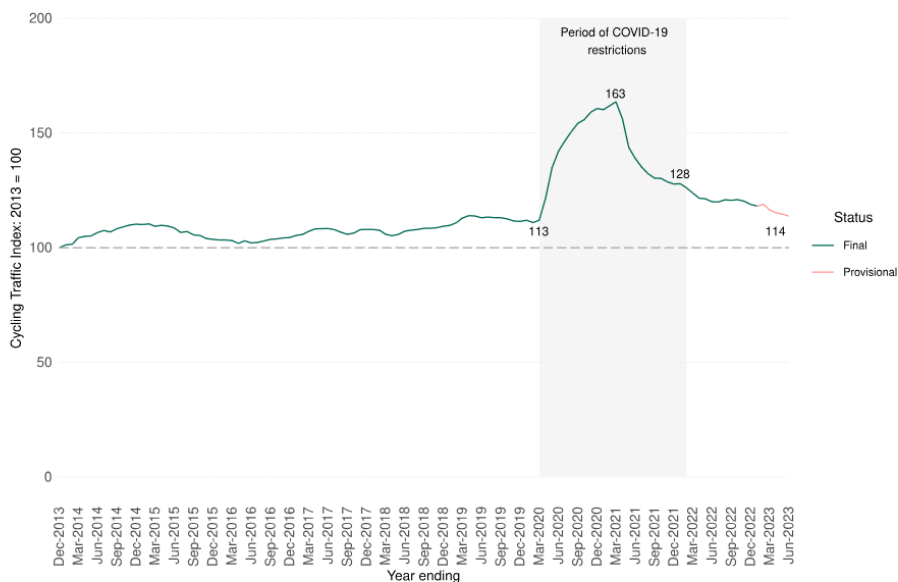


Chart 25 is a bar chart that shows that pedal cycle miles travelled on roads* in Great Britain saw year-on-year increases in each year between 2017 and 2019. Following a sharp increase in 2020, cycle traffic levels decreased in 2021 and 2022, but still remain above the 2019 levels.

Chart 1: Cycling traffic levels in England, to June 2023



The cycling traffic index is produced using a rolling annual index. Due to this, data between February 2022 and February 2023 continued to be affected by the coronavirus (COVID-19) pandemic following the end of the legal restriction period.

Find the related data shown in this chart on [the cycling index statistics page](#).

In addition to the general statistics the Applicants team has reviewed the Dft AADF database ¹for local roads around the HNRFI site. A summary of the findings is presented below. This suggests that in 2022, there is an average of 8.9% drop in vehicles overall and 0.5% drop in HGV levels compared to 2019.

¹ <https://roadtraffic.dft.gov.uk/#6/55.254/-6.053/basemap-regions-countpoints>

3) Institute of Environmental Management and Assessment (IEMA) Guidelines: Environmental Assessment of Traffic and Movement, July 2023

The Applicants traffic and movement assessor has reviewed the updated guidance which provides advice on how to undertake an EIA.

The updated Guidelines are designed to provide advice on how to undertake an EIA or non-statutory environmental assessment for traffic and movement of people associated with nonhighway/road projects.

The updated Guidance points to a number of useful documents and guidance in determining things like amenity and fear and intimidation and how they can be measured. The assessment team through their experience and professional judgement, have utilised a number of the guidance documents mentioned, including DMRB alongside thresholds within the previous IEMA guidance.

The assessor does note that the guidance now defines a weighting system within these updated and replacement Guidelines to help assessors provide a first approximation of the likelihood of pedestrian fear and intimidation. This is a useful starting point for assessors going forward, however the assessment undertaken for the HNRFI is still valid and the assessor is comfortable with the outcomes.

Yellow highlighted figures are reported as estimated numbers from previous years

Site number	Link	2019 All motor vehicles flows	2019 HGVs	2021 All motor vehicles flows	2021 HGVs	2022 All motor vehicles	2022 HGVs	Difference All vehicles 2022 to 2019			Difference HGVs 2022 to 2019		
								No	%	Average %	No	%	Average %
Links Around The Hinckley Site													
99417	M1 (North of LFE to j21a)	157383	20848	140031	21264	146386	20189	-10997	-7.0%	-10.7%	-659	-3.2%	-4.4%
26003	M1 (North of J21A)	97713	15053	86343	16407	94276	15306	-3437	-3.5%		253	1.7%	
46056	M69 near Burbage (M69 J1 to M69 J2)	57014	5654	49528	6701	47351	5198	-9663	-16.9%		-456	-8.1%	
27900	M69 (J2 to J3)	62196	5930	51933	6130	58374	6249	-3822	-6.1%		319	5.4%	
58322	M69 north of M6 J2 nb slips	31579	2805	21471	2768	24416	2856	-7163	-22.7%		51	1.8%	
58312	A46 Coventry Eastern Bypass (J2 to B4082)	53061	4973	42941	5536	42993	5048	-10068	-19.0%		75	1.5%	
8625	A46 Coventry Eastern Bypass (Binley to Tollbar)	58595	5642	45971	5240	51964	5369	-6631	-11.3%		-273	-4.8%	
6471/93039	A45 Stonebridge Highway (Toll bar to Firefly Rd slips)	80355	6187	52712	5315	59649	5455	-20706	-25.8%		-732	-11.8%	
73315	A45 London Road (Tollbar to A423 slips)	44817	3700	35248	3458	38565	3430	-6252	-14.0%		-270	-7.3%	
56143	A5 Sketchley roundabout to Logix Road R'bout	24577	2791	20303	2692	22747	2749	-1830	-7.4%		-42	-1.5%	
6142	A5 South of M42 J10	25073	2718	21899	2791	22858	2644	-2215	-8.8%		-74	-2.7%	
57624/93253	a5 west of Mira	20678	2219	16709	2115	17648	1966	-3030	-14.7%		-253	-11.4%	
26136	A5 Dodwells to Longshoot	34016	2645	31707	2181	35982	2245	1966	5.8%		-400	-15.1%	
73742	A5 Dodwells to Longshoot	34016	2645	28804	2645	32133	2683	-1883	-5.5%		38	1.4%	
26137	A5 north of Mere Lane	16948	2157	13983	2106	14991	2068	-1957	-11.5%	-89	-4.1%		
99207	A47 North Hinckley (Stoke Road to Ashby Road)	26749	901	22937	652	24532	674	-2217	-8.3%	-227	-25.2%		
46524	A47 Longshoot to Leghorn Road (Nuneaton)	20328	827	18109	862	19357	894	-971	-4.8%	67	8.1%		
Other Key Links Around Leicester etc													
800250	B4109 Rugby Road (north of Canberra Way)	16581	344	15805	190	16071	228	-510	-3.1%	-6.1%	-116	-33.7%	5.6%
46067	A5460(Between A563 and J21)	80550	4039	68927	4584	74331	4716	-6219	-7.7%		677	16.8%	
80465	A5460 (Between A563 to Narborough Road Rbt)	43340	906	37008	855	39585	886	-3755	-8.7%		-20	-2.2%	
80463	A563 (north of Fosse Park)	51293	2167	42485	2211	50090	2460	-1203	-2.3%		293	13.5%	
81390	A47 (A447 To Beggars Lane)	11577	563	9606	541	10351	557	-1226	-10.6%		-6	-1.1%	
73712	A426 (B582 to LCC boundary)	14961	331	12832	311	14282	267	-679	-4.5%		-64	-19.3%	
27142	A426 (south of Gibbet Ln Rbt)	22606	3220	16995	3568	18190	3676	-4416	-19.5%		456	14.2%	
73743	A426 (North of Gibbet Ln Rbt)	11822	1137	12919	1439	13899	1483	2077	17.6%		346	30.4%	
77452	A426 (south of Central Park Drive, to Newton Manor Ln Rbt, Rugby)	32755	2493	29489	3026	31653	3115	-1102	-3.4%		622	24.9%	
80466	A5460 (B4114 and LCC Boundary)	34304	597	28637	560	30640	581	-3664	-10.7%		-16	-2.7%	
80464	A563 (B4114 to LCC Boundary)	46231	1397	43382	1636	39903	1689	-6328	-13.7%		292	20.9%	
		reported as estimated from previous years								-8.9%			-0.5%