

1. I am Christopher Peck. I hold a MSc in Transport and City Planning from University College London and have been employed in the transport planning field as an independent consultant and latterly in local government in the UK for the last 6 years, specialising in planning for walking and cycling. I have advised international organisations on cycling advocacy and design, and worked with local authorities in the UK on strategic planning for active travel, including demand modelling, corridor analysis and appraisal. I currently work on planning for cycling and walking for Dorset Council. The following comments are my personal views, and not those of my employer.
2. I write as a supporter of Save Victoria Tower Gardens (SVTG) who has lived and studied close to VTG for many years. I was asked by the SVTG campaign to look at the issues pertaining to pedestrian and vehicular movement in and around the Holocaust Memorial and Learning Centre, and the effect on ordinary users of the gardens, visitors to the HMLC, and road users.
3. I have set out in this proof of evidence my objections to the proposed construction of a Holocaust Memorial and Learning Centre with ancillary works at The Victoria Tower Gardens, Millbank, London SW1P 3YB all as more particularly described in Application (19/00114/FULL) "the Application".
4. The evidence which I have prepared and provide for this inquiry reference APP/X5990/V/19/3240661 in this proof of evidence is true and I confirm that the opinions expressed are my true and professional opinions.

## Summary

5. The Application is for a visitor attraction to be built in a small central London park, which is already heavily used by local residents, office workers and visitors. I am considering the effect of the development on transport (access, parking, servicing and construction impacts) and pedestrian movement around the site. Abingdon Street/Millbank, though not part of the Transport for London Road Network, carries significant volumes of vehicular traffic and particularly high volumes of pedestrian traffic.
6. Pedestrian access to the gardens is through five gates, the northernmost one- Gate 1 - being the one that will be used by the majority of visitors to the HMLC, who will arrive on foot from Westminster Underground Station. The footway between the station and the gardens is already highly congested at most times of day, falling below the standard required by Transport for London (TfL) for this environment.
7. Increasing footfall and the sensitive nature of the memorial, is likely to increase the security risks associated with potential hostile vehicle incursion on these footways.

8. 40% of the vehicular traffic southbound on Abingdon Street consists of cycle traffic, yet provision for this mode will be made substantially less safe by the plans for construction traffic and coach traffic.
9. I am of the opinion that a building of this nature, attracting potentially thousands of visitors every day, is unsuitable on this site from the point of view of its effects on conditions for pedestrians and road users. I have read the Applicant's Transport Assessment and Visitor Management Strategy and the comments of Westminster City Council and TfL on it and I believe that there are key problems, set out below, which have not been addressed and the proposed mitigation is insufficient. I believe that the Application should be refused because the residual cumulative impacts on the footway network would be severe and because there would be a potentially unacceptable impact on highway safety from construction and servicing traffic.

### **Security concerns and pedestrian comfort**

10. Following the Westminster Bridge attack of 2017 heavily used footways in high risk areas have been reinforced with barriers, supplementing existing footway protection and blast barriers outside the Houses of Parliament and other high profile locations. These barriers and restrictions, while doubtless helping to protect the safety of pedestrians, also restrict the available footway width and create pinch-points, reducing Pedestrian Comfort Level, TfL's measure of level of service for these users. At VTG, the HMLC Proposal is likely to create additional pedestrian flows – associated with a potentially higher profile location – in a location with already restricted footways.
11. Although some security mitigation measures are planned for the site itself, the footways immediately adjacent to the site have no protection from hostile vehicle incursion, aside from just north of Gate 1 where existing protection is associated with the vehicular route from the House of Lords. Placing another high-risk target in an area of already congested footways poses a potential security risk. TfL has requested enhanced footway protection adjacent to Lambeth Bridge (WCC Application Reference: 19\_00114\_FULL-TRANSPORT\_FOR\_LONDON-6160851.pdf), but have made no requests for safety improvements between the existing safety measures near Gate 1 and the Bridge itself. Furthermore, no substantive plans for security enhancements have been forthcoming, and it is hard to see how security improvements can be compatible with meeting the pedestrian comfort levels expected at this location.
12. The majority of visitors to the HMLC will arrive via Westminster Underground Station and Gate 1 to access the gardens. The footway past the Houses of Parliament is already highly congested and inadequate to take the additional volume of pedestrian traffic envisaged. The TA assumes that "given that viewing the UKHMLC constitutes a leisure activity, it can be assumed that these [6,700 additional] trips would be an extension of tourists' visits to other nearby attractions in Westminster." (Para 8.5.11)
13. It is hard to imagine that the composition of visitors from diversion or extension of other visits in the area will be as significant as the Assessment envisages, particularly if – as presumably the designers hope – the Memorial and Learning Centre prove a considerable trip attractor. Indeed, the opposite could be true: the popularity of the site would drive additional foot traffic into the area leading to

further deterioration on already highly congested footways. Indeed, the TA itself suggests a 67% increase in foot traffic is envisaged on the footways leading to VTG on weekdays, with a 177% increase on Saturdays.

14. The footway north of Gate 1 at the north-west corner of VTG presents the gravest concern. TfL requires the use of its Pedestrian Comfort Level (PCL) methodology for assessing the impact on pedestrian flows, which involves measuring the number of pedestrians per metre per minute of usable space – excluding 200mm adjacent to kerbing or the back of the footway.
15. In my view, the TA has applied TfL's PCL guidance incorrectly, attributing the wrong score to existing and potential conditions, and neglecting to assess the impact on the most challenging sections of footway.
16. The PCL approach is simple: available width is calculated for the footway based on the geometry from kerb or kerbside street furniture to the building or fenceline. Research conducted for TfL has shown that, even in constrained locations, pedestrians leave a 200mm buffer to the edge of the footway, and more where there is any static activity. This gives an 'effective width' available for movement. Using counts taken from appropriate times (ie, peak hour flows), a calculation is then made based on the number of people passing per metre of effective width per minute. Anything under 12 is deemed 'B+' and acceptable, even though 31% of pedestrians would already have restricted movement at this stage.<sup>1</sup>
17. Scores lower than B+ are not acceptable to TfL, as has been made clear in TfL's comments to the Applicant. A description of the levels and the accompanying pedestrians per minute per metre can be found in Table 1 below. In Table 2, the original figures from Table 11 of the TA have been included, together with columns checking the figures, and, below, assessments based on site measurements. The figures in dashed boxes represent my corrections of the original figures, using the Applicant's own figures.
18. The Applicant's assessment of the situation outside Gate 1, which will be the one most used by visitors to VTG, is unrealistic. The Transport Assessment (TA) states (page 64) that at present the footway north of Gate 1 is at a low level, currently assessed as C+, implying 18-20 pedestrians per minute per metre (ppmm), already well below the level acceptable to TfL. Paragraph 9.2.16 of the TA suggests that the footway is "already at the lowest level of pedestrian comfort (C+)." This is incorrect: Pedestrian Comfort Levels go far lower than C+. Using the Applicant's own figures, the actual figure is 24.8 ppmm, which is C-, substantially worse. This is based on the TA's figure for the restriction of 1.9m, which I agree is an accurate measure of the width of the footway just south of Victoria Tower.

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<sup>1</sup> Transport for London. 2010. Pedestrian Comfort Guidance for London.  
<http://content.tfl.gov.uk/pedestrian-comfort-guidance-technical-guide.pdf>

Table 1. Transport for London's Pedestrian Comfort Level values from TfL, 2010.

PPMM	% restricted movement	Description
A+	<3	<3
A	3-5	13
A-	6-8	22
B+	9-11	31
B	12-14	41
B-	15-17	50
C+	18-20	59
C	21-23	69
C-	24-26	78
D	27-35	100
E	>35ppmm	100

Table 2. Analysis and re-assessment of UKHMLC Transport Assessment Table 11 (p 64) figures

Location	Table 11 figures	Existing weekday				Future weekday				Existing Saturday				Future Saturday			
		TA provided figures		Checked against provided figures		TA provided figures		Checked against provided figures		TA provided figures		Checked against provided figures		TA provided figures		Checked against provided figures	
Section of Abingdon Street / Milbank	Effective Width (whole kerb less 400mm)	Existing Weekday PM flow, pph from TA	Existing weekday PCL from TA	Existing PCL (CP check)	Existing score (CP check)	Future weekday PM flow, pph from TA	Future weekday PM PCL from TA	Future PCL (CP check)	Future score (CP check)	Existing Saturday flow, pph from TA	Existing Saturday PCL from TA	Existing Saturday PCL (CP check)	Existing Saturday score (CP check)	Future Saturday flow, pph from TA	Future Saturday PCL from TA	Future Saturday PCL (CP check)	Future Saturday score (CP check)
North of Gate 1 current	1.9	2823	C+	24.8	C-	4725	C+	41.4	E	1525	B	13.4	B	4229	C+	37.1	E
North of Gate 1 (future layout)	8.05	2823	A	5.8	A	4725	B+	9.8	B+	1525	A	3.2	A	4229	A-	8.8	A-
Gate 1	4.12	776	A	3.1	A	3110	B	12.6	B	1259	A	5.1	A	3607	B	14.6	B
South of Gate 3	2.8	395	A+	2.4	A+	601	A	3.6	A	214	A+	1.3	A+	420	A+	2.5	A+
South of Gate 4	1.8	482	A	4.5	A	544	A	5.0	A	292	A+	2.7	A+	354	A	3.3	A
Location	CP measured values																
Gate 1 - 3.35m measured	2.95	776		4.4	A	3110		17.6	B-	1259		7.1	A-	3607		20.4	C+

19. The Memorial will – the TA suggests – result in 1,902 extra pedestrians at peak hour. However, TA Table 11's figures remarkably suggest that, even with this 67% increase, the PCL remains at the minimum of C+. In fact, with this additional pedestrian traffic the PCL results in 37 ppmm, which is an E. TfL's guidance says: "At PCL E people have very little personal space and speed and movement is very restricted. Extreme difficulties are experienced if moving in reversed flows."<sup>2</sup> This is unacceptable.
20. The problems with the TA's assessment of PCL continues at Gate 1. This is assessed on current two-way flows of 776 on weekday afternoons and a peak of 1,259 on Saturdays, which is assessed as scoring A and B, with flows rising to 3,110 and 3,607 with the development. Both these scores, however, use an incorrect measurement of Gate 1 of 4.12m effective width. The gate is, in fact, 3.35m wide, which gives an effective width of 2.95m (a 200mm buffer is applied to the carriageway or back of footway). Using this correct width gives a PCL of B- on future weekdays (3110 at 2.95m) and, worse, C+, on Saturdays. The gate would need to be widened to 5.41m to accommodate pedestrians at the required B+ level.
21. Acknowledging, perhaps, that the situation at Gate 1 will – based on the PCL figures – become intolerable, the TA goes on to put forward a Fruin Level of Service (LoS) model to suggest that conditions will still be bearable for part of Gate 1. The TA states that "These demonstrate that Gate 1 operates at Fruin LoS C with a small occurrence of LoS D at the northern end of the gate for short

<sup>2</sup> *ibid.* p.13

periods.” (9.2.19). The images provided do not show this: following the colour scheme offered they appear actually to show large areas of D and some small areas of E (which means: “Forward movement is possible only by shuffling”), including into the secondary gate within the park. Furthermore, it is not clear from the TA whether this analysis is based on the current situation, or in the proposed rearrangement; in either case the situation will be unacceptable. Moreover, if the TA is using the same dimensions as the PCL calculations (4.12m) then it is likely to be an inaccurate result, as the gate is, in fact, only 3.35 metres in width.

22. The TA suggests only one mitigation: to rearrange the security barrier outside Gate 1, which would increase the effective footway width from 1.9m to 8.05m.
23. It is clear that - as at the time of publication of the TA - these discussions had yet to commence (“Discussions with the relevant authorities will explore options for a minor modification to the hostile vehicle mitigation barrier at this location.” - 9.2.16).
24. In my view it is far from certain that they will obtain their requested alterations, as security implications would likely trump all others. Secondly, it is not clear where they would get the extra space required for this mitigation without reallocating it from the carriageway, which, in this location, carries a bus lane. Removing the bus lane in this location would reduce the level of service for other users, including cyclists (see below). In any case, there are still constrictions further north (outside the House of Lords entrance) where the footway appears to have an effective width of less than 2m, owing to a series of bollards; that would still downgrade these footways to C- from where they are at the moment (B-), assuming pedestrian traffic levels are the same as they would be nearing Gate 1).
25. Whether or not the changes to the security barrier are achieved, Gate 1 will always remain a pinch-point leading to considerable pedestrian congestion. Such pedestrian congestion would be of lower significance were it in a location less sensitive to the risks of hostile vehicle incursion or other similar security concern.
26. The TA does not consider the effect of the additional pedestrian traffic on the wider network, particularly the footway outside the Palace on Parliament Square, or on the footway outside Westminster Underground Station, both of which are nearing – or at - peak capacity. Mitigation in these locations is even harder to achieve.
27. While paragraph 109 of the NPPF sets a test to the effect that planning permission should only be refused where ‘residual cumulative impacts on the road network are severe’, I would contend that for a development like UKHMLC, where 95% of visitors arrive on foot, the ‘road network’ should – by logical extension - include the footway network forming part of the road network. In a location where footways are already beyond capacity and where mitigation is offered more in hope than expectation, the residual cumulative impacts on the road network for pedestrians in the area would indeed in my view be severe.

### **Wider impacts on the road network**

28. The HMLC will attract private vehicles, private-hire vehicles and taxis, which will add to the local congestion. Paragraph 8.3.5 of the TA claims that the use of Taxi trips to visit the HMLC will be comparable to the use of taxis to visit the London Transport Museum, but this was surveyed in 2009, before the vast increase in

recent years in usage of app-based private hire services. The use of private hire vehicles is likely to be a significant element in journeys to the UKHMLC, adding to disruption and danger to cyclists on Millbank.

29. School and group parties will sometimes arrive by coach. The drop-off and pick-up proposals are inappropriate, with coaches waiting in what is presently a bus/cycle lane. This is likely to delay TfL buses and will pose a considerable danger to cyclists, who will be forced into conflicts negotiating with waiting coaches. It is anticipated that as many as eleven coaches will bring parties every day. They will be allowed to stop temporarily at the kerb between 10 am and 4 pm, for five minutes setting down and 15 minutes to pick up. This equates to having an obstructing coach in the bus lane for nearly four hours every day. Additionally there will be other vehicles dropping off and picking up passengers, so that well over half the time there will be an obstruction in the bus lanes, slowing down TfL buses and endangering cyclists.
30. The Healthy Streets assessment of Millbank (north of Lambeth Bridge) in the TA (Appendix D) reveals that the effect of the changes to the use of the southbound bus lane reduce the overall score from 70 to 65 and introduce a 'zero' score. A 'zero score', associated with 10 of the 31 Healthy Streets metrics, highlights "known high risk road danger issues" while "close consideration must be paid to ensure every opportunity to redesign our streets seeks to eliminate these known hazards." (TfL, Healthy Streets worksheet). Zero scores could be expected as residual problems left over from schemes – introducing them as new risks, particularly in such a busy location, is a significant concern.
31. Setting down and picking up of school groups will, furthermore, create dense static pedestrian activity on the footways here, further impeding movement and reducing their Pedestrian Comfort Level for other users.
32. Paragraph 9.7.2 of the TA states that 'The existing Annual Average Daily Traffic flow along this section of Millbank is 13,500 vehicles, and thus the impact of an additional 78 vehicle movements on the road would be negligible.' This disregards the fact that these extra vehicles – including coaches and private hire - will all be stopping to set passengers down or pick them up, so the impact will far greater than merely negligible.
33. These problems would be obviated by moving the coach loading to Millbank south of Lambeth Bridge, as requested by TfL, but we have seen no evidence that the Applicant is prepared to take this step.

### **Risks to cyclists from servicing and construction**

34. DfT and TfL statistics show that around one-third of the vehicular traffic on Millbank is bicycles, with over 1000 cyclists in peak hours. Abingdon Street provides a hugely important link between the Cycle Superhighway network in Parliament Square and the northern limit of Cycle Superhighway 8 at Lambeth Bridge. There is no dedicated provision for these road users northbound. Southbound cycles are accommodated in a shared bus lane. The existing bus lane is an already weak piece of cycling infrastructure, unsuited to the level of service required for this location (CD 4.5). At Lambeth Bridge, a major change to

the junction proposed by TfL would remove one major risk to cyclists in this area<sup>3</sup>, yet the plans for UKHMLC risk undermining this progress.

35. Construction of the UKHMLC in VTG will substantially add to the risks for cyclists, who will have to negotiate coaches parked for extended periods in the bus lane to let off and pick up passengers and by people stepping off the pavement while negotiating crowds at the gates to the gardens. TfL and the Mayor of London's ambitious plans<sup>4</sup> – supported now by central Government policy<sup>5</sup> - to enable cycling's continued growth as a mode accessible to all, yet one of the key links in central London's network will deteriorate further under these plans.
36. Servicing of the HMLC will require vehicles to cross the bus/cycle lane and footway. Paragraph 7.4.5 states that refuse collection will be done outside opening hours, but this is not a solution to vehicles crossing the cycle route.
37. During the construction phase the danger to pedestrian and cyclists caused by disruption to Abingdon Street/Millbank will be even more severe. A detailed Construction Traffic Management Plan still needs to be made by the appointed contractor. The Revised Construction Management Plan (Environmental Statement (Vol 5), appendix C) suggests that the anticipated Vehicular access routes will be via Lambeth Bridge and Abingdon Street, which will entail trucks entering the site making a right turn across southbound traffic and the bus/cycle lane.
38. Turning movements by large vehicles across straight ahead cycle movements are a critical risk, associated with a very high proportion of the deaths of cyclists in London. According to TfL 79% of cyclists' fatalities in London from 2012-2015 involved lorries designed for off road use – typically construction vehicles<sup>6</sup>. Most of these collisions involve heavy vehicles turning left.
39. Construction vehicles both accessing and egressing the site will be placed in direct conflict with the very high southbound cycle flows, particularly at Lambeth Bridge, where over 1098 cyclists were observed in the peak hour, over 90% of which were making straight ahead movements, whereas construction traffic will be turning left to cross the bridge. Although TfL intends to make changes at Lambeth Bridge to reduce left-turning conflicts at this location, this is unlikely to be completed in advance of construction of the UKHMLC – indeed, TfL are seeking a S106 contribution of £1m towards the Lambeth Bridge scheme from the Applicant.
40. A construction plan which places these users in direct conflict without adequate mitigation presents unacceptable safety risks.

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<sup>3</sup> Transport for London. 2017. Proposed changes to Lambeth Bridge north and south <<https://consultations.tfl.gov.uk/roads/lambeth-bridge/>>

<sup>4</sup> Mayor of London & Transport for London. 2018. Cycling Action Plan.  
<<http://content.tfl.gov.uk/cycling-action-plan.pdf>>

<sup>5</sup> Department for Transport. 2020. Gear Change: A bold vision for cycling and walking.  
<[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/904146/gear-change-a-bold-vision-for-cycling-and-walking.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/904146/gear-change-a-bold-vision-for-cycling-and-walking.pdf)>

<sup>6</sup> Transport for London. 2016. Furthering improving lorry safety in London: consultation report <<https://consultations.tfl.gov.uk/roads/safer-lorries/>>

41. These factors, together with the impacts summarised in paragraphs 28-33 above constitute, in my opinion, severe impact on highway safety.

## **Conclusions**

42. The implications for pedestrian movement into the gardens resulting from the large increase in visitor numbers will be severe. According to the figures in the Applicant's Transport Assessment, the congestion near the main pinch point, Gate 1, will be unacceptably high. The Transport Assessment has also used the Pedestrian Comfort Guidance incorrectly, to give a higher score than is appropriate, and using an 'effective width' for Gate 1 that does not appear to be accurate.
43. For cyclists – constituting 40% of southbound traffic - the loss of access to a bus lane on Millbank is unacceptable, and introduces new risks to a crucial link in the cycle network. An additional danger to cyclists, and to pedestrians on the footway, is the amount of vehicles that will need to cross the bus lane and footway to access the gardens during construction. In addition to the temporary construction traffic there will be a long term need for maintenance vehicles to cross the bus lane and footway.
44. Both of these points indicate that the application will lead to a severe impact on both road safety and the functioning of the local footway network, the primary network of access to the site.

Signed

Chris Peck

07/09/20