

# Beech Street Zero Emission Scheme

## Bunhill, Barbican and Golden Lane Healthy Neighbourhoods

### Barbican Association Response

This is a project which divides opinion on the Barbican Estate. Many residents found the reduction in traffic and the improvement in air quality attractive. Others were inconvenienced by access problems off Beech Street. Residents on the Southern side of the Estate noticed increases in traffic and reduced air quality resulting from traffic displaced from Beech Street during the experiment.

Based on historical precedent, it is inevitable that this scheme will be implemented, irrespective of the response of residents. There are aspects of the experiment, which underlie this proposal, which are deeply flawed (see Appendix: The experiment), We wish to reiterate these, while at the same time making recommendations that might ameliorate the negative impact of some of the aspects of the scheme. In particular, the BA has long advocated for a properly thought out, planned, and funded whole area scheme to reduce pollution and manage traffic.

#### **The Golden Lane Junction**

The proposed scheme will permit **any vehicle** to turn left from Golden Lane into Beech Street, effectively turning Golden Lane into a rat run for east-bound non zero emission vehicles. This rat run will have an impact on amongst others,

- our neighbours in the Golden Lane Estate,
- Barbican residents in Breton and Ben Johnson,
- the children in the four schools on Golden Lane,
- and children going to and from Fortune Park,
- pedestrians on the north side of Beech Street negotiating a busier than usual junction.
- residents of Fortune Street who will suffer from vehicles diverting along Fortune Street in an attempt to avoid traffic build-up at the Beech Street Golden lane junction.

The City's traffic modelling suggests that this traffic will be minimal, but this conclusion seems over-optimistic. Further, most of this traffic will be southbound and concentrated into the morning and afternoon peaks. We understand that the need for making this turn available is the failure of the City and the Borough of Islington to resolve the problems of traffic in Fortune Street.

#### **Other Traffic schemes**

There are two other major traffic schemes, which have an impact on the Beech Street project: London Wall West (LWW) and the St Paul's gyratory. We are greatly concerned about the potential lack of co-ordination between these schemes, particularly the interaction between the Beech Street scheme and LWW. The LWW traffic modelling is based on the street layout and traffic management

systems that applied in November 2019, i.e., before the Beech Street experiment. This modelling forecasts that the mean maximum queue length south bound on Aldersgate Street to the rotunda will increase by a factor of four, resulting in queues up to, beyond and within Beech Street. The ZES will add to these queues, further encouraging the Old Street-Golden Lane rat run.

**The BA recommends that:**

- the City works with the Borough of Islington to turn Golden Lane into a school street. The two authorities have demonstrated their ability to implement such schemes with the implementation of a similar proposal in Carthusian Street/Charterhouse Square, which was announced in July 2022.
- traffic calming measures be introduced at the same time as this scheme is implemented. The recently introduced raised pedestrian crossing seems to have had no impact on vehicle speed. Better traffic calming measures - such as narrowed junctions and carriageways - are necessary, particularly as there are more cyclists, especially with children, who won't be prepared for the planned traffic increase.

**Fore Street (and linking streets)**

Already there has been an increase in traffic on these streets, which will get worse after a reintroduction of the ZES on Beech Street. Traffic levels in these streets were measured before and during the experiment, but because of the impact of the Covid lockdown, it is difficult to estimate the real impact. Similarly inconsistent and haphazard attempts were made to measure air quality in these streets. Again, these measurements were frustrated by the Covid lockdown. The BA has attempted to extract some meaningful data on both traffic and air quality levels in surrounding streets. This suggest that in relative terms there was a greater than expected increase in traffic and NO<sub>2</sub> during the experiment (See Appendix: The Experiment).

**The BA recommends that:**

- measures be introduced to close down this rat run. This is a complex issue, with groups of stakeholders with conflicting needs. This intervention will require real consultation with these stakeholders.

**Resident (and other locals) exemption**

Residents will face much greater difficulty in accessing their car parks than they did during the lockdown when traffic was minimal, and most journeys were banned. The surrounding roads will be congested, and journey times will be needlessly increased, further contributing to poor air quality.

**The BA recommends that:**

- residents and other locals be given exemption from the scheme.

**Less able bodied residents**

Less able bodied residents found it difficult to persuade taxis to pick up or drop off in the northern part of the estate. They further suffered from delivery companies, particularly specialist firms delivering things like medicines, refusing to enter the tunnel.

**The BA recommends that:**

- The scheme is not implemented until the City demonstrate that hackney cabs and private hire firms have had adequate training and that all organisations that make deliveries in the area are properly briefed. to ensure that these incidents do not reoccur.

**Poor signage and timings**

The experimental scheme was bedevilled by inadequate signage, and unrealistic transit timings. The BA was involved in helping redesign the signage, but the result was still inadequate. As a result of unrealistic timings, at least one resident was fined for making covid related deliveries to a neighbour. The fine was cancelled following an appeal. It is not known how many residents were similarly improperly penalised.

**The BA recommends that:**

- The scheme is not implemented until the City design appropriate signage. It may be necessary for the City to engage experts, as the previous attempts were a failure. This signage should also address the delivery issues identified above under “Less Able Bodied Residents”.
- The timings be adjusted to ensure that improper penalties are not levied.

## **Bunhill, Barbican and Golden Lane Healthy Neighbourhoods**

The BA enthusiastically supports the move to a wider scheme, and has done since the City proposed this in The City of London Transport Strategy in May 2019. The quantity and quality of the responses on the consultation portal (200 participants with 764 responses) shows how involved local stakeholders are in this subject.

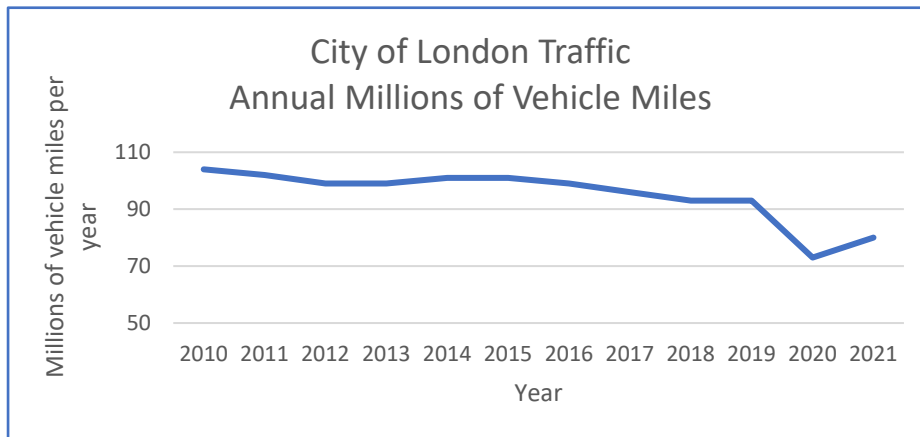
**The BA recommends that:**

The City together with Islington proceed rapidly to design, in collaboration with residents and other stakeholders, a properly thought out, planned, and funded whole area scheme to reduce pollution and manage traffic.

# Appendix The Experiment

## The Experiment

The period of the earlier experiment matches almost exactly the Covid lockdowns, making any evaluation of the real impact on traffic and air quality very challenging. The BA recommended deferring the experiment, but the City decided to carry on. Aside from the impact on access, there are two main areas of concern to assess: traffic and air quality.



## Traffic

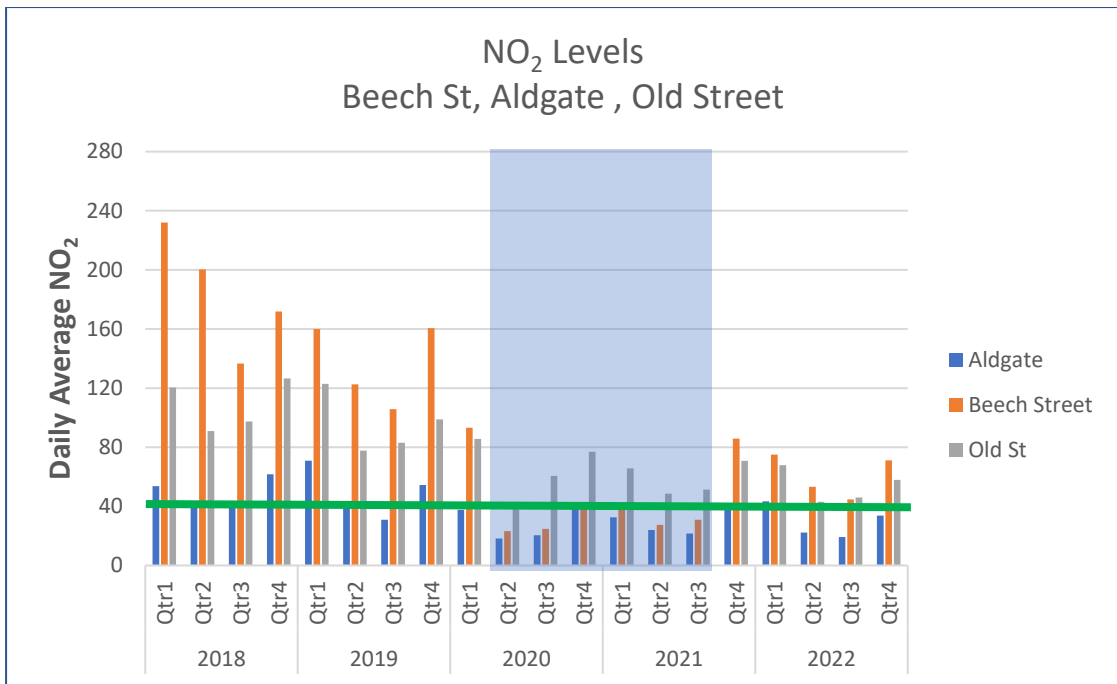
As Bob Dylan says, “You don’t need a weatherman to know which way the wind blows.” The traffic reduction in Beech Street during the experiment was quite clear. The City’s [dashboard](#) shows the impact on traffic on Beech Street and the surrounding streets during the experiment. This shows:

- 70% reduction of motor vehicle traffic on Beech Street.
- 20 % reduction in motor vehicle traffic levels due to Covid in the City overall.
- 24% reduction in motor vehicle traffic in Fore Street (consistent with the overall City fall).
- Increase in motor vehicle traffic on both London Wall and Old Street by 5% and 16%, respectively. This increase in the context of an overall drop in the City of 20% represents a net increase of 25% and 36%, respectively. At almost all the other locations that traffic was measured, traffic levels fell by around the same level as City traffic fell overall.

These data suggest that during the experiment traffic levels on Beech Street fell but there was a greater than expected increase in traffic on surrounding streets.

## Air Quality Beech Street

Determining the impact of the experiment on air quality in Beech Street is made more difficult by the impact of the Covid lockdowns, which as outlined earlier almost exactly matched the duration of the experiment. The chart below shows the level of NO<sub>2</sub> in µg/m<sup>3</sup> for Beech Street and two comparison sites, Aldgate and Old Street. The pale blue shaded area is the period of the Beech Street experiment. The green line represents the UK legal maximum of 40 µg/m<sup>3</sup>. (WHO recommended level was set at 10 µg/m<sup>3</sup> in 2021).



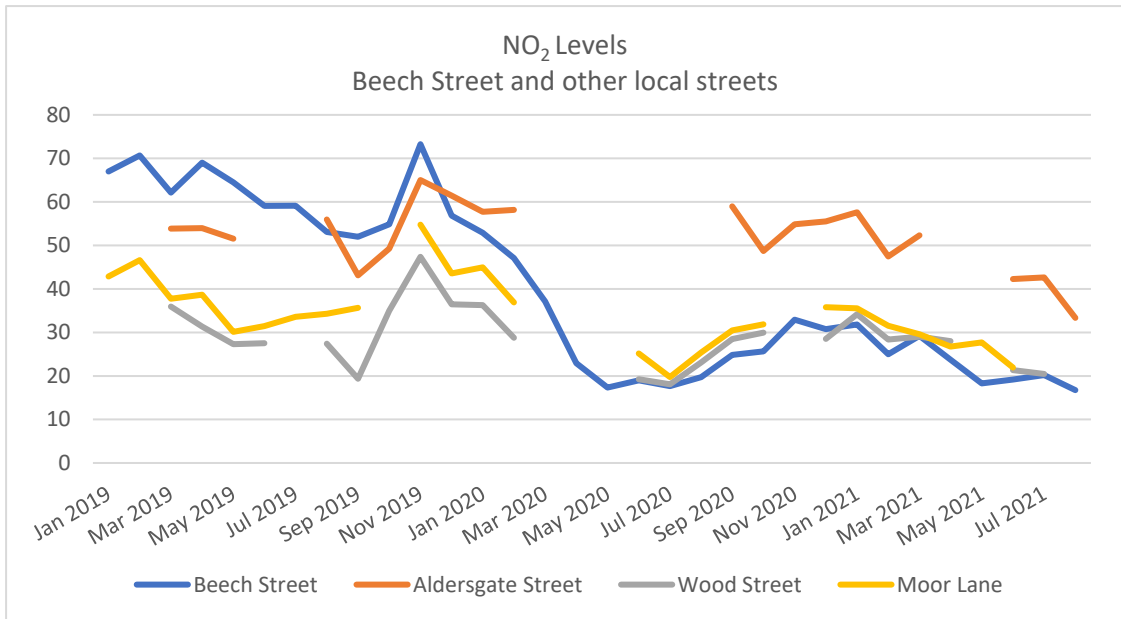
In the period before the experiment, Beech Street and Old Street were consistently above the 40 µg/m<sup>3</sup> level as was Aldgate with a few exceptions. During the experiment, both Beech Street and Aldgate were consistently below the 40 µg/m<sup>3</sup> level; Old Street never fell below the level. Since the end of the experiment, Beech Street is back above the 40 µg/m<sup>3</sup> level, but by a much smaller margin. It is interesting to note that Aldgate has remained consistently low since the experiment. It is not clear why this is, perhaps as a result of the improvements to the road layout. Aldgate is included in these data as a comparison, as it was considered to be sufficiently remote from Beech Street as to be unaffected by the experiment.

#### Air Quality Surrounding Streets

It seems clear that the experiment had a positive impact on air quality in Beech Street; with µg/m<sup>3</sup> levels down by 80%. In comparison, the levels in Aldgate and Old Street fell by around 40%. The NO<sub>2</sub> levels in these three sites are measured constantly by high specification permanently mounted equipment, which can be read remotely.

However in the surrounding streets data collection was haphazard. To measure NO<sub>2</sub> levels the City had to rely on diffusion tubes which are a poor substitute. In addition, these tubes need to be collected regularly for processing. Not surprisingly during Covid, this was a hit and miss process. Consequently, the data are poor of quality; there is not a continuous NO<sub>2</sub> series for any location. The chart on the following page shows the patchy nature of these data.

There is not much that can be concluded from these data except that given the general reduction in pollution in the City during the pandemic, we might have expected to see lower levels than were actually measured.



The haphazard data collection and the swamping impact of Covid means that apart from the tentative observation that Aldersgate Street and Wood Street did not enjoy the same reduction in NO<sub>2</sub> levels as Beech Street, there is not much that can be concluded from these data.