File note

To: Local Plan Examination Library

From: Julian Ridge

Date: 5th September 2022

Subject: Local Plan traffic forecasting

1. Several of the representations made on York's Local Plan (York Civic Trust, York Environment Forum, York Labour Party) suggest that the Council is understating the impact of traffic congestion in York over time because DfT produced statistics suggest that traffic growth in York is higher than the council's own data collection suggests.

2. For example, York Civic Trust say:

> CYC/87 only provides selective information on changes in traffic flow and in queue lengths on the overloaded primary road network in the city. CYC/87 gives a very misleading impression when compared with the more comprehensive DfT traffic count data which show continuing traffic growth up to 2019, with a 27% increase in traffic between 2011 and 2019. The explanation for this difference, we suspect, is that most growth has occurred on the secondary road network most of which runs through overwhelmingly residential areas of the city and which is wholly unsuited for the traffic which now uses it, given its impacts on the environment, safety and quality of life. Thus the basic premise of CYC/87, that the predictions in CYC/87a will overstate the growth in traffic, is grossly misleading, and the Council's failure to address the serious adverse effects of growth in traffic on secondary roads wholly unacceptable.
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> We recommend that the Inspectors discount the arguments in CYC/87 and accept the predictions in CYC/87a as reasonable indications of the growth in traffic which is likely to arise as a result of the Plan. We also suggest that the Council be asked to explain the marked inconsistency between its understanding of traffic flow changes and that recorded by government.

3. This is a highly technical issue. This note is offered to clarify the issue and respond to the request to set out how the difference between CYC's assessment and the DfT's assessment.

4. The forecasts presented to the Enquiry (in CYC/EX87, 87a and 91) use TEMPRO DfT growth factors from the National Trip End model, which is the standard methodology for making such forecasts. As such, the growth factors are derived from the DfT's data collection, which is itself informed by the DfT statistics which suggest traffic growth is higher than York's data collection suggests it is. Therefore, the modelling presented is already consistent with the (higher) government growth forecast.

5. The DfT themselves recognise that the statistical series https://roadtraffic.dft.gov.uk/local-authorities/202. they produce on local authority specific growth factors is imperfect – in fact their own statistics page says *"Traffic figures at the regional and national level are robust, and are reported as National Statistics. However, DfT's traffic estimates for individual road links and small areas are less robust, as they are not always based on up-to-date counts made at these locations. Where other more up-to-date sources of traffic data are available (e.g. from local highways authorities), this may provide a more accurate estimate of traffic at these locations."*

6. An internal CYC exercise (Annex A to this paper) considered the DfT data and found much of it was based on estimates and counts which had been grossed by various factors to extrapolate a growth trend. The CYC data, on the other hand is based on real time traffic counts undertaken on a 24/7 basis by automatic traffic counters across York. CYC's contention is that these counts are more accurate than the estimated DfT counts, something which is corroborated by DfT's own "health warning" recognising the limitations of their estimate.

7. Consequently, and as suggested in webtag[1], the memo provided as EX/CYC/87 considers locally recorded data and compares it to the DfT TEMPRO growth factors to assess whether the TEMPRO factors give an

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[1] Government guidance on transport scheme appraisal and business cases.

accurate representation of true local growth in trip making – but this is not used in any of the forecasting presented in EX/CYC87, 87a or 91 and the assessment given is a qualitative one.

8. Because it relies on estimates (and there are no DfT counts post 2020) we believe it is incorrect for the parties advocating the position with respect to the DfT's data to imply that it is more comprehensive than CYC's data.

9. It is, in any case, a moot point, as the forecasts presented in EX/CYC/87, 87a and 91 use the DfT statistics, and the conclusion that there is an acceptable impact of Local Plan growth on traffic congestion and journey times in York made in the Council's Matter 7 response is derived from the DfT informed traffic growth forecast, not CYC data. The only role for the data collected by CYC is to temper that forecast with the qualitative assessment that trip growth in York in practice is likely to be lower than the TEMPRO forecast, hence forecast traffic growth, delay and congestion is likely to be overstated in the forecast (although our view is that it is acceptable as forecast).

10. It should also be remembered that a key conclusion of the traffic modelling work is that, whether there is a Local Plan or not, some employment and population growth (and attendant property development) will take place in York, and different spatial distributions tested have similar overall congestion impacts on York, despite some differences between corridors in the city. This is presented in EX/CYC/87, 87a and 91. This conclusion is not dependent of whatever factor is applied to trip growth.

11. As EX/CYC/87a then sets out, the forecasts given, derived as they are from the DfT's TEMPRO dataset, are worst-case stress tests of the network. As these appear to be, in our view, acceptable, it has not been necessary to rerun any of the models with trip growth forecasts made on the basis of locally collected data, as might be done for a funding bid or a forecast where the TEMPRO derived modelling showed a level of congestion which was not assessed to be acceptable or a bid outcome which was not favourable.

Annex A: Technical assessment

York Civic Trust state:

CYC/87 only provides selective information on changes in traffic flow and in queue lengths on the overloaded primary road network in the city. CYC/87 gives a very misleading impression when compared with the more comprehensive DfT traffic count data which show continuing traffic growth up to 2019, with a 27% increase in traffic between 2011 and 2019. The explanation for this difference, we suspect, is that most growth has occurred on the secondary road network most of which runs through overwhelmingly residential areas of the city and which is wholly unsuited for the traffic which now uses it, given its impacts on the environment, safety and quality of life. Thus the basic premise of CYC/87, that the predictions in CYC/87a will overstate the growth in traffic, is grossly misleading, and the Council's failure to address the serious adverse effects of growth in traffic on secondary roads wholly unacceptable.

We recommend that the Inspectors discount the arguments in CYC/87 and accept the predictions in CYC/87a as reasonable indications of the growth in traffic which is likely to arise as a result of the Plan. We also suggest that the Council be asked to explain the marked inconsistency between its understanding of traffic flow changes and that recorded by government.

We believe Civic Trust referring to Annual Traffic by Local Authority Statistics https://roadtraffic.dft.gov.uk/local-authorities/202.

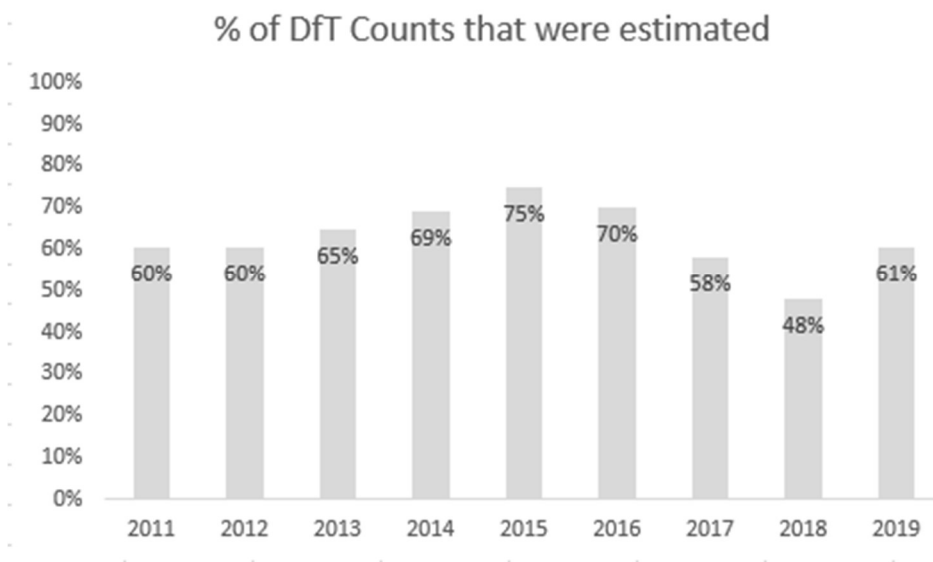We do not agree with Civic Trusts Conclusion. Our conclusion is:

- Most of the DfT counts are estimated.
- When examining recorded counts, there is clear evidence for growth on A1237 and A64. We have reached and presented a similar conclusion.
- Some major roads in York show decreased traffic volume
- Minor roads count sites did not record significant increases in traffic volume. Half the sites saw reduced flows. This does not support the Civic Trust's supposition that the Council's modelling is underplaying the impact on minor roads.

The data set itself also carries the warning: *"Traffic figures at the regional and national level are robust, and are reported as National Statistics. However, DfT's traffic estimates for individual road links and small areas are less robust, as they are not always based on up-to-date counts made at these locations. Where other more up-to-date sources of traffic data are available (e.g. from*

local highways authorities), this may provide a more accurate estimate of traffic at these locations."

It should also be noted that the TEMPRO statistics which are used for the forecasts presented to Examination are derived from the DfT data, not the CYC data.

The table below shows sites DfT used between 2011 and 2019, and if the count was a counted or an estimate. In all but 2018 the majority of counts have been estimated, in this year only 52% sites were counted. No counts were made after 2020.

% of DfT Counts that were estimated

Year	%
2011	60%
2012	60%
2013	65%
2014	69%
2015	75%
2016	70%
2017	58%
2018	48%
2019	61%

Each site could have up to 9 counts between 2011 and 2019. The chart below shows the number of counts (as opposed to an estimate) each site had between 2011 and 2019.

45 Sites had one counted record between 2011 and 2019
15 Sites had two counted records between 2011 and 2019
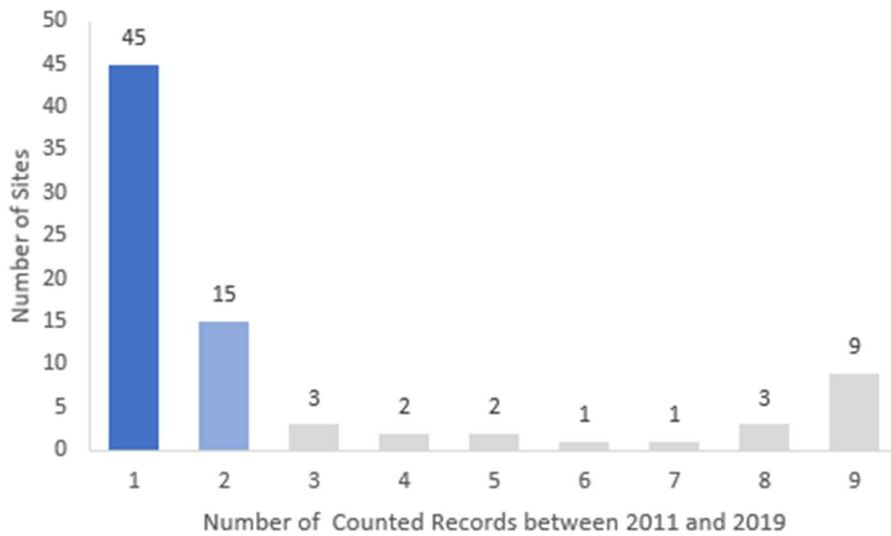
Only 9 sites out of 81 had a record for each year. 60 sites (75% of the sites) only had up to 2 counted records in a 9 year period.

Given that the majority of the Annual Traffic is estimated, we examined the trend in counted sites. Unfortunately, 55% sites have only one counted record.

The DfT count data is split into Major and Minor Roads. We examined Major and Minor roads separately. For each site for Cars and Taxis we:

- Took the value of the first count between 2011 and 2019 (A); and
- Took the value of the last count between 2011 and 2019 (B),
- Calculated B – A

The table below shows for each road;

- the number of count sites with at least 2 counts;
- the number of sites with an increased flow,
- the number of sites with reduced flow, and
- sum of B-A (so in this analysis a negative number denotes a **reduction** in flow)

Road Name	Sites	Increased Flow	Decreased Flow	Sum B- A
A1036	7	2	5	-11624
A19	3	0	3	-1860
A59	3	2	1	-414
A1176	0	0	0	0
A166	0	0	0	0
A1079	1	1	0	2847
A1237	5	4	1	14890
A64	7	7	0	35962

Three sites have reduced flows. There could be a counter error in A1036 because some sites are recording very significantly reduced flows.

Two sites do not have any count sites with at least 2 counts between 2011 and 2019.

Three sites are showing an increase in flows.

We concluded that the A1237 (where capacity had increased) and A64 had seen increased traffic flows, but this is also shown in the CYC data.

We repeated this analysis for minor roads. 20 out of 34 sites had a single count. Trend analysis was possible on 14 sites.

Each site is shown in the table below, with B-A total and Excel spark line showing trend between 2011 to 2019. The minimum value of sparkline axis is set to zero.

Site ID	B - A	Sparkline	Site ID	B - A	Sparkline
949832	-28		949847	-89	
949833	-282		949849	70	
949834	957		949852	0	
949836	198		949853	-133	
949840	-131		949858	-10	
949841	573		949859	197	
949842	51				

 6 sites saw increase in flow and 6 saw reduced flows. We do not believe there is any evidence of significant growth at these sites, of course the counts fluctuate year by year.