

Traffic data analysis

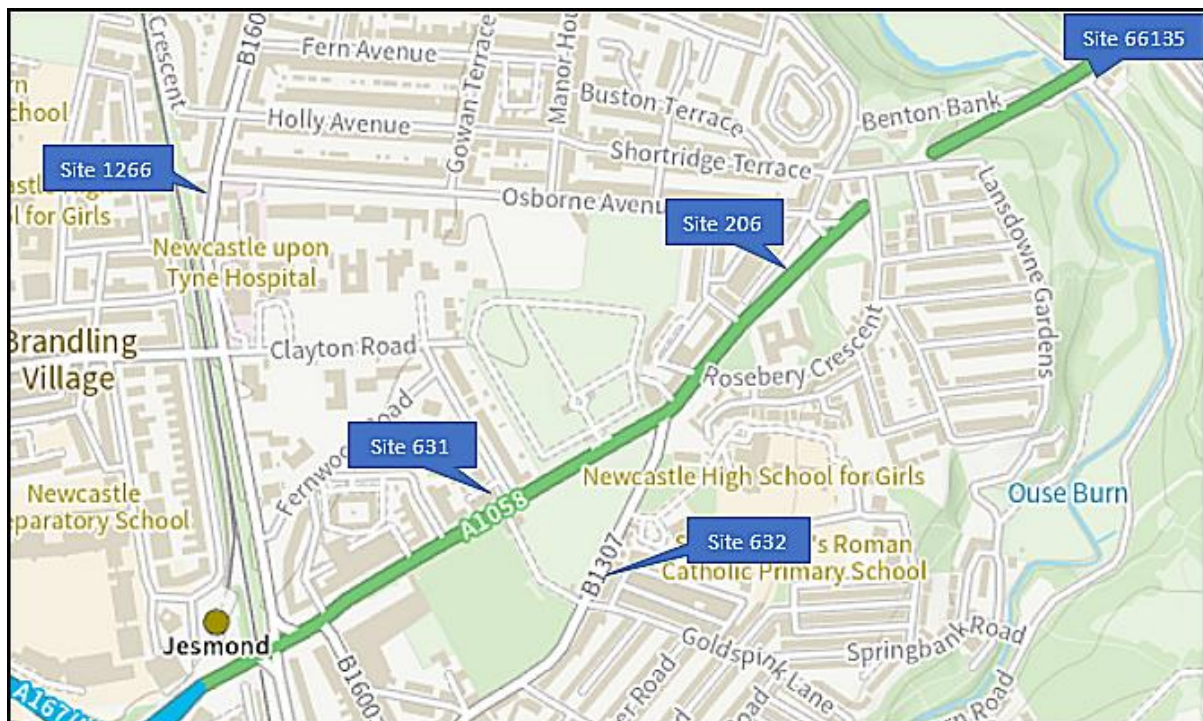
Traffic flow data in the Newcastle area are normally collected automatically via both permanent counters, operated or maintained by the Traffic and Accident Data Unit (TADU) in Gateshead, and also temporary counters installed and monitored by private contractors on behalf of NCC. There are also very occasional manual counts.

Historically the permanent counters take the form of an inductive loop buried in the road surface and linked to a data recording or transmission device. The temporary counters are normally the rubber strip type that are often seen placed across local streets for a limited period. Both types are slowly being replaced by camera-based systems but the progress of this is limited by the available funding.

The TADU counters that are most relevant when considering the LTN are installed on the following roads (the site references are those used by TADU to identify the counters):

- B1600 Osborne Road (Site 1266)
- A1058 Jesmond Road (Sites 206 & 631)
- B1307 Sandyford Road (Site 632)
- A1058 Cradlewell Bypass (Site 66135)

The two Jesmond Road counters are located close to the Akenside Terrace junction (Site 631), and outside Kwik-Fit (Site 206).



All the counters normally monitor traffic flows in both directions on each road 24 hours a day. However, as all these counters are old and in need of replacing, they are often subject to either total failure or intermittent operation.

From January 2017 to July 2023 (2403 days) the counters were in operation as below:

Site 206:	NE bound	1541 days (64%)	SW bound	1559 days (65%)
Site 631:	NE bound	1442 days (60%)	SW bound	1554 days (65%)
Site 632:	NE bound	1366 days (57%)	SW bound	1243 days (52%)
Site 1266:	N bound	1910 days (79%)	S bound	1839 days (77%)
Site 66135:	E bound	1985 days (83%)	W bound	2045 days (85%)

(Data source: TADU August 2023)

As can be seen from the above table, it is difficult to place any reliance at all on data that has only been collected, in some cases, for just 52% of the time. Extracting snapshots of data will rarely provide any comparative information at all from one year to the next. As much of the data that is available was collected during the period of the pandemic, year-on-year comparisons become even more unreliable.

In addition to the lack of available data owing to the counter downtime, there is another problem. There are anomalies in the data, especially the data from Sites 631, 632 and 206. These take the form of unexplained differences between the daily average traffic data counts collected at the Kwik-Fit site and that collected on Jesmond and Sandyford Roads.

Logically, the counts at Kwik-Fit should roughly equal the sum of the counts on Jesmond and Sandyford Roads. Any differences should be accounted for by the small volume of westbound traffic entering or leaving at Rosebery Crescent, or eastbound traffic entering or leaving at Deuchar Street. However, in both 2022 and 2023 there was a difference of some 15 to 23% in these figures (3000-4000 vehicles a day). This traffic has either appeared or disappeared from the TADU data. TADU are aware of this problem but as yet have been unable to offer any explanation as to why this should be the case. Also, since 2020 there have been issues at Site 206 with unexplained differences between the north-east bound and west bound daily traffic totals.

Taking the unreliability of these counters over time and the above anomalies into account, very little of the available traffic flow data can be considered accurate enough to be used for any analysis purposes. This is true whether the data are being used by NCC and proponents of the LTN, or by Jesmond residents and others against the LTN. It appears that data from 2020 and earlier may be more accurate but this is immaterial, since there is no robust recent data against which to compare it.

The most striking issue is that the counter at Site 206 was non-operational in both directions from November 2021 to May 2022, and from December 2022 to March 2023 so no data at all was collected during these periods. It was also only partially operational in August 2021, October 2021, June 2022, November 2022 and April 2023. There would also appear to be other issues with the data collected at this counter. The reason this is relevant is that it is data from Site 206 that was cited for comparison purposes on page 11 of the NCC interim report published in June 2023.

Given all the above it is extremely difficult to understand why NCC would consider including any of this data in the interim report, or indeed in any report. As one of the main funders of TADU, NCC has had full access to the data at all times but, as with the casualty data, it appears to have overlooked, or ignored, the obvious problems in using the data to draw any reliable conclusions. It has to be asked why this would be the case.

David Paterson – 20 August 2023 – document V4