

RESPONSE DOCUMENT (REVISED)

FOR PUBLIC INQUIRY COMMENCING ON 10th OCTOBER 2017

SITE

The scheme is located on the Torrington Place / Tavistock Place Corridor, between the junctions with Tottenham Court Road and Judd Street

SUBJECT OF PUBLIC INQUIRY

The Camden (Torrington Place to Tavistock Place) (Prescribed Routes, Waiting and Loading Restrictions and Loading Places) Traffic Order [2017]

PLANNING INSPECTORATE REFERENCE:

DPI/X5210/17/8

CAMDEN REFERENCE:

SC/2017/04

INTRODUCTION

- i. This is a response document to the proofs of evidence submitted by other parties to assist the Inspector at the Public Inquiry relating to the Camden (Torrington Place to Tavistock Place) (Prescribed Routes, Waiting and Loading Restrictions and Loading Places) Traffic Order [2017].
- ii. The Council's witnesses have considered points raised in the evidence submitted by other parties and provide a response grouped on a topic by topic basis. Each witness will, of course, speak to their own discipline.

1. FAILURE TO CONSULT FULLY AND FAILURE TO CONSIDER ALTERNATIVES

Various claims alleging failures associated with public consultation

1.1 A number of parties raise issues over different aspects of the consultation. It is not accepted that the public consultation undertaken in relation to the Trial was flawed. As set out in paragraph 4.8 of Louise McBride's Proof of Evidence, the Council used a range of methods to ensure that the consultation was widely publicised, (including posters along the route and neighbouring streets, bus stop posters, website information, leaflets delivered to over 12,000 addresses, drop-in sessions, information in libraries, social media, Camden New Journal and Camden Magazine and on street social researchers) and that as many people as possible were aware of and able to participate in the consultation. Over 15,000 responses were received, which indicates a high level of public awareness.

1.2 BRAG even suggests that the Council used the experimental traffic order (ETO) to circumvent the need for a public consultation (see BRAG Proof of Evidence 2). This is not the case. It was always the intention of the Council to undertake a public consultation and this was set out in the decision report which sought approval for the Trial (see paragraphs 1.4, 1.5, and 6.4 of CD6/1).

1.3 Further, BRAG state that:

'It was unusual to use an ETO for such a large scheme: the normal use of ETOs was for much smaller interventions'. (BRAG proof of evidence 2, paragraph 1a).

1.4 Whilst it is acknowledged that an ETO for a scheme of this scale has not been used in the London Borough of Camden before it is not inappropriate use of an ETO. ETO's have been used elsewhere for a number of different purposes, including to trial the reversal of one-way operation, prevent access by private car to a high street and for larger schemes. For example, in May 2017, the City of London Corporation, introduced an experimental traffic scheme at Bank Junction, which affects thirteen streets. The primary objective of this safety scheme is to achieve a reduction in the number of casualties by restricting traffic through the junction to buses and pedal cycles only Monday to Friday from 7am to 7pm.

1.5 One clear advantage of setting up a Trial was that the Trial could be used to inform the public consultation. This would enable people to see the effects of the trial on the ground and reflect this in their consultation responses (as many did).

1.6 In relation to the consultation material, as with many transport schemes, the objective was to present the information in such a way that was clear, concise and readily understandable to all and in a format that would encourage participation.

1.7 The questionnaire was drafted with simplicity in mind (see extract in the appendix to CD6/2). Questions 3, 4 and 5 in the questionnaire sought to elicit respondents' views on the proposed scheme (the Trial with improvements) and questions 3 and 4 were included as a cross check to each other, which returned responses within 1% of each other.

1.8 Further, there was an opportunity for people to comment more generally which also allowed people to suggest alternatives to the Trial. This opportunity was taken by some people in their written responses. In addition, at meetings officers made it clear that further alternatives would be considered and such consideration was undertaken as reported in appendix D to the Cabinet report (CD6/2).

Claimed failure to consider alternatives

1.9 Alternatives to the Trial layout were considered prior to the introduction of the Trial in November 2015. These included widening the bi-directional cycle track and retaining two way for traffic (included in Section 3 of Simi Shah proof). Using the standards and guidelines as well as best practice and experience, officers considered that providing two separate cycle lanes were considered a better approach for improving comfort and safety of cyclists and to provide a layout that was easily navigated by pedestrians along a corridor such as this. The assessment of the available widths led officers to conclude that the corridor would have to be converted to one way along its length.

1.10 The analysis of the traffic data captured before the trial indicated that the westbound traffic was more dominant (65% of total traffic) than the eastbound traffic (35%) at Gordon Square over a 24 hour period. In general the westbound traffic was considered to be higher in volume compared to eastbound for both the morning and evening peak periods.

1.11 The tables below indicate the split in traffic volumes and by type of vehicles. Having considered the difference in traffic in both directions, officers came to the conclusion that removing the westbound traffic may offer the best solution to moving traffic to the main roads. This was therefore modelled by TfL to consider its impact before approval was granted for its implementation under a Trial layout.

Gordon Square
 Thursday 11 May 2015
 (between Woburn Square and Bedford Way)

TIME PERIOD		VEHICLE TYPE							
		Cars (no)	Cars (%)	LGV/PSV 2 axle(no)	LGV/PSV 2 axle (%)	OGV1/PSV3axle (no)	OGV1/PSV3axle (%)	OGV2 (no)	OGV2 (%)
24 hours	w/b	9336	89	774	7	236	2	88	1
	e/b	5330	95	216	4	61	1	27	0
AM Peak	w/b	456	88	44	8	11	2	7	1
(9-10)	e/b	250	95	10	4	1	0	1	0
Lunch	w/b	492	85	77	13	5	1	7	1
12.30-13.30	e/b	360	94	11	3	8	2	2	1
PM Peak	w/b	565	92	38	6	9	1	5	1

Tavistock Place
 Thursday 11 May
 2015
 (between Marchmont St and Herbrand St)

TIME PERIOD		VEHICLE TYPE							
		Cars (no)	Cars (%)	LGV/PSV 2 axle(no)	LGV/PSV 2 axle (%)	OGV1/PSV3axle (no)	OGV1/PSV3axle (%)	OGV2 (no)	OGV2 (%)
24 hours	w/b	1509	69	25	1	507	23	133	6
	e/b	1255	88	7	0	141	10	20	1
AM Peak (9-10)	w/b	43	51	2	2	29	35	10	12
	e/b	57	85	1	1	8	12	1	1
Lunch 12.30-13.30	w/b	79	67	1	1	24	20	14	12
	e/b	79	77	0	0	22	21	2	2

PM Peak	w/b	109	81	1	1	22	16	3	2
(5-6)	e/b	94	89	0	0	9	8	3	3

2. CLAIMS OF LONGER JOURNEY TIMES (INCLUDING FOR DISABLED PEOPLE AND JOURNEYS TO HOSPITAL)

2.1 As stated within paragraph 3.16 of Louise McBride's Proof of Evidence it is accepted that there could well be longer journey times for routes that previously used the corridor to travel westbound.

2.2 In BRAG's Proof of Evidence 8 there is reference to concerns raised by Passenger Transport Services (PTS) about an increase in journey times to transport patients hospital buildings. It is assumed this relates to the data provided in section 4 of the Proof, within the letter from Robert Bexson (Head of Property and Advisors at UCLH). The table provides a number of journey times for routes between hospital buildings and the main UCH campus. The letter states that journeys prior to the Trial used to take below 20 minutes, (although no actual data is provided to substantiate this), and now takes on average 52 minutes (based on 112 journeys). The date and time of these surveys are not included within the letter or Proof of Evidence, and it could well be that these journeys were influenced by other works in the area. The map provided within Appendix 4 of Simi Shah's Proof of Evidence illustrates a number of developments and long term roadworks that have taken place in the area, and roadworks and utility works are not at all uncommon.

2.3 That said (and as stated in paragraph 2.1) we accept there are likely to be some increases in journey times for journeys that used to travel westbound along the Corridor and that journeys may need to be planned accordingly. But in order to provide an up to date indication of the general scale of journey times, we have conducted some further analysis using journey time data from Google Maps. We simulated journeys from the National Hospital for Neurology and Neurosurgery to the main UCLH campus on Beaumont Place, and from the Royal National Throat, Nose and Ear Hospital to Beaumont Place. We selected Monday 2nd October 2017 and Tuesday 3rd October for the journey times and ran 26 journeys throughout the day (at times between 10am and 6pm), no results have been excluded from the data shown below.

Google Maps journey time data is based on GPS data, providing live congestion data and historical data to provide trends. Google Maps has access to a large amount of data uploaded automatically from mobile devices.

Table 2.1: Journey Times recorded from Google Maps (02/10/2017)

Route	Number of Journeys	Minimum Journey Time	Maximum Journey Time	Average Journey Time
National Hospital for Neurology & Neurosurgery to UCLH (Beaumont Place)	26	11	16	13
Royal National Throat, Nose and Ear Hospital to UCLH (Beaumont Place)	27	7	13	9

2.4 As shown in Table 2.1 the journey times recorded from Google Maps are much lower than those quoted in BRAG’s Proof of Evidence 8 but do, inevitably for central London, show variations. It is our view, supported by the evidence presented in Table 2.1 that in general journey times have not increased by an unreasonable amount as a result of the Trial. However, we do acknowledge that in certain traffic conditions, as with most areas of central London, there can be congestion which results in longer journey times than usual between the hospital sites.

3. PEOPLE WITH PROTECTED CHARACTERISTICS

3.1 In amongst other issues BRAG, the Licensed Taxi Drivers Association (LTDA) and others have raised issues regarding people with protected characteristics, specifically the elderly and the disabled, which are responded to below.

Public Sector Equality Duty and the duty not to discriminate and to make reasonable adjustments

3.2 The Public Sector Equality Duty is set out in appendix A of the Cabinet report (CD6/2) and paragraphs 2.9 to 2.11 of Louise McBride’s Proof of Evidence. It appears that some parties have misinterpreted this duty, which is not a duty to

achieve the objectives or take the steps set out in section 149 of the Equality Act 2010. Rather, the section 149 duty of the authority is to have due regard to those matters; that is, to bring those matters into proper consideration, having the regard to them that is appropriate in all the circumstances, when carrying out its public functions. That requires the authority to identify negative impacts (as well as positive ones), and consider countervailing strategies to mitigate those negative impacts, but thereafter the weight to be given to either, and the decision to be made, is a matter for the authority.

3.3 The Equalities Impact Assessment (EIA) carried out in February 2017 brought these objectives into proper consideration and had due regard to the interests of people with protected characteristics. As part of the EIA process a number of groups representing people with protected characteristics were consulted and the responses to the public consultation were considered.

3.4 A result of delivering transport schemes in such a contested area of central London, with a high number of often competing demands, is that it is necessary, for the purposes of an authority's public sector equality duty, to balance the competing interests. The EIA does identify some negative impacts on some groups of people with protected characteristics, and some other parties acknowledge and indeed rely on that in detail. However the EIA goes on to respond to such impacts and to consider countervailing mitigating strategies. One example, discussed further below, is ensuring that the distance, from the main front entrance of the Tavistock Hotel to a point in either of the streets directly to the side of the hotel at which a taxi (such as a black cab) without a rear ramp (or a ramp that can be deployed on either side of the vehicle) for wheelchair users can drop off using its ramp, does not require that passenger (or any disabled or elderly passenger) to then progress more than the distance specified in the Guidelines for Inclusive Mobility issued by the government to the main, front, entrance of the hotel. The EIA then balances the positive and negative impacts, informed by the mitigating measures identified, and concludes that the positive impacts of the proposal to retain the trial layout (including some positive impacts on those people with protected characteristics,

which some other parties fail to acknowledge) with the potential for further improvements, together with the mitigation strategy proposed and ongoing engagement, outweigh the negative impacts. The proof of evidence of Louise McBride discusses mitigation measures, including those identified since the EIA as part of the ongoing engagement referred to above.

3.5 Similarly in relation to the Council's duty under section 29 of the Equality Act 2010 not to discriminate in the exercise of its public functions and to make reasonable adjustments, the Council identified in its EIA the potential for discriminatory negative impacts on young and older people, disabled people, but identified mitigation measures and adjustments in order to avoid any substantial disadvantage, where possible.

3.6 It is not the case that the Council 'prioritises the majority who can walk, over those who cannot', as stated in BRAG's Proof of Evidence 9 (paragraph 1.4 d). The Council's road user hierarchy prioritises pedestrians, which (in context) includes those people with mobility impairments.

Cost of taxi journeys

3.7 The issue of increased costs of taxi journeys as a result of longer journey times is one that is raised by LTDA and is identified as an issue in the statements included in BRAG's Proof of Evidence 9. This is something that officers acknowledged in the EIA (NI3 in appendix E of CD6/2). It is recognised that when traffic is congested the cost of taxi journeys can increase and that the cost of a journey could increase. However, no evidence is presented that the typical cost of a journey is now £45. Further, it is difficult to attribute all of this to the Trial when unavoidable construction, utility works and delays elsewhere in the London road network also play a role. In addition, the LTDA's video shows a taxi driving past the taxi rank in order to drop a passenger who uses a wheelchair from Baker Street in Herbrand Street. It would be more convenient to drop the passenger against the near side kerb in Bedford Way (within 50m

from the hotel entrance). A sketch map of such a route is attached at Appendix 1.

Dropping off disabled passengers at destinations along the corridor (including at the Tavistock Hotel)

3.8 As identified in the Proofs of Evidence of Louise McBride and Simi Shah, pickup and drop-off activity continues to be permitted along both sides of the Corridor. This is not an urban clearway therefore there are no restrictions on picking up and dropping off passengers. It is acknowledged that if certain types of taxis need to deploy a passenger-side ramp to drop off a disabled passenger who also uses a wheelchair they will need to access a left-hand kerbside, which may require the use of a side street. This is discussed above in relation to black cabs conveying wheelchair users wishing to access the Tavistock Hotel. This is recognised as a negative impact of the Trial, as identified in NI4 of the EIA (appendix E of CD6/2).

3.9 Mitigating strategies were considered in this regard. The taxi rank outside the Tavistock Hotel has been retained. It is recognised that one-way working in an eastbound direction together with retaining the taxi rank in its current location has made it more difficult for black cabs to deploy their ramps to drop off and pick up passengers who are wheelchair users. However, alternative drop off and pick up provision is available on Bedford Way, which is within 50m of the main hotel entrance. It is not the case that officers are saying that disabled guests and visitors to the hotel should use a side entrance or service entrance, as stated in the Transport Proof of Evidence from Mr Russell (ILHL16). If dropped off in Bedford Way this would be within 50m of the hotel's main front entrance, which is the distance recommended in The Guidelines for Inclusive Mobility (CD1/17) at which people with mobility impairments should be able to rest. Whilst it is recognised as a relative inconvenience for wheelchair users of black cabs, it is not considered to be an unreasonable distance to travel. The Tavistock Hotel promotes on its website "nearby accessible bus routes" that are a greater distance away from its front entrance than such black cab drop-off points.

3.10 Should the Trial layout be made permanent black cab drivers would know that it would be difficult to use the taxi rank to drop-off a passenger in a wheelchair outside the hotel and therefore it would be appropriate for them to turn right into Bedford Way from Tavistock Square (rather than travel on to Herbrand Street as suggested by the LTDA video). A sketch map of a much more likely route is attached (Appendix 1). Officers would work with the hotel and other organisations such as TfL, LTDA and CPT to ensure that his message is communicated as widely as possible if it is not yet widely known. Since April 2017 taxi drivers have had a specific duty to assist passengers with wheelchairs and luggage to enter and alight from the vehicle and there is no reason to suppose that they would not do this. Similarly, there is no reason to suppose that the hotel would not provide a ramp to assist wheelchair users to surmount the step that is presently at its main front entrance.

3.11 Alternative solutions were explored with Mr Russell, who was representing Imperial Hotels London Ltd, including providing a taxi rank on the other side of the road. Following a meeting, ILHL's view was expressed that, on balance, their preference was to retain the taxi rank in the existing location.

3.12 The existing physical barrier separating the westbound cycle lane on the north side of the corridor from the footway could be removed or replaced with a different form of segregation (such as stepped tracks), to better enable a black cab to set down a passenger who uses a wheelchair directly onto the northern footway. This would be considered as part of detailed design if the proposed order were to be made permanent. The Council would expect to have further discussions with ILHL at that stage.

4. ROAD SAFETY AND PERCEPTION OF SAFETY

4.1 A number of parties rely on different collision data within the Corridor and further afield. In this section, officers seek to draw relevant material together in one place.

4.2 This section builds upon the collision data analysis previously undertaken for the Corridor as set out in Simi Shah's Proof of Evidence, by discussing road safety of the wider area and comparing collision data collected before the implementation of the Trial layout with data observed after the Trial layout was implemented. The collisions data analysis also makes specific reference to road safety on Judd Street and Hunter Street in response to evidence presented e.g. by BRAG.

4.3 The section then addresses the perception of safety along the Corridor and the wider area in response to evidence submitted by several objectors.

Road Safety before the Trial

4.4 Analysis of collision data showed that there were a significant number of collisions recorded along the Corridor three years prior to the Trial. As noted in Section 4 of Simi Shah's Proof of Evidence, a total of 42 'slight' collisions and 10 'serious' collisions were recorded along the Corridor prior to the implementation of the Trial. 80% of the 'serious' collisions involved either pedestrians or cyclists, showing that a disproportionate of vulnerable road users were involved in the worst collisions along the route.

4.5 Analysis undertaken in 2013 showed the 'Bloomsbury/Russell Square' area, where the Corridor is located, as having the 2nd highest number of killed or seriously injured collisions (KSIs) out of the 18 areas in Camden and has the 2nd highest number of cyclists casualties (Appendix 2). Improving safety in the Bloomsbury/Russell Square area was classified as a key priority for the Borough.

4.6 In the context of London-wide road safety, the number of collisions along the Corridor recorded three years prior to the trial is similar to trends of those in London between 2014 and 2015. TfL Travel in London Report 9 (see core document CD/2/7) states comparing 2015 and 2014 collision data "overall casualties (all injury severities) decreased by 2 per cent compared with 2014

– largely driven by the decrease in slight casualties.” In order to reset the context, Table 4.1 below shows the number of collisions per year along the route of the Trial in the three years prior to the implementation of the Trial by user.

Table 4.1: Number of collisions per year prior to the implementation of the Trial broken down by type of road user

	Pedestrians	Cyclists	Other Road Users
Nov 12 – Oct 13	7 (2 serious)	6 (2 serious)	3 (0 serious)
Nov 13 – Oct 14	7 (2 serious)	8 (1 serious)	4 (1 serious)
Nov 14 – Oct 15	7 (1 serious)	7 (0 serious)	3 (1 serious)
Total	21	21	9

4.7 Table 4.1 shows the number of collisions per year prior to the implementation of the Trial. It has been used to calculate that the average number of collisions (of all severities) along the Corridor was similar for each year before the trial and that overall, there has been a slight reduction in the number of collisions between the years of 2014 and 2015. The average number of collisions along the Corridor involving pedestrians however has remained constant, although the severity appears to have reduced between the years of 2014 and 2015.

4.8 Although neither the number nor the severity of the collisions along the corridor were worsening along the Corridor prior to the Trial, the large number of collisions in the area justified the Council’s decision to implement a scheme that would help improve safety along the Corridor. As the Local Highway Authority, Camden Council has a statutory remit under the Road Traffic Act 1998 to maintain and improve road safety, in particular, addressing the needs of those most vulnerable. The poor collision record along the Corridor and in the Bloomsbury/Russel Square area informed one of the key objectives of the scheme which was to improve safety along the Corridor.

Road Safety after the Trial

4.9 As noted in Simi Shah's Proof of Evidence, the average number of collisions has reduced during the period surveyed during the Trial. Most notably, there was a marked decrease in the number of collisions involving pedestrians with an overall decrease in excess of 75%. Additionally, no collisions between pedestrians and cyclists were recorded during the Trial. There were also no 'serious' collisions recorded during the Trial showing that the severity of collisions had reduced along the Corridor.

4.10 Collision data collected during the Trial shows that there are a number of collisions involving cyclists with motor vehicles. The type of these collisions were logged both prior to after implementation of the Trial layout and involve motor vehicles turning both onto and off of the Corridor and in both directions of left and right. Whilst none of these collisions have been recorded as 'serious' the Council, should the Traffic Order become permanent, would seek to further improve the safety along the Corridor to address these manoeuvres. Implementation of raised tables at junctions along the route, together with alterations to the traffic signals that allow cyclists to have their own stage to make manoeuvres separate to other motor vehicles, would help to address these issues and remove such conflicts.

4.11 As part of TfL's measure of success of the scheme (also included in Simi Shah's Proof of Evidence), the Trial should aim to reduce the number of collisions by showing that there were less than four collisions (including less than one 'serious' collision) reported in a three month period on Torrington Place. Table 4.2 below breaks down the number of collisions along the Corridor by month of the dates surveyed during the Trial. Note, no 'serious' collisions were recorded in the 14 months after the implementation of the Trial.

Table 4.2: Number of Collisions by month during the Trial

One month periods starting	Number of 'slight' collisions
23-11-15	3
23-12-15	0
23-01-16	1
23-02-16	2
23-03-16	3
23-04-16	1
23-05-16	0
23-06-16	1
23-07-16	1
23-08-16	2
23-09-16	1
23-10-16	0
23-11-16	1
23-12-16	0
Total	16

4.12 Table 4.2 above breaks down the number of collisions each month since the implementation of the Trial. It has been used to calculate that the average number of collisions per 3 month rolling period is 3.4 (<4 collisions) and that the Trial has successfully fulfilled one of TfL's measures of success criteria.

4.13 The results from the collision data analysis together with successful fulfilment of TfL's criteria show that there has been a clear increase to safety to vulnerable road users along the Corridor.

Space for Pedestrians and Cyclists

4.14 As the London population grows and further progress towards modal shift is seen, the need for adequate footway and cycle lane widths does so too. Table 2.2 in TfL Travel in London Report 9 (see core document CD2/7) shows that the number of cycling trips has increased by 7% from 2014 compared with 2015 and 118% from 2000 to 2015, and that as an overall modal share, table 2.3 shows that the modal share for cycling in London in 2000 was 1% and in 2015 was 2%.

4.15 The increase to the number of cyclists results in an increase of required carriageway space for cycle use. Chapter 4 of the LCDS (see core document CD2/12) states that for:

- Low flows, 2m wide two-way cycle tracks are required (1.5m is required for each of the two, one-way tracks);
- Medium flows, 3m wide two-way cycle tracks are required (2.2m is required for each of the two, one-way tracks);
- High flows, 4m+ wide two-way cycle tracks are required (or 2.5m+ is required for each of the two, one-way tracks).

4.16 Irrespective of the existing issues with regards to road safety noted in the collision analysis, in the absence of intervention along the Corridor, the route would become increasingly unsafe if the Corridor continued to have substandard cycle lane widths with insufficient capacity to cope with the growing number of cyclists. It is anticipated that, in the absence of wider cycle lanes, the number of collisions involving cyclists would actually increase.

Collision Data Analysis of the Wider Area

4.17 Further collision analysis has been undertaken on the streets surrounding the Corridor for the area outlined in red below (note the Corridor is highlighted in Green). The cordon is bounded by Euston Road, Gray's Inn Road, New Oxford Street/High Holborn/Holborn and Tottenham Court Road.

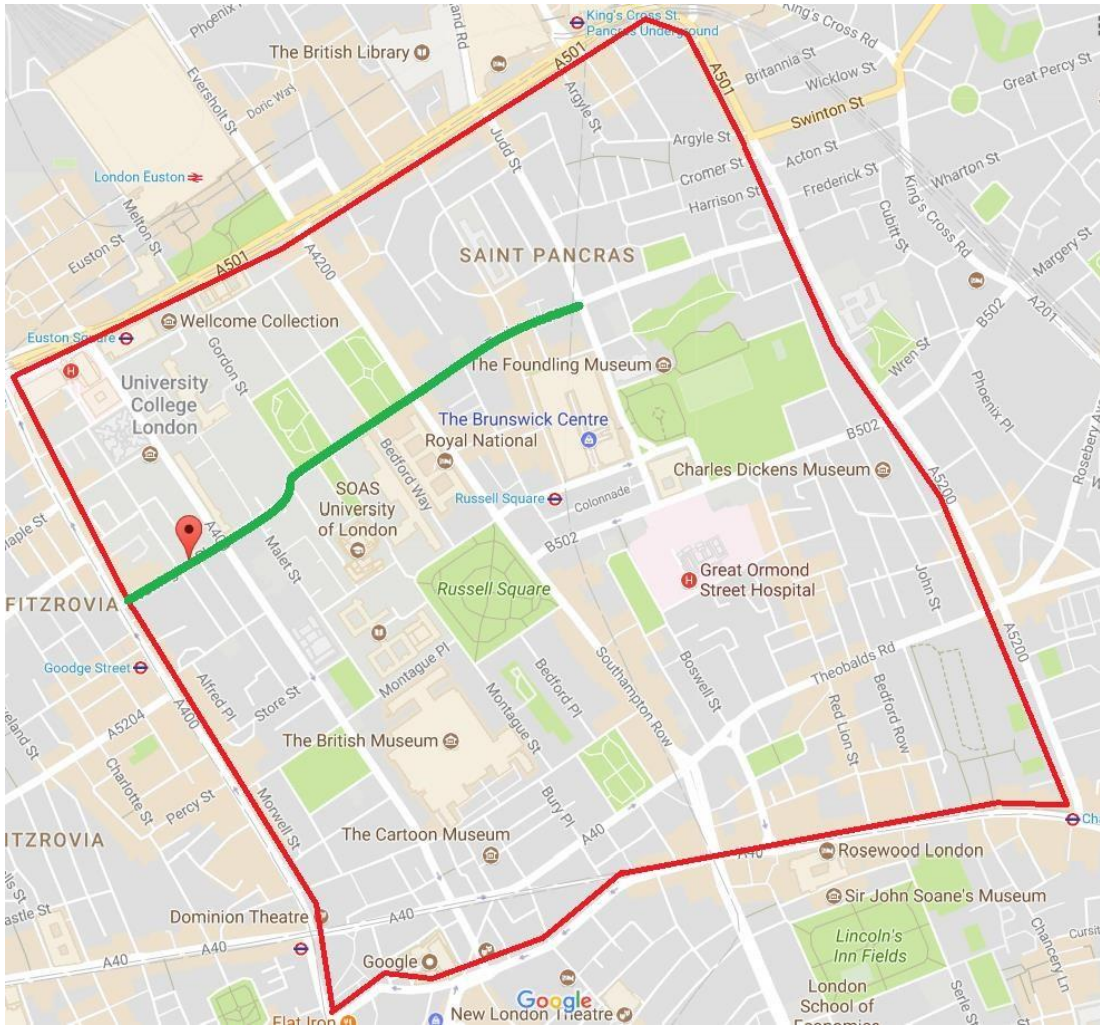


Figure 4.1 Wider area considered for collision analysis

4.18 As noted in Section 4 of Simi Shah’s Proof of Evidence, Camden has sought further collision data from Transport for London (TfL) for the time period over which the scheme has been in place together with three years prior to the implementation of the Trial. The TfL data has been validated to Sept/Oct 2016, but the data from that date until December 2016 has not yet been validated so should be regarded as provisional only. It should be noted that the Metropolitan Police (MPS) introduced a new input database back in November 2016 which involved a change to the way officers recorded data. This has resulted in compatibility issues which are being worked through by TfL and the MPS.

4.19 Drawing comparisons between before and after data should be treated with caution, however, even taking into consideration these caveats, the data indicates that both serious and slight collisions have reduced in the wider area.

4.20 Collision data has been sought for the Torrington Place Tavistock Place Corridor during the following periods:

- 36 months prior to implementation of the Trial layout (1st November 2012 – 31st October 2015); and
- 14 months after the implementation of the Trial layout (1st November 2015 – 31st December 2016).

4.21 The results of the analysis are set out below.

Table 4.3: Number of collisions by severity in the wider area

Sev.	Pre-Trial (Nov 12 - Oct 15)	During Trial (Nov 15 - Dec 16)
Slight	309	127
Serious	48	10
Fatal	2	0
Total	359	137

4.22 Table 4.3 shows the number of collisions by severity in the wider area. The table has been used to calculate that the average number of collisions in the area is similar in both periods surveyed and that the implementation of the Trial layout has not resulted in an increase to the number of collisions in the area. The average number of collisions per 12 month period prior to the implementation of the Trial was 120, which is slightly higher than when compared with the average number of collisions per 12 month period during the Trial which was recorded as 118.

4.23 Since the implementation of the Trial, the severity of the collisions has reduced. No 'fatal' collisions were recorded during the 14 month period surveyed during the trial and the average number of 'serious' collisions reduced by nearly 50% in the wider area during the Trial.

Table 4.4: Number of collisions involving pedestrians and cyclists in the wider area

	Pre-Trial (Nov 12 - Oct 15)	During Trial (Nov 15 - Dec 16)
Collisions involving pedestrians	107	34
Collisions involving cyclists	134	45

4.24 Table 4.4 shows that the average number of collisions involving pedestrians in the wider area has reduced in excess of 16% since the implementation of the Trial. Table 4.4 has been used to calculate that the average number of collisions involving pedestrians per 12 month period prior to the implementation of the Trial was 36, which reduced to an average of 30 per 12 month period during the Trial.

4.25 The average number of collisions involving cyclists in the area has also reduced since the implementation of the Trial. The average number of collisions involving cyclists per 12 month period prior to the implementation of the Trial was 45, compared to 39 per 12 month period during the Trial (a 13% reduction).

4.26 There is nothing in the data to suggest that the Trial has resulted in collisions and injuries being ‘exported’ to other areas as a result of the Trial.

Collision Data Analysis; Judd Street and Hunter Street

4.27 Point 2 of the BRAG’s Proof of Evidence 15 (‘Pedestrian Accidents and Safety’) discusses the “Dangers to pedestrians in surrounding streets” and refers to a set of videos that seek to demonstrate the environment for pedestrians and cyclists in the surrounding streets has become worse since the implementation of the Trial.

4.28 The videos are filmed from Judd Street, a perpendicular street located at the eastern end of the Corridor. We have undertaken a collision data analysis for Judd Street and Hunter Street for the same time periods set out above and this is set out below.

Table 4.5: Number of collisions by severity for all road users on Judd Street and Hunter Street

Sev.	Pre Trial (Nov 12 - Oct 15)	During Trial (Nov 15 - Dec 16)
Slight	11	4
Serious	2	0
Fatal	0	0
Total	13	4

4.29 Table 4.5 shows the total number of collisions on Judd Street and Hunter Street for all road users. The table has been used to calculate that the average number of collisions occurring along Judd Street and Hunter Street has reduced. Before the implementation of the Trial there were on average 4.4 collisions per 12 month period, which is higher when compared to the 3.5 collisions per 12 month period averaged from the data collected after the implementation of the Trial. The data do not suggest that the Trial has made conditions worse.

4.30 Since the implementation of the Trial, the severity of the collisions on Judd Street and Hunter Street has also reduced. The number of 'serious' collisions has reduced from two before the implementation of the Trial to zero after. The average number of 'slight' collisions is similar in both periods surveyed and no fatal collisions were recorded along Judd Street and Hunter Street in the periods surveyed.

Table 4.6: Number of collisions by severity for pedestrians and cyclists only on Judd Street and Hunter Street

Sev.	Pre Trial (Nov 12 - Oct 15)		During Trial (Nov 15 - Dec 16)	
	Pedestrians	Cyclists	Pedestrians	Cyclists
Slight	4	5	1	2
Serious	0	1	0	0
Fatal	0	0	0	0
Total	4	6	1	2

4.31 The number of collisions recorded 36 months prior to the implementation of the Trial layout on Judd Street and Hunter Street was 13, of which, four involved pedestrians and six involved cyclists. Table 4.6 has been used to calculate that, on average, there were 4.7 collisions involving pedestrians and cyclists per 12 month period along Judd Street and Hunter Street (1.9 collisions per 12 month period involving pedestrians and 2.8 collisions per 12 month period involving cyclists).

4.32 The number of collisions recorded in the 14 months during the Trial on Judd Street was four, of which, one involved pedestrians and two involved cyclists. Table 4.6 has been used to calculate that, on average, there were 2.6 collisions involving pedestrians and cyclists per 12 month period along Judd Street and Hunter Street (0.9 collisions per 12 month period involving pedestrians and 1.8 collisions per 12 month period involving cyclists).

4.33 Table 4.5 shows that two of the 13 collisions recorded in the 36 months prior to the implementation of the Trial were classified as serious along Judd Street/Hunter Street. There were no serious collisions recorded along Judd Street/Hunter Street in the 14 months surveyed during the Trial.

4.34 Overall, there has been a 52% reduction in the number of collisions involving pedestrians and a 35% reduction in the number of collisions involving cyclists along Judd Street and Hunter Street. The data do not suggest that the Trial has made conditions worse.

4.35 BRAG's Proof of Evidence states that since the implementation of the Trial, the streets surrounding the Corridor have become unsafe for pedestrians and cyclists due to an increase in motor vehicles travelling along these streets as an alternative westbound route to the Corridor. The following paragraph sets out the change in traffic flows along Judd Street and Hunter Street to compare with collision data discussed above.

4.36 Review of the motor vehicle traffic surveys undertaken by the Council before the Trial on Tuesday 12th of May 2015 and during the Trial on Tuesday 17th of May 2016, indicate that:

- Northbound motor vehicle flows on Judd Street have increased by 4% in the morning peak hour, 3% in the evening peak hour and 22% across the whole day.
- Southbound flows show an increase by 12% during the morning peak hour, a reduction of 4% in the evening peak hour and an increase by 12% across the whole day.
- Northbound motor vehicle flows on Hunter Street have decreased by 9% in both the morning and evening peak hours and by 3% across the whole day.
- Southbound flows show an increase by 10% during the morning peak hour, a reduction of 20% in the evening peak hour and an increase of 4% across the whole day.

4.37 Although there has been a change to the profile of traffic along Judd Street and Hunter Street, review of the collision data collected before and after the trial does not suggest that this has made the street less safe. The collisions data analysis actually suggests that safety has slightly increased along Judd Street and Hunter Street as the average number of collisions along the street has reduced since the implementation of the trial both in general and for vulnerable road users, such as pedestrians and cyclists. Further to this, the severity of the collisions has reduced as no 'serious' collisions were noted along Judd Street and Hunter Street during the 14 months surveyed during the Trial.

4.38 *Perception of Safety* Several objectors to the ETO include anecdotal evidence in their Proofs of Evidence which claim the Corridor and wider area to be less safe as a result of the implementation of the Trial layout. We have set out some of the figures above, but also note that during the scheme's public consultation process in 2016, people responding to the formal consultation questionnaire were invited to leave optional

comments for any other issues they saw fit (see core document CD6/2 for the London Borough of Camden's February Cabinet Report).

4.39 Unprompted, 3782 (25%) of all respondents commented that since implementation of the Trial layout they felt safer and more pleasant to cycle and walk.

4.40 Approximately 381 respondents compared the new layout with the pre-Trial situation, citing overcrowding in the two-way cycle lane and near misses/collisions along the route that they had observed, or which they had been involved in.

4.41 The most common safety-related comments were that:

- Previous layout led to near misses between cyclists travelling eastbound and those travelling westbound due to overcrowding on the 2-way cycle lane.
- Previous layout led to near misses between pedestrians and cyclists as 2-way cycle lanes are unusual and less intuitive than single lanes on either side of the road.
- Previous layout led to near misses between motor vehicles and cyclists as 2-way cycle lanes are unusual and less intuitive for drivers than single lanes on either side of the road.
- It would be dangerous to return the street layout to its pre-trial layout, as it was overcrowded.
- Respondents had collisions under the old 2-way lane, or witnessed a collision
- The wider, segregated (protected) cycle lanes provided during the trial are a safer alternative for cyclists to more highly trafficked East-West routes without segregated cycle provision (such as Euston Road and Theobalds Road).
- Less motor traffic (due to removal of one traffic lane) has made it easier for the various road user groups (pedestrians, cyclists, cars, goods vehicles) to see each other, making the environment safer.

4.42 Of those noting a safer and improved cycling and walking environment, 1296 noted in their comments that the road was now easier to cross as a pedestrian.

Road Safety and Perception of Safety Summary

4.43 Since the Trial, collisions along the corridor and in the wider area have reduced both in the total number and in severity.

4.44 The implementation of the Trial layout can therefore not be attributed to a decrease in road safety since collision data analysis for both the Corridor and the wider area actually show an improvement to safety with regards to a decrease in the number of collisions recorded since November 2015 when the Trial was implemented.

4.45 There has been a marked increase to pedestrian safety along the Corridor, with a reduction in excess of 75% in the number of collisions involving pedestrians. Since the start of the Trial, collisions involving pedestrians and cyclists in the wider area have also reduced in excess of 16% and 13% respectively, showing that the risk to pedestrians has not displaced onto the streets surrounding the Corridor.

4.46 The severity of the collisions along the Corridor has reduced since the implementation of the Trial. The analysis of the wider area set out above shows this to be consistent with that of the Corridor in that severity of collisions have too reduced on the streets surrounding the Corridor.

4.47 As shown above, the Council has also received thousands of comments from members of the public to suggest that the perception of safety has increased since the implementation of the Trial and that the new road layout is easier to cross for pedestrians.

4.48 Nevertheless, and as noted elsewhere, if the ETO were to be made permanent there are measures which the Council could propose to implement to further

increase safety to vulnerable road users along the Corridor. These specifically seek to reduce cycle and motor vehicle conflict and provide a higher quality environment for pedestrians.

5. AIR QUALITY

5.1 A number of Objectors' Proofs highlight changes in air quality; This section deals with some specific Objection points, before responding to questions around the significance of air quality monitoring for the Trial and the consistency of the Trial with the Council's statutory duties to improve air quality across the borough.

5.2 It is suggested in 4.1 of ILHL 17 that an air quality assessment would be normally carried out for a scheme of this kind, and the Proof cites City of Westminster's Baker Street Two-way Project as a scheme where an air quality assessment was carried out. However, this is not a useful comparison, as the scale of the changes made to the road network as part of the Baker Street Two-way, given the key routes affected by that scheme (Baker Street and Gloucester Place) form part of the Strategic Route Network (SRN), is much greater than that carried out for this Trial.

5.3 4.1 of the ILHL 17 proof notes that "where road traffic has increased in a study area, it is expected that air quality conditions will have worsened". As outlined in Simi Shah's Proof of Evidence in section 4, there has been an overall reduction in motor traffic in the study area (as shown in Appendix 3 of Simi Shah's Proof of Evidence) of 10% following the implementation of the Trial. As such it can be expected that air quality conditions overall will have improved as a result of the decreased road traffic.

Significance of modelling

5.4 The Council undertook real-time monitoring using AQMesh units in order to generate data at 15-minute intervals. This provides more detailed measurements than the single monthly figures generated by diffusion tubes,

and allows a more detailed examination of the changes in pollution levels following the introduction of the Trial. We accept that these monitors are still an emerging technology and that some level of caution must be used when analysing their results. As a result, our air quality evaluation of the Trial is not just based on AQMesh monitoring data, but on the data produced by all air quality monitoring being undertaken in and around the Trial area.

5.5 Adam Webber's Proof of Evidence outlines the data in the Trial area that has been undertaken using both reference method automatic monitors (such as on Euston Road and Russell Square), and diffusion tube data (including Tavistock Gardens close to the Corridor).

5.6 There is also additional monitoring through diffusion tube data that has been undertaken by High Speed 2 Ltd as part of their work to establish baseline air quality levels across Camden. The data collected includes measurements taken at the corner of Endsleigh Gardens and Upper Woburn Place between July and December 2016. The average NO₂ figure for this six month period is 60 µg/m³; significantly lower than the readings provided by Camden's AQMesh monitor on Endsleigh Gardens. As such Camden Council is working on the worst-case monitoring data available and is looking at ways to reduce pollution levels along this route.

5.7 The monitoring methods outlined in ILHL 17 as being preferential to AQMesh units show overall reductions in air quality levels in the Trial area since the introduction of the Order. Adam Webber's Proof notes that it is difficult to quantitatively ascribe how much of the reduction in pollution in the Trial area is a result of the Order itself, and how much is the result of generally improving air quality levels due to technological advances, mode shift etc leading to reductions in motor vehicle emissions. However, it is important to note that pollution levels in the Trial area have reduced by more than the overall Camden average, which may be in part due to the reduced motor traffic levels in the Trial area as a result of the Order.

5.8 It is also contended that the Council has not employed control sites to provide evidence of changes in concentrations in areas unaffected by the Trial. As noted above, the Council has done this: relative reductions in pollution levels in the Trial area compare favourably to reductions seen across the whole of the rest of the borough.

Summary

5.9 Jason Strelitz's Proof of Evidence explains that (except at the extremes) the benefits of additional exercise almost always outweigh any adverse impacts of exposure to air pollution. The Trial has sought to create a healthier environment for walking and cycling in a polluted part of central London. The traffic count figures for the overall Trial area suggest that this has been successful.

5.10 As ILHL 17 notes, Camden Council has a statutory duty to work in pursuit of improving air quality across the borough. Through reducing overall traffic levels in the Trial area, and encouraging mode shift away from polluting motor vehicles towards walking and cycling, it can be seen that the Trial is consistent with and complementary to this duty.

6. ALTERNATIVE DESIGNS

- 6.1 A number of alternative designs have been suggested, notably the following:
- Retention of two way traffic and the bi-directional cycle track – as stated by RMT
 - Retention of two way traffic with separate cycle lanes – mentioned by BRAG
 - Shared space in sections – Mr Russell for ILHL (at one stage), and Friends of Tavistock Square
 - Permitting the westbound movement instead of eastbound – Mr Russell

6.2 A section on standards together with Tables depicting how the corridor was laid out before the Trial is included in Simi Shah's Proof of Evidence section 2 and 3 and is not here repeated.

6.3 As noted in Simi Shah's evidence, the footway widths have not been altered pending a decision on the future of the Trial. However, should the Trial be made permanent and the improvements consulted upon approved, then the footway - especially the narrow sections - would be expected to be widened to provide a safer and more comfortable environment for pedestrians.

Trial Layout

6.4 The Trial layout therefore included the following:

- Westbound cycle lanes at 2.2m width, a 0.2m wide orca (segregating rubber block) and a 0.1m wide centre line to distinguish between motor traffic and cyclist.
- The existing bi-directional track on the north side was retained but for only eastbound movement, therefore some sections do not meet minimum desirable standards.
- Traffic lane width of a minimum of 3.3m.

RMT

6.5 RMT has stated that the section of corridor between Woburn Place and Judd Street should have remained as per the Pre-trial layout. Retaining this would not have allowed us to achieve desirable minimum widths as stated under the LCDS guidance produced by TfL (see core document CD2/12). The volumes of cyclists using the Corridor was quite substantial and given that it was two way, it became congested and was not considered to provide a good level of service. The width of the bi-directional track would not have met current minimum standards under LCDS (3m for bi-directional for medium flow which is between 300-1000 cyclists) and therefore no change in this section would not have been

considered suitable. Officers therefore took the decision that retaining the track in its current width would not be appropriate for the safety and comfort of cyclists

6.6 LCDS, sets out requirements and advice for cycle network planning and for the design of dedicated cycle infrastructure, cycle-friendly streets and cycle parking. It is used all over the London area and aims for a uniform safety design standard. This corridor is part of the London Cycle Grid Network (part of the Quietway Programme) and the changes made as part of the Trial and proposed improvements would all form part of this programme, funded by TfL. All designs are therefore checked by TfL against their standards to see how they are met before approval and therefore funding is granted for the design to be delivered.

6.7 Paragraph two states that there is sufficient room to provide two way traffic along the section between Gower Street and Woburn Place, whilst retaining a two way segregated cycle track. For the same reasons as outlined above, retaining the bi-direction track was not considered appropriate. In addition, the cycle track in this section is narrow in places at 1.96m. In order to improve the safety and comfort for cyclists (medium flow), there is not sufficient road width to widen the cycle track without either removing one traffic lane or reducing the footway width, the latter in some sections is already below the minimum widths required as described above.

BRAG

6.8 The Corridor has been designed to Quietway standards, as this corridor is part of the Central London Cycle Grid network and not cycle superhighway standard as suggested by BRAG. BRAG has suggested that the narrowest footway is 1.36m, whereas their proposal increases this to 1.5m. The footway widths according to our assessment is at its narrowest 1.51m. In any event, the narrow sections are likely to be widened where possible should the trial be made permanent and the improvements approved.

6.9 BRAG has suggested that the Council is inconsistent with its approach as the WEP includes some narrowing of footway. A reduction in footway width on the west

side of Gower Street as part of the West End Project (WEP) was required to incorporate two way traffic and new cycle tracks on either side of the road into the proposed scheme. The WEP aimed to achieve a Pedestrian Comfort Level (PCL) of B+ wherever practicable. Unfortunately there were a few exceptions where achieving this was not possible and sections of the western footway on Gower Street is one such location where it has been necessary to reduce the western footway width, resulting in a PCL of C in order to provide adequate cycle lanes in both directions. However, footfall on this western section is lower than elsewhere on Gower Street, with the footfall for the University predominantly on the eastern footway. Subsequently, on balance we proceeded with the minor reduction in PCL for the sake of the wider scheme objectives.

6.10 BRAG have proposed retention of two way traffic with two separate cycle lanes, achieved by providing narrower traffic lanes. The photographs shown below taken from Google (pre-Trial) indicates that there were a variety of vehicles using this corridor. The photographs are taken for the section of the corridor between Marchmont Street and Woburn Place, where in general the traffic lane widths were each 2.9m. These photographs indicate that vehicles passed each other with no issues. There was a kerb segregation between the eastbound vehicles and the cyclists therefore offering protection to cyclists in the event that the vehicles strayed close to the kerb segregation, perhaps when two large vehicles approached from opposite direction at the same time.



6.11 With the Trial layout with a separate cycle lane in each direction, narrow lanes as proposed by BRAG at 2.75m (less than those in the pre-trial layout) would likely result in motor vehicles straying close to the kerb more often in order to avoid head on collisions between the vehicles or more likely for the mirrors to be

struck. This would then put them close to the cyclists making it uncomfortable to cycle and could result in the mirrors striking the cyclist.

6.12 Traffic data prior to the Trial layout being implemented indicated that although volumes of large HGV's were low (1 – 12% of total traffic), there still remained a substantial proportion of light goods vehicles. The highest flow was cars, but this does not differentiate between different makes of cars, which means that their sizes in terms of width from mirror to mirror would vary.

6.13 Attached at Appendix 3 is a sketch plan showing how much space there would be to manoeuvre should 2.75m wide lanes be implemented. These show that smaller vehicles would not have an issue with 2.75m wide traffic lanes. However larger vehicles including large saloons take more space on the road and therefore if these were travelling both ways along the corridor, they would likely get very close to the cycle lanes in order to avoid their mirrors being struck or risk side swipe collision. Officers consider such a layout to carry a high risk of motor vehicle collision and would therefore resist implementing narrower lanes than present before the Trial was introduced. Officers would consider 3m wide lanes (minimum) to provide a safe and comfortable for the different size vehicles likely to use the corridor. Further, it is likely that narrower lanes would be queried by the road safety audit process.

ILHL Evidence

6.14 ILHL produces photographs of transgressions by motor drivers (see tab 49). It seems likely that these were most probably taken at the beginning of the trial when drivers were undertaking their usual turns as they were familiar with the route or following satellite navigation prior to it being updated,. Poor driver behaviour can never be completely ironed out and may also be a factor. It was in response to issues such as this that extra signage at junctions and NO ENTRY road markings were added at an early stage in order to make drivers aware of the change in restriction.

6.15 Mr Russell's closing statement in his proof urges the Inspector to recommend the modification of the Trial scheme to provide for westbound motor traffic only. Simi Shah's Proof of Evidence and the paragraphs above cover why the trial was undertaken in the eastbound direction.

6.16 But their proposal (whether traffic is eastbound or westbound) also indicates redistribution of road space to allowing the footway outside the hotel entrance to be widened in order to accommodate the taxi rank within the widened footway. If the Trial is made permanent and traffic remains eastbound, then officers would consider this layout further but the westbound cycle lane cycle may need to be widened locally to allow cyclists to bypass when the ramp for wheelchair use is engaged. Officers would work with ILHL to achieve the most satisfactory layout taking into consideration safety of all road users especially the vulnerable wheelchair users, pedestrians and cyclists.

Shared space (as suggested by Mr Russell and by Friends of Tavistock Square).

6.17 Officers' view is that cycle and traffic flows are too high for a number of sections of the Corridor to work as a shared space. In particular, people with visual impairments, children and older people would be likely to find it intimidating to share the street with high flows of motor vehicles and cycles. It does in most parts work in the short section of the Corridor near Byng Place where "shared space" is provided through the whole area being raised to one level. However the consultation raised some concerns regarding the lack of a clear delineation between cyclists and pedestrians particularly on the eastbound side. Officers are considering ways to improve delineation whilst still retaining the feel of a shared space at this location. Providing this across other sections of the Corridor would not be acceptable as key objectives are to make cycling and walking less stressful and more attractive.

CPT - The Confederation of Passenger Transport UK

6.18 No coach bays have been lost in Camden whether part of this scheme or others. But officers have noted the concerns and will bear them in mind for the future.

7. TRAFFIC MODELLING

7.1 Traffic modelling associated with the Trial has been undertaken in three stages and it is important to bear in mind the purpose of each. Mr Russell (in ILHL 16) has looked at each of these stages:

- 2015 modelling undertaken in advance of Trial opening using TfL's strategic ONE model and reported in TfL's 2015 Modelling Report (ILHL 25) – largely considered in Chapter 3 of ILHL 16. This model assisted in reviewing the potential effects of the Trial at a strategic level of detail;
- Late 2016 modelling work was undertaken in order to develop an initial local version of the strategic ONE model. This is considered in Chapter 5 of ILHL 16; and
- Later in 2017 further work was undertaken in order to develop and use an improved version of the local ONE model. This is considered in Chapter 5 of ILHL 16.

2015 Modelling

7.2 General issues raised in ILHL Chapter 2 concerning the development of the Trial are addressed in earlier sections to this response. Those specifically concerning the 2015 Modelling Report are considered here.

7.3 In 3.41 it is noted that the modelling work suggested traffic is diverted onto a list of 'local roads' that include Woburn Place and Gower Street which are both key north-south traffic and public transport routes. This paragraph does not note that the model also suggested traffic diversions from the Corridor to Grays Inn Road and Euston Road (parts of the Strategic Road Network (SRN) and the Transport for London Road Network (TLRN)). This and other effects are described in the 2015 Report (ILHL 25).

7.4 It should also be noted that the commentary reported in 3.41 and Figures 3.1 and 3.2 (on page 47 of ILHL 16) relate to the forecast patterns of traffic diversions reported in the 2015 Modelling Report. The more recent forecasts from the 2017 model are reported in David Carter's Proof, with the forecasts shown

pivoting from the current Trial to illustrate the general nature of changes arising if the Trial were to be removed (or reversed) with the WEP in place (which it will be).

7.5 In 3.48 and other paragraphs, Mr Russell notes that the Council have not provided detailed modelling information to him. It is (for a variety of commercial and other reasons) not normal for the actual transport models to be provided to third-parties. In the case of the ONE Model (as quoted in 3.58), TfL does not ordinarily release detailed forecast flow information (to the nearest PCU) on a link-by-link basis. It is, however, acknowledged that the “exact flow information”, referred to in Appendix H of the January 2015 Cabinet Report (and in the 2015 Modelling Report) and supplied initially by TfL, should not have been shared; the data exchange should have used flow and bandwidth ranges. The use of flow ranges and bandwidths, rather than absolute flows, is consistent with TfL’s standard practice on other scheme assessments, in part so as not to leave an impression of spurious accuracy within the model.

7.6 In 3.62 - 3.65 the accuracy of the ONE model used in 2015 is questioned by comparing automatic traffic count data with (implied) forecast flows on Torrington Place between Gower Street and Tottenham Court Road. It is suggested that the differences do not meet Transport Appraisal Guidance (WebTAG). As described in Chapter 4 of David Carter’s Proof model acceptability is based on a wider assessment of flow comparators across the modelled area rather than focusing in on a single link. It is inevitable that there will be instances within the strategic ONE model where flows do not match, and others that do. That is inherent in any traffic model.

7.7 The strategic model used to underpin the 2015 Modelling Report was not calibrated locally to the same extent as the later refinement in 2017. Nor was it calibrated on every link. Similarly, with a range of other interventions (such as TfL’s Active Traffic Management initiative) and local developments influencing traffic routeings, we would not expect the strategic ONE model to validate to the counts across each and every link. Therefore, one cannot take

one link and use the fact that it does not match WebTAG criteria to cast doubt on the whole model.

7.8 In 3.67 it is noted that the strategic ONE model has not been designed to be used in detailed assessments. Of course, that is right; but we (and TfL) consider the traffic re-routeing impacts of the Trial to be fairly tested in such a model by considering both strategic and local re-routeings, and their interactions.

7.9 Such a strategic model is required to look at wider impacts and re-routeing. A more refined model (or suite of models) might be used for detailed design of signal settings at junctions, but an assessment of the Trial using detailed junction modelling would not account for traffic displacement effects. Consideration of these effects would need to be driven by ONE model forecasts anyway.

7.10 Similarly, it would not be possible to identify these wider area impacts with normal micro-simulation models in isolation. It might be possible to develop an area-wide microsimulation model to address some diversion impacts, but this would be of a disproportionate scale for such a model, requiring significant data collection, model development and calibration, and would be technically challenging to deliver over such a wide area – especially in a complex urban environment such as central London.

7.11 We remain firmly of the view that it is not incorrect to have used and continue to use the ONE model (and derivatives) for considering the Trial and alternatives to the Trial.

7.12 We agree, however, that the ONE model (and the later 2017 refinement) are not designed or appropriate for detailed analysis, such as nuancing the lane widths on junction approaches or signal timings, but rather a more strategic overview of impacts.

7.13 The possible need for further additional detailed modelling to fully assess congestion issues at junctions is noted in the 2015 Modelling Report, and in

3.86 of ILHL 16. Ordinarily, for a permanent scheme TfL require detail local microsimulation assessment, utilising flow data from the tactical ONE model to account for the wider area reassignment. In the case of the Trial, implemented under an Experimental Traffic Order, detailed micro-simulation or junction modelling was not undertaken, with implementation providing 'real world' impacts considered in the Council's case and elsewhere in ILHL's evidence.

7.14 In para 3.69 there is an assertion that the 2015 Modelling Report came after the July 2015 Cabinet Report and so could not have been used in that report. Whilst the 2015 Modelling Report post-dates the Cabinet Report, modelling outputs were available to officers who had sight of this before confirming the Cabinet Report.

7.15 In 3.71 - 3.75 it is noted that in 2015 the ONE model had some 'coding' errors associated with the handling of 'flares' on the northbound approaches to the Corridor on both Woburn Place and Bedford Way. It was said that the 'with Trial' removal of the left-turn only flares had not been correctly represented in the flow diagrams presented in the 2015 Modelling Report (they are replicated at p45 of ILHL 16). The representation of the lane arrangements in the model is incorrect providing additional capacity for these movements in the model. These issues have in any case been revisited in the 2017 modelling work.

7.16 In 3.76 it is suggested that the 2015 modelling work was to provide an 'indicator of potential impacts' of the Trial (which it was), with 'conventional traffic modelling methodologies' then being used to investigate in more detail. We consider the ONE model to be a conventional model for considering traffic displacement effects, such as those arising from the Trial or alternatives, supported if necessary by detailed junction models, to investigate more detailed issues such as detailed lane widths and signal timings.

7.17 In 3.81 it is noted that in 2015 a high percentage change in traffic flow was forecast on Endsleigh Gardens in the morning peak period. This large percentage increase arises in part due to the low 'pre-Trial' flow, but also forecast flows of traffic re-routeing due to north/westbound movements that

formerly used Tavistock Place and Gordon Street to access Euston Road and Euston Station. The natural route would be to use Endsleigh Street and Endsleigh Gardens – effectively to the other side of the ‘block’, with a ‘west-then-north’ movement being replaced by a ‘north-then-west’ movement as the initial westbound journey on the Corridor is not possible. (We can note here that if the Trial were to be reversed, the movement from the north would shift from routeing via Gordon Street to one via Endsleigh Gardens because ‘south-then-east’ movements would be replaced by ‘east-then-south’ movements as eastbound movements on the Corridor would not be possible: it would be the mirror image.)

Traffic Survey Analysis

7.18 Mr Russell’s criticisms rely heavily on an analysis of a series of traffic counts, generally considered in detail in Chapter 4 of ILHL 16.

7.19 ILHL 16 Table 4.1 presents a summary and comparison of May 2015 and May 2016 automatic traffic counts. In 4.18 and the summary in 4.51, it is suggested that, as westbound traffic flows on Euston Road decreased between the dates of the counts, westbound traffic which is no longer able to use the corridor has not been displaced on to more strategic routes (and, implicitly retained on the local network). The reduction here in 12-hour counts is 4%. We do note, however, that at the ATC site west of Upper Woburn Place on Euston Road peak period and 12-hour counts show an increase in flow westbound (of 4% in the 12-hour count) as does the northbound site on Grays Inn Road north of Argyle Street (an increase of 6% in the 12-hour count), suggesting that some reassignment on to more strategic routes is probable. We note also that in 4.49 Mr Russell acknowledges that some traffic may have been displaced further west on Euston Road.

7.20 As noted in 4.22 in ILHL there were some errors in the ATC surveys. As acknowledged in 4.17 ATCs are relatively poor at identifying cyclists. This error was confirmed by the survey company, who stated that these errors were due to the sheer number of cyclists and cyclists with trailers. This error has been corrected within the survey results. Additionally, there were some errors in the

ATC counts in the directional flows on Endsleigh Gardens and in reporting the vehicle as opposed to cycle flows along Tavistock Place. As Mr Russell notes, ATC errors of this kind are not uncommon and can be picked up. These errors have been corrected when used to assist in the development of the 2017 modelling work.

7.21 The ATC count data presented in Table 4.1 of ILHL 16 has been used to generate a commentary on general patterns of re-routed traffic, identified in paragraphs 4.32 to 4.35. Whilst this commentary does identify reductions in westbound flows on the Corridor itself (as this movement is now not possible), all other points highlighted by Mr Russell identify only increases in flows. He fails to observe any reductions in flows. Some of these appear to arise out of local re-routeings, for example a reduction in Gordon Street/Gordon Square flows as a 'west-then-north' movement is replaced by a 'north-then-west' movement. There are also other significant changes in count data on a number of other routes suggesting that not all changes can be due to the Trial, with general traffic 'churn' and other considerations driving apparent flow changes, both increases and decreases.

7.22 In relation to 4.36 – 4.40, it is agreed that queues on Woburn Place on its northbound approach to its junction with Tavistock Square can be significant. Similarly, for Bedford Way in its northbound approach to its junction with Tavistock Square. However, queues are highly volatile and variable due to many factors and between any two measurements (especially in complex urban areas).

7.23 It is accepted, as noted 4.39, that the Trial has removed one northbound lane from both the Woburn Place and Bedford Way approaches to the corridor. However, 4.39 does not acknowledge that (in both cases) one of the two lanes was a dedicated left-turning lane only available to those turning westbound onto the Corridor, although this is mentioned later in 4.41 after the assertion in 4.40 that the Trial has significantly reduced the capacity at Woburn Place without any changes in traffic volumes trying to get them. It should be noted that the Trial has effectively removed capacity for a turn that is no longer allowed. In

both cases the northbound 'ahead' movement remains unchanged in the lane available both pre- and post-Trial.

7.24 It is noted in 4.39 that traffic volumes travelling northbound on Woburn Place appear to have remained largely the same pre- and post-Trial. Data underpinning Table 4.1 shows that AM peak period flows have increased by around 5%, but in inter-peak and PM peak periods flows have reduced by 12% and 15% respectively on the northbound approach at Woburn Place. Therefore, the statement in 4.40 that capacity has been reduced whilst volumes on Woburn Place has remained the same is not substantiated.

7.25 In 4.49 and 4.50 and 4.51 ILHL suggest that the traffic survey data demonstrates a completely contrary view to that presented by the Council. This is not accepted. Changes in flows provide a series of mixed messages, with some increases in local flows, and others reducing, some apparent diversion onto more strategic routes, and with wider influences on traffic flows expected to also drive changes in both routeings and volume, including TfL Active Traffic Management initiative on key routes.

7.26 We agree some of the summary notes in 4.51 and 4.52, including that prior to the Trial the dominant vehicle flow was westbound, and that any volumes of traffic diversions diverted due to the current Trial would be larger than if the eastbound traffic movements were diverted if the Trial were to be reversed. However, it would follow that there would remain more traffic using the Corridor were the eastbound traffic movements diverted. This is also illustrated by the modelling evidence provided in David Carter's Proof. We also agree that some of the traffic flow changes are displacement from one local road to another, particularly in the Gordon Street/Endsleigh Gardens area.

7.27 In 4.52 ILHL develop a commentary on the likely traffic impacts of reversing the Trial based on the earlier traffic count and queue length data. The reverse Trial is considered with the assistance of the 2017 modelling work, including an assessment of traffic diversions (as reported in David Carter's Proof). We cannot agree with the suggestion in the second bullet point in 4.52 that the

Woburn Place and Bedford Way junctions have become 'bottlenecks' due to the Trial and that the reverse Trial will address any issues at these junctions. There is no direct evidence, and limited other evidence, except some conflicting anecdotal views, that congestion at these junctions has only appeared due to the Trial.

2016 and 2017 Modelling

7.28 An update model was developed by SYSTRA in late 2016 on behalf of the Council for the purposes of analysing potential traffic effects of alternatives to the Trial which were offered. Further refinements and model testing recommenced in summer 2017. The development of the model is considered in the evidence of David Carter.

7.29 In the first sections of ILHL 16, it is noted that Mr Russell was unable to obtain all the details of the model development and operation that he would like. It has not been the Council's intention to withhold information where available, with some of the delay in responding as set out in the first paragraphs of ILHL Chapter 5. It is not TfL's policy to release the models to third-parties, and information that is supplied from the ONE model is distributed in a controlled manner to avoid misinterpretation and misunderstanding and as such is ordinarily couched in flow and bandwidth ranges, rather than absolute flows.

7.30 In his section 5.7 – 5.22 Mr Russell is questioning and criticising the development of the 2017 model. It is acknowledged that during this process a number of model and data issues were corrected in moving to the 2017 model reported in David Carter's Proof. It is noted that Mr Russell's scrutiny and contribution has also enabled the model, as developed and applied, to be, in our view now appropriate for testing the alternatives to the Trial, including removal and reversal of the Trial.

7.31 Most of the remaining 'Outstanding Data Requests' outlined in 5.23/Table 5.1 have now been answered and will be or have been released to Mr Russell following approval from TfL. This response includes the key calibration spreadsheet that should identify the relatively significant improvements in

model calibration since the initial development in late 2016 and earlier working versions presented in late Spring/early Summer 2017.

7.32 In relation to 5.20, it is accepted that model development has resulted in an improved model from the earlier versions developed, although we dispute the assertion that 'errors were seen during 29th June meeting'. We do accept that earlier issues have now been resolved, and that the improved calibration and performance of the model in forecasting sensible assessments of the traffic diversions, suggest that, contrary to the assertion in 5.22, the model is fit for purpose.

7.33 It is accepted, as noted in the last sentence of 5.22, that all models should be treated with caution, even if deemed fit for purpose by everyone. Models provide an indication of the likely responses to changes in circumstances affecting the transport network, whether led by infrastructure changes, as here, or wider behavioural or external influences.

7.34 Specifically in relation to a number of points raised, in 5.27 we do not accept Mr Russell's claim that the evening peak model is unreliable. The focus was on AM peak results at the meeting of the 29th June, but at the meeting on 16th August the strength of the PM peak model calibration was shown, indicating that this was suitable for model forecasting.

7.35 In paragraph 5.43 Mr Russell claims that "the modelling presented to me by the Council indicates reversing the flow of traffic along Torrington Place / Tavistock Place westbound with the Trial layout compared to the Trial would result in a much smaller geographical spread of traffic impacts and with the number of local streets suffering from a material increase in traffic volumes being fewer than with the Trial in place." As David Carter notes in his Proof, our view is that the modelling work suggests that there are a number of different impacts arising between the current Trial and the reversed Trial, largely local in nature, and with some routes seeing increases in flows, others reductions, but overall the current Trial has less traffic on local roads than the alternatives, reflecting the higher westbound flows in the corridor pre-Trial.

7.36 To test the view that Mr Russell asserts on the geographical spread of traffic impacts we have tested this assuming that a change in flows of 100 PCUs and greater is considered as a material impact. Table 7.1 sets out and outline comparison of which local streets show an increase in traffic in each scenario, with the cells highlighted representing those which have had an increase of 100 PCUs or more.

Table 7.1: Outline Comparison of forecast vehicle flow increases on local streets between Trial and Reverse Trial

Street	Trial		Reversed Trial	
	AM	PM	AM	PM
Gower Place				
Endsleigh Gardens				
Endsleigh Street				
Maple Street				
Fitzroy Street				
Charlotte Street				
Tavistock Square (east)				
Judd Street				
Tavistock Square (west)				
Russell Square (north)				
Bernard Street				
Woburn Place				
Keppel Street				
Malet Street				
Montague Street				

Notes: highlighted cell show an increase in flows of ≥ 100 PCUs

7.37 Table 7.1 shows that the Trial and the reversal of the Trial would have a broadly similar impact on local streets. In the AM peak hour the Trial has a 100+ PCU impact on five local streets and the reverse Trial also impacts on five streets. In the PM peak hour the Trial has a 100+ PCU impact on nine local streets and the reverse Trial has a similar impact on ten streets. It is accepted that more minor impacts of the Trial are geographically more spread out but fall well within the range of 'normal' day-to-day fluctuations in traffic flows.

8. ACCESS TO AND SERVICING OF PROPERTIES

8.1 A number of Proofs of Evidence have referred to issues with access to or servicing properties along the Corridor. As stated in paragraph 3.22 of Louise McBride's proof and expanded upon in paragraph 4.55 of Simi Shah's proof, there is no restriction on the dropping off or picking up of passengers along the Corridor.

8.2 A number of comments have also been made about servicing provision, for example within BRAG Proof of Evidence 10. This proof states that businesses along the Corridor and in the side streets have issues servicing due to traffic congestion and loading restrictions. Paragraphs 4.56 to 4.59 within Simi Shah's Proof of Evidence sets out the servicing provision along the corridor, including where replacement provision on side streets has been provided.

9. CONCLUSION

9.1 This document has been prepared to respond to the content of Proofs of Evidence provided by various parties for the public inquiry for Tavistock Place/Torrington Place project.

9.2 The previous sections have provided technical responses to statements which the Council believe are either factually incorrect, are a misrepresentation of the data or generally misleading. This document has not responded to every issue but has focussed on some of the key issues.

9.3 The responses support the Council's case that the Trial should remain and the permanent traffic order made.